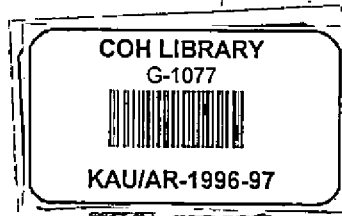


ANNUAL REPORT

1996-'97



G 1077



KERALA
AGRICULTURAL
UNIVERSITY

English

ANNUAL REPORT

1996 - '97

March 1998

Copies: 300

Compiled and Edited by:

Publication Unit
Directorate of Extension
Kerala Agricultural University

Published by:

Dr. K. Rajamohanam
Director of Extension
Kerala Agricultural University
Mannuthy-680 651, Thrissur, Kerala

Printed at:

Kerala Agricultural University Press,
Mannuthy-680 651
Thrissur, Kerala

CONTENTS

| | Page |
|---|------|
| GENERAL REPORT | 1 |
| Chapter I | |
| GENERAL ADMINISTRATION | 24 |
| Chapter II | |
| EDUCATION AND RESEARCH | |
| 1. <i>Faculty of Agriculture</i> | |
| 1.1 College of Agriculture, Vellayani | 35 |
| 1.2 College of Horticulture, Vellanikkara | 39 |
| 1.3 College of Agriculture, Nileshtar | 47 |
| 1.4 College of Forestry, Vellanikkara | 48 |
| 1.5 College of Co-operation and Banking, Mannuthy | 48 |
| 1.5.1 Southern Zone | 51 |
| i) Regional Agricultural Research Station, Vellayani | 51 |
| ii) Cropping Systems Research Centre, Karamana | 59 |
| iii) Coconut Research Station, Balaramapuram | 61 |
| iv) Farming Systems Research Station, Kottarakkara | 63 |
| 1.5.2 Special Zone of problem areas | 66 |
| i) Regional Agricultural Research Station, Kumarakom | 67 |
| ii) Rice Research Station, Moncompu | 70 |
| iii) Rice Research Station, Kayamkulam | 72 |
| iv) Rice Research Station, Vyttila | 75 |
| v) Sugarcane Research Station, Thiruvalla | 77 |
| vi) All India Co-ordinated Research Project on Agricultural Drainage, Karumady | 79 |
| vii) E. C. F. Unit—Kayamkulam | 82 |

| | Page |
|--|------|
| 1.5.3 Central Zone | 83 |
| i) Regional Agricultural Research Station, Pattambi | 84 |
| ii) Cashew Research Station, Anakayam | 91 |
| iii) Agricultural Research Station, Mannuthy | 92 |
| iv) Cashew Research Station, Madakkathara | 96 |
| v) Banana Research Station, Kannara and Pineapple Research Centre, Vellanikkara | 98 |
| vi) Agronomic Research Station, Chalakudy | 101 |
| vii) Aromatic and Medicinal Plants Research Station, Odakkali | 105 |
| 1.5.4 Northern Zone | 107 |
| i) Regional Agricultural Research Station, Pilicode | 107 |
| ii) Pepper Research Station, Panniyur | 111 |
| 1.5.5 High Range Zone | 113 |
| i) Regional Agricultural Research Station, Ambalavayal | 114 |
| ii) Cardamom Research Station, Pampadumpara | 119 |
| 1.5.6 Kerala Horticultural Development Programme | 122 |
| <i>Faculty of Veterinary and Animal Sciences</i> | |
| 2.1 College of Veterinary and Animal Sciences Mannuthy | 126 |
| 2.2 Poultry and Duck Farm, Mannuthy | 137 |
| 2.3 University Pig Breeding Farm, Mannuthy | 138 |
| 2.4 Centre of Advanced Studies in Poultry Science | 139 |
| 2.5 Centre of Excellence in Pathology | 140 |
| 2.6 Veterinary College Hospital, Mannuthy | 141 |
| 2.7 Livestock Research Station, Thiruvazhamkunnu | 142 |
| 2.8 Cattle Breeding Farm, Thumburmuzhi | 144 |
| 2.9 Cattle Infertility Scheme, Vellimadukunnu, Kozhikode | 145 |
| 2.10 University Veterinary Hospital, Kokkalai | 146 |
| 2.11 University Livestock Farm & Fodder research and development scheme, Mannuthy | 147 |

| | Page |
|---|------|
| 3. <i>Faculty of Fisheries</i> | |
| 3.1 College of Fisheries, Panangad | 149 |
| 3.2 Fisheries Station, Puduveypu | 152 |
| 4. <i>Faculty of Agricultural Engineering & Technology</i> | |
| 4.1 Kelappaji College of Agricultural Engineering and Technology, Tavanur | 155 |
| 5. <i>KAU School, Vellanikkara</i> | 159 |
| Chapter III | |
| EXTENSION | 162 |
| Chapter IV | |
| DIRECTORATE OF STUDENTS WELFARE | 198 |
| Chapter V | |
| ENGINEERING WING | 199 |
| Chapter VI | |
| KAU ESTATE AND CAMPUS DEVELOPMENT, VELLANIKKARA | 200 |
| Chapter VII | |
| FINANCE AND ACCOUNTS | 202 |
| APPENDICES | |
| I — Members of the Statutory Authorities | 203 |
| II — Sub Committees of Executive Committee | 213 |
| III — List of Staff at Headquarters | 219 |
| IV — List of Staff in Various Campuses | 232 |
| V — List of Publications/Radio talks/ T. V. Programmes attended | 291 |
| VI — Research Schemes operated under Directorate of Research as on 31-3-97 | 318 |
| VII — Details of works executed during the year 1996-'97 | 345 |

General Report

The Executive Committee of Kerala Agricultural University presents to the General Council its Annual Administration for the report year 1996-97 (1-4-1996 to 31-3-1997)

The Report pertains to the General Administration, Education, Research, Extension, Works, Students Welfare, Estate, Finance and Accounts. The list of members of the Statutory authorities, Sub Committees, staff at the Headquarters and in various campuses, Publications, Projects financed by outside agencies, details of works executed etc. are appended.

Officers of the University

| | | |
|------------------------------|--|-------------------------------------|
| Vice-Chancellor | Dr. A. M. Michael | Throughout the period |
| Registrar | Sri. Anirudkumar Dharni, IFS. | „ |
| Comptroller | Smt. V. S. Bhanumathy Ammal | „ |
| Director of Research | Dr. N. Mohanakumaran | „ |
| Director of Extension | Dr. E. Tajudin Dr. K. Rajmohanan i/c | upto 9-8-96 from 12-8-96 onwards |
| Director of Physical Plant | Sri. P. O. Thomas | Throughout the period |
| Dean, Agriculture | Dr. C. Sreedharan | „ |
| Dean, Veterinary | Dr. A. Rajan | „ |
| Dean, Agri. Engg. | Dr. K. John Thomas | „ |
| Dean, Fisheries | Dr. D. Manikantan Thampi, Professor i/c of Dean | „ |
| Director of Students Welfare | Dr. T. G. Rajagopalan, Professor i/c of DSW Dr. U. Mohammed kunju | upto 30-11-96 from 1-12-96 |

| | | |
|---|---|--------------------------|
| Associate Dean (Hort.) | Dr. A. I. Jose, | Throughout the period |
| Associate Dean, Co-operation, Banking and Management | Dr. M. Mohandas, Assoc. Professor i/c of Associate Dean | " |
| Associate Dean, College of Forestry | Dr. A. I. Jose, Associate Dean, i/c College of Horticulture | " " |
| Associate Dean, College of Agriculture Nileswar | Dr. P. Abdul Wahid, Associate Dean, | " |
| Librarian | Sri. R. Raman Nair | " |
| Director (Acad & PG Studies) | Dr. U. Mohammed Kunju | " |

EDUCATION

The following eight educational institutions functioned under the University during the period. Various courses offered in these institutions are given below.

| Name of college | Course offered |
|--|--|
| College of Agriculture Vellayani | B.sc. (Ag), M. Sc. (Ag), M. Sc. (Hort) and Ph. D., M. Sc. (Home Science) (FS & N) |
| College of Horticulture Vellanikkara | B. Sc. (Ag), M. Sc. (Ag), M. Sc. (Hort) and Ph. D., M. Sc. (Home Science) (FS & N), M. Sc. (Ag. Stat). |
| College of Agriculture, Nileswar | B. Sc. (Ag) |
| College of Veterinary & Animal Sciences, Mannuthy | B. V. Sc. & A. H., M. V. Sc. and Ph. D |
| College of Fisheries, Panangad | B. F. Sc. and M. F. Sc. |
| Kelappaji College of Agrl. Engineering and Technology, Tavanur | B. Tech. (Agrl. Engg) and M. Tech (Agrl. Engg) |
| College of Co-operation, Banking and Management, Mannuthy | B. Sc. (C&B), M. Sc. (C&B) Ph. D |
| College of Forestry, Vellanikkara | B. Sc. (Forestry) and M. Sc. (Forestry) |

Admission

Students were admitted to the U. G. courses of the University on the basis of ranks obtained by them in the Common Entrance Examination conducted by the Government of Kerala. For P. G. Courses selections were made by the Selection Committee constituted for the purpose. Semester system of instruction continued in the Colleges.

The number of students admitted for the different courses and the number passed out from the University during the period under report are furnished below:

| Courses | Number admitted | Number passed out |
|--------------------------------|-----------------|-------------------|
| B. Sc. (Ag.) | 162 | 59 |
| B.V. Sc. and A. H. | 108 | 78 |
| B. F. Sc. | <u>36</u> | 37 |
| B. Sc. (C & B) | 32 | 14 |
| B. Sc. (Forestry) | 14 | — |
| B. Tech. (Agrl. Engg.) | 20 | 18 |
| B. Sc. (D. Sc. and Tech.) | 29 | — |
| M. Sc. (Ag.) | 39 | 46 |
| M. Sc. (Hort.) | 23 | 6 |
| M. Sc. (Ag. Stat.) | 2 | 1 |
| M. Sc. (Forestry) | 8 | 3 |
| M. Sc. (C & B) | — | — |
| M. Sc. (Home Science) (FS & N) | 14 | 7 |
| M. Tech. (Agrl. Engg.) | 7 | 7 |
| M. V. Sc. | 35 | 23 |
| M. F. Sc. | 2 | 1 |
| Ph. D. (Agri.) | 30 | 24 |
| Ph. D. (Vety.) | 4 | 6 |
| Ph. D. (Home Science) | 1 | — |

The number of students on the rolls of the University at the end of the year was as follows:

| Courses | Total No. of students |
|--------------------------------|-----------------------|
| <i>(a) U. G. Courses</i> | |
| B. Sc. (Ag.) | 1073 |
| B. V. Sc. & A. H. | 728 |
| B. F. Sc. | 153 |
| B. Sc. (C & B) | 124 |
| B. Sc. (Forestry) | 96 |
| B. Tech. (Agrl. Engg.) | 105 |
| B. Sc. (D. Sc. & Tech.) | 89 |
| <i>b) P. G. Courses</i> | |
| M. Sc. (Ag.) | 163 |
| M. Sc. (Hort.) | 67 |
| M. Sc. (Ag. Stat.) | 7 |
| M. Sc. (C & B) | 3 |
| M. Sc. (Forestry) | 10 |
| M. Sc. (Home Science) (FS & N) | 23 |
| M. Tech. (Agrl. Engg.) | 20 |
| M. V. Sc. | 63 |
| M. F. Sc. | 15 |
| Ph. D. (Agriculture) | 132 |
| Ph. D. (Vety. & Ani. Sc.) | 28 |
| Ph. D. (C & B) | 3 |
| Ph. D. (Home Science) | 1 |

Extra curricular activities of the students and co-curricular activities were co-ordinated by the Director of Students Welfare through Physical Education teachers and other teachers of various Colleges. The Director of Students Welfare organised inter Collegiate tournaments for various games and sports during the year.

The Kerala Agricultural University continued to be a member of the Association of Indian Universities and Indian Agrl. Universities Association.

RESEARCH

The research programmes of the University have been drawn out with emphasis on solving location-specific, field oriented problems faced by the farmers of the state. In addition to State funds, the University received assistance from

ICAR, World Bank, Department of Electronics, FERRO, USDA, Hindustan Cocoa Products Ltd., Coffee Board, Department of Biotechnology, Department of Agriculture and Co-operation, Department of Science and Technology, Department of Soil Conservation, Department of Atomic Energy, Directorate of Cashew Development, Directorate of Cocoa, Arecanut and Spices Development, EEC, FACT, FAO, ICSSR, IFFCO and various other agencies.

Under the Kerala Agricultural University, five Regional Agricultural Research Stations continued to function at Vellayani (Southern Region), Kumarakom (Special region of Problem Areas), Pattambi (Central Region), Pilicode (Northern Region) and Ambalavayal (High Range Region). The technical and administrative control of these stations were vested with the respective Associate Directors under the overall control of the Director of Research.

The 22 project co-ordination groups in the Faculty of Agriculture, eight in the Faculty of Veterinary and Animal Sciences and one each in the Faculties of Agricultural Engineering and Fisheries continued to function. The Faculty Research Committee of Agriculture met once during the year and 25 projects/experiments were cleared for implementation. The Faculty Research Committee of Veterinary and Animal Sciences met twice and approved 35 projects/experiments. The FRC on Agricultural Engineering met once and approved five Projects/experiments.

Dr. N. Mohanakumaran, Director of Research attended important meetings/workshops which included Research Advisory Committee of CPCRI, Kasargod; Governing Body of the State Bank of Travancore; Governing Body of the Centre for Management Development; Meeting to review and highlight the achievements of NARP at New Delhi; General Council, meetings; FRC (Agri.) meeting at the College of Agriculture, Vellayani; Project Co-ordinators' meeting at the College of Agriculture, Vellayani; Agricultural Seminar, convened by Malayala Manorama Daily at Kollam; Seminar on "Peoples' Campaign for Planning" at Thiruvananthapuram; Discussions with Quinquennial Review Team at the Rice Research Station, Kayamkulam and AICRP Centre, Karumadi; State Seed Committee meeting at Thiruvananthapuram; Discussion with the Chairman, Governing Body and members of M/s Dinesh Beedi on transfer of technology on cashew apple, jack products and cultivation of mushroom; Plan Review meeting at Government Secretariat, Thiruvananthapuram; Task Force on Research,

Education & Training and Task Force on Field Crops at the State Planning Board; Meeting convened by FICCI on Agribusiness at FICCI, New Delhi; Five Year Plan discussions at the State Planning Board; Inauguration of Training on Electronics in Agriculture at CIFT. He visited the Cardamom Research Station, Pampadumpara during the occasion of visit of the Hon'ble Minister for Agriculture.

He visited USA to study the Agricultural University/Agribusiness linkage in US from 19th October, 1996 to 12th November, 1996 and attended meetings and discussions at USDA, the University of Illinois, Mississippi State University, University of California, Davis and California State Polytechnic University.

Several dignitaries visited the University/various research stations of the University which included Sri. Byre Gowda, Hon'ble Minister for Agriculture, Government of Karnataka; Dr. Maharaj Singh, Dr. N. N. Goswami and Dr. B. P. Ghildayal as members of the Quinquennial Review Team on AICARP, Sri. J. P. Pronk, Hon'ble Minister for Development and Co-operation, the Netherlands; Dr. S. Shanmughasundaram, Director, International Co-operation Programme, Asian Vegetable Research and Development Centre, Taiwan; Dr. S.N.Tripathi, Training Officer, IGFRI, Jhansi; Dr. D. K. Das, Project Co-ordinator, AICRP on Tillage; Dr. Luis Sequeira, World Bank consultant; Dr. T. C. Jain, World Bank expert, New Delhi; Dr. H. P. Singh, Director, NRC on banana; Dr. K. V. Peter; Director, IISR, Calicut; Sri. M. R. Gopalakrishnan Nair, Chief Judicial Magistrate, Kalpatta; Justice Udaya Pratap Singh, Hon'ble Chief Justice, High Court of Kerala; Smt. K. Hema, District and Sessions Judge, Kalpatta, Justice N. Dhinkar, Hon'ble Justice, High Court of Kerala.

The Faculty-wise details of externally aided research projects/schemes implemented as on 31-3-1997 are given below:

| | Faculties | | | | |
|-------------------------------------|------------|----------|----------|-----------|-------------|
| | Agri. | Ag. | Eng. | Fish. | Vety. Total |
| ICAR Co-ordinated (75%-25%) | 28 | 2 | 0 | 5 | 35 |
| ICAR Co-ordinated (100%) | 1 | 0 | 0 | 1 | 2 |
| ICAR Ad-hoc (100%) | 49 | 3 | 2 | 9 | 63 |
| Other Externally aided (100%) | 81 | 2 | 2 | 23 | 118 |
| Other Externally aided (75%-25%) | 1 | 1 | 0 | 0 | 2 |
| Total | 160 | 8 | 4 | 38 | 210 |

The Zonal Research-Extension Advisory Council meetings were held in two regions as follows:

Special Zone of Problem Areas : 16th January, 1997
Northern Zone : 30th January, 1997

Research achievements

Eighteen high yielding varieties evolved by KAU Scientist were approved for release by the State Seed Sub Committee on 17th September, 1996.

| Crop | Cultivars | Evolved at | Remarks |
|---------------------|------------------------|----------------------|---|
| 1 | 2 | 3 | 4 |
| Rice | Vyttila-5 (KAU-655) | RRS, Vyttila | Mutant of Mashuri recommended for Pokkali and other flood prone areas. Average yield 3250 kg/ha. |
| Rice | Ranjini (MO-12) | RRS, Moncompu | Average yield 5201kg/ha. Resistant to blast, sheath blight, sheath rot and BPH. |
| Vegetable Cowpea | KMV-1 (VS-4) | RARS, Kumarakom | Selection from Manjeri Red Plain. Average yield 13.5 t/ha. High protein content. Duration 90-120 days. |
| Winged beans | Revathy (PT-52) | CoH, Vellanikkara | Average yield 600-700 g/plant. Immature pods contained 2.5% protein. |
| Brinjal | Swetha (SM-6-6) | CoH, Vellanikkara | Selection from SM-6. Cooking quality excellent. Tolerant to fruit borer. Yield potential 31.5 t/ha. |
| Chilli | Ujwala (CA-219) | CoH, Vellanikkara | Clustered wilt resistant variety. Average yield per plant 713 g. Resistant to bacterial wilt and free from leaf curl and mosaic diseases. |

| 1 | 2 | 3 | 4 |
|-------------|-----------------------------|----------------------|---|
| Bittergourd | Priyanka (Sel. 1010) | SRS, Thiruvalla | Average fruit yield 28 t/ha. Tolerant to downy mildew. Average fruit weight 300 g duration 4 to 5 months. |
| Bittergourd | Preethi (MC-84) | CoH, Vellanikkara | Average fruit weight is 310 g, Duration 4-5 months. Average yield 15 t/ha. |
| Snakegourd | Kaumudi (Accession-2009) | SRS, Thiruvalla | Tolerant to downy mildew. Yield potential 61.65 t/ha. |
| Cassava | Kalpaka (KMC-1) | RARS, Kumarakom | Duration 6 months yield 42.5 t/ha under intercropped situation and 61.2 t/ha under pure crop situation. |
| Sugarcane | Madhurima (Cul. 527/85) | SRS, Thiruvalla | Cross from Co 740 x Co 7318. Tolerant to red rot disease. Average yield 125 t/ha. |
| Pepper | Panniyur-5 (Cul. 339) | PRS, Panniyur | Average yield 3070 kg/ha. Suitable for mono cropping and companion cropping. |
| Long Pepper | Viswam (KAU-LP-1) | CoH, Vellanikkara | Selection from Cheemathipalli. Average yield 317 kg/ha. Alkaloid content 2.83%. |
| Turmeric | Kanthi (VK 47) | CoH, Vellanikkara | Average yield 7.3 t/ha. Curcumin content 7.18%. Oleoresin content 12.13%. |
| Turmeric | Sobha (VK-82) | CoH, Vellanikkara | Average yield 5.74 t/ha Curcumin content 7.39% Oleoresin content 15.96%. |
| Cashew | Dharasree (H-3-17) | CRS, Anakkayam | Flowers early, mean yield 15 kg/tree/year. Suitable for laterite and red loam soils. |

| 1 | 2 | 3 | 4 |
|-----------------|----------------------------|-------------------|--|
| Cashew | Sulabha (K-10-2) | CRS, Anakkayam | Bold nuts with high yield and superior kernel characters. Suited for export purposes. Mean yield kg/tree/year. |
| Oyster mushroom | Ananthan (Vellayani-P2) | CoA, Vellayani | Tolerant to <i>Trichoderma</i> disease. Pure white in colour and fleshy. |

Other salient findings of research conducted during the year are as follows:

Rice and Rice-based Cropping System

Three cultures of the popular rice cultivar 'Cheradi' viz., No. 16, 5 and 3 produced by mass selection and bulk progeny testing were ready for farmers field trials as pre-release cultures in lateritic areas. The cultures M-38-4-2 and M-42-6-3 (medium duration) and M-38-4-1 and M-45-20-1 (short duration) were in farm trial. The cultures M-59-29-2-1-2, M-61-6-1-1-1 and M-61-6-1-1-2 which were under multi-location trials have shown resistance to gall midge attack. Two medium duration semi-tall rice cultures, Cul. 23-92-1 and Cul. 10-15-1 and two short duration dwarf rice cultures, Cul. 4-57-2 and Cul. 7-7-1-1 were identified for MLT and farm trials. Twenty two rice varieties widely adapted in Kerala were tried under transplanted conditions. Among the short duration group, Kanchana was found to produce the highest yield followed by Kairali and Bhagya. Cul RM-7, with an yield of 6322 kg/ha, ranked first in the medium duration group. In the high ranges, evaluation of rice varieties showed that 'Edavaka' was superior to the other high yielding varieties with regard to grain and straw yield. This variety was found suitable for cultivation in the high ranges during the first and second crop seasons.

In the balanced fertilisation for maximising yield in rice under irrigated conditions, the NPK ratio of 4.0:2.5:1.0 gave higher yield than the ratio 4.0:2.0:1.0. A fertilizer dose of NPK 90:35:50 kg/ha and a split application of fertilizer half as basal and one-fourth each at active tillering stage and panicle initiation stage were found to give high yield for extra short duration rice cultivars for Kole lands. Nitrogen use efficiency

could be increased by coating urea with neem extract and shade drying for 1 to 1½ hours. This can be applied to direct seeded puddled low land rice.

For the control of stem borer in rice, the new insecticides Marshal 5 G and Trelka 25 EG were found to be equally effective as the check insecticides Carbofuran 3 G and chlorpyrifos 20 EC. Against leaf folder attack, carbofuran, Trelka and RH 2485 were effective. Application of Quinalphos AF, Lindane 3% dust, Lindane 20 EC or Chlorpyrifos 20 EC @ 0.5-1.0 kg. a. i./ha at 30 and 45 days after planting did not leave any residue in the harvested paddy and hence could be applied for the control of various pests without any hazard of pesticide residues.

The fungicide formulations 'Opus' and 'Atemi' were found to be effective against sheath blight and sheath rot.

Experiments to study the terminal residues of Quinalphos AF, lindane, chlorpyrifos and mancozeb in rice following a scheduled application on 30 and 45 days after planting, showed that the harvested produce viz., grain, bran, husk and straw were free from pesticide residues. Hence these chemicals can be recommended for control of pest infesting paddy in the early stage of crop growth.

Continuous application of cattle manure recorded significantly higher yield for dwarf *indica* rice variety Jaya, whereas combined application of cattle manure and chemical fertilizers at 1:1 ratio on N basis recorded higher yield for tall *indica* rice. The growth rate of *Azolla* was at its peak during August to September and minimum in November. Exotic strains of *Azolla filiculoidis*, however, maintained a steady growth throughout the year.

The studies conducted for two seasons in 1992 in two existing permanent manurial trials at Pattambi showed that in the grain, significantly higher contents of N, K and Mg were recorded in the second season. There was not much difference in the P content between the seasons. Similar trend was observed in the nutrient content of both tall and dwarf *indica* varieties, except for Ca. In the case of Ca, no uniform trend was shown in both the experiments.

Isachne miliaceae, a dominant weed in the rice of Onattukara could be controlled by the local practice of hoeing at 15 DAS and hand weeding twice at 25 and 40 DAS. Application of oxyflourfen @ 0.1 kg per ha as pre-emergence

followed by hand weeding at 30 DAS was on par with the local practice. In the farm trials conducted, the herbicide anilophos @ 0.4 kg ai/ha was found effective for weed control in wet seeded conditions. Pretilachlor was recommended as a broad spectrum pre-emergent herbicide for dry sown low land (semi-dry) rice, to be applied at the rate of 1.0 kg ai/ha.

Cowpea, raised as an intercrop in dry seeded low land rice by sowing @ 12.5 kg/seed/ha along with rice, could serve as an effective source of green manure. When the rice fields got submerged with the onset of SW monsoon, cowpea at the active vegetative stage decayed and got self incorporated in the soil adding substantial quantity of green manure. Such a system of concurrent growing of cowpea also reduced weed pressure in semi-dry rice.

Pulses and oil seeds

Four cultures of groundnut given to farm trials were found significantly superior to the standard and local cultivars. Cul. 3 and 4 are early maturing types (80-85 days). Four high yielding short duration green gram cultivars suitable for the summer rice fallow having good cooking quality, viz., Pusa 90-72, Pusa 90-32, W GG-2 and Pusa Baisakhi were selected and proposed for MLT and farm trials.

The survey on status of pulse production in the Central Zone revealed that cowpea accounted for more than 90% of area under pulses. Though red gram, green gram, bengal gram and black gram are the major pulses consumed in the State, the area devoted to these crops was negligible.

For augmenting the yield of sesamum, a fertilizer application schedule of 75% of the nitrogen and potash as basal dressing and the remaining 25% as foliar application at the time of branching was found to be significantly better than full basal or other combinations and methods of N and K application.

Vegetable crops

The wild relatives of bhindi, *Abelmoschus ficulneus*, *A. moschatus*, *A. tetraphyllus*, *A. manihot* sp. *tetraphyllus* and *Hibiscus huegelii* were found to be resistant to yellow vein mosaic virus under the hot spot situations of the southern region of Kerala. Among the cultivated types, Arka Anamika, Parbhani Kranti and Vijai were found to be tolerant to the virus upto the harvest of 15th fruit from a plant.

The experiments on *in vitro* embryo rescue to overcome post-zygotic incompatibility revealed that culturing 12 and 15 day old embryos of *A. esculentus* cv. Kiran x *A. moschatus* and *A. esculentus* cv. Anakomban x *A. moschatus* was successful on MS medium supplemented with BA 0.5 ppm + CW 15%.

A selection from the F₂ generation of the cross between Parbhani Kranti x Kiran was found to be free from the incidence of yellow vein mosaic. For getting quality seeds in bhindi, the seed collection must be started after two harvests of immature fruit as vegetable. It was also observed that vermi compost was better than FYM as an organic source in bhindi production.

Water melon cultivars Sugar Baby, Asahi Yamato, Fuken and Arka Manik were found superior for the rice fallows of the southern region of Kerala.

Application of more organic manures and less inorganic fertilizers increased the shelf life of fruits and seed viability in both cucumber and ashgourd. Sowing in the month of September and October was found to be the best to raise a mosaic free crop of pumpkin.

The pathogen causing foliar blight disease of amaranth was identified as *Rhizoctonia solani*.

In cabbage, a spacing of 60 cm x 45cm and a nitrogen dose of 150 kg/ha plus 10 t/ha farm yard manure were found to give maximum yields.

Bacterial wilt resistant and high yielding white fruited brinjal SM 6-8 (Swetha) has been identified nationally as promising by the Work Group meeting on vegetables held at BHU, Varanasi. Two high yielding, bacterial wilt resistant, purple fruited F₁ hybrids in brinjal (Surya x SM-116 (Round) and Arka Kesav x SM-71 (long) were developed.

In sweet potato, it was observed that 50% of potassium could be substituted by sodium as NaCl without any adverse effect on yield and quality of the tuber. In Chinese potato, genotypes CP-79 and CP-74 were identified for Central region and advanced for farm trials.

Fruits

Banana

The fertilizer requirements for the plant crop and the ratoon crop of banana cultivar Palayamkoda grown in reclaimed alluvial soils of Kuttanad were standardised.

A new fungus was isolated from the cyst nematode attacking banana of Pananchery block area. The pathogenicity of the fungus is being ascertained.

For the control of banana pseudostem borer *Odoiporus longicolis*, carbaryl/chlorpyrifos 0.2% (4 g/litre), at monthly interval from the 4th month of planting till bunch emergence was found effective.

Assessment of nematode population in the root zone of banana revealed the predominance of the burrowing nematode, *Radopholus similis*. The rice nematode, *Heterodera oryzae* was also seen. For the control of burrowing nematode *Radopholus similis*, paring the banana suckers with 5% monocrotophos for 20 minutes and raising *Crotalaria juncea* as intercrop in banana garden were found to be highly effective.

The variety 'Grand Nain' introduced from Israel through the Jain Irrigation Company, Jalgaon was found to perform well under Kerala conditions.

Pineapple

One pineapple type having fruit characters of cv. Kew and leaf characters of cv. Mauritius was identified at Vazhakulam.

Mango

The study to test the effectiveness of insecticides against the mango jassid revealed that Cypermethrin (50 ppm) and Endosulfan (0.05%) effectively controlled the hopper infestation on mango panicles and increased the number of fruits produced per panicle, when the chemicals were applied twice, once at the panicle initiation stage and again 15 days after the first application.

Spices

In black pepper, cv. Panchami was the highest yielder among the 14 cultivars tested under a multi-locational trial. In the evaluation of open pollinated and hybrid progenies of pepper, Cul. 4879 (Uthirankotta OP) recorded the maximum green berry yield. *Piper barberi*, an endangered species was added to the germplasm collection of Piper.

Spraying with 0.2% Akomin followed by spraying and drenching with 1% Bordeaux Mixture was effective in checking the foot rot disease of pepper in shaded conditions. Application of phorate (3 g ai/vine) and copper oxychloride (0.3%) reduced the slow wilt disease of pepper. The symptoms of the little leaf disease of pepper was described. The disease was observed in all age groups of plants and the intensity increased with

age. The variety, Karimunda was highly susceptible and Panniyur-1 tolerant. The etiology of the disease is due to MLO.

Viable protocol for large scale multiplication of black pepper was standardised. *In vitro* screening for *Phytophthora* foot rot tolerance could be isolated two variants with relatively good tolerance to the disease.

Introduction of variability in ginger using colchicine resulted in the isolation of two autotetraploids with $2n=44$ and four morphological variants with high yield potential. Among the forty turmeric cultivars, "Sugandham" recorded the highest yield of green rhizomes followed by "Amalapuram".

A survey revealed that in ginger and turmeric, the burrowing nematode and the root knot nematode were the major phytonematodes associated. Application of carbofuran (1kg ai/ha) or neemcake (1 t/ha) and application of carbofuran or neemcake at 45 days after planting significantly reduced the nematode population and increased the yield. Studies on soft rot disease of ginger indicated that seed treatment with captan 0.2% was effective in controlling the rhizome rot. The ginger cv. Eranadan recorded the lowest incidence of bacterial wilt and was free from the incidence of *Phyllosticta* leaf spot among the cultivars screened for resistance to pests and diseases. It also recorded the highest yield among the cultivars tested.

In ginger, studies on the impact of organic manures and *Azospirillum* indicated that application of farm yard manure alone @ 48 t/ha increased yields, net returns and cost benefit ratio. Soil inoculation of *Aspergillus niger* in combination with copper oxychloride 0.3% or Mancozeb 0.3% was effective in checking the incidence and severity of rhizome rot of ginger.

Studies on the effectiveness of soil solarization indicated that the treatment increased the soil temperature. Solarization was effective in controlling the soft rot of ginger. Solarisation had suppressing effect on weeds. Yield of ginger was also increased in solarised plots.

For the control of weeds of cardamom, paraquat 0.4 kg per ha (bimonthly) or glyphosate (0.8 kg per ha) were effective

Waiting periods of quinalphos and monocrotophos for cardamom were found to be 23 and 22 days, respectively while waiting periods for dimethoate and quinalphos for pepper were fixed as 5 and 12 days, respectively.

Aromatic & Medicinal plants

An experiment conducted on the effect of biofertilizers on N and P economy in Palmarosa (*Cymbopogon martinii*) involving *Azotobacter*, *Azospirillum* and P solubilising bacteria showed that they can substitute chemical fertilizers to the level of 20 kg/ha (each of N & P).

A study of morphoanatomical variations in *Ocimum spp.* revealed that the species *O. tenuiflorum* and *O. gratissimum* were related and *O. basilicum* and *O. canum* were related. The protein banding pattern obtained also supported this. Among the four species studied, *O. basilicum* and *O. canum* appears to be more advanced from an evolutionary point of view. A key for the identification of *Ocimum spp.* was developed.

A spacing to 50 x 50 cm with 20% organic manure and 30:30:60 kg NPK per ha produced the maximum dry spike yield in *Piper longum*.

Forage crops

In an evaluation trial, guinea grass variety PGG-519 recorded the maximum green fodder yield of 63 t/ha and dry fodder yield of 22.2 t/ha.

Coconut & coconut-based cropping system

Preliminary observations on coconut revealed that the hybrids released by the University were performing better than the elite cultivars planted in 1976. The hybrid Keraganga performed better than Lakshaganga, Kerasankara and Chandrasankara in cumulative out turn of copra per palm.

A multiple linear regression model was developed for predicting nut yield in coconut, seven months ahead based on agrometeorological indices. The actual and predicted coconut production were in good agreement.

The studies conducted so far revealed that 25% of the potassium requirement could be substituted with sodium, both in adult and young coconut palms. Burying coconut husks in coconut gardens conserved soil moisture and alleviated the ill effects of drought.

Neem cake @ 5 kg per palm/year plus soil drenching Calixin @ 25 ml/25 l. of water at four month interval checked the stem bleeding disease of coconut. A new disease of coconut "progressive chlorosis and crown rot" was observed in coconut. Timely control measures were recommended for the disease.

Studies on the methods for radiation exposure of coconut indicated that it was enough to keep brass capsules in three locations around the palm for a period of 30 days for getting measurable and consistent values. Maximum root activity was observed at 30 cm depth the pure and mixed stands of coconut. The lateral spread of roots was up to 275 cm in both the stands. In cocoa, the active roots were found distributed upto 60cm and lateral spread, upto 175cm.

Commercial crops

Cocoa

In cocoa, top worked plants came to bearing in about an year and as much as 44% of pre-experimental yield could be recovered after 17 months. The extent of yield advantage after yield stabilisation was 92%.

Calixin spray at the rate of 0.1% was found to be effective in preventing the incidence of Vascular Streak disease in cocoa seedlings.

Cashewnut

The hybrid H 1600 was found to be superior in cashew nut yield, followed by MDK-1. The MDK-1 were superior for juice purposes. A hybrid, H-1597 was found to be promising. Two cashew hybrids H-7-6 and H-8-1, highly suited for export oriented cashew cultivation, were evolved at the Cashew Research Station, Anakayam.

Two cultivars from Tamil Nadu, M 26/2 and M 44/3 and one from Maharashtra, Vengurla-5 were found promising for Kerala.

Sugarcane

The culture Co 88017 gave higher cane yield than all the other cultivars released from the SRS, Thiruvalla including 'Madhuri'. The culture 527/85 was identified as superior for the Thiruvalla tract. This out-yielded Madhuri in quality characters.

For jaggery production, the cultivar Co 88017 was found to be highly suitable and having high jaggery production compared to the other cultivars released by KAU and SBI, Coimbatore.

Atrazine @ 2 kg-ai/ha, applied three days after planting as pre-emergent herbicide, was found very effective in controlling the weeds in sugarcane fields.

Floriculture

Floral description of 10 hybrids of *Dendrobium* revealed that in all the hybrids, anthesis occurred during the day time and the stigma receptivity was maximum between 4-6 days after anthesis. Studies on pollen morphology showed that the pollen grains were agglutinated in masses called pollinia. Pollen size varied from 27.91-48.52/a. Pollen fertility ranged from 4.42-73.98 percent. *Dendrobium* was found to be self incompatible with few exceptions.

The growth of anthurium was better under 80% shade. Application of BA 750 ppm increased the suckering of the plants. A shade level of 50% was preferred by *Philodendron wendlandi*.

Integrated farming

Studies were conducted on integrated system models involving crops, livestock and fish under Kuttanad conditions. The interspaces available under coconut palms can be utilized for growing banana, yams etc. Fodder grass can be grown on the fringes of the bunds. In addition to the crops, a cow can be maintained @ 2500 m² area of coconut garden which can provide cowdung sufficient for manuring 88 coconut palms, 200 banana, 1000 m² fodder plot and 400 yams. The intervening channels offer immense potential for growing fish and fresh water prawns. When compared to monoculture of coconut, this integrated system resulted in 157 percent increase in the net profit.

Post harvest technology

Among the mango harvesters designed and fabricated, KAU Mango Harvester III was found superior to the traditional harvester in terms of harvesting efficiency, retention of pedicel and collection of fruits in the net. Handling of mangoes in rectangular plastic crates was superior in terms of number of marketable fruits, minimum physiological loss in weight, and less incidence of diseases. Dipping fruits in warm water (52°C) containing carbendazim 0.05% showed minimum physiological loss in weight, less spoilage in terms of shrinkage, discolouration and disease tolerance.

Soils and agronomy

The major wetland soil series of Thiruvananthapuram district, viz., Kuttichal, Marukil and Amaravila series were identified and two types locations for each series selected for work under AICRP (Tillage).

Partial substitution of muriate of potash by common salt in cassava was found highly beneficial. Spilt application of urea considerably reduced the N loss through ammonia volatilization.

Results from the permanent manurial experiments for both tall and dwarf *indica* series clearly validated the manifold beneficial effects of the combined application of organic and inorganic manure on soils and crops.

Vermicompost

The earthworm species *Eudrillus eugineae* was found to be an effective agent for vermitechnology in Kerala. Vermicompost @ 12 t/ha, along with NPK @ 50:8:25 kg/ha, was found to give twice the yield in bhindi compared with cattle manure plus the same dose of NPK. Release of earthworms @ 50 worms/m² two weeks after the basal application of fertilizers recorded 1½ times yield as against the Package of Practices Recommendation of cattle manure and NPK, in bhindi.

A local earthworm species *Perionyx sansibaricus* was tested for its composting efficiency and found useful for vermicomposting.

Enrichment of vermicompost was found possible by inoculating with beneficial microbes such as N fixing organisms P solubilising organisms etc. *Azospirillum* treated composts had a higher N content while both *Azospirillum* and P solubilising organisms treated composts had the maximum N and P content. Microbial enrichment, in general, had no significant effect on the level of micro nutrients in the compost.

Food and nutrition

A ready to mix food was developed based on rice and soya. The selected combination was rice 20%, soya 50%, milk powder 20% and wheat flour 10%.

An extruded product 'Sev' was developed with rice, soya and maida in the ratio of 60:20:20. With 'sev', 15 recipes were standardised.

NWDPRA

The Government of Kerala sanctioned a sum of Rs. 64.52 lakhs (in addition to Rs. 14.19/- sanctioned during 1995-96) during 1996-97 for the conduct of 32 replicable research projects in selected water sheds in the five agro-climatic zones of the State. The experiments progressed. The University has laid out 314 approved experiments in the farmers' fields:

Veterinary & Animal Sciences

Animal Production Management

A study on the draught efficiency of Asian elephants revealed that elephant at 10 per cent draft can work for 3 hr. continuously without becoming fatigued. At 20% draft, elephants started showing fatigue signs. At 30% draft, elephants became fatigued after 2 hrs of continuous work.

Studies of comparative draught performance of cattle and buffaloes revealed that dry land ploughing caused significantly higher increase in respiration, pulse and rectal temperature coupled with behavioural signs of extreme heat stress in buffalo compared to cattle. Splashing of water and mud and evaporation of the same from the body surface under wet land ploughing seemed to aid the buffaloes in thermolysis and maintenance of homeothermy.

Analysis of management practices and economics of goat rearing under homestead farming system showed that fixed and variable cost were lower in Palakkad than in Malappuram district; but the gross income was more in Malappuram than in Palakkad. The major constraints faced by farmers were in feeding and availability of labour.

A comparative study on the effect of PMSG and FSH-P on superovulatory response was conducted and PSH-P was found to be superior. Methods were standardised for the freezing of embryo.

Diseases/Health cover/vaccines

In dogs, two techniques of anastomosis were done viz; coaptation anastomosis and marlex mesh prosthesis and anastomosis. Coaptation anastomosis produced rapid healing with very little complications. But marlex mesh prosthesis and anastomosis was accompanied by stenosis of tracheal lumen. Partial Keratectomy with and without conjunctival plasty was adapted in the correction of corneal lesions in dogs. The techniques were found to be satisfactory.

Comparative study of crushing and modified gambee techniques for intestinal anastomosis was conducted in dogs. It was seen that the techniques were satisfactory; but crushing sutures were easy to perform and simple. However, the healing was rapid in modified gambee technique and luminal stenosis and adhesion were minimal.

Studies on intra-uterine infusion of homologous plasma in the treatment of Endometritis in cows revealed that homologous plasma drawn from cow at the time of oestrus has significant bactericidal or bacteriostatic property. Infusion of plasma into the uterus was found to hasten the clinical recovery from endometritis and better conception rates.

Bacteriological quality of raw milk samples from three different sources such as University Livestock Farm, Mannuthy; Ollukkara Ksheera Vyavasaya Co-operative Society and Pananchery Milk Producers Co-operative Society was compared. Significant difference was observed in various bacterial counts.

Acuria spiralis and *Strongyloides avium* were reported for first time in India. The life cycle of *Ornithostrongylus quadri-radiatus* was worked out.

Urea and ammonium sulphate 1% were found to have highest ovicidal property when mixed with dung. Quick lime was found to have the highest larvicidal property when mixed with dung. Prasiquantel (Cestonil) was found to be very effective against cestodiasis in elephants at 2mg/kg body weight.

During the period under report, mortality among ducklings and adult ducks were reported from various parts of the state. *Pasteurella* organism and duck plague virus were isolated and identified. A new vaccine prepared from the isolate was under trial.

The studies on mastitis showed that yeast and yeast like fungi played a major role in mastitis, especially chronic cases. The prevalence of subclinical form of mastitis was observed. *Streptococci*, *Staphylococci* and *E. coli* were isolated from the milk samples.

A combination of xylazine and thiopentone sodium provided smooth induction, analgesia and satisfactory plane of surgical anaesthesia for a period 30-45 min. in dogs. Xylazine as a premedicant reduced the dose of thiopentone required for general anaesthesia in dogs.

Result of the experiment on the effect of bacterial starter culture in reducing aflatoxin M1 in milk by different bacterial culture revealed that incubation with 2% bacterial culture (irrespective of the bacterial culture type) reduced the AFMI level significantly.

For the diagnosis of Rabies, a modified seller's straining technique was developed, perfected and recommended for field application.

Ochratoxin was demonstrated to cause suppression of cell-mediated immune response.

Livestock Production Technology

Coconut-based ice cream products were developed and recommended for commercial exploitation.

A method of vacuum condensing whey solids was standardised. It was found that cheese could be used in a condensed form for the preparation of yoghurt.

Basic research

DNA of three strains of duck plague virus was subjected to restricted endonuclease analysis to identify various strains of duck plague virus isolated from Alleppey district.

Fisheries

LC 50 values of two widely used pesticides of Kuttanad, monocrotophos and phosphamidon have been arrived at on *Channa marulius*, *H. fossilis* and *A. testudineus*.

Experiments on broodstock development of the priced ornamental fish, sucker cat fish (*Hypostomus plecostomus*) showed that the fish preferred the compounded feed prepared with clam meat, ground nut oil cake and wheat bran as the main ingredients compared to clam meat alone. The compounded feed, given @ 10% body weight of the fish, showed a consumption rate of 42-63%.

In order to find out an effective substitute for live feed such as *Artemia nauplii* for the hatchlings of ornamental fishes, experiments were conducted where Angel fish hatchlings were fed only on formulated feed having *Spirulina*, egg yolk etc. as ingredients.

A combination of locally available food ingredients viz., copra, rice, bran and clam meal was found to be a very good composite feed for giant freshwater prawn.

Agricultural Engineering & Technology

A novel Jackfruit Harvesting Tool was developed and demonstrated. A garden transplanting tool was developed and field tested. A tractor operated helical blade puddler has been fabricated.

EXTENSION

The Directorate of Extension is responsible for the extension education activities of the Kerala Agricultural University. The Communication Centre, the Central Training Institute and the Information Cum Sales Centre which form the main constituents of the Directorate of Extension spearhead the front line extension activities of the University. The extension activities of the University are implemented through constituent research stations and educational Institutions under KAU.

The Krishi Vigyan Kendras (KVK) sponsored by the ICAR and the Village Adoption Programme are other Transfer of Technology programmes implemented by KAU.

Information Communication through various media is the major activity of Communication Centre which comprises the Farm Advisory Service, the Information Unit, Exhibition and Graphic service and the Publication Unit.

The Farm Advisory Service Unit participated in 43 Agricultural Seminars organised at Thrissur, Palakkad, Kozhikode, Idukki, Alappuzha and Thiruvananthapuram districts in which 3300 farmers were benefitted. 592 farmers were given advice in person in various problems confronted by them in the field of agriculture, animal husbandry and fish culture. Replies were also sent to 290 letters seeking information on agriculture and allied subjects through mail. Besides, several diagnostic field visits were also conducted in Thrissur, Palakkad and Ernakulam districts during the period under report.

The Publication unit brought out several technical publications which included books and Kalpadhenu-the quarterly Malayalam magazine -from the centre.

The Exhibition and Graphic service unit conducted 12 exhibitions in and around Thrissur District. Colour transparencies, photographs and blow-ups were also prepared by the unit.

WORKS

The provision for the Engineering works for the year 1996-97 was 30.200 lakhs under plan and 35.182 lakhs under Non-plan. The total expenditure incurred during the period under report was Rs 2 crores 80 lakhs.

KAU ESTATE.

Out of the total area of 391.44 hectares of the Estate, 253.30 ha were allotted to other schemes. A total quantity of

30956.87 kg latex was produced during the year. The total receipt and expenditure during the year were Rs. 1114481 and Rs. 3613135 respectively.

KAU SCHOOL

A total number of 832 students were in the roll during the period. The strength of teaching staff was 17 and that of the non teaching staff 6. The school won the 1st prize in Maths Exhibition at Thrissur Educational District during the School year 1996-97.

FINANCE

The University had adopted a budget estimate for Rs.7151 lakhs for 1996-97 anticipating a grant-in-aid of Rs.4700 lakhs from the State Government (3200 lakhs under Non-plan and Rs. 1500 lakhs under Plan), ICAR assistance of Rs. 457 lakhs and specified scheme tide assistance of Rs. 241 lakhs from other sources like DBT, DST EEC etc., internal resources of Rs. 526 lakhs and Rs. 1227 lakhs from pension fund, loans and advances, income from investment, opening balance etc. The total expenditure incurred during the period under report for various functions of the University was Rs. 5557.671 lakhs against actual receipts of Rs. 5381.088 lakhs. □

CHAPTER 1

General Administration

The Kerala Agricultural University came into existence on 24th February, 1971 under the KAU Act 1971 (Act 33 of 1971).

The Main Campus of the University at Vellanikkara is 13 km east of Thrissur town on the Thrissur-Palakkad highway (NH 47). The College of Horticulture and College of Forestry are located at the Main Campus. The University has six other teaching campuses, viz., College of Veterinary and Animal Sciences, Mannuthy; College of Co-operation, Banking and Management, Mannuthy; College of Fisheries, Panangad, College of Agriculture, Vellayani, Kelappaji College of Agricultural Engineering and Technology, Tavanur and College of Agriculture, Nileshwar. In addition to this the University has 28 major research stations distributed throughout the State. Some of the stations are also recognised as centres for PG research of the University. When the NARP was implemented in the University five of these stations were recognised as Regional Agricultural Research Stations. They are located at Pilicode, Ambalavayal, Pattambi, Kumarakom and Vellayani.

The University received financial assistance mainly from the State Government and ICAR. Financial assistance was also received from outside agencies like the NARP, the Department of Science and Technology, the Department of Environment, Government of India, Department of Electronics, Government of India, FERRO, USDA, Coffee Board, ICSSR, Hindustan Cocoa limited etc.

Officers of University and Administrative set up

The officers of the University are the Chancellor of the University (Governor of Kerala), the Pro-Chancellor (Minister of Agriculture) and the Vice-Chancellor who is the Chief Executive and Academic Officer of the University.

The Vice-Chancellor is also the ex-officio Chairman of the General Council, Executive Committee and Academic Council. The Vice-Chancellor is a full time Officer of the University and has the immediate overall control of the University. The other Officers of the University are the Deans of Faculty, the Director of Research, Director of Extension, the Director of Physical Plant, the Registrar, the Comptroller and the Director of Students Welfare.

The general administrative control is vested with the Registrar, while the Comptroller is responsible for budgeting, finance, statements of accounts and audit. The Co-ordination, direction and administration of research activities in the University are vested with the Director of Research. The Director of Extension is responsible for extension education and public relations. The Deans and Associate Deans of the various colleges are in charge of resident teaching and instruction in the respective colleges. The Director of Physical Plant is in-charge of the construction and maintenance of buildings, roads, vehicles and machinery.

Authorities of the University

The statutory authorities of the University are the General Council, The Executive Committee, The Academic Council, the Faculties and the Board of Studies of each faculty. The list of members of these bodies are appended.

General Council

The supreme authority of the University is the General Council. The Council is reconstituted every three years. The term of the General Council constituted on 31/1/1995 continued through-out the period under report.

Ordinarily the Council meets once in four months. The General Council met three times during the period under report.

The Executive Committee

The Executive Committee is the Chief Executive authority of the University. The Committee consists of thirteen members with Vice-Chancellor as the Chairman. The 13 members are; 3 ex-officio members (Secretaries to Government Department of Agriculture, Rural Development and Finance); one ICAR representative in the General Council; one from among the women members, one from among the Scheduled caste/

Scheduled Tribe members, one student representative, one from among the teachers, one from among the deans and three other non-official members (list of members appended).

During the report period, the executive committee met 12 times.

Academic Council

The Academic council of Kerala Agricultural University was reconstituted for a period of three years from 28.12.1996 (list of Academic Council members appended).

The Academic Council is responsible for the maintenance of standards of teaching in different faculties of the University. The Academic council shall exercise such other powers and perform such other functions as may be conferred or imposed upon it by statutes. During the year 1996-97 two meetings 71st and 72nd were held.

Important decisions taken by the Academic council were the following.

71st meeting of Academic Council held on 9.7.1996

Approved the P. G. prospectus for the Academic year 1996-97.

Approved the proposal for the deputation of KAU teachers/ Scientists for higher studies during the year 1996-97.

Revised the syllabus for the B. Sc. (Ag.), B. Sc. (Forestry) and B. Sc. (C & B) course.

Approved the proposal for strengthening of full fledged department of Plant Physiology and initiation of P. G. programmes.

72nd meeting of Academic Council held on 18.10.1996

Prescribed statutes for Associate Dean, College of Horticulture/ Agriculture, Associate Dean, College of Co-operation, Banking & Management.

Approved the proposal for starting P. G. Diploma in Food Science & Nutrition and Diploma in Nutrition and Dietetics.

Prescribed qualifications for Assistant Professors, Associate Professors and Professors in the Department of Veterinary Bio-chemistry in the Faculty of Veterinary and Animal Sciences.

Prescribed qualifications for the post of Assistant Professors, Associate Professors and Professors in the Department of Livestock Products Technology in the Faculty of Veterinary and Animal Sciences.

Decided to propose amendment of Statutes SRO No. 70/72, SRO No. 264/72, SRO No. 1112/79 and SRO No. 1245/86 for the post of Deans, Director of Research, Director of Extension Education, Professor and Associate Professor.

Decided to reserve one seat for M. Sc. (Hort.) course for the nominee of Union Territory of Lakshadweep.

Sub Committee

The Chairman and Convenor of various Sub Committees of General Council and Executive Committee are given below. Names of the members of the Committees are appended.

Sub Committees of General Council

- i) Assurance Committee
Chairman Sri. C. Haridas, Ex-M. P.
Convenor Registrar
- ii) Accounts Committee
Chairman Sri. M.A. Wahid
Convenor Comptroller
- iii) Statute Sub Committee
Chairperson Prof. Savithri Lekshmanan
Convenor Registrar

Sub Committees and Executive Committees

- i) Establishment Committee
Chairman Sri. K. C. Joseph, MLA
Member-Convenor Registrar
- ii) Research Review Committee
Chairman Vice-Chancellor
Member-Convenor Director of Research
- iii) Finance Committee
Chairman Vice-Chancellor
Member-Convenor Comptroller
- iv) Planning and Development Committee
Chairperson Smt. Saraswathy Kunhikrishnan
Member-Convenor Director of Research
- v) Student's Welfare Committee
Chairman Sri. K. Gopalan
Member-Convenor Director of Student's Welfare
- vi) Works Committee
Chairman Sri. K. M. Soopy (upto 13.8.'96)
Sri. Johny Nelloor, MLA
continued as Chairman for rest
of the period.
Member-Convenor Director of Physical Plant

Research Council

The Research Council (Research Advisory Committee) reconstituted as per the decision of the Executive Committee held on 16.5.90 is continuing. The main responsibility of the Research Advisory Committee is to advise the University on formulation of the research programmes.

Extension Advisory Committee

The Extension Advisory Committee renders advice in extension education activities which are organised through the Directorate of Extension.

Faculty Research Committee

The main duties of the Faculty Research Committees are to scrutinise the research proposals received from the different co-ordinators and to review the progress of research in Kerala Agricultural University periodically.

Co-ordination Groups

The various Project Co-ordination groups organised are authorised to critically examine the research proposal received from Project Leaders, Principal Investigators and to review the progress in the concerned group.

Faculty Improvement

The members of the academic staff were provided with opportunities to acquire higher qualifications by granting deputation, study leave or leave for study purposes. They were also sent for short term training courses, summer institutes etc, in different specialised centres and for participating in seminars, symposia, workshops etc., organised by different scientific agencies/ICAR institute or other Universities.

Student's Admission

Admission for undergraduate courses in the University was made on the basis of a common entrance examination conducted by the Government of Kerala. Admission to the various post-graduate courses was given on the basis of marks obtained in the qualifying examination, experience, number of research papers published and the performance at the interview. Few seats were reserved for ICAR nominees and SC/ST candidates.

Labour

Farm labourers constitute a major category of personnel in the University. Two categories of workers—Casual and

Permanent--exist in the farms and research stations under the Kerala Agricultural University. In respect of service conditions and wages, generally, the University follows Government orders applicable to the labourers of the Departments of Agriculture and Animal Husbandry.

Important Engagements of Vice-Chancellor, Kerala Agricultural University during 1996-97

Dr. A. M. Michael continued as Vice-Chancellor of the University during the period under report.

The Vice-Chancellor chaired the meetings of the different Committees of the University including General Council, Executive Committee, Finance Committee, Academic Council, Officers' Meeting, P.G. Committee, Research Review Committee, Faculty Research Committees, KHDP Review meeting. He also chaired the Selection Committee meetings.

The other important meetings and functions attended by the Vice-Chancellor are the following:

He attended the Vice-Chancellors' meeting held at Indian Council of Agricultural Research, New Delhi during the period 2-7-96 and 17-9-96. Participated as Chief Guest of Annual Day celebrations of Chamber of Commerce of Thrissur. Attended meeting with the Panchayat Presidents of nearby Panchayats of Fisheries Research Station, Puduvaipu, regarding the implementation of Wasteland Development Programme on 26-6-96. He chaired the Working Group meeting of the Planning Commission at New Delhi on Command Area Development Programme on 22-5-96. Attended the executive meeting of Indian Society of Agricultural Engineers at Punjab Agricultural University, Ludhiana on 22-5-97 and 23-5-97. Participated in the workshop to review and highlight the achievements of the National Agricultural Research Project at Krishi Anusandhan Bhavan, New Delhi on 3-7-96. Attended the meeting of Cauvery water dispute tribunal—Special Committee to deal with Kerala's case before the tribunal—at Chief Minister's Office on 11-7-96. Attended the inaugural function of Karshika mela and exhibition organized by Malayala Manorama in connection with the Award giving ceremony of Karshakasree on 8-8-96. Participated in the discussion meeting held with Executive Committee members and Officers of the Department of Agriculture and local leaders regarding the take over of the Soil Conservation Research Station at Konni on 9-8-96. Participated in the inaugural function of the Central Auditorium by the Hon'ble Minister for Agriculture on 16-8-96. Inaugurated the farmers' day and Agricultural Implements show at Agricultural Research Station, Mannuthy on 17-8-96.

Dr. Michael attended the Organizing Committee meeting of the 56th Annual Conference of the Indian Society of Agricultural Economics at University Headquarters on 19-8-96. Participated in the inaugural function of the symposium on Technological advancement in Banana plantation production and processing - India - International and the inauguration of the FAO/CPC/World Bank aided Banana Improvement Project on 21-8-96. Inaugurated the Onam Bazaar at Sales Centre, Mannuthy on 21-8-96.

The Vice-Chancellor delivered the Raveendranath Tagore Memorial lecture on the topic 'Agricultural Engineering in the 21st Century - Challenges and strategies at Agricultural Engineering College, Dharwad, Karnataka state on 6.9.96.

Attended meeting convened at Tamil Nadu Agricultural University, Coimbatore, on a joint proposal of Kerala Agricultural University and Tamil Nadu Agricultural University on 'sustainable agricultural research and development centre for South India' with the assistance from Government of Japan on 30-10-96.

Dr. A. M. Michael chaired the meeting of the Task Force for Research, Education and training under the Steering Committee for Agriculture of State Planning Board on 15-11-96. Attended the first meeting of the Expert Committee to provide guidance, modalities and initiation of IXth Plan Research programmes under the ICAR on 2-12-96, 3-12-96 and 4-12-96. Attended the meeting of the Task Force on Agricultural Research, Education and Training at State Planning Board, Thiruvananthapuram on 18-12-96. Participated in the foundation stone laying function of Pineapple Research Station, Vazhakkulam on 20-12-96. Participated in the Annual Day Convention of Vidhyadhi Raja Vidhya Mandir, Ankamaly as Chief guest on 21-12-96. Attended the kissan mela at Cherupuzha on 23-12-96. Attended the inaugural function of the Sales Centre of Kerala Agricultural University in Fisheries Sub Centre, Calicut on 28-12-96. Attended the Task Force meeting of Agricultural Research, Education and Training at State Planning Board, Thiruvananthapuram on 1-1-97. Participated in the inauguration of the 56th Annual Conference of the Indian society of Agricultural Economics at Kerala Agricultural University Headquarters, Vellanikkara, by Dr. Y. K. Alag, Hon. Union Minister for Planning. Chaired the Research Advisory Committee of the Central Agricultural Research Institute, Andaman and Nicobar Islands, Port Blair on 7-1-97. Participated in the Accreditation Committee meeting of Indian Council of Agricultural

Research on 13-1-97 at New Delhi. Attended the meeting of the state Award Committee for selecting the awardees for the year 1995-96 in different fields of Agriculture on 5-2-97. Attended the meeting of State Planning Board regarding the Ninth Five year plan and Annual Plan of the University on 5-2-97.

Attended the meeting on Inter-State Water Dispute and Cauvery Water in particular scheduled to be held at Office of the Chief Minister on 25.2.97 at Thiruvananthapuram. Attended the meeting convened by the Hon'ble Minister for Agriculture regarding the starting of a Vety. College at Wayanad on 19.3.1997.

The Vice-Chancellor served as a member of the Governing Body of ICAR, New Delhi, Kerala Forest Research Institute, Peechi, Centre for Water Resources and Management, Kozhikode, Science & Technology and Environment Committee, Thiruvananthapuram, Tropical Botanical Garden and Research Institute, Palode, Thiruvananthapuram, and State Institute of Languages, Thiruvananthapuram.

The Vice-Chancellor visited the Indian Council of Agricultural Research, New Delhi in connection with University work on 16.4.96, 17.4.96, 18.4.96, 19.4.96, 21.5.96, 16.9.96, 17.9.96, 10.2.97, 11.2.97, 12.2.97 and 13.2.97.

The Vice-Chancellor visited College of Fisheries, Mangalore, University of Agricultural Sciences, Dharwad, Tamil Nadu Agricultural University, Coimbatore, Tamilnadu Vety. & Animal Sciences University, Madras, Central Plantation Crops Research Station, Kasaragod and Regional Centre of Central Plantation Crops Research Institute, Kayamkulam, Centre for Water Resources Development and Management, Kozhikode, Central Food Technological Research Institute, Mysore. He visited the Central Agricultural Research Institute, Port Blair, Andaman & Nicobar Islands.

Dr. A. M. Micahel, Vice-Chancellor, served as member of the Selection Committee for higher posts constituted by the Agricultural Scientists Recruitment Board, New Delhi. He had also served as member of the Selection Committee constituted for selection of higher posts by the University of Agricultural Sciences, Bangalore during the period. He served as expert member on the selection committee of the Central Tuber Crops Research Institute, Sreekaryam, Thiruvananthapuram.

The Vice-Chancellor visited the Krishi Vigyan Kendra, Manjeswar, Regional Agricultural Research Station, Pilicode, College of Agriculture, Pilicode, College of Agricultural Engineering & Technology, Tavanur, College of Vety. & Animal Sciences, Mannuthy, Collge of Horticulture, Vellanikkara College of Forestry, Vellanikkara, Directorate of Extension, Mannuthy, Central Training Institute, Mannuthy, College of Co-operation, Banking and Management, Mannuthy, Agronomic Research Station, Chalakudy, College of Fisheries, Panangad, Banana Research Station, Kannara, Medicinal and Aromatic Plants Research Station, Odakkali. He visited the Pineapple Research Station, Vazhakkulam, Cattle Infertility Centre at Calicut.

The Vice-Chancellor met and discussions were held on University matters with the Hon'ble Pro-Chancellor and Minister for Agriculture and the Hon'ble Chief Minister of Kerala during the period under report. □

CHAPTER II

Education and Research

1. FACULTY OF AGRICULTURE

1.1. COLLEGE OF AGRICULTURE, VELLAYANI

College of Agriculture was established in the year 1955 at Vellayani, about 12 km. south of Government Secretariat Thiruvananthapuram on the banks of Vellayani lake. College campus has a total area of 243 hectares including 165 hectares of 'Kayal' land.

Dr. C. Sreedharan continued as Dean of the Faculty of Agriculture and Head of the Institution.

Dr. K. M. Rajan, Professor has continued as the Research Co-ordinator of F. R. C.

The College functioned with following 14 departments carrying out teaching, research and extension activities.

Department of Agronomy

Department of Plant Physiology

(Department of Agrl. Botany has been merged in the Department of Plant Breeding)

Department of Plant Breeding & Genetics

„ Horticulture

„ Soil Science and Agrl. Chemistry

„ Plant Pathology

„ Agrl. Entomology

„ Agrl. Extension

„ Home Science

„ Agrl. Economics

„ Agrl. Statistics

„ Animal Husbandry

„ Agrl. Engineering

„ Physical Education

Staff position

a) Scientific staff

| Department and Designation | Sanctioned | In position | Vacant |
|------------------------------------|------------|-------------|--------|
| 1 | 2 | 3 | 4 |
| Agronomy | | | |
| Professor | 4 | 2 | — |
| Assoc. Professor | 3 | 5 | — |
| Asst. Professor | 2 | 1 | — |
| Agrl. Chemistry | | | |
| Professor | 3 | 4 | — |
| Assoc. Professor | 2 | 3 | — |
| Asst. Professor | 6 | 4 | — |
| Plant Breeding and Genetics | | | |
| Professor | 4 | 3 | — |
| Associate Professor | 2 | 4 | — |
| Assistant Professor | 9 | 4 | — |
| Plant Physiology | | | |
| Professor | 2 | — | 2 |
| Assoc. Professor | — | — | — |
| Asst. Professor | 1 | — | — |
| Horticulture | | | |
| Professor | 2 | 1 | 1 |
| Associate Professor | 1 | 6 | — |
| Assistant Professor | 7 | 4 | 3 |
| Agrl. Entomology | | | |
| Professor | 6 | 6 | — |
| Assoc. Professor | 3 | 1 | 2 |
| Asst. Professor | 3 | 1 | 2 |
| Plant Pathology | | | |
| Professor | 6 | 6 | — |
| Assoc. Professor | 5 | 7 | — |
| Asst. Professor | 5 | 2 | 3 |
| Agrl. Extension | | | |
| Professor | 1 | 2 | — |
| Assoc. Professor | 4 | 5 | — |
| Asst. Professor | 3 | 1 | 2 |
| Agrl. Economics | | | |
| Professor | 1 | 1 | — |
| Assoc. Professor | 1 | — | 1 |
| Asst. Professor | 3 | 3 | — |

| 1 | 2 | 3 | 4 |
|---|----|----|---|
| Agri. Statistics | | | |
| Professor | 1 | — | 1 |
| Assoc. Professor | 1 | — | 1 |
| Asst. Professor | 5 | 1 | 4 |
| Animal Husbandry | | | |
| Professor | — | 1 | — |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 2 | 1 | 1 |
| Home Science | | | |
| Professor | 1 | 1 | — |
| Assoc. Professor | 2 | 2 | — |
| Assistant Professor | 8 | 8 | — |
| Physical Education | | | |
| Assistant Professor | 2 | 2 | — |
| Instructional Farm | | | |
| Professor | 1 | 1 | — |
| Assoc. Professor | 2 | 2 | — |
| Asst. Professor | 3 | 2 | 1 |
| b) Technical staff | | | |
| Farm Supervisor | 14 | 10 | 4 |
| Farm Assistant | 12 | 8 | 4 |
| Lab Assistant | 24 | 20 | 4 |
| c) Administrative & Supporting staff | | | |
| Administrative Officer | | | |
| Gr. I | 1 | 1 | — |
| Section Officer | 9 | 9 | — |
| Assistant | 24 | 21 | 3 |
| Senior Office Supdt. | 5 | 5 | — |
| Office Supdt. | 6 | 6 | — |
| Typist | 9 | 8 | 1 |
| Class IV | 26 | 26 | — |
| Peon | 18 | 15 | 3 |

List of staff (Appendix)

Faculty improvement programme :

New post sanctioned : Nil

Created : Nil

Scholarship awarded to staff/Deputation of staff for higher studies.

4 Faculty members were deputed for Ph. D. programme.

Details of seminars/symposia

Details of participation of scientist in seminars/workshop/training/symposia/summer institute etc.

| Name and Designation | Type of course | Venue | Period |
|---|-----------------------|-----------------------|----------------------------|
| Dr. P. B. Usha, Asst. Professor, Soil Science & Agrl. Chemistry | Summer Institute | J.N.K.V.V Jabalpur | November 1996 |
| Dr. Ushakumari, Asst. Professor, Soil Science. | do | do | do |
| Dr. Prabhakumari, Asst. Professor, Soil Science & Agrl. Chemistry. | National work shop | T.N.A.U Coimbatore | July, 1996 |
| Dr. V. L. Geethakumari Assoc, Professor of Agronomy | Summer Institute | do | do |
| Dr. P. Santhakumari Assoc. Professor of Plant Pathology | do | do | do |
| Dr. V. K. Girija Asst. Professor of Plant Pathology | do | do | do |
| Dr. A. Naseema, Assoc. Professor of Plant Pathology | do | do | do |
| Dr. K. M. Abdul Khader Asst. Professor of Plant Breeding | do | do | 6/11/1996 to 20/11/1996 |
| Smt. C. Lekha Rani Asst. Professor of Plant Breeding | do | do | do |
| Dr. R. Gopimony, Professor & Head, Plant Breeding | National Seminar | Bangalore | 3 days |

Involvement of staff in Academic Programmes

Sixty one regular courses were offered to the UG and the PG students. Three students were awarded Ph.D. Degree and 10 students were awarded M.Sc. (Ag.) degree during the period under report. :

Farm Revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|---------|------------------------|---------------------------|
| 1996-97 | 39,60087 | 1,96,54,310 |

Important visitors

| Name & address | Purpose of visit | Date of visit |
|---|---|---------------|
| Sri. V.K. Rajan Hon. Minister for Agriculture | For inaugurating the Students Union | 31/7/1996 |
| Sri. P. J. Joseph Hon. Minister for Education & Revenue | For inaugurating/ the Kisan Mela 'Nirapara' | 16/10/96 |

1.2 COLLEGE OF HORTICULTURE, VELLANIKKARA

The College of Horticulture was established in the Mannuthy Campus on 28.10.1972. The College was shifted to the main campus in November, 1977. The college has an Instructional Farm for imparting practical training to students and also for undertaking faculty research activities.

To start with, only 20 students were admitted for the four year B. Sc. (Hort) degree programme (12 trimesters). The number of student admissions for this programme was increased to 30 from 1976-77 and again to 40 from 1979-80. The B. Sc. (Ag) programme was introduced from the academic year 1977-78 with an intake of 50 students. The curricula of the B. Sc. (Ag) and B. Sc. (Hort) programmes were unified in 1980-81 and the latter course discontinued. The intake for the B. Sc. (Ag) programme was consequently increased to 75. The Master's Degree programme was started in 1976-77 in six disciplines, namely, Horticulture, Agronomy, Agricultural Botany, Agricultural Chemistry, Agricultural Entomology and Plant Pathology. From 1979-80, Ph. D. programmes in Horticulture in these six departments were started. In addition, Masters' programmes in Agricultural Economics and Agricultural Engineering were also commenced during this year. The P. G. Diploma Course in Natural Rubber Production was started in 1979-80 and offered upto 1982-83. After a break of 7 years, the programme was revived in 1990-91. The M. Sc. (Ag. Stat.) was started during the year 1978-79. A programme for M. Sc. in Agricultural Economics was commenced during 1991-92. The M. Sc. programme in Food Science and Nutrition was started during the year and two students were

admitted. The World Bank funded Kerala Agricultural Development Project was launched in April, 1977 to conduct fundamental, applied and adaptive research in coconut, cashew, cocoa and pepper. The project was terminated in March 1986. The Radio Tracer Laboratory came into existence in June, 1982 under the KADP.

There are at present 15 departments in the College, namely Pomology and Floriculture, Plantation Crops and Spices, Olericulture, Processing Technology, Agronomy, Agricultural Botany, Soil Science and Agricultural Chemistry, Agricultural Entomology, Plant Pathology, Agricultural Economics, Agricultural Extension, Agricultural Engineering, Agricultural Statistics, Agricultural Meteorology and Physical Education.

An Instructional Farm having an area of 95.35 ha was established in February, 1988 to provide facilities for intensive on-farm practicals and work experience for students and faculty staff.

Staff position

a. Scientific staff

| Dept./Scheme/Designation | No. of posts | | |
|---------------------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| Associate Dean | 1 | 1 | — |
| Agronomy | | | |
| Professor and Head | 1 | — | 1 |
| Professor | 1 | 1 | — |
| Asst. Professor | 5 | 3 | 2 |
| AICRP on Weed control | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 2 | 2 | — |
| Agrometeorology | | | |
| Professor and Head | 1 | 1 | — |
| Asst. Professor | 2 | 1 | — |
| AICRP on Agrometeorology | | | |
| Assoc. Professor | 1 | 1 | — |
| Agri. Extension | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 3 | 2 | 1 |
| Agri. Economics | | | |
| Professor and Head | 1 | 1 | — |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 5 | 1 | 4 |

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Agri. Engineering | | | | |
| Professor and Head | | 1 | — | 1 |
| Asst. Professor | | 3 | 2 | 1 |
| Agri. Entomology | | | | |
| Professor and Head | | 1 | 1 | — |
| Professor (Nem.) | | 1 | — | 1 |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 3 | 2 | 1 |
| AICRP on BCCP & W | | | | |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 1 | 1 | — |
| Agri. Statistics | | | | |
| Professor and Head | | 1 | 1 | — |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 6 | 3 | 3 |
| Home Science | | | | |
| Asst. Professor | | 4 | 3 | 1 |
| Plantation Crops & Spices | | | | |
| Professor and Head | | 1 | 1 | — |
| Asst. Professor | | 7 | 7 | — |
| PG Dip NRP | | | | |
| Asst. Professor | | 1 | 1 | — |
| Manpower Devpt. Scheme on Coffee | | | | |
| Asst. Professor | | 1 | 1 | — |
| Plant Pathology | | | | |
| Professor and Head | | 1 | 1 | — |
| Assoc. Professor | | 4 | 1 | 3 |
| Asst. Professor | | 6 | 2 | 4 |
| Pomology & Floriculture | | | | |
| Professor and Head | | 1 | — | 1 |
| Asst. Professor | | 7 | 7 | — |
| AICFIP | | | | |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 2 | 2 | — |
| Processing Technology | | | | |
| Professor and Head | | 1 | 1 | — |
| Asst. Professor | | 3 | 2 | 1 |
| Plant Breeding & Genetics | | | | |
| Professor and Head | | 1 | — | 1 |
| Asst. Professor | | 5 | 2 | 3 |

| | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Physical Education | | | | |
| Asst. Professor | | 1 | 1 | — |
| Olericulture | | | | |
| Professor and Head | | 1 | 1 | — |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 6 | 4 | 2 |
| Vegetable Seed Production Complex | | | | |
| Asst. Professor | | 1 | 1 | — |
| AICVIP | | | | |
| Asst. Professor | | 3 | 3 | — |
| Soil Science & Agrl. Chemistry | | | | |
| Professor and Head | | 1 | — | 1 |
| Assoc. Professor | | 4 | 4 | — |
| Asst. Professor | | 5 | 5 | — |
| Coconut Nutrition & Physiological Disorders | | | | |
| Asst. Professor | | 1 | 1 | — |
| Asst. Engineer | | 1 | 1 | — |
| Instrumentation | | | | |
| Assoc. Professor | | 1 | 1 | — |
| Radio Tracer Laboratory | | | | |
| Professor | | 1 | — | 1 |
| Assoc. Professor (Safety Officer) | | 1 | 1 | — |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 2 | 2 | — |
| AICRP on Medicinal & Aromatic plants | | | | |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 2 | 2 | — |
| Cadbury's Cocoa Research project | | | | |
| Professor | | 1 | 1 | — |
| Assoc. Professor | | 1 | 1 | — |
| Asst. Professor | | 1 | 1 | — |
| AICRP on Ornithology | | | | |
| Asst. Professor | | 1 | 1 | — |
| Technical Staff | | | | |
| Technical Asst. | | 2 | 2 | — |
| Junior Programmer | | 1 | — | 1 |
| Proc. Tech. Asst. | | 1 | 1 | — |
| Technician Sr. Gr. | | 1 | 1 | — |
| Technician Gr. I | | 1 | 1 | — |
| Technician Gr. II | | 1 | 1 | — |

| | 1 | 2 | 3 | 4 |
|---|------------|----|----|---|
| Farm Supervisor Gr. I | | 7 | 7 | — |
| Farm Supervisor Gr. II | | 2 | 2 | — |
| Farm Asst. Sr. Gr. | | 1 | 1 | — |
| Duplicator Operator | | 2 | 2 | — |
| Lab. Asst. Gr. I | | 1 | 2 | — |
| Lab. Asst. Gr. II | | 8 | 8 | — |
| Lab. Asst. Gr. III | | 11 | 11 | — |
| <i>Administrative & Supporting staff</i> | | | | |
| Administrative Officer | | 1 | 1 | — |
| Section Officer | | 5 | 5 | — |
| Asst. Sel. Gr. | | 1 | 1 | — |
| Asst. Sr. Gr. | | 7 | 7 | — |
| Asst. Gr. I | | 5 | 5 | — |
| Asst. Gr. II | | 3 | 1 | 2 |
| Sr. Office Superintendent | | 2 | 2 | — |
| Office Superintendent | | 1 | 1 | — |
| Typist Sel. Gr. | | 1 | 1 | — |
| Typist Gr. I | | 2 | 2 | — |
| Typist Gr. II | | 2 | 2 | — |
| Peon Hr. Gr. | | 1 | 1 | — |
| Peon | | 8 | 8 | — |
| Driver (LDV) | | 4 | 4 | — |
| Driver (HDV) | | 2 | 2 | — |
| Matron | | 1 | 1 | — |
| Hostel Manager | Coll. Libm | 1 | 1 | — |
| Asst. Librarian | | 1 | 1 | — |
| Ref. Asst. | | 1 | 1 | — |
| <i>Technical & Administrative staff attached to schemes</i> | | | | |
| <i>AICRP on weed control</i> | | | | |
| Farm Asst. Gr. I | | 2 | 2 | — |
| Driver (LDV) | | 1 | 1 | — |
| Class IV | | 1 | 1 | — |
| <i>AICRP on BCCP & W</i> | | | | |
| Sr. Tech. Asst. | | 1 | 1 | — |
| Technical Asst. | | 1 | 1 | — |
| Farm Asst. | | 2 | 2 | — |
| <i>AICRP on Medicinal & Aromatic plants</i> | | | | |
| Farm Asst. Gr. I | | 2 | 2 | — |
| Field Man | | 1 | 1 | — |
| Lab. Asst. | | 1 | 1 | — |
| Class IV | | 1 | 1 | — |
| Clerk-cum-Typist | | 1 | — | 1 |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| AICVIP | | | |
| Farm Asst. Gr. I | 2 | 2 | — |
| PG Dip NRP | | | |
| Farm Supervisor Gr. I | 1 | 1 | — |
| Coconut nutrition & physiological disorders | | | |
| Lab. Asst. Gr. I | 1 | 1 | — |
| Lab. Asst. Gr. II | 2 | 2 | — |
| Driver | 1 | 1 | — |
| Vegetable seed production complex | | | |
| Farm Supervisor | 1 | 1 | — |
| Farm Asst. | 3 | 1 | 2 |

Faculty Improvement Programme

New posts sanctioned/created/shifted

| Post created/ shifted | Discipline | Place to which shifted/ in which created |
|--------------------------|----------------------------------|--|
| <i>Shifted</i> | | |
| Professor | Department of Agrl. Economics | Padmasree Paul Pothen IFFCO Chair man (Professor) at College of Horticulture w.e.f. 15-7-96. |
| Assistant Professor | Agrl. Economics | College of Agriculture, Pilicode |

Scholarships awarded to staff/deputation of staff for higher studies : Nil

Details of summer intitutes/seminars/symposia/Training attended by staff-

Summer institutes : Nil

Workshops

| Name of Scientist | Topic & venue | Period |
|-------------------------|--|----------------------------|
| 1 | 2 | 3 |
| Dr. K. Mukundan | Integrated plant nutrient system | 21-24 September 1996 |
| Dr. K. T Prasannakumari | 11th All India workshop on Medicinal & Aromatic plants, Rajasthan College of Agriculture, Udaipur | 8-11 July 1996 |

| 1 | 2 | 3 |
|---|--|-----------------------------|
| Dr. A. V. R. Kesava Rao | Workgroup meeting of AICRP on Agrometeorology HAU, Hissar | 24-25 July 1996 |
| Seminars/Symposia | | |
| Dr. P. B. Pillai | National Seminar on climate variability and predictability at CUSAT | 18-19 Sept. 1996 |
| Dr. P. B. Pillai & Dr. K. Pushkaran | Conference on the challenges for banana production and utilization in 21st century, NRCB, Thiruchirapally. | |
| Dr. K. Pushkaran | International Symposium on banana, KAU. | |
| Dr. P. V. Balachandran | National Symposium on Agronomy, organised by ISA, HAU, Hissar | 11-13 Dec. 96 |
| Sri. P. V. Prabhakaran | Natl. Symp. on Technological advancement in rice production, KAU | 17-19 June 96 |
| Dr. P. V. Prabhakaran Dr. P. A. Valsala Dr. R. Kesavachandran | Symp. on Plantation Crops (PLACROSYM-XII) RRII, Kottayam | 27-29 Nov. 96 |
| Dr. P. A. Nazeem Smt. Indira Devi, P. | Seminar on networking Seminar on 'rediscovery co-operation' organised by Institute of Rural Management, Anand | 26 July 96 19-21 Nov. 96 |
| Dr. D. S. Rao | Pan Asian Ornithology Congress, TNAU, Coimbatore | 11-12 Nov. 96 |
| Dr. Alice Kurian | National Seminar on Augmenting biomass production for mulching in ginger, UAS, Bangalore | 9-11 Oct. 96 |
| Dr. R. Kesavachandran Dr. P. A. Valsala Dr. M. R. Shylaja | National Symposium on Horticultural Biotechnology, Bangalore | 28-30 Oct. 96 |
| Dr. P. K. Valsalakumari Dr. C. K. Geetha | Nineth Kerala Science Congress held at Trivandrum | 27-29 Jan. 97 |

| 1 | 2 | 3 |
|--|--|--------------------------|
| Dr. V. Indira | Seminar on cardiovascular diseases and nutrition, at Little Flower Research Centre, Angamaly | 12-1-97 |
| Dr. A.V.R.Kesava Rao | Optimising management for precision farming – A system approach, University of Florida, USA | 10-15 Mar. 97 |
| Trainings | | |
| Dr. P. K. Rajeevan | Computer application in Agriculture, NAARM, Hyderabad | 15-27 July 96 |
| | 6th Shah Alam International Orchid exhibition | 17-24 Aug. 93 |
| Dr.N.K.Parameswaran | Training on recent advances in Agrl. research management at NAARM, Hyderabad | 3-22 June 96 |
| Smt.Lissamma Joseph Dr. V. K. Mallika & Dr. P. A, Nazeem | Training on Molecular Biology, BARC, Bombay | 12-24 Aug. 96 |
| Smt. M. R. Bindu | Training on breeding for quality produce, TNAU, Coimbatore | 6-20 Nov. 96 |
| Dr.Sally K. Mathew Dr. T. N. Vilasini | Biological control in plant disease management at IARI, New Delhi | Mar-April 97 |
| Sri. Surendra Gopal | Agricultural Electronics at Central Institute of Fisheries Technology | 12-20 Feb. 97 |
| Dr.V.S. Sujatha | Recent techniques in Plant Molecular Biology at NRCPB, IARI, New Delhi | 25-Feb. to 12 Mar. 97 |

Involvement of staff in Academic Programmes

Regular classes were held for the undergraduate and postgraduate students as per the programme. The total number of undergraduate students on the rolls were 328 (172 men and 156 women), out of which 69 have completed their degree programme. During the period, there were 66 M.Sc students

and 39 Ph. D. students on the rolls. Twenty six students successfully completed their postgraduate programmes (20 for the Masters and 6 for the Doctorate degree programme) during the period.

RESEARCH

Apart from the PG and departmental research projects there were 44 externally aided projects functioning in the College, four externally assisted projects were during the period.

Farm Revenue

Planting materials of fruit plants (11689), spice plants (2500), cocoa seedlings (100), hybrid cocoa seedlings (1095), cocoa budded plants (57,299) medicinal plants (22,095) and vegetable seeds (1942 kg) were distributed.

The mushroom unit produced 4892 packets of spawn of 250 g each and 1755 packets of fresh mushroom of 200 g each for distribution through the Information & Sales Centre, Mannuthy.

A variety of processed fruit and vegetable products costing Rs. 1,84,139 were produced in the Department of Processing Technology.

1.3. COLLEGE OF AGRICULTURE, NILESHWAR, PILICODE

College of Agriculture, Nileshwar started functioning on 2.6.1994.

Mandate of the institution

To undertake teaching, research and extension activities in agriculture.

U. G. Students on the rolls as on 31.3.97

1994 - 24

1995 - 29

1996 - 23

Research projects in operation

The evaluation of the efficiency of applied nitrogen in cashew, coconut and cocoa using N-15 technique (ICAR)

Civil Works

The construction works of academic block and two hostel blocks are in progress. A total amount of Rs. 230 lakhs is allocated for the current year. Both the constructions are likely to be completed in another 5 months time. Beautification

works of the adjoining landscape is also in progress. A crop museum demonstrating various crops is also being laid out. Perennial fruit crops were planted in the instructional farm and both hybrid and local varieties of coconut seedlings were produced and distributed to farmers.

| | | |
|-------------------|---|------------------|
| Total expenditure | : | Rs. 54,719 lakhs |
| Total receipts | : | Rs. 14,212/- |

1.4 COLLEGE OF FORESTRY, VELLANIKKARA

The College of Forestry was formally inaugurated on 27th October, 1986 along with the inception of four year B.Sc. (Forestry) programme. The College is presently functioning at Vellanikkara. Sri. Nagesh Prabhu took over as Special Officer on 16/8/1993 and continued upto 20/4/94. Dr. S. Chinna-mony was the Special Officer from 20/6/94 to 16/11/94. Dr. P. A. Wahid took over as Special Officer on 16/11/94 and continued upto 15/4/95. Dr. A. L. Jose took over as Associate Dean i/c on 16/4/1995 and continued for the rest of the period under report.

Academic position as on 31/3/97

| Designation | Sanc-tioned | In position | Vacant |
|--|-------------|-------------|--------|
| <i>Scientific staff</i> | | | |
| Associate Dean i/c | 1 | 1 | — |
| Associate Professor | 2 | 2 | — |
| Associate Professor (NC) | 4 | 4 | — |
| Assistant Professors | 7 | 5 | 2 |
| <i>Administrative & Supporting staff</i> | | | |
| Administrative Officer | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Gr. II Assistant | 3 | 2 | 1 |
| Sr. Office Supdt. | 1 | 1 | — |
| Office Supdt & Steno to Assoc. Dean | 1 | 1 | — |

1.5 COLLEGE OF CO-OPERATION, BANKING & MANAGEMENT, MANNUTHY

The Co-operation and Banking programme with an intake capacity of 50 students was started on 18th November 1981, at the Radio Isotope laboratory in the Main Campus, Vellanikkara, under the control and supervision of Associate Dean,

College of Horticulture. The venue was shifted to Directorate of Extension in May 1982, keeping the administrative control still with Associate Dean, College of Horticulture. The programme was delineated from the College of Horticulture and started to function as a separate College under the name 'College of Co-operation and Banking', Mannuthy from 1st April 1985 onwards. The intake capacity of the undergraduate programme was reduced to 25 from 1989 batch onwards. Now the college is offering one under-graduate programme, B.Sc. (C & B) and three post graduate programmes with specialisation in Rural Marketing Management, Rural Banking and Finance and Co-operative Management.

Dr. M. Mohandas, Associate Professor continued to function as the Associate Dean i/c.

Academic position as on 31/3/97

| Department & Designation | Sanc- tioned | In position | Vacant |
|---|-----------------|----------------------|--------|
| Associate Dean | 1 | — | 1 |
| <i>Rural Marketing Management</i> | | | |
| Professor | 1 | — | 1 |
| Associate Professor | 2 | 1 | 1 |
| Assistant Professor | 5 | 5 | — |
| <i>Development Economics</i> | | | |
| Professor | 1 | — | 1 |
| Associate Professor | 1 | 1 | — |
| -do- | | | |
| (Quantitative Methods) | 1 | 1 | — |
| Assistant Professor | 5 | 5 | — |
| -do- (Ag. Stat) | 1 | 1 | — |
| <i>Co-operative Management</i> | | | |
| Professor | 1 | — | 1 |
| Assoc. Professor | 2 | 1 | 1* |
| | | (*upgraded as Prof.) | |
| Asst. Professors | 5 | 5 | — |
| <i>Rural Banking & Finance Management</i> | | | |
| Assoc. Professor | 1 | — | 1 |
| Assistant Professor | 5 | 4 | 1 |

Changes in Academic position during the period.

One Assistant Professor in Computer Science joined and one Assistant Professor in Rural Banking left the service.

Para-technical/Administrative/Ministerial/Supporting Staff/positions

| Name of post | Sanctioned | In position | Vacant |
|------------------------|------------|-------------|--------|
| Administrative Officer | 1 | 1 | — |
| Section Officer | 2 | 2 | — |
| Senior Office | | | |
| Superintendent | 1 | 1 | — |
| Assistants | 6 | 6 | — |
| Typists | 3 | 3 | — |
| Reference Assistant | 1 | 1 | — |
| Duplicator Operator | 1 | 1 | — |
| Driver | 1 | 1 | — |
| Peons | 2 | 2 | — |
| Hostel Manager | 1 | 1 | — |

Education

Students Statistics

i) U. G. Programme (on rolls)

| Year of Admn. | Men | Women | Total |
|---|-----|-------|-------|
| 1992 | 14 | 8 | 22 |
| 1993 | 17 | 9 | 26 |
| 1994 | 11 | 8 | 19 |
| 1995 | 13 | 14 | 27 |
| P. G. Programme (on table) | | | |
| 1992 | 0 | 1 | 1 |
| 1994 | 2 | — | 2 |
| 1995 | 1 | 1 | 2 |
| Ph. D. Programme (on table) | | | |
| 1995 | 1 | — | 1 |
| Students who completed the course during the period | | | |
| B. Sc. (C & B) | 6 | 6 | 12 |
| M. Sc. (C & B) | — | — | — |

Research

Besides the project work done by the undergraduate/postgraduate students, the colleges has also undertaken a number of sponsored research projects during the period under report.

Research projects in operation

- i. Externally funded projects : 2.(3 more projects sanctioned)
- ii. P. G. projects : 6
- iii. Ph. D. projects : 3

**Details of Scientists participated in Seminars / Workshops/
Summer Institutes:**

Dr. M. Mohandas submitted papers at 56th Annual Conference of the Indian Society of Agricultural Economics held at KAU from 2 to 4 January, 1997.

Dr. M. Mohandas and Dr. K. P. Mani presented paper at National Workshop on Banana held at KAU.

Dr. M. Mohandas - 'Food Intake and Poverty' paper sent to the International Conference in Development of Kerala at India International centre, Delhi in December '97.

Dr. N. Ravindranathan presented paper and attended World Poultry International Seminar from 2 to 5 September '97 at New Delhi.

Dr. N. Ravindranathan presented paper on Stochastic Process in International seminar at Cochin University of Science and Technology in December, '97.

Summer Institute/Orientation programme

Sri. Philip Thomas and Miss Sunanda attended Summer Institute at JNU. Dr. Molly Joseph attended 3 weeks Orientation programme on women at Tata Institute of Social Science Research Institute.

Works--Progress of works :

| | |
|----------------------------|---|
| Civil works | : Rs. 75 lakhs (approx) |
| Farm development | : Not applicable |
| Procurement of equipment : | Rs. 4.26 lakhs (LAN Server, Multimedia System, Nodes Pentium) of which Rs. 3.83 lakhs paid during the period. |

Miscellaneous:

1. Radio talks/Doordarshan : 2
2. Procurement of Library books : 425
3. Procurement of journals : 5

Total expenditure Rs. 17.2384 lakhs.

1. 6. 1 Southern zone

i) REGIONAL AGRICULTURAL RESEARCH STATION, VELLAYANI

The Regional Agricultural Research Station for the Southern Zone has been functioning at Vellayani since February, 1982. Apart from the continuing research activities under the NARP Phase I and Phase II (and the re-prioritised thrust areas), the station implemented 32 externally aided research projects

comprising five All India Co-ordinated Research Projects, six ICAR ad hoc schemes, eight STED projects, one DBT project, one International project on soil reference collection and data base aided by ISRIC, Wageningen, one Potash Research Institute project, one Pilot project on Tissue Culture funded by Department of Agriculture, Government of Kerala, one NWDPRRA project, one SEARCA project, one Employment generation programme for SC women funded by Government of Kerala, one Food processing project funded by Ministry of Food processing Industry, Government of India, one continuous training on technical and income generating activities for women funded by DST, Government of India, one CDS project, one KAU RRII project, one Emeritus Scientist's project and one DST project on Agro meteorological advisory services.

Mandate

Conduct of location-specific research on the field problems relating to tuber crops as well as development of suitable technology for the farming system (s) in the different agro-ecological situations of the zone and multi-tier cropping systems suited to the different homesteads were the main research responsibilities, in addition to testing and verification of research results on pulses, oil seeds, cereals (rice), coconut, banana, pepper etc.

The mandate was re-examined and the thrust areas of research re-prioritised.

Lead functions

Research on crops for partial shade conditions.

Export-oriented vegetable and cutflower production.

Staff position as on 31/03/1997

Name and address of Head of Station: Dr. P. D. Vijayagopal, Associate Director of Research.

Scientific

| Cadre | Sanc- tioned | In position | Vacant | Date from which vacant |
|---------------------|-----------------|----------------|--------|--|
| 1 | 2 | 3 | 4 | 5 |
| NARP Phase I | | | | |
| Associate Director | 1 | 1 | — | |
| Assoc. Professor | 3 | 2* | 1 | |
| Asst. Professor | 6 | 4**& | 1 | Post shifted to RARS, Kumarakom vacant from 17-12-96 |

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|----|---|-------------|
| NARP Phase II | | | | | |
| Asst. Professor | | 4 | 3@ | 1 | Study leave |
| AICRP (Forage crops) | | | | | |
| Assoc. Professor | | 1 | 1 | — | |
| Asst. Professor | | 4 | 4 | — | |
| AICRP (Nematode pests) | | | | | |
| Assoc. Professor | | 1 | 1 | — | |
| Asst. Professor | | 2 | 2& | — | |
| AICRP (Pesticide residues) | | | | | |
| Assoc. Professor | | 1 | 1& | — | |
| Asst. Professor | | 3 | 3 | — | |
| AICRP (Honey Bees) | | | | | |
| Assoc. Professor | | 1 | 1 | — | |
| Asst. Professor | | 1 | 1 | — | |
| ICAR adhoc scheme on Homestead agroforestry | | | | | |
| Research Associate | | 1 | 1 | — | |
| ICAR adhoc scheme on epidemiology of honey bee disease in Kerala and its management | | | | | |
| Research Associate | | 2 | 2 | — | |
| Apiculture Assistant | | 1 | 1 | — | |
| ICAR adhoc scheme on Anthurium | | | | | |
| Research Associate | | 1 | 1 | — | |
| ICAR adhoc scheme on Development of soya rice blended food recipes | | | | | |
| Research Associate | | 2 | 2 | — | |
| DBT Project on rhizobium-pulse association | | | | | |
| Jr. Res. Fellow | | 1 | 1 | — | |
| STED Project on recycling of vegetable garbage by Vermiculture Technology: | | | | | |
| Research Associate | | 1 | 1 | — | |
| STED project on identity of Phytophthora affecting coconut and pepper and their biological control | | | | | |
| Research Fellow | | 1 | 1 | — | |
| AICRP on Soil Tillage | | | | | |
| Asst. Physicist | | 1 | 1 | — | |
| Research Associate | | 1 | — | 1 | |
| Employment generation programme for SC women | | | | | |
| Research Assistant | | 1 | 1 | — | |
| DST Project on continuous training on technical and income generating activities for women | | | | | |
| Res. Assistant | | 2 | 2 | — | |

| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| KAU-RRII project on impact of continuous application of copper fungicides on ecosystems of the major rubber growing tracts of Kerala and Tamilnadu | | | | | |
| Res. Associate | | 3 | 3 | — | |
| Res. Assistant | | 1 | — | 1 | |

One post held by Professor

* Two posts held by Professor

** One post held by Prof. and remaining by Assoc. Prof. (NC)

@ After the shift of one post to KHDP w. e. f. 1/2/94

& Assoc. Prof. (NC) holding one post

— One post provisional appointment

b) Technical staff (scheme-wise)

NARP Phase I

| | | | | |
|------------------------------|---|---|---|--|
| Farm Assistant (Agri.) Gr. I | 3 | 3 | — | 1 F. S. Gr. I 1 F. S. Gr. II (One WA in IF.) |
| Lab Assistant Gr. I | 1 | 1 | — | (Gr. II) |
| Photographer | 1 | — | 1 | |
| Duplicator Operator | 1 | 1 | — | (H. Gr.) |

Other schemes

Providing Information base for the region (Data base system) — Plan

| | | | | |
|---------------------|---|---|---|--|
| Technical Assistant | 1 | 1 | — | |
|---------------------|---|---|---|--|

AICRP (Nematode pests)

| | | | | |
|------------------------|---|---|---|--|
| Farm Assistant Gr. II | 1 | 1 | — | |
| Lab. Assistant Gr. III | 1 | — | 1 | |

AICRP (Pesticide residues)

| | | | | |
|------------------------|---|---|---|--|
| Lab. Assistant Gr. III | 2 | 2 | — | |
|------------------------|---|---|---|--|

AICRP (Forage crops)

| | | | | |
|-----------------------|---|---|---|-------------|
| Farm Assistant Gr. I | 1 | 1 | — | Sr. Gr. |
| Farm Assistant Gr. II | 2 | 2 | — | F. A. Gr. I |
| Lab. Asst. Gr. III | 1 | — | 1 | |

AICRP on honeybees

| | | | | |
|-----------------------|---|---|---|---------|
| Farm Assistant Gr. I | 1 | 1 | — | Sr. Gr. |
| Lab. Assistant Gr. II | 1 | 1 | — | |

AICRP on soil tillage

| | | | | |
|-----------------------|---|---|---|--|
| Lab Assistant Gr. III | 1 | 1 | — | |
|-----------------------|---|---|---|--|

Administrative & Supporting staff (Scheme-wise)

NARP Phase I

| | | | | |
|------------------------|---|---|---|-----------------|
| Administrative Officer | 1 | 1 | — | |
| Section Officer | 2 | 2 | — | |
| Sr. Office Supdt. | 1 | 1 | — | |
| Typist Grade I (Steno) | 1 | 1 | — | Office Supdt. |
| Typist Grade I | 2 | 2 | — | 2 Gr. II |
| Assistant Grade I | 2 | 2 | — | Gr. I & Sr. Gr. |
| Assistant Grade II | 2 | 2 | — | 2 Sr. Gr. |
| Driver (LDV) Grade II | 3 | 3 | — | 2 Hr. Gr. |
| Class IV | 1 | 1 | — | |

NARP phase II

| | | | | |
|------------------|---|---|---|---|
| Assistant Gr. I | 1 | 1 | — | The posts of Asst. Gr. I & II have been shifted to Phase I. |
| Assistant Gr. II | 1 | — | — | |

Other Schemes

| | Sanctioned | In position | Vacant | Remarks |
|------------------------------|------------|-------------|--------|---------------|
| AICRP (Forage crops) | | | | |
| Assistant Grade II | 1 | 1 | — | Sr. Gr. Asst. |
| Typist Grade II | 1 | 1 | — | |
| Peon | 1 | 1 | — | Class IV |
| AICRP on soil tillage | | | | |
| Peon | 1 | 1 | — | |

Faculty Improvement Programme

New post sanctioned/created/shifted

| Details | Scheme/Project | Remarks |
|--|---|--|
| Assistant Professor (Soil Sci. & Agrl. Chem.) | NARP Phase-I | Post, shifted to RARS, Kumarakom (from 17/12/96) |
| Class IV Employee | AICRP on Soil Tillage | Post created (from 19/6/1996) |
| Lab. Assistant | AICRP on Soil Tillage | Post created (from 19/6/1996) |
| Technical Assistant | DISC project (providing information base for the region-Data base system) | Post created (from 3/10/1996) |

Scholarship awarded to staff/Deputation of staff for higher studies:

a. Scholarship awarded to staff — Nil

b. Deputation of staff for higher studies

| Name & Designation | Institution to which deputed | Remarks |
|---|-----------------------------------|--|
| Smt. N. Anitha Assistant Professor Department of Entomology, College of Agriculture, Vellayani. | Kerala Agricultural University | For undergoing Ph.D. programme from 30/12/1996 |
| Smt. P. C. Jessykutty Assistant Professor Department of Horti- culture, College of Agriculture, Vellayani. | Kerala Agricultural University | For undergoing Ph.D. programme |

Details of seminars/symposium/training attended by staff

| Name of scientist | Seminars/Symposia/ venue to which deputed | Period of Deputation |
|---|--|---------------------------|
| (1) | (2) | (3) |
| Dr. Abraham Jacob Prof. of Entomology & Sri S. Devanesan Asst. Professor Dept. of Entomology | National Bee keeping Experience-exchange conference organised by ICAR, Punjab Agrl. University, Ludhiana | 29th to 31st May 1996 |
| Dr Abraham Jacob Prof. of Entomology & Asst. Professor, Dept. of Entomology | Annual workshop on AICRP on Honey bee Research and Training, Punjab Agrl. University, Ludhiana | 1st June 1996 |
| Dr Naseema Beévi. S Assoc. Professor Dept. of Entomology | Summer Institute on "Résearch Manage- ment" NAARM, Hyderabad | 3rd to 22nd June, 1996 |

| (1) | (2) | (3) |
|--|---|----------------------------------|
| Smt Anitha, N Asst. Professor Dept. of Entomology | Summer Institute on "Biocontrol of Insect Pests, Diseases and Weeds", TNAU, Coimbatore | 5th to 26th June 1996 |
| Dr Sheela, K. R. & Smt Girija devi, L. Asst. Professors Dept. of Agronomy | Summer Institute on "Advances in weed management in an Agro-ecological context" TNAU, Coimbatore | 10th to 19th June, 1996 |
| Dr P. Manju, Dr D. I. Suma Bai Assoc. Professors (NC) Dept. of Pl. Br. and Gen. | Summer Institute on "Rice Genetics & Breeding towards 21st Century in India" RARS, Pattambi | 10th to 29th June 1996 |
| Dr L. Rajamony Assoc. Prof. (Hort.) | Technological advance- ments in Banana/plantain production and processing India—International KAU, Vellanikkara | 21st to 24th Aug. 1996 |
| Dr M. Achuthan Nair Assoc. Prof. (Agron.) | Agro-forestry group meeting organized by ICAR and TNAU, Coimbatore | 26th to 28th August 1996 |
| Dr M. S. Sheela Assoc. Prof. (Ent.) | Recent advances in the Integrated Management of pests and diseases of coconut; CPCRI, Kayamkulam | 10th to 30th October, 1996 |
| Dr K. M. Abdul Khader Asst. Prof. (Pl. Br. & Gen.) and Smt Lekha Rani Asst. Prof. (Pl.Br. and Gen.) | Breeding for quality produce TNAU, Coimbatore | 6th to 20th November, 1996 |
| Dr T. Nalinakumari Assoc. Prof. (Ent.) Dr S. Naseema Beevi Assoc. Prof. (Ent.) and Dr Thomas Biju Mathew Asst. Prof. (Ent.) | 7th workshop of All India Co-ordinated Research Project on Pesticide Residues Horticultural and Forestry College, Solan, Himachal Pradesh | 29 to 30th November, 1996 |

| 1 | 2 | 3 |
|---|--|---|
| Smt Hebsy Bai Assoc. Prof. (Ent.) | Integrated Pest Management in Sustainable Agriculture TNAU, Coimbatore | 18th Novembe to 17th Decembe 1996 |
| Dr S. Naseema Beevi, Assoc. Prof. (Ent.), | IX Kerala Science Congress Thiruvananthapuram | 27 to 29 Jan. 1997 |
| Dr K. Sudharma, Assoc. Prof. (Ent.) and Dr Thomas Biju Methew Asst. Prof. (Ent.) | | |

Involvement of staff in academic programmes

Teaching

The Scientists attached to the Regional Station handled 31 courses with 80 credit hours in various disciplines.

The Scientists attached to the Station also served as Major Advisors/members of the P. G. Student's Advisory Committees besides offering UG/PG courses.

Farm revenue

Farm revenue for 1996-97 : Rs. 85,480
(upto 31.3.97)

Important visitors

| Name and address | Purpose | Date |
|---|--|---------|
| Dr. H. K. Handa Co-ordinator AICRP on Pesticide Residues | Visit to the scheme AICRP on Pesticide Residues, Vellayani Centre | 22.4.96 |
| QRT consisting of four members from ICAR | Monitoring and evalua- tion of AICRP on Forage Crops, Vellayani Centre | 21.6.96 |
| Dr. Hazra (Project Co-ord., FC) | | |
| Dr. Gupta | | |
| Dr. Kaul | | |
| Dr. Desai | | |

| 1 | 2 | 3 |
|---|-------------------------------|-----------------------|
| Dr. Ramanathan | Guest lecture at Vellayani | 10.7.96 |
| Dr. S. N. Tripathi Training Officer IGFRI, Jhansi and three Officer trainees | Training for three days | 20.3.97 to 22.3.97 |

ii. CROPPING SYSTEMS RESEARCH CENTRE, KARAMANA

The Cropping Systems Research Centre (CSRC) is located at Nedumcaud, Karamana, 3.0 km South-East of Thiruvananthapuram Central railway and bus stations, easily accessible by road. The station has 7.65 ha land, of which 7.25 ha is double cropped wet land and 0.4 ha garden land.

The centre, formerly known as the Model Agronomic Research Station, was established in 1955 with the objective of conducting simple fertiliser use trials and soil fertility investigations, under the 'fertilizer use and soil fertility project' sponsored by the Indian Council of Agricultural Research. New schemes and projects were started from 1968 onwards under the All India Co-ordinated Agronomic Research Project (AICARP) of the ICAR. From October, 1983 onwards, the station was upgraded as the Headquarters of the AICARP in Kerala, with a unit for conducting Experiments in Cultivators' Fields (ECF).

Mandate

The lead function of the Station is research on rice and rice-based cropping system. The testing and verification functions include multilocational trials and integrated production trials with fish/livestock, poultry; bio-energy conversion and organic recycling, and water requirement of crops.

Staff position

Scientific

| Cadre | Sanctioned | In position | Vacant |
|----------------------|------------|-------------------|---------------------------------|
| Non-Plan | | | |
| Professor (Ag. Bot.) | 1 | — | 1 From 22.12.95 |
| Asst. Professor | 2 | 1 | 1 (Throughout the period) |
| | | Assoc. Prof. (NC) | |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| AICARP (ICAR) | | | |
| Professor (Agron.) | 1 | 1 | — |
| Asst. Professor | | | |
| Soil Sci. | 1 | 1 | — |
| Statistics | 1 | 1 | — |
| <i>Technical staff (Scheme-wise)</i> | | | |
| Non-Plan | | | |
| Lab. Assistant | 1 | 1 | — |
| AICARP (ICAR) | | | |
| Technical Assistant | 2 | — | 2 |
| Farm Asst. (Sr. Gr.) | 2 | 2 | — |
| <i>Administrative and supporting staff (Scheme-wise)</i> | | | |
| Non-Plan | | | |
| Administrative Assistant | 1 | 1 | — |
| Senior Grade Assistant | 1 | 1 | — |
| Peon (Hr. Gr.) | 1 | 1 | — |
| Chowkidar | 1 | — | 1 |
| Part-time Sweeper | 1 | 1 | — |
| AICARP (ICAR) | | | |
| Typist | 1 | 1 | — |
| Messenger (Class IV) | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/deputation of staff for higher studies: Nil

Details of Seminars/Symposia/Training attended by staff

| Name of scientist | Seminars/Symposia/ venue to which deputed | Period of deputation |
|---|---|----------------------------------|
| Dr. G. K. Balachandran Nair, Prof. (Agron.) | National Symposium on Technology Advance- ment in Rice, KAU, Vellanikkara. | 17th to 19th June, 1996 |
| Dr. K. K. Sulochana Assoc. Prof. (Pl. Path.) | Winter school on Remote Sensing in Agriculture with special emphasis on Crop stress detection and Management, IARI, New Delhi. | 9th to 31st December, 1996 |

Involvement of staff in academic programmes

Dr. G. K. Balachandran Nair, Professor and Head, CSRC Karamana continued to serve as the Major advisor of one M. Sc. (Ag.) student in Agronomy.

Dr. K. K. Sulochana, Assoc. Prof. (Pl. Path.) continued to hold charge of the farm. She was also in charge of mushroom training proposed for unemployed youths and housewives, in addition to rendering farm advisory service and guiding one PG student at Vellayani.

All scientists attended the NWDPRAs programmes.

Important visitors

| Name & address | Purpose | Date |
|--|--|---------------------------|
| Dr. Maharaj Singh Chairman, QRT | Monitoring and evaluation of the AICARP Scheme | 13/9/1996 to 15/9/1996 |
| Dr. N. N. Goswami Member, QRT | -do- | -do- |
| Dr. S. K. Sharma Project Co-ordinator | -do- | -do- |
| Dr. B. P. Ghildayal Member, QRT | -do- | -do- |

Farm Revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|---------|---------------------|------------------------|
| 1996-97 | 1,12,422 | 18,49,983 |

iii) COCONUT RESEARCH STATION, BALARAMAPURAM

The Coconut Research Station was established in January 1948 with 38.18 acres of land at Pachalloor, near the College of Agriculture, Vellayani as a scheme partly financed by the Indian Central Coconut Committee. The scheme was terminated during December 1962. Later, during the third Five Year plan (in 1963-64), the venue was shifted to a 14.13 ha plot of garden land at Kattachalkuzhy, 4.0 km. south of Balaramapuram on the Balaramapuram—Vizhinjam road. The station was taken over by the Kerala Agricultural University in February 1972. The site at Kattachalkuzhy represents the typical red loam soils of South Kerala and the area is protected by barbed wire fencing.

The main objective of the station is to conduct research on coconut in typical red loam soils of the Vellayani series under the Neyyattinkara-Vellayani soil association with particular emphasis on the agronomic and plant protection aspects.

The thrust areas of research is the manurial, agronomic and plant protection aspects relating to coconut in red loam soils.

Mandate

Lead functions

Agrotechniques for coconut based farming system in red loam soils. Intercropping in coconut, pest/disease management in coconut.

Staff position

Scientific

| Cadre | Sanctioned | In position | Vacant |
|---|------------|-------------|----------------------------|
| Asst. Professor (Pl. Path.) (Prof. & Head) | 1 | 2 | One on working arrangement |
| Assoc. Professor (Agro.) | 1 | 1 | — |
| Asst. Professor (Agro.) | 1 | 1 | — |

Technical staff (Scheme-wise)

| Name of post | Sanctioned | In position | Vacant |
|-----------------------|------------|-------------|--------|
| Farm supervisor Gr. I | 1 | — | 1 |
| Farm Asst. Gr. I | 1 | 1 | — |

Administrative and Supporting Staff (Scheme-wise)

| Name of post | Sanctioned | In position | Vacant |
|-----------------|------------|-------------|--------|
| Admn. Assistant | 1 | 1 | — |
| Office Supdt. | 1 | 1 | — |
| Assistant Gr. I | 2 | 2 | — |
| Peon | 1 | 1 | — |
| Watchman | 2 | 2 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/deputation of staff

for higher studies : Nil

Details of seminars/symposia/trainings attended by staff

| Name of Scientist | Seminars/ Symposia/ venue to which deputed. | Period of deputation |
|--|---|-----------------------------|
| Dr. G. Padmakumari Prof. (Pl. Path.) and Sri. K. P. Jaganmohan Assoc. Prof. (Pl. Path.) | One day workshop on 'Emerging diseases of coconut palms College of Agri- culture, Vellayani | 19 Aug: 96 |
| Dr. K. Viswambharan Asst. Prof. (Agron.) | Short term course in 'On-farm water Management' at CWRDM, Calicut | 3 to 19 December 1996 |

Involvement of staff in academic programmes

Dr. G. Padmakumari, Prof. and Head continued as the Major Adviser of one M. Sc. (Ag.) student in Plant Pathology and served as a member of the Advisory Committee of another PG student in the College.

Sri. N. Purushothaman Nair also functioned as the Major Adviser of one M. Sc. (Ag.) student in Agronomy.

Farm Revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|--------------------|------------------------|---------------------------|
| 1996-97 (Non Plan) | 7,900 | 16.131 |
| .. (Plan) | Nil | 0.582 |

Publication by staff--Nil

iv) FARMING SYSTEMS RESEARCH STATION, KOTTARAKKARA

The Special Station, Sadanandapuram, Kottarakkara was established under the National Agricultural Research project as per the recommendations of the Research Review Committee of the ICAR for NARP (1979). The acquisition of land required for establishing the station was completed on 26.4.1986 and the station started functioning in a rented building with effect from 14.5.1986. Till then, the scientists of the Special Station,

Kottarakkara worked at the RARS, Vellayani. The major items of civil works completed at the newly acquired site at Sadanandapuram included an Office-cum-Laboratory, a Trainee's Hostel, and four quarters for staff members. The station started functioning in the new building with effect from 23.4.1988. In October 1993, the station was renamed as Farming Systems Research Station.

Sadanandapuram is situated 5.0 km South East of Kottarakkara town along the Main Central Road (State Highway) in Vettikkavala Village, Vettikkavala Panchayath, Kottarakkara taluk, Kollam district. The total area is 8.96 ha, comprising two plots separated by a distance of 250 m. The Plot 1, known as Kshetrakkunnu, has an area of 4.03 ha and the Plot 2, known as Chanthapurayidam, 4.93 ha.

Agroclimatic Situation

The station is situated at an elevation of 95m above MSL and is located at 76° 37'E longitude and 8° 16' N latitude. The available N and K are low to medium, while the available P is low. The texture of the soil is gravelly clay loam.

Mandate

The lead function of the station is research on home-stead farming. The testing and verification functions include research on cassava and other tubers, rice, coconut based systems and vegetable improvement.

Staff position

Scientific

| Cadre | Sancti- oned | In position | Vacant | Date from which vacant |
|-----------------------------|-----------------|----------------|--------|------------------------------|
| Associate Professor | | | | |
| Horticulture | 1 | 1 | — | |
| Soil Science | 1 | 1* | — | |
| Assistant Professor | | | | |
| Entomology | 1 | — | 1 | throughout |
| Pathology | 1 | 1 | — | |
| Agronomy | 2 | 1 | 1 | 11.4.1996 |
| Economics | 1 | 1 | — | |
| Soil & Water Engineering | 1 | — | 1 | throughout |
| Veterinary | 1 | — | 1 | |

| | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|------------|
| <i>Technical staff (scheme-wise)</i> | | | | | |
| Farm Asst. (Agri.) | | 2 | 2 | — | |
| Technician Gr. I | | 1 | 1 | — | |
| Lab Asst. Gr. III | | 1 | — | 1 | throughout |
| Farm Asst. (Agri.) Sr. Gr. | 1 | | 1 | — | |
| Farm Asst. (Vety.) Gr. I | 1 | | 1 | — | |
| <i>Administrative and Supporting staff (Scheme-wise)</i> | | | | | |
| Peon | | 1 | — | 1 | |
| Admn. Asst. | | 1 | 1 | — | |
| Asst. Gr. I | | 2 | 1 | 1 | |
| Typist Gr. I | | 1 | 1 | — | |

*Assistant Professor holding the post

Faculty Improvement Programme

New post sanctioned/created/shifted: Nil

Scholarship awarded to staff/deputation of staff for higher studies: Nil

Details of Seminars/Symposia/Training attended by staff:

| Name of Scientist | Seminars/Symposia/ venue to which deputed | Period of deputation |
|--|--|-------------------------|
| Dr. S. Ravi Asst. Prof. (Pl. Path.) | One day workshop on emerging diseases of coconut palms, College of Agriculture, Vellayani | 19th Aug. 96 |
| Dr. S. Rageena Asst. Prof. (Econ.) | Swadeshi Science Congress, C.M.S. College, Kottayam | 7th to 9th Nov. 96 |

20 training programmes were conducted for SC/ST youths in different topics such as propagation techniques in different crops and ornamentals, pest management in vegetables, plant protection in nursery management, kitchen garden etc. Two batches of unemployed youths were given training in mushroom cultivation. Forty farmers were trained in betelvine cultivation, 30 farmers in soil testing and 20 farmers in soil & water conservation techniques during the period under report.

Involvement of staff in Academic Programmes

Dr. K. Vasanthakumar, Assoc. Professor is the major advisor of an M. Sc. (Hort) student at Department of Horticulture, College of Agriculture, Vellayani.

Dr. S. Chandini, Assoc. Professor is the major advisor of an M.Sc. (Ag.) student at the Department of Agronomy and member of the advisory committee of one Ph.D. student in the discipline of Soil Science and Agrl. Chemistry, College of Agriculture, Vellayani,

Dr. S. Rageena, Asst. Professor handled post graduate courses Ag. Econ.609, Ag. Econ.516 and Ag. Econ.508 at College of Agriculture, Vellayani. She is also the major advisor of an M.Sc. (Agrl. Economics) student and member of the advisory committee of yet another Agrl. Economics student.

Farm Revenue

Farm revenue for 1996-97 — Rs. 2,32,900.00

1.5.2 Special zone of problem areas

The zone of problem areas is one of the agroclimatic zones demarkated to represent the geographical area where agriculture is risky, hazardous and exposed to the vagaries of nature. It lies in the coastal line of Kerala State, extending from Kollam district in the south to Malappuram district in the north and comprises parts of Alappuzha, Kottayam, Ernakulam, Thrissur and Malappuram districts covering an area of 5254 sq. km. The zone lies below the mean sea level and gets flooded during the south west monsoon. The whole area then forms a sheet of water dotted here and there by homesteads, coconut groves, and strips of garden lands. Connected to the sea, the area is subject to ingress of salinity. The salt water infusion into the lands is regulated in Alappuzha and Kottayam districts by Thanneermukkom barrage, Thottappally spill way and Andhakaranazhi and in Thrissur district by the Enammakkal regulator, Kottankottu valavu and Karanchira lock. The zone in Alappuzha district is fed by four main rivers, Pampa, Meenachil, Manimala and Achencoil which drain into the vast expanse of water called Vembanad lake before merging with the Arabian Sea. The zone is the most thickly populated area in the state. The rivers as well as the channel water are polluted by human and animal wastes and by agricultural drainage. The pollution is responsible for the prevalence of many gastro-intestinal diseases. Some of the pollutants such

as pesticides and heavy metals find their way up the food chain of the aquatic environment resulting in high concentration of toxic residues, in the body of fishes in the rivers.

Seven distinct farming situations have been identified in the zone., Onattukara, Kayal, Karappadam, Kari, Orumundakan and Kottumundakan, Pokkali and Kole. There are seven research stations in the zone which cater to the research requirements of the different situations.

| Name of Research station | Situation in which located | |
|--|----------------------------|-------------------|
| R. A. R. S. Kumarakom | Karappadam | Kottayam district |
| R. R. S. Moncompu | Karappadam | Alappuzha ,, |
| R. R. S. Kayamkulam | Onattukara | Alappuzha ,, |
| R. R. S. Vyttila | Pokkali | Ernakulam ,, |
| AICRP on Agricultural Drainage, Karumadi | Kari | Alappuzha ,, |
| S. R. S. Thiruvalla | Karappadam | Pathanamthitta ,, |

The thrust areas identified for the zone are:

Reclamation and management of problem soils

Farm mechanisation

Integrated farming involving crop-livestock and fish

Root (wilt) disease management

Seed and nursery production

Resistance breeding in rice

Breeding of rice for salinity tolerance

Improvement of rice under Pokkali conditions

Research on oil seeds, pulses and rice in Onattukara

Rice and fish culture

Sugarcane research

Mangrove research—conservation and management

i) REGIONAL AGRICULTURAL RESEARCH STATION, KUMARAKOM

The Regional Agricultural Research Station is situated at 9° 3' latitude and 76° 3' longitude in the Kumarakom Village of Kottayam district in the southern side of 'Kavanar', 15 kms. north of Kottayam town. The history of RARS, Kumarakom dates back to the year 1947, when the station was established by the Department of Agriculture with the financial support of the then Indian Central Coconut Committee. In 1958, the station was taken over by the State Department of Agriculture and from 1972 onwards the station is functioning under Kerala Agricultural University. The station was upgraded

as a Regional Research Station for the special zone of problem areas of Kerala in 1982. The land area of the farm, in the beginning, was 23.23 ha. During 1980, an additional area of 21.49 ha of land was transferred to Kerala Agricultural University making the total area of the Station 44.72 ha. The main objective of the station was originally to conduct research on coconut and coconut based farming system with special reference to coconut diseases. However, with the implementation of NARP, the station became the lead station to conduct problem oriented location specific research on all crops in the special zone of problem areas of Kerala State. The main mandates of the station are research on coconut and coconut based farming systems, integrated farming and coconut root (wilt) disease.

Staff position

| Designation | No. of posts | | |
|----------------------------|--------------|-------------|---------------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| a) Scientific staff | | | |
| Associate Director | 1 | 1 | from 27.11.96 |
| Assoc. Prof. (Ento.) | 1 | 1 | — |
| (Stat.) | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |
| NARP Phase I | | | |
| Assoc. Prof. (Aqua.) | 1 | 1 | — |
| Asst. Prof (Hort.) | 1 | 1 | — |
| (Agron.) | 1 | 1 | — |
| (Microbiology) | 1 | — | 1 |
| (Aqua.) | 1 | 1 | — |
| (P. B. Genetics) | 1 | 1 | — |
| (Micro) | 1 | 1 | — |
| Pl. Physiology) | 1 | 1 | — |
| (Bio-chem.) | 1 | 1 | — |
| (Econ.) | 1 | 1 | — |
| Assoc. Prof. (Chem.) | 1 | 1 | — |
| (Extn.) | 1 | 1 | — |
| Asst. Prof. (Ag. Engg.) | 1 | 1 | — |
| Assoc. Prof. (S. S.) | 1 | 1 | — |
| Asst. Prof. (Agron.) | 1 | 1 | — |
| CRWD | | | |
| Assoc. Prof. (P. P.) | 1 | 1 | — |

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| NARP Phase II | | | | |
| Assoc. Prof. (Ag. Engg.) | 1 | | — | 1 |
| Senior Farm Supervisor | 1 | | 1 | — |
| Farm Asst. (Sr. Gr.) | 2 | | 2 | — |
| Farm Asst. Gr. II | 2 | | 2 | — |
| Lab. Asst. Gr. I | 1 | | 1 | — |
| Pump Operator | 1 | | 1 | — |
| <i>b) Technical staff</i> | | | | |
| NARP I | | | | |
| Lab Asst. Gr. II | 1 | | 1 | — |
| Gr. III | 3 | | 3 | — |
| CRWD | | | | |
| Farm Asst. | 2 | | 2 | — |
| IRP | | | | |
| Farm Assistant (Vety.) | 1 | | 1 | — |
| NARP II | | | | |
| Technician | 1 | | 1 | — |
| <i>c) Administrative & Supporting staff</i> | | | | |
| NARP I | | | | |
| Administrative Officer | 1 | | 1 | — |
| Office Superintendent | 1 | | 1 | — |
| Typist Gr. I | 2 | | 2 | — |
| Assistant Gr. I | 2 | | 2 | — |
| Peon (Hr. Gr.) | 2 | | 2 | — |
| Driver (HDV) | 1 | | 1 | — |
| Section Officer | 2 | | 2 | — |
| Sr. Office Superintendent | 2 | | 2 | — |
| Assistant Gr. II | 2 | | 2 | — |
| Typist Gr. II | 1 | | 1 | — |
| Driver (LDV) | 1 | | 1 | — |
| Peon (Hr. Gr.) | 1 | | 1 | — |
| Bus Attendant | 1 | | 1 | — |
| Sweeper-cum-Attendant | 1 | | 1 | — |
| Watchman | 2 | | 2 | — |
| CRWD | | | | |
| Driver (LDV) | 1 | | 1 | — |
| IRP | | | | |
| Assistant Gr. II | 1 | | 1 | — |
| Watchman | 1 | | 1 | — |
| NARP II | | | | |
| Assistant Gr. II | 1 | | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/Deputation of staff for higher studies : Nil

Details of seminars/symposia/trainings attended by staff

Sri. P. Gangadharan, Associate Professor (Stat.) attended a seminar on 'Statistics in fertiliser trials at TNAU; Coimbatore from 15-16th Nov. 1996.

Dr. K. G. Padmakumar, Assoc. Professor attended the seminar 'Third Indian Fisheries Forum at Kochi' from 24-28th November, 96 at Kochi.

Sri. P. Gangadharan, Assoc. Professor attended the seminar on 'International meet on Tropical tuber crops' at CTCRI, Trivandrum 9-12th Dec. 96.

Involvement of staff in Academic Programmes

Dr. R. R. Nair, Associate Director served as the Chairman of the Advisory Committee of a Ph. D student.

Farm Revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|---------|------------------------|---------------------------|
| 1996-97 | 7.51 | 95.10 |

Important visitors

| Name and address | Purpose of visit | Date of visit |
|---|------------------|---------------|
| Mr. J. B. Pronk, Minister for Dev & Co-operation The Netherlands | Station visit | 11-8-96 |
| Dr. O. P. Dubey, Principal Scientist (Entomology) ICAR, New Delhi | Station visit | 19-11-96 |
| Dr. P. K. Koshy, Head, CPCRI, Kayamkulam | do | 19-11-96 |

ii) RICE RESEARCH STATION, MONCOMPU

Rice Research Station, Moncompu is located at Moncompu, Thekkekkara of Champakulam Panchayat in Kuttanad Taluk of Alappuzha district. The station was started in the year 1940. Dr. L. Remadevi, Professor (Pl. Path.) functioned as Head of the Station during the period under report.

Mandate

To take up work on the location specific research needs of rice in Kuttanad. The main objectives of the station are given below:

Evolving high yielding varieties with multiple resistance to pests and diseases.

Standardisation of management practice so as to increase productivity.

Formulating integrated management practices to control weeds, pests and diseases.

Evolving low cost production technology for Kuttanad.

Staff position

| Category | No. of posts | | Vacant |
|----------------------------|------------------------|---|---------------|
| | sanctioned in position | | |
| KAU Non Plan | | | |
| Assoc. Professor (Agron.) | 1 | 1 | from 28.12.96 |
| Asst. Professor (Ent.) | 1 | 1 | |
| (Bot.) | 1 | 1 | from 28.12.96 |
| (Chem.) | 1 | 1 | — |
| Junior Statistician | 1 | 1 | from 31.12.96 |
| AICRIP | | | |
| Asst. Professor (Agron.) | 1 | 1 | from 17.10.96 |
| (Bot.) | 1 | 1 | — |
| (Ent.) | 1 | 1 | — |
| Technical Assistant | 2 | — | 2 |
| NARP Phase I | | | |
| Assoc. Professor (Ent.) | 1 | 1 | from 17.9.96 |
| Asst. Professor (Pl. Br.) | 1 | — | 1 |
| (Pl. Path.) | 2 | 2 | — |
| (Chem.) | 1 | 1 | — |
| Professor (Pl. Br.) | 1 | — | 1 |
| Admn. Assistant | 1 | 1 | — |
| Section Officer | 1 | 1 | from 30.10.96 |
| (post shifted to Karumady) | | | |
| Asst. Seln. Grade | 3 | 3 | — |
| Gr. I | 1 | 1 | — |
| Typist Seln Gr. | 1 | 1 | — |
| Jeep Driver Gr. I | 1 | 1 | — |
| Peon | 1 | 1 | — |
| Watchman | 1 | — | 1 |

| 1 | 2 | 3 | 4 |
|------------------------|---|---|---|
| Sweeper cum Attendant. | 1 | — | 1 |
| Boat Driver | 1 | 1 | — |
| Boat Syrang | 1 | — | 1 |
| Farm Asst. (Seln. Gr.) | 1 | 1 | — |
| (Gr. II) | 2 | 2 | — |
| Lab Asst. Gr. I | 1 | 1 | — |
| Gr. II | 1 | 1 | — |
| Gr. III | 2 | 2 | — |
| Gr. III (Hr. Gr.) | 1 | 1 | — |

Faculty Improvement Programme

Scholarship awarded to staff/Deputation of staff for higher studies

Smt. Reena Mathew and Devika, R., Asst. Professors were deputed for undergoing Ph. D programme, at KAU from 29.12.96.

Important Visitors

| Name | Purpose | Date |
|--|--|----------|
| A team of farmers from Africa, Belgium and Togo along with Dr. P. K. Koshy, Head, Nematology, CPCRI Kayamkulam | To visit the station as a part of summer institute | 10.10.96 |
| Dr. N. V. Krishnaiah and Dr. U. Prasad Rao, Senior Scientists DRR, Hyderabad | To visit gall midge infested fields in Kuttanadu | 21.12.96 |

iii) RICE RESEARCH STATION, KAYAMKULAM

Rice Research Station, Kayamkulam is located at the Kayamkulam Municipality of Alappuzha district, one km. east of Kayamkulam town, on the northern side of Kayamkulam Punalur road.

The station was established in the year 1937 under the erstwhile University of Travancore. It was subsequently transferred to the Department of Agriculture in 1958 and continued to function under the Department of Agriculture till 31.1.1972. With the formation of Kerala Agricultural University, this

station has become one of its constituent units with effect from 7.2.1972. Dr. K. Sivan Pillai functioned as Professor and Head during the period. The major objectives of the station are:

Evolving high yielding varieties of rice, sesamum and pulses suitable for the sandy tract of Onattukara region.

Formulating improved agricultural technologies and plant protection measures for the cultivation of rice, sesamum, pulses and vegetables.

Conducting training to the personnel of the Agriculture Department and farmers of the region to impart latest agro-techniques in the cultivation of the above crops and also mushroom.

Conducting adaptive trials and demonstrations of research findings and improved cultural practices in the cultivators field.

Adopting nearby villages and demonstrating the improved agricultural practices and research findings developed at this centre, through Village Adoption Programme and frontline demonstrations.

Staff position

| Designation/category | No. of posts | | |
|---|--------------|-------------|----------------|
| | Sanctioned | In position | Vacant |
| <i>a) Scientific staff</i> | | | |
| Professor | — | — | — |
| Assoc. Professor | 5 | 5 | — |
| Asst Professor | 4 | 4 | — |
| Others (Research Associates) | 2 | 2 | — |
| <i>b) Technical staff</i> | | | |
| Farm Supervisor | 3 | 3 | — |
| Farm Assistant (Seln. Gr.) | 2 | 2 | — |
| Lab Assistant (Gr. III) | 3 | 3 | — |
| <i>c) Administrative & Supporting staff</i> | | | |
| Administrative Asst | 1 | 1 | — |
| Assistant (Seln Gr.) | 1 | 1 | — |
| Assistant (Sr. Gr.) | 1 | 1 | — |
| Typist (Sr. Gr.) | 1 | 1 | — |
| Peon (Hr. Gr.) | 1 | 1 | — |
| Sweeper | 1 | 1 | (upto 28.2.97) |
| Jeep Driver Gr. III | 1 | 1 | — |
| Tractor Driver (Hr. Gr.) | 1 | 1 | — |

Faculty Improvement programme

New post sanctioned/shifted : Nil

Scholarship awarded to staff/deputation of staff for higher studies : Nil

Details of seminars/symposium/training attended by staff:

Dr. Sverup John, Assoc. Professor (Pl. Breeding) attended the Annual Kharif Oil Seeds Meeting of sunflower Sesame and Niger during 13.4.96 - 16.4.96 at Jawaharlal Nehru Viswa Vidyalaya, Jabalpur (M.P)

Smt. G. Suja, Asst. Professor (Ag. Ent.) participated in the summer institute on "Recent Advances in the Integrated Management of pests and diseases of coconut at CPCRI, Kayamkulam from 10.10.96 to 30.10.96.

Dr. Sumam George, Assoc. Professor attended a training course on systematic approach for soil fertility evaluation and improvement at Central Research Institute for Dry land Agriculture, Hyderabad.

Involvement of staff in Academic Programmes

Dr. K. Sivan Pillai, Professor and Head (upto 31.5.96) continued as a member in the advisory committee of M.Sc. (Ag.) student of College of Agriculture, Vellayani.

Dr. P. Sushamakumari, Assistant Professor, continued as the chairperson of the advisory committee of an M.Sc. (Ag.) student of College of Agriculture, Vellayani.

Smt. M. Indira, Assistant Professor continued as a member in the advisory committee of M.Sc. (Ag.) student of College of Agriculture, Vellayani.

Farm revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|---------|------------------------|---------------------------|
| 1996-97 | 2,57,668 | 40,50,773 |

Important visitors

| Name and address | Purpose of visit | Date of visit |
|---|---|---------------|
| Sri. G. Sudhakaran, M. L. A Kayamkulam | Station visit and held discussion for starting KVK in Alappuzha Dist. | 18.2.97 |

iv) RICE RESEARCH STATION, VYTTILA

The Rice Research Station, Vyttila is situated in a representative site in the centre of pokkali tract. This station started functioning during the year 1968 in a leased land in Kunnara and was changed to the present site in 1968. This station was taken over by the Kerala Agricultural University in 1974. Taking into account the importance of fish prawn culture during the saline phase, a unit for fisheries research was established during 1976. Now this station has a total area of 8.91 ha. An area of 5.25 ha. of wetlands is utilised for field experiments and seed production programme of pokkali rice and 8.05 ha. for fisheries work.

In March, 1982 the station was brought as a sub centre under National Agricultural Research Project of the special zone of problem areas. The main objectives of this station are:

- 1) To evolve high yielding saline tolerant rice varieties suited to the pokkali ecosystem and to find out sustainable and ecofriendly agronomic practices for the cultivation of rice in this area.
- 2) To evolve cropping system practices by which the annual income per unit area can be increased to the optimum level by adopting integrated farming of rice, fish and prawn in pokkali lands.
- 3) To evolve sustainable and ecologically viable cultural practices for fishes and prawns in brackishwater ponds.

Sri. K Chandrasekharan Nair, Assoc. Prof. (Soil Sci.) officiated as the Head of the Station during the period under report.

Staff position

| Designation | No. of posts | | Vacant |
|--------------------------------|--------------|-------------|--------|
| | Sanc-tioned | In position | |
| 1 | 2 | 3 | 4 |
| <i>a) Scientific staff</i> | | | |
| Professor (Agrl. Botany) | 1 | 1 | — |
| Professor (Soil Science) | 1 | — | 1 |
| Assoc. Professor (Agron.) | 1 | 1 | — |
| Assoc. Professor (Aqua) | 1 | 1 | — |
| Asst. Professor (Aqua) | 1 | — | 1 |
| Asst. Professor (Pl. Breeding) | 1 | — | 1 |

| 1 | 2 | 3 | 4 |
|-----------------------------|---|---|---|
| Technical Staff | | | |
| Farm Supervisor Gr. II | 2 | 2 | — |
| Farm Asst. | 2 | 2 | — |
| Lab. Asst. Gr. III | 1 | 1 | — |
| Driver Gr. II | 1 | 1 | — |
| Fisherman cum Watchman | 2 | 1 | 1 |
| Pump Operator | 1 | 1 | — |
| Administrative staff | | | |
| Administrative Asst. | 1 | 1 | — |
| Assistant | 2 | 2 | — |
| Typist | 1 | 1 | — |
| Peon | 2 | 1 | 1 |
| Watchman | 1 | — | 1 |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/

deputation of staff for higher studies : Nil

Details of seminars/symposia/trainings attended by staff:

| Name and designation of Scientist | Details of seminar/workshop | Duration |
|--|---------------------------------------|-------------------|
| N. K Sasidharan Associate Professor | Seminar on Pokkali Vikasana Agency | February, 1997 |

Involvement of staff in Academic Programme

Dr. K. Sivan Pillai, Professor and Head, served as advisory committee member of one M. Sc. (Ag) student and a Ph. D. student of the College of Agriculture, Vellayani. Four FET trainees from NAARM, Hyderabad were given training for two months at this station. Sri C. G. Rajendran, Associate Professor served as the co-ordinator of the programme.

Farm revenue

| Year | Receipts in lakhs | Expenditure in lakhs |
|---------|-------------------|----------------------|
| 1996-97 | 1.65 | 23.94 |

v) SUGARCANE RESEARCH STATION, THIRUVALLA

The Sugarcane Research Station, Thiruvalla, was established during the year 1976, with the complete assistance from ICAR under the All India Co-ordinated Research Project on Sugarcane. The Kerala Agricultural University strengthened the research efforts of this station during 1979 by providing more infrastructural facilities and manpower. The research programmes were later strengthened by the funds provided by NARP Phase II from 1988 and VIII plan from 1991 onwards.

The Sugarcane Research Station, Thiruvalla is located at Kallunkal in the Nedumpuram Village, 5 kms away from Thiruvalla town. It is situated at 9.5° E longitude at an elevation of 25.14m above the MSL on the banks of Manimala river, a tributary of Pumpa river, in the Pathanamthitta district.

Staff position

| Category/Designation | No. of posts | | |
|--|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| ICAR | | | |
| <i>Scientific staff</i> | | | |
| Assoc. Professor (Agron.) | 1 | 1 | — |
| Asst. Professor (Pl. Breeding) | 1 | 1 | — |
| Asst. Professor (Pl. Path) | 1 | 1 | — |
| <i>Technical staff</i> | | | |
| Farm Asst. Gr. II | 1 | 1 | — |
| Lab Assistant Gr. II | 1 | 1 | — |
| <i>Administrative and Supporting staff</i> | | | |
| NARP | | | |
| <i>Scientific staff</i> | | | |
| Asst. Professor (Horticulture) | 1 | 1 | — |
| KAU | | | |
| <i>Scientific staff</i> | | | |
| Assoc. Professor (Ag. Bot.) | 1 | — | 1 |
| Asst. Professor (Ag. Bot) | 1 | — | 1 |
| Asst. Professor (Agron) | 2 | 2 | — |

| | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| <i>Technical staff</i> | | | | |
| Farm Supervisor Gr. II (Hr. Gr.) | | 1 | 1 | — |
| Farm Asst. Sr. Gr. | | 1 | 1 | — |
| Lab. Asst. Gr. III | | 1 | — | 1 |
| <i>Administrative and Supporting staff</i> | | | | |
| Administrative Assistant | | 1 | 1 | — |
| Assistant Gr. II | | 2 | 2 | — |
| Typist Gr. II | | 1 | 1 | — |
| LDV driver | | 1 | 1 | — |
| Peon | | 1 | 1 | — |

Faculty Improvement Programme

New posts sanctioned/created shifted : Nil

Scholarships awarded to staff/deputation of staff for higher studies :

Sri. Thomas Mathew, Assistant Professor (Agronomy) was granted study leave for undergoing Ph. D programme at College of Agriculture, Vellayani with effect from 27/12/1996.

Details of seminars/symposium/training attended by staff

Dr. D. Alexander, Associate Professor and Dr. Babu George, Assistant Professor attended the AICRP Annual work shop held at Indian Institute of Sugarcane Research, Lucknow during 23rd and 24th December, 1996. The Scientists of the Station attended the NARP Zonal workshop held on 16th January, 1997 at Regional Agricultural Research Station, Kumarakom. Dr. K. Sreekumar, Assistant Professor attended the 9th Kerala Science congress held at Thiruvananthapuram from 26th to 30th January, 1997 and presented a research paper on cowpea. He also attended the Breeders' meet held at Sugarcane Breeding Institute, Coimbatore on 28.10.96. He has also attended a training programme on "Breeding for quality produce from 6th to 20th of November 1996 at the Centre of Advanced studies in Genetics and Plant Breeding, School of Genetics, Tamil Nadu Agricultural University, Coimbatore. Dr. Babu George, Assistant Professor attended Summer Institute on 'Recent Advances in the Integrated Management of pests and diseases of Coconut' from 10th to 30th of October 1996 at Central Plantation crops Research Institute, Kayamkulam.

Involvement of staff in academic programmes

Dr. D. Alexander, Associate Professor is nominated as member of the advisory committee of the Ph. D programme of Sri. Thomas Mathew, Assistant Professor in the station.

Farm Revenue

| | |
|-------------|---------------|
| Year | : 1996-97 |
| Receipt | : 2.42 lakhs |
| Expenditure | : 26.38 lakhs |

Important visitors

| Name and address | Purpose of visit | Date of visit |
|---|--|---------------|
| Sri. John Zacharia General Council Member. Kerala Agrl. University, Vellanikkara | To attend Farm advisory Committee meeting | 12/3/1997 |

vi) AICRP ON AGRICULTURAL DRAINAGE, KARUMADY

The project viz., All India Co-ordinated Research Project on Agricultural Drainage under actual farming conditions on Watershed basis is being implemented in 'Kavil Thekkumpuram padasekharam', a part of Kuttanad situated in Ambalapuzha village and taluk of Alappuzha district. The scheme has come into effect from 1.12.1981 and was sanctioned for the 6th, 7th and 8th plan period.

The main objectives and thrust areas of research are given below:

To comprehend the effect of a surface and sub-surface drainage system on the movement of soil liquids.

To study the pattern of hydrological cycle occurring in the watershed areas and its importance and influence on the drainage.

To develop a feasible technology for the lay out of sub-surface drainage system suitable for peak and muck soils.

To develop drainage pattern requirement for different crops.

To evaluate the feasibility of using the return flow from drainage for irrigation in relation to water quality rating.

To evaluate the socio-economic benefits acquired from the drainage projects.

Sri. E. K. Mathew functioned as head of the station during the period under report.

Staff position:

| Designation/Category | Sanctioned | No. of posts | | Remarks |
|--|------------|--------------|--------|--------------------------------|
| | | In position | Vacant | |
| <i>Scientific staff</i> | | | | |
| Assoc. Professor (Agrl. Engg.) | 1 | 1 | -- | |
| Assistant Professor (Agron) | 1 | 1 | -- | Assoc. Prof. (NC) |
| Assistant Professor (Agrl. Engg.) | 1 | 1 | -- | |
| <i>Technical staff</i> | | | | |
| Farm Assistant (Agri.) Sr. Gr. | 1 | 1 | -- | Farm Assistant Sln. Gr. |
| Farm Assistant(Agri) Gr. II | 2 | 2 | -- | Farm Asst. Sr. Gr. |
| Lab Assistant Gr. II | 1 | 1 | -- | |
| Overseer Gr. II | 1 | 1 | -- | |
| Draughtsman Gr. II | 1 | -- | 1 | |
| Technician Gr. III | 2 | -- | 2 | |
| Driver Gr. III | 1 | 1 | -- | |
| Pump Operator | 1 | 1 | -- | |
| <i>Administrative & Supporting</i> | | | | |
| Section Officer | 1 | 1 | -- | |
| Assistant Gr. I | 1 | 1 | -- | |
| Typist Gr. I | 1 | 1 | -- | |
| Peon | 1 | 1 | -- | |
| Watchman | 2 | 2 | -- | Security Guard P/L & C/L |

Faculty Improvement Programme

New post sanctioned : Nil

Scholarship awarded to staff Deputation of staff
for higher studies : Nil

Details of seminars/symposium/training attended by
staff: Nil

Involvement of staff in Academic programme

Dr. M. S. Hajilal was appointed as External Examiner for the subject and he has set questions for Engg. 102 surveying and Farm Structures for B.Sc. (Ag.) programme.

Major Research achievements.

Studies on sub surface drainage revealed that 30m spacing can be adopted for a subsurface drainage system in Kari soils of Kuttanad.

Significant increase in yield was observed in the Kari cultures K 16 and K 18 over the local check Jyothy. The increase for K 16 was 1.08t/ha and for K 18 was 0.95 t/ha over control which yielded 2.27 t/ha only. Further, the cultures, were not affected by chlorosis (Iron toxicity) as against Jyothi.

Farm Revenue : Nil

Important visitors

| Name and Designation | Purpose | Date of visit |
|--|---------------------|--------------------------|
| (1) | (2) | (3) |
| Prof. Dr. S. P. Maity, Professor, Agrl. Engg. BCKVV (Retd.) | Quinquennial Review | 29-7-96 to 31-7-96 |
| M. Selva Rajan, Scientist, National Natural Resource Management system, ISRO Haadquarters, Antariksh Bhavan, New Bel Road, Bangalore, Karnataka | | |
| Sri. D. C. Das, Director & Scientist (Retd.), National Wasteland Development Board, New Delhi | | |
| Dr. R. K. Sharma, Senior Scientist, WTC, IARI, New Delhi. | | |

| 1 | 2 | 3 |
|---|---|---------|
| Dr. A. K. Bhattacharya, Project Co-ordinator, Water Technology Centre, Indian Agricultural Research Institute, New Delhi | Annual Review of the Project | 30-1-97 |
| R. Rajesh, Programme Associate Society for promotion of wasteland Development New Delhi. | To assess the feasibility of a large scale project | 6-6-97 |

vii) E.C.F, Unit—KAYAMKULAM

The on-farm Research Unit is the field testing unit of cropping systems research project. The ECF unit started in 1971, has functioned in different districts all over the state. This unit has been functioning in Thrissur district from 1988 onwards with its headquarters at Mannuthy. The Scheme completed five years by 1993 and was shifted to Kayamkulam with effect from 2/6/'93.

The project took a new turn by 1990. As against the earlier concept of same type of experiments all over the nation, now on-farm research work is done on location specific problems and the area of operation is the NARP zone. The project will help to refine and develop location specific need based technologies and will help in confirmation of advanced technologies under actual farming situation. Sri. Abraham Varghese, Assoc. Professor (Agronomy) functioned as the Head of the unit.

Staff position

| Designation | No. of posts | | |
|---|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| a) <i>Scientific staff</i> | | | |
| Associate Professor | 1 | 1 | — |
| b) <i>Technical staff</i> | | | |
| Farm Assistant | 6 | 6 | — |
| c) <i>Administrative and supporting staff</i> | | | |
| Typist | 1 | 1 | — |
| Driver | 1 | 1 | — |
| Watchman | 1 | — | 1 |

Faculty Improvement programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/deputation of staff for higher studies: Nil

Details of seminars/symposia/trainings attended by staff:

XXII Annual workshop meeting of CSR (AICARP) at N.D.U.A.T. Faizabad from October 23rd to 26th

XX NARP Zonal workshop at RARS, Kumarakom 16th January 1997.

Involvement of staff in Academic Programmes

Training of students final B. Sc. (Ag.)

Farm Revenue

Receipts: Rs. 1448 lakhs

Expenditure: 8,17,694 lakhs

Important visitors

Quinquennial review team consisting of the following Scientists visited the Station on 14-10-1996

Dr. Maharaj Singh, Dr. Gildayal, Dr. Govindaswamy

Dr. S.K. Sharma, Project Co-ordinator, PDCSR, Mo dipuram

1.5.3. Central Zone

The three revenue districts located in Central Kerala viz., Palakkad, Thrissur and Ernakulam constitutes the Central zone. The high ranges (Attappady and Nelliampathy hills) of Palakkad, Kole lands of Thrissur and coastal saline areas (Pokkali) of Ernakulam are however excluded. There are 17 taluks, 44 development blocks and 274 Panchayats in the zone. The region lies between 9°47' and 11°16' north latitude and between 75°52' and 76°50' east longitude.

South West Monsoon contributed nearly three-fourth of the annual precipitation in the region. The highest average rainfall was received by Ernakulam, among the other districts Eruthiampathy and the surrounding areas in the Palakkad. district is typically dry farming area with very low annual rainfall. All the districts experiences drought of varying magnitude from December to May and the most severely affected districts is Palakkad. The mean maximum and minimum temperatures experienced in the Central Zone are 31.4°C and 21.1°C respectively. The average relative humidity is around 70 per cent. It may go as low as 40 per cent in Palakkad district

during December to March due to the blowing of hot air from Tamil Nadu through the Palakkad gap in the western ghats.

Majority of the soils in the zone are lateritic in nature, coastal alluvium, riverine alluvium and brown hydromorphic soils are also seen in many pockets. Hydromorphic saline soils and acid saline soils are found in the coastal tracts and black soils in the Chittoor taluk.

The following Agricultural Research Stations are located in the Central Zone.

Regional Agricultural Research Station, Pattambi

Cashew Research Station, Anakkayam

Agricultural Research Station, Mannuthy

Cashew Research Station, Madakkathara

Banana Research Station, Kannara and Pineapple Research Centre, Vellanikkara

Agronomic Research Station, Chalakudy

Aromatic and Medicinal Plants Research Station, Odakkali

Pineapple Research Station, Vazhakkulam

i. REGIONAL AGRICULTURAL RESEARCH STATION, PATTAMBI

The station started functioning in 1927 with the name Paddy Breeding Station in an area of 33.28 ha and the then mandate was to improve the local bodies of the erstwhile Madras Presidency. With the intensification of research activities in other crops such as cotton, sugarcane, sesamum, pulses and oil seeds, the station was renamed as Agricultural Research Station, in 1930. With the acquisition of 30.36 ha of land in 1945 additionally, the research activities of the station were further intensified. With the reorganisation of the rice research set up in Kerala 1972, the station was elevated as the Central Rice Research Station for the state of Kerala. The station was taken over by the Kerala Agricultural University when it was formed on February 1, 1972. The station was elevated as the Regional Agricultural Research Station for Central Zone with the implementation of the National Agricultural Research Project (NARP) in 1981.

The total acreage of the research farm is 63.64 ha. All the major rice soils of Kerala viz., modan (rainfed upland), palliyals (single cropped rainfed lowland) and double cropped low lands are represented in the farm.

The lead functions are rice, pulses, oil seeds and rice based farming systems.

A seed testing laboratory was established under the station in 1966 which was later nominated as the State Seed Testing Laboratory according to the provisions of the Seed Act, 1969. An A class Agricultural Meteorological Observatory started in 1948, is functioning as a part of this station.

The soil texture of the farm is predominantly sandy loam and loam. The soil pH ranges from 5.2 to 5.8. Majority of the crops in the farm are rainfed. However, supplementary irrigation is given to rice during second crop seasons after withdrawal of north east monsoon. Vegetables are raised in summer under irrigation. One block of coconut plantation was irrigated using drip system. The station receives an average rainfall of 2550 mm, of which 66%, is received from South-West monsoon (June-September), 19% from North-East monsoon (October-January) and 15% from summer rains (January-April).

The station has so far released 53 rice varieties. Of this 37 strains were evolved through pureline and mass selection and the remaining through hybridisation and selection. The two high yielding cowpea varieties released by the station are Ptb-1 (Kanakamany) and Ptb-2 (Krishnamany).

Dr. N. Krishnan Nair, Associate Director of Research functioned as the Head of the station during the report period.

Staff position

| Category | Sanctioned | In position | Vacant |
|--|------------|-------------|--------|
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Non-Plan | | | |
| Assoc. Professor (Botany) (Chemistry) | 2 | — | 2 |
| Asst. Professor (Plant pathology) (Agronomy) | 2 | 1 | 1 |
| Asst. Professor (any discipline) | 4 | — | 4 |
| NARP—I | | | |
| Professor (Plant Breeding) (Soil Science) | 2 | — | 2 |

| 1 | 2 | 3 | 4 |
|--|---|----|----|
| Assoc. Professor (Agronomy) (Agrl. Engg.) (Ag. Economics) | 4 | -- | 4 |
| Asst. Professor | | | |
| Agronomy | 1 | -- | 1 |
| Soil Science | 1 | -- | 1 |
| Ag. Extension | 1 | 1 | -- |
| Ag. Economics | 1 | -- | 1 |
| Horticulture | 1 | 1 | -- |
| Biochemistry | 1 | -- | 1 |
| Entomology | 1 | 1 | -- |
| Professor (Ent.) | 1 | -- | 1 |
| Agrl. Engg. | 1 | -- | 1 |
| NARP-II | | | |
| Asst. Professor | | | |
| Horticulture | 1 | 1 | -- |
| Agrl. Engg. | 1 | 1 | -- |
| Animal Science | 1 | -- | 1 |
| NSP-BSP | | | |
| Asst. Professor | 1 | 1 | -- |
| AICRIP | | | |
| Assoc. Prof. (Pl. Br.) | 1 | 1 | -- |
| (Agron.) | 1 | 1 | -- |
| (Pl. Path.) | 1 | 1 | -- |
| (Ent.) | 1 | 1 | -- |
| Asst. Prof. (Pl. Br.) | 2 | 2 | -- |
| (Agron.) | 1 | 1 | -- |
| (Pl. Path.) | 1 | 1 | -- |
| Pulses-AICRP on Arid Legumes | | | |
| Associate Professor | 2 | 2 | -- |
| Agronomy | | | |
| Pl. Breeding | | | |
| Asst. Professor (Pl. Path.) | 1 | -- | 1 |
| AICRP on long term fertilizer experiments | | | |
| Associate Prof. (SS and AC) | 1 | -- | 1 |
| Asst. Prof. (SS and AC) | 1 | 1 | -- |
| ICAR Adhoc Scheme-Chilli | | | |
| Research Associate | 1 | 1 | -- |
| Sr. Research fellow | 1 | -- | 1 |

Administrative/Supporting/Para-technical/Ministerial/other post

| Scheme | Sanct- ioned | In posi- tion | Vacant |
|--|-----------------|------------------|--------|
| 1 | 2 | 3 | 4 |
| NON PLAN - A | | | |
| Section Officer | 4 | 4 | — |
| Assistants | 10 | 9 | 1 |
| S.O.S. | 1 | 1 | — |
| Typist | 2 | 2 | — |
| Lab Assistant | 5 | 2 | 3 |
| Driver (HDV) | 1 | — | 1 |
| Peon | 3 | 3 | — |
| NON PLAN - B | | | |
| Sr. Farm Supervisor | 1 | 1 | — |
| Farm Supervisor Gr. I | 2 | 2 | — |
| Farm Assistants | 5 | 4 | 1 |
| Technicians | 1 | 1 | — |
| Tractor Driver III | 1 | — | 1 |
| Regular Mazdoor | 6 | 6 | — |
| Class IV | 7 | 7 | — |
| Watchman | 2 | 2 | — |
| AICRP on long term fertilizer experiments | | | |
| Class IV | 1 | 1 | — |
| NARP - I | | | |
| Sr. Admn. Officer | 1 | 1 | — |
| Typist | 2 | 2 | — |
| Duplicator Operator | 1 | 1 | — |
| Lab Asst. Gr. II | 1 | 1 | — |
| Driver (LDV) | 1 | — | 1 |
| Tractor Driver | 1 | — | 1 |
| NARP - II (Non Plan) | | | |
| Farm Supervisor (v) | 1 | — | 1 |
| Technician | 1 | — | 1 |
| Asst. Gr. II | 1 | 1 | — |
| AICRIP | | | |
| Farm Assistant Gr. I | 4 | 4 | — |
| Driver | 1 | 1 | — |
| Tractor cum Jeep Driver | 1 | 1 | — |
| Pulses - AICRP on Guar (Arid Legumes) | | | |
| Farm Asst. (Agri.) Gr. II | 2 | 2 | — |
| Lab Asst. Gr. II | 1 | 1 | — |

| | 1 | 2 | 3 | 4 |
|--------------------------|---|---|---|---|
| NSP - BSP | | | | |
| Technical Asst. | | 2 | — | 2 |
| Field/Lab Asst. | | 1 | 1 | — |
| Driver | | 1 | — | 1 |
| Data Base: | | | | |
| Junior Programmer | | 1 | — | 1 |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/deputation of staff for higher studies:

Sri. E. Sreenivasan, Asst. Professor and Ms. M. L. Jyothi Asst. Professor are continuing their Ph. D. programme in Plant Breeding and Genetics and Horticulture respectively at College of Horticulture, Vellanikkara on part-time basis.

Details of Seminars/Work shops attended

| Name of Scientist | Seminars/Symposia/Venue to which deputed | Period of deputation |
|-----------------------------|---|--|
| 1 | 2 | 3 |
| Dr. Leenakumary S. | International Conference on Creativity and Innovation of Grass roots at Ahmedabad | 5 days 10-14 Jan. 97 |
| | National Symposium on Technological Advancement in rice technology College of Horticulture Vellanikkara | 3 days 17-19 June 96 |
| | 31 st Annual Rice group meeting at UAS, Dharwad | 4 days 15-18 Apr. 97 |
| Smt. Kanakamany M.T. | National symposium on Technological Advancement in rice technology | 3 days 17-19 June 96 |
| Smt. Tessy Joseph | Training on "Approaches for the improvement of Quantitative traits in crops" at School of Genetics, TNAU, Coimbatore | 28 days 22 Jan. to 20 Feb. 97 |
| | National symposium on Technological Advancement in rice technology | 3 days 13-17 April 96 |

| 1 | 2 | 3 |
|---------------------|---|-------------------------------------|
| Smt. Valarmathi G. | Training on 'Integrated Seed Improvement' at NSC; New Delhi | 10 days 14-23 Jan. 97 |
| Dr. T. E. George | Agri. Seminar at Alathur, conducted by Department of agriculture, FACT on scientific vegetable seed production | 28.9.96 |
| | Agri. Seminar at Manjeri, conducted by Department of Agriculture, FACT on scientific vegetable seed production | 15.10.96 |
| | Agri. Seminar at Moonniyur, Malappuram conducted by Department of Agriculture, FACT on scientific vegetable seed production | 21.11.96 |
| Ms. M. L. Jyothi | International Conference on Creativity and Innovation at Grass roots at Ahmedabad | 5 days 10-14 Jan. 97 |
| | Banana Seminar, conducted by KAU and Department of agriculture at Pattithara, Palakkad | 21.11.96 |
| Sri. E. Sreenivasan | Training on 'Approaches for the Improvement of Quantitative traits in crops' at School of Genetics, TNAU, Coimbatore | 28 days 22 Jan. to 20 Feb. 97 |
| Dr. L. Nadarajan | National symposium on Technological advancement in rice technology | 3 days 17-19 June 96 |
| V. P. Sukumara Dev | XXXI Annual Rice workshop held at UAS, Dharwad | 4 days, 16-18th April 96 |
| V. P. Sukumara Dev | National symposium on "Technological advancement in rice production" at College of Horticulture, Vellanikkara | 17th to 19th June 96; 3 days |

| 1 | 2 | 3 |
|----------------------------|--|--------------------------------|
| Dr. T. J. Rehumath Niza, | National Symposium on "Technological advancement in Rice production", at College of Horticulture, Vellanikkara | 17th to 19th June 96 3 days |
| Dr. Jose Mathew | 31st All India Rice Research Group meeting at UAS Dharwad | 4 days 15-18 April 96 |
| Dr. Jose Mathew | National Symposium on Technological advancement in rice production, at KAU, Vellanikkara | 3 days 17-19 June 96 |
| Sri. T. N. Jagadeesh kumar | -do- | |
| Dr. Jose Mathew | International Symposium on rainfed rice for sustainable food security, 'CRRI, Cuttack | 3 days 23-25 Sept. 96 |
| Dr. Jose Mathew | 'Workshop on statistics in Fertilizer Trial' by potash and phosphate Institute, Canada. India programme held at TNAU, Coimbatore | 3 days 15-17 Nov. 96 |
| Dr. Jose Mathew | National Symposium on 'Agronomy, Environment and Food Security for 21st century by Indian Society of Agronomy at HAU, Hissar | 3 days 11-13 Dec. 96 |

Involvement of staff in academic programme

Dr. T. E. George Chairman, Advisory Committee of two Ph. D. students, Smt. M. K. Jessy and Smt. K. B. Sheela working on research projects 'Breeding for resistance to mosaic viruses in pumpkin' and 'Genetic improvement of bell pepper through selection' respectively.

Member, Advisory Committee of one Ph. D. student Mr. P. G. Sadhankumar working on the research project 'Incorporation of crack resistance to a bacterial wilt resistant genetic background in tomato'.

Important visitors

Under farm visit programme for school children 3 high schools in Palakkad organized visits with a total of 230 students and 18 teachers on 9-1-97.

A team of 50 progressive farmers from Sholavaram, Madhura district visited the station on 25-1-97.

A team of 50 farmers of Selam and Rajaji districts of Tamil Nadu visited the station on 19-3-97.

ii. CASHEW RESEARCH STATION, ANAKKAYAM

Cashew Research Station was started in 1963. The Station situated at Anakkayam Village in Malappuram District has an area of 9.92 ha of which eight ha is under cashew and 0.5 ha under Coconut.

The objective of the station are to evolve materials, methods and means to increase the yield potential of cashew through crop improvement and by recommending proper manurial schedules, cultural practices etc.

Sri. K. C. Chandy, Associate Professor continued as head of office during the period under report.

Staff position

| Category | No. of posts | | |
|---|--------------|-------------|------------------|
| | Sanctioned | In position | Vacant |
| a) <i>Scientific staff</i> | | | |
| Associate Professor | 1 | — | 1 from 2-6-97 |
| Asst. Professor | 2 | 2 | — |
| b) <i>Technical staff</i> | | | |
| Farm Supervisor Gr. II | 1 | 1 | — |
| Farm Asst. (Seln. Gr.) | 1 | 1 | — |
| Lab Asst. Gr. III | 1 | 1 | — |
| c) <i>Administrative and Supporting Staff</i> | | | |
| Seln. Gr. Asst. | 1 | 1 | — |
| Seln. Gr. Typist | 1 | 1 | — |
| Peon | 1 | 1 | — |
| Sweeper | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted Nil

Scholarship awarded to staff/deputation of staff for higher studies

Smt. P. V. Nalini, Assistant Professor (Sr. Gr.) and Sri. M. C. Narayanankutty, Assistant Professor, undergoing Ph. D. programme on part time basis at Kerala Agricultural University.

Details of seminars/symposia/trainings attended by staff

Sri. K. C. Chandy, Associate Professor, participated in the National Seminar on Cashew at Bhubaneshwar on 14th, 15th and 16th of December 1996.

Smt. P. V. Nalini, Assistant Professor, attended the XIX Zonal Research and Extension Advisory Committee Meeting held at Pattambi on 23rd May 1997.

Involvement of staff in Academic programmes: Nil

Farm Revenue

| Year | Receipts (in lakhs) | Expenditure (in lakhs) |
|------------------|------------------------|---------------------------|
| 1996-97 Non Plan | 2.09 | 21.28 |
| Revolving Fund | 10.89 | |

Important visitors

| Name and address | Purpose of visit | Date of visit |
|---|---|----------------------|
| Director Subba Rao Pai. Self Employment Training Centre, Wandoor | Training on grafting, layering and budding | 14-6-96 |
| Jesus Rafael Mendez Scientist from Venezuela, IAEA, Fellowship trainee | To study the cashew production technology | 26-1-97 & 14-2-97 |

iii) AGRICULTURAL RESEARCH STATION, MANNUTHY

This station started functioning during the year 1957 as Rice Research Station, Mannuthy in the then Central Farm Ollukkara, with administrative control vested with Rice Specialist. Consequent to the shifting of Head Quarters of the Rice Specialist to Pattambi in the year 1963, the station was renamed as Regional Rice Research Station. With the formation of the Kerala Agricultural University during 1972, the Rice Research Station, Mannuthy and the Agricultural Research

Station were taken over from the State Department of Agriculture and brought under the control of Agricultural University. In the year 1976, Rice Research Station and Agricultural Research Station, Mannuthy were merged and Research Station and Instructional farm was formed. The administrative control of this station was vested with the Associate Dean, College of Horticulture, Vellanikkara, and a part of this station functioned as Instructional Farm, Vellanikkara, in the newly acquired estate of the Kerala Agricultural University. This Research Station and Instructional Farm, Mannuthy was again renamed as Agricultural Research Station, Mannuthy since 1-9-83. Instructional Farm, Vellanikkara was delinked from Agricultural Research Station, Mannuthy with effect from 1-2-1988 and since then is functioning as independent station.

Apart from KAU Research Projects, the station undertakes research projects in rice under 'AICRIP'. The station also extends facilities to NBPGR to conduct trials on rice. The station also participates in the academic programmes of KAU by way of providing land and labour facilities as well as guidance for post graduate thesis work and under graduate work experience programmes of College of Horticulture, Vellanikkara.

Staff position

| Designation/ Category | No. of posts Sanctioned | In position | Vacant |
|--------------------------|----------------------------|----------------|--------|
| 1 | 2 | 3 | 4 |

Scientific Staff

KAU

| | | | |
|----------------------|---|---|---|
| Assoc. Prof. & Head | 1 | 1 | — |
| Asst. Prof. (Agron.) | 1 | 1 | — |
| Asst. Prof. (Hort.) | 1 | 1 | — |

(Post shifted from Central Training Institute, Mannuthy)

ICAR/NARP

(A) AICRIP Double Cropping Sub Centre

| | | | |
|------------------------|---|---|---|
| Assoc. Prof. (Pl. Br.) | 1 | 1 | — |
|------------------------|---|---|---|

NARP I Central Zone

| | | | |
|-----------------------|---|---|---|
| Asst. Prof. (Pl. Br.) | 1 | 1 | — |
|-----------------------|---|---|---|

| | 1 | 2 | 3 | 4 |
|--------------------------|---|---|---|---|
| <i>Technical staff</i> | | | | |
| KAU | | | | |
| Sr. Farm Supervisor | 1 | | 1 | — |
| Farm Assistant (Sr. Gr.) | 1 | | 1 | — |
| Farm Assistant Gr.I | 1 | | 1 | — |
| Farm Asst. Gr.II | 2 | | 2 | — |
| Lab Assistant | 1 | | 1 | — |
| Tractor Driver | 1 | | — | 1 |
| Technician | 1 | | 1 | — |
| Overseer | 1 | | 1 | — |

(On working arrangement since 26.03.96)

Administrative Staff

i) **KAU**

| | | | | |
|--------------------------|---|--|---|---|
| Administrative Assistant | 1 | | 1 | — |
| Sr. Gr. Assistant | 1 | | 1 | — |
| Seln. Gr. Assistant | 1 | | 1 | — |
| Gr. I Assistant | 1 | | 1 | — |
| Typist | 1 | | 1 | — |
| Peon | 2 | | 2 | — |
| Jeep Driver | 1 | | 1 | — |
| Watchman | 2 | | — | 2 |

(One post shifted to KAU Guest House, Mannuthy)

Faculty Improvement Programme

New posts sanctioned/created/shifted/
abolished : Nil

Scholarship awarded to the staff/
deputation of staff : Nil

Details of seminars/symposia/training programme attended
Dr. U. Jaikumaran, Associate Professor (NC) Agron. attended

AICRP on Arid Legumes, annual technical session on
09.05.96 and 10.05.96

National symposium on modern irrigation techniques at
Institution of Engineers, Bangalore on 26.6.96 and 27.6.96

NARP Training Programme on "Computer Application in Agricultural Research at NAARM, Hyderabad from 15.7.96 to 27.07.96.

Conducted Labour Friendly Farm Mechanisation & Farm Day held at A.R.S. Mannuthy from 17.8.96 to 20.8.96

Inter National Symposium on banana at KAU Vellanikkara 20.8.96 to 22.8.96

Faculty Research Committee of Agrl. Engg. at KCAE & T, Tavanur on 13.12.96

Head of Stations Meeting and Research Review meeting at R. A. R. S. Pattambi 4.1.97 and 15.1.97

Paddy Seed Production Meeting at Directorate of Research on 6.3.97

Conducted NWDPRP—Mitre Kisan's Training—visit to CSWCRTI, Ooty on 23.3.97

Dr. V.V. Radhakrishnan, Associate Professor attended

AICRIP National Workshop at Dharwad from 18.4.96 to 20.4.96

National Symposium on Technology advancement in rice at KAU Vellanikkara from 17.6.96 to 19.6.96

International Symposium on banana at KAU Vellanikkara 20.8.96 to 22.8.96

Smt. T. Sajitha Rani, Asst. Professor attended

National Symposium on Technology advancement in rice at KAU Vellanikkara from 17.6.96 to 19.6.96

International Symposium on banana at KAU Vellanikkara 20.8.96 to 22.8.96

NWDPRP—Mitra Kisan's Training—Visit to CSWCRTI, Ooty 2.3.97

Accompanied B.Sc. (D.Sc. & Tech.) students of College of Vety. & A.H. for their All India Study tour from 15.2.97 to 9.3.97

Smt. C.A. Rosamma, Asst. Professor attended

National Symposium on Technology advancement in rice at KAU Vellanikkara from 17.6.96 to 19.6.96.

International Symposium on banana at KAU Vellanikkara 20.8.96 to 22.8.96.

Dr. C. Narayanankutty, Asst. Professor attended International Symposium on banana at KAU Vellanikkara 20.8.96 to 22.8.96.

Involvement of Staff in the Academic Programme

U. G. Programme

Dr. U. Jaikumar, Assoc. Professor (NC)

Course leader for work experience programme of B. Sc (Ag.) students of College of Horticulture.

Course teacher of the course Agro. 102 (1+1) for B. Sc (C & B) students.

The work experience programme in paddy for B. Sc (Ag.) students was conducted at this station by Dr. U. Jaikumar Smt. Sajitharani, T., Asst. Professor.

Course teacher of LPM 112 course (Fodder production and management, 1+1 course of 1st year B. V. Sc. students of College of Veterinary and Animal Science (120 students).

Course teacher of M. P. 121 course (Forage production 2+1) course of 1st year B. Sc. Dairy Science & Technology students of College of Veterinary and Animal Science's Mannuthy.

Smt. C. A. Rosamma, Asst. Professor.

Course teacher of PB-GEN 706 (Methods of Plant breeding to the post graduate students of College of Horticulture Vellanikkara.

Farm revenue

| Year | Total Receipts | Total Expenditure |
|---------|----------------|-------------------|
| 1996-97 | 24.024 | 47.010 |

Important Visitors

Dr. M. J. Thomas, former Assoc. Director of Research (Planning KAU on 18.8.96.

Dr. M. Aravindakshan, Chairman, Coconut Board on 18.8.96.

Sri. C. N. Jayadevan M.L.A. and Sri. M. M. Avarachan, President Block Panchayat visited the station on 31.1.97 for inauguration of training programme on commercial nurser management and vegetable production technology.

iv) CASHEW RESEARCH STATION, MADAKKATHARA

The Cashew Research Station, Madakkathara under the Kerala Agricultural University was established on 1.5.1973. Initially this station was working as one of the four research centres under the All India Co-ordinated Cashew and Spice Improvement Project of the ICAR. The World Bank aided multi state Cashew Research Project was implemented at this station from 15.2.1982 to 3.9.1986. The All India Co-ordinated Cashew

improvement Project is ongoing at present. The CRS, Madakkathara is located in Madakkathara village (9 km away from Thrissur town of Thrissur taluk in Thrissur district. The station is situated at a distance of $\frac{1}{2}$ km away from Mannuthy on the left side of Mannuthy-Chirakkakkode road. The total area of the farm is 22.75 ha (22.25 ha planted with cashew and 0.5 ha. under building and roads).

Staff position

| Category | Sanctioned | In position | Vacant |
|----------------------------|------------|-------------|--------|
| Assoc. Prof. (Agron./Hort) | 1 | 1 | — |
| Asst. Professor (Ent.) | 1 | 1 | — |
| Sr. Tech. Asst. | 1 | 1 | — |
| Jr. Tech. Asst. | 1 | 1 | — |
| Farm Asst. Gr. II | 2 | 2 | — |
| Asst. Gr. I | 1 | 1 | — |
| Lab. Asst. | 1 | 1 | — |
| Class IV | 2 | 2 | — |
| Driver | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted. : Nil

Scholarship awarded to staff/Deputation of staff for higher studies : Nil

Details of Seminars/Symposia/Training attended by staff:

Dr. Susannamma Kurien, Assoc. Professor and Smt. Suma, B, Assistant Professor attended the International Symposium on Banana held at Kerala Agril. University, Auditorium, Vellankkara from 21st to 23rd August, 1996

Dr. M. Abdul Salam attended the National Seminar on Development of Cashew Industry in India conducted at Bhubaneswar, Orissa on 14 and 15th of December 1996.

Dr. M. Abdul Salam, Associate Professor and Dr. Susannamma Kurien, Associate Professor attended the Zonal workshop conducted at Pattambi on 4.1.97.

Involvement of staff in academic programmes

Dr. M. Abdul Salam, Associate Professor offered a course (Agron. 708) at College of Horticulture, Vellanikkara.

| | | |
|----------------|------------------------------|-----|
| i) Agron 604 | Water Management | 2+1 |
| ii) Agron 704 | Advances in water management | 2+0 |
| iii) Agron 708 | Advances in farming systems | 1+0 |

Dr. M. Abdul Salam continued as guide for one Doctoral Student and one M. Sc. student in Agronomy.

Farm Revenue

Year : 1996-97

Receipts : Rs. 20,16,254

Expenditure : Rs. 29,01,310

Important visitors

Dr. E. V. U. Bhaskara Rao, Acting Director and Co-ordinator.

Dr. K.G. Nair, Secretary, Cashew Export Promotion Council

Sri. P. P. Balasubramanian, Director, Directorate of Cashew Development.

v) BANANA RESEARCH STATION, KANNARA AND PINEAPPLE RESEARCH CENTRE, VELLANIKKARA

The Banana Research Station at Marakkal was established during the year 1963 in an area of 17.3 ha. as a centre of the Department of Agriculture to carry out research on Banana and Pineapple. In 1970, the station was brought under the All India Co-ordinated Fruit Improvement Project of the ICAR to carry out research on banana and pineapple. In 1972, when KAU was established this station was brought under it. In 1974, the venue of the Pineapple Research, was shifted to KAU Main Campus, Vellanikkara in an area of 6.3 ha. suited for pineapple cultivation. During 1988, NARP Phase II was implemented for strengthening research of banana, pineapple, cashew and post harvest handling of fruits and vegetables. Presently at Banana Research Station, Kannara research is being carried out on banana and pineapple only. Sri. S. Janardhanan Pillai continued as the Head of office during the period under report.

Mandate

The main objectives of the station are:

Germplasm collection, maintenance, evaluation and description of banana and pineapple to recommend the popular and promising cultivars of banana and pineapple for large scale cultivation.

Developing better clones or cultivars of banana and pineapple through selection and hybridisation.

Standardisation of Agro-techniques for banana and pineapple under different cropping system.

To formulate and recommend suitable control measures for pests and diseases of banana and pineapple.

To formulate small scale post harvest processing techniques in banana and pineapple.

Staff position

| Category and Designation | No. of posts | | Vacant |
|---------------------------|--------------|-------------|--------|
| | Sanctioned | In position | |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| AICRP (TE) | | | |
| Assoc. Professor (Hort.) | 1 | 1 | — |
| Asst. Professor (Hort.) | 1 | 1 | — |
| (Pl. Path) | 1 | 1 | — |
| (Ent.) | 1 | 1 | — |
| Technical Assistant | 2 | — | 2 |
| NARP | | | |
| Assoc. Professor (Agron.) | 1 | 1 | — |
| Asst. Professor (Hort.) | 1 | 1 | — |
| <i>Technical staff</i> | | | |
| AICRP (TF) | | | |
| Farm Asst. Gr. I | 3 | 3 | — |
| Lab Asst. Gr. I | 1 | 1 | — |
| Oil Engine Driver | 1 | 1 | — |
| Mali | 2 | 2 | — |
| Watchman | 2 | — | 2 |
| KAU | | | |
| Farm Supervisor Gr. II | 1 | 1 | — |
| Farm Asst. Gr. I | 1 | 1 | — |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| <i>Administrative & Supporting staff</i> | | | |
| AICRP (TF) | | | |
| Typist Gr. II | 1 | 1 | — |
| Peon | 1 | 1 | — |
| KAU | | | |
| Administrative Assistant | 1 | 1 | — |
| Assistant Gr. I | 1 | 1 | — |
| Driver Gr. II | 1 | 1 | — |
| Pump Operator | 1 | 1 | — |
| Peon | 1 | 1 | — |
| Watchman | 1 | — | 1 |
| NARP | | | |
| Typist Gr. II | 1 | 1 | — |
| ICAR Ad hoc scheme Development of a natural biocontrol agent for the control of Cyst Nematode, <i>Heterodera oryzaicola</i> , | | | |
| Research Associate | 2 | 2 | — |

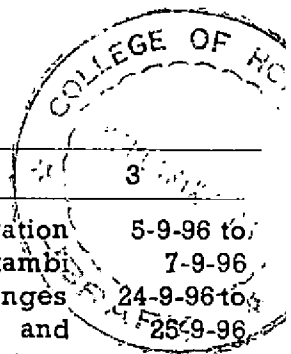
Faculty Improvement programme

New post sanctioned/created/shifted : Nil

Scholarship awarded/deputation of staff for higher studies : Nil

Details of seminars/symposia/trainings attended by staff

| Name of Scientist | Seminars/Symposium/Venue to which deputed | Period of deputation |
|------------------------------------|--|----------------------|
| Dr. Rema Menon Assoc. Professor | A summer Institute at TNAU, Coimbatore | 20-5-96 to 30-5-96 |
| Dr. S. J. Pillai | "Symposium on Technological Advancement in | 20-8-96 to 24-8-96 |
| Dr. Rema Menon | Banana/Plantain production and processing India International | |
| Dr. P. K. Sudhadevi | and processing India International" sponsored by ICAR, KAU and BAGAIN and conducted at KAU, Vellanikkara | |
| Smt. T. Premalatha | | |



| 1 | 2 | 3 |
|---|---|--------------------|
| Dr. JSK Charles Dr. Rema Menon | Seminar on Banana Cultivation convened at RARS, Pattambi | 5-9-96 to 7-9-96 |
| Dr. JSK Charles Dr. Rema Menon Smt. T. Premalathā | Conference on challenges for Banana production and utilization in 21st century organized by the Association for the improvement in production and utilization of banana (AIPUB) at Trichy | 24-9-96 to 25-9-96 |
| Dr. Rema Menon | Lead person in a Seminar on "Scientific cultivation of Banana" organized by NABARD District officials, XXIV/227-A Ashtapathy, Ayyanthole, Thrissur | 14-12-96 |

Involvement of staff in Academic Programmes

Dr. Rema Menon, Associate Professor is the Major Advisor of an M. Sc. (Hort) student of the Department of Plantation crops and Spices, College of Horticulture, Vellanikkara.

Farm revenue

Year: 1996-97
 Receipts: 8.41 lakhs
 Expenditure: 35.90 lakhs

Important visitors

| Name and address | Purpose of visit | Date of visit |
|--|--|---------------|
| Sri. R.C. Sasidharan Nair, DDA, RATTC, Malampuzha and Agricultural Officer | Visit of the Station | 18-2-96 |
| Dr. Jain, World Bank (Indian Representative) Dr. Sequora (World Bank) Dr. H. P. Singh, Project Co-ordinator (TP) | To review the ongoing research projects | 21-3-97 |

vi) AGRONOMIC RESEARCH STATION, CHALAKUDY

Introduction

The station which was established in 1962 in an area of 8.95 ha. of land has been engaged in the conduct of experiments under the All India Co-ordinated Project for Research on Water Management of ICAR, apart from the NARP Phase I

and NARP Phase II which were completed in 1988 and 1992 respectively. A Project on 'Onfarm Water Management Studies' financed by Ministry of Water Resources, Government of India, and Command Area Development Authority, Government of Kerala was started functioning from 1-4-1989 and concluded. In 1994-95, onfarm water management studies were undertaken as part of ICAR Project. Apart from these projects agronomic studies relevant to irrigation farming have been taken up as University Projects. The station has a sub unit at Vellanikkara for conducting water management trails for tree crops.

Sri. P. J. Ittyverah, Professor (Agron) continued as the Head of office.

The major objectives of the station are:

- i) To develop cropping patterns ideal for varying water management and fertility situation.
- ii) To test the adaptability and performance of new crops and varieties under different moisture condition.
- iii) To estimate the water requirement of crops like rice, pulses, vegetables, tuber crops, banana, pineapple etc.
- iv) To evolve measures for increasing water use efficiency of important crops of the area and to work out the economics of cultivation.
- v) To study the ground water fluctuations, quality of ground water and recycling of drainage water for cultivation.
- vi) To find out the cheap and efficiency methods of irrigation for different crops.
- vii) To conduct on farm water management studies in the command area.

The station occupies an area of 8.95 ha. of which 7.05 ha is of wetland and 1.90 ha of upland. Out of the total rainfall of 3431 mm, 78% is contributed by South West Monsoon and 17% by North East Monsoon. The uneven distribution of rainfall during the different periods in the year causes the problems of water logging and water scarcity in the same locality and demands efficient water management practices.

The Station is located on the north side of Chalakudy-Sholayar Road, about 400m. east of Anamalai Junction in Chalakudy town. The soil of the area is sandy loam, with low to medium in organic matter, available P_2O_5 low to medium and available K_2O very low.

Staff position

| Designation/Category | No. of posts | | Vacant |
|---|-----------------|----------------|--------|
| | Sanc- tioned | In position | |
| 1 | 2 | 3 | 4 |
| ICAR | | | |
| <i>a) Scientific staff</i> | | | |
| Assoc. Professor | 1 | 1 | — |
| Agrl. Chemistry | 1 | 1 | — |
| Agronomy | 1 | 1 | — |
| Agrl. Engineering | 1 | 1 | — |
| Asst. Professor (Agronomy) | 1 | 1 | — |
| <i>b) Technical staff</i> | | | |
| Farm Asst. | 5 | 5 | — |
| Lab. Asst | 1 | 1 | — |
| <i>c) Administrative and Supporting staff</i> | | | |
| Assistant | 1 | 1 | — |
| Driver | 1 | 1 | — |
| Peon | 1 | 1 | — |
| Non-Plan | | | |
| <i>a) Scientific staff</i> | | | |
| <i>b) Technical staff</i> | | | |
| Farm Supervisor | 1 | 1 | — |
| Pump Operator | 1 | 1 | — |
| Plough man | 1 | 1 | — |
| <i>c) Administrative and supporting staff</i> | | | |
| Administrative Assistant | 1 | 1 | — |
| Assistant | 1 | 1 | — |
| N.A.R.P. — I | | | |
| <i>Scientific staff</i> | | | |
| Asst. Professor (Agron.) | 1 | 1 | — |
| <i>Technical staff</i> | | | |
| Farm Assistant | 2 | 1 | 1 |
| Lab Assistant | 1 | 1 | — |
| <i>Admn. & Supporting Staff</i> | | | |
| Typist | 1 | 1 | — |
| N.A.R.P. — II | | | |
| <i>Scientific staff</i> | | | |
| <i>Technical staff</i> | | | |
| <i>Admn. & Supporting staff</i> | | | |
| Typist | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/Deputation of staff for higher studies : Nil

Details of seminars/symposia/training camps attended

Sri. P. J. Ittyaverah, Professor & Head and Sri. V.M. Abdul Hakkim, Asst. Professor (Agrl. Engg) attended the meeting of the Chief Scientists held at the Directorate of Water management, Walmi Complex, Patna from 21.2.97 to 3.3.97 for finalisation of Status Report on Water management Research.

Sri. Abdul Hakkim, Asst. Professor (Agrl. Engg.) attended a training programme on 'Application of electronics in Agriculture' organised by the Central Institute of Fisheries Technology, Kochi, from 19-8-96 to 24-8-96.

Sri. P. J. Ittyaverah, Professor & Head attended the Anamala Flower show held at Chalakudy, from 1-3, February, 1997.

Sri. V. Sreekumaran, Associate Professor attended the State level Agri. Seminar-cum-exhibition at Mala from 23.2.97 to 2.3.97.

Sri. V. Sreekumaran, Associate Professor attended the Agricultural Seminar held at Krishi Bhavan, Poyya on 25.3.97 and handled a class on the use of biofertilizers for the farmers attended.

Involvement of staff in the Academic Programme

Sri. V. Jayakrishnakumar, Asst. Professor (Agron), Water management Research Unit, had offered a course Agron 307 'Crop production cereals and millets for B.Sc. (Agri.) students of College of Horticulture, Vellanikkara.

Sri. V. M. Abdul Hakkim, Asst. Professor (Agrl. Engg.) had offered a course Ag. Engg. 101-Irrigation and drainage Engineering (1+1) for first year B.Sc. (Ag.) students and FMT 131 Forest surveying (1+1) for second year B.Sc. Forestry students and third year B. Sc. (Forestry) students.

Farm Revenue

Year: 1996-97

Receipts Rs. 2.58 lakhs

Expenditure Rs. 31.20 lakhs

Important visitors

Dr. N. K. Tyagi, Director, Central Soil Salinity Research Institute, Karnal, Haryana visited the station to see the ongoing experiments on 18.4.96

vii) AROMATIC & MEDICINAL PLANTS RESEARCH STATION, ODAKKALI

With a modest beginning in 1951, the station continues to be the lead research centre for lemongrass in the country. It has been recognised as one of the centres for development and cultivation of medicinal plants by the Ministry of Health and Family Welfare, Government of India and emphasis has been given to strengthen research on aromatic crops with special reference to post harvest technology during the 8th plan period. Under a new scheme sponsored by the Ministry of Agriculture, Government of India, the phytochemical laboratory of the station is recognised as one of the Regional Analytical laboratories for medicinal and aromatic plants and an intensive programme for seed production and distribution of selected target plants is taken up.

Dr. J. Thomas, Assoc. Professor (Agron) continued as the Head of office.

Staff position

| Designation | No. of posts | | |
|-----------------------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Assoc. Professor (Agron) | 1 | 1 | — |
| Assoc. Professor (Ent.) | 1 | 1 | — |
| Assoc. Professor (Agrl. Chem.) | 1 | 1 | — |
| Asst. Professor (Agron.) | 1 | 1 | — |
| <i>Technical Staff</i> | | | |
| Farm Supervisor Gr. I | 1 | 1 | — |
| Farm Supervisor Gr. II | 2 | 2 | — |
| Farm Assistant (Sr. Gr.) | 1 | 1 | — |
| Lab Assistant Graduate | 1 | 1 | — |
| Lab. Asst. Non Graduate | 1 | — | 1 |
| Lab Asst. Gr. III | 1 | — | 1 |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| Administrative & Supporting staff | | | |
| Administrative Asst. | 1 | 1 | — |
| Assistant (Sr. Gr.) | 2 | 2 | — |
| Typist Gr. I | 1 | 1 | — |
| Peon (Hr. Gr.) | 1 | 1 | — |
| Class IV | 2 | 2 | — |
| Gardener | 1 | 1 | — |

Faculty Improvement programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/deputation of staff for higher studies : Nil

Details of seminars/symposium/training attended by staff : Nil

Farm revenue

Receipts Rs. : 5.56 lakhs

Expenditure Rs. : 40.15 lakhs

Important visitors

| Name and designation | Purpose | Date of visit |
|---|--|---------------|
| Dr. K. C. Dala, Project Co-ordinator (Medicinal Plants), ICAR | To learn about the activities of the station | 26-7-1996 |
| Dr. M. Aravindakshan, Chairman, Coconut Development Board, Cochin | -do- | 28-8-1996 |

viii) PINEAPPLE RESEARCH STATION & PEST AND DISEASE SURVEILLANCE UNIT, VAZHAKKULAM

The Pineapple Research Station and pest and disease surveillance unit was started at Vazhakkulam 10 kms. from Moovattupuzha towards east on 2nd January, 1995. The main objective of the station is to conduct survey on pests and disease occurrence in pineapple and to carry out research on nutritional aspects, cropping intensity and post harvest technology.

Sri. Kuriakose K. P., Assistant Professor continued as the head of the station.

Staff position

| Category/Designation | No. of posts | | |
|--|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| <i>Scientific staff</i> | | | |
| Assistant Prof. (Pl. Br.) | 1 | 1 | — |
| <i>Technical staff</i> | | | |
| Research Assoc. | 1 | — | 1 |
| <i>Administrative & supporting staff</i> | | | |

Faculty Improvement Programme

| | | |
|--|---|-----|
| New post sanctioned/created/shifted | : | Nil |
| Scholarship awarded/Deputation of staff for higher studies | : | Nil |
| Details of seminars/trainings attended by staff | : | Nil |
| Involvement of staff in academic programmes | : | Nil |

NWDPRA projects

Adaptive trials with promising HYV of paddy for pest and disease resistance in watershed areas (three locations).

Performance studies on promising forage crops in coconut garden.

Production potential of different fodder crops in summer rice fallows.

Farm Revenue

| | | |
|-------------|---|--------------|
| Receipts | : | Nil |
| Expenditure | : | Rs. 1,38,601 |

Important visitors.: Nil

1.5.4. Northern Zone**i) REGIONAL AGRICULTURAL RESEARCH STATION, PILICODE**

Coconut Research in India Started in the West Coast at the erstwhile Madras state with the establishment of four Research stations in 1916 one each at Kasaragod and Pilicode and two at Nileshtar. When the Indian Central Coconut Committee was established, the Kasaragod station was taken over by the committee in 1947 and in 1970 it became CPCRI under ICAR. With the formation of Kerala State in 1956, the remaining three stations came under Kerala Agril. Department. In 1972 the Kerala Agril. University came into being.

One of the stations at Nileshtar (Nileshtar II) and the station at Pilicode were transferred to Kerala Agrl. University with headquarters at Pilicode. Under NARP Scheme, this station was reorganised as the Regl. Res. Station for the northern regions comprising the districts of Kasaragod, Kannur, Kozhikode and Malappuram with effect from 1.6.1980. The present area at RARS, Pilicode is 57.87 ha and that of Nileshtar 17.25ha.

Dr. U. Mohammed Kunju, Special Officer, College of Agriculture, Nileshtar was the head of the Station till 1994 and later Dr. P.A. Wahid, Assoc. Dean, College of Agriculture, Nileshtar took charge of the station and is still continuing.

The main objective of the station are to perform a statewide lead function for research on coconut and to serve as a commodity verification testing centre for rice, pulses and oil seeds and to supervise and guide the work at Panniyur and Tavanur centres in the northern zone of Kerala. It has got close collaboration with the KVK, Manjeshwar.

Thrust areas of Research

In the beginning the activities were centred around introduction of coconut cultivars from different parts of India and other countries, selection, hybridisation, identification of superior local and hybrid varieties and their distribution among farmers. After the implementation of NARP apart from research on coconut and coconut based farming stations rice, pepper, vegetables, pulses, tubers etc. were also initiated.

In addition to the above, Animal science was also included in NARP Phase II to strengthen research on Malabari goats.

Faculty positions

| Category | Sanctioned | In position | Vacant |
|---|------------|-------------|--------|
| 1 | 2 | 3 | 4 |
| Associate Director | 1 | — | 1 |
| Professor | 6 | 4 | 2 |
| Associate Professor | 14 | 5 | 9 |
| Asst. Professor | 13 | 8 | 5 |
| Others (Res. Assoc./JRF) | 9 | — | 9 |
| AICRP | | | |
| Assistant Prof. (Ag.) | 1 | 1 | — |
| NON-PLAN | | | |
| Asst. Prof. (Botany, Agron., Plant Path., Entomology) | 4 | — | 4 |

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| 938 DST Project (AAS) | | | |
| Assistant Prof./ | | | |
| Technical Asst. | 1 | — | 1 |
| Marico Scheme | | | |
| Research Associate | 3 | 1 | 2 |
| ICAR Adhoc Scheme (Meteorology) | | | |
| Research Associate | 2 | 1 | 1 |
| (Survey and utilization of pickling types of mango) | | | |
| Research Associate | 2 | — | 2 |
| Data base system | | | |
| Junior Programmer | 1 | — | 1 |
| AICRP on Cashew | | | |
| Assistant Professor | 1 | 1 | — |
| ICAR Adhoc Scheme on Azolla | | | |
| Research Associate | 1 | 1 | — |
| Junior Research fellow | 1 | — | 1 |
| Administrative | | | |
| NARP-II | | | |
| Administrative Officer | 1 | 1 | — |
| Typist Sr. Gr. | 2 | 2 | — |
| Steno | 1 | 1 | — |
| Typist Gr. I | 1 | 1 | — |
| Peon | 1 | 1 | — |
| NON-PLAN | | | |
| Section Officer (Hr. Gr.) | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Seln. Gr. Assistant | 2 | 2 | — |
| Asst. Gr. I | 3 | 3 | — |
| Asst. Gr. II | 1 | — | 1 |
| Peon (Hr. Gr.) | 3 | 3 | — |
| Office Supdt. | 1 | 1 | — |
| LDV Driver (Hr. Gr.) | 1 | — | 1 |
| Seln. Gr. Assistant | | | |
| (Training scheme) | 1 | 1 | — |
| Para Technical staff | | | |
| NARP-I | | | |
| Farm Asst. Gr. II | 4 | 3 | 1 |
| Farm Supervisor Gr. I | 1 | 1 | — |
| Lab Assistant Gr. II | 1 | 1 | — |
| Lab Assistant Gr. III | 4 | 3 | 1 |

| 1 | 2 | 3 | 4 |
|--|----|----|---|
| Farm Assistant (Vety.) | 2 | 2 | — |
| LDV Driver | 2 | 1 | 1 |
| Mechanic | 1 | — | 1 |
| NON-PLAN | | | |
| Farm Supervisor Gr. I | 2 | 2 | — |
| Farm Supervisor Gr. II | 1 | 1 | — |
| Farm Assistant | 1 | 1 | — |
| Oil Engine Driver | 1 | 1 | — |
| Pump Operator | 2 | — | 2 |
| Cook-cum-caretaker (on contract basis) | 1 | 1 | — |
| Sweeper-Cum-Sanitation worker | 1 | — | 1 |
| Class IV | 3 | 3 | — |
| Watchman | 1 | — | 1 |
| Regular Mazdoor | 15 | 15 | — |
| Farm Assistant (Vety) | 1 | 1 | — |
| Farm Supervisor Gr. I (training scheme) | 1 | 1 | — |

Faculty Improvement

Details of Scientific staff deputed for higher studies

| Name of Scientist and designation | Details of deputation | Name of University to which deputed |
|--------------------------------------|--------------------------|--|
| A. Anilkumar | Ph.D | IARI, New Delhi |

Faculty Improvement Programme

New Post sanctioned/created/shifted

Asst. prof. (Agrl. Eco.) — shifted to COA, Nileshtar from 11-2-97

Pump Operator—Shifted to PRS Panniyur from 21-11-1996

Details of Seminars/Workshops/Summer Institutes/Symposia etc. attended by the staff:

Scientists of RARS Pilicode handled classes for the farmers training programme organised in collaboration with the Department of Agriculture. Classes were handled for the Agricultural Officers and Agrl. Assistants of the Department of Agriculture. Totally 56 technical sessions were handled by the scientific staffs during the period on different topics like rice farming, coconut cultivation, plant propagation, vegetable

cultivation, plant protection, mushroom cultivation, floriculture organic farming, vegetable and fruit preservation, watershed development etc.

Details of Seminar/Workshops/Symposia etc. conducted at the Station:

| Name of course | No. of participants |
|--|--|
| a. Training on biofertilizers and mushroom cultivation | 40 farmers of watershed areas |
| b. Scientific cultivation of cashew | 60 farmers of Sreyas Farm Club, Cheemeni |
| c. Farmer-Scientist interaction-programme | 25 farmers attended |

Involvement of staff in academic programmes: All the scientists, are associated with the academic programmes of the College of Agriculture, Nileshtar.

Farm revenue

Year 1996-97

Expenditure (in lakhs) 1.14

Receipts (in lakhs) 21.28

ii) PEPPER RESEARCH STATION, PANNIYUR

Pepper Research Station, Panniyur started as a scheme in 1952 to improve pepper cultivation, was uplifted to the status of a research station under the Kerala Agril. University in 1972. Since then, research on crop improvement, crop management and crop protection aspects of black pepper are carried out in this station. It is an important co-ordinating centre of the All India Co-ordinated Research Project on Spices of the ICAR. Besides research, nucleus planting materials of released varieties of black pepper, viz., Panniyur 1, Panniyur 2, Panniyur3, Panniyur 4 and Panniyur 5 are also distributed.

Staff position

| Category | Sanctioned | In position | Vacant |
|------------------------------|------------|-------------|--------|
| A. Scientific staff | | | |
| a) KAU (Non-Plan) | | | |
| Professor | 1 | — | 1 |
| Asst. Professor (Botany) | 1 | — | 1 |
| Asst. Professor (Agron) | 1 | — | 1 |
| Asst. Professor (Pl. Breed). | 1 | — | 1 |

Seminars/Meetings/Workshops attended by Scientists

| | Venue | Date | Participants |
|---------------------------------|-------------------|-----------------|--|
| PLACROSYM XII | RRII, Kottayam | 27-29 Nov.96 | Dr.A. Rajagopalan Assoc. Professor |
| 19th Zonal workshop Pilicode | RARS, Pilicode | 30.1.97 | K. P. Mammooty, Assoc. Professor Dr. A. Rajagopalan Asst. Professor Gregory Zachariah Asst. Professor |

Involvement of staff in Academic programmes: Nil

Farm Revenue:

Receipts : Rs. 6.74 lakhs

Expenditure: Rs. 31.90 lakhs

Important visitors : Nil

1.5.5 High Range Zone

The High Range Zone is a sub region of Western Ghats lying at an elevation of 750 meters above Mean Sea Level. The region comprise of the hill districts of Wayanad, Idukki, Nelliampathy and Attapady ranges of Palghat, Thannithode and Seethathode panchayats of Kollam, Peringamala, Aryankavu, Vithura, Amboori and Kallikadu Panchayats of Thiruvananthapuram District. The total geographical area of the zone is 1140.67 sq. km. representing 28.67 per cent of the total geographical are of the State. This zone is mainly agrarian with a predominance of high value perennial crops. The major crops are coffee, paddy, pepper, cardamom, rubber, tea, ginger, tapioca etc. The climate prevailing in the zone is by and large mild subtropical which is conducive for growing both tropical and subtropical fruits.

The NARP Phase I sub project for this zone was launched in November. 1983 and was completed in November, 1988. The NARP Phase II project was in operation since April, 1988 and was completed on 19/4/1992. Under the National Agricultural Research Project, the Regional Agricultural Research Station at Ambalavayal functioned as the lead station with the Cardamom Research Station at Pampadumpara as its sub station.

i) REGIONAL AGRICULTURAL RESEARCH STATION,
AMBALAVAYAL

This station was established in 1946 as a part of the Wayanad colonisation Scheme to provide planting materials and technical advice to the settled cultivators. With the formation of Kerala State, it was brought under the Department of Agriculture. It was upgraded to the status of a Central Horticultural Research Station in 1966 and later brought under the control of Kerala Agricultural University in 1972. In 1982, it was elevated to the status of a Regional Agricultural Research Station under the National Agricultural Research Project with Cardamom Research Station, Pampadumpara as its sub station.

The Regional Agricultural Research Station, Ambalavayal is located at an elevation of 974 meters above Mean Sea Level in Sulthan Battery Taluk of Wayanad District. It is 100 km North east of Kozhikode.

Lead function: Pepper and Pepper based cropping in high ranges, hill paddy, cool season vegetables, soil and water management, subtropical fruits and coffee based cropping system.

Verification function: Essential oils and medicinal plants and ginger.

Station Head : Dr. K. C. Aipe, Associate Professor

Staff position

| Category | Sanct- ioned | In posi- tion | Vacant | Remarks |
|---|-----------------|------------------|--------|---|
| 1 | 2 | 3 | 4 | 5 |
| a) <i>Scientific staff (As per the recommendations of Peer Group)</i> | | | | |
| Assoc. Director | 1 | 1 | 1 | Headquarters shifted to KAU, Vellanikkara |
| Prof. (Horticulture) | 1 | — | 1 | |
| Assoc. Prof. (Agron.) | 1 | 1 | — | |
| Assoc. Prof. (Pl. Path.) | 1 | — | 1 | |
| Asst. Professor (Pl. Br.) | 1 | — | 1 | |
| Agrl. Botany | 1 | — | 1 | |
| Horticulture | 2 | 2 | — | |
| Pl. Pathology | 1 | 1 | — | |
| Agrl. Entomology | 1 | — | 1 | |
| Soil Science & | 1 | 1 | — | |
| Agrl. Chem. | | | | |

| | 1 | 2 | 3 | 4 | 5 |
|---|----|---|---|---|---|
| AICRP on Spices | | | | | |
| Assoc. Professor (Pl. Breed) | 1 | 1 | — | Asst. Professor in position | |
| b) Administrative/Supporting/Technical staff | | | | | |
| Administrative | | | | | |
| Administrative Officer | 1 | 1 | — | | |
| Section Officer | 2 | 2 | — | | |
| Assistant | 5 | 5 | — | Two provisi- onal | |
| Typist/Steno | 3 | 2 | — | 1 on working arrangement KAU Head- quarters | |
| Supporting/Technical | | | | | |
| Farm supervisor | 11 | 9 | 2 | One on work- ing arrange- ment at RCIRC, Calicut | |
| Farm Asst. (Vety.) | 1 | 1 | — | | |
| Field Supervisor | 1 | 1 | — | | |
| Laboratory Asst. | 3 | 9 | — | | |
| Technician | 1 | 1 | — | | |
| Tractor Driver | 1 | 1 | — | | |
| Oil Engine Driver | 1 | 1 | — | | |
| Others | | | | | |
| Driver | 1 | — | 1 | | |
| Peon | 3 | 3 | — | | |
| Budder | 1 | 1 | — | | |
| Regular Mazdoor | 3 | 3 | — | | |
| Class IV | 6 | 3 | 3 | One on work- ing arrange- ments | |
| Watchman | 3 | 3 | — | | |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/Deputation of staff for higher studies. : Nil

Details of Seminars/Symposium/Training attended by staff

Dr. T. P. Manomohandas, Associate Professor attended an agricultural seminar organised by Department of Agriculture at Sulthan Battery on 4.6.1996 and taken class on mushroom cultivation.

Dr. K. C. Aipe, Associate Professor attended the research review committee of the Coffee Board at Regional Coffee Research Station, Chundale on 15-7-96 and 8-11-96. He also attended the AIR Advisory Committee meeting on 10-9-96 and 11-3-97.

Dr. T. P. Manomohandas, attended a training on Integrated disease management in horticultural crops at IHR, Bangalore from 9-9-96 to 14-9-96.

Dr. K. Umamaheswaran, Assistant Professor attended a Summer Institute on Recent advances in the integrated management of pests and diseases of coconut at C.P.C.R.I., Kayamkulam from 10.10.96 to 30.10.96.

Dr. K. C. Aipe, Associate Professor & Head of the station attended a training on Agrometeorology sponsored by NCMRWF at Indian Institute of Tropical Meteorology, Pune from 23.12.96 to 6.1.97.

Dr. T. P. Manomohandas, Associate Professor attended the regional workshop on NWDPR at Tagore Centenary Hall, Kozhikode on 7-1-97.

Dr. K. Umamaheswaran, Assistant Professor attended an Integrated Training Programme on Diagnostic Virology at C.C.S., Hariyana Agricultural University, Hisar from 6th to 15th January, 1997.

The scientists of the station participated in the Ksheera Karshaka Mela exhibition organised in connection with the anniversary of Farm & Home, All India Radio, Calicut at Sulthan Battery from 4th to 6th January, 1997 and in the flower show organised by Agri Hort Society at Kalpetta from 10th to 15th January, 1997.

Dr. T. Pradeepkumar attended a training in Advances in Breeding for biotic and abiotic stresses in vegetable crops from 21.2.97 to 14.3.97 at Y. S. Parmar University of Horticulture and Forestry, Nauni, Solan.

The Scientists of the station attended the 17th State Level Farm Feature workshop of the Farm Information Bureau held at RARS, Ambalavayal from 10-12 February, 1997. They also actively participated in the T&V monthly workshop of Wayanad district organised by Department of Agriculture.

Dr. K. C. Aipe, Associate Professor attended the NCMRWF training on agrometeorology advisory service at I. A. R. I, New Delhi from 26.3.97 to 8.4.97.

Involvement of staff in Academic programme

Eight IAS Probationers were given training at the station on 10-2-97.

Sixteen final year B. Sc. (Agri) students from the College of Horticulture, Vellanikkara were given field training at the station from 3-3-97 to 15-3-97.

Farm Revenue

Year : 1996-'97

Receipts : 27.61 lakhs

Expenditure : 81.84 lakhs

Important visitors

| Name and designation | Purpose | Date of visit |
|---|---|----------------------|
| 1 | 2 | 3 |
| Smt. Sathi Devi, District Planning Officer. | To acquaint with the various activities of the station | 30.4.96 |
| Smt. Premalatha, Chief Judicial Magistrate, Kalpetta | To acquaint with the various activities of the station. | 18.5.96 & 24.5.96 |
| Dr. M. Aravindakshan, Chairman, Coconut Board, Cochin | To observe the various activities of the station. | 29.5.96 |
| Rev. Bishop Kuriakose Mar Cleemes, Sulthan Battery | To acquaint with the various activities of the station | 31.5.96 |
| Dr. S. D. Saheb, Superintendent of Police, Waynad. | To acquaint with the various activities of the station | 15.6.96 |
| Mr. P. Retnakaran, GC Member, Kerala Agrl. University. | | 30.7.96 |
| Mr. V. K. Rajan, Hon. Minister for Agrl. & Pro-Chancellor of Kerala Agricultural University | Inspection of station activities and inaugu- ration of Farm and Home workshop. | 9.8.96 & 10.2.97 |

| 1 | 2 | 3 |
|---|---|---------------------------------|
| Sri. P. V. Varghese Vaidhyar, MLA, Sulthan Battery. | To acquaint with the various activities of the station | 9.8.96 25.11.96 & 10.2.97 |
| Sri. N. C. Kuriakose, Vice President, Ambalavayal Panchayat | " | 9.8.96 |
| Mr. P. Vijayanand, Superintendent of Police, Wayanad | " | 10.8.96 |
| Sri. K. Gopalan, Executive Committee Member, K. A. U. | " | 19.4.96 & 19.8.96 |
| Sri. Rajan Kurikkal, Archaeological Expert | " | 14.9.96 |
| Sri. M. A. Baby, Member of Parliament | " | 15.9.96 |
| Agrl. Trainees from Assam & Sikkim | " | 27.9.96 |
| Mr. M. A. Kurian, Member, State Seed Committee | " | 25.10.96 |
| Dr. C. S. Sreenivas, Joint Director of Research, Coffee Board, Bangalore | " | 4.11.96 |
| Sri. T. N. Damodaran Joint Director of Extension, Coffee Board, Kalpetta | " | 4.11.96 |
| Sri. K. Gopalan Sri. K. Rajan Sri. Joseph Perumpilly Dr. C. G. Rajendran (General Council Members) | For conducting an enquiry regarding the allegation about the sales of University products | 5.11.96 |
| Mr. D. K. Singh, IAS, District Collector, Wayanad | To acquaint with the various activities of the station | 9.11.96 & 25.11.96 |
| Dr. M. Aravindan, Krishi Vigyan Kendra, IISR, Calicut | " | 13.11.96 |

| 1 | 2 | 3 |
|---|--|----------------------|
| Sri. T. K. Ramakrishnan Hon. Minister for Culture & Social welfare, Kerala | To acquaint with the various activities of the station | 25.11.96 |
| Smt. Jagadamma K, President, Ambalavayal Panchayat | " | 25.11.96 |
| Sri. Johny Nellore, MLA Sri. Kutty Ahammedkutty, MLA, Sri. K. Gopalan, Executive Committee Member | To attend the Works Committee meeting held at the station | 15.1.97 |
| Smt. Saraswathy Kunhikrishnan, Sri. P. O. Thomas, DPP. | | |
| Smt. Radha Raghavan, MLA, Mananthavady | To acquaint with the various activities of the station | 30-1-97 |
| Dr. K. V. Peter, Director IISR, Calicut | " | 3 2.97 |
| Dr. Y. R. Sharma, Scientist, IISR, Calicut | " | |
| Dr. K. Rajmohan, Director of Extension | To attend the state level farm feature workshop of FIB conducted at the station | 10.2.97 |
| M. R. Gopalakrishnan Nair, Chief Judicial Magistrate, Kalpetta | To acquaint with the various activities of the station | 13.3.97 |
| Hon. Justice UP, Singh, High Court of Kerala | " | 22.3.97 |
| Smt. K. Hema, District & Sessions Judge, Kalpetta | " | 22.3.97 & 28.3.97 |
| Hon'ble Justice N. Dhinakar, High Court of Kerala | " | 28.3.97 |

ii) CARDAMOM RESEARCH STATION, PAMPADUMPARA

This station was established in the year 1956, under the Department of Agriculture with a view to undertake research programmes on the various agronomical, botanical, entomological and phytopathological problems of cardamom cultivation. Soil and water management problems in the Idukki

region, selection of promising pepper cultivars for high ranges standardization of agro-techniques and formulation of plant protection measures, in collaboration with Pepper Res. Station, Panniyur for cardamom and pepper and to serve as a centre for agricultural extension education activities in the Idukki, Region

The station has been taken over by Kerala Agricultural University in 1972. The All India Co-ordinated Spices and Cashew Improvement Project was started in 1972 and NARP in 1983. The station has more than 600 rose varieties and serves as a source for supply of rose buddings in polybags and pots.

Researches on tree spices had also been initiated.

Station Head

Dr. Arthur Jacob, J. Assoc. Professor (Ent.)

Staff position

Scientific staff

| Category/Designation | No. of posts | | Vacant post |
|-------------------------------|--------------|-------------|-------------|
| | Sanctioned | In position | |
| AICRP | | | |
| Asistant Professor (Ent.) | 1 | 1 | — |
| Associate Professor (Agron.) | 1 | 1 | — |
| NARP | | | |
| Asst. Professor (Ent.) | 1 | — | 1 |
| Assistant Professor (Pl. Br.) | 1 | — | 1 |
| KAU (Non Plan) | | | |
| Asst. Prof. (Pl. Path) | 1 | — | 1 |
| Asst. Prof. (Hort.) | 1 | — | 1 |
| Asst. Prof. (Bot.) | 1 | — | 1 |
| Asst. Prof. (S.Sci.) | 1 | 1 | — |
| Technical staff | | | |
| AICRP | | | |
| Farm Asst. Sr. Gr. | 1 | 1 | — |
| Lab. Asst. Gr. I | 1 | 1 | — |
| NARP | | | |
| Farm Supervisor Gr. II | 1 | 1 | — |
| Farm Assistant Sel. Gr. | 1 | 1 | — |
| KAU-Non-plan | | | |
| Farm Supervisor Gr. I | 1 | 1 | — |
| Farm Assistant Sr. Gr. | 1 | 1 | — |

Administrative and Supporting staff

| Category/Designation | Sanc- tioned | In position | vacant |
|-----------------------|-----------------|----------------|--------|
| AICRP | | | |
| Peon | 1 | 1 | — |
| NARP | | | |
| Typist Grade II | 1 | — | 1 |
| KAU-(Non Plan) | | | |
| Administrative Asst. | 1 | 1 | — |
| Sr. Gr. Asst. | 1 | 1 | — |
| Asst. Grade II | 1 | 1 | — |
| Typist Grade II | 1 | — | 1 |
| Driver Grade III | 1 | 1 | — |
| Watchmen | 2 | 2 | — |
| Class IV Sweeper | 1 | 1 | — |

Faculty Improvement Programme

| | |
|--|-------|
| New post sanctioned, created shifted | : Nil |
| Scholarship awarded, to staff/ | : Nil |
| Deputation of staff for higher studies | : |
| Details of Seminars/Symposium/ | : Nil |
| Training attended by staff | : |
| Involvement of staff in academic programme | : Nil |

Farm Revenue

Year: 1996-97

Total receipts 36.87 lakhs

Total expenditure 6.95 lakhs

Important Visitors

| Name & address | Purpose of visit | Date of visit |
|---|--|---------------|
| Sri. Subratha Biswas. IAS, District Collector, Idukki (Dt.) | To acquaint with the activities of the station | 28/4/1996 |
| Sri. Jose Syriac., IAS, Secretary to Government Dairy Department | .. | 27/5/1996 |
| Sri. Johny Nelloor, MLA Executive Committee Member Kerala Agri. University | Official | 11/6/1996 |

| 1 | 2 | 3 |
|--|-----------------------------|-----------|
| Sri. V. K. Rajan Hon. Minister for Agriculture | Station & official visit | 18/8/1996 |
| C. K. Krishnankutty, District Panchayat Member | Station visit | 18/8/1996 |
| Huub A. I., Scientist, International Agri. Centre, The Netherlands | Official visit | 15/9/1996 |
| Sri. M. A Wahid, Chairman, Accounts Committee Kerala Agrl. University, | " | 8/11/1996 |
| Dr. S. N. Potty, Director of Research, Spices Board, ICRI, Myladumpara. | " | 8/11/1996 |

1.6. KERALA HORTICULTURE DEVELOPMENT PROGRAMME, VELLANIKKARA

Research and Development Projects

The Research and Development (R & D) component of Kerala Horticulture Development Programme (KHDP) started functioning at the Kerala Agricultural University since February, 1994. This forms a part of the joint venture of the Kerala state Government and the European Economic Community (EEC). The R & D component of KHDP is fully financed by the KHDP. The R & D activities of KHDP at the University is functioning at two campuses of KAU. viz., College of Horticulture, Vellanikkara and the College of Agriculture, Vellayani.

Dr. S. Ramachandran Nair functioned as the General Co-ordinator of the R & D Unit of KHDP during the period under report.

Mandate

To conduct research on fruit crops (banana, mango, and pineapple), vegetables and post harvest technology of fruits and vegetables based on farmer's problems.

To supply quality planting materials. ie. breeder/foundation seeds of vegetables, mango grafts and tissue culture plants of banana and pineapple to KHDP.

Establishment of pest and disease surveillance units at Ernakulam and Trivandrum Pilot Project Areas of KHDP and to monitor the occurrence of pest and diseases and to give recommendations.

Staff position

| Cadre | Sanctioned | In position | Vacant |
|--|------------|-------------|--------|
| <i>Scientific staff</i> | | | |
| General Co-ordinator | 1 | 1 | — |
| Professor | 1 | 1 | — |
| Assoc. Professor | 4 | 4 | — |
| Asst. Professor | 8 | 8 | — |
| <i>Administrative and supporting staff</i> | | | |
| Administrative Officer | 1 | 1 | — |
| Office Asst. Gr. I | — | 1 | — |
| Office Asst. Gr. II | — | 1 | — |
| Stenographer | — | 1 | — |
| Typist | — | 1 | — |
| Class IV | — | 1 | — |
| Farm Asst. Gr. I | — | 6 | — |
| Drivers | — | 3 | — |
| Research Associates | — | 3 | 4 |

Scholarship Awarded to Staff/Deputation of Staff for Higher Studies

Awarded the Netherlands fellowship under Colombo Plan to Smt. T. Sheela Paul, Asst. Professor, for the International Training Programme on IPM at the Netherlands from March to July 1996.

Details of scientists participated in seminars/workshops/ summer institutes/symposia etc.

| Name of scientist | Seminars/symposia/ venue | Period of deputation |
|--|---|-------------------------|
| 1 | 2 | 3 |
| Dr. T. R. Gopalakrishnan Assoc. Professor | Attended workshop on PTD Research organised by KHDP Kochi. | 6.5.96 to 7.5.96 |
| Dr. K. Aravindakshan Assoc. Professor | .. | .. |
| Dr. Maicykutty P. Mathew Assoc. Professor | .. | .. |

| 1 | 2 | 3 |
|--|---|----------------------|
| Dr. V. S. Devadas | Participated in the Summer Institute on recent advance in Agrl. Research Management at NAARM, Hyderabad | 3.6.96 to 22.6.96 |
| Dr. A. K. Babylatha Assoc. Professor | Summer Institute on 'Recent Advances in Agricultural Research Management' at NAARM, Hyderabad. | 3.6.96 to 22.6.96 |
| Dr. K. Nandini Asst. Professor | National symposium on technology advancement in rice at the KAU Vellanikkara. | 17.6.96 to 19.6.96 |
| Dr. Maicykutty P. Mathew Assoc. Professor | " | " |
| S. Ramachandran Nair General Co-ordinator KHDP | International seminar on banana conducted by the Kerala Agrl. University at KAU Hqrs. | Aug. 96 |
| Dr. Maicykutty P. Mathew Assoc. Professor | " | " |
| Dr. A. K. Babylatha Assoc. Professor | National symposium on Horticultural Bio-technology organized by Horticultural Society of India at IIHR, Bangalore | 28.10.96 to 30.10.96 |
| Dr. Ramachandran Nair General Co-ordinator | Attended two days National seminar on participatory Technology | 21.11.96 to 22.11.96 |
| Dr. V. S. Devadas Assoc. Professor | Development organised by the Kerala Horticulture Development Programme, Kochi at Thiruvananthapuram. | |
| Dr. V. S. Devadas Assoc. Professor | National Seminar - Plant Physiology for Sustainable Agriculture held at the IARI, New Delhi | 19-21 March 97 |

Details of seminars/workshops/symposia/etc. conducted at the station

Dr. S. Ramachandran Nair, General Co-ordinator conducted classes for two batches of trainees on tissue culture during the period.

Organised and conducted a training programme on In vivo techniques and agronomic evaluation of Anacardium to a Faculty member from the Orient University, Managas, Venezuela for a period of four months from 18 Nov. 1996.

Conducted class on Mango cultivation to the Agrl. Officers of Palakkad, Malappuram and Kozhikode districts as a part of the training programme organised by RATTC, Palakkad on 20-12-96.

Dr. A. K. Baby Latha, Assoc. Professor (Hort.) conducted classes for three batches of trainees on tissue culture during the period.

Dr. V. S. Devadas, Assoc. Professor (Hort.) handled a class for 40 farmers of KVK, FACT, Pazhanji on vegetable cultivation on 21-12-1996.

Involvement of staff in Academic Programmes

a) Courses handled

Dr. T. Radha, Assoc. Prof. (Hort.) handled a regular course FMAU 202 Forest Tree Propagation for II B.Sc. (Forestry) students.

Dr. V. S. Devadas, Assoc. Professor (Hort.) handled a regular course Hort. 162 Arboriculture, for III B. Sc. (forestry) students.

Dr. V. S. Devadas, Assoc. Prof. (Hort.) handled a regular course Hort. 604 - Vegetable and flower seed production for II M. Sc. (Hort.) students.

Dr. K. Nandini, Asst. Prof. handled a regular course Agr. Bot. 612 Principles of Plant Physiology for M. Sc. students.

Dr. K. Nandini, Asst. Professor handled a regular course Ag. Bot. 305 Plant Physiology-II for final year B.Sc. (Ag) students.

Dr. K. Nandini, Asst. Prof. handled a repeat course Ag. Bot. 203 Plant Physiology-I for third year B.Sc.(Ag.)students.

- b) Post graduate guidance—As guide of P.G. students
- | | |
|--|--|
| Dr. T. Radha, Assoc. Profeesor | Sri. Jojose, C—M.Sc. (Hort.) |
| Dr. A. K. Babylatha, Assoc. Professor | Smt. V. Bindu—M. Sc. (Hort.) |
| Dr. K. Nandini | Smt. Thara Manoharan— M. Sc. (Pl. Br.) |
| Dr. T. R. Gopalakrishnan | Mr. P. K. Singh—Ph. D. (Hort.) |
| Dr. K. Aravindakshan | Smt. Deepa Jacob Mavelil —M.Sc. (Hort.) |
- c) As member of Advisory Committee
- | | |
|--|---|
| Dr. Maicykutty P. Mathew Assoc. Professor | Smt. Sreekala—M.Sc. (Ent.) |
| Dr. T. Radha, Assoc. Prof. | Smt. Jyothi, M. L.—Ph.D. (Hort.) |
| Dr. V. S. Devadas, Assoc. Prof. | Smt. K. Krishnakumari— Ph. D. (Hort.) |
| | Smt. Liji, P. V.—M.Sc. (Hort.) |
| | Smt. Bavrah Balan—M. Sc.(Hort) |
| Dr. K. Nandini | Smt. Deepa Jacob Mavelil M. Sc. (Hort.) |
| Dr. K. Nandini, Assoc. Professor | Smt. Anu G. Krishnan, M. Sc. (Hort.) |
| Dr. K. Nandini, Assoc. Professor | Smt. Fancy Parameswaran M. Sc. (Pl. Br.) |

Farm Revenue

Year : 1996-97

Receipts : Rs. 2,39,859 lakhs

Expenditure : —

Important visitors

R. F. Sapkopa, Director, Crops & Horticulture, Nepal Agrl. Research Council, Kathmandu, Nepal, visited the station on 22-5-96.

2. FACULTY OF VETERINARY AND ANIMAL SCIENCES

2.1. COLLEGE OF VETERINARY & ANIMAL SCIENCES, MANNUTHY

The College of Vety. & Animal Sciences was established in 1955 with a view to train and provide sufficient Veterinary personnel. For the first few years the institution was directly under the administrative control of the Kerala Government, But, subsequently it was brought under the control of the Dept.

of Animal Husbandry. The post graduate programmes leading to M.V.Sc. & Ph. D degree were started in 1962 and 1965 respectively. The College became a constituent unit of the Kerala Agricultural University in February 1972.

The College has associated with it, a Livestock Farm, a Poultry Farm, a Pig Breeding farm and a Goat farm. A Dairy Technology unit and a Meat Technology unit are also in the campus. Two Veterinary Hospitals, one at Mannuthy and another at Kokkalai and a Farm clinic at U. L. F. Mannuthy are also attached to the College as instructional units.

In addition to teaching a number of research projects aided by the University and other External agencies are being operated at the College. Importance was given for the transfer of technology.

The following Research Stations--Livestock Research Station, Thiruvazhamkunnu and Cattle Breeding Farm, Thumburmuzhi are also attached to the College to facilitate research and training.

The College and the residential campus cover an area of 195 hectares.

There are 20 Departments viz., Anatomy, Animal Reproduction, Animal Breeding and Genetics, Bio-chemistry, Clinical Medicine, Dairy Science, Extension, Livestock Production Management, Livestock Products Technology, Microbiology, Nutrition, Parsitology, Pathology, Pharmacology and Toxicology, Physiology, Poultry Science, Preventive Medicine, Surgery, Statistics and Veterinary Public Health.

All the Departments except Biochemistry and Livestock Products Technology are offering courses at the Masters level and all except Extension, Preventive Medicine, Veterinary Public Health, Bio-chemistry, Livestock Products Technology and Statistics are offering Ph. D programme.

Dr. A. Rajan continued as the Dean for the period under report.

Staff position

| Designation/Category | Sanctioned post | In position | Vacant |
|------------------------|-----------------|-------------|--------|
| 1 | 2 | 3 | 4 |
| Administrative Officer | 1 | 1 | — |
| Section Officers | 6 | 6 | — |
| Sr. Gr. Assistants | | | |
| Gr. I Assistants | 19 | 16 | 3 |
| Gr. II Assistants | | | |

| 1 | 2 | 3 | 4 |
|--|----|----|-------------------------|
| Sr. Office Supdt. | 2 | 2 | — |
| Office Supdt. | 2 | 1 | 1 |
| Typists | 6 | 6 | — |
| Radiographer | 1 | 1 | — |
| Audio visual operator | 1 | 1 | — |
| Artist/Photographer | 1 | 1 | — |
| Duplicator operator | 2 | 2 | — |
| Matron | 1 | 1 | — |
| Hostel Manager | 2 | 2 | — |
| Syce | 1 | 1 | — |
| Regular Mazdoor | 1 | 1 | — |
| Gardener | 1 | 1 | — |
| Groom | 1 | 1 | — |
| Electrician | 1 | 1 | (joined on 10.12.96) |
| Librarian | 1 | — | 1 |
| Assistant Librarian | 1 | 1 | — |
| Library Assistant | 2 | 2 | — |
| Reference Assistant | 2 | — | 2 |
| Research Assistant | 1 | — | 1 |
| Lab. Technician/Research Assistant | 2 | 2 | — |
| Dairy Assistant | 2 | — | 2 |
| Junior Programmer | 1 | 1 | — |
| Clerical Assistant/ Lab Asst. Gr. III | 9 | 9 | — |
| Technical Asst. | 1 | 1 | — |
| Dairy Mechanic | 1 | — | 1 |
| LDV Driver | 6 | 4 | 2 |
| HDV Driver | 1 | 1 | — |
| Farm Supervisor | 6 | 6 | — |
| Farm Asst. | 19 | 19 | — |
| Peon | 7 | 6 | 1 |
| Attendant | 9 | 8 | 1 |
| Sweeper cum-Attendant | 16 | 13 | 3 |
| Sweeper | 1 | 1 | — |
| Sweeper-cum-Scavenger | 7 | 1 | 6 |
| Class IV | 2 | — | 2 |
| Helper | 1 | 1 | — |
| Cleaner-cum-Attendant | 1 | — | 1 |
| Institute Librarian | 1 | — | 1 |

Academic programmes
Student Statistics

| Year of admission | Men | Women | Total |
|--|------------|------------|------------|
| <i>U G Programme (B. V. Sc. & A. H.)</i> | | | |
| 1984 | 1 | — | 1 |
| 1986 | 6 | 1 | 7 |
| 1987 | 6 | 3 | 9 |
| 1988 | 3 | 3 | 6 |
| 1989 | 5 | 5 | 10 |
| 1990 | 59 | 24 | 83 |
| 1991 | 50 | 28 | 78 |
| 1992 | 58 | 27 | 85 |
| 1993 | 59 | 38 | 97 |
| 1994 | 58 | 44 | 102 |
| 1995 | 49 | 34 | 83 |
| 1996 | 55 | 40 | 95 |
| Total | 409 | 247 | 653 |
| <i>M.V. Sc.</i> | | | |
| 1994 | 3 | — | 3 |
| 1995 | 19 | 15 | 34 |
| 1996 | 32 | 3 | 35 |
| | 54 | 18 | 72 |
| <i>Ph. D.</i> | | | |
| 1993 | 4 | — | 4 |
| 1994 | 4 | 1 | 5 |
| 1995 | 2 | 1 | 3 |
| 1996 | 4 | — | 4 |
| <i>Students passed out</i> | | | |
| B.V.Sc & A.H. | 77 | | |
| M.V.Sc. | — | | |
| Ph. D | — | | |
| <i>Dairy Science B. Sc. (D.Sc & Tech.)</i> | | | |
| 1993 | 8 | 12 | 20 |
| 1994 | 14 | 7 | 21 |
| 1995 | 8 | 11 | 19 |
| 1996 | 12 | 17 | 29 |

Faculty Improvement Programme

Details of scientific staff deputed for higher studies

Dr. Rajendrakumar, Assoc. Professor, Dairy Science is continuing his deputation for Ph. D programme in Dairy Technology. Dr. Geetha C. Jayan, Asst. Professor, Dairy Science is continuing her study leave.

Dr. Devanand, Asst. Professor, Surgery, Dr. Girish Varma, Asst. Professor, Physiology, Dr. K. Vijayakumar, Asst. Professor, Preventive Medicine and Dr. Anil S. S. Asst. Professor, Extension have entered on study leave for their Ph. D. programme.

Change in academic position

Retirement : The following Professors retired from service on superannuation

| Name | Designation | Month |
|---------------------------|--|------------|
| Dr. A. Ramakrishnan | Director, Centre for Advanced Studies in Poultry Science | June 1996 |
| Dr. C. K. Venugopalan | Professor, Poultry Science | October 96 |
| Dr. P. C. James | Professor, Microbiology | March 97 |
| Dr. M. V. Sukumaran | Professor, Dairy Science | May 96 |
| Dr. P. T. Georgekutty | Professor, Preventive Medicine | June 96 |
| Dr. K. Chandrasekharan | Professor, Parasitology | Aug. 96 |
| Dr. V. Sathianesan | Professor, Parasitology | Jan. 97 |
| Dr. K. Pavithran | Professor, Dairy Science | Sept. 96 |
| Dr. U. T. Francis | Professor, Dairy Science | March 96 |
| Dr. E. Mathai | Professor, Animal Reproduction | July 96 |
| Dr. C. P. Neelakanta Iyer | Professor, Animal Reproduction | Sept. 96 |
| Dr. K. M. Alikutty | Professor, Clinical Medicine | Dec. 96 |
| Dr. M. K. Rajagopalan | Professor, Pharmacology | June 96 |
| Dr. Lucy Paily | Professor, Anatomy | Sept. 96 |

Transfers : Dr. V. S. Balakrishnan, Professor took charge as Professor R. C. in January 1997.

Dr. V. Sathianesan, Professor took charge as the head of Dept. of Parasitology in Sept. 96 and retired on superannuation in January 1997.

Dr. C. George Varghese, Professor took charge as head of Department of Parasitology in January 1997.

Dr. K. V. Valsala, Assoc. Professor, Pathology, Dr. T. Sreekumaran, Associate Professor, Pathology, Dr. J. Abraham, Associate Professor, Meat Technology took charge as Professors in August 1996.

Dr. A. K. K. Unni, Professor, Poultry Science took charge as Director, Centre for advanced studies in Poultry Science in July 1996.

Dr. Sisilamma George, Asst. Professor, Physiology, Dr. T. P. Balagopalan, Asst. Professor, Surgery, Dr. Mini, Assistant Professor, Microbiology. Dr. Anilkumar, Asst. Professor Pathology, Dr. A. D. Mercy, Assoc. Professor, Nutrition, rejoined duty in their parent department on expiry of study leave.

Postings

Dr. K. Karthiayani joined as Asst. Professor in the Department of Physiology on 5.3.1997.

Dr. B. Sunil has been appointed as Asst. Professor in the Department of Veterinary Public Health.

Dr. Koshy Varghese was posted as Asst. Professor in the Department of Microbiology.

Dr. Anilkumar was posted as Asst. Professor in Animal Reproduction.

Details of training/symposia/workshop etc. conducted at the college: Nil

Faculty Improvement programme

Seminars/Workshop/Summer Institute etc. attended by staff

| Name & Designation | Seminar | Venue | Period |
|--|------------------------|-----------|----------------|
| Dr. C. K. Venugapalan, Professor | | | |
| Dr. K. Narayanankutty, Assoc. Prof. | World Poultry Congress | New Delhi | 2-2 Sept. 1996 |
| Dr. A. Jalaludeen, Assoc. Professor | | | |
| Dr. Leo Joseph, Assoc. Professor | | | |
| Dr. N. Vijayan, Asst. Professor | | | |
| Dr. A. K. K. Unni, Professor and Head, Poultry | | | |

| 1 | 2 | 3 | 4 |
|---|--|--|---------------------------------------|
| Dr. A. K. K. Unni, Professor Dr. N. Vijayan, Asst. Prof. | Workshop organised by DST | Kalka | 2-4 Nov. 96 |
| Dr. Syam. K. Venu- gopal Asst. Professor Dr. K. Kajankutty Assoc. Professor | Advanced Training on Vety. Diagnostic imaging with special reference to ultra sonography | Ludhiana | 6-17 Jan. 97 |
| Dr. N. M. Aleyas Professor Dr. (Mrs) Santha E George Assoc. Professor Dr. Syam. K. Venu- gopal Asst. Professor | National Seminar on Poultry Produ- ction organised by IVA | Thrissur | 29 Dec. 96 |
| Dr. P. T. Philomina Assoc. Professor Dr. G. Girish Varma Asst. Professor Dr. V. Ramanathan Asst. Professor | Summer Institute in Physiology | Madras Veterinary College | 5th Jan. to 24th Jan. 96 |
| Dr. Sisilamma George Asst. Professor Dr. K. P. Sree- kumar Asst. Professor | Conference | University of Belgium | 16-21 April 96 |
| Dr. K. R. Harshan Assoc. Professor | Conference | University of London | 10-15 Nov. 96 |
| Dr. K. R. Harshan Assoc. Professor | Training on Manage- ment Nutrition & Embryo transfer in buffaloes | Hissar | 30.5.96 to 27.6.96 |
| Dr. V. S. Bala- krishnan Assoc. Professor Dr. C. Latha, Asst. Professor | ZERC workshop of Northern zone Seminar on common parasitic disease of domestic animals in Kerala National Seminar on Poultry production | Pilicode Mannuthy Thrissur | 30.1.97 29.12.96 |

| 1 | 2 | 3 | 4 |
|--|--|--------------------|--------------------------|
| Dr. C. Latha, Asst. Professor | Kerala Science Congress | Trivandrum | |
| Dr. B. Sunil Asst. Professor | | | |
| Dr. Mini Asst. Professor | Summer Institute on Advances in Clinical Pathology and P. M. Diagnosis | Thrissur | 8-27 Jan. 97 |
| Dr. K. Devada Assoc. Prof. | | | |
| Dr. Koshy Varghese Asst. Prof. | | | |
| Dr. Leena Devi Asst. Prof. | | | |
| Dr. V. Jaya- prakasan Assoc. Prof. | International course on advances in Vaccine Technology & Vety. applications. | Ludhiana | 4.3.97 to 9.3.97 |
| Dr. S. N. Rajkumar Asst. Prof. | Short term training course sensory evaluation and Rheology of milk and milk production. | NDRI Karnal | 22.8.96 to 13.9.96 |
| Dr. M. R. Saseen- dranath Assoc. Prof. | National Seminar on Diagnosis and control of emerg- ing specific diseases of Livestock pets and wild animals. | Madras | 12.7.96 to 13.7.96 |
| Dr. P. V. Tresamol Asst. Prof. | | | |
| Dr. Vijayakumar Asst. Prof. | XIX World Biometrics Congress | Edinburgh U. K. | 8.7.96 to 12.7.96 |
| Dr. M. R. Saseen- dranath Assoc. Prof. | Training on Bio- technological methods in diagnosis of Leptospirosis Inter- national course on advances in vaccine Technology and Veterinary applica- tions. | Ludhiana | 4.3.97 to 9.3.97 |
| Dr. P. V. Tresamol Asst Prof. | | | |

| 1 | 2 | 3 | 4 |
|--|---|----------------------------|-----------------------------------|
| D. P. J. Rajkamal Asst. Prof. | Summer Institute in Livestock economics | Karnal | 16.9.96 to 5 10.96 |
| Dr. K. C. George Professor | 49th Annual Con- ference of Indian Society of Agricul- tural Statistics. | Lucknow | 19-21 Dec. 96 |
| Dr. Mathew Sebastian Asst. Prof. | Training | Bharathiar University | 2-27 Mar. 97 |
| Dr. C. T. Thomas Prof. | International meet on Tropical Tuber Crops. | Thiruvanan- thapuram | 12.12.96 |
| " | Annual review com- mittee meeting of ICAR Network project on Micronutrients. | Madras Vety. College | 3-4 Feb. 97 |
| Dr. V. Sathianesan Professor | VIII National Con- gress of Vety. Parasitology | Haryana Agrl. Unty. | 8-10 October 96 |
| Dr. C. T. Sathian Asst. Professor | Training on Modern trends in by-product Technology | NDRI Karnal | 18.3.97 to 7.4.97 |
| Dr. B. Gangadha- ran, Asst. Prof. | Summer Institute on Radio Isotope Tech- nology in Animal Health Science | Madras | 5.6.96 to 24.6.96 |
| Dr. T. V. Anil- kumar Asst. Prof. | | | |
| Dr. N. Gangadha- ran, Asst. Prof. | National Seminar on impact of envi- ronmental pollution on health & produc- tion of Livestock Poultry and wildlife | Pantnagar | 4.11.96 to 6.11.96 |
| Dr. K. V. Athman Assoc. Professor | Recent advances in Gynaecological disorders in farm animals | Ludhiana | 3-17th Feb. 97 |
| Dr. K. Ramacha- ndran Asst. Prof. | | | |
| Dr. Metilda Joseph Asst. Professor | Training on Radio & and Enzyme immu- noassay techniques in animal reprodu- ction | NDRI Karnal | 23rd Dec. to 5th Jan, 97 |

| 1 | 2 | 3 | 4 |
|---|---|-------------|--------------------------|
| Dr. S. P. Suresh-Nair, Assoc. Prof. | Training on Invitro fertilization, embryo culture and associated techniques in farm animals | NDRI Karnal | 27th Jan. to 8th Feb. 97 |
| " | Workshop in National Agriculture Technology programme | " | 22-24th Jan. 27 |
| Dr. K. Prabhakaran Nair, Professor | " | " | " |
| Dr. K. Prabhakaran Nair, Professor Dr. Anilkumar Asst. Professor | National Symposium in Biotechnology in Animal Reproduction | Pantnagar | 4-6 Dec. 96 |
| Dr. Ajithkumar Asst. Professor | Training at CIFT | Cochin | " |

| Details of Seminar/work shop/training etc. conducted | Venue discipline | Period | No. of participants |
|--|-----------------------------|------------------------------------|---------------------|
| Training on role of public health Veterinarians in control of Zoonosis | Veterinary Public Health | 7.10.96 11.10.96 | 8 |
| Role of Public health Veterinarians in environmental sanitation | " | 20.1.97 to 24.1.97 | 10 |
| Training in Diagnostic Radiology & Orthopaedics | Surgery | 15.10.96 to 26.10.96 | 10 |
| Manufacture and standardisation of biologicals | Microbiology | 2.9.96 to 2.12.96 | 12 |
| Diagnosis of Mycotic Infections | " | 9.12.96 to 14.12.96 | 9 |
| Training in preparation packaging of Dairy products | Dairy | 24.1.97 to 23.1.98 (ongoing) | 4 |

| 1 | 2 | 3 | 4 |
|--|---------------------|------------------------------|----|
| Training in sanitary practices | Dairy | 24.1.97 to 23.1.98 (ongoing) | 4 |
| Training in operation and maintenance of dairy equipments | Dairy | " | 4 |
| Training for Pre-release defence personnels | " | July 96 | 20 |
| Self Employment programme | Extn. | Sept. 96 | — |
| Training on animal husbandry for selected farmers | " | August 96 | — |
| Training on applied nutrition and feed analysis for Veterinary Surgeon | Nutrition | 16.12.96 to 21.12.96 | — |
| Summer Institute on advances in Clinic Pathology | Pathology | 8.1.97 to 21.1.97 | 23 |
| Training on Aflatoxin analysis | " | 16.9.96 to 26.9.96 | 5 |
| Training on post mortem technique | " | 23.9.96 to 27.9.96 | 5 |
| Training in clinical pathology | Pathology | 14.10.96 to 20.10.96 | 10 |
| Training on advances in disease investigation | " | 16.12.96 to 23.4.97 | 10 |
| Training in fertility management of live stock | Animal Reproduction | March 97 | 9 |
| Library | | | |
| No. of books added | : | 125 | |
| Progressive total | : | 21260 | |
| Journals received on exchange/gratis | : | 15 | |

Hostel

| Name of hostel | No. of inmates | Name of Asst. Warden |
|------------------|----------------|-------------------------|
| Mens hostel Main | 130 | Dr. Jose John, Chungath |
| Annexe | 120 | Dr. P. G. Baby |
| P.G | 30 | Dr. V. S. Balakrishnan |
| Ladies hostel | 245 | Dr. Leenadevi. T |

Important visitors

Dr. R. S. Paroda, Director General, ICAR

Dr. Archibald David, Professor of Surgery, Madras Veterinary College

Dr. Gaj Raj Singh, Professor, Experimental Surgery, IVRI

Dr. Avinash Deshmukh, Scientist Ralston Purina Co., USA

2.2 POULTRY AND DUCK FARM, MANNUTHY

The University Poultry and Duck Farm originally under the State Department of Animal Husbandry was brought under the Kerala Agricultural University from 1-2-'72.

Dr. G. Reghunathan Nair, Professor was in-charge of the unit during the period.

Major objectives of the farm are to provide hatching eggs, chicks and breeders for farmers, to provide instructional facilities for teaching and research and to take up independent research in various aspects of poultry production.

Staff position

Scientific staff

| Designation | No. of posts | | |
|------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| Professor | 1 | 1 | — |
| Assoc. Professor | 3 | 1 | 2 |
| Asst. Professor | 2 | — | 2 |

Technical Staff

| | | | |
|---------------------------|---|---|---|
| Sr. Farm Supervisor Gr. I | 1 | 1 | — |
| Farm Supervisor | 1 | 1 | — |
| Sr. Gr. Farm Assistant | 1 | 1 | — |
| Farm Asst. Gr. II | 1 | 1 | — |

| 1 | 2 | 3 | 4 |
|-----------------------------|---|---|---|
| <i>Administrative staff</i> | | | |
| Administrative Assistant | 1 | 1 | — |
| Sr. Grade Assistant | 1 | 1 | — |
| Seln. Gr. Typist | 1 | 1 | — |
| Peon H.C. | 1 | 1 | — |
| Class IV | 2 | 2 | — |
| Watchman | 1 | 1 | — |

Faculty Improvement programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff, deputation of staff for higher studies : Nil

Details of Seminars/symposia attended by staff: Nil

Involvement of staff in academic programmes—one U.G Course SFT 311 is taken by the staff of the station.

Farm Revenue

| | |
|----------------------|---------|
| Year | 1996-97 |
| Receipts in lakhs | 17.185 |
| Dxpenditure in lakhs | 39.925 |

2.3. UNIVERSITY PIG BREEDING FARM, MANNUTHY

It is a unit of College of Vety. & Animal Sciences, started in 1965 with the objective of conducting research on various aspects of swine production, to function as a demonstration unit for farmers and instructional unit for students and to produce and distribute good quality piglets to farmers. The area of the farm consists of four hectares.

All India Co-ordinated Research Project on Pigs was started in this centre on 1.8.1993. As per the technical programme a foundation stock of indigenous pigs was established in the centre and 2nd generation of the same is in the growing stage for cross breeding with large white Yorkshire in the coming year. Basic informations with respect to management, disease prevalence and nutrition are being collected and detailed studies in these areas will be undertaken with special emphasis on identification and utilisation of cheap unconventional feed stuffs and agro-industrial by products. Due to high difference in adult body size of indigenous and Yorkshire pigs there may be difficulty in natural mating in cross breeding and hence artificial insemination may have to be adopted in collaboration with Department of Animal Reproduction, College of Vety. & Animal Sciences, Mannuthy.

The details of staff sanctioned, in position and vacant are furnished below:

| Designation/category | Sanc- tioned | In position | Vacant |
|--|-----------------|----------------|--------|
| AICRP Scientific staff | | | |
| Assoc. Professor & Head | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |
| Sr. Farm Supervisor | 1 | 1 | — |
| Farm Supervisor Gr. I | 1 | 1 | — |
| Farm Asst. Gr. II | 1 | 1 | — |
| Pump Operator | 1 | 1 | — |
| Administrative & Supporting staff | | | |
| Admn. Asst. | 1 | 1 | — |
| Sr. Gr. Asst. | 1 | 1 | — |
| Asst. Gr. I | 1 | 1 | — |
| Peon (Hr. Gr.) | 1 | 1 | — |
| Pig attendant | 2 | 2 | — |
| Technical Staff | | | |
| Farm Asst. Gr. II | 2 | 2 | — |
| Administrative & Supporting staff | | | |
| Sr. Gr. Assistant | 1 | — | 1 |
| Typist Gr. I | 1 | 1 | — |

Farm Revenue

Receipts (in lakhs) 2.20707

Expenditure (in lakhs) 14.6141

Important visitors — Nil

2.4. CENTRE FOR ADVANCED STUDIES IN POULTRY SCIENCE

The Centre of Advanced studies in Poultry Science located in the College of Veterinary and Animal Sciences, Mannuthy was established in the year 1986. The Centre co-ordinates the work of the department of Poultry Science, University Poultry and Duck Farm, All India Coordinated Research Project on Poultry Breeding.

Staff position

| Designation/category | Sanc- tioned | In position | Vacant |
|-------------------------|-----------------|----------------|--------|
| Scientific staff | | | |
| Director | 1 | 1 | — |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |

| | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| Department of Poultry Sciences: | | | | |
| Professor | | 2 | — | 2 |
| Associate Professor | | 2 | 2 | — |
| Assistant Professor | | 5 | — | 5 |
| <i>Technical staff</i> | | | | |
| Farm Asst. | | 1 | — | 1 |
| <i>Administrative/Supporting staff</i> | | | | |
| Steno to Director | | 1 | 1 | — |
| Management trainee | | 2 | — | 2 |
| Research Associate | | 2 | 2 | — |

Change in academic position:

| | | |
|-----------------------|---|---------------------|
| Dr. A. Ramakrishnan | — | Director - retired |
| Dr. C. K. Venugopalan | — | Professor - retired |

Faculty Improvement Programme

Scientists deputed for higher studies/study leave/leave for study purpose — Nil

Participation of Scientists in seminar/workshop/training/Symposia summer institute.

Dr. A.K.K. Unni, Dr. C.K. Venugopalan, Dr. P.A. Peethambaran, Dr. K. Narayanankutty, Dr. A. Jalaludeen, Dr. Leo Joseph and Dr. N. Vijayan attended World poultry congress, New Delhi from 2-5 September, 1996.

Dr. A. K. K. Unni and Dr. N. Vijayan attended the workshop organised by DST at Kalka from November 2-4, 1996.

Training/symposia/workshop etc. conducted : Nil

Important visitors

Dr. R. S. Paroda, Director General, ICAR visited the Project—AICRP on Poultry Improvement.

2.5 CENTRE OF EXCELLENCE IN PATHOLOGY

Department of Pathology in the College of Veterinary and Animal Sciences was upgraded to the status of Centre for Excellence during 1987. Dr. A. Rajan continued to be the Director of the Centre during the period.

Staff position

| Designation/Category | No. of posts | | |
|---|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| <i>Scientific staff</i> | | | |
| Director | 1 | 1 | — |
| Professor & Head | 1 | 1 | — |
| Assoc. Professor | 2 | 2 | — |
| Assoc. Professor (NC) | — | 3 | — |
| Assistant Professor | — | 6 | — |
| <i>Paratechnical/Administrative/Ministerial/supporting position</i> | | | |
| Sr. Office Supdt. | 1 | — | 1 |
| Farm Assistant | 1 | 1 | — |
| Driver | 1 | — | 1 |
| Attendant | 2 | 2 | — |

Changes in academic position

The two posts of Associate Professors (Dr. K. V. Valsala and Dr. T. Sreekumaran) were upgraded as Professors. One post of Biochemist Dr. Ismayil, Associate Professor was shifted from the Department of Physiology and Biochemistry. Two Associate Professors (Dr. C. R. Lalithakunjamma and Dr. C. B. Manomohan) were promoted by carrier advancement. Six Assistant Professors (including the two posts created for diagnostic Pathology in 1981).

2.6. VETERINARY COLLEGE HOSPITAL, MANNUTHY

Veterinary College Hospital, Mannuthy was established in the year 1961 with the primary objective of imparting clinical training to the students and providing clinical materials for field problem oriented research. Both in-patients and outpatients are attended category wise under supervision of specialists from four clinical departments viz. Clinical Medicine, Preventive Medicine, Surgery and Animal Reproduction.

Scientific and Technical staff

| Category | Sanctioned | In position | Vacant |
|-------------------------|------------|-------------|--------|
| <i>Scientific staff</i> | | | |
| Professor | 1 | 1 | — |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |
| <i>Supporting staff</i> | | | |
| Farm Supervisor Gr. I | 1 | 1 | — |

Cases treated

| | |
|--------------------------|------|
| Equine | 46 |
| Bovine | 4528 |
| Others | 4115 |
| Total | 8689 |
| Daily average attendance | 2381 |

Out of the above cases:

| | |
|---------------------------|------|
| Castrations done | 56 |
| Major surgical operations | 116 |
| Minor surgical operations | 648 |
| Ranikhet disease | 6608 |

Anti-rabic vaccinations:

| | |
|------------------------|------|
| Prophylaxis for canine | 189 |
| Clinical examination | 1183 |

Participation of Scientists in Seminar/Workshop/Training/ Symposia/Summer Institute etc.

Dr. Syam K. Venugopal attended an advanced Training in Veterinary diagnostic imaging with special reference to ultrasonography from Jan. 6th to 17th Jan. 1997 at Punjab Veterinary College, Ludhiana.

2.7. LIVESTOCK RESEARCH STATION, THIRUVAZHAMKUNNU

Livestock Research Station, Thiruvazhamkunnu is located in Kottappadam Village, Mannarkkad Taluk, Palakkad district. The Station is situated 17 kms. north of Mannarkkad with an area of 163.3 ha.

The farm was started under the post war development scheme of Animal Husbandry Department of Madras Government in the year 1950 with its office at Perinthalmanna. The farm was then transferred to Department of Animal Husbandry, Kerala in 1956 and then to Kerala Agricultural University in February, 1972. It was converted into Livestock Research Station on 14.8.78. An A. I. C. R. P. on Agroforestry was started on 8.12.93 and continued to be under operation.

Dr. P. Ramachandran, Professor continued as the Head of the Station.

Main objectives:

To evolve elite breed of Cross bred dairy cattle by Scientific breeding, feeding and management.

To hold problem oriented and adaptive research projects in the field of Animal feeding, production and management.

To advise local farmers on scientific management of live-stock and technology transfer to villages.

To provide artificial insemination and animal health care to animal of local farmers.

Staff position

| Category | Sanctioned | In position | vacant |
|--|------------|-------------|--------------|
| <i>Research/Technical</i> | | | |
| Associate Professor (Nutrition) | 1 | — | 1 |
| Assoc. Professor (Animal Reproduction) | 1 | — | 1 |
| Professor (OB & G) | 1 | 1 | — |
| Professor (Extension) | 1 | 1 | — |
| Asst. Professor (Pathology) | 1 | 1 | — |
| Asst. Professor (Animal Management) | 1 | — | 1 |
| Asst. Professor (Sci. Ani. Reproduction) | 1 | 1 | — |
| <i>Para Technical</i> | | | |
| Farm Supervisor Sr. Gr. (Vety) | 1 | 1 | — |
| Farm Supervisor Gr. I (Vety) | 1 | 1 | — |
| Farm Assistant (Vety) | 2 | 1 | 1 |
| <i>Ministerial</i> | | | |
| Administration Asst. | 1 | 1 | — |
| Assistant Sr. Gr./Gr. I | 4 | 3 | 1 |
| Assistant Gr. II | 1 | 1 | — |
| Typist | 2 | 1 | 1 |
| Peon | 2 | 2 | — |
| <i>AICRP on Agroforestry</i> | | | |
| <i>Research/Technical</i> | | | |
| Assoc. Prof. (Forestry) | 1 | — | 1 |
| Asst. Prof. (Agron.) | 1 | 1 | Addl. charge |
| Asst. Prof. (Agri. Engg.) | 1 | 1 | — |

2.8. CATTLE BREEDING FARM, THUMBURMUZHI

Thumburmuzhi is a hill-tract area which is located about 14 kms. east of Chalakudy town in the Chalakudy-Sholayar route, in 1957, Government of Kerala started a dry cattle salvage farm under the Animal Husbandry Department at Thumburmuzhi. By the end of 1957, a cattle breeding Station was started with the financial assistance from ICAR. The dry cattle salvage farm was wound up in 1962. The ICAR scheme continued upto 1969. Since then a livestock farm was started under Animal Husbandry Department. The farm was taken over by Kerala Agricultural University on 1/2/1972 and now this institution is functioning as Cattle Breeding Farm.

The total area of the farm is 63 acres. Resurvey of the area is proposed. Area under fodder cultivation is 40 acres (rainfed-14 acres and irrigated 26 acres). Action has been initiated to bring more area under irrigation by constructing a spout from the irrigation canal. More of area has been brought under fodder cultivation. At present, the farm is having the following fodder crops.

Guinea grass — improved variety (Riversdale, CoI)
Hybrid Napier — (Co I, Co II)
Thin Napier
Congo signal

The farm is having 578 bearing coconut trees and 197 young trees.

The major objectives of the farm are to breed and maintain an elite herd of cross-bred cattle; to extent facility for research on cross-bred cattle; to extent facility of artificial insemination to the cattle of surrounding villages; to supply improved varieties of fodder slips.

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/

Deputation of staff for higher studies : Nil

Details of seminars/symposia/training attended by staff

Assistant Professor Dr. K. S. Anil was deputed for 7 days training course on 'Drug Immobilization' at Veterinary College

Farm Revenue

| | |
|------------------------|-----------|
| Year | : 1996-97 |
| Receipts (in lakhs) | : 12.95 |
| Expenditure (in lakhs) | : 43.30 |

Important visitors

| Name & address | Purpose of visit | Date of visit |
|---|--|---------------|
| Sri. Varghese Perepadan. Mala, Trichur (G. C. Member) | Formation of Farm Advisory Committee | February, '97 |

2.9. CATTLE INFERTILITY SCHEME, KOZHIKODE

The cattle infertility scheme was started functioning during 1.9.1980 at Veterinary Hospital, Calicut and shifted in 1984 to a rented building at Vellimadukunnu.

The aim of the scheme is to conduct research on infertility and to find out the incidence, nature and magnitude of prevalence of infertility conditions among cross bred cattle of Kerala.

Under the scheme the main centre is functioning at Mannuthy with regional centre at Calicut and Kottarakkara. Under the regional centre at Calicut four ICDP Sub centres and two Veterinary Hospitals were selected for conducting the regular infertility camps and regular monthly visits carried out for screening of cows and buffaloes for various infertility conditions. In addition to infertility camps organised by Animal Husbandry department, Dairy development Department and Krishi Vigyan Kendra, Ambalavayal were also attended.

Dr. P. P. Balakrishnan, Professor continued as the Head of the scheme.

Staff position

| Designation/category | No. of posts | | Vacant |
|--------------------------|--------------|-------------|--------|
| | Sanctioned | In position | |
| Professor | 1 | 1 | — |
| Assistant Professor | 1 | — | 1 |
| Farm Supervisor (Vety) | 1 | 1 | — |
| Farm Asst. Sl. Gr (Vety) | 1 | 1 | — |
| Lab Assistant Hr. Gr. | 1 | 1 | — |
| Attendant Hr. Gr. | 1 | 1 | — |
| Assistant Sel. Gr. | 1 | 1 | — |
| Peon Hr. Gr. | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created : Nil
Scholarship/deputation of staff : Nil

Details of seminars/symposium/training attended by staff

Attended seminar on Recent Trends in Cattle Infertility problems organised by I.V.A. Calicut.

Involvement of staff in the Academic Programme

Offering courses for M.V.Sc., Ph. D. students at College of Vety., & A. S. Mannuthy.

Major advisor of one M.V.Sc. student working in the Research Station.

Farm Revenue

| | |
|-------------|----------------|
| Year | 1996-97 |
| Receipts | Rs. 0.37 lakhs |
| Expenditure | Rs. 7.64 lakhs |

REGIONAL SALES AND INFORMATION CENTRE, VELLIMADUKUNNU, CALICUT

The Sales Centre was opened on 1/7/1996. Quality planting materials, vegetable seeds, KAU Books and Publications, processed Food items—Squash, Jam & Pickles etc. were sold through the counter.

Turn over of sales

1/7/1996 to 31/3/1997 Rs. 1,59,994/-

2.10. UNIVERSITY VETERINARY HOSPITAL, KOKKALAI

This University Veterinary Hospital situated in the heart of Thrissur town has a campus area of 1.2 acres. This being the oldest Veterinary Hospital of the State was started as Cochin State Veterinary Hospital during August 1904, was subsequently been taken over by Kerala Agricultural University during 1972.

Several problem cases of animal diseases are being referred to this hospital by field Veterinarians, Police Departments and other farmers from the entire State. This hospital is equipped with modern infrastructures for proper diagnosis of animal diseases and expert treatment are rendered to the farmers.

An Ultra Sound Sector Scanner was procured and is being made use of in the special clinical examination of small animals.

A portable Electro Cardiograph (E.C.G.) unit is also made available for diagnosing cardiac problem in small animals.

The Clinical Laboratory attached to this hospital is fully equipped especially with Chemistry Analyser for examining blood samples for various diseases. The existing operation theatre is fully air-conditioned and furnished with essential equipments and appliances to cater to the needs of modern surgery. This hospital has three speciality units viz. Medical Unit, Surgery Unit and Gynaecology Unit with Artificial Insemination Centre for Cattle, Buffaloes and Goats.

Staff position

| Category/Designation | No. of posts | | |
|----------------------------|--------------|-------------|---|
| | Sanctioned | In position | Vacant |
| Professor | 1 | 1 | — |
| Asst. Professor | — | 1 | (On working arrangement from Vety. College, Mannuthy) |
| Farm Asst. (Vety.) Sr. Gr. | 2 | 2 | — |
| Pharmacist | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Senior Gr. Assistant | 1 | 1 | — |
| Attendant | 2 | 2 | — |
| Sweeper-cum-Scavenger | 1 | — | 1 |
| Peon | 1 | 1 | — |

Involvement of staff in academic programme

Offers courses in the Veterinary College and conduct clinical training for U.G. and P.G. Studies.

2.11. UNIVERSITY LIVESTOCK FARM AND FODDER RESEARCH AND DEVELOPMENT SCHEME, MANNUTHY.

The University Livestock Farm, Mannuthy, established more than 70 years back has been functioning as a Cattle Breeding Farm for the supply of superior breeding bulls for about 40 years. Since the starting of Kerala Veterinary College in 1995, the farm had the added objective of instruction to students and also undertaking research.

This farm provides learning facilities both at undergraduate and post-graduate levels and provides training facilities to

farmers apart from serving the needs of farmers for their fodder seeds and slips. It undertakes problem oriented research projects on livestock farming applicable to Kerala conditions.

Now, the Livestock Farm is having a fodder section as well as a central pool of labourers. The area under the farm is 69 hectares.

Staff position

| Category and Designation | No. of posts | | Vacant |
|--|--------------|-------------|--------|
| | Sanctioned | In position | |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Professor | 1 | 1 | — |
| Asgoc. Professor | 1 | — | 1 |
| Asst. Professor | 2 | 2 | — |
| <i>Technical staff</i> | | | |
| Farm Supervisors | 5 | 5 | — |
| Farm Assistants | 7 | 7 | — |
| <i>Administrative and Supporting staff</i> | | | |
| Administrative Assistant | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Assistant | 4 | 4 | — |
| Pump Operator | 1 | 1 | — |
| Lab Assistant Gr. III | 1 | 1 | — |
| Class IV | 4 | 4 | — |

Faculty Improvement Programme

New posts sanctioned/created/shifted

Scholarship awarded to staff : Nil

Details of seminars/symposia/training programme attended by staff : Nil

Involvement of staff in Academic Programmes

Training to Vocational Higher Secondary students (Ayyanthole and Irinjalakkuda batches)

Farm Training to UG students of College of Veterinary and Animal Sciences.

Farm revenue

Year 1996-'97

Total Receipts : Rs. 17.1 lakhs

Total Expenditure: Rs. 92.7 lakhs

3. FACULTY OF FISHERIES

3.1 COLLEGE OF FISHERIES, PANANGAD

The College of Fisheries was started during the academic year 1979-80 with the approval of Indian Council of Agril. Research and Government of Kerala. To begin with, the College started functioning at Mannuthy, but was shifted to the permanent campus at Panangad, Kochi, in the year 1981. The College is situated in a 30 ha campus by the side of Kochi—Byepass (NH 47) 6 kms South of Vyttila. The College offers a 4 year degree programme leading to the degree of Bachelor of Fishery Science (B. F. Sc.) following the semester system of teaching. The intake capacity at present is 50 per year. Post graduate programme (M. F. Sc.) is also being offered in the College in the disciplines of Aquaculture, Fishery Biology and Processing Technology.

Dr. D. M. Thampy, Professor & Head, Department of Aquaculture, officiated as Dean i/c (Fisheries) during the period.

Staff position

| Designation/Category | No. of post | | |
|-------------------------|-------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Dean | 1 | — | 1 |
| Professor | 4 | 2 | 2 |
| Assoc. Professor | 10 | 8 | 2 |
| Asst. Professor | 37 | 20 | 17 |
| <i>Technical staff</i> | | | |
| Asst. Librarian | 1 | — | 1 |
| Ref. Assistant | 1 | 1 | — |
| Lib. Assistant | 1 | 1 | — |
| Lab Assistant Gr. I | 1 | 1 | — |
| Lab. Asst. Gr. II | 1 | 1 | — |
| Lab. Asst. Gr. III | 4 | 4 | — |
| Clerical Asst. | 1 | 1 | — |
| Technician | 1 | 1 | — |
| Hostel Manager | 1 | 1 | — |
| Duplicator Operator | 1 | 1 | — |
| Pump Operator | 1 | 1 | — |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| Driver HDV | 1 | 1 | — |
| Driver (LDV) | 3 | 3 | — |
| Bus attendant | 1 | 1 | — |
| Fieldman (fisheries) | 2 | 2 | — |
| Fisherman | 5 | 1 | 4 |
| Farm Asst. (Sr. Gr.) | 1 | 1 | — |
| Jr. Programmer | 1 | 1 | — |
| Skipper Gr. II | 1 | 1 | — |
| Engineer i/c | 1 | 1 | — |
| Gear Technician | 1 | 1 | — |
| Deck hand | 3 | 3 | — |
| Sr. Res. fellow | 4 | 4 | — |
| Field Assistants | 1 | 1 | — |
| <i>Administrative and supporting staff</i> | | | |
| Administrative Officer Gr. I | 1 | 1 | — |
| Section Officer | 3 | 3 | — |
| Sr. Office Supdt. | 2 | 2 | — |
| Seln. Gr. Asst. | 2 | 2 | — |
| Sr. Gr. Asst. | 3 | 3 | — |
| Gr. I Asst. | 3 | 3 | — |
| Gr. II Asst. | 2 | 2 | — |
| Office Supdt. | 1 | 1 | — |
| Seln. Gr. Typist | 2 | 2 | — |
| Typist Gr. I | 1 | 1 | — |
| Class IV | 4 | 4 | — |
| Sweeper-cum-attendant | 1 | 1 | — |
| Full time sweeper | 2 | 2 | — |

Faculty Improvement Programme

New Post sanctioned/created/shifted

The post of Asst. Professor (Economics) has been redeployed as Asst. Professor (Fishery Extension).

Deputation of staff for higher studies

Smt. V. Malika, Asst. Professor (Statistics) continued to be on deputation for Ph. D at Central Institute of Fisheries Education, Bombay.

Details of Seminars/Symposia/Training attended by staff:

Dr. D. M. Thampy, Dean i/c participated in a one-day seminar on prawn diseases jointly organised by the Marine

Products Export Development Authority, the Agency for Developing Aquaculture in Kerala and Matsyafed in Kochi on 10.4.1996.

Dr. Jayasree Vadhyar, Assoc. Professor and Dr. M. V. Mohan, Assoc. Professor attended the training course on "Computer based application of statistics in aquaculture" during the period from 15th July to 3rd Aug. 1996 at C. M. F. R. I. Kochi.

Smt. Aneykutty Joseph and Dr. S. Shyama, Asst. Professors attended the Summer Institute on "Recent developments in mariculture of molluscs", conducted by C.M.F.R.I at Tuticorin during the period from 20.5.1996 to 8.6.1996.

Dr. Jayasree Vadhyar, Associate Professor attended the Seminar-cum-demonstration programme on "Livepacking and transporting of crabs" organised by MPEDA during the period from 25.5.1996 to 27.5.1996.

Sri. P. Radhakrishnan Nair, Assoc. Professor attended the training programme on "Basic navigational chart-practice and elementary seamanship", conducted by CIFNET at Kochi during the period from 5th to 16th Aug. 1996.

Sri. T.A. Joseph, Ref. Assistant attended a refresher course on "Current trends in Librarianship", conducted by the Academy of Agrl. Research and Education Management of the Chaudhary Charan Singh, Hariyana Agrl. University, Hissar during the period from 1st to 29th Aug. 1996.

A refresher training programme for the Supervisory and Extension staff of the Department of Agri., Lakshadweep was conducted in the college during the period from 10th to 14th September 1996 by the Central Training Institute, Mannuthy.

A training programme in Fishery Oceanography was conducted in the college during the period from 16th to 21st Dec. 1996. The training was jointly organised by the Dept. of Fishery Hydrography and the Central Training Institute, Mannuthy for the officers from the Fishery Survey of India, MPEDA and Department of Fisheries, Kerala.

Dr. D. D. Nambudiri, Assoc. Professor, carried out a short-term project at the Food and Drug Toxicology Research Centre of the National Institute of Nutrition, Hyderabad during the period from 30th Dec. 1996 to 29th Jan. 1997, under the INSA visiting fellowship scheme.

A training on "Hatchery management of freshwater prawns" was conducted in the college during the period from 10th to 28th Feb. 1997.

Dr. D. M. Thampy, Dean i/c, Dr. P. M. Mathew, Professor, Dr. Susheela Jose, Dr. Jayasree Vadhyar and Dr. D. D. Nambudiri, Assoc. Professors, Dr. Thresiamma James, Dr. T. V. Anna Mercy, Dr. M. V. Mohan, K. G. Sunny and Dr. S. Shyamma, Asst. Professors attended the Fourth Indian Fisheries Forum organised by the Indian Branch of Asian Fisheries Society at Kochi during the period from 24th to 28th Nov. 1996.

Farm Revenue

| | |
|-------------|------------------|
| Year | : 1996-97 |
| Receipts | : 3,39,945 lakhs |
| Expenditure | : 9,61,252 lakhs |

Important Visitors

| Name & address | Purpose of visit | Date of visit |
|--|---|---------------|
| Mr. Redwanz, Consultant, Indo-German Reservoir Project, Malampuzha | Discussion regarding organising training programmes | 11.4.96 |
| Dr. Kuldip Rai, Director National Wasteland Development Board, New Delhi | Discussion on the wasteland development project implemented at Puduveyypu | 2-5-96 |
| Hon. Minister for Agriculture, Sri. V.K. Rajan | Official visit | 3-8-96 |
| Dr. M.R. Sinha, Director, CICFRI, Barrackpore | Discussion regarding inland fisheries activities in Kerala | 6-8-96 |
| Sri. C. Byre Gowda, Minister for Agriculture and Horticulture, Karnataka | Visit to see the activities | 29.12.96 |

3.2 FISHERIES STATION, PUDUVEYPU

The Fisheries Station, Puduveyypu is located at a distance of about 2 km west of Murikkumpadam at the Vypeen island. It is surrounded by the Arabian sea on the west, Cochin barmouth on the south and a canal emerging from the barmouth on the east. The northern side of the station faces the main land.

The campus is mostly a saline marsh with mangroves and salt resistant varieties of grass and shrub. About 28 hectares of thick mangrove area is retained as typical preserve where in varieties of migrant birds and other rare fauna take refuge.

In selected locations part of the land is converted into pondbund systems for aquaculture and agricultural research purposes. The rest of the land which is mostly subjected to diurnal inundation during high tide forms the site of fish and shell fish seed collection. The bunds are planted with coconut palms, about 600 numbers of which are nut bearing.

The station imparts practical training on brackish water fish culture for B.F.Sc. and M.F.Sc. students of the College of Fisheries, Panangad. The station also involves in research work to develop appropriate farming techniques for better production from unit area. In addition it is also the mandate of the station to supply commercial brackish water fish seed to the farmers and other research institutions. Training programme on brackish water aquaculture and utilization of marshlands for agricultural purposes are routinely conducted.

Station Head : Dr. K.S. Purushan, Associate Professor (Aquaculture)

Staff position

| Category/ Designation | No. of posts | | |
|--------------------------|--------------|----------------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor (Aqua) | 2 | 2 | — |
| | | (Assoc. Prof. (Aqua) | — |
| Asst. Professor (Ag.) | 1 | 1 | — |
| | | (Assoc. Prof. (Ag.) | — |
| <i>Technical staff</i> | | | |
| Farm Assistant Gr. II | 1 | 1 | — |
| Fieldman (Fisheries) | 1 | 1 | — |
| Pump Operator | 1 | 1 | — |
| Laboratory Asst. | 1 | 1 | — |
| Field Assistant | 2 | 2 | — |
| Sr. Research fellow | 2 | 2 | — |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| <i>Administrative and supporting staff</i> | | | |
| Admn. Assistant | 1 | 1 | — |
| Asst. Gr. I | 1 | 1 | — |
| Asst. Gr. II | 1 | 1 | — |
| Typist | 1 | 1 | — |
| Peon | 1 | 1 | — |
| <i>Staff on working arrangement</i> | | | |
| Driver | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/Deputation of staff for higher studies : Nil

Details of Seminars/Symposium/Training attended by staff

Dr. K. S. Purushan, Assoc. Professor (Aqua.) & Head of Station attended a workshop on Coastal Aquaculture under the auspices of NATP (ICAR) held on 29th & 30th Nov.1996 at the Conference hall of TAN & VAS, Chennai, by CIBA. Participated in the discussion on 'Peoples' Fish Culture Programme at Secretariat, Thiruvananthapuram, under the auspices of Fisheries Minister, Government of Kerala on 4.1.97

Delivered a Keynote address on 'Paddy-cum-Shrimp Culture in Kerala' in a seminar at JFP, Ernakulam under the auspices of Department of Fisheries, Kerala on 6.2.97.

Handled the topic 'Janakeeya Matsyakrishi' at Yathra Auditorium, Ernakulam under the auspices of Department of Fisheries, Kerala, Thiruvananthapuram.

Dr. M. M. Jose, Assoc. Professor (Aqua.) attended the National Training on Farm Journalism conducted by the C. T. I. KAU, Mannuthy during 14-21 January 1997.

Involvement of staff in Academic Programmes

Offered classes for B. F. Sc. and M. F. Sc. students of College of Fisheries, Panangad. Question paper setting for B. F. Sc. course.

Farm Revenue

Year : 1996-97
 Receipts : Rs. 1,46,990 lakhs
 Expenditure : Rs. 18,92,795.55 lakhs

Important visitors

| Name and address | Purpose of visit | Date of visit |
|--|---|----------------------|
| 1 | 2 | 3 |
| Dr. P. Nanmalwar, Sr. Scientist, CMFRI, Madras and a team of students | To understand the ongoing research activities | 15-4-96 |
| Prasanth, R., Jr. Manager (projects) Kerala State Industrial Development Corporation, Kochi | To visit the Station | 10-8-96 |
| General Council members, KAU | Station visit | 16-1-97 |

4. FACULTY OF AGRICULTURAL ENGINEERING AND TECHNOLOGY

4.1 KELAPPAJI COLLEGE OF AGRICULTURAL ENGINEERING AND TECHNOLOGY, TAVANUR

The College campus is located in Tavanur village on the Southern Bank of Bharathapuzha in Malappuram District 7 km. west of Kuttippuram. The campus is the seat of Rural Institute which was established in July, 1963. The Institute was taken over by the Kerala Agricultural University on 12th December, 1975 under section 59 of the KAU Act of 1971. The Institute was renamed as Institute of Agricultural Technology and it was functioning as one of the campuses of the University. The University subsequently opened the Faculty of Agricultural Engineering and Technology on 2nd October, 1985 and the Institute was upgraded and renamed as 'Kelappaji College of Agricultural Engineering and Technology' after the famous Gandhian Social Worker and Sarvodaya leader Sri. K. Kelappan. The total area of the campus is 40 hectares.

Dr. K. John Thomas continued as Dean i/c.

Departments

Department of Land and Water Resources and Conservation Engineering.

Department of Irrigation and Drainage Engineering

Department of Farm Power, Machinery and Energy

Department of Supportive and Allied Courses of Study

Department of Post Harvest Technology & Processing

Staff position

| Category/Designation | No. of posts | | Vacant |
|--|--------------|-------------|--------|
| | Sanctioned | In position | |
| 1 | 2 | 3 | 4 |
| <i>a) Scientific Staff</i> | | | |
| Dean | 1 | 1 | — |
| Department of LWRCE | | | |
| Professor | 1 | — | 1 |
| Associate Professor | 2 | — | 2 |
| Assistant Professor | 5 | 4 | 1 |
| Department of IDE | | | |
| Professor | 1 | — | 1 |
| Assoc. Professor | 2 | 2 | — |
| Asst. Professor | 5 | 4 | 1 |
| Department of FPME | | | |
| Professor | 2 | 1 | 1 |
| Assoc. Professor | 3 | — | 3 |
| Asst. Professor | 8 | 5 | 3 |
| Department of PHT & AP | | | |
| Professor | 1 | — | 1 |
| Assoc. Professor | 2 | 1 | 1 |
| Asst. Professor | 4 | 2 | 2 |
| Department of SAC | | | |
| Professor | 2 | 1 | 1 |
| Assoc. Professor | 2 | 2 | — |
| Asst. Professor | 10 | 6 | 4 |
| Instructional Farm | | | |
| Assistant Professor | 3 | 1 | 2 |
| ICAR—FIM | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |
| Plasticulture Development Centre | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |
| AICRP on Energy Requirements in Agriculture Sector | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 1 | 1 | — |

| | 1 | 2 | 3 | 4 |
|---|----|---|----|---|
| <i>b) Technical/Administrative and supporting staff</i> | | | | |
| Sr. Administrative Officer | 1 | | 1 | — |
| Section Officer | 4 | | 4 | — |
| Seln. Grade Assistant | 1 | | 1 | — |
| Sr. Grade Assistant | 2 | | 2 | — |
| Asst. Gr. I | 3 | | 3 | — |
| Asst. Gr. II | 6 | | 5 | 1 |
| Sr. Office Supdt. | 1 | | 1 | — |
| Seln. Gr. Typist | 1 | | 1 | — |
| Sr. Gr. Typist | 1 | | 1 | — |
| Typist Grade I | 1 | | 1 | — |
| Typist Grade II | 2 | | 2 | 1 |
| Research Asst. | 1 | | 1 | — |
| Reference Asst. | 1 | | 1 | — |
| Library Asst. | 1 | | 1 | — |
| Draftsman (Civil) | 1 | | — | 1 |
| Draftsman (Mech.) | 1 | | — | 1 |
| Technical Supervisor | 6 | | 6 | — |
| Trade Asst. (Ele.) | 1 | | 1 | — |
| Trade Asst. | 3 | | — | 3 |
| Seln. Gr. Technician | 3 | | 3 | — |
| Sr. Gr. Technician | 1 | | 1 | — |
| Technician Gr. II | 4 | | — | 4 |
| Pump Operator | 2 | | 2 | — |
| Driver LDV | 3 | | 3 | — |
| Matron | 1 | | 1 | — |
| Hostel Manager | 1 | | — | 1 |
| Lab Asst. Gr. I | 1 | | 1 | — |
| Lab. Asst. Gr. III | 6 | | 4 | 2 |
| Farm Supervisor (Vety.) Gr. I | 1 | | 1 | — |
| Farm Assistant (Vety.) Sel. Gr. | 1 | | 1 | — |
| Farm Supervisor (Agri.) | 3 | | 3 | — |
| Farm Asst. (Agri) Gr. I | 2 | | 2 | — |
| Gardener | 1 | | 1 | — |
| Class IV | 15 | | 11 | 4 |
| Work shopmate | 1 | | 1 | — |

Faculty Improvement Programme

New posts sanctioned/created/shifted

Dr. Ganesan, V rejoined after deputation for higher studies. Sri. Levan, K. V., Asst. Professor (Soil & Water Engg.), KVK, Manjeswaram joined on working arrangement.

Smt. Renukakumari, J rejoined after leave for higher studies. Smt. Sasikala, D rejoined after leave for higher studies

Prof. C. P. Muhammed rejoined after leave for employment abroad.

Scholarships/deputation awarded to staff for higher studies

Miss Sreekala, G., Asst. Professor got admission with fellowship for higher studies in United States.

Details of Seminars/Symposium/Training attended by staff

Dr. (Mrs.) E. Komala Amma attended a refresher course of 3 weeks duration at Cochin; University of Science and Technology.

Dr. (Mrs.) K. M. Valsamma attended a training programme on "Application of Electronics in Agriculture at Central Institute of Fisheries Technology"

Sri. E. K. Kurien, Asst. Prof. attended a refresher course from 17th to 27th Feb. 1997 on "Land Drainage in India" at WALMI, Lucknow conducted by IILRI, Netherlands.

Sri. E. K. Kurien, Asst. Prof. was the Course Director for the one day training programme on 'Selection, installation and maintenance of pumps' for officers of Agriculture Department organised jointly by KAU and KAICO, Palakkad.

Farm Revenue:

Year: 1996-97

Receipts: 7.397 lakhs

Expenditure: 27.056 lakhs

Important visitors

| Name and Address | Purpose | Date of visit |
|--|---------------------------------|---------------|
| 1 | 2 | 3 |
| Sri. V. K. Rajan ; Hon'ble Minister for Agriculture. | Students Union inauguration. | 16.6.96 |
| Sri. Madhavan, Member, State Planning Board. | Official visit | 13.2.97 |

| 1 | 2 | 3 |
|--|----------------------------|---------|
| Mr. C. P. Raman Chief, Indian Grain Storage Research Institute | Official visit | 17.2.97 |
| Sri. K. Gopalan, Member Executive Committee | Interview Board Member. | — |

5. KERALA AGRICULTURAL UNIVERSITY SCHOOL

The Kerala Agricultural University School was started in 1981 with a view to provide school education to the wards of University employees in Mannuthy and Vellanikkara Campuses. Former Vice-Chancellor, late Dr. N. Kaleeswaran, IAS took special interest in establishing the school. It became a complete high school during the Academic year 1990-91. At present classes from I to X are functioning in the school. Creche and pre-primary classes are also functioning along with this.

Staff

Seventeen teachers and six non-teaching staff worked in this school during the period.

Staff position

| Category/Designation | No. of posts | | |
|----------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| Headmaster | 1 | 1 | — |
| Teacher | | | |
| Eng. Medium | 7 | 5 | 2 |
| UPSA (Mal. Med.) | 3 | 3 | — |
| UPSA (Hindi) | 1 | 1 | — |
| UPSA (Mal.) | 1 | — | 1 |
| LPSA (Mal.) | 5 | 5 | — |
| HSA | 7 | — | 7 |
| Sp. teachers | | | |
| Phy. Edn. | 1 | — | 1 |
| Drawing | 1 | — | 1 |
| Music | 1 | — | 1 |
| Nursery School Asst. | 4 | 2 | 2 |
| Ayah | 4 | 2 | 2 |
| Class IV | 3 | 3 | — |
| Asst. Gr. | 1 | 1 | — |

Strength of pupils during 1996-97

| Std. | Strength |
|-------|----------|
| LKG | 26 |
| UKG | 41 |
| I | 41 |
| II | 71 |
| III | 66 |
| IV | 79 |
| V | 84 |
| VI | 94 |
| VII | 101 |
| VIII | 97 |
| IX | 67 |
| X | 65 |
| Total | 832 |

A science and nature club are functioning in the school. This school has won first prize in Maths exhibition and second place in science exhibition held at Thrissur Educational District level. Also won overall first place for Science and Maths exhibition held at Thrissur Edl. Dist. level. This school had also participated in State level Maths exhibition held at Thiruvananthapuram.

Master Sandeep Balan was the winner of A grade state level 3rd in Malayalam recitation and Kathaprasangam at the State Youth Festival held at Ernakulam.

Academic achievement:

Master Rajeev, A. C. was the 9th rank holder in the SSLC Examination for 1996-97 scoring 577, marks out of 600. Besides, the endowment named Dr. Kaleeswaran Memorial Award for SSLC Winners was shared by Master Rajeev, A. C., Kum. Bindu P. Bhasker and Master Abi K. Krishnan. The P. T. A. has honoured Master Rajeev, A. C. by presenting a gold medal.

Sports:

Master Balaji, Xth Std. student won the 2nd prize at the District Level School Sports in 100 meter race and third prize in 100 M hurdles.

Scout and guides:

One Scout and seven guides won the Rajapuraskar award for 1996-97.

Savings:

Rs. 65,000 were deposited at National Savings Scheme collected from the students.

PTA:

The Parent Teachers Association has been working at the School actively. Dr. Prabhakaran Nair, Professor, Veterinary College was the President of PTA.

CHAPTER III

Extension

The basic extension, education role of the University is to make available useful information based on the findings of research, to the farmers and the general public through mass media and the concerned development departments.

The Directorate of Extension is responsible for the extension, education activities of the Kerala Agricultural University. The Communication Centre, the Farm Advisory Service and the Central Training Institute which form the main constituents of the Directorate of Extension spearhead the frontline extension activities of the University and implement by themselves, and through constituent research stations and educational institutions under KAU.

The Krishi Vigyan Kendras (KVK) sponsored by the ICAR and the Village Adoption Programme are other Transfer of Technology programme implemented by the KAU.

Dr. E. Tajuddin continued as the Director of Extension upto 9.8.'96. Dr. K. Rajamohanan took over as Director i/c with effect from 12.8.'96.

Communication Centre

Information communication through various media is the major activity of the Communication Centre which comprises the Farm Advisory Service, the Information Unit, Exhibition and Graphic service and the Publication Unit. Dr. P. Varadarajan Nair, Professor & Head continued as the Head of the station. The major activities of the Communication Centre during the period are given below:

Farm Advisory service

Consultancy service to farmers

Advice on various problems encountered in agriculture, animal husbandry and fish culture was given to 592 farmers in person. Replies were also sent to 290 letters seeking advice

on agriculture and allied subjects through mail. Besides diagnostic field visits were also conducted during the period under report.

Six radio talks on agriculture and allied subjects were also broadcast through the AIR.

Seminars conducted/attended

Scientists of Communication Centre, Mannuthy served as resource personnel in the farmers' seminars organised at several places in collaboration with KHDP, Department of Agriculture and several other agencies. Scientists of Communication Centre, Mannuthy attended the seminar in connection with the Village Adoption Programme of II ward, Ollukkara Panchayat. In the Village Adoption Programme farmers were given banana suckers and necessary technical advice.

Information unit

The main function of the unit is to provide information support to technical personnel and dissemination of information to the farmers through mass media. Feature articles were published in leading malayalam dailies in their agricultural columns.

Staff position

| Designation/Category | No. of posts | | |
|---------------------------------------|-----------------|-------------|--------|
| | Sanctioned post | In position | Vacant |
| 1 | 2 | 3 | 4 |
| <i>Scientific staff</i> | | | |
| Asst. Professor (Ag. Extn.) | 2 | 1 | 1 |
| <i>Publication Unit</i> | | | |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor (Agrl Extn.) | 1 | — | 1 |
| Asst. Professor (Ani. Sc.) | 1 | — | 1 |
| <i>Information Unit</i> | | | |
| Assoc. Professor (Agrl. Extn.) | 1 | 1 | — |
| Asst. Professor (Ani. Sci.) | 1 | 1 | — |
| Asst. Professor | 2 | 2 | — |
| <i>Exhibition and Graphic Service</i> | | | |
| Asst. Professor | 3 | 1 | 2 |

| 1 | 2 | 3 | 4 |
|--|---|---|---|
| <i>Farm Advisory Service</i> | | | |
| Professor (Agro.) | 1 | — | 1 |
| Professor (Pl. Protection) | 1 | 1 | — |
| Assoc. Professor (Agron.) | 1 | 1 | — |
| Assoc. Prof. (Pl. Prot.) | 1 | 1 | — |
| Assoc. Prof. (Ani. Hus.) | 1 | 1 | — |
| | | (on working arrangement at Livestock Farm, Mannuthy) | |
| Assoc. Prof. (Entomology) | 1 | 1 | — |
| Assoc. Prof. (Poultry Sci) | 1 | 1 | — |
| Assoc. Prof. (Hort.) | 1 | 1 | — |
| Asst. Prof. (Plant Path.) | 1 | 1 | — |
| Asst. Prof. (Aqua) | 1 | 1 | — |
| Asst. Professor (Ag. Chem. & Soil Sci.) | 1 | 1 | — |
| <i>Technical staff</i> | | | |
| Language editor | 1 | 1 | — |
| Malayalam Translator | 1 | 1 | — |
| Farm Supervisor | 1 | — | 1 |
| Technician (HG) | 1 | 1 | — |
| Farm Asst. Gr. I | 1 | 1 | — |
| Photographer | 1 | 1 | — |
| Artist (HG) | 1 | 1 | — |
| Driver (LDV) | 1 | 1 | — |
| Dark Room Assistant | 1 | — | 1 |
| <i>Administrative & Supporting staff</i> | | | |
| Admn. Assistant | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Seln. Gr. Asst. | 1 | 1 | — |
| Sr. Gr. Asst. | 3 | 2 | 1 |
| Assistant Gr. I | 1 | 1 | — |
| Assistant Gr. II | 1 | 1 | — |
| Peon | 2 | 2 | — |
| Sweeper-cum-Attendant | 1 | — | — |
| Typist Gr. II | 1 | 1 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/
deputation of staff for higher studies : Nil

Agro-clinics were conducted on all working days between 10 a. m. to 1 p. m. at the Information-cum-sales centre; Mannuthy by the Scientists of Communication Centre.

News related to Kerala Agril. University were sent to All India Radio for broadcast on every Friday at 6.35 a. m. under the weekly programme കാര്യക സമയകലാശാലാ വാർത്തകൾ having a duration of 5 minutes. Six Radio talks were delivered through All India Radio by the scientists of Communication Centre.

A five day training programme on ornamental fish culture was conducted by the Asst. Professor (Aqua) for the unemployed youths.

Communication Centre organised an Onam Fair and Christmas Fair at the Information-Cum-Sales Centre, Mannuthy for the sale of banana bunches; coconut, vegetables, mushroom, meat, milk, their products and bye-products for the benefit of the public.

112 farmers actively attended the Karshakadinam '96 organised by the Communication Centre on Chingam Ist.

Field visits were made to solve field problems of farmers in different parts of Thrissur, Palakkad and Ernakulam districts.

Seven hundred and forty seven farmers visited the Centre and consultancy services were rendered to them on problems related to Agriculture, Animal Sciences, Fisheries, Sericulture and Apiculture. 445 letters received from farmers on various problems were replied promptly.

Seminars/Symposia/Training/works shops/summer institutes attended

| Particulars | Place & date | Name of Scientists deputed |
|---|---|--------------------------------------|
| National Seminar on Farm journalism | Central Training Institute, Mannuthy 14 th-21 st Jan. 97 | Smt. S. Estellita Asst. Professor |
| Workshop on rice production technology for irrigated eco-system | Advanced training centre DRR, Rajendra Nagar Hyderabad 2nd-6th July 96 | Dr. Suma Paulose Dr. M.K. Sheela |
| Masters training on IPM in rice | IASRI, New Delhi 17-22 March 97 | " |

Involvement of staff in Academic Programmes.

Teaching Activities

The following courses were handled by the teachers of the Communication Centre:

| | | |
|--------------------------|---|--|
| Agriculture I | — | B.Sc (Co-operation & Banking students) |
| Agriculture II | — | " " |
| Ag. 202 | — | " " |
| Extn. 301 | — | " " |
| Microbiology 101 | — | B.Sc. (Forestry students) |
| Aquaculture 201 | — | " " |
| Agri. 201 | — | Crop Pests & diseases — Co-operation & Banking students |
| Agron. 606 (P.G. Course) | — | College of Horticulture, Vellanikkara |

P. G. Guidance

Dr. P. Sreedevi, Assoc. Professor (Agron.) continued as the Chairperson for one M.Sc. (Ag.) student in Agronomy, College of Horticulture, Vellanikkara.

Revenue

| | |
|-------------|----------------------|
| Year | 1996-97 |
| Receipts | Rs. 3.31 (in lakhs) |
| Expenditure | Rs. 42.14 (in lakhs) |

Extension Activities

Scientists of the Farm Advisory Service Unit handled classes on various subjects related to Agriculture, Fisheries and Animal Husbandry in 43 Agricultural seminars during this period. A total no. of 3300 farmers were benefitted by these seminars.

INFORMATION & SALES CENTRE, MANNUTHY

The Information & Sales Centre, Mannuthy was inaugurated on 16th July 1993 by Sri. K. Karunakaran the then Hon. Chief Minister of Kerala.

The Information & Sales Centre is a unique extension service venture of Kerala Agril. University through which quality planting materials, livestock products like egg, meat

and meat products, fruit and vegetable products, ornamental fingerlings and KAU Publications are made available to the public through a single window. The supplies are supplemented by imparting technical advice through farm clinics and video films by the Scientists of the Farm Advisory Service of Kerala Agril. University.

Dr. P. A. Joseph, Asst. Professor (Agron.) continued as the Officer in charge.

Staff position

Scientific

| Category | Sanctioned | In position | Vacant |
|-----------------|------------|-------------|--------|
| Assistant Prof. | 1 | 1 | — |

Administrative/Supp./Para technical/ministerial/other posts

| | | | |
|-----------------------------|---|--------|---|
| F. S. Gr. I (Agri.) | — | 2* | — |
| F. A. Gr. I (Agri. & Vety.) | — | 2* (+) | — |
| F. A. Gr. II (Agri.) | — | 1* | — |
| Class IV | — | 3* | — |
| Data entry trainee | — | 2 | — |

* On working arrangement

(+) 1 each

Faculty Improvement Programme

| | |
|--|-------|
| New post sanctioned | : Nil |
| Scholarship awarded to staff | : Nil |
| Details of Seminars/Symposium/ Training attended by staff | : Nil |

Involvement of staff in academic programme :

Dr. P. A. Joseph, Officer in charge offered the course Soil and Water Conservation(1+0) at the College of Horticulture, Vellanikkara.

Farm revenue

| | |
|--|---------------------|
| Year 1966-97 | |
| Receipts from sale | : Rs. 52.63 (lakhs) |
| Total Expenditure for contingencies | : Rs. 3.19 (lakhs) |
| Payment to supplying centres during 96-97 | : Rs. 49.52 (lakhs) |
| Payment of Comptroller (Excess of corpus of revolving fund) | : Rs. 3.04 (lakhs) |

Other activities at the centre

Farm Advisory Service arranged at the Centre during 1996-97 : 306

Video Cassette projection arranged during 96-97 : 58

Correspondence to enquiries from farmers : 227

Subscription arranged for Kalpadhenu : 15

Onam bazar and X'mas Bazar 1996-97 were organised at Centre.

Publication by staff:

Popular articles : 12

Research paper ; Nil

KAU PRESS

The KAU Press was established to cater to the printing needs of the University. During the period from 1-4-1996 to 31-3-1997 162 works were received out of which 136 works were completed. This includes periodicals, publication, Kalpadhenu and other non-periodicals, technical bulletins, leaflets, pamphlets, folders. Besides printing of Annual Administration Report (Malayalam and English) and Krishi Vigyan Manjari series—reprints of various publications were also undertaken and completed during the period. The printed forms and registers required for the University were also printed and supplied.

Sri. K. Rajappan, continued as the Press Manager throughout the period.

The Staff position is as given below:

| Category | No. of posts | | |
|-----------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| Press Manager | 1 | 1 | — |
| General Foreman | 1 | — | 1 |
| Sr. Foreman | 1 | 1 | — |
| Proof Reader | 2 | 2 | — |
| Computer | 1 | 1 | — |
| Printer | 6 | 4 | 2 |
| Compositor | 10 | 6 | 4 |
| Copy Holder | 2 | — | 2 |
| Binder | 4 | 4 | — |
| Helper | 1 | 1 | — |
| Peon | 1 | 1 | — |
| Sweeper-cum-Attendant | 1 | — | 1 |
| Section Officer | 1 | 1 | — |
| Assistants | 3 | 3 | — |
| Typist | 1 | 1 | — |

CENTRAL TRAINING INSTITUTE

The Central Training Institute started in October 1986 as a special Sub Project II under NAEP-1 with the financial assistance of the Government of India has now become the nodal point of all the training activities of the University. The Government of India assistance terminated on 31.3.1991 and the Central Training Institute is being run as a University programme since then. The Central Training Institute has a Sub Unit at Vellayani and Pilicode.

The Central Training Institute, caters to the training needs of State Development Departments, Commodity Boards, Banks, Defence Department, Union Territory of Lakshadweep etc. The State level joint Training Committee under the Chairmanship of the Vice-Chancellor is the apex body to discuss and finalise the training proposals of the State Development Departments and other organisations.

Staff Position

| Category/Designation | No. of posts | | |
|--|--------------|-------------|--|
| | Sanctioned | in position | Vacant |
| <i>Scientific</i> | | | |
| Prof. of Extn. | 1 | 1 | vacant upto 4.8.96 |
| Assoc. Prof. | 1 | 1 | |
| Asst. Prof | 1 | 1 | |
| <i>Technical</i> | | | |
| Farm Supervisor (Ag. Gr. I) | 1 | 1 | on working arrangement at I & SC, Mannuthy |
| Farm Asst. Sln. Gr. | 1 | 1 | |
| Driver | 1 | 1 | |
| Duplicator operator | 1 | 1 | |
| <i>Administrative & Supporting staff</i> | | | |
| Section Officer | 1 | 1 | |
| Asst. Gr. I | 2 | 2 | |
| Sln. Gr. Typist | 1 | 1 | |
| Sr. Gr. Typist | 1 | 1 | |
| Peon | 1 | 1 | |

Dr. Joy Mathew continued as the Head of office upto 4.8.96.
Dr. G. Balakrishna Pillai took over on 5.8.96

Abstract of training programmes conducted during 96-97

| Department/category | No. of training programmes | Mandays |
|---|----------------------------|----------------------|
| Inservice Training programmes | | |
| A. State Department of Agriculture | 10 | 591 |
| B. State Department of Animal Husbandry | 15 | 4078 |
| C. Other Training Programmes | 13 | 4014 |
| D. GAI Sponsored Training Programmes | 3 | 200 plus IA |
| Vocational Training Programmes | 14 | 1826 plus IA |
| Stipendary Training Programmes | 7 | 3960 |
| Total | 72 | 20874 plus IA |

IA: Information Awaited

Faculty Improvement programme

- a) New post sanctioned/created/shifted — Nil
- b) Scholarship awarded to staff/deputation of staff for higher studies — Nil

Details of seminars/symposia/training attended by staff

Dr. Joy Mathew, Associate Professor attended the training on "Motivation for work, Empowerment and Development" at IARI New Delhi from 24th October to 7th November 1996

Involvement of Staff academic programmes

Dr. Joy Mathew, Assoc. Professor was the Course Teacher for Course No. Ag. Extn. 709 Mass Media and Inter personal Communication during February 97 to July 97 of the College Co-operation, Banking and management, and

Major Advisor for Sri. M. Manoj, P. G. Student in Agrl. Extn, College of Horticulture, Vellanikkara.

Dr. Alexander George, Asst. Professor was Course Teacher for Course No. Ag. Extn. 406 programme Planning for VIIth semester B.Sc. (Ag.) students from 17.4.96 to 25.10.96

Revenue in terms of tuition fee of training programmes: Rs. 4,22,040

KRISHI VIGYAN KENDRAS (KVKs)

Krishi Vigyan Kendras financed by the ICAR are the important Transfer technology (TOT) centres under the Directorate of Extension. Other transfer of Technology programmes like National Demonstration, Lab to land programme, Operational research etc. have been integrated with the Krishi Vigyan Kendras.

There are three Krishi Vigyan Kendras financed by the ICAR viz. KVK Ambalavayal, Pattambi and Sadanandapuram.

The KVK at Manjeswar is fully financed by KAU and this KVK cater to training needs of the linguistic minorities of Kasaragod district.

KRISHI VIGYAN KENDRA, AMBALAVAYAL

The Krishi Vigyan Kendra, Ambalavayal financed by ICAR become functional in 1984 under Kerala Agricultural University primarily to cater to the needs of the tribal population of Wayanad District, who constitutes more than 20 percent of the population of the District. However, now its mandate has been extended to cover non-tribal farmers also. Sri. C. M. George continued as the Head of Office.

Staff position

| Category/Designation | No. of posts | | |
|--|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| <i>Scientific staff</i> | | | |
| Training organiser/ Assoc. Professor | 1 | 1 | — |
| Training Associate/ Assoc. Professor | 8 | 5 | 3 |
| <i>Technical staff</i> | | | |
| Training Assistants/ Technical Assistants | 5 | 5 | — |
| <i>Admn. & Supporting staff</i> | | | |
| Section Officer | 1 | 1 | — |
| Assistant Grade II | 1 | — | 1 |
| Typist Grade II | 1 | — | 1 |
| Driver Grade II | 1 | 1 | — |
| Tractor Driver Class IV | 1 7 | — 7 | 1 — |

Faculty Improvement programme

| | | |
|---|---|-----|
| New post sanctioned/created/shifted | : | Nil |
| Scholarship awarded to staff/deputation of staff for higher studies | : | Nil |

Details of Seminars/Symposium/Training attended by staff

| Name of Scientist | Seminar/symposium/ workshop/summer Institute to which deputed | Institution/period of deputation, name and dura- tion of the course etc. |
|-----------------------------------|--|--|
| C. M. George Assoc. Prof. | Review cum Action Plan Meeting | KVK, Suttur, 8.4.96 to 9.4.96 |
| K. Abdul Kareem Asst. Prof. | Review cum Action Plan Meeting | KVK, Thalavadi, 19.9.96 to 21.9.96 |
| Philipose Joshua Asst. Prof. | Training on tropical Mushroom cultivation | IIHR, Bangalore 16.7.96 to 20.7.96 |
| T. P. Manomohandas Asst. Prof. | IDM in horticultural crops | IIHR, Bangalore, 9.9.96 |
| C. M. George, Assoc. Prof. | Integrated Pest Management | IIHR, Bangalore |

Important visitors

| Name and Address | Date of visit |
|---|---------------|
| Dr. M. Aravindakshan, Chairman, Coconut Development Board, Kochi | 29.5.96 |
| Superintendent of Police, Wayanad | 15.6.96 |
| Sri. V. K. Rajan, Minister for Agriculture | 8.7.96 |
| Sri. Varghese Vaidyar, MLA | 8.7.96 |
| Sri. D. H. Singh, Collector, Wayanad | 9.11.96 |
| Sri. C. S. Sreedharan, Joint Director, Central Coffee Research Institute, Chikamangalore | 4.11.96 |
| Sri. T. K. Ramakrishnan, Minister for Social Welfare and Fisheries | 25.11.96 |
| Smt. Radha Raghavan, MLA | 30.1.97 |
| Dr. K. V. Peter, Director, IISR | 3.2.97 |
| Sri. Y. R. Sarma, IISR | 3.2.97 |
| Sri. U. P. Singh, Chief Justice, High Court | 22.3.97 |
| Sri. N. Dinakar, Justice | 26.3.97 |

Extension activities

| | Number | Participants |
|-------------------------|--------|--------------|
| Field days | 6 | 146 |
| Kissan Mela | 1 | 120 |
| Film shows | 7 | 1911 |
| Radio talks | 3 | |
| TV shows | 10 | |
| Trainings : Agriculture | 40 | 1226 |
| Veterinary | 11 | 416 |
| Vaccination | 6 | |

KRISHI VIGYAN KENDRA, PATTAMBI

The Krishi Vigyan Kendra, Pattambi, is functioning at the RARS Campus, Pattambi and has operational area in the whole of Palakkad district. This Kendra is an innovative first line transfer of technology project which aims at reducing the time lag between the generation of technology and its adoption by the farmers in the larger interests of the farming community and the nation. In order to achieve this aim, the KVK has to perform the following major functions through integrated approach.

- A. Farm Advisory Service
- B. On-Farm Research Programme
- C. Training Programmes

Dr. Girija Sankaranarayanan continued as the Head of the Kendra upto 2.11.96. Sri. V. P. Sukumara Dev held the charge from 3.11.96 to 31.12.96. Dr. P. Ahamed took over as Head of Office w. e. f. 1.1.97.

Staff position

| Designation/Category | No. of posts | | |
|---------------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| <i>Scientific staff</i> | | | |
| Assoc. Professor and Head | 1 | 1 | — |
| Assistant Professor | 8 | 7 | 1 |
| <i>Technical staff</i> | | | |
| Training Assistant | 5 | 5 | — |

| 1 | 2 | 3 | 4 |
|-------------------------------------|---|---|----|
| <i>Admn. & Supporting Staff</i> | | | |
| Section Officer | 1 | 1 | -- |
| Assistant Grade I | 1 | 1 | -- |
| Typist Gr. I | 1 | 1 | -- |
| HDV Driver | 1 | 1 | -- |
| LDV Driver | 1 | 1 | -- |
| Peon | 1 | 1 | -- |
| Class IV | 6 | 6 | -- |

New post sanctioned/created/shifted : Nil

Scholarship awarded to staff/

Deputation of staff for higher studies : Nil

Details of seminars/symposia/training attended by staff

Dr. P. Ahamed, Associate Professor and Mr. K.K. Remesan, Assistant Professor attended the National Symposium on Technological Advancement in Rice Production held at Kerala Agricultural University, Vellanikkara from 17th to 19th June, 1996 and presented two papers entitled 'Farmers criteria for selecting rice varieties give new insight to rice breeders' and 'Diffusion of farm mechanization technology—constraints and remedies'.

Dr. P. Ahamed, Associate Professor and Mr. K. K. Remesan, Assistant Professor attended the National Seminar on participatory Technology Development Organised by KHDP at Kochi on 21st and 22nd November, 1996 and presented a paper on 'Agro Ecosystem analysis for participatory planning of agricultural activities—an illustrative case'.

Mr. K. K. Remesan, Assistant Professor and Dr. P. Ahamed, Associate Professor attended the 8th Kerala Science Congress at Kochi and presented a paper "Management of major plant nutrients for producing quality rhizome of arrow root".

Dr. Manu Mohan, S, Assistant Professor had attended the World Poultry Science Congress held at New Delhi from 2nd--8th September, 1996 and presented a paper "Reversal of Aflatoxin induced liver damage by Turmeric Curcumin and chitosan".

Involvement of staff in academic programmes :- Nil

Training Programmes

| Discipline | No. of participants | | Total |
|------------------|---------------------|----|-------|
| | M | F | |
| Agronomy | 44 | 11 | 55 |
| Plant Protection | 38 | 2 | 40 |
| Horticulture | 150 | 50 | 200 |
| Animal Husbandry | 48 | 22 | 70 |
| Home Science | — | 50 | 50 |
| Extension | 51 | 4 | 55 |
| Apiculture | 60 | — | 60 |

Pilot Project on Technology Assessment and Refinement through Institution-Village Linkage Programme (I. V. L. P)

Farm Research over the years yielded several innovative technologies, but many are not reaching its beneficiaries in an "Adaptable and adoptable manner". There is a global move for evolving, assessing and refining farm technologies specific to match agro-ecological situations, farm families need and preference. The ICAR has thoughtfully set a novel trend by coming out with the unique Pilot Project on Technology Assessment and Refinement through Institution Village Linkage Programme (IVLP). It was to join with this noble and innovative venture that the Krishi Vigyan Kendra, Pattambi of the Kerala Agricultural University was listed by the Indian Council of Agricultural Research, as one of the implementing centres of IVLP. The project is underway in two adjacent desoms—Ezhuvanthala and Pattiserry of Nellaya Panchayat of Palakkad District. Emphasis is given on family based, multidisciplinary, multiple intervention modules and multiple options. The crucial stages of the entire programme initiated and run in most participatory way. Each family enrolled in the project manages a series of interventions. There are 325 participating families in the project. The project will be continued for three years from 1/4/1996.

Lab to land Programme was implemented in Mannengode Village. There were 100 participating families. Eight enterprises were demonstrated for which the critical inputs were supplied through the programme. Trainings and follow up surveys were also conducted.

Village adoption programme was conducted in Mezhatthur Village. Ten farm families were adopted and three enterprises were demonstrated.

Survey work for Village contact programme: All the families of Thathanampally village (520 families) were surveyed and an action plan was submitted to the Director of Extension-Farm Revenue (Revolving fund)

| Year | Receipts (in lakhs) | Expenditure (from revolving fund (in lakhs) |
|---------|------------------------|--|
| 1996-97 | 154172.30 | 160428.50 |

KRISHI VIGYAN KENDRA, KOTTARAKKARA

The Krishi Vigyan Kendra under the Kerala Agricultural University (funded by the ICAR) sanctioned for the Kollam district, started functioning at Sadanandapuram in the campus of the Farming Systems Research Station with effect from 1st October, 1994. The Kendra located at 40 km east of Kollam town and 5 km south of Kottarakkara has the operational area covering the entire Kollam district. The Kendra was inaugurated by the Hon'ble Pro-Chancellor and the then Minister for Agriculture, Kerala, Sri. P. P. George on 29th October, 1994.

Dr. M. Oommen, Professor (Agron.) has been appointed as the Training Organiser of the KVK.

Staff deputed for training/workshop

| Name & Designation | Title of the courses/ workshop | Institute where deputed | Period of training/ workshop |
|---------------------------------------|--|--|------------------------------------|
| Smt. P. Sukumari Assoc. Professor | National Workshop on Radio Chemistry and use of Radio Isotopes | Tamil Nadu Agricultural University, Coimbatore | 15-7-96 to 26-7-96 |
| Smt. Rari John, Asst. Professor | Entrepre- neurship Part III | TTC, Avinash- lingam, Institute for Home Science of Higher education | 5-8-96 to 9-8-96 |
| Dr. F.M.H. Kaleel. Asst. Professor | Regional KVK-meeting on-farm testing | MYRADA, Tirumalai, Periyar Dist. Tamil Nadu | 19-9-96 to 21-9-96 |

Training achievements

A total of 37 training courses in different disciplines such as crop production, Plant protection, Horticulture, Home Science and Animal Husbandry were conducted in which 902 farmers including 108 SC/ST participated. Eight training programmes were conducted in Horticulture (4) and Home Science (4) in which 137 rural youth including 45 SC/ST participated. For extension functionaries 5 training programmes were conducted in different disciplines such as Crop production, Horticulture, Animal Science and Home Science. A total of 230 extension personnel including 18 SC/ST attended the programme.

KRISHI VIGYAN KENDRA, MANJESWAR

The Krishi Vigyan Kendra, Manjeswar was established considering the general backwardness and preponderance of Kannada and Tulu speaking linguistic minorities of Kasaragod district. The Kendra envisages the imparting of periodic and timely training in skill oriented agricultural techniques and transfer of upto date knowledge on crop production technology to the farming community.

The Kendra started functioning with Kerala Agril. University funds in a rented building at Thimmangurin Vorkady Village of Kasaragod District in October 1984. The proposals have been submitted for assistance from ICAR. About 19.10 acres of revenue land will be available for the Kendra at Dharmanagar in Vorkady village of Kasaragod district.

The Krishi Vigyan Kendra, Manjeswar was inaugurated by the then. Hon. Chief Minister of Kerala, Sri. K. Karunakaran on 12.10.85. The centre is presently conducting one day training classes on crop production technology to the farmers in local language. Apart from this, the staff of this centre also assist in the developmental activities of the other development agencies at this region. Vegetable seeds of improved varieties of KAU have been distributed to the farmers of this locality.

Staff position

| Category | Sanctioned | In position | vacant |
|---|------------|-------------|--------|
| <i>a) Scientific staff</i> | | | |
| Professor | 1 | — | 1 |
| Asst. Professor (Fisheries) | 1 | 1 | — |
| Asst. Professor (Agrl. Engg.) | 1 | 1 | — |
| Asst. Professor (Agrl. Extn.) | 1 | 1 | — |
| Research Associates (on consol. salary) | 4 | 2 | 2 |
| <i>b) Technical staff</i> | | | |
| Farm Assistant Gr. I | 1 | 1 | — |
| <i>c) Administrative and Supporting staff</i> | | | |
| Section Officer | 1 | 1 | — |
| Sr. Gr. Assistant | 1 | — | 1 |
| Typist Gr. II | 1 | — | 1 |
| Driver Gr. III | 1 | 1 | — |
| Peon | 1 | — | 1 |
| Watchman | 1 | — | 1 |

Sri. P. Ramachandran Nair continued as the Head of office till 30.11.96. Dr. B. Santaram took over as Head of office w. e. f. 1.12.96.

Faculty Improvement Programme

New post sanctioned/created/shifted : Professor (Agrl. Extn.) shifted

Scholarship awarded to staff/deputation of staff for higher studies: Nil

Details of Seminars/Symposia/Training attended by staff: Nil

Involvement of staff in Academic Programmes

Sri. K. V. Levan, Asst. Professor is on working arrangement at K. C. A. E. & T Tavanur from 4.8.96 to 31.3.97.

Farm Revenue

Year : 1996-97
 Receipts (in lakhs) : 0.001
 Expenditure (in lakhs) : 12.93

Important visitors

| Name & Address | Puropose of visit | Date of visit |
|---|--|---------------|
| Dr. S. Subramoniam, Director (TE) DOWD, New Delhi | Review of project work of Agro-forestry Models for Extn. & training | 16.11.96 |
| R. Sanal kumar, Asst. Director, State land use Board, Trivandrum | As part of follow- up work of IMSD Project | 16.1.97 |

COLLEGE OF AGRICULTURE, VELLAYANI

Extension & other activities

Village Adoption

Under the Village adoption programme Kakkamoola ward of Kalliyoor Village continued as the selected centre. Training on vermicomposting was imparted to the beneficiaries. The follow up Programmes of the earlier works were also continued. 20 beneficiaries were selected from the adopted village and given training on mushroom cultivation and all of them have taken two crops of mushroom each.

Nirapara

As part of the curriculam, the final year B.Sc. (Ag.) students organised a one day farmers day and Kisan mela as Nirapara. Sri. P. J. Joseph, Hon. Minister of Education and Revenue inaugarated the function on 16.10.96.

NSS activities

The literary centre attached to the instructional farm for the farm labourers under the supervision of NSS continued during the period. The community centre at Kakkamoola and Palappur also continued its function during the period.

T&V programme

Resource personnel from different disciplines in this campus attended the monthly workshop of T & V Programme. The Scientists from the College attended a number of farmers seminar in Trivandrum district as per the decisions of the T & V meetings.

Radio talk

Teachers and PG Scholars from various departments telecasted ten Doordarsan programmes and 40 radio talks highlighting scientific farming.

COLLEGE OF AGRICULTURE, NILESHWAR

Extension Activities

Scientists from the college took part in the farmers seminars, training programmes, Agri. Extension Personnel training Mitra kissan training organised in the Northern region of Kerala. Totally 37 technical sessions were handled by the scientists during the period. They have also tried to popularise scientific agriculture through mass media also. 5 radio talks were broadcasted and 4 popular articles were published in the farm journals. Scientists are also involved in research for the improvement of cultivation in the watershed areas of Kasaragod and Kannur districts. Training was also imparted to farmers on aspects like mushroom cultivation, importance of bio-fertilisers, post-harvest processing of fruits and vegetables, floriculture, rearing of pigs, goats and rabbits and integrated pest and nutrient management.

Training and visit monthly workshops for Kozhikode, Kannur and Kasaragod districts are regularly conducted at the station. Field problems are discussed and solutions to the problems are arrived at for speedy implementation. Besides, diagnostic team visits to farmer's field are frequently made and the team makes on-the-spot recommendations to the farmers.

Demonstration plots for cashew are also maintained here. Better quality cashew grafts are also distributed to the farmers at the station. A vermi-compost production unit is also functioning and vermicompost is being supplied to farmers. Field problems brought by the agricultural officers were examined and remedial measures were suggested. A number of farmers from different places visited the farm to study the various activities and achievements of this station.

A Veterinary hospital is functioning here. An average of 120 cases are being attended and 45 inseminations done during the period. A sales-cum-information counter is functioning at RARS, Nileshwar through which various planting materials and information were made available to farmers.

RARS VELLAYANI

Extension & other activities

T & V monthly workshops

Monthly workshop (under T & V system) for the Thiruvananthapuram district was held at NARP (SR), College of Agriculture, Vellayani on 14.5.1996 and 13.5.1996 respectively. The Assoc. Director was the chairman of the workshop and Dr. V. Muraleedharan Nair, Professor of Agronomy is the chairman of the Diagnostic Team. Dr. A. Visalakshy, Professor of Agricultural Entomology, Dr. P. Karunakaran, Professor of Plant Pathology and Dr. P. Manikantan Nair, Professor of Plant Breeding and Genetics were the resource persons.

T & V monthly workshop for Thiruvananthapuram district was held at NARP (SR), College of Agriculture, Vellayani on 26.8.1996 and 13.9.1996 respectively. Dr. V. Muraleedharan Nair, Professor of Agronomy was the chairman of the workshop and also the Diagnostic Team. Dr. A. Visalakshy, Professor of Agril. Entomology, Dr. P. Karunakaran, Prof. of Plant Pathology and Dr. P. Manikantan Nair, Professor of Plant Breeding and Genetics were the resource persons.

T & V monthly workshop for Thiruvananthapuram district was held at NARP (SR), College of Agriculture, Vellayani on 14.10.1996, Dr. V. Muraleedharan Nair, Professor of Agronomy, Chairman of the workshop and also the Diagnostic Team.

T & V monthly workshop at RTT Centre, Kazhakuttom held on 13.11.1996 was chaired by the Assoc. Director NARP (SR) Vellayani. Dr. A. Visalakshy, Professor of Agril. Entomology, Dr. P. Karunakaran, Prof. of Plant Pathology and Dr. R. Manikantan Nair, Prof. of Plant Breeding and Genetics were the resource persons.

Farm Advisory Services

Necessary advice was rendered to the visiting farmers by the scientists of the RARS, Vellayani, Muttacaud and Kalliyoor villages in Thiruvananthapuram district were adopted by RARS (SR) College of Agriculture, Vellayani.

COCONUT RESEARCH STATION, BALARAMAPURAM

Extension Activities

Village Adoption programme started from 1990-91 is being continued as per the approved programme of the Kerala

Agri. University. Supply of planting materials for Rs. 3,000 has been given to the beneficiaries under the lab to land programmes.

The farmers from nearby and far off places coming to the station were given advice regarding scientific methods of cultivation of major crops grown by them and also regarding the plant protection measures required to be adopted for each crop against specific pests when incidence of pests and diseases were noticed.

Planting materials of coconut, pepper and banana have been produced in sufficient quantities for distribution to farmers on demand.

Training for B. Sc. (Ag.) students was held for two weeks in the station.

CROPPING SYSTEM RESEARCH CENTRE, KARAMANA

Extension Activities

Under the village adoption programme, the Scientists of the CSRC, Karamana offered technical advice to the local farmers in solving field constraints. Edakkode village is selected under the Village adoption programme. Ten farmers identified in the adopted village, and vegetable seeds and fertilizers were distributed to them.

Farm Advisory Service

Farm advisory service was rendered to the farmers of this locality on various field problems including bunchy top disease of banana, foot rot and stem bleeding in coconut, coreid bug, rhinoceros beetle and red palm weevil attacks in coconut, fruit rot diseases in jack, mango etc., and cultivation methods of mushrooms.

Farm Advisory Service rendered

A Farm Advisory Service catered to the agricultural needs of the farmers of Kottarakkara as well as the adopted village of Ummannoor on matters relating to diseases/pests of various crops like vegetables, banana, coconut etc. Under the village adoption programme, the scientists of the station visited farmers' fields periodically and offered technical advice to the farmers.

Extension lectures delivered by Scientists

A total of 129 extension lectures were delivered by the Scientists of the station. Topics covered included,

- Profitable Nursery Management
- Mushroom cultivation
- Mushroom spawn production
- Disease management in betelvine
- Disease management in pepper
- Procedure for soil sampling
- Importance of soil testing in profitable agriculture
- Profitable betelvine cultivation
- Soil and water conservation measures for rainfed areas
- Conservation of soil moisture
- Green manuring and green leaf manuring
- Improvement of soil health through organic manuring

Four training programmes were conducted on balanced integrated nutrient management

Vegetable cultivation.

RICE RESEARCH STATION, KAYAMKULAM

Dr. K. Sivan Pillai, Professor and Head served as the Chairman of the T & V workshop from April 96 to June 96.

Sri. N. R. Nair, Associate Professor & Head served as the Chairman of the T & V monthly workshop for June 96 onwards. Dr. Shyam S. Kurup, Assoc. Professor and Smt. Suja G, Asst. Professor served as resource personnels.

A three day training on mushroom production was imparted to 15 beneficiaries. Classes were handled by Dr. B. Balakrishnan, Associate Professor, Dr. Geetha, D. Asst. Professor, College of Agriculture, Vellayani, Dr. Shyam S. Kurup, Associate Professor and Smt. Meenakumari K. S. Assistant Professor.

Fifty progressive farmers from Tamil Nadu visited the station during January '97. Activities of the station were explained to them by Sri. N. R. Nair, Assoc. Professor and Head and Dr. P. Sushamakumari, Assistant Professor (Agron.)

Dr. P. Sushamakumari, Asst. Professor, Smt. G. Suja, Asst. Professor attended the seminar organised by FACT and handled classes on rice production at Cheppad and Thazhakkara, respectively.

Dr. Sverup John, Assoc. Professor (Pl. Br.), attended the one day seminar organised by Krishibhavan, Cheppad and handled classes on sesamum cultivation on 15.3.97.

Smt. Meenakumari K. S. and Smt. Indira handled classes on biofertilizer and vermicomposting organised by Krishibhavan, K. S. Puram on 18.3.97.

A one day Agricultural seminar was organised by Rice Research Station, Kayamkulam in connection with the Frontline demonstration in oil seeds on 22.3.97. Discussions were led by Smt. P. Santhakumari, Retd. Professor, SRS Thiruvalla, Dr. Sosamma Jacob, Assoc. Professor, RRS Moncompu and all scientists of this station.

Village adoption programme was implemented at Kannamangalam village and 17 farmers were benefitted by this.

Appropriate technical guidance was given to the farmers who came to the station with specific problems relating to various crops.

SUGARCANE RESEARCH STATION, THIRUVALLA

The station actively participated by arranging a pavilion in the Mathrubhoomi Agricultural fair organised at S. C. S. High School ground, Thiruvalla from 8.4.96-12.4.96. About ten thousand people visited our pavilion. The sale proceeds from vegetable seeds, seedlings, KAU publications and sugarcane juice was Rs. 17,890. Among the stalls our stall, bagged 2nd prize for the best pavilion in the agricultural fair.

The station also participated in the Agricultural fair and flower show organised by Thiruvalla Horticultural development society scheduled from 21st-24th December 96 and good quality vegetable seeds and KAU publications were supplied. Research highlights were also displayed.

Dr. Alexander, Assoc. Professor took classes on organic farming and biofertilizers for farmers of KVK, Thelliyur. He has handled classes on organic farming to "Mithrakissans" at Regional Agricultural Research Station, Kumarakom and to the Agricultural Officers of Kottayam district. He took a class on Rice production technology to teachers of vocational Higher secondary school, Elappikulam. He took four classes on Sugarcane production in connection with a training programme on sugarcane production technology to the Agricultural Officers of four districts. He also handled two

classes on Integrated Nutrient Management systems to one each to the Agricultural Officers and Agricultural Assistants in connection with their in-service training at RATTC, Kochi. He also handled classes on organic farming to farmers at Rice Research Station, Moncompu and at Kadapra Krishibhavan and on Sugarcane production Technology at Kuttur Krishibhavan. He served as external examiner to the final viva voce of a Post Graduate student at Tamil Nadu Agricultural University, Coimbatore on 29.3.97.

Sri. Thomas Mathew, Asst. Professor handled a class on organic farming sponsored by Krishi Vigyan Kendra (CARD) to the farmers coming under watershed areas. He handled two classes, one on Integrated nutrient management to Agricultural Officers of Kottayam district and the other on Biofertilizers to Mithrakisans at Regional Agricultural Research Station, Kumarakom.

Dr. Babu George acted as the technical expert for Pathanamthitta district for assessing the quality of planting material produced in the pepper nurseries under the supervision of Department of Agriculture, Pathanamthitta.

Smt. Jessy M. Kuriakose, Assistant Professor took one class on vegetable cultivation in connection with the 'Harithajyothi' programme of the Vazhapally Grama Panchayat. She also offered three classes on vegetable cultivation to the farmers of Chengannur and Thiruvalla Municipality and a class on Sugarcane Breeding to Agricultural Officers of four districts during their inservice training programme at Thiruvalla.

**REGIONAL AGRICULTURAL RESEARCH STATION,
KUMARAKOM**

Extension and other activities

Training conducted

| Name of training | Period | Officers |
|--|------------|----------|
| 1 | 2 | 3 |
| Training programme on Extension Method to Officers of Rubber Board | October 96 | 15 |
| Workshop on Farm Trials to Officers of State Agril. Dept. | October 96 | 50 |
| Fish breeding techniques to unemployed youth | June 96 | 9 |

| 1 | 2 | 3 |
|---|-----------------------|----|
| Mushroom production to unemployed youth | July 96 to January 97 | 56 |
| Mitrakisans training (watershed) | September 96 | 50 |
| A. R. S. Training | August to October 96 | 7 |

The station had participated actively in the major exhibition 'All India Expo 1997' at Thiruvallā during January 1997 which had on laurels to the University. It was an attractive display of specimen, models, blow ups, etc. which attracted large number of people. Quality seeds (vegetables) seedlings, publications of the KAU, processed food like jam, squash, etc. were also available for sale to the public. An amount of Rs. 30,000 was realised as receipts from sales during the period. Amount 50,000 people had visited the pavilion which got the best pavilion award.

The station had also participated in three minor exhibitions at Shertallai, Kumarakom and Alleppey which attracted large number of rural people.

Village Adoption Programme was implemented in Kumarakom Village as an important transfer of technology programme. 25 farmers were selected and organised extension programmes. Inputs were also distributed free of cost to the participants. One seminar was organised in the area where in vegetable seeds, fish fingerlings, ducklings were distributed free of cost to the farmer participants along with farm technology.

A series of farmer contact programmes were organised at different places in and around Kumarakom and scientists from the station conducted discussion classes to groups of farmers. Six such camps were organised during the period.

All the scientists have involved in the democratic planning process by assisting the Gramasabha and District Councils in the preparation and scrutiny of various projects prepared by them. The Scientists are also members of different committees of the Gramasabha and District Councils.

Dr. K. G. Padmakumar, Dr. R. R. Nair, Dr. Anuradha Krishnan and Smt. A. M. Santha were awarded consultancy project to formulate a programme on rice-fish rotational farming in the wetlands of Kuttanad region in Kottayam District by the Govt. of Kerala.

Dr. K. G. Padmakumar and Dr. Anuradha Krishnan served as State Level Resource persons for the Janakeeya Matsya-krisi programme.

Dr. K. G. Padmakumar served as the member of the managing committee, FFDA, Kottayam.

Dr. K. G. Padmakumar and Dr. Anuradha Krishnan served as district level resource persons for the Janakeeya Aasoothrana programme for Kottayam and Alappuzha districts.

Dr. Anuradha Krishnan edited a book on the proceedings of the seminar on Integrated fish farming in upper and Northern Kuttanad.

RICE RESEARCH STATION, MONCOMPU

Training conducted

A state level training programme on rice production technology was conducted for Agrl. officers of the Department from 8-10 January. Dr. Sosamma Jacob, Assoc. Professor was in charge of the training.

T & V monthly workshop

Dr. L. Ramadevi, Dr. N. Remabai, Dr. D. Ambikadevi and Smt. Annie Koruth attended T & V monthly workshop of Alappuzha district every month.

Seminars

Scientists of the station participated in 22 Agrl. seminars organised by State Department of Agriculture and other agencies. Topics covered were Integrated Pest Management, Nutrient management, Rodent control, Biopesticides, Rice Pest Management, Pest & natural enemies of rice, Pesticide pollution, Rice cultivation in kari lands, Bio control agents, Insect pests of rice at Moncompu, IPM in vegetables, and Management of rice pests at Kayamkulam,

RICE RESEARCH STATION, VYTTILA

KAEP Workshop

Dr. K. Sivan Pillai, Professor as Chairman and Sri. N. K. Sasidharan, Associate Professor as resource personnel attended to the monthly KAEP workshop of Ernakulam District regularly. They also attended to the diagnostic team visit to solve problems brought from the State Department of Agriculture.

Agricultural seminars attended

The scientists of this station viz. Dr. K. Sivan Pillai and Sri. N. K. Sasidharan attended the agricultural seminars at Koothattukulam, Padinjarekkara, Kandanadu, Ooramana, Mulanthuruthy, Chottanikkara, Ankamali, Vyttila and Chennamangalam and handled classes.

Training classes handled

Sri. N. K. Sasidharan, Associate Professor handled classes for five training programmes at RATTC, Vyttila and one training programme each at the College of Agriculture, Vellayani and Rice Research Station, Vyttila.

Training programmes organised

A training programme on vegetable cultivation was organised at the seminar hall of the Rice Research Station, Vyttila. Twenty beneficiaries attended to the training programme. Dr. K. Sivan Pillai, Professor and Sri. N. K. Sasidharan, Assoc. Professor handled classes.

Pokkali land vikasana samithi

Dr. K. Sivan Pillai, Professor and Sri. N. K. Sasidharan, Assoc. Professor attended to a meeting of the Pokkali land vikasana samithi convened by the Ernakulam District Collector. The seed materials required for the samithi were supplied from the Rice Research Station, Vyttila.

Village Adoption programme

A front line demonstration on rice cum fish was conducted as one of the activities of the Village Adoption programme. A Pokkali field of one ha. at Chemmanakari was selected for this purpose. The rice variety Vyttila-4 was raised in the field. After the dismantling of mounds carp fingerlings at the rate of 2000kg/ha. was released. The simultaneous culture of fish did not have any ill effect on the grain yield of paddy which was 2250kg/ha. The fish fingerlings attained a growth of 500 to 600g after nine months growth.

Twenty beneficiaries of the Village adoption programme were given kits containing seeds and fertilizers for vegetable cultivation. They were also given a training on various aspects of vegetable cultivation.

NWDPRA

Five field experiments were conducted at five watershed areas of Ernakulam Districts.

AMPRS, ODAKKALI

Participated in the conduct of training programme conducted at RATTTC, Vyttila, RATTTC, Kozha and RATTTC, Palghat.

Participated in the Agricultural Exhibition and Seminar conducted at Kothamangalam. -Thrikkalathoor, Moovattupuzha and Thodupuzha.

Dr. J. Thomas, Assoc. Professor continued to serve as resource person in the NAEP of the Idukki District.

Good liaison was maintained between farmers, traders and industrialists from all over the country. Many farmers visited the station for obtaining first hand information on various aspects of medicinal and aromatic plants cultivation. Pamphlets on the general activities of the research stations as well as the cultivation of the various crops like lemongrass, palmarosa, and vetiver were distributed and regular enquiries were attended to.

The Information and Sales Centre established at the station continued to cater to the requirements of high quality seed and planting materials of the farmers of the area.

AGRICULTURAL RESEARCH STATION, MANNUTHY

Conducted a Labour Friendly Farm Mechanisation Exhibition from 17-8-96 to 20.8.96.

CASHEW RESEARCH STATION, MADAKKATHARA

Training on Cashew graft production

Training was imparted to 7 batches of farmers (20 trainees each) for 25 working days.

International training on cashew

Training given to a scientist from Venezuela on Plant Breeding and Genetics as the job training in 'in vivo' techniques and agronomic evaluation of 'Anacardiums' for a period of 4 months. The training came to a close on 18.3.97.

Radio talks/Dooradarsan programme

New cashew varieties suited for the area, intercropping in cashew, varieties and propagation methods of Cashew, production of quality planting materials in cashew — by Dr. M. Abdul Salam.

Pest Management in cashew by—Dr. Susannamma Kurian.

BANANA RESEARCH STATION, KANNARA

Scientists of the station actively participated in the extension activities. A village adoption programme is being implemented annually. Under the scheme, farmers selected as beneficiaries are supplied inputs and given advice to take up improved cultural practices for banana. Timely technical information on different aspects of banana and pineapple cultivation is given through field visits, radio talks and postal consultancy. Field training is given to farmers, students, agricultural officers etc. Scientists of the station also handled classes in training courses, seminars etc.

Quality planting material of banana and pineapple are being supplied to farmers regularly. Under vegetable seed production programmes, seeds of amaranthus, bhindi, cucumber bittergourd and watermelon are produced.

CASHEW RESEARCH STATION, ANAKKAYAM

The station is implementing a Central Govt. project DOWD Project on 'Agroforestry Models for Extension and Training' at Mankada Block of Malappuram District.

The survey for the scheme is in progress.

Establishment of model plots is in progress in all the Panchayats.

Training classes for the beneficiaries were conducted. The main topics covered under this scheme are Agricultural practices with special reference to Wasteland development, Intercropping potentials of cashew, Agroforestry - Principles and practices, Video show and discussion on soil conservation, Wasteland development and Agro forestry practices. Twenty five demonstration plots already laid out under Central Sector Scheme were managed.

Farmers were given advice on planting and cultivation aspect of cashew, pineapple, mango and ornamental plants.

The Scientists attended the District level seminars organised by Department of Agriculture and delivered lectures.

Thirty farmers were given training on land utilisation and nursery management.

CARDAMOM RESEARCH STATION, PAMPADUMPARA

Dr. Arthur Jacob J, and Dr. C. George Thomas, Assistant Professor handled training classes for the farmers of Kattappana. The training classes were organised by the Department of Agriculture, Govt. of Kerala.

Dr. Arthur Jacob J., Assoc. Professor and Head was nominated by the Spices Board to select the best Cardamom Planter to give "Karshaka Shree" Award for this year.

Sri. M. Murugan, Assistant Professor delivered a lecture on 'Quality improvement of cardamom and pepper' on 12.11.96. The programme was organised by the spices Board.

Dr. Arthur Jacob J., was deputed to give expert advice to make a spices garden in front of R.D.O. Office, Devikulam.

Rajakadu pepper growing fields and pepper nursery were visited to give plant protection advices.

A talk on fungal diseases of cardamom by Dr. Arthur Jacob J., was broadcasted from AIR, Devikulam.

Dr. Arthur Jacob J., Assoc. Professor and Head and Sri Shajan V.R. Assistant Professor took classes on foot rot of pepper for Agrl. Officers, Agrl. Assistants and Farmers on 17.5.1996 in connection with District level seminar.

Dr. C. George Thomas, Assistant Professor delivered a talk on prediction of yield loss due to weed competition and economic threshold at 3p.m. on 31.5.96 at College of Horticulture, Vellanikkara to the students and staff.

COLLEGE OF VETERINARY & ANIMAL SCIENCES, MANNUTHY Village Adoption Programme:

Implementation of the Village Adoption in Vilanganoor was continued. A seminar on Goat Management was organised five kids were supplied to SC/ST beneficiaries at Plavalappil Colony in Ward 10 of Ollukkara Village.

Experimental animals and animal feeds were distributed to various research stations, schools and colleges. The cost realised and shown below:

| | | |
|-------------|---|--------------|
| Albino rats | — | 2393 |
| Albino mice | — | 1482 |
| Rabbit | — | 101 |
| Guinea pig | — | 11 |
| Feed | — | 278 kg. |
| Revenue | — | Rs. 139229/- |

Clinical specimen examined for various bacteriological, virological, mycological and immunological investigations.

The results and remedial measures were communicated to the agencies.

Revenue from sale of milk and milk products — Rs. 16,83,338/-

Provided Radiology facility to clinical cases referred from hospitals and field veterinarians. A total of 269 feed samples received from private and government agencies were analysed for proximate principles and mineral contents.

Details of postmortem diagnosis and other clinical examinations.

| | | |
|-------------------------------------|---|-------|
| Poultry autopsy diagnosis | — | 18811 |
| Large animal autopsy diagnosis | — | 1008 |
| Rabies diagnosis | — | 754 |
| Histopathology | — | 2352 |
| Clinical pathology | — | 550 |
| Feed samples analysed for mycotoxin | — | 235 |

Details of A.I. done and Revenue collected

| Species | Total A.I. carried out | Infertility treatment | Revenue collected Rs. |
|---------|------------------------|-----------------------|--------------------------|
| Cattle | 1190 | 435 | 12700 |
| Buffalo | 94 | 15 | 1140 |
| Goats | 103 | 7 | — |

The staff members actively participated in disease investigation in different parts of the state. Organised and conducted A. H. seminar in different parts of the state, gave lectures on various aspects of A. H. in seminars organised by different agencies. Attended disease committee meetings. Regular vaccination was conducted against rabies R. D., F & M Fowl pox and other infectious diseases in various places, conducted surgical camp at various veterinary hospitals. Farmers and small scale feed manufacturers were given technical advise with respect to scientific feeding and preparation of balanced feed mixtures, conducted film shows on A. H. in farmers seminars organised at different places. Consultancy service has been extended to MILMA, CADA, PDDP Kalady, Agri. Hort. Society and various Co-operative Societies.

Out research Programme

NSS Activities

The NSS of this College has two units of 150 student volunteers in each and two faculty members as part time programme officers.

Dr. A. Rajan, the Dean continued as the Chairman of the College Level Advisory Committee of the NSS and Dr.C. George Varghese, Professor and Dr. M. R. Subhadra, Assoc. Professor as the part-time Programme Officers.

Sri. Suresh N. Nair and Mr. Thomas Sebastian were the student Secretaries of the NSS during the period. The activities of the units are summarised hereunder.

UTA Programme

Prof. Paulson of St. Thomas College, Thrissur conducted a class on AIDS to ten student leaders (peer leaders) on 20.4.96 at the Veterinary College.

Ten student volunteers and the Programme Officers participated in the UTA Programme and seminar at the Horticultural College, Vellanikkara which was organised by that College at the University Level.

Camps

A Nature Camp at the Wild Life Sanctuary, Thekkady was organised with 40 student volunteers and two faculty members including the Programme Officer. 200 herds of cattle around the Sanctuary were inoculated against F & M disease at the request of the Forest Officials.

A one-day camp was organised in the adopted village at Vilangannur under Panancherry Panchayat. Vaccination against F & M disease, and Animal health and Infertility camp, a Farmers' seminar and a discussion class on AIDS and its prevention were the important events.

The unit organised a one-day programme at Choondal at the request of a social and cultural organisation of KARMA for vaccination of animals and birds against various diseases. A class on improved animal husbandry practices and disease control was conducted.

Regular activities

Blood donation

During the period under report, 35 students donated blood to the needy patients admitted in various hospitals at Thrissur.

Cleaning college premises

The student volunteers cleaned the College quadrangle spread over many days.

Seminars, meeting etc. attended

The Programme Officers attended conference convened by the Director of Extension on 20.1.1997.

Students Union Activities

The Students Union was inaugurated on 17.8.1996 by Dr. K. L. Mohanavarma. The arts club was also inaugurated on the same day. The same day, a campus theatre 'Arangu' was formed and started functioning by showing 'Laksha Lakshmi'. Organised and conducted a seminar and exhibition on snakes—facts—fans and fantasy. In association with K. V. Association and Elephant Welfare Society, a wild life seminar was conducted. A music night was organised on December, 1996.

The interclass arts and drama competition was conducted from December 29th to January 5th at the College Auditorium. The Arts Club presented a number of drama in different stages in and around Thrissur. Organised an exhibition of different pharmaceutical products on 2.9.1996. Conducted a book exhibition on 1.3.1997. Organised a 'Kavya Sandhya' by inviting eminent poets. The hobby centre organised and conducted different competitions as a part of Onam festival and Christmas. A fashion parade was also organised. Independence Day and Republic Day were celebrated and as a part of it an interclass competition of "Bharathiyam" was conducted.

DEPARTMENT OF PATHOLOGY

Extension and other activities

Services rendered to farmers

| | |
|-----------------------------|-------|
| Poultry autopsy diagnosis | 18811 |
| Large animal autopsy | 1008 |
| Rabies diagnosis | 754 |
| Histopathology | 2352 |
| Clinical pathology | 550 |
| Feed analysis for mycotoxin | 235 |

CATTLE BREEDING FARM, THUMBURMUZHI

Extension and other activities

Under the artificial insemination programme of the farm, inseminations were conducted on local farmers animals using semen of high quality pedigree bulls received from the Progeny Testing Programme, Mannuthy.

First Aid Treatment was imparted to local farmers' animals and farmers were given advice on various aspects of farm animal management.

CATTLE INFERTILITY SCHEME, KOZHIKODE

Regional Sales & Information Centre, Kozhikode

Agricultural Seminar & Exhibition

Arranged a colourful Exhibition and Sales Counter on 13th & 14th of September, 1996 in connection with 'Kisan Mela' conducted Kaiveli Krishi Bhavan at Kunnummel Block. Arranged a colour exhibition and Sales Counter on 14th October 96 at St. Joseph's High School, Kodancherry in connection with Village Adoption Programme conducted by NRCS, Calicut.

Participated and arranged a colourful exhibition from 12.2.1997 to 17.2.1997 (5 days) in connection with Calicut Flower Show conducted by Agri-Horti. Society.

A large number of fruit plants and vegetable seeds supplied to Calicut Corporation for "Green City" Programme.

FISHERIES COLLEGE, PANANGAD

Extension and other activities

Radio Talks

Dr. Susheela Jose, Associate Professor gave a talk on 15.4.1996 in Malayalam, through All India Radio, Thrissur on the topic "varieties suited for freshwater fish culture".

Dr. D. D. Nambudiri, Associate Professor, delivered a talk in Malayalam on the topic "Use of preservatives in food" through the All India Radio, Kochi on 15.8.1996.

Dr. Susheela Jose, Associate Professor, gave a talk through AIR, Thrissur on 18.3.97 on the topic "Management of aquarium fishes".

Other activities

Dr. D. D. Nambudiri, Associate Professor, took a class on 'Packaging of food products' in a training programme organised by KHDP on 10.5.96.

Dr. Thresiamma James, Associate Professor, handled classes on the topic 'Development and use of biofertilizers' in a training programme organised by the RATTTC, Vyttila on 7th and 18th June, 1996.

FISHERIES STATION, PUDUVEYPU

Extension and other activities

Scientific fish farming is promoted among farmers through technical guidance (25%).

About 1,09,835 quality fish seeds were distributed to farmers and institutions towards developing fisheries in the state.

Implementing village Adoption Programme.

Plots of ten farmers from Elamkunnappuzhà Panchayat were selected for demonstrating the integrated fish farming system. Inputs worth Rs. 300/- such as fish fingerlings and vegetable seeds were distributed among them.

Dr. Susheela Jose, Associate Professor and Dr. S. Shyama, Assistant Professor handled classes on 'Freshwater aquaculture' to the Farm Assistants of RATTTC, Vyttila on 30th and 31st July, 96.

Dr. Susheela Jose, Associate Professor and Dr. C. Mohanakumaran Nair and Smt. Aneykutty Joseph, Assistant Professors handled classes to the trainees of the UGC sponsored training Programme for the college teachers, at CMFRI, Cochin during the period from 10th to 12th July, 96.

Dr. Susheela Jose and Dr. M. V. Mohan, Associate Professors handled classes on 'Freshwater aquaculture' to the Farm Officers of the RATTTC, Vyttila on 9th and 10th July, 96.

Dr. P. M. Mathew, Professor, Dr. T. M. Jose and Dr. K. G. Sunny, Associate Professors, handled classes under the training programme on 'Ornamental fish culture' conducted at Mannuthy during the period from 6th to 9th August, 96. The trainees visited the College on 9th August, 1996 for the practicals.

Dr. P. M. Mathew, Professor gave a lecture on Ornamental fish culture 'at CMFRI, Cochin on 17th August, 96 in their monthly 'fishermen-farmers-Industry-Institution meet' programme.

Dr. Susheela Jose, Associate Professor delivered a talk on the topic 'Freshwater prawn farming with major carps' at the Prawn Farm Project complex, Vallarpadam on 10-9-96.

Dr. D. M. Thampy, Dr. P. M. Mathew, Professors, Dr. M. V. Mohan, Dr. C. Mohanakumaran Nair and Dr. K. G. Sunny, Assistant Professors, handled classes in the training programme on 'Aquaculture techniques' for the Field Officers of the Kerala State Co-operative Agricultural and Rural Development Bank Ltd. conducted during the period 15-10-96 to 18.10.96 and 22.10.96 to 25.10.96 at Ernakulam.

Dr. Susheela Jose, Associate Professor handled classes in the training programme on 'Freshwater aquaculture' for the members of the Vigyana Vikasa Club of the State Bank of India, Maradu Branch on 22.2.1997.

CHAPTER IV

Directorate of Students welfare

Dr. T. G. Rajagopalan continued as Director of Students welfare i/c upto 30.11.96.

Dr. U. Mohammed kunju took over as DSW i/c w.e.f 1.12.96.

Staff position

| Designation/Category | No. of posts | | |
|--|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| DSW | 1 | 1 (i/c) | — |
| Dy. DSW (Sports & games) (Acad & Councelling) | 2 | 1 (i/c) | 1 |
| Asst. Professor (Phy. Edn.) | 1 | 1 | — |
| Section Officer | 1 | 1 | — |
| Office Superintendent | 1 | 1 | — |
| Assistants | 3 | 3 | — |
| Typist | 1 | 1 | — |
| Peons | 2 | 2 | — |

Faculty Improvement Programme

New post sanctioned/created/shifted : Nil
Scholarship awarded to staff/
deputation of staff for higher studies : Nil
Details of Seminars/Symposium/ : Nil
Training attended by staff

Involvement of staff in academic programme :

The Physical Education courses in the College of Co-operation, Banking & Management and College of Forestry are being offered.

Farm Revenue : Nil
Publication by staff : Nil
Important visitors : Nil

CHAPTER V

Engineering Wing

The Engineering Wing of Kerala Agricultural University consists of the Directorate of Physical Plant with its Headquarters at Vellanikkara, one Engineering Division at Fisheries College (Panangad) and four Civil Sub Divisions one each at Tavanur, Mannuthy, Vellanikkara and Vellayani. The Mechanical sub division at the Main Campus, Vellanikkara and two Electrical Sub Divisions one each at Vellanikkara and Vellayani also come under the purview of the Directorate.

Sri. P. O. Thomas continued as the Director of Physical Plant during the period under report.

No major construction works were undertaken during the period 1996-97. Developments and improvements to the existing buildings, providing additional facilities, repair and maintenance etc. were paid special attention. Total plan expenditure for works during the period under report was Rs. 2,80,000,00.

□ □

CHAPTER VI

KAU Estate and Campus Development, Vellanikkara

The KAU Estate was established in 1973 by acquiring an area of 379.56 ha and an area of 11.83 ha. was additionally acquired during 1977-1981. The total area of the Estate was 391.44 ha.

Out of the total area of 391.44 hectares, 253.30 ha has been allotted to other schemes.

The area in possession is 138.14 ha.

Production and Sales

During the report period a total quantity of 30956.870 kg of latex was produced and 9440 kg of latex sold.

Finance

| | | | | |
|--------------------------------|---|---------|-----|-----------|
| Total expenditure for the year | : | 1996-97 | Rs. | 36,13,135 |
| Total receipt for the year | : | 1996-97 | Rs. | 11,14,481 |

Campus Development, Vellanikkara

The Campus Development programme at Vellanikkara was established in the year 1990. In addition to the prime responsibility of developing the entire campus comprising of 396.79 hectares, this unit now undertake multivarious activities like arranging Agri fairs at various parts of the state, participation in flower shows and providing farm advisory services.

As a part of the Campus Development Programme the Central Nursery started its function in the main campus with effect from 31st December 1991. This sub unit provides services to the farming community by way of production and distribution of quality seeds and planting materials. The idea

of mass production of planting material was mooted by the Honourable Vice-Chancellor as a part of the technology transfer coupled with the support of State Agricultural Development policy.

Staff position

| Category/ Designation | No. of posts | | |
|--------------------------|--------------|-------------|--------|
| | Sanctioned | In position | Vacant |
| 1 | 2 | 3 | 4 |
| Special Officer | 1 | 1 | — |
| Assoc. Professor | 1 | 1 | — |
| Asst. Professor | 2 | 2 | — |
| Sr. Gr. Farm Supervisor | 1 | 1 | — |
| Farm Assistant | 2 | 2 | — |
| Lab. Assistant | 1 | 1 | — |
| Office Superintendent | 1 | 1 | — |
| Assistant | 1 | 1 | — |

Farm Revenue

| Year | Receipts | Expenditure |
|--|----------|-------------|
| Campus Development | | 21.16 lakhs |
| Central Nursey | 28 lakhs | 23.44 lakhs |
| Botanical Garden | | 2.19 lakhs |
| Standardization of Agro techniques for Anthurium | | 1.33 lakhs |

CHAPTER VII

Finance and Accounts

Smt. V. S. Bhanumathi Ammal, IA & AS (Rtd.) continued as the Comptroller. The three Internal Audit Circles—Northern, Central, and Southern—headed by Assistant Comptrollers, also functioned during the year 1996-97.

Budget Estimates—1996-97

The University had adopted a budget estimate for Rs. 7151 lakhs for 1996-97, anticipating grant-in-aid of Rs. 4700 lakhs from the State Government (3200 lakhs under Non-Plan and Rs. 1500 lakhs under Plan), ICAR assistance of Rs. 457 lakhs and specific Scheme tide assistance of Rs. 241 lakhs from other sources like DBT, DST, EEC etc., internal resources of Rs. 526 lakhs and Rs. 1227 lakhs from pension fund, Loans & Advances, income from investment, opening balance etc.

Though an amount of Rs. 4700 lakhs was anticipated the State Government released only Rs, 3746.78 lakhs. However an amount of Rs. 226 lakhs released additionally as grant-in-aid to meet expenditure in the revision of wages of labourers. Thus total grant-in-aid from State Government amounts to Rs. 3972.78 lakhs.

Receipts and expenditure for 1996-97 are as below:
Receipts:

| | |
|--|-----------------|
| Grant-in-aid from Government (in lakhs). | |
| Non-Plan | 2772.78 |
| Plan | 1200.00 |
| Grant-in-aid from ICAR | |
| and other agencies | 656.532 |
| Internal Resources | 440.320 |
| Opening Balance | 311.456 |
| Total | <u>5381.088</u> |

Appendix I

MEMBERS OF THE STATUTORY AUTHORITIES

GENERAL COUNCIL (31-1-95 to 31-1-98)

EX-OFFICIO MEMBERS

His Excellency the Governor of Kerala, Raj Bhavan,
Thiruvananthapuram.

The Hon'ble Minister for Agriculture, Thiruvananthapuram.

The Vice Chancellor, Kerala Agricultural University,
Vellanikkara, Thrissur.

The Secretary to Government, Department of Agriculture,
Government Secretariat, Thiruvananthapuram.

The Secretary to Government, Department of Rural Develop-
ment, Government Secretariat, Thiruvananthapuram.

The Secretary to Government, Department of Finance,
Government Secretariat, Thiruvananthapuram.

The Director of Agriculture, Thiruvananthapuram.

The Director of Animal Husbandry, Thiruvananthapuram.

The Director of Dairy Development, Thiruvananthapuram.

The Director of Fisheries, Thiruvananthapuram.

The Chief Conservator of Forests, Thiruvananthapuram.

The Registrar of Co-operative Societies,
Thiruvananthapuram.

The Dean, Faculty of Agriculture, College of Agriculture,
Vellayani, P. O., Thiruvananthapuram.

The Dean, Faculty of Fisheries, College of Fisheries,
Panangad, Ernakulam.

The Dean, Faculty of Veterinary & Animal Sciences,
College of Veterinary & Animal Sciences, Mannuthy, P. O.
Thrissur.

The Dean, Faculty of Agricultural Engg. & Technology,
Kelappaji College of Agricultural Engineering & Technology,
Tavanur, Malappuram.

The Director of Extension, Kerala Agricultural University,
Mannuthy, P. O., Thrissur.

The Director of Research, Kerala Agricultural University,
Vellanikkara, P.O., Thrissur.

The Director of Students Welfare, Kerala Agricultural
University, Mannuthy, P.O., Thrissur.

ELECTED MEMBERS

Members of the Legislative Assembly (5 Members)

(One from SC or ST)

Sri Johny Nelloor, MLA, House No. 8, Housing Colony, Moovattupuzha, Ernakulam.

Sri KC Joseph, MLA, Congress House, Sreekanthapuram, Kannur.

Sri CP Narayanan, MLA, CP House, PO Kuttoor, Via Mathamangalam Bazar, Kannur—Expired.

K Kutty Ahammedkutty MLA, Masters House, Tanur PO Malappuram Dist. (from 24.8.96).

Sri KM Sooppy, MLA, Firoz Manzil, PO Panoor 670 692, Kannur.

Sri CN Jayadevan MLA, Chirukandath House, PO Manalur, Thrissur (from 24.8.96).

Sri K Raghavan Master, MLA, Kariyampathy House, Kalanadikolli, PO Pulpally, Sultan Battery.

Sri CP Balan Vaidyar MLA, Sumathi Nivas, Kannankara PO (Via) Chelannur-Kozhikode (from 24 8 96).

Representative of Students of Post Graduate Courses

(2 members)

Sureshkumar, S (94-17-02) M Sc. (Forestry) Student, College of Forestry, Vellanikkara, Thrissur (upto 30.10.96).

Sudheesh, MV (94-11-06), M Sc. (Ag.) Student, College of Horticulture, Vellanikkara, Thrissur, (Terminated on 30.7.96).

Representative of Students of the Doctorate Degree Courses

(1 Member)

Premachandran, PN (93-21-16), Ph D Scholar, Dept. of Soil Science and Agrl. Chemistry, College of Agriculture, Vellayani, Thiruvananthapuram.

Representative of the Students of the Graduate Courses

(2 Members)

Ashok, B (90-03-69), IV Year BV Sc. & AH Student, College of Vety. and Animal Sciences, Mannuthy, Thrissur (upto 13.1.97).

Noushad Ali, KN (91-03-10) III Year BV Sc. & AH Student, College of Vety. & Animal Sciences, Mannuthy, Thrissur upto 28.7.97.

Representative of the Teachers (other than Deans) of Faculties

(Not more than four—One from each faculty)

Faculty of Agriculture

Dr FMH Kaleel, Assistant Professor, Krishi Vigyan Kendra, Sadanandapuram, Kottarakkara.

Faculty of Veterinary and Animal Sciences

Dr CB Manomohan, Associate Professor (NC), College of Vety. & Animal Sciences, Mannuthy, Thrissur.

Faculty of Fisheries

Sri CG Rajendran, Assoc. Professor (NC), Rice Research Station, Vyttila, PO, Kochi-19.

Faculty of Agricultural Engineering and Technology

Dr. PC. Antony, Associate Professor, Kelappaji College of Agricultural Engineering & Technology, Tavanur, Malappuram.

Representative of Non-Teaching staff of the University

(1 Member)

Sri Vijayan, R Binder, Kerala Agrl. University Hqrs Vellanikkara 680 654, Thrissur.

Members nominated by the Chancellor

Agricultural Scientists (2 Nos.)

Dr KV Peter, Director, National Research Centre for Spices, Kozhikode.

Dr (Mrs) MK Sheela, Associate Professor, Directorate of Extension, Communication Centre, Mannuthy.

Farmers (5 numbers) (One from SC/ST)

Sri A Sujanapal, MLA, Advocate, Kozhikode.

Sri MA Wahid, Advocate, Ginsalayam, RC Junction, Kunnukuzhi, Thiruvananthapuram.

Sri CV Narayanan, Chettakkulam House, Madakkathara-PO Thrissur.

Sri K Gopalan, Congress House, Wayanad Road, Kozhikode-673 011.

Sri Varghese Pereppadan, Mala.

One Non-official Representative from each of the following:

Co-operation

Sri MV Kurien, Retd. Block Development Officer, Ollur PO, Thrissur.

Fisheries

Sri K Rajan, Kinattinkalakath, Cheriyanangad, Quilandy Beach, Quilandy.

Animal Husbandry

Sri Prayar Gopalakrishnan, Prayar, PO, Oachira, Kollam.

One Non-official Representative of the Plantation Industry in the State

Sri V Saidu Mohammed Thangal, 'NISHANA' Near Najath Hospital, Ponnani, Malappuram.

Two Women Members

Smt Saraswathy Kunjukrishnan, Kalangara House, Kollam-13.
Professor Savithri Lakshmanan, MP, Krishna Kripa, Peshkar Road, Irinjalakuda.

One Engineer specialised in Agricultural Engineering—Irrigation

Sri P John Zachariah, HOREB 2 House, Perissery, Chengannur-689 121.

One Educationist;

Dr. K. Ramadas, Professor, University Veterinary Hospital, Kokkalai, Thrissur.

Four Members to represent Agricultural Labour, of whom one shall be a member belonging to the Scheduled caste

Sri CN Govindankutty, Cherpu, P O. Thrissur.

Sri MK Purushothaman, Quarter No. F 2 B, Painavu P.O. Idukki

Sri Joseph Perumpilly, Chevoor, Thrissur-680 027

Sri PK Raghavan, Ex-minister, Ganga Bhavan, Sasthancotta, Kollam (from 25-1-97)

One Member to represent Plantation Labour in the State

Sri VV Shoukkathali, Vadakkevalappil House,

Vellaramkunnu, Thenkara P.O.

Mannarghat, Palakkad.

Two Members belonging to the Scheduled Caste and one member belonging to the Scheduled tribe, of whom, one shall be member of the Legislative Assembly of the state

Sri MP Thami M.L.A., Mangalaparambil, P.O. Paruthur, (Via) Pattambi, Pallipuram. (upto 30.12.96)

Smt Bhargavi Thankappan MLA, Thiruvananthapuram (from 31-12-96)

Sri PC Retnakaran, MM Hall, Peroorkada, PO.

Thiruvananthapuram

Sri Kurichipatta Gopalan, PO Bhoodana Colony, Pulpally, Wayanad (Expired on 27-02-97)

Representatives of University Senates

Representative of University of Science and Technology

Sri C Haridas, Ex. MP, President, Kerala State Prohibition Council, Ponnani, Malappuram District.

Representative of University of Kerala

Sri CS Sasikumar, Anjana, Chinnappara, P O Vithura, Nedumangad, Thiruvananthapuram.

Representative of I.C.A.R.

Dr EA Siddique, Dy Director General (CS), ICAR, Krishi Anusandhan Bhavan, New Delhi-110 012

FOUR MEMBERS—ELECTED BY THE PANCHAYAT (from 17.4.96)

Sri CM Damodaran, President, Panancherry Panchayat, Chellari House, PO Chuvannamannu, Thanipadam, Thrissur Dt.

Sri TV Govindan, President, Pilicode Grama Panchayat, PO Pilicode, Kasaragod Dt.

Sri G Venugopalan Nair, President, Keezhivilam Panchayat, Vanivanyilakam, Kunathallor, Chirayinkeezhu P.O Thiruvananthapuram.

Sri C. Thampu, President, Vadakkencherry Panchayat, Adiyathpadam PO, Ayakkade, Palakkad Dt.

ONE MEMBER ELECTED BY THE MAYORS, MUNICIPAL CHAIRMAN

Smt K Badarunnisa, Chairman, Malappuram Municipality, Malappuram Dt.

EXECUTIVE COMMITTEE

(from 31.7.1995)

EX-OFFICIO MEMBERS:

The Vice-Chancellor, Kerala Agricultural University, Vellanikkara, Thrissur

The Secretary to Government, Agriculture Department, Government Secretariat, Thiruvananthapuram.

The Secretary to Government, Development Department, Government Secretariat, Thiruvananthapuram.

The Secretary to Government, Finance Department, Government Secretariat, Thiruvananthapuram.

OTHER MEMBERS

i Member representing the I.C.A.R.

Dr EA Siddiq
Deputy Director General (CS),
Indian Council of Agricultural Research,
Krishi Anusandhan Bhavan, Pusa, New Delhi-110 012.

ii Elected Dean of Faculty

Dr A Rajan, Dean, College of Veterinary & Animal Sciences,
Mannuthy, Thrissur.

iii Elected Teacher

Dr CB Manomahan, Associate Professor (NC), College of
Veterinary & Animal Sciences, Mannuthy, Thrissur.

iv Elected Non-official members

i General

Sri Johny Nelloor, M.L.A., House No. 8, Housing Colony,
Moovattupuzha, Eranakulam.
Sri KC Joseph, M.L.A., Congress House, Sreekantapuram,
Kannur-670 631.
Sri KM Sooppy, M.L.A., Firoz Manzil, P.O. Pannor,
Mannur-670 692. (Terminated w.e.f. 13.8.96)
Sri K Kutty Ahammed Kutty MLA, Master's House, Tanur,
Malappuram (w.e.f. 30.11.96)

ii SC/ST Reservation

Sri K Gopalan, Congress House, Wayanad Road,
Kozhikode-673 011.

iii Women Reservation

Smt Saraswathi Kunjukrishnan, Kalangara House, Kollam-13,
Kollam District

iv Elected student

Sri Sudheesh MV M.Sc. (Ag.) student, College of
Horticulture, Vellanikkara, Thrissur (Dt.) (upto 30.7.96),
KN Noushad Ali, B.V.Sc. & AH Student, College of
Veterinary & Animal Sciences, Mannuthy (from 31.7.96).

ACADEMIC COUNCIL MEMBERS

(From 28-12-93 to 27-12-96)

Ex-officio members as per Section 17 (1) (a) to (g) and (1) of KAU
Act- Clause I of Statute I (a) of SRO No. 529/72.

Dated 19-10-72

The Vice-Chancellor, Kerala Agricultural University
Vellanikkara, Thrissur

The Dean, College of Agriculture,
Kerala Agricultural University
Vellayani, Thiruvananthapuram

The Dean, College of Veterinary and Animal Sciences
Mannuthy, Thrissur

The Dean, College of Fisheries, Panangad, Ernakulam

The Dean, Kelappaji College of Agricultural Engineering &
Technology, Tavanur, Malappuram

The Director of Research, Kerala Agricultural University,
Vellanikkara, Thrissur

The Director of Extension, Kerala Agricultural University,
Mannuthy, Thrissur

The Director of Students Welfare, Kerala Agricultural
University, Mannuthy, Thrissur

The Registrar, Kerala Agricultural University
Vellanikkara, Thrissur

The Director of Agriculture, Vikas Bhavan
Thiruvananthapuram

The Director of Animal Husbandry, Vikas Bhavan
Thiruvananthapuram

University Librarian, Kerala Agricultural University
Vellanikkara, Thrissur

Members nominated by the Chancellor from among the Heads
of Department of the Faculties (6 members) as per Section 17
(i) of KAU Act

Dr. Al Jose, Professor and Head (Soil Science and
Agricultural Chemistry), College of Horticulture,
Vellanikkara, Thrissur

Dr. K Pavithran, Professor and Head (Dairy Science)
College of Veterinary and Animal Sciences
Mannuthy, Thrissur

Dr. PS Pushkaran, Professor and Head (Extension)
College of Veterinary and Animal Sciences
Mannuthy, Thrissur

Sri. K Kerala Varma, Associate Professor and Head
(Fishery Hydrography), College of Fisheries,
Panangad, Ernakulam

Dr. KI Koshy, Professor and Head (Supportive and Allied
Courses), Kelappaji College of Agricultural Engineering
and Technology, Tavanur, Malappuram

Members nominated by the Chancellor, from among the staff of the Research Station of the University (3 members as Section 17 (1) (i) of KAU Act

Sri. KS Purushan, Associate Professor
Fisheries Research Station, Puduveyypu, Ernakulam
Dr. U Jaikumar, Associate Professor (NC)
Agricultural Research Station, Mannuthy, Thrissur
Dr. SoSamma Iype, Professor, University Livestock Farm,
Mannuthy, Thrissur

Members nominated by the Chancellor from among the Scientists of Indian Council of Agricultural Research and/or its Institutions, from other Universities in India or from among well-known Scientists in India (not more than 5 members) as per Section 17 (1) (a) (iii) of Statutes SRO No. 529/72 dated 19-10-72.

Dr. MR Sethuraj, Director
Rubber Research Institute of India, Kottayam
Dr. R Gopalakrishnan, Retd. Director of Research
Kerala Agricultural University
Plot No. 228, Gate No. 4, Hill Gardens
Kuttanellur, Thrissur 680 014
Dr AD Damodaran, Director, Regional Research Laboratory
(CSIR), Thiruvananthapuram
Dr V Subramaniam (Former Dean, Tamil Nadu Agricultural
University), 66, Natarajapuram North, Tanjavur, Tamil Nadu.
Dr SP Palaniappan, Professor of Agronomy, Agricultural
College & Research Institute, Coimbatore-641 002.

ELECTED MEMBERS

Two members from among the Post-Graduate Students and one member from among the Research students of the University as per Section 17 (1) (i) of the KAU Act.

BL Biju Lal (93-11-55) M. Sc. (Ag.) (Soil Science & Agrl. Chemistry) College of Horticulture, Vellanikkara.

KJ Kuriakose(92-12-13)II M.Sc. (Hort.) Student, Department of Processing Technology, College of Horticulture, Vellanikkara.
Dr H Subramanian (93-93-02) Ph. D. Student Department of Parasitology, College of Vety. & Animal Sciences, Mannuthy, Thrissur.

One member elected by the Teachers (other than the Dean) of each Faculty from among themselves as per Section (16) (1) (k) of KAU Act.

Dr MS Hajilal, Assistant Professor, AICRP on Agrl. Drainage, Karumadi.

Dr CS Jayachandran Nair, Associate Professor (NC)
Dept. of Horticulture, College of Agriculture, Vellayani.
Dr KN Muraleedharan Nair, Professor, Department of
Surgery, College of Vety. and Animal Sciences, Mannuthy,
Thrissur.
Dr KV Jayachandran, Asst. Professor, College of Fisheries,
Panangad, Cochin.

Members Co-opted (not more than ten) to secure adequate
representation to different aspects of Agriculture, as Section
17 (2) of KAU Act (Act 33 of 1971).

Dr AI Jose, Associate Dean, College of Horticulture,
Vellanikkara, Thrissur.

Dr U Mohammed Kunju, Director (Acad. and P. G. Studies)
KAU Hqrs., Vellanikkara.

The Associate Dean, College of Forestry, Vellanikkara.

Sri M Mohandas, Associate Dean i/c. College of Co-op.
Banking and Management, Mannuthy, Thrissur.

Dr N Mohanakumaran, Associate Director, NARP (SR)
College of Agriculture, Vellayani.

Dr K Gopalan, Former Vice-Chancellor, Cochin University
of Science and Technology, Chameli Chembukkavu,
Thrissur 20.

Dr MJ Thomas, Associate Director, Directorate of Research
KAU Hqrs., Vellanikkara

Dr PM Mathew, Professor (Fisheries Research)
College of Fisheries Panangad.

Associate Dean, College of Agriculture Pilicode Nileswar.

Smt KK Santha, Assoc. Professor, Directorate of Extension,
Mannuthy, Thrissur.

Members nominated by the Chancellor from among those con-
nected with service in Agriculture, Animal Husbandry, Forestry,
Fisheries, Dairy Development, Co-operation and Community
Development Department (not more than five members)

Sri AJ Aviyil Joseph, 'Karshakasree' Ramachampadam
Chungathara, Nilambur, Malappuram District.

Sri VR Krishnan Nair Former Conservator of Forests and
Special Officer College of Forestry, Kerala Agrl. University,
(D7, Udayasree, Jawahar Nagar, Thiruvananthapuram)

Sri Prayar Gopalakrishnan, Chairman, KLD & MM Board,
Thiruvananthapuram.

Sri CN Balakrishnan, President, District Co-operative Bank,
Thrissur.

Sri Viswanathan, Mithra Nikethan, Thiruvananthapuram.

List of Academic Council members reconstituted incorporating the following elected members. w. e. f. 28.12.96.

ELECTED MEMBERS

Two members from among the Post-Graduate Students and one member from among the Research Students of the University as per Section 17 (1) (j) of the KAU Act.

Post-Graduate Students

Pramod G Krishnan (93-17-01), Post-Graduate Student, College of Forestry, Vellanikkara.

Sunil G (95-13-10), Post-Graduate Student, College of Vety. and Animal Sciences, Mannuthy.

Research Students

Sri PN Premachandran (93-21-16), Ph. D. Scholar, Dept. of Soil Science and Agricultural Chemistry, College of Agriculture, Vellayani, Thiruvananthapuram.

ELECTED MEMBERS

One member elected by the Teachers (other than Deans) of each Faculty from among themselves as per Section 17 (1) (k) of KAU Act.

Faculty of Agriculture

Dr PS John, Assoc. Professor (NC), College of Horticulture, Vellanikkara, Thrissur.

Faculty of Veterinary and Animal Sciences

Dr C George Varghese, Professor, Dept. of Parasitology, College of Vety. and Animal Sciences, Mannuthy.

Faculty of Fisheries

Dr TM Jose, Assistant Professor, College of Fisheries, Panangad.

Faculty of Agricultural Engineering and Technology

Dr Jobi V Paul, Associate Professor (NC), Kelappaji College of Agri. Engineering and Technology, Tavanur, Malappuram.

Appendix II

SUB COMMITTEES OF EXECUTIVE COMMITTEE

Finance Committee

| | |
|-----------------------------|-----------------|
| Vice-Chancellor | Chairman |
| Sri Johny Nelloor, M. L. A. | Member |
| Secretary, Agriculture | " |
| Finance Secretary | " |
| Comptroller | Member—Convener |

Planning and Development Committee

| | |
|------------------------------|-----------------------------------|
| Smt Saraswathy Kunjukrishnan | Chairperson |
| Sri KC Joseph, M. L. A. | Member |
| Sri Johny Nelloor, M. L. A. | " |
| Sri K Gopalan | " |
| Dr CB Manomohan | " |
| Sri MV Sudheesh | Member (terminated on 30.7.96) |
| Sri Noushad Ali KN | Member (wef 3.10.96) |
| Director of Research | Member—Convener |

Research Review Committee

| | |
|-----------------------------------|------------------------------------|
| Vice-Chancellor | Chairman |
| Sri KM Soopy, M. L. A. | Member (terminated wef 13.8.96) |
| Sri K Kutty Ahammedkutty M. L. A. | Member wef 30.11.96 |
| Dr A Rajan, Dean (Vety.) | Member |
| Dr CB Manomohan | " |
| Director of Research | Member—Convener |

Establishment Committee

| | |
|-----------------------------------|------------------------------------|
| Sri KC Joseph, M. L. A. | Chairman |
| Sri KM Soopy, M. L. A. | Member (terminated wef 13.8.96) |
| Sri K Kutty Ahammedkutty M. L. A. | Member (30.11.96) |
| Sri Johny Nelloor, M. L. A. | Member |
| Smt Saraswathy Kunjukrishnan | " |
| Sri K Gopalan | " |
| Dr A Rajan, Dean (Vety.) | " |
| Dr CB Manomohan | " |

| | |
|---------------------------------|---|
| Sri MV Sudheesh | Member (terminated wef 30.7.96) |
| Sri Noushad Ali KN Registrar | Member (wef 3.10.96) Member - Convenor |

Students Welfare Committee

| | |
|--|---|
| Sri K Gopalan | Chairman |
| Sri KC Joseph, M. L. A. | Member |
| Dr CB Manomohan | " |
| Sri MV Sudheesh | Member (terminated wef 30 7 96) |
| Sri KN Noushad Ali Director of Students Welfare | Member from 3.10.96) Member - Convenor |

Works Committee

| | |
|---|---------------------------------------|
| Sri KM Sooppy, M. L. A. | Chairman (terminated from 13.8.96) |
| Sri Johny Nelloor, M. L. A. | Chairman (from 19,10.96) |
| Sri K Kutty Ahammed kutty M. L. A. | Member (from 30.11.96) |
| Smt Saraswathy Kunjukrishnan | Member |
| Sri M Gopalan Director of Physical Plant | Member - Convenor |

SUB COMMITTEES OF GENERAL COUNCIL

Statute sub committee

| | |
|--|---------------|
| Prof. Savithri Lakshmanan, M. P. | Chairperson |
| Sri KC Joseph, M. L. A. | Member |
| Dr CB Manomohan | " |
| Sri CG Rajendran | " |
| Dr F. M. H. Kaleel | " |
| Dr PC Antony | " |
| Sri R Vijayan | " |
| Sri MV Sudheesh (upto 31.7.96) | " |
| Sri CS Sasikumar | " |
| Sri Prayar Gopalakrishnan Registrar | " Convenor |

Assurance committee

| | |
|-----------------------------------|----------|
| Sri C Haridas. Ex. M. P. | Chairman |
| Sri Joseph Perumpilly | Member |
| Sri PN Premachandran | " |
| Sri B Asok (up to 13.1.97) | " |
| Sri KN Noushad Ali (upto 28.7.97) | " |
| Sri S Sureshkumar (upto 30.10.96) | " |

| | |
|---|----------|
| Dr K Ramdas | Member |
| Dr MK Sheela | " |
| Sri Kurichipatta Gopalan (Expired on 27.2.97) | " |
| Registrar | Convenor |

Accounts committee

| | |
|--------------------------------------|----------|
| Sri MA Wahid | Chairman |
| Sri CN Govindankutty | Member |
| Sri MK Purushothaman | " |
| Sri CV Narayanan | " |
| Sri VV Shoukkathali | " |
| Sri Varghese Pereppadan | " |
| Sri Saidu Mohammed Thangal | " |
| Sri PC Retnakaran | " |
| Sri MV Kurian | " |
| Sri K Rajan | " |
| Sri CP Narayanan, M. L. A. (Expired) | " |
| Comptroller | Convenor |

FACULTY RESEARCH COMMITTEE

1. AGRICULTURE

| | |
|---|----------|
| Director of Research, KAU | Chairman |
| Director of Extension, KAU | Member |
| Dean, College of Agriculture, Vellayani | " |
| Assoc. Dean, College of Horticulture, Vellanikkara | " |
| Assoc. Dean, College of Co-operation, Banking and Management, Vellanikkara | " |
| Assoc. Dean, College of Agriculture, Pilicode | " |
| Assoc. Director of Research (AR&T), Directorate of Research, KAU | " |
| Assoc. Director of Research (M&E), Directorate of Research, KAU | " |
| Assoc. Director of Research (Plg), Directorate of Research, KAU | " |
| Assoc. Director, High Range Region, Regional Agrl. Research Station, Ambalavayal | " |
| Assoc. Director, Regional Agrl. Research Station, Pattambi | " |
| Assoc. Director, NARP Southern Region, College of Agriculture, Vellayani | " |
| Assoc. Director, Regional Agrl. Research Station, Kumarakom | " |
| Assoc. Director, Regional Agrl. Research Station, Pilicode | " |

Special Officer, College of Forestry,
Vellanikkara

Member

Heads of Departments in the Faculty of
Agriculture

Project Co-ordinators

Dr L Rema Devi, Professor & Head, Rice Research Station,
Moncompu

Dr PC Balakrishnan, Associate Professor, Regional Agri-
cultural Research Station, Pilicode

Dr L Rajamony, Head, Department of Olericulture, College
of Horticulture, Vellanikkara

Dr PK Rajeevan, Assoc. Professor & Head, Department of
Pomology, College of Horticulture, Vellanikkara

Dr EV Nybe, Assoc. Professor & Head, Dept. of Plantation
Crops, College of Horticulture, Vellanikkara

Dr V Muraleedharan Nair, Professor, College of Agri-
culture, Vellayani

Dr R Gopimony, Professor, & Head, Dept. of Plant Breeding
and Genetics, College of Agriculture, Vellayani

Dr G Raghavan Pillai, Assoc. Director (Farms), Main
Campus, Vellanikkara

Dr G Sreekantan Nair, Professor & Head, College of Agri-
culture, Vellayani

Dr Alice Abraham, Professor, College of Agriculture,
Vellayani

Dr A Visalakshy, Professor & Head, Dept. of Agrl. Ento-
mology, College of Agriculture, Vellayani

Dr K Rajmohan, Assoc. Professor, College of Agriculture,
Vellayani

Dr Jacob John, Assoc. Professor & Head, Dept. of
Processing Technology, College of Horticulture,
Vellanikkara

Dr C Bhaskaran, Head, Dept. of Extension, College of Horti-
culture, Vellanikkara

Dr SK Nair, Professor, College of Agriculture, Vellayani

Dr M Oommen, Professor & Head, Farming Systems
Research Station, Kottarakkara

Dr P Balakrishna Pillai, Assoc. Director of Research (M & E),
Main Campus, Vellanikkara

Dr B Mohanakumar, Associate Professor, College of
Forestry, Vellanikkara

Dr VK Venugopal, Assoc. Professor, College of Agriculture,
Vellayani

Smt NK Vimalakumari, Assoc. Professor, College of Agri-
culture, Vellayani

Sri VP Sukumara Dev, Professor, Regional Agrl. Research
Station, Pattambi

ii) VETERINARY & ANIMAL SCIENCES

| | |
|---|-----------------------|
| Director of Research, KAU | Chairman |
| Dean, Faculty of Vety. & AS | Member |
| Director of Extension, KAU | " |
| Assoc. Director of Research (V & AS), KAU | " |
| Heads of Departments in the Faculty of Vety. & Animal Sciences | " |
| Professor (Farms) | " |
| Director, Vety. Research & Education | " |
| Professor, Co-ordinated Project on Agrl. Byproducts | " |
| Professor (Project Co-ordination, Cattle & Buffaloe) | " |
| Professor (Research Co-ordination) | Secretary Convenor |

Project Co-ordinators

Dr KM Ramachandran, Professor & Head, Dept. of Pathology
(Project Co-ordinator)

Dr Sosamma Iype, Professor & Head, Dept. of Animal
Breeding & Genetics

Dr A Jalaludeen, Sr. Scientist, AICRP on Poultry

Dr Kunjukutty, Professor Dept. of Nutrition

Dr P Prabhakaran, Professor & Head, Dept. of Vety.
Public Health

Dr K Prabhakaran Nair, Professor & Head, Dept. of
Animal Reproduction

Dr PJ Rajkamal, Asst. Professor, Dept. of Extension

Dr PC Saseendran, Assoc. Professor, Dept. of Livestock
Production Management

Dr KT Punnoose, Professor, Dept. of Microbiology

Dr KS Sebastian, Assoc. Professor, Livestock Production
Management

iii) AGRICULTURAL ENGINEERING

Director of Research, KAU

Dean, Faculty of Agrl. Engg., KCAET,
Tavanur

Chairman
Member—Secretary

| | |
|--|-----------|
| Director of Extension, KAU | Member |
| Head, Dept, of Irrigation & Drainage Engineering, KCAET, Tavanur | " |
| Head, Dept. of Supportive and Allied Course, KCAET | " |
| Professor of Agrl. Engg., College of Agriculture, Vellayani | " |
| Professor Raghavan Nambiar, Head; Dept. of Civil Engineering, College of Engg., Thrissur | " |
| Dr AN Namboodiri, Director, TBGRI, Thiruvananthapuram | " |
| <i>Project Co-ordinators</i> | |
| Professor CP Muhammed, KCAET, Tavanur | |
| Dr (Mrs.) AN Remadevi, Head, Dept. of Agrl. Engineering, College of Agriculture, Vellayani | " |
| iv) FISHERIES | |
| Director of Research | Chairman |
| Dean, Fisheries | Member |
| Director of Extension, KAU | " |
| Heads of Departments of the Faculty of Fisheries | " |
| Professor (Fish. Research) | Secretary |

Appendix III

LIST OF STAFF AT HEADQUARTERS

Vice-Chancellor's Office.

| | | |
|---|---|--|
| PS to Vice-Chancellor (Addl. Charge) | : | VR Sankarankutty |
| PA to Vice-Chancellor | : | K Sadasivan Nair |
| Sr Office Superintendent | : | P Haridasan |
| Peon | : | EK Padmanabhan TK Abdulla Ramachandra Bahadur |
| Driver | : | CP Karunakaran Nair |
| Senior Deputy Registrar (Admn) | : | PM Chandran |
| Deputy Comptroller | : | V Venugopalan |
| Deputy Registrar (Admn) | : | C Sasikumaran Nair |
| Deputy Registrar (Acad) | : | V Balagopalan |
| Asst. Comptroller (DD & A) | : | DA Shyamala |
| Recruitment Officer | : | T Aravindan |
| Asst. Registrar (Admn) I | : | TV Rajasekharan Nair |
| Comptroller, IAC (CR) | : | A Kuriakose |
| (P & L) | : | K Chandramohanan |
| Administrative Officer Gr. II | : | K Ravikumar |
| Directorate of Research | | |
| Asst. Registrar (Admn) II | : | P Gopinathan upto 1.12.96 B Rugmini Amma from 2.12.96 |
| Labour Officer | : | MN Sasidharan from 16.7.96 |
| Section Officer | : | KK Subramanian TA Zainaba Beevi S Vanaja KI Chakkunny V Viswambharan MN Sasidharan upto 15.7.96 VM Sarada from 17.7.96 |

Section Officer

KP Ramachandran Nair
T Remadevi
PA Lakshmi upto 14.7.96
PV Nalini
M Rugmini upto 14.7.96
KK Satheesan
KR Dileep Kumar D.S.W.
KR Gauthami
KV Sugunan
KP Narayanikutty
CV Santha
A Subbalekshmy Ammal
PV Sreekumaran D.O.E.
Susy Mathew
KP Saramma
PT Thankamani
KP Mary
NK Unnikrishnan upto 16.7.96
Sherly Bai George
from 17.7.96
EK Prabhavathy
R Thankamony
L Syamala upto 19.5.96
KU Prabhavathy from 20.5.96
CC Rosily
N Vijayakumar D.O.R.
PR Sreedevikutty D.O.R.
N Usha Rani D.O.E.
AK Lyla upto 26.5.96
KS Nirmala from 27.5.96
MA Urmiladevi
Mercy John
Abdul Karim
VA Achuthan
Reghupathy Chettiar
from 24.6.96
K Kuttappan Achary

Assistant Gr. II

ML Anju from 22.2.97
Arun Sankar from 25.11.96
PD Geogi from 1.3.97
NS Kumaranandan
MB Manikantan
KM Mohamad Iqbal
KN Santhamma
FM Shaibu

Asst. Gr. II.

C Sunder raj
MV Suresh Babu
Sandhya Rabindranath
TG Umasankar from 4.3.97
S Anitha from 24.2.97 D.S.W.
D Sherly from 27.2.97 D.O.R.
KS Jitha 1.4.96 to 14.5.96

Assistant Gr. I

PK Ananthakumari D.O.F.
Dr. PB Abdul Kader
MK Ajayakumar
PK Ajayakumar
T Ally
Antony Joseph
TM Asokan
S Anil Kumar from 24.2.97
M Babu Varghese
TP Baburaj
GO Davis
KP Gopi
KD James
KN Leela
CK Maria John
Preleema Peter
A Rajeswary
PN Ramesh
CP Raphy
AV Rathidevi
C Raveendranathan
PM Sarada
PA Saraswathy
C Sivadasan
P Sreekumar
KK Sudharma
K Sujathabai D.O.R.
PD Tonny upto 16.7.96
MA Ullas
IK Venugopal
FA Yousfali
IA Liakath Alikhan D. O. R.
V Unni D. O. R.
Varghese, J. Ollukkaran

Senior Gr. Assistants : PV Ambika from 17.7.96
KV Ammalukutty
A Anithakumari
TJ Babychan
Bobby Abraham D. O. E.
PV Chamunny from 29.6.96
FK Dalika
K Girindra Babu
K Hemalatha
TC Jose
MV Lathika
MA Many
Mary Joseph
K Meera
PV Mohanan from 17.7.96
C Kunjunny 1.4.96 to 15.7.96
K Mohanan
P Mohini
VN Narayanan
MP Narmada
PP Prema
A Pradeep
KN Radhakrishnan
K Sreekumar
KB Sudha
Sheela A Attokkaran D. O. R.
P Sreejith from 1.7.96
P. Sudha
KK Suneetha
PS Suresh Kumar
PJ Thimose
KP Vasanthakumari
NV Unnikrishnan Nair
1.4.96 to 15.5.96

Selection Gr. Assistants : Baby Saroja
MN Chandrasekharan
V Chellamma
K Dinesan
K Haridasan
M Jaseentha
KC Joseph
GV Kumar
P Krishna Prakash
TB Latha
KF Mathew

N Mary Joseph
 KS Paul
 S Ramachandran Nair
 PV Ramani
 KR Suresh
 A Santhakumari
 G Santhakumari
 C Shirley Mathew
 PV Sreedharan
 O Sethumadhavankutty
 PL Tony
 C Usha
 P Vijayakumar
 KS Vijayalekshmi
 VR Santhakumari
 TK Ambika D. O. E.
 PK Pushpaja
 K Hymavathy
 from 10.7.96 to 28.2.97

Pool Officer
 Senior Office Supdts

PO Elsy
 KK Ramachandran Nair
 V T Kurian
 KN Santhakumari
 TD Jose
 VP Asokan
 R Sadan
 Reetha Joseph
 PR Sarojini
 K Sathyavathi Bai
 G Shanmughan
 P Subhashini
 PP Rosy

Office Superintendent/Typists

Office Supdt. (Hr. Gr.)

MA Bhargavi
 K Saraswathy Amma

Office Superintendent

PK Kousallia
 S Sudha Devi upto 3.5.96
 P Radha from 30.5.96 to 2.7.96
 KM Mary from 2.7.96
 S Sudhakaran Nair from 30.6.96

| | |
|-----------------------|---|
| Sln. Grade Typist | PK Easwary P Sarada IA Surendran KA Valsala S Geetha Bai from 3.10.96 S Remani from 8/96 |
| Sr. Grade Typist | V Santhakumari upto 13.5.96 P Vasanthakumari upto 13.5 96 M Abdul Azeez PA Mumtaz KR Nirmala E Sathidevi KU Selmath P Sreemathi Kumari B Shiras AC Mancy from 20.8.96 |
| Grade I Typist | AJ Mary MA Rajini A Lalitha from 1.6.96 B Savitha Devi upto 13.5.96 S Rosemary upto 13.5.96 B Lalithakumari from 1.6.96 V Jayamony from 1.6.96 PI Ajith MK Sajany - Z Sareena IA Vincent KS Xavior CR Sasidharan S Fathima Beevi |
| Grade II Typist | CC Babu TJ Leena M Geetha from 17.2.97 P Ramani from 25.11.96 PS Sreekala from 24.2.97 |
| Programmer | TA Sebastian Dr Mollykutty George (Retired from 30.8.97) |
| Lab. Assistants | TN Aravindakshan, (Clerical Asst. (Hr. Gr.)) |
| Lab Assistant Gr. III | KT Rajan T Sasi VM Baby V Sreedevi VA Ittiara |

Lab Asst. Gr. III

Lab Assistant (Hr. Gr.)

LDV Driver Gr. III

LDV Driver Gr. II

LDV Driver Gr. I

HDV Driver Gr. II

HDV Driver Gr. I

Binder (Hr. Gr.)

Duffedar

Class IV

AN Saraswathy

MS Bhavana

Christy John

C Thankamani

PK Mohandas

CM Abubakker

TM Chacko

NA Sukumaran

KC Chinnan

KO John Stephen

KA Jebbar (on LWA)

VR Chandran

KM Subramanian

K Parameswaran

PV Sudhakaran

KK Thankappan

VN Sankarankutty

TK Govindan

KV Kochappan

IT Rappai

VR Kochu

R Vijayan

KA Mathiri

CP Kausalya

IR Vilasini

PA Santhakumari

MK Mukami

A Kochammu, DOE

PD Annamma, DOE

P Sakunthala

TV Santha

K Santhakumari

PS Indira

KS Prema

OG Santha

M Lakshmikutty

KK Nabeesa

PN Indira

EK Padmanabhan

MN Vasu

P Suresh Babu

PS Retnakumaran

KM Ponnumon

TR Raveendran

KK Ramankutty

| | |
|--|-------------------------------|
| | CG Sunesh |
| | PE Thankappan |
| | M Somasekharan. |
| | AK Shylan |
| | VR Unni |
| | PB Abdul Rahiman |
| | TA Unnikrishnan |
| | A Ramachandra Bahadur |
| | (Watchman at V.C's Residence) |
| | Sasidharan |
| | TK Abdulla |
| | Shibu Timothy |
| | N Chandu |
| | AP Manikkan |
| Bus Attendant | Beer Bahadur Singh |
| | KA Abdul Rasheed |
| | CR Velayudhan |
| | KC Krishnan |
| | VV Vasu |
| | M Jabbar |
| | TG Radhakrishnan |
| Duplicator Operator | CA Divakaran |
| | M Gopinathan |
| | K Saji Antony |
| <i>Directorate of Students welfare, Vellanikkara</i> | |
| DSW i/c. | Dr. TG Rajagopalan |
| | Relieved on 30.11.96 AN |
| | Dr U Mohammed Kunju |
| | Taken charge on 30.11.96 AN |
| Dy. DSW i/c. | OK Paul |
| Asst. Prof. | EU Rajan |
| Section Officer | KR Dileepkumar |
| Office Supdt. | KM Mary |
| | Relieved on 1.7.96 FN |
| Typist Gr. I | CR Sasidharan |
| Sl. Gr. Asst. | D Sreekumari |
| | PV Sreedharan |
| | Relieved on 10.4.96 FN |
| Gr. I Asst. | IK Venugopalan |
| | Relieved on 10.7.96 FN |
| Peon | TA Unnikrishnan |
| | C Govindan |
| | Relieved on 2.8.96 FN |

| | |
|----------------------|--|
| Overseer/Draughtsman | KH Abdul Rahiman V Unnikrishnan PA Meera Bai TN Suresh Babu upto 18.6.96 B Mohammed Irshad CA James from 19.6.96 |
| Driver | PK Sasi |
| Peon | CV Vijayan PI Kunjumol upto 31.7.96 MO Kochannum upto 31.7.96 NP Chandran upto 31.7.96 MK Vasudevan from 1.8.96 KV Chetty from 1.8.96 |

Electrical Sub Division, Vellanikkara

| | |
|---------------------------|--|
| Asst. Exe. Engineer (Ele) | PM James |
| Asst. Engineer | AJ Anto B Lukose K Pramod |
| Technical Supervisor | CA Varghese |
| Assistant | Naveen Narayanan |
| Typist | OA Ushakumari |
| Peon | KK Balan |
| Permanent Labourers | K Sreedharan retired on 31.1.97 T Suresh Babu KR Divakaran |

Engineering Sub Division, Vellayani

| | |
|---------------------|---|
| Asst. Exe. Engineer | : K Suresh Babu |
| Asst. Engineer | : AP Satheesan 1 post vacant |
| Overseer | : V Harikumar KH Mohammed Abdul Khader VM Roy |
| Section Officer | : K Parukutty |
| Office Supdt. | : P Lalitha |
| Assistant | : SG Girija |
| Driver | : P Reghunathan Nair |
| Peon | : J Soman |

Electrical Sub Division, Vellayani

| | |
|---------------------|--------------|
| Asst. Exe. Engineer | : EK Gokulan |
| Asst. Engineer | : Vacant |

Typist : L Sobhana Kumari
Assistant : Ansamma Philip
Class IV : A Sathyan

Engineering Sub Division, Vellanikkara

Asst. Exe. Engineer : K Savy Joseph
Asst. Engineers : C Vivekanandan
M Vijayakumari
MV Chackochan
Overseer : KK Anilan
KN Satheesh
Assistant : T Jagadeesan
Typist : PA Mumtaz
Driver : MA Joseph
Peon : C Mukundan Nair
Class IV : V Mohammed
Permanent Labourers : PK Arifa
VH Sulaika
IR Balan
KK Sudhi
KK Ambikavathy

Engineering Sub Division, Mannuthy

Asst. Exe. Engineer : PR Govindan upto 4.1.97
MV Chackochan
from 4.1.97 onwards
Asst. Engineer : P Raman
CI Sali
Technical Supervisor : PK Vijayan
TS Govindan
Overseer : S Rajendra Prasad
KG Ajith kumar
KV Sunil kumar
Mathew M Kizhakoot
ET Lal
Pump Operator : MV Parameswaran
VR Parameswaran
TM Kesavan
CC Velayudhan
Section Officer : C Suchetha
Assistant : Indira Devi
Sr. Office Supdt./Typist : Vacant
Peon : Man Bahadur

Permanent Labourers : PC Asokan
P Divakaran
PK Radhakrishnan
PC Jayakrishnan
KK Anandan
CR Hariharan Tampi

Engineering Division, Panangad

Exe. Engineer : P Sreekumaran (on deputation
from PWD upto 4.1.97)
PR Govindan (from 4.1.97)

Asst. Engineer : AP Satheesan
Overseer : Sabu Paul Mulerikal
PT Joy
MY Sunny
SR Antony

Section Officer ; KM Vincent Pereira
Assistant : Prema B Nair
KB Jaya

Office Supdt. : TK Ponnamma
AP Chacko

Engineering Sub Division, Tavazur

Asst. Exe. Engineer : PM Mohamed Ismail
Asst. Engineer : TK Abdul Khader
KT Vasudevan

Overseer : P Manoj
AV Kesavan
ET Lal (upto 13.5.96)
CV Poulouse
VK Girishkumar
CV Ambujam

Section Offioer : C Assainar (upto 19.12.96)
P Unnikrishnan (27.12.96)

Assistant : S Ushadevi
Typist : A Mohamed Ali
Peon : KP Manikandan (expired on
17.4.96)
VV Jayan (relieved on 30.11.96)
T Pankajam (joined on 2.12.96)

Driver : PK Kunhiraman

Mechanical Sub Division, Vellanikkara

Asst. Exe. Engineer : TK Sugathan
Asst. Engineer (Civil) : KP Baburaj
Asst. Engineer (Mech) : Vacant

| | | |
|--------------------|---|------------------|
| Overseer | : | EA Radhakrishnan |
| Road Roller Driver | : | MK Bhaskaran |
| Pump Operators | : | KK Francis |
| | | VB Easaf |
| | | A Narayanan |
| | | KK Gopi |
| | | PV Balakrishnan |
| | | VK Ramachandran |
| | | KA George |
| | | MS Mohanan |
| Assistants | | Y Rajas |
| | | MA Sahida Beegum |
| Typist | : | VH Umaiva |
| Peon | : | Vacant |
| Permanent labourer | : | CR Chandran |
| | | KC Mathew |
| | | BV Viswanathan |
| | | KM Sunil |
| | | KV Kamala |
| | | PJ Viswambharan |
| | | PK Mohanan |
| | | VV Thulasidharan |
| | | CS Pareeth |

Appendix IV

LIST OF STAFF AT VARIOUS CAMPUSES

College of Agriculture, Vellayani

Department of Home science

| | |
|----------------------|--------------------------------|
| Prof. & Head | : Dr (Mrs.) L Prema |
| Assoc. Prof. | : NK Vimala Kumari |
| Assoc. Prof. | : Dr Mary Ukkuru (Transferred) |
| | Dr S Chellammal |
| | Dr S Syamakumari |
| Asst. Prof. | : Soffie Cheriyen |
| | B Presanna Kumari |
| | M Rajani |
| | P Geetha |
| | Subaida Beevi |
| | Dr PV Nandini |
| Technical Supervisor | : N Ayyappan Achary |
| Sr. Gr. Typist | : K Chandrakumar |
| Class IV | : S Suresh kumar |
| Permanent Labourer | : Sarojam |

Department of Agronomy

| | |
|--------------|----------------------------|
| Prof. & Head | : Dr MRC Pillai (on leave) |
| | Dr G Raghavan Pillai |
| Assoc. Prof. | : Dr V Muraleedharan Nair |
| | Dr M Achuthan Nair |
| | Dr Kuruvilla Varghese |
| | Shahul Hameed |
| | Dr R Pushpa kumari |
| | Dr VL Geetha kumari |
| | Dr S Chandini |
| Asst. Prof. | : M Meera Bai |
| | L Girija Devi |
| | S Lakshmi |
| | Dr Sansamma George |

Senior Farm Supervisor : K Radhamma Trankachy
 Farm Asst. Sr. Grade : K Justin
 Lab. Asst. Gr. I : KS Sanjeev
 Gr. III : J David
 Class IV : C Raju
 Lab. Asst. Gr. II : P Thankappan
 Gr. III : N Sreedharan Nair
 Office Supdt. (H. G.) : K Vimala

Department of Plant Pathology

Professor & Head : Dr P Karunakaran
 Professor : Dr S Balakrishnan
 Dr Susamma Philip
 Dr Sasikumar Nair
 S Sasikumaran
 Dr S Bhavani Devi
 Associate Professor : Dr CK Peethambaran
 Dr B Rajagopalan
 Dr B Balakrishnan
 Dr Sivaprasad
 Dr A Naseema
 Assistant Professor : PJ Joseph
 Dr VK Girija
 Dr Kamala Nayar
 Dr Umamaheswaran
 Farm Supervisor : S Kamala Bai
 Lab. Assistant : D Savithri Amma
 R Sivanandan
 C Premakumaran Thampi
 Class IV : KP Viswambharan
 G Velappan Nair
 Research Associate : Dr MG Vijayakumar
 Research Fellow : Carolyne Augustine
Instructional Farm
 Professor & Head : Dr M Oommen
 Assoc. Professor : Dr Harikrishnan Nair
 Dr Mothilal Nellu
 Dr Suharban
 Asst. Professor : D Geetha
 Babu Mathew
 Sr. Farm Supervisor : D Subhadramma
 Farm Supervisor Gr. I : Raveendran Asari

| | |
|---|--------------------------|
| Farm Asst. (Sr. Gr.) | : I Garshan |
| | : Harish kumar |
| | : MS Krishnakumar |
| (Gr. I) | : Eldo |
| Administrative Officer | : Vincent Samuel |
| Section Officer | : Sreedevi |
| | : Reghupathi Chettiar |
| Assistant | : Balachandran Nair |
| | : Parameswaran Nair |
| Department of Entomology | |
| Professor & Head | : Dr A Visalakshi |
| Professor | : Dr George Koshy |
| | : Dr G Madhavan Nair |
| | : Dr K Sasidharan Pillai |
| | : KS Remamoni |
| Assoc. Professor | : Dr Susamma Mathai |
| | : Dr K Saradamma |
| | : K Santhakumari |
| Asst. Professor | : T Jiji |
| Typist | : S Radhamma |
| Farm Asst. | : D Sivaprasad |
| Peon | : B Ravindran Nair |
| | : K Valsala Kumari |
| Prof. NARP (SR) Phase I | : Dr PB Gopinathan |
| Lab. Asst. Gr. II | : S Indira Kumari |
| Assoc. Prof. (AICRP on Pesticide Residues) | : Dr T Nalina Kumari |
| Assoc. Prof. | : PA Rajan Asari |
| | : Dr S Naseema Beevi |
| Asst. Prof. | : Dr Thomas Biju Mathew |
| Lab. Asst. | : M Monian |
| | : R Ravindran Nair |
| Assoc. Professor (AICRP on Nematode Pests) | : Dr MS Sheela |
| | : Dr Arthur Jacob |
| Asst. Prof. | : KS Premila |
| Assoc. Prof. (AICRP on Honeybees) | : S Devanesan |
| Asst. Prof. | : R Krishnakumar |
| Farm Asst. | : KS Sujatha |
| Lab. Asst. Gr. II | : S Santha |
| Professor (KHDP) | : P Reghunath |
| Research Assoc. (RRI Scheme) | : B Ramesh Kumar |
| Honey bee disease ICAR adhoc Scheme | : Dr Bennet |
| Research Assoc. | : KK Shailaja |

Department of Plant Breeding & Genetics

| | | |
|-----------------------------|---|--|
| Professor & Head | : | Dr R Gopimony |
| Professor | : | Dr P Manikantan Nair Dr ST Mercy |
| Assoc. Professor | : | Dr D Chandramony N Kamalam Dr SG Sreekumar Dr DS Radhadevi Dr Sunny K Oommen |
| Asst. Professor | : | Dr D Wilson |
| Typist Sr. Grade | : | Lilly Bai |
| Farm Supervisor | : | CS Vijayakumar Assistant on working arrange- ment at I. F., Vellayani |
| Lab Asst.Gr. II Hr. Gr. | : | N Appu |
| Gr. III Hr. Gr. | : | A Johnson |
| Lab. Asst. Gr. III | : | D Vijayakumar |
| Hr. Gr. Peon | : | K Narayana Das A Arjunan Nadar |
| Lab. Asst. on DBT Project | : | C Gopalakrishnan |
| Assoc. Professor (NARP SR) | : | Dr P Manju |
| Assoc. Professor | : | KM Abdul Khader |
| Farm Supervisor Gr. I | : | D Sulochanan Jones Charles |
| Assoc. Prof. AICRP (Forage) | : | Dr DI Suma Bai |
| Asst. Professor | : | C Lekha Rani |
| Farm Assistant | : | David Dharmakumar |

Department of Soil Science & Agrl. Chemistry

| | | |
|---------------------|---|--|
| Professor & Head | : | Dr Thomas Varghese |
| Professor | : | Dr Alice Abraham Abdul Hameed Dr Pushkala PA Korah Dr C Sundaresan Nair |
| Associate Professor | : | K Babukutty Dr VK Venugopal Dr M Subramonia Aiyer Dr P Rajendran Dr P Prabhakumari |
| Assistant Professor | : | Dr K Ushakumari Dr PB Usha Dr Usha Mathew |
| Assistant Chemist | : | G Sushama S Vasundhara Bai |

| | | |
|---------------------|---|---|
| Technical Assistant | : | K Muraleedharan Nair |
| Lab. Assistant | : | N Sreekumaran Prasannakumari |
| Typist | : | Lalithakumari |
| Class IV | : | Vasanthakumari M Anilkumar N Thankappan Nadar |
| Research Associate | : | Seema Krishnan N Sheeja Kurian |

Department of Horticulture

Non-Plan

| | | |
|--------------|---|---|
| Assoc. Prof. | : | Dr BK Jayachandran Dr CS Jayachandran Nair Dr K Rajmohan Dr GR Sulekha Dr M Abdul Vahab |
|--------------|---|---|

Plan

| | | |
|--------------|---|--|
| Assoc. Prof. | : | Dr BR Reghunath Dr Philipose Joshua |
| Asst. Prof. | : | Dr T Sabina George Dr VL Sheela |

KHDP

| | | |
|-------------------------------------|---|-----------------------------------|
| Asst. Prof. | : | Dr VA Celine |
| Research Assoc. | : | S Suneetha |
| Farm Supervisor Gr. I (Non-plan) | : | D Vighranadhan |
| Farm Asst. (Sl. Gr.) | : | H Gopinathan |
| Lab. Asst. Gr. II | : | L Samkutty |
| Lab. Asst. Gr. III | : | S Janardhanan Nair A Anilkumar |
| Peon (Non-plan) | : | M Thankamma |

Department of Animal Husbandry

| | | |
|----------------------------------|---|--|
| Prof. & Head | : | Dr Skariah Oommam |
| Asst. Prof. | : | Dr R Vijayan Dr Ani S Das |
| Farm Supervisor Gr. I (Vety.) | : | R Ramachandran Nair |
| Gr. II (Vety.) | : | C Prabhakaran G Venu L Devarajan Potty |
| Farm Asst. Sl. Gr. | : | J Sudhakumar |
| Class IV | : | P Sukumaran |
| Milk Recorder | : | Vacant |
| Milker | : | Vacant |

**Department of Plant Biotechnology and Molecular Biology
Centre**

Asst. Prof.(Biotechnology) : Swapna Enose

Manpower Development Scheme—Coffee Board

Professor : Dr G Sreekantan Nair

Department of Agrl. Statistics

Professor : Dr P Saraswathy

Assoc. Prof. : R Balakrishnan Asan

Asst. Prof. : Dr Vijayaraghavakumar

Brijit Joseph

Jr. Programmer : CE Ajithkumar

Technical Asst. : P Saraswathy

Class IV : G Pushpaleela

Sweeper : K Lalitha

Department of Maintenance

Assoc. Professor : MS Thomas

Technical Supervisor : Gopinathakurup

Technician Sr. Gr. : K Thankappan

Pump Operators : Raveendran Nair

Mohankumar

B Appukuttan

Peon : Gomathy

Department of Olericulture

Professor & Head : Dr I Rajamony

Department of Library

Asst. Librarian : B Leela

P Sanjeev

Ref. Asst. : KR Sarala

Library Asst. : S Hashim

Lab. Asst. : B Sherly

Sr. Office Supdt. : C Padmavathy

Lab. Asst. : M Abdul Rehiman

Peon : G Gopinathan Nair

N Somankutty

R. Vikraman Nair

Department of Agrl. Engineering

Professor & Head : Dr AN Rema Devi

Asst. Professor : Bini Sam

Technician Gr. I : Suresh

Peon : K Thayee

Ammukutty Amma

Department of Plant Physiology

Asst. Prof. : Dr MM Viji

Peon : Krishnamma

Department of Agrl. Extension

| | | |
|----------------------------|---|--|
| Prof. & Head | : | Dr B Babu Dr G Balakrishna Pillai |
| Assoc. Prof. | : | Dr MM Hussain Dr S Shylaja Dr VB Padmanabhan Dr NP Kumari Sushama |
| Asst. Prof. | : | Dr N Kishore Kumar |
| Artist | : | PK Surendran V Chandranandan |
| Lab Asst. | : | K Sakunthala |
| Peon | : | KjRajan |
| Permn. Labourer | : | T Lalitha |
| Assoc. Prof. | : | Dr G Sobhana C Bhaskaran |
| Selection Gr. Asst. | : | V Leela |
| Sl. Gr. Typist | : | K Gopikuttan Nair |
| Peon (HG) | : | P Arjunan, |
| Farm Asst. Gr. II (Vacant) | : | |

Department of Economics

| | | |
|------------------------------|---|--|
| Prof. & Head | : | KR Narayanan Nair |
| Asst. Prof. | : | K Ravi Raman Elsamma Job AM Santha |
| Peon | : | N Thankappan Nair |
| Professor | : | KK Ravindran Nair |
| Sl. Gr. Assist. | : | A Shah |
| Sl. Gr. Typist | : | P Vasanthakumari |
| Duplicator Operator (Hr.Gr.) | : | P Kesavan Nair |
| Class IV | : | G Rajendran |

Dean's Office

| | | |
|---------------------------|---|--|
| Dean | : | P Balakrishna Pillai |
| Admn. Officer Gr. I | : | S Krishnan Nair |
| Steno to Dean | : | S Sudha Devi |
| Class IV employee | : | R Sreelatha S Pradeepkumar M Solomon B Rajasekharan |
| Duplicator Operator | : | K Sambasivan |
| Grade II Typist | : | R Ashakumari |
| Grade I Typist | : | A Lalitha |
| Sl. Gr. Typist | : | S Majida beevi |
| Office Supdt (Hr. Gr.) | : | KC Mohankumar V Vasundhara |

| | |
|-------------------|--|
| Sr Office Supdt. | : N Dasamma Bhagaval Singh S Valsaladevi |
| (Hr. Gr.) | : A William |
| Class IV employee | : P Viswambharan S Sasidharan Asari S Venugopalan Nair |
| Peon | : P Krishnamma S Sobha K Moniyan Nadar |
| Grade I Asst. | : Sangeeth Thomas |
| Sr.Gr. Asst' | : NL Sivakumar |
| Sl.Gr. Asst. | : T Sasikumar |
| Sr. Officer | : N Rajasekharan |
| Gr. I Asst. | : S Anilkumar |
| Sl. Gr. Asst. | : S Viswakumaran Nair C Chandran |
| Section Officer | : B Sukesan C Padmakumari |
| Lab Asst. | : R Sanker Ram |
| Gr. I Asst. | : K Sudharma |
| Sr. Gr. Asst. | : AK Shajikumar |
| Section Officer | : R Vasumathi |
| Sr. Gr. Asst. | : Shakila Javed |
| Section Officer | : P Jameela |
| Asst. Gr.I | : M Subaida Beevi S Raveendranath |
| Section Officer | : V Chandrika |
| Peon (Hr. Gr.) | : M Sreedharan Nair, C Appu |
| Clerical Asst. | : S Lalitha |
| Gr. II Asst. | : AT Sobhana |
| Sr. Gr. Asst. | : Mohammed Hamsa PL George |
| Section Officer | : NK Mohankumar |
| Grade II Asst. | : P Krishnakumari CD Sreekala |
| Section Officer | : Abdul Samad |
| Peon | : T Jagadamma |
| Grade II Asst. | : S Hema |
| Gr. I Asst, | : NK Valsala |
| Sr. Gr. Asst. | : S Sureshkumar |
| Section Officer | : J Remadevi Amma |

College of Horticulture, Vellanikkara

| | |
|--------------------------------------|--|
| Associate Dean | : Dr AI Jose |
| Agronomy | |
| Professor & Head | : Dr R Vikraman Nair (holding addl. charge) |
| Professor | : Dr NN Potty |
| Asst. Professor | : Dr R Gopinathan Dr KE Savithry Dr Mercy George Dr PS John (from 8.10.96) |
| Agri. Meteorology | |
| Professor & Head | : Dr P Balakrishna Pillai |
| Asst. Professor | : Dr EK Lalitha Bai |
| Plant Breeding & Genetics | |
| Asst. Professor | : Dr K Pushkaran Dr Achamma Oommen Dr KK Ibrahim (from 24.6.96) MR Bindu (from 25.6.96) |
| Agri. Economics | |
| Professor & Head | : Dr K Mukundan |
| Assoc. Professor | : Dr EK Thomas |
| Asst. Professor | : Dr P Indira |
| Agricultural Engineering | |
| Asst. Professor | : MR Sankaranarayanan Subha Rani Kurien |
| Agri. Entomology | |
| Professor & Head | : Dr Seetha Rama Rao (Assoc. Professor) |
| Assoc. Professor | : Dr Jim Thomas |
| Asst. Professor | : Dr Pathummal Beevi R Usha Kumari |
| Agri. Extension | |
| Assoc. Professor | : Dr C Bhaskaran |
| Asst. Professor | : Dr Ranjan S Karipai Dr Kumari NP Sushama Dr PS Geethakutty |
| Home Science | |
| Asst. Professor | : Dr V Indira Dr V Usha Norma Xavier |

Agri. Statistics

- Professor & Head : Dr PV Prabhakaran
Assoc. Professor : VKG Unnithan
Abdul Razak
Asst. Professor : Graceamma Kurien
P Soudamini
S Krishnan

Olericulture

- Professor & Head : Dr S Rajan
Assoc. Professor : Dr KV Suresh Babu (Asst. Prof.)
Asst. Professor : Dr Salikutty Joseph
Dr P Indira
Dr PG Sadhankumar
KP Prasanna
Baby Lissy Markose

Plantation Crops & Spices

- Professor & Head : Dr EV Nybe
Asst. Professor : Dr S Prasannakumari Amma
Dr Alice Kurien
Dr PA Valsala
Dr PC Rajendran
Dr MR Shylaja
Dr VS Sujatha
Lissamma Joseph

Pomology & Floriculture

- Professor & Head i/c : Dr PK Rajeevan
Asst. Professor : Dr PK Valsalakumari
Dr Lyla Mathew
Dr NK Parameswaran
Dr CK Geetha
Dr Sajan Kurien
Dr Sara T George
Dr A Sobhana

Processing Technology

- Professor and Head : Dr P Jacob John
Asst. Professor : KB Sheela
PB Pushpalatha

Plant Pathology

- Professor and Head : Dr James Mathew
Assoc. Professor : Dr A Sukumara Varma
Asst. Professor : Dr MV Rajendran Pillai
Dr TN Vilasini
Surendra Gopal

Soil Science & Agrl. Chemistry

| | | |
|--------------------|---|---|
| Professor and Head | : | Prof. K Leela |
| Assoc. Professor | : | Dr NP Chinnamma Dr KC Marikutty Dr KA Mariam |
| Asst. Professor | : | Dr MA Hassan Dr PK Sushama Dr Jacob John Dr Sam T Kurumthottickal Dr P Suresh kumar |

Physical Education

| | | |
|-----------------|---|------------|
| Asst. Professor | : | Dr E Soman |
|-----------------|---|------------|

Instrumentation

| | | |
|------------------|---|-----------------|
| Assoc. Professor | : | K Madhavan Nair |
|------------------|---|-----------------|

Radio Tracer Laboratory

| | | |
|--------------------------------------|---|--------------------|
| Assoc. Professor (Safety Officer) | : | N Kamalam |
| Assoc. Professor | : | Dr PV Balachandran |
| Asst. Professor | : | Dr N Saifudeen |

Coconut Nutrition & Physiological disorders

| | | |
|-----------------|---|-----------------|
| Asst. Professor | : | CS Gopi |
| Asst. Engineer | : | Rajendra Prasad |

AICRP on weed control

| | | |
|------------------|---|------------------------------|
| Assoc. Professor | : | Dr CT Abraham |
| Asst. Professor | : | Durga Devi Mareed Abraham |

AICRP on Agrometeorology

| | | |
|-----------------|---|-------------------|
| Asst. Professor | : | Dr AVR Kesava Rao |
|-----------------|---|-------------------|

AICRP on BCCP & W

| | | |
|------------------|---|------------|
| Assoc. Professor | : | Dr PJ Joy |
| Asst. Professor | : | Dr KR Lyla |

PG Dip in NRP (upto 31.7.96)

| | | |
|-----------------|---|--------------|
| Asst. Professor | : | Dr PA Nazeem |
|-----------------|---|--------------|

Centre for Biotechnology & Molecular Biology

| | | |
|------------------|---|----------------------------|
| Assoc. Professor | : | Dr PA Nazeem (from 1.1.96) |
|------------------|---|----------------------------|

Manpower Dev. Scheme sponsored by Coffee Board

| | | |
|-----------------|---|---------------------|
| Asst. Professor | : | Dr R Kesavachandran |
|-----------------|---|---------------------|

AIFIP

| | | |
|------------------|---|---------------------------|
| Assoc. Professor | : | Dr PK Rajeevan |
| Asst. Professor | : | Dr A Suma Dr TP Murali |

Vegetable seed production Complex

Asst. Professor : Meagle Joseph

AICVIP

Asst. Professor : Dr PG Sadhan Kumar
Dr Sally K Mathew
Dr S Nirmala Devi

AICRP on Medicinal & Aromatic plants

Assoc. Professor : Dr KT Prasanna Kumar
Asst. Professor : Dr AS Anilkumar
Dr A Augustine

Cadburys' cocoa research project

Professor : Dr R Vikraman Nair
Assoc. Professor : Dr VK Mallika
Asst. Professor : Dr Koshy Abraham

AICRP on Ornithology

Asst. Professor : NV Satheesan
Technician Sr. Gr, : KP Sudarsanakumaran
Technical Asst. : M Jayapradeep
Joicy T John
Lab. Asst. Gr. I : KK Chandran
AP Augusthy
" Gr. II : KV Rukia
PK Narayanan
KM George
PK Anandan
R Govindankutty
KV Padmavathy
K Santhakumari
BP Reetha
PK Savitri
Lab Asst. Gr III : P Unnikrishnan
KK Prabhakaran
V Nandakumaran
CO Mercy
AA Krishnan
PK Velayudhan
Govindankutty
KG Krishnan
PR Surendran
PK Kamalakshy
TR Balakrishnan

| | |
|--|---|
| Farm Supervisor Gr. I | : NJ Eliamma KB Sugathan PK Kalyani TC Sidharthan T Ravindran VM Mathew CB Sugathan KV Natarajan L Radhammal |
| Farm Supervisor Gr. II (Hr. Gr.) | : KS Thankappan VD Thulasi Das |
| Farm Supervisor Gr. II | : KS Thankappan VD Thulasi Das |
| Farm Asst. (Sr. Gr.) | : PP Philip |
| Farm Asst. Gr. I | : R Jayanthy TR Radhakrishnan AX George Padma Narayana Pillai CA Mathew VJ Paul MN Pavithran |
| Farm Asst. Gr. II | : Ajith Kumar Puthiyidath Ananthakrishnan |
| Processing Technology Asst. Administrative Officer Section Officer | : KP Karthikeyan Pillai R Kamala Bai K Thankam PE Halima Beevi T Rema Bai VS Skanda Kumar KA Vareed KR Santha |
| Asst. Sr. Gr. | : C Rajalekshmy M Komalam KV Jayasankar PV Amminikutty IC Sheela Sangeeth Thomas upto 21.5.96 KK Valsa KM George |
| Asst. Gr. I | : TK Jayaraj B Venugopalan MA Chandran VK Beena CV Flora |
| Asst. Gr. II | : A Raghu |

| | |
|---------------------------|--------------------------------|
| Sr. Office Superintendent | H Razia Beevi |
| | KM Mary |
| Office Superintendent | KA Joy |
| Typist Sel. Gr. | K Padmavathy |
| Typist Sr. Gr. | AN Malathy |
| | PS Shylaja |
| Typist Gr. I | MP Rajani |
| | Mini Joseph |
| | PB Joshy |
| | PS Shilaja |
| Typist Gr. II | TD Baby |
| | TS Krishnankunty |
| Peon Hr. Gr | KV Ramachandran. |
| Peon | MV Kunjai (Retired on 31.7.96) |
| | RB Ibrahim |
| | PM Ouseph |
| | T Kunjukutty |
| | PN Indira |
| | SV Sujatha |
| | PI Kunjumol |
| | NP Chandran |
| | KV Ambika |
| Driver HDV | VN Sankarankutty |
| | MV Karappan |
| Driver LDV | AN Mohanan |
| | PR Karthikeyan |
| | MK Surendran |
| | L Vasudevan |
| Bus Attendant | TC Radhakrishnan |
| Duplicator Operator | A Jayagovindan |
| | CD Jose |
| | PA Francis |
| Matron | Mary Bhamini |
| Hostel Manager | NP Chandran |
| Asst. Librarian | MC Lalitha |
| Ref. Asst. | C Abdul Razak |

College of Agriculture, Nileswar

| | |
|----------------|---------------------------------|
| Associate Dean | Dr PA Wahid |
| Professor | IP Sreedharan Nambiar |
| Assoc. Prof. | Dr U Ramachandran |
| | from 14.2.97 |
| | Dr C Latha Bastine from 14.2.97 |
| | Dr PC Balakrishnan |
| | Dr C Mini |

Assoc. Prof. : Dr PR Suresh from 22.12.97
 C Mini
 Dr Thomas George
 Dr K Prathapan
 Dr AN Safeena
 Susan Thomas from 19.3.97
 KN Satheesan from 22.9.96
 Ancy Joseph 31.10.96
 Dr KB Soni from 12.3.97

College of Co-operation, Banking and Management,

Associate Dean i/c : Dr M Mohandas
 Professor & Head : Dr N Rajan Nair
 Associate Professor : Dr N Ravindranathan
 Professor & Head : Dr PC Mathew
 Assoc. Professor : Dr KA Suresh
 Dr A Sukumaran
 Dr KP Mani
 Assistant Prof. Sln. Gr : Philip Sabu
 Asst. Prof. : Philip Thomas
 EVK Padmini
 Sln. Gr. : KS Sujatha
 Dr Molly Joseph
 E Vinaikumar
 Dr Jaya. S Anand (on leave)
 KM George
 Dr AM Jose
 Sr. Scale. : M Mohanan
 P Shaheena (on leave)
 KN Ushadevi
 Vanaja Menon
 Dr G Veerakumaran
 EG Ranjithkumar
 Dr MA Lizy
 KA Sunanda
 PJ Boniface
 Admn. Officer : K Rajamma
 Section Officer : PM Balakrishnan
 PK Manikutty
 Seln. Gr. Asst. : KN Lalithamma
 S Sushama
 Sr. Gr. Asst. : CK Prabhavathy
 Gr. I Asst. : KB Jaya
 AR Sheela

| | | |
|------------------------|---|--------------------------------------|
| Gr. II Asst. | : | V Rekha on daily wage basis |
| Gr. I Asst | : | T Santha |
| Office Supdt. HG | : | K Leela VM Sulaiman |
| Seln. Gr. Typist | : | TK Sukumari |
| Dupl. Machine Operator | : | CD Jose |
| Hostel Manager | : | M Radhakrishnan |
| Peon | : | PD Rosa TK Ismail |
| Reference Asst. | : | CK Shylaja (on working arrangement) |
| Library Asst. | : | Cherian K George |
| Library Attendar. | : | MR Shanmughan on working arrangement |
| Driver | : | V Gopalakrishnan |

Regional Agricultural Research Station, Vellayani

NARP (Phase I)

| | | |
|-------------------------|---|---|
| Assoc. Director | : | Dr PD Vijayagopal |
| Assoc. Professor | : | |
| (Soil Science) | : | Vacant |
| (Plant Breed) | : | N Ramachandran Nair upto 31.5.96 Dr Abdul Khader from 31.5.96 |
| (Statistics) | : | Dr P Saraswathy (Hr.Gr.) |
| Asst. Professor | : | |
| (Soil Science) | : | Post shifted to RARS Kumarakom |
| (Plant Breed) | : | Dr P Manju (Assoc. Prof.) |
| (Statistics) | : | R Balakrishnan Asan (Assoc. Prof.) |
| (Extension) | : | Dr R Prakash (Assoc. Prof.) upto 17.12.96 |
| (Horticulture) | : | Dr L Rajamony (Assoc. Prof.) PC Jessykutty upto 30.12.96 |
| (Entomology) | : | Dr D Dale (Prof.) KS Premila |
| (Plant Pathology) | : | Dr Bhavani Devi (Assoc. Prof.) |
| (Agrl. Engg.) | : | Vacant |
| Farm Assistant | : | D Sulochanan FS (Gr II) Jones Charles FA (Gr.I) |
| Lab. Assistant (Gr. II) | : | S Indirakumari |

| | |
|------------------------------|---|
| Driver (Gr. II) | : K Vikraman Nair (H. Gr.) upto 31.8.96 PS Vijayakumaran Nair VP Madhukumar V Sudhakaran from 13.9.96 |
| Admn. Officer | : B Sreedhari Amma upto 31.10.96 P Gopinathan from 5.12.96 |
| Section Officer | : P Lalithakumari Amma S Saraswathy Amma |
| Sr. Office Supdt. | : N Haridas |
| Typist (Gr. I) Steno | : P Radha (Office Supdt.) upto 20.5.96 P Sarojini Ammal from 29.5.96 |
| Asst. Gr. I | : S Vallinayakom Pillai (Sel. Gr.) Jose Jabes Justus (Sr. Gr.) upto 25.5.96 C Prabhakaran (Sel. Gr.) N Hrishikesan Nair (Sel. Gr.) M Rajan (Sr. Gr.) |
| Asst. Gr. II | : MS Noble (Gr. I) ME Saleel from 25.5.96 |
| Typist Gr. I | : P Ushakumari (Gr. I) B Lalithakumari (Sr. Gr.) upto 23.5.96 B Savitha devi from 23.5.96 |
| Duplicating machine operator | : C Madhusoodanan Nair (Hr. Gr.) |
| Photographer | : Vacant |
| Class IV | : S Manikantan M Nagappan from February 97 |
| AICRP on Forage Crops | |
| Assoc. Professor (Agron.) | : Dr M Achuthan Nair |
| Asst. Professor (Pl. Breed.) | : Dr DI Suma Bai (Assoc. Prof.) Lekha Rani (Asst. Prof.) Agronomy : Dr KR Sheela L Girija Devi |
| Farm Assistant Gr. I | : H Gopinathan (S. Gr.) upto 26.6.96 KO Vijayakumar from 26.6.96 |
| Farm Asst. Gr. II | : David Dharmakumar (Gr. I) K Justin (Gr. I) |
| Lab Assistant Gr. III | : Vacant |
| Asst. Gr. II | : Georgekutty (Gr. I) |
| Typist Gr. III | : V Jayamoni |
| Peon | : M Nagappan upto February (Shifted to Ph.I) |

AICRP (Nematode pests)

Assoc. Professor : Dr MS Sheela
Asst. Professor : Hebsybai (Assoc. Prof.)
N Anitha upto 30.12.96
R Krishnakumar from 30.12.96
Farm Asst. Gr. II : D Sivaprasad
KS Pradeepkumar
Lab Asst. Gr. III : C Manikantan Nair upto Feb. 97

AICRP (Pesticide Residues)

Assoc. Professor : Dr T Nalinakumari
Asst. Professor : Dr S Naseema Beevi
(Assoc. Prof.)
K Sudharma (Asst. Prof.)
Dr Thomas Biju Mathew
(Asst. Prof.)
Lab. Asst. (Gr. III) : M Maniyan
R Raveendran Nair

AICRP (Honey Bees)

Assoc. Professor : Dr Abraham Jacob (Prof.)
upto 23.1.97
Technical Asst. : S Devanesan (Asst. Prof.)
Lab. Asst. (Gr. II) : S Santha
Farm Asst. (Gr. I) : KS Sujatha upto 25.6.96
CS Vijayakumar from 25.6.9

ICAR adhoc scheme on Homestead Agroforestry

Res. Assoc. (Agronomy) : Jacob John upto 28.2.97
(Forestry) : Vacant

ICAR adhoc scheme on Epidemiology of honey bee diseases

Res. Assoc. (Ag. Ento.) : R Sabitha upto 28.2.97
KK Shailaja from 28.2.97
(Ag. Micro.) : Bindu Muraleedharan
upto 30.11.96

Apiculture Asst. : CR Vinod

Providing Information base for the region (Data base system)—Plan

Technical Asst. : P Sreekumar from 3.10.96

AICRP on Tillage

Asst. Prof. (SS & AC) : Dr. PB Usha
Class IV Employee : M Anilkumar from 19-6-96
Lab. Assistant : Prasannakumari from 19-6-96

DBT Project on Rhizobium-pulses association

Jr. Research Fellow : KS Meena Kumari upto 11-5-96

ICAR ad hoc scheme on collection, compilation and cataloguing of *Anthurium* spp.

Res. Associate : M Suma

STED Project on Vermitechnology

Res. Associate : Vacant

ICAR ad hoc scheme on *in vitro* propagation of mango

Res. Associate : S Sunitha

ICAR ad hoc scheme on Development of Soya Rice blended Food Recipe

Res. Associate : MS Karuna

KAU-RRRI Project on impact of continuous application of copper fungicides on ecosystems of the major rubber growing tracts of Kerala and Tamilnadu

Res. Associate : Ramesh from 21-11-96
Seema Krishnan from 17-3-97

NWDPRRA Project

Res. Associates

Entomology : T Sivakumar
SS & AC : Deepa S Pillai
Agronomy : PV Jinaraj
GS Ajithkumar
Praveena
Sreeraj

***Farming Systems Research Station, Sadanandapuram and
Krishi Vigyan Kendra, Kollam***

NARP (Phase I)

Assoc. Professor

Horticulture : K Ajithkumar from 29-7-96
Soil Science : RS Shehana

Assistant Professor

Horticulture : Vacant
Soil Science : RS Shehana
Agronomy : Dr K Vasanthakumar
(Assoc. Prof. Hort.) upto 11.4.96
Dr M Oommen (Prof. Agron.)
from 11.4.96
Dr S Chandini (Assoc. Prof.)

| | | |
|------------------------------|---|---|
| Asst. Professor | | |
| Entomology | : | Vacant |
| Plant Pathology | : | Dr S Ravi (Assoc. Prof.) |
| Agri. Economics | : | Dr S Rageena |
| Veterinary | : | Vacant |
| Soil & Water | : | Vacant |
| Conservation Engg. | | |
| Farm Asst. (Agri.) Gr. I | : | PA Sankutty EN Raveendran Nair PG Ajayakumar from 20-12-96 M Rajendran TK Ajmalkhan 11.10.96 to 20.12.96 |
| Farm Assistant (Vety.) Gr. I | : | A Sarojam |
| Lab. Assistant Gr. II | : | Vacant |
| Administrative Assistant | : | M Abdul Salam |
| Assistant Gr. I | : | PK Mohanan (Sel. Gr.) N Ponnamma (Sel. Gr.) upto 31.10.96 Ignatius |
| Typist Gr. I | : | B Bhamini Amma |
| Peon | : | P Sunilkumar |

Krishi Vigyan Kendra, Sadanandapuram

| | | |
|-------------------------|---|---|
| Assoc. Prof. & Head | : | Dr M Oommen (Professor) |
| Asst. Prof. (Extension) | : | Dr FMH Kaleel upto 26.12.96 Dr R Prakash from 27.12.96 |
| „ (Agronomy) | : | S Lakshmi |
| „ (Horticulture) | : | P Sukumari |
| „ (Plant Protection) | : | Kunjamma P Mathew |
| „ (Animal Science) | : | Dr MO Kurien |
| „ (Home Science) | : | Rari John |
| Farm Supervisor | : | D Vighranadhan upto 24.1.97 |
| Farm Asst. (Vety.) | : | P Valsalakumari |
| Training Assistant | : | V Anilkumar from 20.12.96 PM Joshi from 24.1.97 |
| Assistant Sr. Gr. | : | C Chandrikakumari |
| Assistant Gr. I | : | D Suprabha |
| Typist Gr. II | : | R Usha |
| Driver, LDV | : | S Sasi |
| Peon | : | N Krishnan Nair |

Class IV : P Suresh Babu upto 18.6.96
P Sunilkumar from 19.6.96
CJ Wincent from 12.8.96
K Gopi from 13.2.97

Cropping System Research Centre, Karamana

AICRP

Professor & Head : Dr GK Balachandran Nair
Assistant Professor : Dr CR Sudharmai Devi
Soil Science & Agrl. Chem.
Agrl. Statistics : Dr Vijayaraghava Kumar
Technical Assistant : Nil
Farm Assistant : KS Ajayakumar
SR Rajeevan
Typist : V Jayamani
Messenger (Class IV) : GV Saju

Non-Plan

Assistant Professor : Dr KK Sulochana
Plant Pathology
Administrative Assistant : VM Lalithakumari
Senior Gr. Assistant : S Sathee Devi
Lab. Assistant : Vacant wef. 1.2.97
Peon : G Francis
Choukidar : Vacant
Part time Sweeper : Bharath

Coconut Research Station, Balaramapuram

Professor of Plant Pathology and Head : Dr G Padmakumari
Associate Professor : Dr N Purushothaman Nair
Agronomy
Dr K Viswambharan
Assoc. Prof. (Plant Pathology) : KP Jagan Mohan
(on working arrangement from RRS, Kayamkulam w.e.f. 10.8.1995)
Farm Asst. Sr. Gr. : L Mohandas
Gr. II : KK Reghu Raj
Watchman Hr. Gr : N Prabhakaran Nair
Administrative Asst. : G Joice
Assistants Sln. Gr. & Sr. Gr. : B Sobhana
Typist Sln. Gr. : A Vasantha
Peon Hr. Gr : K Mohanan

Regional Agricultural Research Station, Kumarakom

| | |
|------------------------|--|
| Assoc. Director | : Dr R Ravindran Nair |
| Assoc. Prof. (Ento.) | : Dr KP Vasudevan Nair |
| (Stat) | : P Gangadharan |
| Asst Professor | K Geetha |
| NARP Phase I | |
| Assoc. Prof. (Aqua.) | : Dr KG Padmakumar |
| Chem. | : Manorama Thampatti |
| Extn. | : KP Ramachandran Nair |
| SS | : Dr M Subramonia Iyer |
| Asst. Prof. (Hort.) | : Dr Joseph Philip (Assoc. Professor) |
| W.S./Agron | : KC Rajan (Assoc. Professor) |
| Microbiology | : Vacant |
| Aqua | : Dr Anuradha Krishnan |
| P.B./Genetics | : KA Inasi |
| Micro | : Dr AV Mathew (Assoc. Professor) |
| Pl. Physiology | : Alice Antony |
| Bio-chem | : Dr Sosamma Cherian (Assoc. Professor) |
| Econ | : AM Santha |
| Ag. Engg | : Asha Joseph |
| Agron. | : Elizabeth K Syriac |
| NARP Phase II | |
| Assoc. Prof. Ag. Engg. | : Vacant |
| CRWD | |
| Assoc. Prof. Pl. Path. | : G Mathai Vacant from 7/96 Professor |
| Sr. Farm Supervisor | : M Rajaratnam upto 3.4.96 from 4.6.96 on working arrange ment at CRS, Balaramapuram B Indirabaiamma from 29.7.96 |
| Farm Supervisor Gr. I | : K Sasidharan |
| Gr. II | : PV Reghunathan |

| | | |
|------------------------|---|--|
| Farm Asst. Sr. Gr. | : | KC Varghese |
| | : | MV Sasidharan Nair |
| | : | CV Kuttappan upto 23.5.96 |
| | : | S Sukumaran Nair from 24.5.96 |
| Gr. I | : | PS Sanalkumar upto 9.6.96 |
| | : | K Gopalakrishnan Nair from 10.6.96 |
| (Vety) Sr. Gr. | : | OK Sukumaran |
| Technician Gr. I | : | Thomas Scaria |
| Pump Operator Hr. Gr | : | CC Punnen |
| Watchman | : | EP Sasidharan |
| | : | MT Ponnappan |
| | : | MR Sudhakaran |
| Admn. Officer | : | VC Bharathan Pillai |
| Section Officer | : | MP Govinda Pillai |
| | : | D Vijayamma |
| Sr. Office Supdt. | : | KK Gopikuttan Nair |
| | : | CB Merlin |
| Office Supdt. | : | MC Jayakumar |
| Selection Gr. Asst. | : | MR Ramachandran Nair |
| | : | PG Sreekanta Pai Upto 28.5.97 |
| | : | M Mohamed Basheer from 29.5.97 |
| | : | B Bhanumathy |
| Sr. Gr. Asst. | : | CP Jayakumar |
| Typist Gr. I | : | P Baby |
| | : | K Radhamoney |
| | : | Mariamamma Mathew |
| Driver HDV Gr. I | : | PC Kurien Retired on 30.11.96 |
| Driver (LDV) | : | TM Francis upto 29.5.96 |
| | : | MG Sankaranarayanan Nair from 29.5.96 |
| | : | PS Babu |
| Bus Attendant | : | KK Raghavan upto 31.5.96 |
| | : | PM Varghese from 18.6.96 |
| Dupl. Machine Operator | : | CG Mohanan |
| Lab. Asst. Gr. I | : | VK Vasu |
| Gr. II | : | PS Retnam |
| Gr. III | : | Mary Sebastian |
| | : | George Murickan |
| | : | TP James |
| Peon | : | KK Thankappan |
| | : | N Purandaran Retired on 30.9.96 |
| | : | MK Sivaraman from 8.10.96 |
| | : | AP Meenakshi |

Rice Research Station, Moncompu

KAU Non Plan

| | |
|---------------------------------|---|
| Asst. Professor | Reena Mathew (Study leave for Ph. D. from 29.12.96) |
| Assoc. Professor | Dr Sosamma Jacob R Devika Dr Sumam Susan Varghese PR Krishna kumariamma Retired on 31.12.96 |
| Jr Statistician | |
| AICRIP | |
| Assoc. Professor | Dr PS John Vacant from 9.10.96 Dr N Rema Bai Dr D Ambikadevi Vacant |
| Technical Asst. NARP Phase I | |
| Professor | D Joseph Retired on 17.9.96 |
| Asst. Professor | Ahmed Regina Study leave for Ph.D. |
| Professor & Head | Dr L Remadevi |
| Asst. Professor | PJ Joseph Annie Koruth |
| Research Assoc. | George Thomas |

Rice Research Station, Kayamkulam

| | |
|----------------------|--|
| Professor | Dr K Sivan Pillai relieved on 31.5.96 AN |
| Assoc. Professor | NR Nair w.e.f 10.6.96 FN KP Jaganmohan (on working arrangement to CRS Balaramapuram) Dr Shyam S Kurup Dr Sverup John Dr Sumam George Joined duty in the FN of 13.5.96 |
| Asst. Professor | Dr P Sushamakumari M Indira G Suja KS Meenakumari w.e.f 12.9.96 FN |
| Farm Supervisor | R Satheesan N Vasudevan G Shaji w.e.f. 15.6.96 AN |
| Farm Asst. (Sel. Gr) | D Prasannakumar TK Vijayan |

| | | |
|---------------------------------------|---|--|
| Lab Asst. (Gr. III) | : | N Padmakaran Pillai MG Thomas K Sindhu |
| Administrative Asst. | : | B Thankamoni upto 29.5.96 FN KP Rajendraprasad joined duty on the FN of 1.6.96 |
| Asst. (Sel. Gr.) (Sr. Gr.) | : | K Govindan MP Vijayachandrababu |
| Typist (Sr. Gr.) | : | K Sobhana |
| Peon Hr. Gr. | : | T Balakrishnan |
| Sweeper | : | N Rajamma |
| Regular Mazdoor | : | N Viswanathan N Raveendran |
| Driver Gr. III | : | A Sajim upto 28.10.96 AN TR Manjithkumar w.e.f. 18.11.96 AN |
| Tractor driver (Hr. Gr.) | : | R Thankappan |
| <i>Rice Research Station, Vyttila</i> | | |
| Professor (Soil Science) | : | K Chandrasekharan Nair upto 17.5.96 |
| „ (Agrl. Botany) | : | Dr K Sivan Pillai 10.6.96 onwards |
| Assoc. Professor | : | |
| „ (Agronomy) | : | NK Sasidharan |
| „ (Aquaculture) | : | CG Rajendran |
| Farm Supervisor | : | Haridas 10.6.96 onwards George P Puravath |
| Farm Asst. | : | AA Abdulla PN Sadasivan |
| Driver Gr. II | : | J Joy |
| Pump Operator | : | PR Prabhakaran upto 6.2.97 IR Balan 3.3.97 onwards |
| Lab Assistant | : | PM Gopi |
| Fisherman cum Watchman | : | KG Gopi P Viswanathan upto 31.7.96 |
| Administrative Asst. | : | AA Kousalya |
| Sr. Gr. Asst. | : | AS George |
| Assistant Gr. I | : | AR Sheela upto 25.5.96 VA Suprabha 25.5.96 onwards |
| Typist Gr. I | : | MP Rajani upto 23.5.96 VK Rema 23-5-96 onwards |
| Peon Hr. Gr. | : | N Vasu 31.1.97 NS Reghunandan |

Sugarcane Research Station, Thiruvalla

ICAR

| | |
|------------------------------|--------------------------|
| Assoc. Prof. (Agronomy) | : Dr D Alexander |
| Asst. Prof. (Plant Breeding) | : Dr K Sreekumar |
| Assoc. Prof. (Pl. Pathology) | : Dr Babu George |
| Farm Assistant Sr. Gr. | : B Muraleedharan Pillai |
| Lab. Assistant Gr. II | : AM Kareem |

NARP

| | |
|--------------------------------|---------------------|
| Asst. Professor (Horticulture) | : Jessy M Kuriakose |
|--------------------------------|---------------------|

KAU Non-Plan

| | |
|--------------------------|---------------------|
| Professor (Agronomy) | : PJ Ittyaverah |
| Asst. Prof. " | : Dr R Ilangovan |
| Farm Supervisor Gr. II | |
| (Hr. Gr.): | EK Sukumaran |
| Farm Assistant Sl. Gr. | : TK Omanakuttan |
| Administrative Assistant | : KP Rajan |
| Assistant Sr. Gr. | : S Gopakumar |
| | PB Anilkumar |
| Typist Sr. Gr. | : AK Indiradeviamma |
| LDV driver | : CA Chacko |
| Peon | : K Lalu |

ECF Unit, Kayamkulam

| | |
|--------------------------|----------------------------------|
| Associate Professor | : G, Sukumaran Nair upto 22.5.96 |
| Typist (Gr. I) | : S Kaladevi from 23.5.96 |
| Typist (Sr. Gr.) | : TM Francis from 6.6.96 |
| Driver (LDV) | : V Sindhu upto 30.11.96 |
| Watchman | : Dr Abraham Varghese |
| Farm Supervisor (Gr. II) | : G Shaji upto 15.6.96 |
| Sel. Gr. Farm Asst. | : TJ Mathew |
| | VJ Rajamohan |
| | KC Sanuprasad |
| | PC Girijavallabhan |
| Senior Gr. Farm Asst. | : PA Abdul Majeed |
| | PS Sanalkumar from 15.6.96 |

Regional Agricultural Research Station, Pattambi

Non-Plan

| | |
|---------------------|--------------|
| Assistant Professor | : TK Bridgit |
|---------------------|--------------|

NARP I

| | |
|---------------------|------------------|
| Associate Professor | : Dr P Rajendran |
| | Dr TE George |

NARP II

Asst. Prof. : ML Jyothi
P Shaji James

NSP—BSP

Asst. Prof. : G Valarmathi

AICRIP

Assoc. Director : Dr.P Varadarajan Nair
Assoc. Prof. (Pl. Br.) : Dr. Leenakumari
(Agron.) : Dr Jose Mathew
(Ento.) : Dr L Nadarajan
(Agron.) : TN Jagadeeshkumar
(Pl. Path.) : Rehumath Niza

AICRP on Arid Legumes

Assoc. Professor : Gracy Mathew (on study leave)
E Sreenivasan

AICRP on Long Term Fertilizer Experiments

Assoc. Prof. : Dr K Anilakumar

ICAR Adhoc Scheme—Chilli

Research Associate : One Agrl. Graduate is working
against the post

Non-Plan - A

Section Officer : MP Ahamed
PM Cherukutty
KP Kalliani
TV Ravindra Mohan
Assistants : MV Thankamany
AV Sreenivasa Raghavan
PM Suresh
AW Kishore
MS Ramakrishnan
Harigovindan
P Ramadas
S. O. S. : KT Thanka
Office Supdt. : P Nadarajan Pillai
Typist : Mohandas
Lab. Assistant : KS Chandrasekharan
N Saffiya
Peon : M Krishnankutty
P Mohammed
P Kunhilakshmi

Non-Plan B

| | | |
|------------------------|---|---|
| Senior Farm Supervisor | : | Abraham K Cheru |
| Farm Supervisor Gr. I | : | Saidalikutty CPM Mohammed Abdul Azeez |
| Farm Assistant | : | VP Ramakrishnan B Rajendran T Velayudhan EL Raichel (FS Grade I) |
| Technician | : | Surendran |
| Regular Mazdoor | : | PK Aboo N Hamza M Narayanan A Mohammedkutty PC Koya N Rugmini MP Mohanan K Kumaran P Rayankutty P Mohammed KC Surya Bahadur |
| Watchman | : | C Mohammedkutty T Rugmini |

AICRP on long term fertilizer experiments

Class IV : A Unnikrishnan

NARP I

Senior Admn. Officer : KP Koyammu

Typist : E Gopinath
Santhakumari

Duplicator, Operator : C Kunhan

Lab. Asst. Gr. II : VP Balasubramanian

NARP II (Non-plan)

Technician : E Abdul Hakkim

AICRIP

Farm Assistant Grade I : PK Rajasekharan
MJ Joseph
MV Yusuf
Karthikeyan

Driver : MV Arumughan

Tractor cum Jeep Driver : K Parameswaran

Pulses—AICRP on Guar (Arid Legumes)

| | |
|------------------------|---|
| Farm Assistant (Agrl.) | : Mohammed Aboobacker T Ramakrishnan |
| Lab. Asst. Gr. II | |
| NSP-BSP | |
| Field/Lab. Asst. | : K Divakara Panicker |

Cashew Research Station, Anakkayam

| | |
|-----------------------------|--|
| Assoc. Professor | : KC Chandy Transferred to Rice Research Station, Vyttila from 2-6-97. |
| Asst. Professor (Sr. Scale) | : PV Nalini Head of Station i/c |
| Asst. Professor | : MC Narayanankutty |
| Farm Supervisor Gr. II | : K Mohammedali |
| Farm Asst. (Sln. Gr.) | : A Abdurahiman |
| Lab. Assistant Gr. III | : V Ponnappan |
| Sln. Gr. Assistant | : C Rajagopalan |
| Sln. Gr. Typist | : KT Vijayalakshmi |
| Peon | : KV Balakrishnan |
| Sweeper | : KP Kadiyumma |
| Vacant | : Mali |

Agricultural Research Station, Mannuthy

A. KAU

| | |
|--------------------------|---|
| Assoc. Prof. & Head | : Dr U Jaikumaran |
| Asst. Professor (Agron.) | : T Sajitha Rani |
| Asst. Prof. (Hort.) | : Dr C Narayanankutty |
| Asst. Prof. (Agron.) | : TK Bridgit (On working arrangement from RARS Pattambi w. e. f. 2.1 11996) |

B. ICAR/NARP

a) AICRIP Double Cropping Sub Centre

| | |
|----------------------------|-----------------------|
| Assoc. Professor (Pl. Br.) | : Dr VV Radhakrishnan |
|----------------------------|-----------------------|

b) NARP-I Central Zone

| | |
|-----------------------|-----------------------------------|
| Asst. Prof. (Pl. Br.) | : CA Rosamma |
| Administrative Asst. | : P Aliyar from 12.12.96 |
| Sr. Gr. Asst. | : KN Sarojini from 3.8.96 onwards |
| Selection Gr. Asst. | : T Vijayalakshmi |
| Gr. I Asst. | : CK Prabhavathy upto 31.7.96 |

| | |
|------------------------|---|
| Typist | R Noel |
| Peon | RG Babu upto 5-8-96 |
| | G Parukutty upto 31-12-96 |
| | P Radhakrishnan Nair from 21-11-96 |
| Jeep Driver | U Ravichandran |
| Watchman | Vacant |
| Technician | PM Ramesh Chandran |
| Overseer | Ambujam On working arrangement from Directorate of Physical Plant |
| Sr. Farm Supervisor | Radhamma Thankachi upto 9-12-96 |
| Farm Assistant Sr. Gr. | PR Sathian |
| Farm Asst. Gr. II | PC Uthaman |
| Farm Asst. Gr. II | CK Santhosh |
| | CP Alikutty |
| Lab Assistant | KK Ramachandran from 3-9-96 |

Banana Research Station, Kannara

AICRP (IF)

| | |
|------------------------|---|
| Assoc. Prof. (Hort) | Dr Rema Menon |
| Asst. Prof. (Hort) | T Premalatha |
| Asst. Prof. (Pl. Path) | CA Mary, Assoc. Prof. |
| Asst. Prof. (Ento) | Dr JSK Charles, Assoc. Prof. |
| Farm Asst. Gr. I | C Esarachandran (Sl. Gr.) |
| | AK Vijayakumar (Gr. I) |
| | C Gireesan (Sr. Gr.) |
| Lab Asst. Gr. I | KR Gopalakrishnan (Gr. II) |
| Oil Engine Driver | KA Narayanan |
| Mali | P Subhadra |
| | PA Mary |
| Watchman | Nil |
| Typist Gr. II | KK Parameswaran (Sl. Gr.) |
| Peon | K Sarada |
| NARP | |
| Assoc. Prof. (Agron) | S Janardhanan Pillai Assoc. Prof. & Head |
| Asst. Prof. (Hort) | Dr PK Sudhadevi |
| Typist Gr. II | PK Gayathri |
| Farm Supervisor Gr. II | PM Paulose |
| Farm Asst. Gr. I | S Nazeema (FS Gr. II) |
| Administrative Asst. | AK Kamala Bai |
| Assistant Gr. I | KK Valsa upto 24-2-97 |
| | M Joju Paul from 25-2-97 |

NARP I

| | |
|-----------------|---------------------------------|
| Asst. Professor | |
| Agronomy | : V Jayakrishnakumar |
| Farm Asst. | : MC Sachidanandan from 17.6.96 |
| Lab. Asst. | : TV Parameswaran |
| Typist | : MC Devassy |

NARP II

| | |
|--------|-------------|
| Typist | : KD Rosily |
|--------|-------------|

Aromatic and Medicinal Plants Research Station, Odakkali

| | |
|--------------------------|------------------------|
| Assoc. Professor | : Dr J Thomas |
| (Agronomy) | |
| (Entomology) | : Dr P Baby Skaria |
| (Agrl. Chemistry) | : Dr Samuel Mathew |
| (Agronomy) | : PP Joy |
| Farm Supervisor Gr.I | : EN Sudhakaran Nair |
| | : V James |
| Farm Supervisor Gr.II | : John Varghese |
| Farm Asst. Sr. Gr. | : R Raghu |
| Lab Assistant Graduate | : KK Santhakumari Amma |
| Administrative Assistant | : VK Pathumma |
| Asst. Sr. Gr. | : CC George |
| | : PV Yeldose |
| Typist Gr. I | : TG Jalaja |
| Peon Higher Grade | : MM Poulouse |
| Class IV | : KA Ponnamma |
| | : PV Ayyappankutty |
| Gardener | : KB Sivaramakurup |

Pineapple Research Station & Pest and Surveillance Unit, Vazhakkidam

| | |
|-----------------|----------------|
| Asst. Professor | : KP Kuriakose |
|-----------------|----------------|

Pepper Research Station, Panniyur

| | |
|-------------------------|---------------------|
| Assoc. Professor & Head | : KP Mammooty |
| Assoc. Professor | : Dr A Rajagopalan |
| Asst. Professor | : T Premanathan |
| | : Gregory Zachariah |
| Admn. Assistant | : M Leela |
| Sel. Gr. Asst. | : T Lakshmiikutty |
| Sel. Gr. Typist | : K Pushpavally |
| Farm Supervisor Gr. II | : PJ Joseph |
| | : KA Kurien |

Farm Asst. : T Muhammed Haneefa
K Lakshmanan
MV Premarajan
PP Muralidharan

Pump Operator : TV Madhavan
Driver LDV : JK Justin
Class IV Hr. Gr. : T Kunhiraman
V Kunhiraman
P Janaki

Peon Hr. Gr. : MP Narayanan

Regional Agril. Research Station, Ambalavayal

Associate Director : Dr K Kumaran (post shifted to
of Research KAU Hq.)
Professor (Horti.) : Vacant
Assoc. Professor (Agro.) : Dr KC Aipe
(Head of the Station)
Assoc. Professor : Vacant
(Plant Pathology)
Asst. Professor : Dr K Vasanthakumar
Horticulture (Assoc. Professor)
Dr T Pradeepkumar
Plant Pathology : Dr K Umamaheswaran
Soil Science & : B Rani
Agril. Chemistry

AICRP on Spices

Assoc. Professor : Susamma P George
(Plant Breeding) Asst. Professor
Adm. Officer : B Rugmini Amma
PN Sudhadevi
C Assainar

Section Officer : K Kelappan
NK Achuthan
P Sulochana

Sr. Gr. Assistant : K Velayudhan
AT Gracy
PP Rejilakumari

Assistant Gr. II : AS Nasarudheen Thangal
N Raveendran
M Sureshkumar

Typist Gr. II : MR Ambujam
A Sudhakaran

Steno Typist : ML Sosannam
Driver LDV : TY Daniel

| | |
|--|--|
| Peon Hr. Gr. | : P Moosa V Kunhipokku E Kunhiraman E Alavi |
| KAU Non-plan | |
| Sr. Farm Supervisor | : KM Vijayakumaran |
| Farm Supervisor Gr. II | : P Padmavathy |
| Farm Asst. Gr. I | : CT Jacob KM George (on working arrangement at Vellimadukunnu) |
| Farm Asst. Gr. II | : KJ Joseph NK Muraleedharan KS Rajamani |
| Field Supervisor | : K Raghavan |
| Lab. Asst. Gr. I | : A Govindan Nair |
| Gr. II | : CR Balakrishnan |
| Tractor Driver | : M Mohammedkutty |
| Oil Engine Driver | : A Varghese MJ Antony |
| Budder | : K Ramakrishnan |
| Class IV on working arrangement | : KK Nabeesa KS Prema KP Mukundan |
| Watchman | : N Chandu V Alikutty MC Krishnan |
| NARP Phase I | |
| Farm Asst. Gr. II | : S Prabhakaran |
| Lab. Asst. Gr. II | : M Vasu |
| NARP Phase II | |
| Farm Asst. Gr. II (Vety) | : K Radhakrishnan |
| Technician Gr. I | : K Vasudevan |
| Central Sector Scheme | |
| Farm Asst. Gr. I | : TT Jacob |
| <i>Cardamom Research Station, Pampadumpara</i> | |
| AICRP | |
| Associate Professor (Ent) | : Dr J Arthur Jacob |
| (Agron) | : Dr George Thomas |
| Farm Asst. Sr. Gr. | : VP Prasad |
| Lab Asst. Gr. I | : PV Joseph |
| Peon | : K Aleykutty |

NARP

Asst. Professor (Ent.) : Vacant
 (Pl. Breeding) : VR Shajan
 Farm Asst. Gr. I : CG Pradeep
 : KG Mohandas
 Typist Gr. II : Sheeba Pappachan

KAU Non-Plan

Assoc. Professor (Bot.) : Dr Sunny K Oommen
 (Asst. Prof.)
 Asst. Professor (Plant Path) : Vacant
 Asst. Prof. (Hort.) : Vacant
 Assistant Professor (Soil Sci) : M Murugan
 Farm Supervisor Gr. I : K Devaky
 Farm Assistant Gr. I : TV Kuttichan
 Administrative Assistant : B Sukesan
 : VA Achuthan
 : Reghupathy Chettiar
 : Purushothaman Nambiathiri
 : Narayanan
 : Vijayamma
 Assistant Sr. Gr. : AK Valsala
 Assistant Gr. I : Gopinathakartha
 : S Anilkumar
 Typist Gr. II : Vacant
 Driver Gr. III : CA Alikhan
 Watchman : MT Antony
 : Paulose Mathew

KAU Estate and Campus Development, Vellanikkara

Estate Officer : S Krishnan Nair
 : MN Sasidharan
 : K Sreerengan
 Section Officer : C Aramughan
 : C Sobhanakumari
 Sr. Farm Supervisor : D Subhadramma
 : S Sarojini
 : NS Gertrude
 Farm Assistant : KS Thankappan
 : U Divakar
 : TK Ajmal Khan
 Assistant : MS Valsalakumari
 : S Sushama
 : K Pradeep

| | | |
|--|---|--|
| Typist | : | KS Xavier BK Padmaja |
| Driver LDV Class IV | : | ES Chandran NV Vasu KP Kunjipocker P Kunjunny |
| Asst. Section Officer Field Supervisor Tapping Supervisors | : | MA Jos TK Raghavan PN Sankaranarayanan MS Damodaran |
| Asst. Engine Driver Spl. Gr. Miller | : | KK Prabhakaran PM Poullose Saleena Devassy |
| Special Officer Assoc. Professor Asst. Professor | : | Dr. MJ Thomas Dr Babu M Philip KP Prameela KE Usha |
| Sr. Farm Supervisor Farm Assistant | : | PK Vijayalakshmi MK Johnson Vijayanarayanan |
| Office Superintendent Sl. Grade | : | PK Kallyani KK Kuttappan |

Instructional Farm, Vellanikkara

| | | |
|------------------------|---|--|
| Professor (Agro) | : | Dr. PS John, Assoc. Prof. (Agro) College of Horticulture is in additional charge |
| Asst. Prof. (Hort.) | : | Vacant |
| Administrative Asst. | : | KN Pushpangathan |
| Sr. Gr. Assistant | : | EK Dalika |
| Assistant | : | Vacant |
| Typist Gr. II | : | AK Saleem |
| Farm Supervisor Gr. I | : | B Radha VN Gopi |
| Gr. II | : | NT Satheesh Babu |
| Farm Assistant Sr. Gr. | : | KG Satheesan |

*College of Veterinary and Animal Sciences, Mannuthy
Anatomy*

| | | |
|--------------------|---|---|
| Professor and Head | : | Dr. Lucy Paily — Retired from Service on 10-9-96 |
| Assoc. Professor | : | Dr KR Harshan Dr. CK Sreedharan Unni Dr. Jose John Chungath |

| | |
|---|---|
| Asst. Professor | Dr. N Ashok Dr. Shyla Prakash Dr. KM Lucy Dr. S Maya |
| Animal Reproduction | |
| Professor & Head | Dr. CP Neelakanta Iyer |
| Professor | Dr. K Prabhakaran Nair Dr. E. Mathai--Retd. on 23.7-96 |
| Assoc. Professor | Dr. T Sreekumaran Dr. KV Athman Dr. KN Aravinda Ghosh |
| Asst. Professor | Dr. SP Suresh Nair Dr. Metilda Joseph Dr. Anilkumar Dr. K Ramachandran |
| Scheme - Incidence, Nature and Magnitude of Prevalence of infertility condition in cross bred cattle | |
| Professor | Dr. P Balakrishnan (at Calicut) |
| Centre of Advanced Studies in Genetics and Breeding | |
| Professor | Dr. Sosamma Iype |
| Assoc. Professor | Dr. KV Reghunanandan |
| Asst. Professor | Dr. R Thirupathy Venkitachalathy |
| Animal Genetics and Breeding | |
| Assoc. Professor | Dr. Stephen Mathew Dr. P Nandakumar |
| Asst. Professor | Dr. TV Aravindakshan Dr. K Anilkumar Dr. Shashikanth Dr. Joseph Mathew |
| Animal Management | |
| Professor & Head | Dr TG Rajagopalan |
| Professor | Dr CK Thomas |
| Assoc. Prof. | Dr Francis Xavier Dr PC Saseendran Dr KS Sebastian |
| Asst. Professor | Dr (Mrs) K Leena on leave for study purpose Dr Joseph Mathew |
| Clinical Medicine | |
| Professor & Head | Dr KM Alikutty Retd. in Dec. 96 |
| Professor | Dr NM Aleyas Dr VS Balakrishnan (Prof. RC) |

| | |
|----------------------|--|
| Associate Professor | : Dr PC Alex Dr PG Baby |
| Asst. Professor | : Dr (Mrs) Usha Narayana Pillai Dr S Ajithkumar |
| Dairy Science | |
| Professor & Head | : Dr K Pavithran Retd. on 9/96 |
| Professor | : Dr UT Francis Retd. on 3/97 |
| Assoc. Professor | : R Rajendrakumar on deputation Dr PI Geevarghese Dr MMukundan |
| Asst. Prof. | : Dr (Mrs.) Geetha C Jayan on study leave Dr K Ajithkumar |
| Dairy Plant | |
| Prof. & Head | Dr MV Sukumaran Retd. on 24.5.96 |
| Assoc. Prof. | Dr V Prasad |
| Asst. Prof. | Dr (Mrs) Sreeja Rajmohan P Sudheer Babu SN Rajkumar |
| Extension | |
| Professor & Head | : Dr PS Pushkaran |
| Assoc. Professor | : Dr (Mrs) MR Subhadra Dr PJ Rajkamal |
| Asst. Prof. | : Dr RS Anil (on study leave) Dr M Gopalakrishnan Nair Dr (Mrs.) RS Jiji |
| Microbiology | |
| Prof. & Head | : Dr (Mrs) S Sulochana |
| Professor | : Dr KT Punnoose Dr PC James Retd. on 7.3.97 |
| Assoc. Prof. | : Dr V Jayaprakash Dr G Krishnan Nair |
| Asst. Professor | : Dr (Mrs) D Sudharma on study leave Dr ES Mathews (on loss of pay leave for employment abroad) Dr (Mrs) M Mini Dr Koshy Varghese |
| Nutrition | |
| Professor & Head | : Dr CT Thomas |
| Professor | : Dr N Kunjikutty Dr FA Devasia Dr CS James Dr (Mrs) Maggie D Menachery |

Assoc. Professor : Dr George Mathen
Dr M Nandakumar, (Chemist)
Dr (Mrs) AD Mercy

ICAR Net work Project on Micronutrients in Animal Nutrition and Production

Asst. Professor : Dr (Mrs.) P Gangadevi

Centre of Excellence in Pathology

Director : Dr A Rajan, Dean

Prof. & Head : Dr KM Ramachandran

Professor : Dr (Mrs.) KV Valsala
Dr T Sreekumaran

Assoc. Professor : Dr PK Ismail
Dr (Mrs.) CR Lalithakunjamma
Dr CB Manomohan

Asst. Prof. : Dr N Divakaran Nair
Dr Koshy Varghese
Dr Mamman J Abraham
Dr B Gangadharan
Dr (Mrs.) T Leenadevi
Dr TV Anilkumar

Parasitology

Professor & Head : Dr K Chandrasekharan Retd on
7.8.96

Professor : Dr V Sathianesan Retd. on
19.1.97

Dr C George Varghese
Dr M Madhavan Pillai
Dr C Pythal

Asst. Prof. (Sl.Gr.) : Dr H Subramanian

Asst. Professor : Dr (Mrs.) Lucy Sabu
Dr (Mrs.) K Devada

Physiology & Biochemistry

Professor & Head : Dr KP Surendranathan

Assoc. Professor : Dr (Mrs) PT Philomina

Asst. Professor : Dr G Girish Varma (on study
leave)

Dr V Ramnathan
Dr Sisilamma George
Dr KP Sreekumar
Dr KK Jayavardhanan
Dr Ms. K Karthiayani

| | |
|--------------------------------------|---|
| Pharmacology & Toxicology | |
| Professor & Head | : Dr MK Rajagopalan (Retired on July 96) |
| Professor | : Dr Jacob V Cheeran Dr Zachariah Cherian Dr P Marykutty |
| Assoc. Professor | : Dr VR Reghunandan (Chemist) Dr K Venugopalan Dr AD Joy |
| Asst. Professor (Sl. Grade) | : Dr CM Aravindakshan AM Chandrasekharan Nair |
| Asst. Professor | : Dr PTA Usha |
| Poultry Science | |
| Director | : Dr A Ramakrishnan (Retired on 30.6.96) Dr AKK Unni from 1.7.96 |
| Professor | : Dr CK Venugopalan (Retired on 4.10.96) |
| Assoc. Professor | : Dr Amritha Viswanath Dr A Jalaludeen Dr K Narayanankutty |
| Preventive Medicine | |
| Professor & Head | : Dr K Baby |
| Professor | : Dr PT Georgekutty (Retired on 13.6.96) |
| Assoc. Professor | : Dr MR Saseendranath |
| Asst. Professor | : Dr K Vijayakumar (on study leave) Dr PV Tresamol |
| AICRP on Poultry | |
| Sr. Scientist | : Dr AKK Unni |
| Assoc. Professor | : Dr Leo Joseph (NC) Dr VK Elizabeth |
| Asst. Professor | : Dr N Vijayan Dr P Anitha Laly John |
| Statistics | |
| Professor & Head | : Dr KC George (Retired) |
| Asst. Professor | : TK Indirabai U Narayanikutty Mathew Sebastian |

| | |
|--------------------------------------|---|
| Surgery | |
| Professor | Dr KN Muraleedharan Nair (Prof. & Head i/c) |
| | Dr S Raveendran Nair |
| Assoc. Professor | Dr T Sarada Amma |
| | Dr K Rajankutty |
| Asst. Professor | Dr CB Devanand (on study leave) |
| | Dr TP Balagopalan |
| | Dr Shyam K Venugopal (on working arrangement in Vety. Hospital, Mannuthy) |
| | Dr K John Martin |
| Veterinary Public Health | |
| Professor & Head | : Dr P Prabhakaran |
| Professor | : Dr E Nanu |
| Assoc. Professor | : Dr MT Jose (NC) (on long leave) |
| Asst. Professor | : Dr Kumarasubrahmaniam (on leave for higher studies) |
| | Dr B Sunil |
| | Dr C Latha |
| Meat Technology Unit | |
| Professor | : Dr J Abraham |
| Assoc. Professor | : Dr Kuttinarayanan Dr George T Oommen |
| Asst. Professor | : Dr M Sunil |
| Veterinary Hospital, Mannuthy | |
| Professor i/c | : Dr NM Aleyas |
| Assoc. Professor | : Dr Santha Kurian |
| Asst. Professor | : Dr Syam K Venugopal (from Feb. 96) |
| Veterinary Hospital, Kokkalai | |
| Professor | : Dr E Madhavan |
| Asst. Professor | : Dr KM Jayakumar |
| Physical Education | |
| Assoc. Professor (NC) | : OK Paul Molly Cherian (on leave) |
| Professor (RC) | : Dr VS Balakrishnan from 31.1.97 |
| Anatomy | |
| Farm Supervisor | : M Narayanankutty till 4.10.96 KR Sivaraman from 5.10.96 |
| Class IV | : KA Vinod |
| Permanent Labourer | : KR Wilson |

| | |
|--------------------------------------|---|
| Class IV | : T Krishnankutty KK Madhavi |
| Microbiology | |
| Lab Technician | : KK Viswambharan |
| Class IV | : NT Lakshmy |
| Permanent Labourer | : RV Thanka TK Chandramathy |
| Nutrition | |
| Research Assistant | : Anniamma Chacko |
| Lab Technician | : MG Vasu |
| Technician | : TR Viswambharan |
| Class IV | : KK Ramachandran |
| ICAR Network project | |
| Class IV | : PK Rosy |
| Driver | : KV Kumaran |
| ICAR Adhoc project | |
| Research Associate | : CS Sharmila |
| NABARD project | |
| Research Associate | : D Biju |
| Research Fellow | : P Bindu |
| Small Animal Breeding Station | |
| Farm Assistant | : PK Ammini Paulson |
| Pathology | |
| Farm Supervisor | : PC Mary PC Lilly (working arrangement in Dept. of Physiology) |
| Sr. Office Superintendent | : BI Balamani |
| Farm Assistant | : AP Peter |
| Attendant | : KO Rosakutty PN Raghavan |
| Permanent Labourer | : P Krishnankutty |
| Trainee for Electron Microscope | : KK Sanjayan |
| Research Fellow | : Bindhu Chandrasekhar MK Beena |
| Parasitology | |
| Lab Assistant | : CM Soman |
| Lab Assistant | : Jolly D Karerakattil |
| Class IV | : PJ Mari |
| Labourer | : PD Selvi |

| | |
|----------------------------------|--|
| Physiology | |
| Farm Supervisor | : K Santhakumari PC Lilly |
| Class IV | : C Anitha |
| Poultry Science | |
| Steno to Director | : T Valsala |
| AICRP on Poultry | |
| Farm Assistant Sr. Gr. | : V Indira |
| Farm Assistant Gr. II | : N Gopinathan |
| Farm Assistant Gr. I | : K Sivasankaran |
| Senior Gr. Technician | : ET Paul |
| Section Officer | : PN Sudhadevi |
| Sr. Gr. Assistant | : PV Ambika |
| Sr Gr. Typist | : VG Giriya |
| LDV Driver | : KS Jayan |
| Peon | : PT Varghese |
| Class IV | : MK Vilasini |
| Pharmacology | |
| Farm Assistant | : VK Gracy |
| Permanent Labourer | : Mary Damayanthi |
| Preventive Medicine | |
| Farm Assistant | : PG Thamkom |
| Class IV | : AK Janaky AI Thomas |
| Statistics | |
| Jr. Programmer | : KP Santhabai |
| Technical Assistant | : KV Prasadani |
| Class IV | : Paul Thirumalai |
| Public Health | |
| Farm Supervisor | : KA Mary |
| Class IV | : PK Karappan |
| Permanent Labourer | : CJ Gregorius |
| Vety. Hospital, Mannu thy | |
| Farm Supervisor | : CC Narayanan retd. on 31-5-96 N Sugathan from 12-6-96 |
| Section Officer | : M Baby |
| Vety. Hospital, Kokkalai | |
| Sr. Gr. Asst. | : VK Beena upto 29-5-96 VR Chandrika |
| Pharmacist | |
| Farm Supervisor | : CK Alias |
| Farm Asst. | : JK Narayanan KR Sivaramar |

| | |
|-------------------------------|---|
| Attendant | MK Sheik Abdul Rahiman MO Varghese |
| Peon | : KS Radhakrishnan |
| Library | |
| Librarian | : KG Ambili |
| Assistánt Gr. I | : Vijayalakshmi |
| Lib. Assistant | : PJ Wels S Sreekumar NB Nisha |
| Lab. Asst. Gr. II | : P Narendran KK Velayudhan |
| Class IV | : Unni P Radhakrishnan Nair |
| Typist | : Rosy K Francis |
| Administrative Office: | : C Rajamma |
| Section Officer | : KM Mary M Rugmini Vivian Jose Lillykutty Thomas NK Unnikrishnan AT Gracy |
| Senior Office Supdts. | : MK Jainuva KK Damodaran |
| Office Supdt. | : S Akhileswary |
| Sl. Gr. Typist | : VG Girija |
| Typist Sr. Gr. | : S Sarojini Amma Manjula Mercy Patric |
| Typist Gr. I | : G Sukumaran Nair K Vijayalakshmi |
| Clerical Asst./Lab. Assistant | : CC Sajeevkumar M Santhakumari K Valsala KK Velayudhan |
| Duplicator Machine Operator | : AV Poulose |
| Peon | : KN Saraswathy M Narabehadur |
| Class IV | PS Santhakumari TK Mariam VK Narayanan |
| Sl. Gr. Asst. | M Girija Jacob Simon TA Mridulakumari KV Alamelu MA Sujatha |

| | |
|---------------|--------------------|
| Sr. Gr. Asst. | : C Pradeep |
| Asst. Gr. I | : NV Thankom |
| | : Anitha Venugopal |
| | : R Usha |
| Asst. Gr. II | : MU Joy |
| | : R Kamala |
| | : T Sathyadas |
| | : K Sureshkumar |
| | : CD Sreekala |

Poultry and Duck Farm, Mannuthy

| | |
|----------------------|-----------------------------------|
| Professor | : Dr G Reghunathan Nair |
| Assoc. Prof. | : Dr PA Peethambaran |
| Sr. Farm Supervisor | : AS Karunakaran |
| Sln. Grade Farm Asst | : KV Rosily |
| Sr. Grade Farm Asst | : N Sugathan upto 12.6.96 |
| | : KA Chackochan |
| | : CC Vijayamma |
| Administrative Asst. | : AD Omana upto 16.7.96 |
| | : VJ Rosily from 17.7.96 |
| Sr Grade Asst. | : E Hymavathy upto 15.7.96 |
| | : TC Jose from 16.7.96 to 17.2.97 |
| | : K Indira Devi from 24.2.79 |
| Sln. Gr. Typist | : KK Mary |
| Peon Higher Grade | : TK Saleena |

Cattle Breeding Farm, Thumburmuzhy

| | |
|-------------------------|-------------------------------|
| Assoc. Prof | : Dr D Sreekumar |
| | : Asst. Professor |
| Asst. Prof. | : Dr KS Anil |
| | : Dr Ani S Das * |
| Farm Supervisor (Agri) | : EN Sudhakaran Nair, FS |
| | : Agri Gr. I |
| | : V Unnikrishnan |
| | : F.S. Agri Gr. II |
| Farm Supervisor (Vety.) | : V Sukumaran Nair, |
| | : F.S, Vety Gr. I |
| Farm Asst.(Agri) | : NM Mohanan F.S. Agri Gr. II |
| Farm Asst. (Vety.) | : K Chacko Sr. Gr. F. A. |
| | : P Mohanan Nair |
| | : F.A. Gr. II ** |

* The post is shifted to KVK, Kumarakom pending approval. It will be reverted when KVK, Kumarakom is established.

** Granted leave without allowance for 5 years for taking up employment abroad. Relieved w.e.f. 28.2.97 A.N.

| | |
|---------------------|----------------------------|
| Pump Operator | : A Kotha |
| Herdsmen | : KK Ramakrishnan |
| | : KP Jose |
| | : ES Yesodha |
| | : TN Sasi |
| Admn. Asst. | : PK Elsy |
| Selection Gr. Asst. | : KK Kuttappan |
| Gr. I Asst. | : PV Xavier Transferred to |
| | College of Forestry, |
| | Vellanikkara |
| | PV Asokan |
| Seln. Gr. Typist | : PK Sara |
| Driver LDV | : KK Padmanabhan |
| Peon | : TK Thomas |

Cattle Infertility Scheme, Kozhikode

| | |
|------------------------------|-------------------|
| Professor | : PP Balakrishnan |
| Asst. Professor | : Vacant |
| Farm Supervisor (Vety.) | : K Shanmughan |
| Farm Asst. (Sel. Gr) (Vety.) | : K Velayudhan |
| (Lab Technician) | |
| Lab. Assistant (Gr. I) | : Abdulrahman |
| Attendant (Hr. Gr.) | : P Devadasan |
| Sel. Gr. Asst. | : N Kunhilakshmi |
| Peon (Hr.Gr.) | : C Kunhikrishnan |

University Livestock Farm, Mannuthy

| | |
|-----------------|-------------------------------|
| Professor | : Dr Sosamma Iype upto 8.6.97 |
| | Dr CA Rajagopala Raja |
| | from 9.6.97 |
| Asst. Professor | Dr K Ally |
| | Dr A Kannan |
| Farm Supervisor | K Krishnankutty |
| | KL Jose |
| | P Jayamany |
| | MC Annie |
| Farm Assistant | KK Pushpan |
| | CI Surendran |
| | K Sachinmayan |
| | KK Kuttan |
| | S Rajeev upto 12.6.97 |
| | OK Sukumaran upto 13.6.97 |
| | MK Chandramathy Upto 25.7.97 |
| | C Santha from 1.8.97 |
| Pump Operator | TP Jose Mathew |

| | | |
|-----------------------------------|---|---|
| Admn. Assistant | : | VR Vijayamma upto 15.7.97 F.N. PA Lakshmi from 15.7.97 F.N |
| Section Officer | : | KK Beena |
| Seln. Gr. Asst. | : | C Santhakumari from 25.8.97 PP Annamma |
| Sr. Gr. Asst. | : | Abdul Muthalavi |
| Asst. Gr. I | : | PG Madhusoodanan |
| Asst. Gr. II | : | VC Sathy |
| Office Supdt. | : | B Kumary Sathyabhama |
| Sel. Gr. Typist | : | MK Muraleedhara Karnavar |
| Class IV | : | E Narayanankutty T Bhaskaran KV Rosa P Moideen |
| Lab Assistant Gr. III | : | PA Mini from 28.11.96 |
| Dean i/c | : | Dr DM Thampy |
| Professor (Aquaculture) | : | |
| Professor (Fisheries Research) | : | Dr PM Mathew |
| Assoc. Prof. (Aquaculture) | : | Dr Susheela Jose Dr K Jayasree Vadhyar |
| (Fishery Hydrography) | : | Dr KK Varma |
| (Biological Oceanography) | : | Dr CJ Cherian |
| (Fishery Techno- logy) | : | P Radhakrishnan Nair |
| (Processing Technology) | : | Dr D Damodaran Nambudir |
| (Management Studies) | : | TM Sankaran |
| (Fishery Engg.) | : | Vacant |
| Asst Professor (Algology) | : | Dr Thresiamma James |
| (Fish Breeding) | : | Dr C Mohanakumaran Nair |
| (Fish Pathology) | : | Dr C Thankappan Pillai |
| (Aquaculture) | : | Dr MV Mohan Aneykutty Joseph Devika Pillai S Shyama |
| (Fishery Biology) | : | Dr J Rajasekharan Nair Dr KV Jayachandran |
| (Zoology) | : | Dr TM Jose |
| (Microbiology) | : | Dr MC George |
| (Ichthyology) | : | Dr TV Anna Mercy Dr KG Sunny |

| | | |
|--------------------------------|---|-------------------------------------|
| Asst. Professor | : | |
| (Chemical Hydrography) | : | PS Mrithunjayan |
| (Meteorology) | : | NN Raman |
| (Food Science & Nutrition) | : | Lizy Behanan |
| (Processing Technology) | : | Dr Sajan George |
| (Biochemistry) | : | S Krishnakumar |
| (Fishery Engg.) | : | Dr PM Sherief |
| (Physical Education) | : | George Mathew |
| (Statistics) | : | Sucy V John |
| | : | Alphi Korath |
| | : | V Malika (on deputation for Ph. D.) |
| (Commerce) | : | KM Mathew |
| (Economics) | : | MS Raju |
| Assistant Librarian | : | Vacant |
| Reference Asst. | : | TA Joseph |
| Lab. Assistant | : | VS Kunju Mohammed |
| Lab. Asst. (Gr. I) | : | P Madhavankutty |
| Lab. Asst. (Gr. II) | : | VR Lates |
| Gr. III | : | PP Pushpakaran |
| | : | AN Reghu |
| | : | MA Sebastian |
| | : | John Mendez |
| Clerical Asst. | : | TK Kunjumon |
| Technical Gr. I | : | KP Sreedharan Nair |
| Hostel Manager | : | MM Babu |
| Duplicator Operator | : | K Rajendra Babu Pillai |
| Pump Operator | : | AP Ayyappan |
| Driver HDV | : | TK Remanan |
| LDV | : | AS Sukumara Marar |
| | : | AM Abdul Khader |
| | : | Agikumar (on work arrangement) |
| Bus Attendant | : | KK Raghavan |
| Fieldman (Fisheries) | : | N Chakrapani |
| | : | VK Balakrishnan |
| Fisherman | : | PJ Kunjappan |
| Fisherman | : | Vacant (4 nos.) |
| Farm Asst. Sel. Gr. | : | PK Abdul Salam |
| Junior Programmer (Higher Gr.) | : | Tessy K Thomas |
| Skipper Gr. II | : | TR Ravindran |
| Engineer i/c. | : | VC Sivarajan |

| | |
|-------------------------------------|--|
| Gear Technician | : Vacant |
| Deck Hand | : KB Karthikeyan |
| | : KP Ponnappan |
| | : PK Benny |
| Field Asst. (STED project) | : Binu Paul (Relieved w.e.f. 26.4.97) |
| Sr. Research Fellow | : B Rameshkumar (Relieved w.e.f. 20.11.96) |
| | : PS Smitha |
| | : V Anjana |
| Admn. Officer Gr. I | : Maryamma Eapen |
| Section Officer | : L Syamala Devi |
| | : MN Vijayakumar |
| | : C Suchetha |
| Sr. Office Supdt | : PV Brizitha |
| | : R Sarada Devi |
| Sl. Gr. Asst. | : K Vinaya Bai |
| | : VM Ammini |
| Sr. Gr. Asst. | : MD Kunjamma |
| | : KP Sajan |
| | : P Annamma Scaria |
| | : Gopinatha Kartha |
| Gr. I Asst. | : TM Maheswaran |
| | : B Anujan |
| | : Pius Felix |
| Grade II Asst. | : KK Sreedevi |
| Office Supdt. | : HK Khadeeja Beevi |
| Sl. Gr. Typist | : Salomi Silas |
| | : KA Geetha |
| Grade II Typist | : V Vijayan |
| Class IV | : R Gopal Singh |
| | : KN Sasikumar |
| | : KM Khadeeja |
| | : TK Abdul Majeed |
| Sweeper-cum-Attendan | : KJ Jose |
| Full Time Sweeper | : E Leelamani |
| | : PB Nabeesa |
| <i>Fisheries Station, Puduveypu</i> | |
| Assoc. Prof. (Aqua) | : Dr KS Purushan |
| Asst. Prof. (Aqua) | : Dr MM Jose Assoc. Prof. |
| | : Dr Elizabeth Joseph |
| | : Assoc. Prof. |
| Asst. Professor (Ag) | : Dr Annamma George, |
| | : Assoc. Pro |
| Administrative Assistant, | : MS Zulaika Beebi |

| | | |
|-------------------------|---|--|
| Asst. Gr. I | : | PA George |
| Asst. Gr. II | : | MS Sanalkumar, Seln. Gr. Asst. |
| Farm Asst. Gr. I | : | AX George F.A. Gr. I PA Moni Sr. Gr. Farm Asst. |
| Fieldman (Fisheries) | : | KK Reghu, Hr. Gr. |
| Pump Operator | : | EI Anthrew R Soman |
| Lab. Assistant Gr. II | : | MS Moni |
| Typist Grade II | : | TC Ajitha Typist Gr. I |
| Field Asst. (Temporary) | : | Gayathri Devi TS Sindu |
| Sr. Research Fellow | : | S Beena Leela Joseph MK Vinodkumar MA Mariyam |
| Driver | : | M Ajikumar |

*Kelappaji College of Agricultural Engineering and Technology,
Tavanur*

Dean : Dr K John Thomas

Department of LWRCE

Asst. Professor : Xavier K Jacob
Noble Abraham
J Renuka Kumari
KP Rema
KV Levan (on working arrangement from KVK Manjeswaram)

Department of IDE

Asst. Professor : EK Kurien (Against the post of Assoc. Professor)
P Suseela (Alexander Seth)
KP Visalakshy
D Sasikala
F Mary Regina

Department of FPME

Professor : CP Muhammed
Asst. Professor : VR Ramachandran (on study leave)
G Sreekala (-do-)
Hamza Mullakadavathu
M Bindu
PR Jayan

Department of PHT & AP

Assoc. Professor : Dr V Ganesan
Asst. Professor : MV Prince
Santhy Mary Mathew (on study leave)

Department of SAC

Professor : Dr KI Koshy
Assoc. Professor : Dr PC Antony
Asst. Professor : Dr E Komala Amma
Dr KA Bindu
Dr Habeeburrahiman
Dr KM Valsamma
VP Lakshmikutty
M Velayudhankutty
Josephina Paul

Instructional Farm

Assistant Professor : P Rajendran (on study leave)

ICAR-FIM

Assoc. Professor : Dr M Sivaswami
Asst. Professor : Sathyajith Mathew
(on study leave)

C. S. S. Plasticulture Development Centre

Assoc. Professor : Dr Jobi V Paul
Asst. Professor : Dr U Sreelatha

AICRP on Engery Requirement of Agrl. Sector

Assoc. Professor : Jippu Jacob
Asst. Professor : Joby Bastian
Sr. Admn. Officer : AK Sreenarayanan
Section Officer : K Leelamma
C Arumughan
KU Prabhavathy
P Janardanan
Sr. Office Supdt. : KP Abdurahiman
Sln. Grade Asst. : KJ Kuruvila
Sr. Grade Asst. : A Radhakrishnan
VK Sobhana
Assistant Grade I : P Radha Gopan
C Gopi
Assistant Grade II : P Sivaprasad
Abdul Nazar Aryadan
D Anilsankar
Vincent G Varghese
K Velayudhan

| | |
|--------------------------|--------------------------|
| Sln. Grade Typist | : M Mohandas |
| Typist Gr. I | : VM Muraleedharan |
| Typist Gr. II | : Kamalam |
| | : Abdul Raheem Machingal |
| Research Assistant | : AP Gopalakrishnan |
| Reference Assistant | : KP Sathyan |
| Library Assistant | : Sebastian Dominic |
| Draftsman (Civil) | : Vacant |
| Technical Supervisor: | |
| (Carpentry) | : AK Padmanabhan |
| (Smithy) | : VP Kannan |
| (Fittings) | : CS Krishnan |
| (Auto Tractor) | : C Velayudhan |
| (Turning) | : TP Aboobacker |
| Trade Asst. (Ele.) | : Surendran Pillai |
| Pump Operator | : E Parameswaran Nair |
| | : MK Balakrishnan |
| Driver (LDV) Gr. I | : NV Krishnan |
| | : MK Narayanan |
| | : A Gopakumar |
| Technician Sl. Gr. | : VK Asokan |
| | : P Balakrishnan |
| Matron | : TP Santhamma |
| Lab Asst. Gr. I | : P Krishnankutty Nair |
| Lab Asst. Gr. III | : PV Kumaran |
| | : K Abdulrahiman |
| | : I Jayaprakash |
| | : KK Subramanian |
| | : K Kunhan |
| | : C Narayanan |
| | : A Burhanudheer |
| | : KP Ayyappan |
| | : K Kuttikrishnan |
| | : P Amina |
| | : P Krishnan |
| | : KV Moideenkutty |
| | : K Kunjumon |
| | : AV Dasan |
| | : T Gangadharan |
| Instructional Farm | |
| Farm Supervisor Gr. I | : MV Raveendran |
| | : K Sethumadhavan |
| Farm Supervisor Gr. II | : C Subramanian |
| Farm Asst. (Agri.) Gr. I | : K Mohammed |
| | : TP Aboobacker |

| | |
|---|----------------------|
| Farm Sup. (Vety.) Gr. I | P Balakrishnan |
| Farm Asst. (Vety.) Gr. I | T Venu |
| Gardener | K Mammikutty |
| ICAR Co-ord. Project on FIM | |
| Tech. Super. Gr. II (HG) | KT Ramachandran |
| Technician Sln. Grade | K Aravindan |
| Technician Sr. Grade | N Narayanan |
| Assistant Grade I | M Muraleedharan |
| AICRP on Energy Requirement in Agrl. Sector | |
| Typist Sr. Grade | R Balasubramanian |
| <i>KVK, Ambalavayal</i> | |
| Training Organiser | CM George |
| Assoc. Professor | |
| Training Associate | Dr A Radhamma Pillai |
| Assoc. Professor | |
| Poultry/Animal | |
| Husbandry | |
| Horticulture | Philipose Joshua |
| Agricultural | |
| Extension | Dr K Abdul Kareem |
| Plant Protection | Dr TP Manomohandas |
| Agricultural Engineering | K Susan Cherian |
| Training Assistant/ | |
| Technical Assistants | |
| Agronomy | MK Manoj |
| Home Science | KS Rajamani |
| Fisheries | MK Sreedharan |
| Animal Husbandry | KR Sasidharan |
| AV (Technician) | KP Koran |
| Section Officer | E George |
| Asst. Gr. II | Vacant |
| Typist Gr. II | Vacant |
| Driver Gr. I | PP Abdul Majeed |
| Tractor Driver | Vacant |
| Class IV employees | |
| Beon | Silak Bahadur |
| Watchman | K Koya |
| Hostel Attendant | K Bapputty |
| Field Attendant | T Saidalavi |
| | E Abu |
| | N Chandu |
| Cook | O Ashokan |

Krishi Vigyan Kendra, Pattambi

| | | |
|---------------------------|---|--|
| Assoc. Professor & Head | : | Dr. GS Narayanan upto 21.11.96 Prof. VP Sukumara Dev 31.11.96 to 31.12.96 Dr. P. Ahamed from 1.1.97 |
| Asst. Prof. (Extn.) | : | Dr. P. Ahamed |
| (Home Science) | : | Dr S Syamakumari |
| (Hort) | : | Dr Jyothi Bhaskar |
| (SS & AC) | : | Dr Betty Bastin |
| (AH) | : | Dr S Manu Mohan |
| (Agro-forestry) | : | Dr Asha Sankar |
| (Agro) | : | KK Remesan |
| Training Assistants | : | U Divakar from 18.12.96 ER Soman from 28.11.96 AN Manoj .. |
| Farm Asst, (Agri.) Gr. I | : | EL Raicheal upto 17.12.96 CP Mohammed Abdul Azeez upto 30.6.96 |
| Farm Asst. (Agri.) Gr. I | : | T Velayudhan upto 27.11.96 M Rajendran upto 27.11.96 |
| Farm Asst. (Vety.) Gr. II | : | KV Mohanan from 1.6.96 |
| Technician (AVO) Sr.Gr. | : | M Abdul Razack |
| Section Officer | : | K Rangaswamy |
| Assistant Gr. I | : | K Surendran |
| Typist Grade I | : | MK Thankamani |
| HDV Driver | : | A Krishnan |
| LDV Driver | : | TR Sasidharan |
| Peon (Hr. Gr.) | : | C Gopalakrishnan |
| Class IV | : | M Sundaran C Parukutty V Vasunny NP Thankamani AP Yesodha T Mohanadas |

KVK, Manjeswar

| | | |
|-------------------------------|---|--|
| Professor | : | P Ramachandran Nair upto 1.12.96 |
| Asst. Professor (Fisheries) | : | B Shantharam Head of office w. e. f. 1.12.96 |
| Asst. Professor (Agrl. Engg.) | : | KV Levan on working arrange- ment at KCAE&T Thavanur from 4.8.96 |
| Asst. Prof. (Agrl: Extn) | : | AK Sherief from 1.10.96 |

Research Associate (Forestry) : S Gopakumar
 Research Assoc. (Agril. Extn.): R Sureshkumar upto-10.7.96
 " (Agron.) : GC Roshni From 18.3.97
 Farm Assistant Sr. Gr. : A Ramakrishnan
 Section Officer : T Somasundaran
 Driver Gr. III : Justine J Kannanthanam upto 7.11.96
 V Kuttikrishnan from 8.11.96

Directorate of Extension, Mannuthy

Director of Extension : Dr E Tajudeen upto 8.96
 Dr K Rajamohanan from 12.8.96
 Assoc. Director of Extension : Dr K Rajamohanan
 Section Officer : PV Sreekumaran
 : N Usha Rani
 Senior Office Supdt. : TD Jose
 Office Superintendent : PP Rosy
 Typist Gr. I : AC Mancy
 Driver : NA Sukumaran
 Peon : PD Annamma
 : Kochammu

Communication Centre, Mannuthy

Assoc. Professor : Jose Joseph
 Publication Unit
 Professor : Vacant
 Associate Professor : TC Radhakrishnan
 Asst. Professor : V Kunchu
 Asst. Prof. (A. H.) : Vacant
 Information Unit
 Professor (Agri. Extn.) : Vacant
 Asst. Prof. (Aqua) : Dr AD Antony
 Dr PA Joseph
 (working arrangement at ICSC,
 Mannuthy)
 Assistant Professor (A. H.) : Vacant
 Exhibition and Graphic Services Unit
 Assoc. Prof. (Hort.) : KK Santha
 Asst. Professor : Vacant
 Farm Advisory Service Unit
 Director of Extension i/c. : Vacant
 Professor (Agron.) : Vacant

Professor (Pl. Prot.) : Dr KP Vasudevan Nair
 (upto 8-5-95)
 Prof. & Head : Dr P Varadarajan Nair
 from 12-6-95
 Assoc. Professor (Agrl. Ent.) : Dr MK Sheela
 Dr Suma Paulose
 (Agron) : Dr P Sreedevi
 Asst. Professor : Dr S Jayasree Sankar
 (Ag. Chem. & Soil Sci.)
 Asst. Professor : S Estelitta
 (Plant Pathology)
 Language Editor : K Mrudula Devi
 Farm Supervisor Gr. I : Vacant
 Farm Asst. Gr. I : Valsamma George
 Audio Visual Operator : Eugine G Varghese
 Photographer : VV Satheesan
 Driver (LDV) : Benny
 Senior Gr. Assistant : PA Jacob Joe
 KL Liza
 Prema B Nair
 Peon Hr. Gr. : MK Ramakrishnan
 Section Officer : MK Shailaja
 Administrative Assistant : KN Pushpangadhan
 Malayalam Translator : KN Chandralekha
 Asst. Gr. II : Santha Viswanathan

Kerala Agricultural University Press, Mannuthy

Press Manager : K Rajappan
 General Foreman : Vacant
 Senior Foreman (HG) : PI Lonappan
 Proof Reader Gr. I (HG) : Sherly Sam
 Proof Reader (HG) : KK Sadasivan
 Computer : K Santhakumari
 Sr. Gr. Printer (HG) : TP Joseph
 C Viswanathan
 H. G. Printer : NJ Samuel
 PR Aravindakshan
 Sr. Gr. Compositor : V Subramanyan
 KM Thankamma
 PA Elsy
 H. G. Compositor (Hr. Gr.) : V Rajendran
 K Leela
 H. G. Compositor : PM Santha
 LG Compositor : 4 posts vacant
 Sr. Gr. Binder : KR Vijayan

| | | |
|------------------|---|---|
| HG Binder (HG) | : | PT Annie |
| LG Binder | : | G Parvathy Ammal M Kamalamma |
| Helper | : | V N Hassan |
| Section Officer | : | EK Bharathy |
| Sel. Gr. I Asst. | : | Sophiamma Joseph K Subramonian K Balakrishnan |
| Office Supdt. | : | K J Lonan |
| Peon | : | IR Rajan |

Central Training Institute, Mannuthy

| | | |
|-----------------------|---|---|
| Prof. of Extn | : | Dr G Balakrishna Pillai from 5.8.96 |
| Assoc. Prof. | : | Dr Joy Mathew Held charge of Professor upto 4.8.96 |
| Asst. Prof. | : | Dr Alexander George |
| Farm Supervisor | : | MJ Kochappan (on working |
| Farm Asst. | : | PB Bhashajan arrangement at Information & Sales Centre, Mannuthy) |
| Section Officer | : | KK Radhakrishnan |
| Assistant Gr I | : | MN Jayanthi Samson J Koladi |
| Sl. Gr. Typist | : | ER Vilasini |
| Sr. Gr. Typist | : | P Prasannakumari |
| Driver LDV | : | VN Dasan |
| Dup. Machine Operator | : | CR Antony |
| Peon | : | PB Anilkumar |

KAU School, Vellanikkara

| | | |
|---------------------|---|---|
| Headmaster | : | AJ Abraham |
| Teacher (Eng. Med.) | : | KP Thresiamma Deborah Cyril AJ Lilly KS Indira Devi Latha Balaram |

| | |
|----------------------|--|
| Teacher (Mal. Med.) | : TJ Magy Najeema Unnikammu KS Leena K Narayani V Sasidharan MA Alli PK Bhaskaran MV Mary |
| Teacher | : MK Mallika |
| Nursery School Asst. | : P Devika DV Shylaja |
| Ayah | : KR Sumithra M Saudamini |
| Peon | : VA Mathew |
| Class IV | : M Parvathy PR Janaky |
| Sr. Gr. Asst. | : MW Wilson Rai |

□ □

Appendix V

LIST OF PUBLICATIONS/RADIO TALKS/ TV PROGRAMMES ATTENDED

College of Agriculture, Vellayani

Research papers

Sudharma K, Naseema Beevi S, Mathew TB and Nalina kumari T
1997. Lindane—a safe substitute for HCH (BHC) in vegetable
pest management *Proc IX Kerala Science Congress* pp
149-150

Naseema Beevi S, Visalakshi A and Mathew TB 97. Tracing the
source of insecticide contamination of bovine milk in
Thiruvananthapuram *Ibid* pp 179-180

Sheela MS, Hebsy bai and Anitha N 96. Ecofriendly management
strategies for the burrowing nematode of banana in Kerala.
Paper presented in the banana symposium on 30.7.96

Hebsy bai, MS Sheela and Jiji 96. Crop rotation—a management
strategy for rice root nematode. *Hirschmanniella oryzae*
in rice based cropping system *J. Env'tl. Biol.*

Naseema Beevi S, Gokulapalan, C, Reghunath P and Visalakshi A
96. Dissipation of mancozeb residues in bitter gourd
Mimordica charantia (L) fruits *Pestic Res J* 8 (2) 199-200

Popular articles

ഗാളീച്ചയുടെ കൃഷിക്കുറിപ്പ്. ഡോ. എ. വിശാലാക്ഷി, എസ് നസീമാബീവി,
കർഷകശ്രീ മാർച്ച് 97

Sustainable Agriculture and Environment by Dr. Thomas
Varghese, *Agri. College Annual* 97

കൃഷുബന്ധിത പരിശീലിക്കാൻ—ശ്രീമതി രജനി, കന്യാക ജനുവരി 97

കൃഷിക്കളിലെ പോഷകാഹാരക്കുറവ്. രജനി, കന്യാക ഫെബ്രുവരി 97

വൈവിധ്യവൽക്കരണ കർമ്മ പരിപാടി by Dr. Thomas Varghese
കലപയനം ജനുവരി—മാർച്ച് 97

College of Horticulture, Vellanikkara

Research papers

- Abraham CC and Jim Thomas 95. Mud slurry as a base and carrier of insecticides against the banana pseudostem weevil *Odoiporus longicollis* Oliv. *Insect Environment* 1 (2): 14
- Abraham. CC Sudhakara, K and Ushakumari R 95. Occurrence of *Bruchidius bilianeatopygus* (Bruchidae: Coleoptera) as a pest of pods and seeds of the multipurpose tree species *Albizia odoratissima* (L.f.) A. procera (Roxb.) and *paraserianthus falcatoria* (L.) *Insect Environment* 1 (1) 7-8
- Abraham CC and Baby P Skaria, 95. New record of the red borer *Zeuzera coffeae* Nietner (Cossidae: Lepidoptera) as a pest of all spice *Pimenta dioica* (Linn.) Merril. *Insect Environment* 1 (1):6
- Ajit C George and Thomas EK 96. Impact of minor irrigation on the economic conditions of the farmers in the Palakkad district of Kerala. *Land Bank Journal* 35 (2): 43-48
- Babylatha AK, Prasannakumari Amma, S and Pushkaran K, 96 A successful attempt on hybridisation among banana cultivars *Hort. J.* 9 (2): 87-94
- Beena Jacob and Mercy George 96. Nitrogen mineralization pattern of organic sources in transplanted rice *Nat. Sem. on organic farming and sustainable Agriculture UAS, Bangalore* October 9-11, p 120-121
- Charles JS, Rani TG, and Krishnan S 96. Management of banana nematode using cultural and chemical strategies. *Pest Management in Horticultural ecosystems.* 1: 19-22
- Geetha CK, Aravindakshan M and Wahid PA, 96. Comparison of nutrient response curves in bush pepper and vine pepper (*Piper nigrum*) *Journal of Plantation Crops.* 24 (2), 135-138
- Geetha CK, Rajeevan PK Valsalakumari PK and Leena CI, 97 Influence of growing media on the performance of *Aglaonema* 'Silver Queen'. *Proceedings of the Nineth Kerala Science Congress.* STEC. p 30-31
- Geetha CK, Rajeevan PK, Valsalakumari PK, and Hussain CTS. 95. Influence of corm size, depth of planting and division of corms on propagule production in *Gladiolus*. *J Trop. Agric* 33: 175-177

George ST, Mathew KL and Rajeevan PK 97. Bread fruit—a promising rootstock for grafting bread fruit (*Artocarpus altilis* Park). *Proceedings of the Nineth Kerala Science Congress*. STEC. p. 177.

Indira P, Peter KV, and Rajan S, 96. Genetic diversity in *Capsicum*. *Indian J. Hort.* 40 (4)

Jacob S, 95. Pest in stored tamarind. *Spice India* 8 (7): 9-10

Jyothi, ML, Parameswaran NK and Rajeevan PK 97. Eroding gene pools of tropical fruits. Present position, the causes and possible remedial measures with special reference to indigenous mango germplasm of Kerala. *International Conference on creativity and innovation of grass roots* held during 11.1.97 to 13.1.97 at the Indian Institute of management, Ahmedabad.

Jyothi P, Bindu and Sosamma Jacob 96. Reduced susceptibility in *Ampelascia biguttula biguttula* (Ishida) infesting bittergourd to quinalphos. *Insect Environment*, 1 (4): 14.

Hussain CTS, Geetha CK, Rajeevan PK and Valsalakumari PK 94. Plant regeneration from root derived callus in *Gladiolus*. *J. Ornamental Hort.* 2 (304): 46-52

Kesavachandran R, Asha John and Jayasree PL 96. Rapid multiplication of *Holostemma annulare* K Schum by *in vitro* methods. *National Symposium on Horticultural Biotechnology* Bangalore, October 28-30, 96

Kesavachandran R 96. Morphogenic potential of shoot buds in cashew (*Anacardium occidentale* L) *Abstracts of the PLACROSYM XII* held at Kottayam November 27-29, 96

Mathew KL, George ST and Rajeevan PK 97. Double grafting—A new viable method of propagation in *Garcinia cambogia* Desr. *Proceedings of the Nineth Kerala Science Congress*. STEC. P.181-182.

Mini B, Valsalakumari PK and Geetha CK 95. Effect of repeated subculturing on somaclonal variation in banana (*Musa* AAB group) cv. *Journal of Tropical Agriculture* Nendran 33: 125-127.

Mini B and Valsalakumari PK 97. Improvement of micropropagation efficiency in Nendran banana using eye buds and sucker explants. *Proceedings of the Nineth Kerala Science Congress* STEC: p 175.

- Nirmaladevi S, Sally K Mathew and Abdul Wahab M 95 Evaluation of brinjal for resistance to little leaf disease. *South Indian Hort.* 43 (3&4): 120-121.
- Nirmaladevi S, Abdul Wahab M and Sally K Mathew 95. Screening of chilli (*Capsicum annum*) as influenced by seed treatment with *Azospirillum*, *South Indian Hort.* 43 (1 & 2): 54-56.
- Prasannakumari Amma S, Sreekala C. Mallika VK, Vikraman Nair R and Nybe EV 96. In vitro induction of multiple plantlets from single zygotic embryo of coconut (*Cocos nucifera* (L.)) *Abstracts of the National Symposium on Horticultural Biotechnology*, Bangalore, October 28-30, 96.
- Prabhakaran PV 96. A statistical model for assessing the losses due to pests, diseases and draught in black pepper. *Abstracts of the PLACROSYM XII* held at RRIL, Kottayam, November, 27-29, 96.
- Prabhakaran PV 96. Growth and supply response of rice in Kerala—An economic analysis *Abstracts of the National Symposium on Technological advancement in rice production*, KAU, June 17-19.
- Prabhakaran PV and Rani John V 96. An alternative approach for the analysis of data of long term experiments. *Journal of the Indian Society of Agricultural Statistics* 48 (3): 339-346.
- Pushkaran K 96. Genetic improvement of banana through recurrent *in vivo* and *in vitro* mutagenesis. *Internal Symp. on Banana*, KAU.
- Pushkaran K 96. *Musa ornata* as a genetic source for stress breeding in edible. *Musa Internal Symp. on banana*, KAU.
- Pushkaran K 96. Varietal requirement of banana for the Homesteads of Kerala. *Nat. Conference on Banana*, NRCB, Thiruchirappally.
- Pushkaran K 96. The art and science of Kazhchakula cultivation *Nat. Sem. on banana*, NRCB, Thiruchirappally.
- Rajeevan PK 97. An eco-compatible design for growing Dendrobiums in Kerala. *National Seminar on Developmental Biology and commercialisation of orchids* at Gangtok, Sikkim during 12 and 13 April, 97.
- Ranjith AM and Rao DS 96. Simple new killing bottle for entomologists. *Entomon.* 20 (3 & 4):277.
- Skaria, BP, Ushakumari, R and Thomas J 96. Psyllid, *Arytaina punctipennis* Crawford infestation on cultivated *Indigofera tinctoria* L. in Kerala. *Insect Environment* 2(1):28.

- Seema P and Mukundan K 96. Impact of cement kiln dust on rural economy - a case study. *Indian J. Agric. Econ.* 51 (3): 407-411.
- Seena, C and Prabhakaran PV 96. Alternative approaches for the reduction of error in field experimentation in cocoa - An empirical evaluation. Abstracts of the PLACROSYM XII, held at RRII, Kottayam, November 27-29, 96.
- Shailaja MR and Nair GS 96. Somaclonal variation in black pepper (*Piper nigrum* L) cultivars for phytophthora foot rot disease reaction. Abstracts of National Symposium on Horticultural Biotechnology, Bangalore, October 28-30, 96.
- Sudhadevi PK, Geetha CK, Rajeewan PK and Valsalakumari PK 96. Performance of in vitro developed pineapple plantlets of cv. Kew. *South Indian Hort.* 43 (5&6): 166-167.
- Swapna S, Geetha CK, Rajeewan PK and Valsalakumari PK 97. Growth and quality of *Philodendron* 'Wendlandi' as influenced by fertilizer rate and source. *Proceedings of the Nineth Kerala Science Congress* STEC p. 145-146.
- Swapna M, Oommen A, Namboothiri KMN and Babu LC 95. Ideal plant type (ideotype) concept in horse gram (*Dolichos biflor* L. *J. Tropical Agriculture* 33:105-108.
- Unnithan VKG 96. Selection of samples when lots are submitted for inspection in the form of sublots. *Economic quality control.*
- Valsala PA and Nair GS 96. Structure of ginger fruit and seed produced under *in vitro*. Abstracts of the National Symposium on Horticultural Biotechnology, Bangalore, 28-30. 96.
- Valsala PA, Nair GS, Nybe EV, Koshy Abraham and Maicykutty P Mathew 96. Optimum spacing for turmeric cultivation. Abstracts of the 'PLACROSYM XII' held at RRII, Kottayam, November 27-29, 96.
- Valsalakumari PK, Geetha TK, Rajeewan PK and Geeta CK 97. Anatomical investigations on the differential performance of polyembryonic rootstocks in mango. *Proceedings of the Nineth Kerala Science Congress.* STEC: p. 184-185.
- Vandana Venugopal, Balachandran, PV and Kamalam NV 96. Seasonal influence on root activity of coconut palms. *National Symposium* held at Hissar from 10-13. December 96.

Popular articles

Geetha CK, 97. വിട്ടിനുള്ളിൽ ഒരുദ്യാനം. കേരള കർഷകൻ. വിഷ്ണുപ്പതിപ്പ് 42 (13): 23-25.

Indira P 97. Paprika - Erivu kuranja mulaku - Deepika dt. 4.2.97.

Indira P, 97. വിട്ടുവളപ്പിലേക്ക് യോജിച്ച പച്ചക്കറികിനങ്ങൾ. Spice India 10 (1): 4-6.

Indira P, and Peter, KV 97: കാത്താരിയൂ. മരച്ചുരുട്ടിനങ്ങളൂ.. Mathrubhumi-Karshika Varshika Pathippu 34-39.

Prabhakaran PV, 97. കേരളത്തിലെ കാർഷിക വികസനത്തിന്റെ ബാക്കി പത്രം. ശാസ്ത്രശ്രമി. Feb.

Prabhakaran, PV 97. അഭിപ്രായവോട്ടെടുപ്പ് പരാജയപ്പെടുന്നതിന്റെ കാരണം. ശാസ്ത്രശ്രമി Jan.

Prabhakaran, PV 97. ശാസ്ത്രജാലകം. ശാസ്ത്രശ്രമി. മേയ്

Prabhakaran PV, 97. ശാസ്ത്രജാലകം. ശാസ്ത്രശ്രമി, ജൂൺ

Rajan S and Indira P, 97. കൃഷിയിടമില്ലാതെയും കായ്കനികൾ വിളയിക്കാം. In Pushpotsav 97 published by Agri-Horti Society, Trichur.

Rajan S, and Prasanna KP. 97. ജൈവകൃഷി - പച്ചക്കറികളിൽ. In Pushpotsav 97 published by Agri-Horti. Society, Trichur.

Rajeevan PK, 97. ആസ്വാർഥ്യം എന്ന സ്വപ്നം. കേരള കർഷകൻ. വിഷ്ണുപ്പതിപ്പ്. 42 (13): 6-9.

Valsalakumari PK, 97. പുഷ്പകൃഷി സാധ്യതകൾ - കേരളത്തിൽ കേരള കർഷകൻ. വിഷ്ണുപ്പതിപ്പ് 42 (13): 30-32.

Technical Bulletins

Thajudeen E, Prasannakumari KT, and Anilkumar AS 96. Medicinal plants. KAU.

Thajudeen E, Anilkumar AS, and Prasannakumari KT 96. ഔഷധച്ചെടികൾ KAU.

Radio talks/Doordarsan programme

Dr Laila Mathew, K-Ornamental foliage plants on 21.8.96.

Dr Laila Mathew, K-Production of rooted cuttings of ornamental plants and fruit plants on 3.2.97.

Dr Sara T George-Anthurium cultivation on 23.8.96.

Dr Koshy Abraham-Button shedding in coconut.

Dr MV Rajendran Pillai-Yellow leaf disease of arecanu

- Dr TN Vilasini—Bud rot of coconut.
- Dr Augustin, A—Cashew apple processing.
- Norma Xavier—Importance of locally available fruits on 13.9.96.
- Dr Sujatha, VS—Planting and early care of pepper on 7.7.96.
- Dr Salikutty Joseph—Pest control in vegetables on 22.7.96.
- Dr KV Suresh Babu—Planning of kitchen garden on 1.7.96.
- Dr KV Suresh Babu—Cultivation of Amaranth in Jan. 97.
- Baby Lissy Markose—New pulse varieties on 9.8.96.
- Baby Lissy Markose—New Bhindi varieties and their cultivation on 4.2.97.
- Ushakumari, R—Pest management in vegetables.
- Sheela, KB—Preparation of jams in Jan. 97.
- PB Pushpalatha—Cashew apple processing in Jan. 97.
- Dr Sukumara Varma, A—Mushroom cultivation in Jan. 97.
- Dr Sukumara Varma, A—Stem bleeding of coconut and its management in March 97.
- Dr Sally K Mathew—Disease management in vegetables in March 97.
- Norma Xavier—Weaning food for children on 27.2.97
- Dr Valsalakumari, PK—Cultural practices for Banana cultivation on 22.1.97 and 30.1.97.
- Dr Valsalakumari PK, Tomato cultivation on 24.3.97.

Regional Agricultural Research Station, Vellayani

Research papers

- Abraham A, Naseema Beevi S, and Mathew TB 96. Persistence of carbofuran in cucumber. Proceedings of the VIII Kerala Science Congress, Kochi, 27-29 Jan. 93, p. 222.
- Abraham Jacob and Devanesan, S 96. Introduction and establishment of Italian bees in Kerala. In proc. of National Beekeeping Experience Exchange Conference held at Punjab Agricultural University, Ludhiana pp. 1-3.
- Achuthan Nair, M, Joice Abraham, Jacob John and Sanjeev, V 97. Biomass production and nutrient cycling for sustainability in Agroforestry. Paper presented at the National Seminar on Organic and Sustainable Agriculture held at UAS Bangalore.
- Achuthan Nair, M, Jacob John, Sanjeev, V and Joice Abraham 97. Evaluation of the structure and function of agroforestry home gardens in Thiruvananthapuram district. Paper presented in the Ninth Kerala Science Congress held at Thiruvananthapuram from 27 to 29 January 97.

- Anitha N, Rajamony L, and Pillai SJ, 1996. Source of resistance in banana against rhizome weevil and nematodes. Paper presented in the Symposium on Technological advancement in Banana/Plantain production and processing. India-International. 20-24, August, 96.
- Gopimony R, Thomas Varghese, Kamalam N and Balakrishnan Asan, R 96. Early impact of organic farming on crop productivity. Proceedings of the Eighth Kerala Science Congress, 27-29 January, 96, Kochi, pp 35-36.
- Manjuchandran, Rajamony L, Mohanakumaran N and Rajmohan K, 96. Embryos of interspecific crosses of *Abelmoschus* rescued in-vitro. Paper presented in the 2nd International Crop Science Congress, Nov. 17-24, 96, New Delhi, India.
- Manjuchandran and Rajamony L 97. Interspecific cross compatibility in *Abelmoschus*. Proceedings of the 9th Kerala Science Congress, January 27-29, 97, Thiruvananthapuram.
- Manju P, Gopimony R, Nampoothiri, K. U. K. and Saraswathy P, 95. Seedling progeny analysis in coconut. *Journal of Tropical Agriculture* 33 (2): 109-112.
- Manju P, and Sunny K, Oommen, 95. Malika, an improved variety of vegetable cowpea. *Journal of Tropical Agriculture* 33 (2): 120-124.
- Manju P, and Sunny K, Oommen, 95. Kangangad--A sweet potato variety for uplands. *Journal of Tropical Agriculture*, 33 (2): 128-131.
- Nalinakumari T and A Naseema 96. Assessment of the role of pests and diseases in producing chaffiness in rice. National Symposium on Technological Advancement in rice production, 17-19 June, 96, Kerala Agricultural University, Vellanikkara, p. 163.
- Naseema Beevi S, Gokulapalan C, Reghunath P, and Visalakshi A, 96. Dissipation of mancozeb residues in bittergourd *Momordica charantia* (L) fruits. *Pestic. Res.* J 8 (2): 199-200.
- Naseema Beevi S, and A Visalakshi 96. Metabolism and persistence of phorate in rice plants. *Ibid.*
- Rajamony L 96. Identification of source of resistance to cucumber green mottle mosaic virus in melon (*Cucumis* spp.) 8th Kerala Science Congress, Kochi.
- Rajamony L, 97. Post inoculation time and symptom expression of cucumber green mottle mosaic virus in melon (*Cucumis* spp.). Proceedings of the 9th Kerala Science Congress January, 27-29, 97, Thiruvananthapuram.

Rajamony L, Anitha N, and Pillai SJ, 96. Clonal selection in banana for stability and adaptation. Paper presented in the 2nd International Crop Science Congress, Nov. 17-24 96, New Delhi, India.

Rajamony L, Anitha N, and Rema Menon, 96. Identifying diploid bananas for increased yield and adaptability. Paper presented in the Symposium on Technological advancement in banana/plantain production and processing—India International. 20-24 Aug. 96, Vellanikkara.

Rajamony L, Jessykutty PC, and Mohanakumaran N, 96. Resistance to yellow vein mosaic virus of bhindi in Kerala. Veg. Sci. 22 (2): 116-119.

Rajamony L, Nair C. S. J. and Pillai SJ, 96. Variability for yield and quality in Plantain (Musa (AAB) 'French plantain' clones of South India. Paper presented in the Symposium on Technological advancement in banana/plantain production and processing—India—International. 20-24, August, 96, Vellanikkara.

Rajamony L, Menon R, and George KC, Screening banana clones of AAA group for yield and quality. Paper presented in the symposium on Technological advancement in banana/plantain production and processing—India—International. 20-24, August, 96.

Rajamony L, Seshadri VS, More TA, and Varma A, 96. Breeding for virus (CGMMV) resistance in muskmelon using semi-desert genotypes. Paper presented in the 2nd International Crop Science Congress, Nov. 17-24, 96, New Delhi, India.

Sheela KR, Girija devi L, and Raghavan Pillai G, 96. Grasses for soil conservation. Kissan World: 23 (12): 60.

Sheela MS, Hebsy Bai Anitha N, and Kuriyan KJ, 96. Nemic association and management of nematodes infesting rice in Kerala. Paper presented in the National Symposium on Technology Advancement in rice production, 17-6-96, Thrissur, Kerala.

Sheela MS and TS Venkitesan, 96. Effect of pesticides on the nematode pathogenic bacteria, *Bacillus Maceras*. J Biol. Control, 8: 102-104.

Popular Articles

'Italiyan theenechayude paripalanam' a Malayalam article of Sri. S Devanesan, Asst. Professor (Entomology) published in Kalpadhenu, February, 1997.

radio broadcast and Doordarshan programmes

- Devanesan S, Asst. Professor (Entomology) participated in a AIR programme in Karshakavedi broadcasted on 9.6.96.
- Dr Manju P Associate Professor (NC) delivered a radio talk on "Second dose of fertilizer application in coconut" broadcast through the AIR on 21.10.96.
- Dr Naseema Beevi S, Assoc. Professor (Entomology) participated in the Question and Answer Programme in Karshakavedi which was broadcasted through the AIR on 24.11.96.
- Devanesan S, Asst. Professor (Entomology) delivered a radio talk regarding the management practices of Italian Honey bees.
- Dr Thomas Biju Mathew, Asst. Professor (Entomology) participated in the AIR Question and Answer Programme in Karshakavedi on 14.1.97.
- Dr Nalinakumari T, Assoc. Professor (Entomology) delivered a radio talk on "Integrated Pest Management in rice" in a Karshakamela at Thathamangalam, Palakkad, on 22.3.97 in AIR, Thrissur.

Regional Agricultural Research Station, Kumarakom

- Nair, KP, 1996. 'Avoidable loss to rice crop due to infestation by major pests of rice in Kuttanad'. Paper presented at the International Seminar on rainfed rice at CRRI, Cuttack from 21-25 September, 96.
- Padmakumar, KG, 96. 'Aquaculture and farming system approach relevant for Kuttanad', paper presented at the seminar on Integrated fish farming in Upper and North Kuttanad organised by FFDA, Kottayam.
- Padmakumar, KG, Anuradha Krishnan, Sulochana, S and Nair MK, 96. 'Pathobiology and Chemotherapeutic investigations on epizootic ulcerative syndrome in fishes' Paper presented at the Fourth Indian Fisheries Forum held at Cochin 24-28 November, 96.

Rice Research Station, Moncompu

- Devi, AD, Kumari, PRK and Joseph, D 96. Impact of IPM on rice farming in Kuttanad. Presented in the National Symposium on Technology Advancement in Rice Production at COH, Vellanikkara from 17-19 June, 96.
- John, PS, Mathew, R, Syriac, EK and Ittyaverah, PJ 96. Long term effect of fertiliser application on rice yield and soil fertility in Kuttanad. Ibid.

Devika, R, Bai, NR, Kumari, LS and Regina, A 96. MO 12—A blast resistant variety of rice for Kuttanad. Ibid.

Mathew, R and John, PS 96. Cyhalofop butyl-I new post emergent against *Echinochloa* sp. Ibid.

Bai, NR, Devika, R and Regeena, A 96. A promising dwarf rice mutant induced through gamma radiation. IRRN 21 (1) 14.

Rice Research Station, Vyttila

Popular articles

Sasidharan, NK and Chandrasekharan Nair K Manninangia Pokkalikrishi—Karshakasree 1 (9) pp 25-27

Rajendran, CG and Sasidharan NK 96. Nellum Meenum Pokkalippadangalil—Karshakan 4: 3.

Thamban C and Sasidharan NK 96. Pokkali Nelkrishi-Jaiva krishi Sambradayathinte oru savishesha mathruka. Kerala Karshakan 41 (18) pp 6-9

Radio talk

Sasidharan, NK, Biodiversity of Pokkali ecosystem—AIR, Kochi.
Chandrasekharan Nair, K Prospects of Organic farming—AIR, Kochi.

AICRP on Agricultural drainage, Karumady

Hajilal, MS; Rao, NH, and Sarma PBS 97. Real Time Water Management in Storage Based Irrigation Systems Technical Bulletin No. 256. Central Board of Irrigation and Power, New Delhi, pp. 370

Regional -Agricultural Research Station, Pattambi

Research Papers

Leenakumari, S, Rosamma, CA and Nayar, NK 96. "Sustainable Rice production through high yielding 'photosensitive varieties'". Paper presented in the National Symposium on Technological advancement in rice production at KAU from 17-19 June, 96.

Leenakumari, S, Valarmathi, G and Nayar NK 96. Hybrid rice for increased rice production in Kerala. Paper presented in the National symposium on Technological advancement in rice production at KAU from 17-19 June, 96.

Devika, R., Remabai, N, Leenakumari, S and Ahmed Regina, 96. MO. 12, a blast resistant variety of rice. Paper presented in the National Symposium on Technological advancement in rice production at KAU from 17-19 June, 96.

Kanakamany, M, Leenakumari, S and Nayar, NK 96. Correlation and yield component analysis of some Basmathi rice cultures. Paper presented in the National Symposium on Technological advancement in rice production at KAU from 17-19 June, 96.

Valarmathi, G Leenakumari, S Nadarajan, L and Nayar NK 96. Combination breeding promises better scope for selection of high yielding stable strains for rainfed uplands. Paper presented in the National symposium on Technological Advancement in rice technology 17-19 June 1996 KAU, Vellanikkara. Abstract 7. p 7.

Tessy Joseph, Leena Kumari S and Nadarajan, L 96. Genetic improvement of tall indica rice varieties through inter mutant hybridisation. Paper presented in the National symposium on Technological Advancement in rice technology 17-19 June 1996 KAU, Vellanikkara. Abstract No 46. p. 48.

Leenakumari S, Valarmathi G and Nayar NK 96. Rate of grain filling—a better selection criteria for improved rice genotypes. Presented in the International Symposium on "Rainfed Rice for Sustainable Food Security" to be held at CRRI, Cuttack during 23-25 September, 96. Abstract No. 32.

Nayar, NK Leenakumari S and Valarmathi G 96. Strategies for rice breeding in Kerala towards 21st century. Presented in the International Symposium on "Rainfed Rice for Sustainable Food Security" to be held at CRRI, Cuttack during 23-25 September, 96.

Leenakumari S and Mahadevappa M 96. Genetic, histological and histochemical evidences for reversion to partial fertility in the WA CMS line IR 54732 A Paper presented in the International Conference on hybrid rice held from 14-17th Nov. 96 at Hyderabad.

Leena Kumari S., Mahadevappa M and Kulkarni RS 96. Fertility restoration studies in four WA CMS lines of rice (*Oryza sativa*, L) Paper presented in the International Conference on Hybrid rice held from 14-17th Nov. 1996 at Hyderabad.

- Leena Kumari S and Nayar NK 97. Conservation and utilization of traditional rice varieties in Kerala. Paper presented in the International conference on Creativity and Innovation at Grassroots, January 11-14, 1997.
- Nadarajan, L 96, Changing status of rice pests in Kerala
Paper presented in the National symposium on Technological Advancement in rice technology, 17-19 June 96. KAU, Vellanikkara, Abstract No 149. P 162.
- Elsy, CR, Nadarajan, L and Nair NK 96 Kerala a rich niche for resistance in rice. Paper presented in the International on Rainfed rice for sustainable food security CRRI, Cuttack Sept 23-25 page 96. 105
- Nadarajan, L Thomas J and Samuel Mathew 96. Oils against Rice leaf folder. Insect Environment 2 (3): 99-100
- Jyothi, ML, Parameswaran, NK and Rajeevan, PK 97. Eroding gene pools of tropical fruit crops—Present position, the cause and possible remedial measures with reference to indigenous mango germplasm of Kerala, Presented in the International Conference on Creativity and Innovation at Grassroots for Sustainable Natural Resource Management conducted at the Indian Institute of Management, Ahmedabad during the period from 10th-15th January, 97.
- Jyothi ML, Mini Raj, N, George TE and Nayar NK 97, River bed cultivation in Kerala. Presented in the International Conference on Creativity and Innovation at Grassroots for Sustainable Natural Resource Management conducted at Indian Institute of Management, Ahmedabad during the period from 10th-15th January 97.
- Rehumath Niza TJ, Dev, VPS, Premanathan, T and Mary CA 96, Non fungitoxic seed protectants control seedling blast of rice. Proceedings of the National Symposium of technological advancement in rice production. 17-19 June 96, Kerala Agricultural University, Vellanikkara.
- Sukumara Dev VP, and Rehumath Niza TJ 96. Cropping system and disease sequence of Rice in Kerala. Proceedings of the National Symposium on technological advancement in Rice production 17-19th June 96. Kerala Agricultural University, Vellanikkara p. 187.
- Jose Mathew and Jagadeeshkumar TN 96. Weed management strategies for dry seeded lowland rice. National Symposium on Technological Advancement in rice production. 17-19 June 96, Vellanikkara.

Reena Mathew, Varghese, K Jose Mathew Thampatti, M and GR Pillai 96. Rice based cropping pattern suited to areas of limited irrigation water availability, National Symposium on Technological Advancements in rice production 17-19 June, Vellanikkara.

Reena Mathew, Jose Mathew, Manorama KC Santhakumari G and Sreekumar V 96. Potential production and economic analysis of a rice based cropping pattern in sandy loam rice soils. National Symposium on Technological Advancements in rice production. 17-19, June 96 Vellanikkara.

Leenakumari S and Tessa Joseph. Virippil vithakkan. Mathrubhumi daily 21st May, 96.

Leena Kummari S 96 'Vilavardhanavil Kattuvargangalute Panku, Kalpadhenu 23 (4) 19-22.

Kanakamany, MT and Leena Kumary S "Nanavarinju Vilavirakku' Karshakan, Jan, 97.

Leena Kumary S 97 'Nelvithulpadanathinte Sasthriya Vasangal, Kerala Karshakan 25th May 97.

George TE 96. Panam Tharunna Mulkinangal (Mal.) Karshakan 4 (iv) 19-20

Deepti NV and George TE 96. Shadabhisikthanaya Bordo Mishritham (Mal.) Kerala Karshakan, 41 (16): 8-9

Deepti, NV George TE and Sudheer Babu MA 96. Maavu Kaaykan (Mal.) Kerala Karshakan, 41 (17) 1-9

George TE 96 Vazha Krishni Labhakaramakkan (Mal.) Karshakan 4 (6) 34-37

George TE 96 Nattarivukal (Mal.) Karshakasree 1 (12) 27, 36

George TE 96 Pachakkari krishikku venam shasthriya sameepanam (Mal.) Karashakan 4 (10) 44-46

Jose Mathew 96. Kalanasiniprayogam podivithayil (Malayalam) Kerala Karshakan 41 (14) 3-8, April 25, 96.

Jose Mathew 96. Nellinunalkam pachilavalam. Karshakan 4 (3) 63, May 96.

Jose Mathew and Jagadeeshkumar, TN 96. Protecting rice seedlings from herbicide injury. The Hindu (Daily) 12 Dec. 96.

Jose Mathew 96, Nellarakalude prathisanthikku pariharamundu. Karshakan 4 (8) 36-41, October, 96.

Books

Nayar, NK and George TE 96. Technological Advancements in Banana/Plantain Production and Processing—India—International; Abstracts of Papers. Directorate of Extension, Kerala Agricultural University, Mannuthy. Trichur, Kerala, India. P.55.

Nadarajan, L Elsy CR and Nair NK 96, Kerala rice as International donors for stress resistance, Published by KAU 40p. The above book was released by the Hon'ble Vice-Chancellor on 19th June 96, in the valedictory function of National Symposium on Technological Advancement in rice technology held between 17-19th June 96.

Leena Kumary, S and Nayar NK 96. "Rice varieties of Kerala" Published by KAU. The above book was released by the Hon'ble Vice-Chancellor on 19th June 96 in the valedictory function of National symposium on Technological Advancement in rice technology held between 17-19th June 96.

Nadarajan L Nair RR and Nayar NK 96. Technological Advancements in Rice technology; Abstracts of Papers, Directorate of Extension, Kerala Agricultural University, Mannuthy Trichur, Kerala, India.

Radio talks

Leena Kumari S, Puncha krishiku yojicha nelvithinangal, Broadcasted on 5.12.96 from AIR, Trichur.

Leena Kumari S, Growing world population and role of modern agriculture in fulfilling the need for food. Broadcasted on 21.3.97 from AIR, Calicut.

Kanakamony MT, Technological advances in horticulture, Broadcasted on 17.3.97 from AIR, Calicut.

Dr. George TE Vegetable cultivation in river beds on 21.11.96 through AIR, Thrissur

Jyothi, ML Environment problems and Agriculture in river beds on 6.12.96 through AIR, Kozhikode.

Agronomic Research Station, Chalakudy

Research Papers

Jayakrishnakumar, V and Abdul Hakkim VM '95.

Water management and water use in rice fields. Kalpadhenu: 23 (1).

Abdul Hakkim, VM and Jayakrishnakumar V 95. Drip Irrigation—Advantages and adaptability. Kalpadhenu: 23 (2).

Abdul Hakkim VM, Jayakrishnakumar V and Sajeena S 96. Watershed Management—A guide line. Kalpadhenu 23 (3).

Jayakrishnakumar V, Abdul Hakkim VM and Sajeena S. 96. Cropping pattern in paddy fields. Kalpadhenu 23 (4).

Sajeena S and Abdul Hakkim VM 96. Selection of tractor and Agricultural Machinery. Kalpadhenu: 24 (1).

Abdul Hakkim VM and Sajeena S 96. Kule lands and protection possibilities. Kalpadhenu: 24 (2).

Sajeena S and Abdul Hakkim VM 96. Scientific approaches of soil conservation. Kalpadhenu: 24 (3).

Aromatic & Medicinal Research Station, Odakkali.

Research Papers

Baby P Skaria, Ushakumari R and Thomas J 96. Psyllid, *Arytaina punctipennis* infestation on cultivated *Indigofera tinctora* in Kerala—A new record. Insect Environment 2 (1): 28.

Natarajan L, Thomas J and Samuel Mathew 96. Insecticidal property of essential oils against rice leaf folder. Insect Environment (2): 26-7.

Banana Research Station, Kannara

Rema Menon 96. Comparative evaluation of some banana clones. Abstracts of papers presented at the Symposium on Technological Advancement in Banana/Plantain Production and processing-India-International, sponsored by ICAR, KAU and Bagain and convened at KAU Headquarters, Vellanikkara from 20.8.96 to 24.8.96.

Rema Menon and Premalatha, T 96. Observations on a mutant in Banana *Musa* (AB) 'Padalimoongil'—Abstracts of papers presented at the Symposium on 'Technological Advancement in Banana/Plantain Production and Processing-India-International'.

Charles, JSK, Thomas, MJ, Rema Menon, Premalatha, T and Pillai SJ 96. 'Field susceptibility of banana to pseudostem borer—*Odoiporus longicollis* oliver. Abstracts of papers presented at the Symposium on Technological Advancement in Banana/Plantain Production and Processing-India-International.

- Premalatha, T, Rema Menon, Pillai, SJ 96. Effect of planting densities on growth and yield in banana var. Palayankodan Musa (AAB). Abstracts of papers presented at the conference on 'Challenges of banana production and utilization in 21st century' organised by Association for banana production and utilization (AIPUB) from 24.9.96 to 25.9.96. P. 32.
- Rema Menon and Premalatha, T 96. Collection, conservation and evaluation of banana germplasm. Abstracts of papers presented at the conference on 'Challenges for banana production and utilization in 21st century' organised by AIPUB. P. 16.
- Uma, S, Rema Menon and Singh, HP 96. Search for alternative cultivars for banana chips. Abstracts of research papers presented at the conference on 'Challenges for banana production and utilization in 21st century' organised by AIPUB P. 71.
- Charles, JSK, Reghunath, BR, Krishnan, S and Sakuntala Nair, 96. Control of banana rhizome weevil *Cosmopolites sordidus* Germar by soil application of insecticides. Abstracts of research papers presented at the Conference on 'Challenges for banana production and utilization in 21st century' organised by AIPUB P. 55.
- Sreeja, P, Charles, JSK, Venkitesan, TS, Krishnan, S and Ushakumari, R 96. Screening botanicals for Antihelminthic properties against burrowing nematode, *Radopholus similis*. Abstracts of research papers presented at the Conference on 'Challenges for banana production and utilization in 21st century' organised by AIPUB. P. 55.

Cashew Research Station, Madakkathara

Book

- 'Kanakam Koyyan Kusumavu' Edited (technical) by Dr. M Abdul Salam and Published by Directorate of Cashewnut Development, Cochin.

Research Papers

- Mini Abraham and Abdul Salam, M 94. Absorption patterns of ¹⁴C urea by cashew. Cashew Bulletin 38 (5) pp: 7-9.
- Abdul Salam, M. and Mohanakumaran, N 96. Towards a more sustainable cashew industry in India. Cashew Bulletin XXXIII (6) June 96 pp. 3-11.

Mohanakumaran, N and Abdul Salam, M 96. 'Thirty years of cashew research in Kerala.' Sent to the Seminar on 'Cashew in 2000 AD' proposed to be conducted by Directorate of Cashewnut Development at Bhuvanewar (28-29 October 96).

Abdul Sa'am, M, Mohanakumaran, N and Latha, A. 96. 'Cashew, (article on Cashew) Sent to the World Wide Fund-India. Kerala State.

Abdul Salam, M 96. 'Cashew Plantation—Establishment and Management' Paper presented in the National Seminar on Development of Cashew in India at Bhuvanewar conducted from 14 and 15th December 96.

Abdul Salam, M 96. 'Cashew Tree—A Nitrogen Lover' Sent to the Journal Cashew Bulletin.

Abdul Salam, M 97. 'Cashew—Varieties and Package of Practices for Kerala' sent to the 'Mangalore Cashew Growers Association' for publication in their Journal.

Popular articles

Abdul Salam, M 96. 'Traditional Rubber Planters Turn to Cashew. The Cashew 10 (2) pp: 3-4.

Regional Agrl. Research Station, Pilicode

Paper published

Prasada Rao GSLHV and Subash N. Use of CERES—Rice Model to assess potential yield. IRRN, Vol. 21, Numbers 2 Aug-Dec. 96, pp 87.

Subash N, Gopakumar, CS and Prasada Rao, GSLHV Drought and plantation crops. Swadeshi Science 7 (1) Jan-Feb. 97 pp. 37

Prasada Rao, GSLHV, Govindan M, Latha PC and Subash N Monsoon gale inflicted damage on coconut gardens in Kerala *Indian Coco. J.* (Communicated)

Subash N, and Prasada Rao, GSLHV Rainfall quantity and distribution in Kerala Karshakan Annual 96. pp. 113-114

Ramachandran U, Latha Bastine C, Suman Joseph and Prasad Rao, GSLHV Coconut oil consumption—A study in the villages of northern Kerala. *Indian Coco. J.* 97. March pp. 24.

Regional Agrl. Research Station, Ambalavayal

Popular articles

Promising scented rice variety—Smt. Susamma George P and Dr Aipe KC—The Hindu 9.1.97

Veettumuttathoru Oushadha Sasyam—Mathalam—Smt. Susamma
George P—Deepika February 18, 97.

Kelappaji College of Agrl. Engg. & Technology, Tavanur

Popular articles

Ganesan V 96. New technology for production of coconut milk powder—Mathrubhumi Daily.

Jayan PR, and Prince MV, Selective mechanization in Agriculture—Karshakasree

Jayan, PR and Jobi Bastin. Necessity of Paddy Harvesters—Kalpadhenu

Jayan PR, and Rajeev M; Selection of Tractors—Kissan world

Rema KP, Cablegation, a new innovation in surface irrigation technology—Proceedings of 6th Swadeshi science Congress

Visalakshi KP and Rema, KP Surface irrigation—Kalpadhenu

Suseela P, Non-conventional energy—Need for the Development of the Country—Kerala Karshakan

Suseela P, Laboratory Instruction Manual of Fluid Mechanics.

Cardamom Research Station, Pampadumpara

പാമ്പാലിയിലെ തിരുവനന്തപുരം ആക്രമണവൃ. നിയന്ത്രണ ഓഫീസ് ഗവണ്മെന്റ്. Kalpadhenu
95 2 (1): 36-37 Published in May 96

Studies on the comparative penetration and development of root knot nematode *Meloidogyne incognita* on susceptible Pusa ruby, and resistant mangala cultivars of Tomato. Arthur Jacob, J and M Haque 95 (published in June 96
Indian J. Nematol. 25 (1): 29.

A book on Cardamom was released by the Honourable Minister for Agriculture, Govt. of Kerala, on 18.8.96. The authors, Dr Arthur Jacob J, Dr Girija, VK; Miss Ancy Joseph and Dr Thomas MJ.

KVK Pattambi

Research Papers

Dr Ahamed P, Associate Professor, MR Remesan KK, Assistant Professor 96. Farmers characterization of preferred rice cultivars—A group participatory analysis. Paper published in the proceedings of the IXth Kerala Science Congress, STCC, Thiruvananthapuram

Dr Ahamed P, Associate Professor, Oru Vazhapattu (A song about plantain) Karshakan monthly, September, 96

Radio Talks

- Papaya—a cheap and nutritious food by Smt. Asha Sankar
Diseases of fishes, utilisation of Cashew, Apple, composite fish culture, Recipes using fish, food and management of fish ponds by Dr Narayanan GS,
Safe handling of modern kitchen aids by Dr Syamakumari S.
Making of Arecanut garden (An interview) by Sri KK Remesan,
Water melon cultivation by Smt Jyothi Bhaskar.

KVK Ambalavayal

Popular articles

- Quick wilt disease of pepper Dr K Abdul Kareem, Madhyamam Daily
Care and management of cross bred cows Dr. A. Radhamma Pillai, Karshakan July 96
Cultivation of clove. Dr K Abdul Kareem, Karshakan, May, 96
Grant granedillum. Dr K Abdul Kareem, Karshakan, May 96
All spice Dr K Abdul Kareem, Karshakan, June 96

Kerala Horticultural Development Project. Vellanikkara

Research Papers

- Babylatha AK, Patel BM and Shah RR 1996. In vitro culture culture establishment and shoot proliferation in papaya (*Carica papaya L.*) Abstracts of the National Symposium on Horticultural Biotechnology 28-30 October 96.
Babylatha AK, Prasannakumari Amma S, Pushkaran K and Nalini PV 96: A successful attempt on hybridization among banana cultivars. *The Horti. J.* 9 (2) 87-94.
Balakrishnan S, Gokulapalan C and Paul S (96). A wide spread banana malady in Kerala. *India informusa* 5(1): 28-29.
Devadas VS, Kuriakose KJ, Rani TG, Gopalakrishnan TR and Nair SR 97. Pattern of fruit and seed development in vegetable cowpea. Abstracts of national Seminar — Plant physiology for sustainable agriculture—IARI, New Delhi 19-21 March, 97 11-13.
Gopalakrishnan TR, Varghese CA, Giridharan MP and Devadas VS 96: Evaluation of cabbage varieties for the high range zone of Kerala. *J. Tropical Agri.*
Latha P and Gopalakrishnan TR 95; Seasonal variation in the white fly population and its influence on the yellow vein mosaic and productivity in pumpkin (*Cucurbita moschata* Poir) *J. Tropical Agri.* 33(2) 144-146.

- Latha P and Gopalakrishnan TR. 95. Seasonal variation in white fly population and its influence in the yellow vein mosaic and productivity in pumpkin (*Cucurbita moschata* Poir. *J. Tropical Res.* 33:144-146.
- Latha P and Gopalakrishnan TR. Improvement of CM 214—A mosaic resistant pumpkin variety. *South Indian Horticulture.*
- Mathew MP and Ramakrishnan U 96. Typhlocybines of Kerala. India (Cicadellidae : Homoptera). Tribe Dikraneurini. *Shashpa* 4(1):1-3.
- Mathew MP 96. Typhlocybine leaf hopper on bittergourd. *J. Tropical Agri.* 34.
- Mathew MP, Thomas J Paul ST, Sivaraman S, Nair SR and Ibrahim KK 96. Chemical control of pseudostem borer of banana. *Odoiporus longicollis* Oliver. Proc. International Symposium on technological advancement in banana/plantain—Production and processing—India—International 20-24 August 96.
- Nandini K, and Radhakrishnan R 97. Biochemical and yield responses of Cotton to foliar spray of antitranspirants and growth regulator under water deficit situations. Abstracts of National Seminar—Plant physiology for sustainable agriculture-IARI, New Delhi 19-21 March 97, p. 119.
- Nazeema Beevi C, Gokulapalan P, Reghunath and Visalakshy A. 96. Dissipation of Mancozeb residues in bittergourd (*Momordica charantia* L.) *Pesticide Res. J.* 8 (2) 199-200.
- Reghunath P and Gokulapalan C 96. Management of American Serpentine Leaf Minor (*Liriomyza trifolia*), Pea Aphid (*Aphis craccivora*) and Cowpea Mosaic. *Proc. Acad. Environ Biol* 5(2), 207-208.
- Radha T and KL Chadha 96. Growth parameters in Kew pineapple as influenced by plant densities and nitrogen. *Indian J. Hort.* 53 (2) 101-108.
- Radha T and Chadha KL 97. Dry matter production as influenced by plant density and applied nitrogen. *The Hort. J.* 10 (1) 15-21.
- Radha T and Aravindakshan M 96. Flowering in Kew pineapple as influenced by shading. *South Indian Hort.* 44(1 & 2). 42-43.
- Suresh Babu V Gopalakrishnan TR and Peter KV. Variability and divergence studies in Pumpkin. *J. Tropic Agri.*

Popular Articles

- Virus disease in vegetables (Malayalam) Mathrubhumi Daily dated 14.5.96.
- Scope of Horticulture development in Kerala (Malayalam) Mathrubhumi Annual Agriculture Edition 96, P.96-101.
- Disease Resistant Arka Anamika (Malayalam) Karshakan, 96 September-p.28.
- Cool season vegetables in hilltops (Karshakashri) 96, September p. 18-21.
- Vegetable cultivation in sacks (Malayalam) Mathrubhumi Daily dated 29.10.96.

Radio programmes

- Dr T Radha. Planning and management of kitchen garden AIR Trichur on 9.12.96
- Dr TR Gopala krishnan Vegetables for Onam from homesteads AIR Trichur on 27.6.96
- Dr TR Gopalakrishnan Commercial vegetable cultivation AIR Trichur on 24.10.96
- Dr TR Gopalakrishnan Vegetable varieties suited to Chittoor area and their cultivation. AIR Trichur on 22.3.97
- Dr K Aravindakshan, Biotechnology in banana, AIR Calicut on 11.1.97
- Dr K Aravindakshan, Biotechnology in banana, AIR Calicut on 19.1.97
- Dr K Aravindakshan, Cultivation aspect of tissue culture banana, AIR Calicut on 24.3.97
- Prof. P Raghunath Plant protection of different crops AIR Trivandrum on 12.8.96

College of Veterinary and Animal Sciences, Mannuthy

Research Papers

- Jayavardhanan, KK, Padekala, J and Panikkai, KR "Lectin biosynthesis in callus culture established from seeds of *Conyza verosa*". Biologic Plantarim 38 (3) 329-334 96
- Jayavardhanan, KK Expression of different lectin receptors in carcinomas of oral cavity and uterine cervix Ann. conf. of Clin. biochemist XXIII 96
- Jayavardhanan, KK and Panikkai, KR "Isolation and characterisation of a lectin from *Moringa oleifera*" Ann. conf. of Clin Biochemist XXIII 96

- Suresh, K, Jayavardhanan, KK and Vasudevan, DM Effect of 5-Fluorouracil treatment on IL-2R gene expression in gastric carcinoma patients. *Oncology Reports* 3; 96
- Harshan, KR, Ashok, N and George, PO Gross observations on the spleen and tongue of a lion (*panthera leo*). *Zoo sprint* (1996) XI 18-20
- Harshan, KR, Yashwant Singh and Sharma, DN Formulation of indifferent gonads in goat embryo *Cheiron* (1994) 23 147-153
- Ashok, N and Harshan, KR Embalming and preservation of bovine carcasses. *Cheiron* (1994) 24; 131
- Balagopalan, TP, Devanand, CB; Rajankutty, K; Sarada Amma, Abraham Varkey, C; Ravindran Nayar, S and Muraleedharan Nair, KN Congenital anomalies in calves and kids *Indian J Anim. Reproduction* (1996) 17 (1): 35-38
- Rajkamal, PJ A case study of a specialised buffalo farmer in the Western Ghats *Dairy Guide* 96
- Rajkamal, PJ Scale to measure the attitude of farmers towards goat farming. *Cheiron* 96,
- Madhavan Pillai K, and George PO 97. Tick infestation in an Indian pangolin (*Manis crassicaudata*). *Indian Vet. J.* 74 71-72.
- Amir Abbas Farshid; Rajan, A and Krishnan Nair K, 96. Ultra-structural pathology of lymphoid organs in Japanese Quail embryos in experimental ochratoxicosis *Indian Vet. J* 73 (12) 1223-1225.
- Amir Abbas Farshid and Rajan, A 96. Assessment of the cell mediated immune response of Japanese quails in experimental ochratoxicosis *Indian Vet. J.* 73 (11) 1117-1121.
- Biju P, and Ramachandran KM, 96. Conjoined kidney in a cat *Indian Vet. J. path.* 20 (1) 60-61.
- Gangadharan B, Muralidharan Nair KN, Chandrasekharan K and Leenadevi T 96. Fibrolipoma in an Asian Elephant. *Zoo's print* April 96 P-9.
- Gangadharan B, Chandrasekharan K, Muralidharan Nair KN, and Leenadevi T, 96. Pulmonary tuberculosis in an Elephant. *Zoos print* April 96. P-8.
- Lalitha kunjamma CR, and Krishnan Nair K, 97. Pathomorphology of the combined effect of ochratoxin-a and citrinin in Chicken embryos. *Indian Vet. J.* 74 January 97, 22-25.
- Ajitkumar G, Madhavan E, and Iyer CPN 96. Regulation of oestrous cycle in cross bred heifers. *Indian J. Anim. Reprod.* 17 (2) 99-101.

- Ibrahimkutty C, Metilda Joseph and Neelakanta Iyer CP, 96. A simplified Nigrosin-Eosin Giemsa staining technique to distinguish acrosome damaged live and dead sperm. *Indian J. Anim. Reprod.* 17 (2) 122-123.
- Ibrahimkutty C, and Stephen Mathew 96. Oestrous synchronisation by intravulvo submucosal injection of PGF₂ alpha in goats 17 (2) 141-142.
- Latha C, and Nanu E, 97. Bacteriological quality of pasteurized milk and its public health significance. Proceedings of the 9th Kerala Science Congress, 115-117.
- Ibrahimkutty C, and Stephen Mathew 96. Quail-egg yolk in semen extenders. *Indian J. Anim. Reprod.* 17 (2) 155.
- Thang Tanma, Prabhakaran P, and Nanu E, Development of monospecific antibeef, and antibuffaloe serum *Indian J. Anim. Sci.*
- Jalaludheen A, and Ramakrishnan A, Seasonal influence on the dietary protein and energy requirements of commercial egg type starter chicks. *J. Vet. Anim. Sci.* 25 (1) 1-4
- Narayanankutty K, Leo Joseph and Ramakrishnan A, 94. Effect of floor space on layer performance under wirefloor system of rearing *J. Vet. Anim. Sci.* 25 (1) 5-8.
- Shyama K, and James CS, Dried spleen meal as biostimulator in kid rations *J. Vety. Anim. Sci.* 25 (1) 9-13, 94.
- Sunil M, Nanu E, and Padmanabha Iyer R, Effect of electrical stimulation on total viable count of beef. *J. Vet. Anim. Sci.* 25 (1) 14-15, 94.
- Kamana Barkataki, Narayanankutty K, and Ramakrishnan A, Effect of refrigeration storage on the quality of quail meat patties. *J. Vet. Anim. Sci.* 25 (1) 16-18, 94.
- Maryamma KI, Rajan A, Gopalakrishnan Nair M, and Manomohan CB, Effect of dietary protein levels on aflatoxin induced hepatocarcinogenesis in pigs *J. Vet. Anim. Sci.* 25 (1) 19-24, 94.
- Divakaran Nair M, Krishnan Nair M, Koshy Varghese and Sreekumaran T, Mitochondrial changes in the kidney and liver of mice induced by ochratoxin-A—an electron microscopic study *J. Vet. Anim. Sci.* 25 (1) 25-31, 94.
- Saseendranath MR, Ramakrishna J, Ramdas P and Tresamol PV DOT—Enzyme linked immunosorbent assay in the diagnosis of experimental *Trypanosoma evansi* infection in sheep. *J. Vet. Anim. Sci.* 2E (1) 32-34, 94.

Venugopal R, Mathai E and Neelakanta Iyer CP. Antibiotic sensitivity pattern of uterine bacterial flora of repeat breeder cows. *J. Vet. Anim. Sci.* 25 (1) 35-37, 94.

Vahida AM and Mathai E. Isolation, identification and antibiotic sensitivity pattern of microorganisms causing endometritis in cattle. *J. Vet. Anim. Sci.* 25 (1) 38-40, 94.

Saseendranath MR, Ramakrishna J and Tresamol PV. Clinical syndrome in experimental *Trypanosoma evansi* infection in sheep. *J. Vet. Anim. Sci.* 25 (1) 41-46, 94.

Catherine M. Khatsu and Alikutty KM. Metabolic profile of 'Downer Cow' syndrome in crossbred dairy cattle. *J. Vet. Anim. Sci.* 25 (1) 47-49, 94.

Vijayan N and Rajan A. Toxicological effects of a combination of nitrofurazone and furazolidone in rabbits. *J. Vet. Anim. Sci.* 25 (1) 50-52, 94

Dakshinkar NP, Dhakate MS, Pathak VP, Kalorey DR, Marudwar SS and Patil SN. Clinco pathological conditions of female genital tract in canines—a survey of 79 cases. *J. Vet. Ani. Sci.* 25 (1) 53-55, 94

Ashok N, Vijayaraghavan C and Venkatakrishnan A. Histological changes of the adrenal gland during pregnancy in buffaloes (*Bubalus bubalis*) *J. Vet. Sci.* 25 (1) 56-60, 94

Ibraheemkutty C Mathai E and Iyer CPN Metabolic rate of ejaculated buck spermatozoa *J. Vet. Ani. Sci.* 25 (1) 61-62, 94

Harshan, KR Ashok N and George PO Some gross observations on the tongue of a tiger (*Panthera tigris*) *J. Vet. Ani. Sci.* 25 (1) 63-64, 94

Ramnath V and Govinda Rao K Influence of haemoglobin polymorphism on erythrocytic values in goats. *J. Vet. Ani. Sci.* 25 (1) 65-71. 94

Popular articles

ഏഷ്യാനിസ് ഇൻക്യുബേഷൻറാക്കം, കർഷകശ്രീ, സെപ്റ്റംബർ 96, 51-56.

വീട്ടിൽ തന്നെയുണ്ടാക്കാം കോഴിത്തീറ്റ, കർഷകശ്രീ, ജൂൺ 96, 70-71.

ആയിരം കോഴിയ്ക്ക് അറ കാട്. കർഷകശ്രീ, ജൂലൈ 96, 56-57.

കോഴി രോഗങ്ങൾക്ക് പ്രതിവിധി. കർഷകശ്രീ, ഫെബ്രുവരി 97, 66-67.

അറിയുക കോഴി ജന്തുക്കളെ. കർഷകശ്രീ, ഏപ്രിൽ 97, 60-61

കോഴികളിലെ രക്താതിസാരം തടയാം. കർഷകൻ, ഫെബ്രുവരി 97.

മംസൗതിലൂടെ പകരുന്ന നാടവിരകൾ. മാതൃഭൂമി, 23.2.97.

കൃഗങ്ങളെ താലോലിയ്ക്കുമ്പോൾ സൂക്ഷ്മീയ്ക്കുക. മാതൃഭൂമി, 3.1.97.

ഡെൽഗ്രാഫീവർ. ഭാഗം 1, ഭാഗം 2, ജൂൺ, 96.
 ലെപ്റ്റോസൈറ്റൈറ്റിസ് ഇൻ അനിമൽസ്. കർഷകൻ, മാർച്ച്, 96.
 തേങ്ങയ്ക്കു നല്ലകാലം വരുന്നു. ഭാഗം 1, ഭാഗം 2, 97.
 കൃത്രിമപാൽ പിഷ്ണിയാകുന്നു. കർഷകൻ, ഫെബ്രുവരി, 97.

Radio Talks

Talk on Foot and Mouth Disease in Cattle, August, 96.
 Feeding and Management of Rabbits, September, 96
 പശുക്കുട്ടികളുടെ വിരബ്ധം. January, 96.
 Feeding of Calves, Thrissur, AIR.
 Tuber crops in Nutrition and health. Trivandrum, AIR.
 Feeding and Management of Goats, Thrissur, AIR.

Research papers

Jalaludeen, A and Ramakrishnan, A 94. Seasonal influence on the dietary protein and energy requirements of commercial egg type. *J. Vety. Anim. Sci.* 25 (1): 1-4.
 Narayanankutty, K, Leo Joseph and Ramakrishnan, A 94. Effect of floor space on layer performance under wire-floor system of rearing. *J. Vety. Anim. Sci.* 25 (1): 5-8.
 Kamana Burkatak, Narayanankutty, K, and Ramakrishnan, A 94. Effect of refrigeration storage on the quality of quail meat patties. *J. Vety. Anim. Sci.* 25 (1): 16-18.
 Kamana Burkatak, Narayanankutty, K and Ramakrishnan, A 94. Processing yields, losses and meat fibre bone ratio in Japanese quails. *J. Vety. Anim. Sci.* 25 (1): 80-81.

College of Fisheries, Panangud

Research papers

Sherief, PM and Mathew, PM 96. Dietary enhancement of colour in gold fish (*Carassius auratus*) Fishing chimes, September 96 pp. 17-18.
 Jayachandran, KV, Indira, B, Alphy Korath and Malika, V 96. Detailed morphometric studies in *Penaeus indicus* Milne Ed. from Veli Lake, Trivandrum. *Proc. Indian Natn. Sci. Acad.*, B 62: 65-70.
 Anitha Sebastian and Jayachandran, KV 96. Investigations for confirming the status of two populations of *Macrobrachium equidens* (Dana) (Palaemonidae) II. Length-weight relationship and meristic studies. *J. M. B. A. India* Vol. 38 (in press).

Fisheries Station, Puduveypu

Research papers

Purushan, KS 96. Sustainable shrimp production from traditional culture systems in Kerala. An improved farming practice. *Fishing Chimes* Vol. 16, No. 7, October 96, pp: -33-35.

Site Selection, Design and Construction of Ponds. *Seafood Export Journal*. Vol. XXVII, No. 12, December 96, pp 19-21.

Popular articles

Janakeeya Matsyakrishi. 'Desabhimani' daily 29.1.97.

Jose, MM 96. 'കോൽ നിലങ്ങളിൽ ശുഭ്രധജല മത്സ്യകൃഷിയുടെ സാധ്യതകൾ' കലപ്പഭയം, കോടോമ്പർ-നവംബർ-ഡിസംബർ 96.

$\frac{25}{1.5} = 16.67$
 $\frac{0.25}{3.5} = 0.0714$
 $1.2 + 2.1 = 3.3$
 $\frac{3.3}{5} = 0.66$
 $\frac{6.6}{10} = 0.66$

Appendix VI

RESEARCH SCHEMES OPERATED UNDER DIRECTORATE OF RESEARCH AS ON 31.3.97

| Project Title | Duration (in yrs) | Outlay (in Rs.) | Date of start |
|--|----------------------|--------------------|------------------|
| 1 | 2 | 3 | 4 |
| FACULTY OF AGRICULTURE | | | |
| ICAR Co-ordinated | | | |
| College of Forestry, Vellanikkara | | | |
| AICRP on Agroforestry (Functioning at LRS, Thiruvazhamkunnu) —Dr B Mohankumar | 5 | 26,18,000 | 1-4-90 |
| College of Horticulture, Vellanikkara | | | |
| AIC Floriculture Improvement Project —Dr PK Rajeevan | 5 | 11,81,000 | 1-4-90 |
| AIC Vegetable Improvement Project —Dr S Rajan | 5 | 13,75,000 | 1-4-90 |
| AICRP on BCCP —Dr PJ Joy | 5 | 20,38,000 | 1-4-90 |
| AICRP on Weed Control —Dr CT Abraham | 10 | 16,17,000 | 1-4-88 |
| AICRP on Medicinal & Aromatic Plants —Dr KT Prasannakumari | 5 | 29,05,000 | 1-4-90 |
| All India Network Project on Agricultural Ornithology —Dr Sitarama Rao | 5 | 6,18,000 | 10-2-94 |
| All India Co-ordinated Research Project on Agrometeorology —Dr AVR Kesava Rao | 5 | 7,68,000 | 1-4-95 |
| AICRP on soil test crop response correlation —Assoc, Dean | 1 | 5,96,000 | 15-11-96 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|---------|
| AICRP on Agrl. Drainage, Karumady | | | |
| AICRP on Agrl. Drainage --Assoc. Prof. & Head | 5 | 42,62,000 | 1-4-90 |
| ARS, Chalakudy | | | |
| AICRP on Water Management --Prof. & Head | 5 | 32,16,000 | 1-4-90 |
| ARS, Mannuthy | | | |
| AICRP--Double Cropping Sub-centre --Assoc. Prof. & Head | 5 | 94,000 | 1-4-90 |
| BRS, Kannara | | | |
| AICRP on Fruits (Banana) --Assoc. Prof. & Head | 5 | 39,05,000 | 1-4-90 |
| CRS, Madakkathara | | | |
| AICRP on Cashew-- Research on Cashew (Madakkathara & Pilicode) --Assoc. Prof. & Head | 5 | 18,00,000 | 1-4-90 |
| CRS, Pampadumpara | | | |
| AICS & CIP-- Research on Cardamom --Assoc. Prof. & Head | 5 | 24,17,000 | 1-4-90 |
| CSRC, Karamana | | | |
| AICARP--Project Directorate of Cropping Systems Research-- Karamana & ECF Unit. Kayamkulam --Station Head | 5 | 63,97,000 | 1-4-90 |
| NARP SR, Vellayani | | | |
| AICRP on Nematode Pests --Dr MS Sheela | 5 | 16,95,000 | 1-4-90 |
| AICRP on Forage Crops | 5 | 7,73,000 | 1-4-90 |
| AICRP on Pesticide Residue --Dr A Visalakshi | 5 | 25,58,000 | 1-4-90 |
| AICRP on Honey bee --Abraham Jacob | 4 | 9,71,000 | 20-1-94 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|---------|
| AICRP on Tillage requirement of major Indian soils for different cropping systems —Dr S Pushkala | 5 | 4,48,000 | 5-1-96 |
| PRS, Panniyur | | | |
| AICRP on Spices—Research on pepper —Station Head | 5 | 36,15,000 | 1-4-90 |
| RARS, Pattambi | | | |
| AICRP Double Cropping Main Centre —Associate Director | 5 | 9,79,000 | 1-4-90 |
| AICRP on Arid Legumes (Guar) —Associate Director | 5 | 3,80,000 | 1-4-90 |
| AICRP on Long Term fertilizer Experiment —Associate Director | 5 | 8,20,000 | 15-5-96 |
| RRS, Kayamkulam | | | |
| AICRP on oilseeds for groundnut and sesamum —Station Head | 5 | 15,62,000 | 1-4-90 |
| RRS, Moncompu | | | |
| AICRIP—BHP & GSV Merger—Sub-centre —Station Head | 5 | 4,02,000 | 1-4-90 |
| SRS, Thiruvalla | 5 | 19,63,000 | 1-4-90 |
| AICRP on Sugarcane —Station Head | | | |
| ICAR | | | |
| RARS, Pattambi | | | |
| NSC—Breeder Seed Production Unit —Associate Director | 5 | 21,10,000 | 1-4-90 |
| ICAR Adhoc | | | |
| College of Agriculture, Vellayani | | | |
| Development of soya rice blended food recipes —L Prema | 3 | 4,02,000 | 6-10-94 |

| 1 | 2 | 3 | 4 |
|--|----|----------|----------|
| College of C&B, Mannuthy | | | |
| An evaluation of group management techniques in Agriculture adopted to enhance production and productivity of paddy in Kerala —Dr KA Suresh | 3 | 5,77,500 | 25-1-94 |
| An appraisal of the agricultural input system in Kerala —Dr KP Mani | 2 | 5,61,550 | 16-10-96 |
| College of Forestry, Vellanikkara | | | |
| Standardisation of bareroot nursery techniques of some important tree species used for agroforestry planting in Kerala —Dr K Sudhakara | 3 | 5,21,600 | 29-4-93 |
| Rainwater conservation in coconut based agroforestry systems by water harvesting techniques —Dr PK Asokan | 3 | 2,80,800 | 27-5-93 |
| Nutrient cycling in coconut based intensive multiple cropping systems —Dr PK Asokan | 36 | 4,26,600 | 5-4-94 |
| Nutritional composition & decomposition of leaf biomass of selected woody leguminous species grown under rainfed conditions —Dr K Gopikumar | 3 | 2,17,400 | 13-6-95 |
| College of Horticulture, Vellanikkara | | | |
| Survey collection, evaluation, conservation and cataloguing of germplasm of certain under exploited perennial vegetables | 3 | 2,34,000 | 28-8-91 |
| Evaluation of tomato for summer season —Dr S Rajan | 3 | 2,09,300 | 11-10-93 |

| 1 | 2 | 3 | 4 |
|---|----|----------|---------|
| Cytogenetic investigations of <i>Kaempferia galanga</i> L., <i>Piper longum</i> L. and <i>Andrographis paniculata</i> Brum. —Dr KT Prasannakumari | 3 | 4,80,800 | 28-4-93 |
| Species relationship in the genus <i>piper</i> and the scope of related taxa in the improvement of <i>Piper nigrum</i> L. | 3 | 6,09,000 | 1-6-94 |
| Technology development for handling and utilization of common type of jackfruit of Kerala. —Dr Lyla Mathew | 2 | 1,75,500 | 15-6-94 |
| Standardisation of agrotechnics in foliage plants. —Sujatha VS | 3 | 5,71,458 | 1-8-94 |
| Triploid Breeding of Tetraploid Hybrids of Palayankodan (<i>Musa</i> AAB Mysore) x Pisang Lilin (<i>Musa</i> AA Pisang Lilin) for disease resistance. —Dr PK Valsalakumari | 4 | 4,31,000 | 1-8-94 |
| Studies on the influence of variety, maturity and storage of Cashew apple on the quality of fermented products (wine and liquor). —A Augustin | 3 | 7,35,000 | 20-7-94 |
| Traditional and appropriate technologies for in-situ rain water harvest under humid tropical situations. —Dr R Gopinathan | 3 | 7,77,000 | 23-6-94 |
| Nutritional studies on the availability of iron. —V Usha | 36 | 2,92,000 | 2-4-94 |
| Survey, collection, evaluation, conservation and standardisation of vegetative propagation in five under exploited minor fruits of Kerala. —Dr Sarah T George | 4 | 6,39,760 | 16-2-95 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|----------|
| Soil chemical and radio-ecological investigations of rootwilt disease of coconut palm. —Dr PK Valsalakumari | 2 | 1,13,500 | 21-2-95 |
| Inter mat—Intra mat and crop competitive studies in banana (cv. palayamkodan) using tracer techniques. —Dr Sajan Kurien | 4 | 3,59,480 | 4-2-95 |
| Rapid multiplication of rare and endangered medicinal plants. —Dr R Kesavachandran | 3 | 8,79,000 | 10-10-95 |
| Rapid multiplication of cashew through in-vitro methods. —Dr R Kesavachandran | 3 | 7,03,500 | 2-12-95 |
| Training and extension project for integrated homestead development. —Dr Ranjan S Karippai | 3 | 6,74,740 | 11-3-96 |
| Evaluation and selection of medicinal plants suitable for a coconut based farming system. —Dr Alice Kurien | 3 | 8,95,600 | 21-6-96 |
| Breeding bacterial wilt resistant tomatoes for processing. —Dr S Nirmala Devi | 5 | 11,94,600 | 27-6-96 |
| AMPRS, Odakkali | | | |
| Standardisation of agro-techniques in lesser known aromatic and medicinal plants of Zingiberaceae —Dr PP Joy | 3 | 6,37,100 | 21-9-95 |
| BRS, Kannara | | | |
| Development of a suitable natural bio-control agent the cyst nematodes <i>Heterodera oryzicola</i> infecting paddy/ banana. —Dr Job Sathyakumar Charles | 3 | 9,97,260 | 22-7-96 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|---------|
| NARP SR, Vellayani | | | |
| Homestead agroforestry system of Kerala productivity of the extent homestead models and increasing the efficiency of the models. —M Achuthan Nair | 3 | 4,11,600 | 1-8-93 |
| Epidemiology of honey bee disease in Kerala and its management. —S Devanesan | 4 | 6,70,560 | 1-8-93 |
| Collection, evaluation, cataloguing and genetic improvement to tailor better commercial varieties with export potential in Anthurium spp. —ST Mercy | 3 | 2,80,800 | 1-4-94 |
| Evolving techniques for the invitro propagation of economically important mono and poly embryonic mango varieties of Kerala —Dr K Rajmohan | 2 | 5,71,000 | 28-7-94 |
| Development of improved strains of Oyster mushrooms and standardisation of techniques for their commercial cultivation in Kerala —Dr B Balakrishnan | 3 | 5,12,000 | 21-2-95 |
| RARS, Kumarakom | | | |
| Studies on mosaic disease of bittergourd —Dr AV Mathew | 3 | 2,86,880 | 1-4-95 |
| Ecology and management of rice gall midge, Orseolia oryzae in Kuttanad —Dr PK Vasudevan Nair | 3 | 10,79,760 | 16-2-96 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|----------|
| Evaluation of Kuttanad ecosystem for possible contamination by pesticides, herbicides and toxic heavy metals —Dr Sosamma Cherian | 3 | 16,00,000 | 25-11-96 |
| RARS, Pattambi | | | |
| Breeding for resistance to mosaic virus in chilly (<i>Capsicum annum</i> L) —Dr TE George | 3 | 4,49,680 | 19-3-94 |
| Variability in iron and zinc availability in the laterite and lateritic soils of Central Kerala with reference to rice nutrition —Dr P Sureshkumar | 3 | 4,11,600 | 23-1-96 |
| RARS, Pilicode | | | |
| Crop weather models for Cashew —Dr GSLHV Prasad Rao | 3 | 4,67,800 | 6-5-92 |
| Survey, collection, conservation and utilisation of pickling type mangoes —Dr B Jayaprakash Naik | 5 | 7,95,740 | 1-6-95 |
| Influence of weather and soil factor on growth, yield, nut weight and on nut quality of cashew in West and Eastern coast of India —Dr GSLHV Prasada Rao | 3 | 3,92,260 | 1-4-95 |
| Nitrogen use efficiency in plantation crops —Dr PA Wahid | 3 | 4,28,500 | 22-1-96 |
| Evaluation of <i>Azolla pinnata</i> strains from Kerala for growth and nitrogen fixation and their effects on rice as biofertilizer in acid soil areas; —Dr M Govindan | 3 | 5,17,000 | 24-1-96 |

| 1 | 2 | 3 | 4 |
|---|----|-----------|----------|
| RRS, Kayamkulam | | | |
| In vitro cloning and improvement of orchids —Dr Shyam S Kurup | 5 | 15,05,900 | 27-2-96 |
| RRS, Moncompu | | | |
| Evaluation of cultivated and wild rice germplasm for biotic stresses —Station Head | 3 | 2,55,800 | 1-6-93 |
| Standardisation of agro-techniques for Anthurium —KE Usha | 3 | 4,78,000 | 1-12-95 |
| EEC KHDP Programme, Vellanikkara | | | |
| Genetic factors affecting nutrient content in vegetable Amaranthus —Dr VS Devadas | 3 | 9,69,760 | 17-2-95 |
| Heterosis in chilli and brinjal associated with reference to bacterial wilt. —Dr TR Gopinathan | 3 | 4,21,600 | 25-11-84 |
| IRMA, AMUL | | | |
| College of Horticulture, Vellanikkara | | | |
| Participatory marketing management of vegetables in Kerala —P Indiradevi | 1 | 20,000 | 26-5-96 |
| CAD India Ltd | | | |
| Cocoa research collaboration project between KAU and Hindustan Cocoa Products Ltd. —Dr R Vikraman Nair | 10 | 32,60,500 | 1-4-87 |
| Central Silk Board | | | |
| All India Co-ordinated experiments on sericulture at Vellanikkara centre at KAU. —Dr AM Renjith | 3 | 5,66,900 | 2-12-93 |
| NARP SR, Vellayani | | | |
| Standardising sericultural practices for the agroclimatic conditions of Kerala. —K Sadasivan Pillai | 3 | 21,00,000 | 4-2-91 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|---------|
| RARS, Ambalavayal | | | |
| All India Co-ordinated experiments on sericulture at Ambalavayal —Dr CM George | 3 | 5,66,900 | 25-1-94 |
| Centre for Development Studies, Trivandrum | | | |
| NARP SR, Vellayani | | | |
| Impact of dual role played by working women —Dr Mary Ukkru | 2 | 1,01,800 | 1-3-97 |
| Dept. of Rural Development, GOI | | | |
| College of C & B, Mannuthy | | | |
| Marketing of poultry—Study with reference to Kerala —Dr N Rajan Nair | 2 | 2,40,000 | 9-10-96 |
| Dept. of Biotechnology (GOI) | | | |
| College of Horticulture, Vellanikkara | | | |
| Tissue culture research on cocoa —Dr VK Mallika | 3 | 5,81,000 | 20-5-91 |
| Tissue culture research on Black pepper —Dr PA Nazeem | 3 | 5,71,000 | 20-2-92 |
| Tissue culture research on humid tropical plantation crops and spices. —Dr R Vikraman Nair | 5 | 41,96,000 | 5-5-94 |
| Establishment of distributed information sub centre of KAU. —Dr AVR Kesava Rao | 2 | 15,23,000 | 6-5-95 |
| Triploid production in water melon and Annonas through In vitro endosperm culture —Dr PC Rajendran | 3 | 9,58,000 | 5-3-97 |
| NARP SR, Vellayani | | | |
| Micropropagation of the tree spices in Kerala (Clove and Nutmeg). —P Dr Sivaprasad | 3 | 5,00,000 | 5-6-92 |

| 1 | 2 | 3 | 4 |
|--|----|-----------|---------|
| Management of root diseases of important spice crops of Kerala with VA mycorrhiza —Dr P Sivaprasad | 3 | 4,66,000 | 22-7-92 |
| Rhizobium pulses association development of efficient strains of Rhizobium suitable for acid soil conditions. —Dr SK Nair | 3 | 10,46,000 | 12-5-93 |
| Breeding for interspecific and intergeneric hybrid of orchids for commercial cultivation —Dr ST Mercy | 3 | 13,90,000 | 31-3-97 |
| Dept. of Agri. & Cooperation (GOI) KCAE & T, Tavanur | | | |
| Establishment of plasticulture development centre at Tavanur —Dr John Thomas | 2 | 14,50,000 | 4-8-95 |
| AMPRS, Odakkali | | | |
| Central scheme for development of medicinal and aromatic plants. (AMPRS Odakkali & COH, Vellanikkara) — Station Head | 10 | 39,15,000 | 1-4-90 |
| CRS, Madakkathara | | | |
| Central Sector Scheme for the Integrated Cashew Development—Establishment of Madakkathara Centre —Station Head | 3 | 8,00,000 | 21-2-94 |
| FSRS & KVK, Kottarakkara | | | |
| Central sector scheme on cashew—Estt. of Regional Nursery at FSRS, Kottarakkara —Assoc. Prof. & Head | 4 | 12,00,000 | 14-8-95 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|---------|
| PRS, Panniyur | | | |
| Central sector scheme for integrated programme for the development of spices. (Panniyur, Ambalavayal, Mannuthy, Vellanikkara and Pilicode). — Station Head | 1 | 57,50,000 | 16-3-94 |
| RARS, Pilicode | | | |
| Central Sector Scheme for the Integrated Cashew Development— Establishment of Pilicode Centre — Station Head | 3 | 4,00,000 | 21-2-94 |
| Dept. of Science & Technology (GOI), College of Horticulture, Vellanikkara | | | |
| Estt. of a National Centre for medium range weather forecasting on experimental basis at KAU main campus —Dr AVR Kesava Rao | 1 | 98,000 | 8-3-91 |
| Agrometeorological investigation on summer vegetables —Dr P Balakrishna Pillai | 3 | 7,29,653 | 12-6-95 |
| Solid waste management with special emphasis on sustainable agriculture —Dr R Gopinath | 2 | 5,30,300 | 22-7-95 |
| An assessment of stressed ecosystems of Thrissur District of Kerala —Dr N Saifudeen | 3 | 7,01,385 | 25-4-96 |
| RARS, Ambalavayal | | | |
| Starting of experimental agrometeorological advisory services (AAS) at RARS, Ambalavayal —Dr KC Iype | 1 | 1,00,000 | 17-4-96 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|---------|
| RARS, Pilicode | | | |
| Crop growth simulation models of rice —Dr GLSHV Prasada Rao | 2 | 2,13,620 | 6-8-92 |
| Starting of experimental agrometeorological advisory services at RARS, Pilicode —Dr GSLHV Prasada Rao | 1 | 1,00,000 | 20-7-95 |
| Dept. of Animal Husbandry, (GOK) | | | |
| AMPRS, Odakkali | | | |
| NWDPRA—Reaearch Project for various agroclimatic zones —Assoc. Professor | 1 | 4,20,000 | 3-8-95 |
| NARP SR, Vellayani | | | |
| NWDPRA—Research project for various agroclimatic zones —Assoc. Director(SR) | 1 | 19,40,000 | 3-8-95 |
| RARS, Ambalavayal | | | |
| NWDPRA—Research project for various agroclimatic zones —Assoc. Director | 1 | 6,60,000 | 3-8-95 |
| RARS, Kumarakom | | | |
| NWDPRA—Research project for various agroclimatic zones —Assoc, Director | 1 | 8,12,700 | 3-8-95 |
| RARS, Pattambi | | | |
| NWDPRA—Research project for various agroclimatic zones — Assoc. Director | 1 | 1,96,000 | 3-8-95 |
| RARS, Pilicode | | | |
| NWDPRA—Additional Research projects for various agro-climatic zones (North) —Assoc. Director | 3 | 16,92,000 | 4-11-96 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|---------|
| Dept. of Atomic Energy, GOI | | | |
| College of Horticulture, Vellanikkara | | | |
| Studies on coconut palm in coastal Quilon district of Kerala —Dr PV Balachandran | 3 | 4,60,870 | 21-7-93 |
| Directorate of Cocoa, Arecanut & Spices Dev. | | | |
| Establishment of the Nursery for distribution of budded Cocoa plants and hybrid seedlings at the KAU | 5 | 11,18,000 | 7-9-93 |
| Dept. of Soil Conservation | | | |
| NARP SR, Vellayani | | | |
| Field testing of tissue culture plants & training in plant tissue culture (Operated—one centre at Vellayani and 3 centres at Vellanikkara) —Assoc. Director | 1 | 5,00,000 | 1-7-94 |
| Directorate of Cashewnut Development | | | |
| CRS, Anakkayam | | | |
| Development of Model Cashew Gardens as a part of transfer of Scientific Technology to the farming community —Prof. & Head | 1 | 2,49,800 | 2-1-97 |
| CRS, Madakkathara | | | |
| Development of Model Cashew Gardens as a part of transfer of Scientific Technology to the farming community —Prof. & Head | 1 | 84,850 | 2-1-97 |
| RARS, Pilicode | | | |
| Development of Model Cashew Gardens as a part of transfer of Scientific Technology to the farming community —A.D. | 1 | 1,20,950 | 2-1-97 |

| | 1 | 2 | 3 | 4 |
|---|----|-------------|---|----------|
| EEC | | | | |
| EEC—KHDP Programme, Vellanikkara | | | | |
| Research & Development and breeder seed production programme of Kerala Horticulture Development programme | 5 | 1,56,00,000 | | 1-1-94 |
| —Dr. S. Ramachandran Nair | | | | |
| FACT | | | | |
| College of Horticulture, Vellanikkara | | | | |
| Evaluation of slow release of fertilizer for important crops of Kerala | 3 | 6,00,000 | | 27-5-95 |
| —Dr. A. I. José | | | | |
| FAO-IPM, Philippines | | | | |
| NARP SR, Vellayani | | | | |
| Extension-cum-demonstration of integrated pest management in rice in Kuttanad of Alappuzha district, Kerala | 1 | 21,900 | | 31-7-95 |
| —Dr TG Nalinakumari | | | | |
| ICSSR | | | | |
| College of C & B, Mannuthy | | | | |
| Organisational alteration for development.—A study on the role of Govt & Non Govt organisations for rural development in Kerala | 18 | 37,800 | | 24-9-94 |
| —Dr KA Suresh | | | | |
| ISRO GBP, National Natural Reso. Mgt, Bangalore | | | | |
| KCAE&T, Tavanur | | | | |
| Remote sensing based soil vegetation—atmospheric transfer (SVAT) models for rice eco-system of South India | 3 | 75,000 | | 19-12-95 |
| —Dr Jobi Paul | | | | |
| Kerala Community Irrigation Project | | | | |
| College of Horticulture, Vellanikkara | | | | |
| Analysis of the impact of irrigation in coconut gardens in Thrissur district | 1 | 2,00,000 | | 5-12-95 |
| —Dr PS Geethakutty | | | | |

| 1 | 2 | 3 | 4 |
|---|---|----------|---------|
| Kerala Forest Development Fund | | | |
| College of Forestry, Vellanikkara | | | |
| Clonal propagation of Rosewood through tissue culture —Dr NK Vijayakumar | 3 | 45,000 | 17-8-93 |
| Standardisation of nursery techniques of selected tropical forest tree species —Dr K Gopikumar | 2 | 50,000 | 2-8-93 |
| Viability of <i>Hopea parviflora</i> (Bedd.) seeds with reference to temperature, medium of storage and microencapsulation techniques —K Sudhakara | 2 | 40,000 | 2-12-94 |
| Compilation and publication of checklist of Indian mammals —PO Nameer | 1 | 60,000 | 15-2-96 |
| Effect of habitat destruction on the Avifauna of western ghats—A case study of Peechi—Vazhani wild life sanctuary —PO Nameer | 1 | 99,400 | 26-4-96 |
| MARICO Industries Limited, Bombay, | | | |
| RARS, Pilicode | | | |
| Climate and Coconut —Dr GSLHV Prasada Rao | 5 | 7,82,000 | 1-6-94 |
| Ministry of Health & Family welfare (GOI) | | | |
| AMPRS, Odakkali | | | |
| Central scheme for providing assistance for development and cultivation of medicinal plants —Assoc. Prof. & Head | 1 | 5,00,000 | 27-3-91 |
| Ministry of Water Reso. (GOI) & CADA (GOK) | | | |
| KCAE&T, Tavanur | | | |
| Weed control and moist conservation using LDPE —Dr PV Habeebur rehman | 3 | 2,16,000 | 28-4-95 |

| 1 | 2 | 3 | 4 |
|--|---|----------|----------|
| ARS, Mannuthy | | | |
| Development of mulch-cum-drip and sub surface pad irrigation systems for vegetables —Dr U Jaikumar | 3 | 5,87,000 | 6-5-95 |
| National Horticultural Board | | | |
| College of Horticulture, Vellanikkara | | | |
| Pilot testing of technology of Papaya based projects — KB Sheela | 3 | 3,52,000 | 4-5-94 |
| Transfer of Technology in low cost nursery production and management technique —PK Valsalakumari | 3 | 3,61,000 | 2-7-94 |
| Other Depts. (GOK) | | | |
| College of Forestry, Vellanikkara | | | |
| Habitat utilisation of animals and their parasitic burden with special reference to Elephants in Vazhachal forest Division. —Dr Jacob V Cheeran | 2 | 40,465 | 20-4-94 |
| LRS, Thiruvazhamkundu | | | |
| Establishment of forage and seed production units through effective utilisation of waste lands —P Ramachandran | 5 | 3,36,000 | 20-4-94 |
| Potash Research Institute of India | | | |
| NARP SR, Vellayani | | | |
| Standardisation of plant part as an index of potassium status in banana Musa Nendran — Dr P Padmaja | 3 | 22,600 | 20-8-93 |
| Planning Board, GOK | | | |
| College of C & B, Mannuthy | | | |
| Participatory local initiative in Agricultural production—A case study of vegetable cultivation in Kanjikkuzhy — P Shaheena | 1 | 19,800 | 31-12-96 |

| 1 | 2 | 3 | 4 |
|---|---|----------|---------|
| Rajasthan State Mines & Minerals Ltd. | | | |
| RARS, Pilicode | | | |
| Studies on agronomic efficacy of Rajphos compacted with MAP —Dr C Sundaresan Nair | 2 | 3,83,600 | 27-2-97 |
| Rajasthan State Mines & Minerals Ltd. | | | |
| College of Horticulture, Vellanikkara | | | |
| Root activity studies on rubber using p 32 as a tracer —Dr PA Wahid | 2 | 80,000 | 24-9-93 |
| STEC/STED (GOK) | | | |
| College of Agriculture, Vellayani | | | |
| Evaluation of acidity parameters in wet land soils of Kerala in relation to nutrient availability —Dr Thomas Varghese | 3 | 75,000 | 1-2-92 |
| Post harvest studies on processed products made from mango and pappaya Dr L Prema | 2 | 25,000 | 5-12-95 |
| College of Horticulture, Vellanikkara | | | |
| Bio-ecological studies on the odonata (Dragon flies) with special reference to their predatory potential in the biological control of important rice pests —Dr KI Joseph | 3 | 24,000 | 23-4-92 |
| NARP SR, Vellayani | | | |
| Investigations on the diseases of bamboo seeds in Kerala | 3 | 22,000 | 14-7-87 |
| Investigations on the changes in the physico-chemical properties of coconut garden seeds due to continuous interculture of fodder crops | 2 | 50,000 | 31-8-91 |
| Monitoring of pesticide residues in milk and milk products in Kerala —Dr Nazeema Beevi | 3 | 67,500 | 1-9-92 |

| 1 | 2 | 3 | 4 |
|--|---|----------|----------|
| Utility value of foldable solar dryer at household level/farm level-Standardisation studies -P Mary Ukkru | 1 | 22,000 | 1-12-92 |
| Impact of sustainable farming practices on soil properties and crop productivity -Dr R Gopimony | 3 | 75,000 | 27-7-93 |
| Potential of Bioagents (Bacillus maceran and Bacillus circulans) for the control of root knot nematode in the field -Dr MS Sheela | 2 | 10,000 | 19-5-93 |
| Identity of phytophthora affecting coconut and pepper and their bio control -Dr CK Peethambaran | 1 | 25,000 | 17-9-93 |
| Studies on pesticide residues in meat, body fat, blood and various organs of animals slaughtered for meat purpose -Dr R Vijayan | 3 | 70,000 | 16-10-93 |
| Monitoring of residues of insecticides in vegetables collected from the markets of Kerala -Dr Thomas Biju Mathew | 3 | 73,000 | 6-12-94 |
| Recycling of vegetable garbage by vermiculture biotechnology -P Prabhakumari | 3 | 2,04,600 | 3-5-94 |
| Development of mycoherbicides for the biocontrol of water hyacinth (Eichhornia crassipes (mart) Solms) -Dr A Nazeema | 3 | 75,000 | 28-8-95 |
| Emeritus Scientists Fellowship Compilation of a compendium on crop improvement research in Kerala. -Dr PB Gopinathan | 1 | 30,000 | 27-2-96 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|----------|
| Spices Board (GOI) | | | |
| RARS, Kumarakom | | | |
| Exploiting the genetic variability in <i>Garcinia Cambogia</i> Deer for its rehabilitation and mass production of planting materials —KA Inasi | 5 | 19,59,000 | 5-3-97 |
| USDA/FERRO | | | |
| College of Forestry, Vellanikkara | | | |
| Light utilization and canopy nitrogen use efficiency of component crops in some selected agroforestry systems. —Dr B Mohankumar | 3 | 9,06,800 | 25-8-93 |
| International Soil Ref. & Info. Centre, N' lands, | | | |
| NARP SR, Vellayani | | | |
| Establishment of soil reference, collections for training, extension and research purposes at KAU. | 2 | 3,55,000 | 17-11-92 |
| FACULTY OF AGRICULTURAL ENGINEERING | | | |
| ICAR Co-ordinated | | | |
| KCAE & T, Tavanur | | | |
| AICRP on Farm Implements & Machinery —Dr M Sivaswamy | 5 | 7,12,000 | 1-4-90 |
| AICRP on Energy requirements in Agriculture sector —Jippu Jacob | 5 | 19,03,500 | 22-10-93 |
| ICAR Adhoc | | | |
| Development, testing and introduction of low and medium head, high discharge pumps. —Dr K John Thomas | 3 | 8,27,800 | 1-6-95 |
| Design and development of equipment for threshing, cleaning and grading of black pepper —MV Prince | 2 | 5,20,000 | 20-9-96 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|----------|
| Technology development for decorticating cashewnut —Jippu Jacob | 3 | 11,00,000 | 22-10-96 |
| Kole Land Development Agency, Thrissur: | | | |
| Introducing mechanisation programme for harvesting and threshing in kole lands of Thrissur and Malappuram districts. — Jippu Jacob | 2 | 9,22,000 | 15-6-95 |
| Ministry of Agriculture (GOI) | | | |
| Network project for performance evaluation and optimal utilization of water of SPV pumping system —Dr KP Visalakshy | 2 | 4,82,000 | 2-12-96 |
| CAPART | | | |
| College of Horticulture, Vellanikkara | | | |
| CAPART Scheme—Modification of 'Petty & Para' to improve its efficiency and economy. (Functioning at COH, VKA.) —Dr K John Thomas | 3 | 11,28,000 | 21-10-91 |
| FACULTY OF FISHERIES | | | |
| ICAR Adhoc | | | |
| College of Fisheries, Panangad | | | |
| Developing suitable technology and production of a formulated feed based on clam meat for the larvae and adult of the fresh water prawn <i>Macrobrachium rosenbergii</i> —Dr D Damodharan Nambudiri | 3 | 4,53,420 | 16-10-96 |
| Fisheries Station, Puduveypu | | | |
| Seed resources and production potential of selected carnivorous fishes in the south west coast of India. —Dr MM Jose | 3 | 4,49,000 | 9-2-95 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|---------|
| RARS, Kumarakom | | | |
| Pathology of diseases of fresh water fishes with special reference to epizootic ulcerative syndrome —Dr KG Padmakumar | 3 | 4,69,900 | 9-2-96 |
| RRS, Vyttila | | | |
| Rice-Fish/Prawn components for an integrated farming system for coastal tract of Kerala —Dr NK Sasidharan | 3 | 4,20,000 | 26-3-97 |
| Dept. of Fisheries (GOK) College of Fisheries, Panangad | | | |
| Induced maturation and spawning penaeid prawns for commercial level seed production. —Dr Mohanakumaran Nair | 2 | 3,00,000 | 29-5-92 |
| STEC/STED (GOK) | | | |
| Pesticide induced histopathological changes in selected fresh water fishes of Kuttanad, Kerala —Anna Mary | 2 | 50,000 | 22-2-94 |
| Wasteland Development Board Fisheries Station, Puduveypu | | | |
| Demonstration and Training model for a fishery based farming system in Coastal Wasteland implemented at Fisheries Station Puduveypu —Dr KS Purushan | 3 | 12,49,000 | 23-9-94 |
| FACULTY: VETERINARY & ANIMAL SCIENCES | | | |
| ICAR Co-ordinated | | | |
| College of Veterinary Animal Sciences, Mannuthy | | | |
| AICRP on Poultry —AKK Unni, Poultry | 5 | 69,92,000 | 1-4-90 |
| Field progeny testing project at Mannuthy —Dr Sosamma Iype, Cattle/Buffaloe | 5 | 22,82,000 | 1-1-94 |

| 1 | 2 | 3 | 4 |
|--|---|-----------|----------|
| Network programme on micronutrients in Animal Nutrition and production Implementation —CT Thomas, Cattle/Buffaloe | 5 | 31,32,000 | 4-11-94 |
| Network programme on embryo transfer technology in animal production —Dr SP Suresh Nair, Ani. Reproduction | 3 | 30,00,000 | 25-5-95 |
| 'BF, Mannuthy AICRP on Pigs —TV Viswanathan, Swine/Elephant/Horse | 5 | 49,14,000 | 14-7-93 |
| CAR | | | |
| College of Vet. Ani. Sci., Mannuthy Centre of advanced study in veterinary pathology —Dr A Rajan, Ani. Diseases | 3 | 41,25,000 | 25-1-95 |
| CAR Adhoc | | | |
| Conservation of germplasm of Vechur Cattle of the coastal area and dwarf cattle of the high range of Kerala —Dr Sosamma Iype, Cattle/Buffaloe | 3 | 25,52,000 | 1-1-96 |
| Effect of Tannin rich feeds on bypass protein availability —CT Thomas, Cattle/Buffaloe | 3 | 7,06,550 | 18-8-94 |
| Development of Cell culture duck plague vaccine for simultaneous vaccination with duck pasteurellosis —Dr S Sulochana, Ani. Diseases | 3 | 9,18,940 | 1-7-95 |
| Aetiopathology and diagnosis of bovine mastitis —Dr A Rajan, Ani. Diseases | 3 | 10,87,000 | 21-1-97 |
| Fungal Mastitis of animals with special reference to yeast mastitis —Dr PC James, Ani. Diseases | 3 | 3,27,140 | 13-10-95 |

| 1 | 2 | 3 | 4 |
|---|---|-----------|----------|
| Genetic improvement of Malabari Cross Bred Goats through Progeny testing and selection —Dr Stephen Mathew, Goat/Rabbit | 3 | 17,72,000 | 6-5-96 |
| An evaluation on chromosomal damage to the cattle of radioactive belt areas of Kerala —Dr KV Reghunandan, Cattle/Buffaloe | 3 | 6,30,000 | 30-10-96 |
| Investigation on Urinary Calculogenic and Calculytic Agents in Ruminant and Monogastric Animals —Dr CS James, Cattle/Buffaloe | 3 | 8,30,000 | 26-12-96 |
| Centre for Adv. Studies in Plty. Sci., Mannuthy Characterisation and evaluation of native ducks in Kerala —Dr A Jalaludeen, Poultry | 2 | 6,08,000 | 4-10-95 |
| Coconut Development Board College of Vety. Ani. Sc. Mannuthy Development and standardisation of Dairy foods incorporating coconut —Dr PI Geevarghese, Ani. Prod. Tech. | 2 | 5,00,000 | 1-8-94 |
| Dept. of Agriculture, Thiruvananthapuram Survey to evaluate SNF and fat content of cows milk in Kerala. —Dr P Prasad, Cattle/Buffaloe | 1 | 4,00,000 | 14-6-96 |
| Department of Biotechnology (GOI) Molecular characterisation of duck plague virus. —Dr S Sulochana, Ani. Diseases | 3 | 23,59,000 | 19-10-95 |
| AICRP on Poultry, Mannuthy Technology transfer-cum-demonstration on chick broilers. —Dr K Narayankutty, Poultry | 3 | 18,27,000 | 1-10-96 |

| 1 | 2 | 3 | 4 |
|---|---|----------|----------|
| Dept. of Science and Technology (GOI) | | | |
| PBF, Mannuthy | | | |
| Formulation of low cost animal feeds using feed stuffs available in rural areas of Kerala. | 3 | 1,79,000 | 20-11-96 |
| —Dr KM Syam Mohan, Cattle/Buffaloe | | | |
| AICRP on Poultry, Mannuthy | | | |
| Introduction of cage system in egg production in the homesteads. | 3 | 8,14,000 | 27-3-95 |
| —Dr AKK Unni, Poultry | | | |
| Preliminary investigation on reproductive pathology in two strains of white leghorn with emphasis on endocrine system. | 1 | 1,80,600 | 18-11-95 |
| —Dr N Vijayan, Poultry | | | |
| Dept. of Animal Husbandary (GOK) | | | |
| College of Veterinary Animal Science, Mannuthy | | | |
| Investigations on mortality of Ducks in Kuttanad, Kerala. | 3 | 1,50,000 | 6-5-93 |
| —Dr A Rajan, Ani. Diseases | | | |
| Ascitic syndrome in poultry | 2 | 20,000 | 19-2-94 |
| —Dr KV Valsala, Ani. Diseases | | | |
| Schistosomiasis in cattle in buffaloes in Thrissur and Palakkad districts. | 2 | 70,000 | 26-3-94 |
| —Dr K Rajamohanan, Ani. Diseases | | | |
| A comparative study of the diagnostic techniques to evolve a simple rapid method for the diagnosis of rabies in domestic animals. | 1 | 30,000 | 6-1-94 |
| —Dr KM Ramachandran, Ani. Diseases | | | |
| Etiology, diagnosis and control of Mastitis in Crossbred Cattle. | 3 | 80,000 | 1-2-94 |
| —Dr S Sulochana, Ani. Diseases | | | |
| Kid mortality | 3 | 40,000 | 4-4-94 |
| —Dr S Sulochana, Ani. Diseases | | | |

| | 1 | 2 | 3 | 4 |
|---|---|---------------------|---------------------|---------|
| Infertility in Crossbred cows with special reference to endometritis and remedial measures. —Dr K Madhavan, Ani. Reproduction | | 2 | 40,000 | 16-9-95 |
| Mortality among kids with special reference to gastrointestinal nematodes. —Dr K Devada, Ani Diseases | | 1 | 50,000 | 1-10-95 |
| Coccidiosis in Poultry —Dr Lucy Sabu, Ani. Diseases | | 2 | 50,000 | 16-9-95 |
| Indian Council of Medical Research Immunological response to selected mycotoxins in ducks and quails with special reference to immunomodulation —Dr A Rajan, Ani. Diseases | | 3 | 12,00,000 | 6-1-97 |
| Ministry of Agriculture (GOI) RARS, Pilicode Strengthening of pig breeding farm. —ADR, Swine/Elephant/Horse | | 1 | 14,35,000 | 26-4-96 |
| NABARD College of Veterinary & Animal Science, Mannuthy Bioconversion technology to augment the nutrient utilization of agro-industrial by-products for ruminants. —Dr CS James, Cattle/Buffaloe | | 3 | 9,26,780 | 1-12-95 |
| Conversion of biodegradable aquatic animal (prawn) waste as livestock feed. —Dr Maggie, D Menachery, Cattle/Buffaloe | | 3 | 10,71,375 | 11-4-96 |
| STEC/STED (GOK) Assessment of the mortality pattern in livestock and poultry —A Rajan, Ani. Diseases | | 2 | 25,000 | 1-1-95 |
| An ex-post-facto study on goat keeping among the scheduled caste weaker section. —Dr PJ Rajkamal, Extension | | 1 | 25,000 | 3-12-96 |
| | | Total outlay | 20,44,30,991 | |

**TABULATED STATEMENT OF RESEARCH SCHEMES OPERATED
BY DIRECTORATE OF RESEARCH AS ON 31/3/97**

| | Faculty | | | | Total |
|--------------------------|----------------|-----|------|------|-------|
| | Agrl. Engg. | Ag. | Fish | Vety | |
| Co-ordinated (75% - 25%) | 28 | 2 | 0 | 5 | 35 |
| ,, (100%) | 1 | 0 | 0 | 1 | 2 |
| Ad-hoc | 47 | 3 | 4 | 9 | 63 |
| NARP | 0 | 0 | 0 | 0 | 0 |
| External aided (100%) | 81 | 2 | 3 | 22 | 108 |
| External aided (75%-25%) | 1 | 1 | 0 | 0 | 2 |
| Total | 158 | 8 | 7 | 37 | 210 |

Appendix VII

WORKS EXECUTED DURING THE YEAR 1996-'97

| Name of work | Total expenditure upto 31.3.97 | Progress as on 31.3.97 |
|---|-----------------------------------|------------------------------|
| Construction of compound wall along the western boundary of College of Agriculture, Vellayani | 2,41,711 | Work completed |
| Repairs and black topping of main road at College of Agriculture, Vellayani | 4.47,664 | ,, |
| Construction of Academic Block at KCAET, Tavanur | 60,00,000 | ,, |
| Construction of approach road to Academic Block at KCAET, Tavanur | 1,85,715 | ,, |
| Construction of Trainees Hostel at KCAET, Tavanur | 28,65,957 | ,, |
| Construction of type III quarters, Tavanur | 19,62,936 | Work nearing completion |
| Construction of type V quarters, Tavanur | 8,24,546 | Work completed |
| Const. of low cost buildings at KCAET, Tavanur | 4,15,450 | ,, |

| 1 | 2 | 3 |
|--|-------------|------------------|
| Const. of buffalo shed at ULF, Mannuthy | 5,18,313 | Work completed |
| Construction of carp-cum-prawn hatchery at Fisheries College, Panangad | 8,83,522 | .. |
| Construction of compound wall (balance portion) at Fisheries College, Panangad | 9,83,277 | .. |
| Construction of clinical complex at Mannuthy | 15,53,907 | Work in progress |
| Construction of a waiting shed and modification to inpatient ward at Veterinary Hospital, Mannuthy | 3,06,607.80 | Work completed |
| Construction of office building for goat farm at Mannuthy | 2,74,916 | .. |
| Construction of a building for ICAR network project on embryo transfer at Mannuthy | 6,66,521.20 | .. |
| Providing black topping to the roads at Mannuthy | 5,98,240 | .. |
| Construction of compound wall around the Meat Technology Unit at Mannuthy | 1,91,983 | .. |
| Construction of compound wall along the northern boundary at ARS, Chalakudy | 3,32,434 | .. |
| Construction of compound wall along the South-West boundary of 'A' Block at CRS, Balaramapuram | 3,73,990 | .. |

| 1 | 2 | 3 |
|--|----------|------------------|
| Construction of compound wall along the side of internal pathway at CSRC, Karamana | 2,29,239 | Work completed |
| Construction of field lab at PRS, Vazhakulam | 3,26,774 | Work in progress |
| Construction of compound wall along the north-east and south boundary at FSRS, Kottarakkara | 3,82,775 | Work completed |
| Construction of compound wall for KVK Block at RARS, Ambalavayal | 1,14,864 | .. |
| Construction of compound wall in Block No. I, II and VI at RARS, Nileswar | 6,94,086 | .. |
| Construction of compound wall along the north boundary of 'A' Block at RARS, Kayamkulam | 2,54,593 | .. |
| Construction of irrigation channel at SRS, Thiruvalla | 1,95,290 | .. |
| Construction of compound wall along western boundary at SRS, Thiruvalla | 2,27,216 | .. |
| Construction of feed store and lab building at CBF, Thumburmuzhi | 2,30,000 | .. |
| Construction of approach road to Office building at CBF,Thumburmuzhi | 3,06,671 | .. |
| Construction of compound wall at the western boundary at Main Campus, Vellanikkara | 5,14,568 | .. |
| Providing additional height to the compound wall along the northern side border adjacent to Cocoa and Pepper Nursery, Vellanikkara | 5,87,396 | .. |
| Construction of Ladies Hostel, Panangad | 90 lakhs | .. |

| 1. | 2 | 3 |
|--|------------|------------------|
| Construction of administrative building and hostel annexe for boys, Panangad | 1.62 lakhs | Work completed |
| Construction of hostels and academic building at Nileswar | 6.57 lakhs | Work in progress |
| Construction of library building at Main Campus, Vellanikkara | 2.75 lakhs | Work completed |
| Construction of Co-operation and Banking building at Main campus, Vellanikkara | 1.67 lakhs | Work in progress |
| Total plan expenditure for works for the year 96-97 spend by the Directorate of Physical Plant is Rs. 2,80,00,000. | | |