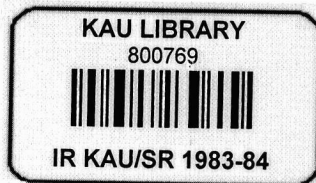


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S U M M A R Y R E P O R T 1983-1984  
(1-4-1983 to 31-12-1983)



KERALA AGRICULTURAL UNIVERSITY  
VELLANIKKARA - 680 654  
TRICHUR - KERALA

SUMMARY REPORT

1983-84

(1.4.83 to 31.12.83)

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Compilation and Editing  
by the  
MONITORING & EVALUATION CELL  
Directorate of Research

## Chapter I: GENERAL ADMINISTRATION

### 1.01: Vice Chancellor

Mr T Madhava Menon, IAS., continued as the Vice-Chancellor during the period.

The Vice Chancellor participated in the following Workshops/Seminars/Conventions during the period:

- Convention of Agricultural Universities, held at Himachal Pradesh Krishi Viswa Vidyalaya, Palampur, on 30-5-1983;
- Combined Annual Workshop of the AICARP and the AICRP on LTFE held at the KAU Hqrs. on 26-5-83 (Inaugural session);
- Meeting to discuss the drought situations in Kerala and possible measures to combat the ill-effects of drought held in the Chief Secretary's room, Govt. Secretariat, Trivandrum, on 3-6-83;
- Seminar on 'Development of Backward classes in Kerala' held at the Institute of Management in Govt., Trivandrum during 22-25, June, 1983;
- Seminar on Economics of Animal Production in Kerala, held at the College of Vety. & Ani. Sciences, Mannuthy, on 6-6-83;
- Seventh Annual Convention of the Ind. Society of Agril. Chemists and Symposium on Fertilizer management in acid soils, College of Agriculture, Vellayani on 27-28, Nov.83;
- Seminar on Tribal Welfare Law at the University of Cochin, on 15th December, 1983;
- Seminar on stagnation in Agricultural Production in Kerala, held at the College of Agriculture, Vellayani, on 1-3, July, 1983;
- Seventh Annual Conference and Symposium of the Ind. Society for Veterinary Surgery held at the College of Veterinary & Animal Sciences, Mannuthy, on 19-12-83.

: 2 :

Registrar, Comptroller, Director of Physical Plant, Director of Research, Deans, Associate Dean

Mr E Damodara Marar continued as Registrar up to 4.8.83. Mr Thomas C George, IAS took charge as Registrar on 4.8.83 and continued during the rest of the period.

Mr NM Abdul Kadir continued as the Comptroller.

Mr KR Krishna Pillai continued as the Director of Physical Plant.

Dr PC Sivaraman Nair continued as the Director of Research.

Dr N Sadanandan, Dr MJ Sebastian and Dr M Krishnan Nair continued as the Deans of the Agriculture, Fisheries, Veterinary and Animal Science Faculties respectively.

Dr PK Gopalakrishnan continued as the Associate Dean, College of Horticulture.

Deputy Registrars

The post of Assistant Registrar (Admn) was upgraded during the period and Mr PM Krishnankutty Nair assumed charge of this post on 15.7.1983. Mr CK Ramakrishnan continued as the Deputy Registrar (Academic).

1.02 : GENERAL COUNCIL

The General Council met twice on 30.7.83 (XXIX meeting) and 30.11.83 (XXX). In the XXIX meeting, the General Council approved the creation of a new Department of Home Science at the College of Agriculture, Vellayani.

Necessary statute amendment proposals on this were also accepted in this meeting. The following sub-committees of the General Council were reconstituted with effect from 30.7.1983 as follows:

Accounts Committee

Prof KJ Kurien(Chairman), Mr J Mathew, Mr KA Latheef, Dr ~~M~~ Aravindakshan and Mr S Subramanian Potti(Members)

Assurance Committee

Mr O Luckose, Ex MLA(Chairman)  
Smt Vijaya D Nair, Mr KP Chelly, Mr KK Surendran and Mr KA Kurien Master(Members)

The Assurance Committee met thrice, on 27.10.83, 9.11.83 and 20.12.83

Statute Committee

Prof Alexander Zachariahs(Chairman) Dr A Ramakrishnan, Mr KK Damodaran, Mr.K Sivasankara Pillai, Mr Raghavan Puzhakkadavil MLA, Mr CG Rajendran Mr C Krishnan Nair, Mr Therampil Ramakrishnan MLA (Members) and Registrar(Convenor).

In the XXX meeting of the General Council, nine teaching posts were created additionally in the Faculty of Fisheries.

### 1.03: SPECIAL CONVOCATION OF THE UNIVERSITY

A special convocation of the University was held on 18.8.83 to confer the degree of Doctor of Science(honoris causa) to Mr N Kaleeswaran, IAS, former Vice-Chancellor, for his valuable services to the cause of agriculture in the State and to the Kerala Agricultural University in particular. His Excellency the Governor of Kerala conferred the Degree.

1.04: EXECUTIVE COMMITTEE

The Executive Committee continued with the following members.

Vice-Chancellor - Chairman  
Spl.Secretary(Finance); Agricultural Production  
Commissioner; Secretary to Govt(Development Dept),  
Dr RM Acharya, Deputy Director General(AS) ICAR;  
Mr Therambil Ramakrishnan, MLA; Mr Raghavan  
Pozhakkadavil, MLA; Prof Alexander Zachariah;  
Mr AV Hamza; Dr N Sadanandan; Mr K Sivasankara Pillai  
and the Registrar, Kerala Agricultural University  
(Convenor).

The Committee met eight times on 14.7.83,  
19.7.83, 18.8.83, 5.9.83, 11.10.83, 2-3 November 83,  
17.11.83 and 29.11.83.

The Executive Committee in its 131st meeting  
held on 5.9.83 has decided to reconstitute the  
following sub-committees of the Executive Committee.

1. Finance Committee:

Vice-Chancellor(Chairman)  
Special Secretary(Finance); Agricultural Production  
Commissioner; Mr Therambil Ramakrishnan, MLA(Members)  
and the Comptroller, KAU(Convenor)

2. Establishment Committee

Prof Alexander Zachariah(Chairman)  
Mr Raghavan Pozhakkadavil MLA; Mr Therambil  
Ramakrishnan, MLA; Mr AV Hamza; Dr N Sadanandan;  
Mr K Sivasankara Pillai and the Registrar(Convenor)

3. Student Welfare Committee

Mr Raghavan Pozhakkadavil, MLA; Mr Therambil  
Ramakrishnan, MLA; Prof Alexander Zachariah;  
Mr AV Hamza and Mr K Sivasankara Pillai  
(Member-Convenor)

4. Planning & Development Committee

Vice-Chancellor (Chairman)

Special Secretary (Agriculture) & Agricultural Production Commissioner; Mr Raghavan Pozhakkadavil, MLA; Mr Therambil Ramakrishnan, MLA; Mr K Sivasankara Pillai (Member-Convenor) and Prof. Alexander Zachariahs

5. Sports Board

Vice-Chancellor (Chairman)

Chairman of the Students' Welfare Committee; Deans of Faculties & Associate Dean; Registrar; One professor from each College; Mr K Sivasankara Pillai; Secretary, Athletic Association of Colleges/Inst.; Student member in GC; Director IAT Tavanur; Junior Asst. Professor (Phy. Education) and Deputy Director of Students' Welfare

6. Works Committee

Mr AV Hamza; Mr Raghavan Pozhakkadavil, MLA; Dean, Faculty of Agriculture and Director of Physical Plant (Member-Convenor)

7. Research Review Sub-Committee

Vice-Chancellor (Chairman)

Mr Raghavan Pozhakkadavil, MLA; Mr Therambil Ramakrishnan, MLA; Prof Alexander Zachariahs, Mr AV Hamza and Director of Research (Member-Convenor)

1.05 : ACADEMIC COUNCIL

During the report period, the Academic Council met twice on 30.4.83 and 8.9.83. In the meeting held on 30.4.83, it was inter alia decided to conduct entrance examinations for the UG programmes of the Kerala Agricultural University, except for the B Sc (C&B) programme, along with the examination for other professional courses.

The Central Coffee Research Institute, Balehonnur, Karnataka was approved as a centre for PG research programme of the University.

In the meeting held on 8.9.83 it was inter alia decided to reserve seats for Bachelor's degree programmes only to the ethnic natives of Union territories. The proposal for establishing a Centre for Excellence for Pathology in the College of Veterinary & Animal Sciences was approved in this meeting.

It was also decided to start PhD programme in the Departments of Animal Breeding & Genetics and Dairy Sciences in the Faculty of Veterinary & Animal Sciences.

1.06 : BOARD OF STUDIES

The XVII meeting of the Board of Studies in Agriculture was held at Vellayani on 18.7.1983. The term of the Board of Studies in the faculties of Agriculture, Veterinary & Animal Sciences and Fisheries has expired on 15.12.1983. Steps were taken to re-constitute these Boards.

1.07 : PG COMMITTEE

The PG Committee met once during the period on 29.7.1983.

1.08 : OFFICERS MEETINGS

The University Officers met six times on 14.2.83, 26.4.83, 28.6.83, 17.8.83, 4.10.83 and 23.12.83.

1.09 : STATUTE AMENDEMENTS/FIRST STATUTES ISSUES DURING THE PERIOD

The details are furnished in Table I.

Table I: Details of Statute amendment/first statutes

Sl. No.	Amendments/First Statutes	Date of issue of notification with number of notification
1	2	3
1.	SRO No.710/83 - First Statutes prescribing method of appointment, qualifications, salary and allowances and age limit for the posts of Proof Reader, Copy Holder, Computer and Helper	11.4.1983
2.	Amendment to Statute issued vide Govt. Notification No. GO MS 34/82/AD dt. 15.1.82 under Section 49(6) of the Act 12 changing the designation of Conductor as "Bus Attendant"	Notification No. GA/28620/A3/82 dt. 24.4.1983
3.	Amendments to Statute No. 4213/P5/72/AD dt. 2.8.'82 under Section 49(6) of the Act 12	Notification No. GA/390/A3/83 dt. 4.4.83
4.	Amendments to Statute SRO No. 264/72 dt. 1.6.'72 (Professor, Assoc. Professors and Assistant Professors)	Notification No. GA/7498/A3/83 dt. 29.4.83





1.09 b : TEACHING POSTS CREATED DURING THE PERIOD 1-4-83  
TO 31-12-1983

A total of 47 teaching posts were created during the period (Table II)

Table II: Teaching posts created during the period

Name of College/ Institution	Dean/ Assoc. Dean/ Assoc. Directors/ Spl. Offi- cers	Profe- ssors	Assoc. Profe- ssors	Asst. Profe- ssors	Junior Asst. Profe- ssors	Total
1	2	3	4	5	6	7
College of Agriculture, Vellayani	1*	1	1	5	5	13
College of Hort.	-	-	-	1	4	5
C&B Programme	-	1	1	6	-	8
AICRP on Agro Forestry Thiruvazhamkunnu	-	-	1	3	4	8
ICAR Scheme for National Seed Project, Pattambi	-	-	-	1	-	1
NARP - Water Management Central Region	-	-	-	4	-	4
High Range region Ambalavayal	1**	-	1	4	-	6
Pampadumpara	-	-	-	2	-	2
<b>Total</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>26</b>	<b>13</b>	<b>47</b>

\* Special Officer, Environmental Pollution  
\*\* Associate Director

Note: The General Council has approved the creation of the following posts in the College of Vety. & Ani. Sciences & College of Fisheries. Administrative orders on these are awaited.

1	2	3	4	5	6	7
College of Fisheries	-	1	-	6	3	10
College of Vety. & Animal Sciences	-	1	1	-	-	2

Chapter 2 : EDUCATION

During the period PhD programmes in the disciplines of Dairy Science and also in the Animal Breeding and Genetics were started in the Faculty of Veterinary & Animal Sciences.

The number of students admitted during the period for B Sc (Ag), BVSc & AH, BFSc, B Sc (C&B) were 143, 68, 27 and 32 respectively.

The admission for the PG programmes were 62 for M Sc (Ag), five for M Sc (Ag Engg), four for M Sc (Stat), 10 for M Sc (Hort), eight for PhD (Agri), 14 for MVSc and four for PhD Veterinary. The total number of students on rolls of the Colleges and IAT Tavanur as on 31.12.83 was 1545 (Table III).

Table III : Number of students on rolls as on 31.12.83 in the Constituent Colleges & IAT Tavanur

	UG	PG	PG, Diploma	Diploma	Total
College of Vety. & Animal Sciences, Mannuthy	371	40	..	..	411
College of Agri-culture, Vellayani	284	94	..	..	378
College of Horti-culture, Vellanikkara.	405	63	..	..	468
College of Fisheries, Panangad, Cochin	109	..	..	..	109
IAT Tavanur	..	..	..	179	179
<b>Total</b>	<b>1169</b>	<b>197</b>	<b>..</b>	<b>179</b>	<b>1545</b>

The students completing the various UG/PG Diploma programmes during the period were as follows:

BVSc & AH	..	46	
B Sc Ag	..	99	(53 from College of Agri. & 46 from College of Hort.)
B Sc Hort	..	28	
M Sc Hort	..	3	
M Sc Ag	..	39	(26 from College of Agri. & 13 from College of Hort.)
M W Sc	..	13	
Ph D Vet.	..	1	
Ph D Agri	..	1	(From College of Agri.)
DA Sci.	..	46	(From IAT Tavanur)
PG Diploma in Vet.Sci.	..	21	
PG Diploma in NRP	..	1	(From College of Hort.)
PG Diploma in Soil Science	..	3	(From College of Agri.)
PG Diploma in Plant Protection	..	2	(From College of Agri.)
		----	
Total	..	303	
		====	

2.a : COLLEGE OF VETERINARY & ANIMAL SCIENCES, MANNUTHY

2.a.01 : Dr M Krishnan Nair continued as the Dean.

Dr K Prabhakaran Nair assumed charge as Professor and Head of the Department of Animal Reproduction. Dr PS Pushkaran assumed charge as Professor and Head, Department of Extension. Dr Jacob V Cheeran was appointed as Senior Scientist in the Department of Pharmacology. Dr C Abraham Varkey was appointed as Associate Professor in the Department of Surgery and Dr E Nanu as Associate Professor in the Department of Veterinary Public Health. Dr K Baby was appointed as Associate Professor in the Department of Preventive Medicine. Dr MV Sukumaran was appointed as the Associate Professor in the Department of Dairy Science.

2.a.02 : NEW SCHEMES STARTED

An ICAR ad hoc scheme on karyological studies in cattle of Kerala State with special reference to infertility and sterility was started during the period with the aim of studying the association of chromosomal abnormalities with gonadal hypoplasia, cryptorchidism, poor freezability, cystic ovary, anoestrus, suboestrus and congenital abnormalities. The project is fully financed by ICAR with a total financial outlay of Rs.3,15,000.00.

A scheme on control of wild animals by pharmacological means using projectile syringes was also started during the period. The scheme is financed by the University.

2.a.03 : FACULTY IMPROVEMENT PROGRAMME

Dr KR Harshan was deputed to Haryana Agricultural Varsity, Hissar for the Ph D programme. Dr KV Raghunandan & Dr B Nandakumaran joined the PhD programme in the Department of Animal Breeding and Genetics in the College.

Dr CK Thomas, Professor (Farms) was deputed for carrying out Post-Doctoral Research in the Federal Republic of Germany. Dr R Sabarinathan Nair, Associate Professor rejoined duty on completion of the Ph D programme in the Department of Poultry Science. Dr KN Muraleedharan Nair, Assoc. Professor on completion of the PhD programme at Haryana Agril. Varsity, Hissar joined the Department of Surgery. Dr AM Jalaludin, Associate Professor completed the PhD programme at the Punjab Agricultural Varsity, Ludhiana and had joined the Department of Surgery. Dr R Padmanabha Iyer, who was on deputation for PhD studies, rejoined the Department of Veterinary Public Health, <sup>Dr P Prabhakaran</sup> on return from Bristol (U.K.) after completing the M Sc programme *also rejoined this Dept.*

2.a.04 : SEMINARS/WORKSHOPS CONDUCTED

A three day All India symposium and conference of the Indian Society for Veterinary Surgery was held at the College of Veterinary & Animal Sciences, Mannuthy from 12-21 December, 1983. One hundred and forty four delegates representing 15 States of the country attended the Symposium. There were 11 technical sessions. Dr PO George, Professor of Surgery, was elected as President of the Indian Society for Veterinary Surgery.

2.a.05 : PARTICIPATION OF ACADEMIC STAFF IN SEMINARS/WORKSHOPS

Name of Scientists	Details of Symposium	Venue and date
Dr G Mukundan, Professor	International Congress of Genetics.	New Delhi, 12-21 Dec., 83
Dr MV Sukumaran, Assoc. Professor	Seminar on diversification of City Dairy operations in Southern States.	Bangalore, 8-9 Dec., 83
Dr M Krishnan Nair, Dean	National Health Research Workers' Conference.	Muktheswar, 22-25 May, 83
Dr A Rajan, Professor	-do-	-do-

Name of Scientists	Details of Symposium	Venue & Date
Dr Jacob V Cheeran, Senior Scientist	Conference of the Southern Task Force on Asian Elephants - Specialists group meeting.	Top slip, Tamil Nadu, 13th May, 83
Dr A Ramakrishnan, Professor	All India Poultry Science Symposium	Madras, 15-17 Dec., 83
Dr AKK Unni, Senior Scientist	All India Poultry Science Symposium.	Madras, 15-17 Dec., 83
Dr K Rajankutty, Asst. Professor	Summer Institute on Instrumentation and Analytical methods in Veterinary Clinical Bio Chemistry	Vet. College, Mathura, 8-30 June, 83
Dr KC George, Professor	Seventh Agricultural Statistician's Conference	Bangalore, 26-29 Aug., 83
Dr CA Rajagopalaraja, Assoc. Professor	Orientation on Advanced techniques in karyo typing.	Madras Vety. College, 6-14 June, 83

2.a.06 : ACADEMIC PROGRAMME

The student strength of the College as on 31.12.83 was 411 as shown in Table IV. Among these, 65 were from <sup>five</sup> ~~seven~~ foreign countries, namely, Tanzania, Sudan, Zambia, Malaysia and Zimbabwe.

Table IV : Student strength in the College of  
Veterinary & Animal Sciences,  
Mannuthy as on 31.12.1983

UG/PG	Class	Boys	Girls	Total
UG	Pre-Prof.	4	..	4
	I Year BVSc & AH	54	13	67
	II "	52	16	68
	III "	51	30	81
	IV "	57	15	72
	Final year"	65	14	79
	Total (UG)	283	88	371
PG	MVSc I year	13	1	14
	Final year	5	..	5
	MSc Ag.Stat.	6	6	12
	PhD Juniors	4	..	4
	PhD Seniors	4	1	5
	Total (PG)	32	8	40
	Grand Total	315	96	411

Forty two students obtained their BVSc & AH degree and 13 students took their MVSc degree during the report period.

2.a.07 : STUDY TOUR

The students of the III year BVSc & AH batch were taken on a tour to places in South India of importance to the profession. The IV BVSc and AH students were taken for an all India tour.



2.a.08 : SCHOLARSHIPS AND OTHER FINANCIAL ASSISTANCE TO STUDENTS

The recipients of fellowships/scholarships during the period were 208 as follows:

ICAR Senior Fellowship	: 2
ICAR Junior Fellowship	: 4
KAU Senior Fellowship	: 8
KAU Junior Fellowship	: 17
ICAR Merit-cum-means scholarship	: 15
National merit scholarship awarded through Director of Collegiate Education	: 18
National Foundation for Teachers Welfare Scholarship	: 4
Government of India National loan scholarship	: 4
Scholarships for service personnel	: 1
Labour Welfare Fund Board scholarship	: 2
Educational Concession to OBC	: 4
Educational Concession to KPCR	: 48
Commonwealth Fund for Technical Co-operation scholarship	: 2
Backward class welfare Department Scholarship - Govt. of Andhra Pradesh	: 1
Educational concession to students of Jammu and Kashmir	: 5
Loan by Jammu & Kashmir Bank	: 42
Educational concession to Bhutanese students	: 2
Educational concession to Lakshadweep students	: 19
Educational concession to Meghalaya students	: 5
Fund Board Scholarship to students of Pondicherry	: 1
Govt. of India - General scholarship for foreign students	
Stipend to students from Goa	: 4

2.a.09 : HOSTEL

Two hundred and forty one boys (199 in the undergraduate and 42 in the postgraduate Hostel) and 93 girls were provided accommodation in the College hostels during the year.

Dr G Reghunathan Nair, Dr PA Ommer and Dr CR Girija continued as the Asst. Wardens of the Undergraduate, Postgraduate and Ladies hostel respectively.

2.a.10 : COLLEGE LIBRARY

The number of books including bound volumes of Journals in the library as on 31.12.83 was 16,909. A total of 703 books were added during the period. The number of journals subscribed as on 31.12.83 was 201.

2.a.11 : STUDENT'S UNION

An inter-class drama competition was conducted in July, 83 and the 1st BVSc & AH class bagged the overall championship. Under the auspices of the Planning Forum, three quiz competitions and three seminars were held. Dr PJ Philip Memorial All Kerala Inter Collegiate Quiz Competition was conducted in October, 83. The Hobby Centre arranged a chess tournament and an exhibition of coins from different countries of the world.

2.b : COLLEGE OF AGRICULTURE, VELLAYANI

2.b.01 : Dr N Sadanandan continued as the head of the Institution and the Dean of the Faculty of Agriculture.

2.b.02 : CHANGES IN HEADS OF DEPARTMENTS

Sri P Sethumadhavan, Professor of Horticulture who was continuing in service beyond his date of superannuation was deemed to have been superannuated on 31.3.1983 and was relieved with effect from 12.12.1983. Mr MK Mammen, Associate Professor (NARP) (SR) was placed in charge of the Department.

Dr A Muraleedharan Thampi, Associate Professor was appointed as Professor of Agri.Extension and he assumed charge on 19.11.1983.

Dr KC George, Professor of Agrl.Statistics was posted on working arrangement to the College of Veterinary & Animal Sciences, Mannuthy with effect from 12.8.83 and Smt P Saraswathy, Associate Professor, NARP (SR) was given charge of the Department.

Dr AN Rema Devi, Associate Professor in Engineering was posted to this College in July, 1983 by shifting the post which she held at the College of Horticulture. She was later posted as Professor of Agrl.Engineering against the post of Professor of Agrl.Engineering shifted from the College of Horticulture and she joined on 3.12.1983.

2.b.03 : CHANGES IN ACADEMIC PERSONNEL

Dr S Seshadrinath, Associate Professor, Plant Physiology was transferred and posted in this college. He assumed charge on 9.5.1983.

Smt P Saraswathy, Associate Professor of Statistics was transferred to NARP (SR) with effect from 1.6.1983.

Smt T Sreekumari Amma, Assistant Professor was transferred and posted to the AICRP on forage crops and she reported for duty on 12.5.1983.

Sri PA Korah, Assistant Professor was relieved with effect from the 30th June, 1983 to take up a foreign assignment.

Sri CK Prabhakaran Thampi, Assistant Professor was transferred and posted to the AICRP on Forage Crops and he assumed charge on 8.6.1983.

Dr AN Rema Devi, Associate Professor was transferred and posted to this College and she assumed charge on 16.7.1983.

Dr KV Mammen, Associate Professor, College of Horticulture and Smt Suma Kuruvilla, Assistant Professor were mutually transferred in 8/83.

Sri P Yageen Thomas, was transferred and posted to this Institution as Assistant Professor of Statistics on 6.8.1983.

Dr James Mathew, Associate Professor was transferred and posted to NARP northern region, Pilicode during 9/83.

Dr Sasikumar Nair, Associate Professor (Microbiology) reported for duty vice Dr James Mathew transferred.

Sri Jippu Jacob, Assistant Professor (Engineering) was transferred to College of Horticulture and he was relieved on 1.9.1983.

Sri M Subramonia Iyer rejoined duty on 9.9.1983 as Assistant Professor (Soil Sciences).

Dr John Kurien, Associate Professor (Nematology) was provisionally appointed as Professor (Plant Protection) in the Farm Advisory Service for a short period, i.e., from 5.9.1983 to 30.11.1983.

Sri G Sreekantan Nair, Associate Professor (Hort.) rejoined after leave on 1.10.1983. Sri PD Vijayagopal, Associate Professor was posted to the Department of Agrl. Botany with effect from 1.10.1983.

Sri P Yageen Thomas, Assistant Professor (Stat) and Sri M Subramonia Iyer, Assistant Professor (Soil Science) were transferred and posted to Cropping System Research Centre, Karamana with effect from 10.10.1983.

Dr A Muraleedharan Thampi, Associate Professor was appointed as Professor of Extension and assumed charge on 19.11.1983.

Dr S Pushkala selected and appointed as Associate Professor, Soil Science assumed charge on 21.11.1983.

Sri K Babukutty, Assistant Professor was relieved on his appointment as Associate Professor, RARS, Pilicode on 24.11.'83.

Sri KK Raveendran Nair, Assistant Professor was selected and appointed as Associate Professor (Nematology) joined duty on 21.11.1983.

Dr K Sasidharan Pillai was relieved on his appointment as Associate Professor at Cardamom Research Station, Pampadumpara with effect from 21.11.1983 and Smt K Suma Kuruvilla reported for duty on transfer from the College of Horticulture in his place.

Dr Susamma Mathai, Assistant Professor was selected and appointed as Associate Professor at MSCRP Madakkathara Centre and was relieved on 23.11.1983. Sri P Reghunath, Assistant Professor, ND Scheme, Kottarakkara was appointed as substitute and he joined duty on 26.11.1983.

Sri K Jayaraman, Assistant Professor (Stat.) was transferred and posted to this College. He joined duty on 29.11.83.

Sri Mohammed Hussain, Assistant Professor (Agrl.Extension) was relieved with effect from 21.11.1983 on his appointment as Associate Professor at KVK Ambalavayal and Sri VE Padmanabhan, Assistant Professor joined duty as his substitute on 21.11.'83.

Dr B Babu, Assistant Professor (Agrl.Extension) was relieved on his appointment as Associate Professor in the NARP, Kumarakom on 24.11.1983.

Smt G Sobhana, appointed as Assistant Professor (Extn.) joined duty on 26.11.83 vice Dr B Babu transferred.

Sri CK Prabhakaran Thampi, Assistant Professor on appointment as Associate Professor, KVK Pattambi was relieved on 28.11.1983. Smt M Meerabai joined duty as Assistant Professor in the Forage Scheme.

Smt Lekha Sreekantan joined duty as Assistant Professor of Agronomy in the existing vacancy on 28.11.1983.

Smt Sabina George who was appointed as Assistant Professor (Hort.) NARP, Kumarakom was relieved on 26.11.1983.

Sri Sabu Kuruvilla on appointment as Assistant Professor (Animal Husbandry in Farm Advisory Service was relieved on 11.11.1983.

Smt P Prabhakumari on appointment as Assistant Professor (Soil Science & Agrl.Chemistry), RRS Vyttila was relieved on 24.11.1983.

2.b.04 : NEW DEPARTMENTS/SECTIONS/PROJECTS/SCHEMES

A Department of Home Science was established in the College of Agriculture, Vellayani as per order No.20514/80/Plg.Cell dated 5.10.'83, up to 31.3.1985 at an estimated cost of Rs.5,42,950/-. The main objectives are to develop resident instruction leading to Diploma in Food Science and Nutrition, M Sc in Food and Nutrition and also M Sc in Home Science Extension.

A research project "Ecological studies and utilisation of the grassland flora available in the Western Ghats" was sanctioned for implementation in the College at an estimated cost of Rs.1,07,800/- for a period of three years up to 84-85.

The ICAR Ad hoc Scheme "Post Harvest Technology of Perishable foods" was sanctioned for a period of 3 years from 1.4.1983 in the Department of Food Science and Nutrition.

2.b.05 : ACADEMIC POSTS SANCTIONED

One post of Special Officer, Environmental Pollution on Rs.1450-2050 was created in this College in 10/83 and Dr Thomas Varghese was transferred and posted in this new post.

One post of Professor, Home Science and two posts of Junior Assistant Professor were created for the Department of Home Science.

The following posts were created for AICRP on Forage Crops for the VI Plan period.

Assoc.Professor (Agronomy/Plant Breeding)	1
Asst.Professor (Agronomy)	1
" " (Plant Breeding)	1
Junior Asst.Professor (Agronomy)	1
" " " (Plant Breeding)	1

2.b.06 : POSITIONS OF ACADEMIC STAFF SHIFTED

One post of Associate Professor, Agrl. Engineering, College of Horticulture and one post of Assistant Professor, Agrl.Engineering of this College were mutually shifted during 7/83.

One post of Associate Professor, Nematology was shifted back to the College from the College of Horticulture during 9/83.

One post of Professor, Agrl.Engineering was shifted to this college from the College of Horticulture during 12/83.

2.b.07 : FACULTY IMPROVEMENT PROGRAMME

None of the academic staff members ~~was~~ deputed for undergoing PG programmes.

Sri PD Vijayagopal, Smt Alice Abraham and Smt G Padmakumari, Associate Professors were granted study leave/Leave for study purpose for undergoing the Ph D programme as full time students during the period.

Smt V Usha, Junior Assistant Professor and Sri M Subramonia Iyer, Assistant Professor rejoined duty on expiry of leave granted for higher studies.

Dr Sasikumar Nair, Associate Professor rejoined duty after post doctoral training in France.

Sri G Sreekantan Nair, Associate Professor (Hort.) rejoined duty on expiry of leave for undergoing Ph D course.

2.b.08 : SEMINARS/SYMPOSIA/WORKSHOPS/TRAININGS CONDUCTED

The 16th Annual Convention of the Indian Society of Agrl.Chemists was held at the College of Agriculture, Vellayani on 27.11.1983 and 28.11.1983. The convention was inaugurated by Sri T Madhava Menon, Vice-Chancellor, KAU and the connected symposia by Mr TN Jaggi, Chairman, Pyrites Phosphates and Chemicals, a Govt. of India undertaking. Altogether 100 delegates including two from Bangladesh had participated in the Seminar and Symposium. The theme of the symposium was "Fertilizer management in acid soils".

A Seminar on Stagnation in Agricultural Production with special reference to paddy was held at the College on 1-3 July, 1983. This was organised by the KAU in collaboration with the State Planning Board.



The following training programmes were conducted during the period.

- \* Subject matter inservice training in rural home science for extension officers (Women Welfare) of the development department.
- \* Pre-service training for extension personnel of Municipalities of Alleppey District on Nutrition Education Programme.
- \* Short training in Plant protection to the officers of Department of Agriculture.
- \* Training in Agrl.Extension for Foresters of Social Forestry.
- \* T & W training for the Demonstrators of the Agriculture Department.

2.b.09 : DEPUTATION OF ACADEMIC STAFF FOR PARTICIPATION IN SUMMER INSTITUTES/SYMPOSIA/WORKSHOPS

Dr VG Nair, Professor of Plant Breeding attended the following National and State Level Workshops and Seminars:

State Level seminar on pulses and oilseeds at Malampuzha on 16.4.1983.

National Seminar on "Breeding for resistance to pests and diseases" at the School of Genetics, TNAU, Coimbatore.

State level seminar on "Stagnation of rice production in Kerala" organised by the KAU and State Planning Board at Vellayani from 1.7.1983 to 3.7.1983.

Third regional workshop of the NARP(SR) at Vellayani.

Orientation workshop on the conduct of T & V monthly workshops organised by the World Bank at Mannuthy from 25-29th July, 1983.

Dr R Gopimony, Associate Professor attended the following seminars:

National Seminar on "Breeding for resistance to pests and diseases" at TNAU, Coimbatore from 25 to 27.5.1983.

International Genetic Congress at New Delhi from 12.12.1983 to 17.12.1983.

Dr AN Rema Devi, Professor of Agrl. Engineering participated in the National Seminar on Drip Irrigation held at TNAU, Coimbatore during April 1983 and presented a paper on "Soil moisture distribution pattern resulting from Drip irrigation using saline water".

Smt NK Vimalakumari, Assistant Professor attended the Seminar on "Nutrition and Development - Focus on Women" held at the Lady Irvin College, New Delhi from 4th-7th October, 1983 and presented a paper.

Dr MC Nair, Professor of Plant Pathology and Dr S Bhavani Devi, Assistant Professor (PP) attended the symposia in connection with the Silver Jubilee Celebration of Regional Research Laboratory, CSIR, Jammu.

Dr N Mohan Das, Professor of Entomology and Dr K John Kurien, Associate Professor (Nematology) attended the Seminar on "Stagnation in Agrl. Production in Kerala" with special reference to paddy held from 1.7.'83 to 3.7.'83 in College of Agriculture, Vellayani.

Dr A Visalakshi, Associate Professor of Entomology, Dr George Koshy, Associate Professor of Entomology, Dr Sasidharan Pillai, Sri KK Raveendran Nair and Sri C Nandakumar, Assistant Professor (Entomology) attended a seminar on "Pesticides and Environment" held at TNAU, Coimbatore from 3.8.'83 to 6.8.'83.

Sri O Abdul Rehman Kunju, Associate Professor of Entomology and Dr B Babu, Assistant Professor (Extension) attended the Summer Institute on "Extension Research Methodology and Agrl. Development" at the UAS Bangalore from 26.6.'83 to 22.7.'83.

## 2.b.10 : ACADEMIC PROGRAMMES

The total number of students on rolls in the College as on 31.12.'83 was 378, the strength for UG programme being 284 and that for the PG programme being 94. Among the UG students, three were from Bhutan while among the PG students there were two from Nepal. The student distribution for the various courses are furnished in Table V.

Table V : Student strength in the College of Agriculture as on 31.12.1983

Courses	Year	Men	Women	Total
UG	I Year B Sc (Ag)	33	31	64
	II Year "	38	21	59
	III Year "	32	51	83
	IV Year "	35	43	78
	Total UG	138	146	284
PG	I M Sc (Ag)	25	20	45
	II M Sc (Ag)	19	15	34
	I M Sc (Hort)	..	2	2
	I Year Ph D	4	3	7
	II Year "	3	2	5
	III Year "	1	..	1
	Total PG	52	42	94
	Grand Total	190	188	378

During the period 53 students have completed the B Sc Ag programme. Twenty six students have completed the M Sc Ag programme. One Ph D student took the degree during the period. The recipients of the scholarships at the UG level were 104 and at the PG level were 53. Two students undergoing the Ph D programme were recipients of fellowships.

2.b.11 : STUDY TOURS

The third B Sc (Ag) students (1982-83) went on an All India study tour from 12.8.1983 to 5.9.1983 covering important places and Institutions of Agricultural importance in South and North India.

The final year B Sc (Ag) students were taken on an All Kerala Study<sup>tour</sup> and they visited the agricultural research stations of the Kerala Agricultural University from Pilicode in the North to RRS Kayamkulam in the South, besides visiting central institutes like CPCRI, Kasaragod and Kayamkulam and Rubber Research Institute at Kottayam.

2.b.12 : VILLAGE ADOPTION PROGRAMME AND LAB TO LAND

A training programme in Bee keeping was organised for the farmers of Muttakkad and Kalliyoor villages (adopted) under the lab to land programme.

Under the Lab to Land Programme, a Veterinary Hospital was inaugurated in the College of Agriculture. The hospital is intended to provide veterinary services to farmers of adopted villages, besides giving training to students.

Under the Lab to Land Programme, the following articles were supplied to farmers of Muttakkad and Kalliyoor villages.

Bee-hives with accessories	.. 100 Nos.
GI water pot	.. 50 "
Coconut seedlings	.. 100 "

2.b.13 : T & V PROGRAMME

Six pre-workshop co-ordination meetings to finalise the programme for each monthly workshop and the calendar of operations were conducted on the 5th and 19th August, 15th September, 12th October, 9th November and 12th December, 1983.

The monthly T & V workshops for Trivandrum District were conducted on 11/12.8.1983, 25/26.8.1983, 22/23.9.1983, 20/21.10.1983, 17/18.11.1983 and on 22/23.12.1983.

2.b.14 : COLLEGE HOSTELS

Sri PD Vijayagopal, Associate Professor continued as the Assistant Warden, PG Hostel up to the end of August, 1983 and Sri P Chandrasekharan, Assoc. Professor took over from 1.10.1983. Sri SP Pillai and Smt K Saradamma continued as Assistant Wardens of the Men's and Women's Hostel respectively. The total number of students residing the hostels was 217, the number in the PG Hostel, Men's Hostel and Women's Hostel being 27, 90 and 100 respectively.

2.b.15 : COLLEGE LIBRARY

During the period under report, 39 books were newly added making the total number of books as on 31.12.1983 to 19,815. The total number of journals subscribed as on 31.12.1983 was 91 inclusive of 58 foreign journals.

2.b.16 : VISITORS

The visitors to the College during the period include Dr A Subramonian, Professor of Agronomy, Agricultural College & Research Institute, Madurai (14.6.1983), Dr SN Desai, Agronomist, MPKV, Rahuri, Maharashtra (4.8.1983), Dr A Chamy, Professor & Head, Agricultural Research Station, Bhuvanisar (16.9.1983), Dr JV Goud, Professor & Head, Department of Agricultural Botany, College of Agriculture, Dharwad (14.9.1983), Dr SR Sree Rangaswamy, Director, School of Genetics, TNAU, Coimbatore (14.10.1983) and Dr Paroda, Additional Director of Research, Haryana Agricultural University, Hissar (17.10.1983).

2.b.17 : EXTRA CURRICULAR AND CO-CURRICULAR ACTIVITIES  
Athletics and Games

Inter classes annual atheletic meet was held on 6th and 7th April.

The College teams participated in the inter-collegiate tournament in basket ball, volley ball, ball badminton, shuttle badminton, cricket, foot ball and hockey. The College team won ball badminton, shuttle badminton, table tennis, foot ball and hockey championships.

2.b.18 : UNIVERSITY UNION ACTIVITIES

The University Union of the Kerala Agricultural University for the year 1982-83 was inaugurated in November, 1983 in this campus. Students from constituent colleges and IAT Tavanur participated in the inaugural function and have staged variety entertainment programmes. The inauguration of the Union was done by Sri Vaikom Chandrasekharan Nair, a well known Novelist.

The valedictory function of the students Union, College of Agriculture was conducted during December, 1983. Dr NA Karim, Pro-Vice Chancellor of Kerala University delivered the valedictory address and Dr NS Money, former Dean of this Institution also spoke on the occasion.

2.b.19 : IMPORTANT MEETINGS HELD

Monthly workshops on T & V Programme were held and impact points passed on to extension personnel of the Department of Agriculture, from time to time.

AMI Trivandrum Unit has conducted its meeting in this Institute in December, 1983 and Dr Sasikumar Nair, Associate Professor of Microbiology gave a talk on "Transfer of DNA" being the resume of his post-doctoral work in France.

A meeting of the Heads of Departments with Sri A Balasubramoniam, Senior Scientist, ICAR - NARP to discuss the progress of research programmes under the NARP (SR) <sup>was held</sup> at Vellayani on 30.11.1983.

Twenty third meeting of the Faculty Research Committee (Agriculture) was held at Vellayani on 29.12.1983 and 30.12.1983 and discussed and finalised research projects to be taken up.

A meeting was convened by the Director of Extension education to discuss the VII plan extension education programme proposals on 31.12.1983 in which all Heads of Departments participated.

2.b.20 : PUBLICATIONS AND REPORTS

Twenty scientific articles were published by the academic staff in various scientific journals during the period under report.

Twenty research papers were presented in Seminars and Symposia held in India.

2.b.21 : TRIBAL AREA RESEARCH CENTRE (TARC)

Dr RS Aiyer, Professor of Soil Science and Agrl. Chemistry took charge as the Co-ordinator for this project.

The programme of development envisaged for the TARC and designed to function at Amboori tribal settlements has been got approved by the Commissioner for Economic Development, Government of Kerala.

Under the TARC, comprehensive research oriented programmes have been formulated and are being implemented. Projects include introduction of crops, performance studies of different crop varieties and standardization of management

practices on the basis of field trials in the beneficiary farmers fields. A detailed survey of the tribal households of the entire eight settlements selected is in progress. This is expected to provide a detailed resource inventory of the area including the socio-economic, agricultural and nutritional status assessment.

A detailed soil survey of four of the settlements have been got done by the Soil Survey Department (Agriculture). Based on the survey cropping pattern maps have been finalised.



2.c : COLLEGE OF HORTICULTURE, VELLANIKKARA

2.c.01 : Dr PK Gopalakrishnan continued as the Associate Dean, during the period.

Dr CA Jose, Special Officer continued to be in charge of the C & B programme.

Dr MG Ram Das Menon, Insect Taxonomist was appointed as consultant in Insect Taxonomy for a further period of one year from 1.6.1983.

2.c.02 : CHANGES IN THE HEADS OF DEPARTMENTS/SCHEMES/PROJECTS

Dr KV Peter took over charge as Head, Department of Olericulture on 4.6.1983.

Sri VK Damodaran, Professor and Head of the Department of Processing Technology, retired on 30.11.'83 and Dr KV Peter, Professor and Head of the Department of Olericulture was put in additional charge of this post after the former's retirement.

Dr Abi Cheeran continued as the Professor & Head, Department of Plant Pathology till 6.7.'83 and Dr KI Wilson took over this post on 7.7.'83.

Dr K Mukundan, Associate Professor, Department of Agricultural Economics was put in charge of the Agri.Extension Department, consequent on the appointment of Mr KP Ramachandran Nair as Assoc. Professor in the Communication Centre.

2.c.03 : POSITION OF ACADEMIC STAFF SHIFTED DURING THE PERIOD

The post of Professor of Agricultural Engineering was shifted to College of Agriculture, Vellayani and one post from Institute of Agricultural Technology, Tavanur shifted to College of Horticulture (Order No.GA/C1/26840/83 dated 3.12.1983).

One post of Associate Professor, Nematology was shifted to College of Agriculture, Vellayani (Order No.GA/13004/83/C dated 24.9.'83).

One post of Associate Professor, Agricultural Engineering was shifted to College of Agriculture, Vellayani and the post of Assistant Professor (Agricultural Engineering) in the College of Agriculture, Vellayani was shifted to College of Horticulture, Vellanikkara along with the individuals holding the post (Order No.GA/9427/C1/83 dated 13.7.1983).

2.c.04 : DETAILS OF SCHEMES WHICH WERE TERMINATED DURING THE PERIOD

The ICAR ad hoc scheme, on Survey collection and Evaluation of the germplasm of Jack fruit was terminated on 30.6.1983.

The Kerala Agricultural Development Project, the All India Co-ordinated Project for Improvement of Tuber Crops, Scheme for the Intensification of Research on Sugarcane in Kerala, All India Co-ordinated Research Project on Biological Control of Crop Pests and Weeds, Pepper Research Scheme and the Coconut Root Wilt Disease Project continued to be in operation in the College.

2.c.05 : FACULTY IMPROVEMENT PROGRAMMES

Dr KV Peter completed the Post-Doctoral Research Programme at Vegetable Laboratory, USDA and he rejoined as Professor and Head of the Department of Olericulture on 4.6.1983.

Smt KA Mariam, Assistant Professor, Department of Soil Science and Agricultural Chemistry was granted study leave for a period of two years to undergo Ph D course at IARI, New Delhi.

Dr J Thomas, Assistant Professor, Department of Agronomy was granted leave without allowance for a period of one year with effect from 22.9.'83 for pursuing Post Doctoral Research at Bristol (UK) under the TC/TD programme.

Leave for study purpose was ganted to Smt P Santhakumari, Smt T Radha and Sri EV Nybe, Assistant Professors in Horticulture for undergoing the Ph D programmes.

2.c.06 : SEMINARS/SYMPOSIA/WORKSHOPS/TRAINING CONDUCTED

For the benefit of the railway staff a short term course in tree planting was conducted.

A short-term training in Agrometeorological observations was imparted to Farm Assistants. Another short-term training in Agrometeorology was given to Junior Assistant Professors and Assistant Professors of the University.

2.c.07 : DEPUTATION OF ACADEMIC STAFF FOR PARTICIPATION IN THE SUMMER INSTITUTES/SYMPOSIA/WORKSHOPS

Dr M Aravindakshan, attended National Symposium on Advances of Tree Science held at Forest College and Research Institute, Dehra Dun, during 8-14 April, 83.

Sri TR Gopalakrishnan, attended the VII Workshop on Vegetable under AICVIP at the Haryana Agricultural University, Hissar.

Dr TS Venkitesan attended the V All India Nematology Workshop and Nematology Symposium held at HPAU, Solan.

Sri TP George attended National Seminar on Drip Irrigation held at Tamil Nadu Agricultural University, Coimbatore.

Dr P Balakrishna Pillai attended the first Indian Agrometeorological Congress, 1983 held at Waltair, AP. He also attended Regional Workshop on Scientific Methods of collection and Documentation of Hydrometeorological data held at the CWRDM, Calicut.

Mr AVR Kesava Rao, attended the International Conference on Bio meteorology held at New Delhi during 26-30 Dec., 1983.

Dr V Radhakrishnan, Dr K Mukundan and Mr Selvin attended the Workshop on Animal Production Economics held at Mannuthy.

Dr Abicheeran attended 1st International Standing Committee meeting on Yellow Leaf Disease on Arecanut held at Bangalore.

Dr KM Rajan, Dr V Radhakrishnan and ER Narayanan Nair attended the seminar on "Stagnation in rice production" at the College of Agriculture, Vellayani.

Dr Sosamma Jacob, Assistant Professor attended the National Seminar on Pesticides and Environment held at TNAU, Coimbatore during 4-6 August, 1983.

Dr CA Jose, Special Officer, C & B Programme attended the third seminar on Role of Financial Institutions in Rural Entrepreneurship and Development held at Patna during 1-4 Dec., 1983. Mr M Mohan Das, Associate Professor, C&B Programme attended a seminar on Technical Education and Rural Development at SR Polytechnic, Valappad on 1.12.'83.

#### 2.c.08 : ACADEMIC PROGRAMME

The total number of UG students on rolls as on 31.12.1983 was 405 as shown in Table , the distribution being 263 for B Sc Ag, 33 for B Sc Hort and 109 for the C & B programme.

For the various PG programmes there were 63 students in all, 20 for M Sc (Hort), 36 for M Sc (Ag), two for Ph D (Hort), five for Ph D (Agri) and nine for PG diploma in Land Water

Resources & Management & Natural Rubber Production.

During the period 28 students completed the B Sc Hort programme and 46 had completed the B Sc Ag programme. Three students had completed the M Sc Hort programme and 13 students completed the M Sc Ag programmes during the period.

The data in the number of students on rolls for the various academic programmes are furnished in Tables VI & VII.

There were six students from Sudan and one from Kenya undergoing the B Sc Ag programme.

Table VI : Number of students on rolls in the College as on 31.12.1983 (UG programme)

Courses	Class	Men	Women	Total
B Sc (Ag)	I Year (1983 admission)	42	33	75
	II Year (1982 admission)	44	25	69
	III Year (1981 admission)	52	28	80
	IV Year (1980 admission)	21	18	39
Total B Sc (Ag)		159	104	263
B Sc(Hort)	I Year (1983 admn.)	..	..	..
	II Year (1982 admn.)	..	..	..
	III Year (1981 admn.)	..	..	..
	IV Year (1980 admn.)	8	25	33
Total B Sc (Hort)		8	25	33
B Sc (C&B)	I Year (1983 admission)	19	13	32
	II Year (1982 admission)	12	14	26
	III Year (1981 admission)	31	20	51
Total		62	47	109
Grand Total UG		229	176	405

Table VII : Number of students on rolls as on 31.12.1983  
(PG programme)

Course	Class	Men	Women	Total
M Sc (Hort)	I Year (1983 admission)	..	8	.8
	II Year (1982 admission)	7	5	12
Total M Sc (Hort)		7	13	20
M Sc (Ag)	I Year (1983 admission)	13	9	22
	II Year (1982 admission)	5	9	14
Total M Sc (Ag)		18	18	36
Ph D (Hort)	I Year (1983 admission)	..	..	..
	II Year (1982 admission)	..	..	..
	III Year (1981 admission)	1	1	2
Total (Ph D Hort)		1	1	2
Ph D (Agri)	I Year (1983 admission)	1	..	1
	II Year (1982 admission)	2	1	3
	III Year (1981 admission)	1	..	1
Total Ph D (Agri)		4	1	5
Post graduate diploma in Land Water Resources and Management		..	..	..
Post graduate diploma in Natural Rubber Production		..	..	..
Grand Total (PG)		30	33	63

2.c.09 : SCHOLARSHIPS AND OTHER FINANCIAL ASSISTANCE TO STUDENTS

A total of 292 students were recipients of various scholarships/financial assistance as shown in the following table.

Name of Scholarships	Recipients		
	Men	Women	Total
1. National merit scholarship	10	18	28
2. National loan Scholarship	4	1	5
3. ICAR Merit-cum-Means Scholarship	7	11	18
4. University merit scholarship	12	14	26
5. KAU Fellowship	16	20	36
6. ICAR Junior Fellowship	17	12	29
7. ICAR Senior Fellowship	6	1	7
8. Stipend to Andaman and Nicobar Islands	1	3	4
9. Stipend to Tripura nominees	15	..	15
10. Stipend to Nepalese students	2	2	4
11. Stipend to Lakshadweep students	2	4	6
12. Stipend to Kenya students	1	..	1
13. Scholarship to students by P & T students	..	2	2
14. Stipend to nominees of Andhra Pradesh	3	1	4
15. Stipend to nominees of Meghalaya	1	..	1
16. Stipend to nominees of Arunachal Pradesh	1	..	1
17. Educational Concession to SC/ST students	23	24	47
18. Educational Concession under KPCR to SEBC & FC students	36	14	50
19. Educational concession to Christian Converts	5	3	8
	162	130	292

2.c.10 : STUDY TOURS

The III B Sc (Ag)/(Hort) students were taken for an All India Study Tour during 7.9.'83 to 26.9.'83. The II B Sc (Ag) students went for the Kerala tour during 5.9.'83 to 15.9.'83. The off-campus practicals for the II B Sc (C&B) students were held from 27.9.'83 to 1.10.'83 and again from 14.11.'83 to 19.11.'83.

2.c.11 : HOSTELS

The number of inmates of the Men's Hostel was 192 and there were 169 residents in the Ladies Hostel. Mr S Ramachandran Nair continued as Assistant Warden for the Men's Hostel and Smt KC Marykutty continued as the Asst.Warden for the Ladies Hostel.

2.c.12 : COLLEGE LIBRARY

The total number of books as on 31.12.'83 was 18349, the new title accessions during the period being 849 numbers. The number of Indian Journals subscribed was 135 as on 31.12.1983. Back volumes (431 Nos.) were procured during the period.

2.c.13 : VISITORS

The visitors to the College during the period include Dr RS Mallik, Project Coordinator (Floriculture); Dr Saraji, Senior Scientist from Australia; Dr RS Bhute, Advisor, SRS, Thumba; Dr AR Seshadri, Dean and Joint Director, IARI; Dr Shanmughavelu, Professor of Horticulture, Tamil Nadu Agricultural University and Mr MS Ram, Vice-Chairman, Planning Board.



2.c.14 : PUBLICATIONS.

Geth, GW, Peter KV and Webb RE (1983). Bacterial Wilt (Pseudomonas solanacearum) resistance in pepper and egg plant lines. Phytopathology, 73 : 808.

Sreedharan.S. (1983). Problems of commercial banks in providing credit to the sea food exporters. A critical analysis. Sea Food Export Journal, 15 (7).

Sreedharan S (1983). An introduction to export prices of Cardamom, Cardamom, 15(7)

Sreedharan S (1983). An investigation of the Sick Units in the sea food export section - Causes and remedies - Sea Food Export Journal, 15 (7)

2. d. COLLEGE OF FISHERIES, PANANGAD

2.d.01 : GENERAL

Dr MJ Sebastian continued as the Dean. He served as a member of the ICAR Society and Cochin University Senate. He also served as a member of the Advisory Committee of the Centre of Advanced Studies in Mariculture, CMFRI, Cochin.

The College office was shifted to the Panangad Campus on 12-10-1983.

The following new posts were sanctioned for creation under the faculty by the General Council at its meeting held on 30-11-1983.

1. Professor (Fishery Biology) - 1 No.
2. Assistant Professor (Fishery Biology) - 1 No.
3. " " (Fishery Processing) 2 Nos.
4. " " (Fishery Engg.) - 1 No.
5. " " (Fish Pathology) - 1 No.
6. " " (Fishing Technology) - 1 No.
7. Jr. Assistant Professor (Statistics) - 1 No.
8. " " " (Statistics) - 1 No.
9. " " " (Chemistry) - 1 No.

The post of Associate Professor (Aquaculture) at the College and the post of Associate Professor (Botany) at Fisheries Station, Puduveyppu were mutually shifted on 2-12-1983. One post each of Assistant Professor and Junior Assistant Professor (Aquaculture) coming under the research scheme "Prawn cultivation in Pukkali Fields" were shifted from Vyttila to the Fisheries Station, Puduveyppu in December, 1983.

2.d.02 : NEW APPOINTMENTS

The following new appointments and transfers were made during the period.

Shri Cyriac Mathen, Professor and Head of the Department (Fish Processing) returned to his parent

department on 26-8-1983, on the expiry of his deputation period. Shri Philip K Kurien, Administrative Officer was relieved on the A.N. of 5-8-1983 on transfer to Regional Agricultural Research Station, Kumarakom and Shri KG Balakrishna Pillai joined as Administrative Officer on the F.N. of 3-9-1983.

Dr PM Mathew, Associate Professor (Aquaculture), Rice Research Station, Vyttila, joined the College on 5-11-1983 as Professor of Fisheries Research.

Shri KS Purushan, Junior Assistant Professor (Aquaculture) joined as Associate Professor (Aquaculture) on 5-11-1983 and was transferred to Regional Agricultural Research Station, Kumarakom on 1-12-1983.

Dr K Jayasree Vadhyar, Assistant Professor (Brackishwater Fish Farming) joined as Associate Professor (Aquaculture) on 1-12-1983 and was transferred to Fisheries Station, Puduveyppu on 2-12-1983.

Dr MV Mohan joined the College as Junior Assistant Professor (Aquaculture) on 22-11-1983.

Dr B Madhusoodana Kurup joined the College as Junior Assistant Professor (Ichthyology) on 7-11-1983.

Shri Syed Ismail Koya, M.S., joined as Assistant Professor (Fish Breeding) on 7-11-1983.

Shri KM George, Associate Professor (Botany) joined the College on 8-12-1983 on being transferred from the Fisheries Station, Puduveyppu.

Shri MM Jose, joined as Assistant Professor (Aquaculture) at Fisheries Station, Puduveyppu on 22-11-1983.

Smt Sosamma Cherian, Junior Assistant Professor (Biochemistry) was relieved from the College on 23-11-1983 to join as Assistant Professor (Biochemistry) as Regional Agricultural Research Station, Kumarakom.

Shri Philip Sabu, Junior Assistant Professor (Commerce) was relieved from the College on 29-11-1983 to join as Assistant Professor (Commerce) at College of Horticulture, Vellanikkara.

2.d.03 : FACULTY IMPROVEMENT PROGRAMME

Miss Elizabeth Joseph, Junior Assistant Professor, who was granted study leave for 3 years with effect from 15-10-1981 for undergoing Ph D course, continued to be on leave during the period.

Shri PM Sherief, Assistant Professor (Biochemistry) who was deputed for 10 months from 1-9-1982 to carry out research work on "the chemistry of fish gonadotropic hormones" at Danish Institute of Protein Chemistry, Horsholm, Denmark, under the Danish Government Scholarship had returned to the College on completion of the deputation period.

Shri DD Namboodiri, Associate Professor (Fish processing) who was deputed for 2 months' training in USSR under the Indo-Soviet Cultural programme from 14-3-1983, returned to the College on completion of the deputation period.

Mr TM Sankaran, Associate Professor was deputed to undergo the National Training Course on Fish Stock Assessment at the CMFRI, Cochin, conducted jointly by the FAO and Danish International Development Agency and the ICAR

Dr Susheela Jose, Assistant Professor (Fish culture) and Dr Jayasree Vadhyar, Assistant Professor (Brackishwater Fish Farming) were deputed to attend the one month Summer Institute on "Hatchery Production of Prawn Seed and Culture of Marine Prawns", conducted by Central Marine Fisheries Research Institute, Cochin at Narakkal from 18-4-1983 onwards.

Dr R Shylajakumari, Assistant Professor, participated in the workshop on "Invertebrate Endocrinology" organised by Marathwade University and Centre for Advanced Studies, CMFRI, at Cochin from 18th to 24th October, 1983.

2.d.04 : ACADEMIC PROGRAMME

A total of 109 students were on rolls of the College as on 31-12-1983 as shown in the Table VIII.

Table VIII: No of students on rolls in the College of Fisheries as on 31-12-83

Course/Class	Men	Women	Total	No. of foreign students
I year BFSc.	23	4	27	Nil
II year BFSc.	19	11	30	1 (Sri Lanka)
III year BFSc.	16	9	25	Nil
IV year BFSc.	19	8	27	Nil
Total	77	32	109	1

2.d.05 : SCHOLARSHIPS AND AWARDS TO STUDENTS

A total of 62 students were recipients of various fellowships. The details are as follows:

Name of scholarship/award	No. of recipients
1. Educational concession under Kumara Pillai Commission Report.	25
2. Educational concession to SC/ST/Christian converts (SC-6 and Christian convert-1).	7
3. Scholarship to Fishermen students (Fisheries Scholarship)	15
4. National Merit Scholarship	7
5. KAU Merit Scholarship	6
6. Educational concession from Lakshadweep Government.	1
7. Educational concession from Manipur Government.	1
Total	62

2.d.06 : STUDY TOURS

The 1981 batch of B.F.Sc. students and the students of the previous batches who could not attend the earlier tours were taken for a study and specimen collection tour to the east coast during the period 15-5-1983 to 22-5-1983. During the tour, they were taken to various places of fisheries importance like the Neendakara and Vizhinjam harbours, Mussel Fishery Unit at Kovalam, Central Marine Fisheries Research Institute Centre and State Fisheries Department at Vizhinjam, College of Fisheries, Tamil Nadu Agricultural University and C.M.F.R.I. Station at Tuticorin, CMFRI research centre at Mandapam, Cape Comerin and Cursidi and Rameswaram islands.

2.d.07 : NATIONAL SERVICE SCHEME

A morbidity and fertility survey organised by the Department of Health Services, Government of Kerala, and to be conducted by the NSS volunteers of this College was inaugurated by the then Health Minister of Kerala, Shri KGR Kartha in August, 1983. Eight NSS volunteers of this College were sent to undergo a training in 'non-formal education', organized by KAU at Mannuthy on 19th and 20th of November, 1983.

2.d.08 : LAB-TO-LAND PROGRAMME

Shri PA Rajappan, leader of the 25 selected farm families, participated in the youth leadership programme conducted at Communication Centre, Mannuthy, on 14th and 15th September, 1983. 3,000 Nos. of fish fingerlings were supplied to the selected families during the report period.

Planning Forum:

As on 31-12-1983 the Planning Forum of the College of Fisheries had a strength of 113 members. Two of its members, Shri Manojkumar, B and Shri Anil-Kumar, S represented the College in the Philip Memorial All Kerala Quiz Competition held at College

of Veterinary and Animal Sciences, Mannuthy, on 9-11-1983. The Planning Forum donated books worth Rs.268.25 to the College library. Shri SN Rao, Chairman, Marine Products Export Development Authority formally inaugurated the Planning Forum on 15-12-1983.

A special lecture by Advocate Shri S Iswara Iyer of Ernakulam High Court on 13-12-1983 marked the celebration of Human Rights Declaration Day (10th December) at the College.

2.d.09 : HOSTELS

As the construction of the College Hostel was not completed, the boys were accommodated in different rented buildings in the City. The Dean functioned as the Warden and Dr MC George, Assistant Professor and Shri NN Raman, Junior Assistant Professor served as the Assistant Warden and Resident Tutor, respectively. The girls were accommodated in approved hostels like the YMCA and the Athurasramam Working Women's Hostel. As on 31-12-1983, there were 48 boys and 22 girls in these hostels, the total number being 70.

2.d.10 : COLLEGE LIBRARY

A total of 285 books and 176 back volumes of journals were purchased during the period. As on 31-12-1983, the library had 5,45<sup>0</sup> books and was subscribing to 52 journals.

2.d.11 : VISITORS

The following distinguished persons visited the College during the report period.

<u>Name</u>	<u>Address</u>	<u>Date</u>
Dr N Krishna Pillai	Emeritus Scientist, Dept. of Aquatic Biology & Fisheries, Kerala University.	8-6-1983

Shri GN Mitra	Chairman, Mid-term Appraisal Committee for All India Co-ordinated Research Projects on Fisheries, ICAR.	7-7-1983
Dr YR Tripathi	Member -do-	7-7-1983
Shri Apurba Ghosh	Project Co-ordinator, All India Co-ordinated Research Project on Brackishwater Fish Farming, ICAR.	7-7-1983
Capt.KCVK Raja	NSS Youth Officer, Govt. of India.	27-7-1983
Dr PSBR James	Asst. Director General (Fisheries), ICAR.	23-9-1983
Shri Xavier Arakkal	Member of Parliament	26-10-1983
Dr Maharaja Singh	Deputy Director General(Education), ICAR.	20-10-1983
Dr Panduranga Rao	Director, Central Institute of Fisheries Technology.	12-12-1983
Shri SN Rao	Chairman, Marine Products Export Development Authority.	15-12-1983
Dr Jim Chacko	Assistant Professor of Research, University of Idaho, USA.	19-12-1983

#### Students Union Activities:

Shri S Ratnakumar, IVth B.F.Sc. student of the College was elected as General Secretary of Kerala Agricultural University Students Union. Students of the College participated in the inaugural function of KAU Students Union held at Agricultural College, Vellayani on 22-10-1983 and presented some cultural items at the variety entertainments programme. The 95th birthday of Sir CV Raman was celebrated in the College on 7-11-1983. Dr CP Menon, Professor of Physics, Cochin University spoke on the occasion. Fisheries College Annual 'Matsya 1982' was released on 14-11-1983 by the eminent artist Shri CN Karunakaran. Shri CP Narayanan former Executive Committee member, of Kerala Agricultural University addressed the function.



Inter-class arts competition was held at the College on 13th and 14th December 1983. The Students Union was formally inaugurated by Shri SN Rao, Chairman, Marine Products Export Development Authority on 15-12-1983. Shri KL Mohana-Varma, eminent writer, inaugurated the College Arts Club on the same day.

Sports activities:

The college hockey team participated in the inter-collegiate hockey tournaments held at Vellayani in December, 1983. Shri Dilip Sathyanath, I B.F.Sc. student, represented the University in the inter-university football tournament held at Calicut in October, 1983. Miss Daisy C Kappen, II B.F.Sc. student, represented the University in the inter-university women volley ball tournament held at Madras in November, 1983.

2.e : INSTITUTE OF AGRICULTURAL TECHNOLOGY, TAVANUR

2.e.01 : Mr K Karunakaran continued as the Director during the period. Mr P Ahmed, Assistant Professor (Agri Extn.) joined duty on 25.4.'83. Mr SM Shahul Hameed, Assistant Professor (Agronomy), NARP, was transferred to the ND Scheme, Kottarakkara. Mr E Soman, Junior Asst. Professor (Phy.Edn.) was transferred to the College of Horticulture and he was relieved on 26.4.'83. Mr KJ Joseph, Junior Asst.Professor (Trg) was relieved on 18.10.'83 consequent on his transfer to RARS Pattambi. Mr VK Raju, Junior Asst.Professor (Hort) was appointed as Asst.Professor of Horticulture and he was relieved on 23.11.'83 to take up this post. Mr V Krishnakumar, Junior Asst.Professor (Agronomy) was relieved on 1.12.'83 consequent on his transfer. Mr PV Habeebur Rehman, Junior Asst.Professor (Agronomy) joined duty on 9.12.'83. Mr P Rajendran, Junior Asst.Professor (Hort) joined duty on 25.11.'83.

2.e.02 : TRAINING PROGRAMME

A 45 day's training programme in Agriculture and Animal Husbandry was organised at this Institute for the benefit of 33 tribal youths sponsored by the Kerala Institute for Research Training and Development Studies of Scheduled Castes and Scheduled Tribes, Govt. of Kerala (KIRTADS). This training programme was inaugurated by Sri CM Sundaram, Honourable Minister of Local Administration on 25th October, 1983 at a function presided over by Sri T Madhava Menon, Vice-Chancellor.

The tribal youths were taken to the Communication Centre, Mannuthy for intensive training in improved practices of Agriculture and Animal Husbandry. The training programme was terminated on 8th December, 1983. The validictory address was made by Sri K Karunakaran, Honourable Chief Minister of Kerala on 3.12.83 at a function presided over by Sri T Madhava Menon, Vice-Chancellor, KAU.

2.e.03 : LAB TO LAND PROGRAMME

The programme chalked out for the welfare of 50 marginal farmers under Phase II Lab to Land Programme were implemented during the period under report. The programme included supply of seeds, seedlings, fertilizers, chemicals and she goats. The farmers were contacted weekly through Farm Clinic established at Pothanur under the Village Adoption Programme. Two of the adopted farmers were deputed to attend the Farm Youth Leadership Training Programme organised at Communication Centre, Mannuthy on 14th and 15th September, 1983.

2.e.04 : ACADEMIC PROGRAMMES

A total of 179 students were on rolls of the Institute as shown in the following Table.

<u>Name of course</u>	<u>No. of students on rolls as on 31.12.83</u>		
	<u>Men</u>	<u>Women</u>	<u>Total</u>
Diploma in Agrl. Science			
VII Batch	46	..	46
-do- VIII Batch	51	..	51
-do- IX Batch	18	..	18
Diploma in Agriculture and Rural Engineering			
II Batch	24	..	24
-do- III Batch	23	..	23
-do- IV Batch	17	..	17
Total	179	..	179

Forty six students ~~were~~ <sup>had</sup> completed their Diploma in Agricultural Science course during the period under report.

The students of the DASC, and DARE courses are in receipt of various kinds of scholarships/ stipends as detailed below:

2.e.05 : SCHOLARSHIPS

A total of 87 students were recipients of scholarships and other financial assistance as follows:

<u>Name of scholarship</u>	<u>No.of recipients</u>
KPCR - Educational concessions to FC and SEBC students	53
Harijan Welfare educational concessions to SC/ST/OEC	18
KAU Merit Scholarship	16
	-----
Total	87
	=====

2.e.06 : STUDY TOURS

The VII Batch DAsc., students visited the RARS Pattambi, HRS, Ambalavayal, Malayalam Plantations & Tea Factory, Areppetta, Coffee Board Robusta Research Station, Kalpetta, Cadburry Fry India Ltd., CWRDM, Kunnamangalam, Pepper Research Station, Panniyoor, RARS, Pilicode and Coconut Nursery, Nileswar and CPCRI, Kasaragod during the period from 10.11.'83 to 14.10.'83.

A study tour to visit RARS, Central Orchard and Soil Testing Laboratory, Pattambi, was conducted for the VIII DAsc students on 20.5.'83. The students also visited the FACT, Alwaye on 16.12.'83.

The students of II DARE course visited the Tamil Nadu Agrl.University, Coimbatore and the Agrl.Engineering Workshop, Malampuzha on 8th September, '83.

2.e.07 : HOSTEL

There are 121 inmates (all men) in the IAT Hostel as on 31.12.'83.

Mr Philipose Joshua acted as Assistant Warden from 1.4.'83 to 31.5.'83. Thereafter Mr Jobi V Paul took over on 1.6.'83 and he continued up to 31.10.'83. Mr AP Gopalakrishnan, Research Assistant took over on 1.11.'83 and continued for the rest of the period.

2.e.08 : LIBRARY

Nineteen new books were purchased during the period under report. There are 14488 no. of books in the Library as on 31.12.'83. Subscription of 29 journals <sup>was</sup> are continuing as on 31.12.'83. Ten back volumes of journals have been purchased during the period.

2.e.09 : STUDENTS UNION ACTIVITIES

The Elections to the various offices of the IAT Students' union were conducted on 7.4.'83. Dr Ahammad Bavappa, Director, CPCRI, Kasaragod inaugurated the Students' Union on 6.8.'83.

The Arts Club of the Students' Union was inaugurated by Sri CP Rajasekharan, AIR, Trichur and the Literary Association by Sri Kadavanadu Kuttykrishnan, Malayala Manorama, Cochin on 7.8.'83.

Inter-class Arts Competitions were conducted on the day. Twenty one students of IAT attended the inaugural function of KAU Union held at Vellayani on 22.10.'83. The Students' Union conducted an Arts Festival on 10.11.'83 and 11.11.'83. Sri PR Nair inaugurated the Arts Festival. Inter-class Arts and Literary competitions were conducted.

2.e.10 : GAMES & SPORTS

As a part of the improvement of playing amenities, the Basketball court has been concreted and levelling of the Volleyball and Badminton courts are nearing completion. The cricket pitch was improved by the help of students.

Inter-University tournaments

Five players participated in the selection trials and two of them were selected and they represented the KAU Basketball team in the inter-University Basketball tournament held at Nagarguna University, Guntur on 25.11.1983.

Inter-Collegiate Football tournament

IAT Football team participated in the KAU inter-collegiate tournament held at Vellayani on 22nd May 1983. Badminton shuttle and Table tennis teams also participated in the tournaments conducted at Mannuthy on 10th June, 1983.

Intra-mural competitions

Inter-class competitions in Basketball, Volleyball, Badminton Ball and Shuttle and cricket were also conducted.

## 3. RESEARCH

3.01: Dr PC Sivaraman Nair continued as the Director of Research. He was nominated by the Govt. of Kerala as Convenor of the Expert Committee to study and report the various aspects of rubber cultivation in the Kuttanad area. The final report to Govt. was submitted on 29th July, 1983 after extensive field visits and discussions with farmers. Some of the important meetings attended by the Director of Research were the IDSP meeting at New Delhi (2-5-1983); High Level Committee meeting on Land and Water Resources at Trivandrum (May, 83); ORP Consortium meeting at Alleppey (4-7-83); Scientific Panel meeting of the Fruits and Plantation crops at Delhi (25-2, August, 83); Expert Committee meeting on fertilizer use in cardamom at Cochin (30-8-83); ICAR Regional Committee No.8 meeting at Cochin (13-9-83); Tree Physindia meeting at Kottayam (30-9-83), NARP Southern Regional workshop at Vellayani on 19-7-83, NARP third workshop of Region of Special Problems at Kayamkulam (6-7, September 1983); V workshop of the NARP Northern Zone (5-12-83) 3rd NARP Regional Workshop at Pattambi (24-6-83) and the workshop of the All India Coordinated Spices & Cashew-nut Improvement Project at Calicut (10-11, November 83).

3.02: The Director of Research conducted routine inspection of the Cardamom Research Station, Pampadumpara (2-3, June, 83); AICRP on Agricultural Drainage at Karumadi (20-7-83), Pepper Research Station, Panniyur (26-7-83 and 14-12-83), Cashew Research Station,

Anakkayam (6-8-83 and 7-11-83), Regional Agricultural Research Station, Kumarakom (30-9-83); Sugarcane Research Station, Thiruvalla (14-10-83 and 24-12-83); Regional Agricultural Research Station, Ambalavayal (28-10-83) and Rice Research Station, Kayamkulam (12-11-83).

3.03: Dr R Kalyanasundaram continued as the Associate Director of Research (V & AS), He was on commuted leave from 2-5-83 to 12-8-83 and again from 31-10-83 to 9-11-83.

3.04: Dr CC Abraham continued as Associate Director of Research (M&E). He held additional charge of the post of Associate Director of Research (V&AS) from 2-5-83 to 12-8-83 and from 31-10-83 to 9-11-83 when Dr. R Kalyanasundaram entered on leave. He served as a member of the Kerala State Board for Prevention and control of Environmental Pollution. He continued as a member of the Board of Studies and the Project Coordination Groups on rice, Cashew, Crop protection, Essential Oils, Spices and Cropping systems.

3.05: Professor PN Pisharody continued as Associate Director of Research (AR & T) during the period. He continued as a member in the Project Coordination Groups on Rice and Soils and Agronomy.

3.06: Dr N Mohanakumaran continued as Associate Director of Research (Plg.) till 7-5-83. Mr K Kannan took charge on 12-5-83 and he entered on leave from



13-5-83 to 31-7-83. Dr N Mohanakumarán, Associate Director of Research, Regional Agricultural Research Station, Pilicode was reposted in the above leave vacancy as Associate Director of Research (Plg.). He joined on 30-6-83 and later entered on leave for 90 days with effect from 1-8-83. Mr K Karman rejoined as Associate Director of Research (Plg) on 1-8-83 and entered on leave from 5-9-83 and was later appointed as Associate Director of Research, Regional Agricultural Research Station, High Range Region, Ambalavayal. He took charge of this post at Ambalavayal on 1-11-83. Dr (Mrs) Mary K George, Professor of Agricultural Botany on return from leave was posted against the post of Associate Director of Research (Plg) and she joined on 22-9-83.

### 3.07: Faculty Research Committee:

The Faculty Research Committee of the faculty of Agriculture met twice during the period and a total of 157 projects were cleared for implementation in the faculty. The details are as under:

FRC meetings	Dates	Venues	No. of projects cleared
22nd meeting	10-11, May 83	KAU Head- quarters, Vellanikkara	92
23rd meeting	29-30, December 1983	College of Agriculture, Vellayani	65
		Total	157

In the 22nd meeting it was decided to conduct adaptive trials on steatite as Soil amendment; observational trial with Sulphur, gypsum and pyrites as ameliorants for Poonthal padams; large scale trials with Azolla at Pattambi and trials with hybrid cultures of sweet potato.

The FRC of the fisheries faculty did not meet during the year.

The FRC of the faculty of Veterinary and Animal Sciences met at Mannuthy on 29-4-83 and 25-7-83 and cleared 15 projects for implementation.

### 3.08: Project Coordination Committees:

The Project Coordination groups met on the following dates:

<u>Groups</u>	<u>Dates/Venue</u>	<u>Projects cleared.</u>
<u>Faculty of Agriculture</u>		
1. Rice	28-4-83 at Regional Agricultural Research Station, Pattambi	25
2 Vegetables & Tuber crops	16-7-1983 at College of Horticulture, Vellanikkara.	13
3 Pulses & Oil seeds	14-11-83 at College of Agriculture, Vellayani	11
4 Sugarcane & Miscellaneous crops	5-3-1983 at Sugarcane Research Station, Thiruvalla	8

5	Essential Oils & Medicinal Plants	20-10-83 College of Horticulture Vellanikkara	10
6	Spices, Cocoa	19-10-83 at the College of Horticulture, Vellanikkara	1
7	Fodder crops	6-5-83 College of Agriculture, Vellayani.	16
8	Soils & Agronomy	3-4-83 and 25-7-83 }	19
9	Plant Protection	19-10-83 College of Agriculture, Vellayani	5
10.	Post harvest technology & nutrition	28-6-83 College of Horticulture, Vellanikkara	5
11	Farm Economics, Extension & Agricultural Statistics	7-6-83 and 25-11-83	13
12	Fruits and Floriculture	20-6-83 and 15-11-83	4

Faculty of Veterinary & Animal Sciences:

1	Cattle & Buffaloes	20-4-83 28-9-83 and 4-10-83 at College of Veterinary & Ani. Sciences Mannuthy	5
2	Animal Diseases	11-1-83, 14-1-83 and 28-7-83 at College of Vety. and Ani. Sciences Mannuthy	10
3	Goat	8-4-83 and 24-9-83	1

The Project Coordination groups on Cashew and Coconut and Arecanut, Cropping pattern and farming systems,

Soil conservation and farm Mechanisation in the Faculty of Agriculture and the groups on Poultry, Pigs, Animal Reproduction and artificial insemination, and Miscellaneous items in the faculty of Veterinary and Animal Sciences did not meet during the period.

### 3.09: National Agricultural Research Project

3.09.a) The NARP sub-project for the high range region at Ambalavayal (Headquarters) with sub-centre at Pampadumpara was sanctioned by the ICAR for implementation from 1-9-83. This sub-project involves a financial commitment of Rs.33.37 lakhs for 5 years from 1-9-83. Prof K Kannan took charge as Associate Director of the Regional Agricultural Research Station, Ambalavayal on 1-11-83. With the sanctioning of this sub-project the all NARP programmes in the University are in full swing. The details of the sub-projects with the jurisdictions, headquarters, financial commitment etc., are furnished in Table \*

Details of NARP sub-projects in the Kerala Agricultural University

Sub projects with date of ICAR sanction dates in parentheses	Date of commencement	Head-quarters	Operational area	Financial outlay (Rs. in lakhs)		
				ICAR	University/State share	Total
Northern Region, (8-5-1980)	31-7-80	RARS Pilicode	Cannanore, Kozhikode Malappuram districts	86.98	23.45	110.43
Central Region (27-8-1981)	20-10-81	RARS Pattambi	Palghat, Trichur, Ernakulam districts	84.46	1.75	86.21
Water Management sub-project in the Central Region (4-3-1983)	30-7-83	RARS Pattambi	Chalaky, Eruchiampathi	21.72	8.34	30.06
Southern Region (31-8-1981)	20-10-81	College of Agrl. Vellayani	Trivandrum, Quilon, Kottayam, Alleppey, Pathanamthitta Districts excluding the problem areas	81.77	13.94	95.71
Special Region of problem areas (31-8-1981)	20-10-81	RARS Kumarakom	Onattukara, Kuttanad, Kole, Pokkali areas	113.91	4.50	118.41
High Range Region (24-8-1983)	11-10-83	RARS Ambalavayal	Wynad & Idukki dists.	33.37	3.99	37.36
Strengthening Directorate of Research (31-7-1981)	31-7-1980	Directorate of Research	KAU Headquarters	10.83	-	10.83
			Total	433.04	55.97	489.01

3.09. b) NARP Southern Region (College of Agriculture Vellayani)

Professor AGG Menon continued as the Associate Director of Research till 26-10-83. Dr N Mohanakumaran took over as Associate Director ~~of Research~~ on 26-10-83 and continued for the rest of the report period. As on 31-12-83, the following posts were vacant in the Region.

Assistant Professor (Agronomy)	1 post
Driver Grade II	1
Tractor Driver	1

The University has initiated action for acquisition of an extent of 9.55 ha of land from the Avadootha Ashram, Sadanandapuram for the special centre at Kottarakkara. The matter was taken up with the District Collector Quilon for taking advance possession of this land.

The third Regional Workshop of the NARP (Southern Region) was held on 19-7-1983. The academic staff in the NARP (SR) met on 30-11-83 and Dr A Balasubramanian, Senior Scientist, ICAR addressed the gathering.

Remodelling of the laboratories in the Department of Soil Science and Agricultural Chemistry and the Department of Agronomy have been commenced. The Central Instrumentation Laboratory under NARP (SR) is being equipped with air conditioners for housing expensive and imported pieces of equipment.

The following items of equipment were imported during the period:

- Spectronic 2000 spectrophotometer
- Leaf area meter
- Integrated quantum Photometer

Refrigerated high speed centrifuge  
 Binocular microscope  
 Camera - Ashahi Pentax

The monthly workshops for the T & V programme were conducted every month for 2 days each.

The academic staff in the Region published 4 papers during the period. The significant research findings are furnished elsewhere in this chapter.

A total of 46 research projects including 5 adaptive trials and 2 observational trials were in progress in the Region.

### 3.09. c) NARP Central Region (RARS, Pattambi)

Mr N Rajappan Nair, Associate Director continued *to be in charge during leave period.*  
~~as the Associate Director of Research.~~ Mr TF

Kuriakose continued to be in charge of the Agricultural Research Station, Mannuthy. A total of 58 research projects were in operation at Pattambi and 8 at Mannuthy which also caters to the research requirements of the central region.

The following positions were vacant at the Central Region on 31-12-1983.

#### RARS Pattambi

Associate Professor (Ag.Engg.)	1
Asst Professor (Soil Science)	2
Asst Professor (Agronomy)	1

#### Agricultural Research Station, Mannuthy

Design Engineer	1
Senior Technician	1
Technician Gr.II	2
Workshop attender	1

In the Central region, a sub-project for strengthening research on water management was sanctioned by



the Council on 4-3-1983. This project involves an estimated cost of Rs.30.06 lakhs. University sanction for operating this project was issued on 30-7-83. Work on this project is to be taken up mainly at the Eruthiampathi, Alathur areas of Palghat district and the Chalakudy centre. Proposed items of work at Eruthiampathi centre could not be implemented for want of suitable land at this centre.

Civil works:

The following items were taken up during the period:

- \*Construction of Type II quarters (duplex)  
(Estimated amount Rs.1.20 lakhs)
- \*Construction of Type IV quarters  
(estimated amount Rs.2.40 lakhs)
- \*Construction of type V quarters  
(estimated amount Rs.3.40 lakhs for 2 quarters).

Regional workshop

The IV Zonal workshop of the NARP Central Zone and the KAEP Zonal meeting for the Region were conducted on 17-1-84 and 18-1-84 respectively.

3.09. d) NARP Special Region of Problem Areas

The Headquarters of this region is at the Regional Agricultural Research Station, Kumarakom, with the lead function on coconut, the verification and testing functions being on rice, oil seeds, and pulses. Under this centre the Rice Research Station, Moncompu with the lead function of evolving superior varieties of rice for the Kuttanad and Kole areas, the Rice Research Station, Kayamkulam for the Onattukara region and the Agricultural Research Station, Mannuthy for the kole area and the Rice Research Station, Vyttila for the pokkali area continued to function.



Mr U. Mohammed Kunju, Professor of Agronomy continued to be in charge of the Station.

Mr TF Kuriakose continued to be in charge of the Agricultural Research Station, Mannuthy. M/s. PJ Tomy and K Balakrishna Pillai, Associate Professors continued as the officers in charge of the Vyttila and Kayamkulam stations which form part of the NARP special region.

The following NARP positions were vacant on 31-12-83

RARS Kumarakom

Asst Professor (Ag Engg)	1
Asst Professor (Hort)	1
Asst Professor (Ent)	1

RRS Kayamkulam

Asst Professor (Ag Engg)	1
Jr Asst Professor (Bot)	1

RRS Moncompu

Associate Professor (PP)	1
Asst Professor (Pl. Physiology)	1
Lab Assistant Gr.III	2
Boat driver	1
Syrang	1

At the Rice Research Station, Vyttila and at the Agricultural Research Station Mannuthy which caters to the needs of the Pokkali and Kole areas all NARP positions were filled up and staff were in position.

In the NARP Special Region a total of 153 research projects were in operation as follows:-

• RARS Kumarakom	40
RRS Moncompu	58
RRS Vyttila	24
RRS Kayamkulam	26
ARS Mannuthy	<u>5</u>
	153



Supporting staff:

Lab attender	3
Photographer cum artist	1
Driver ( 1) Grade II	1
Typist Gr.I	1

The total no. of projects in operation in the Northern zone at the Pilicode, Panniyur and Tavanur centres is 60. A total of 2 no. of research projects and 3 adaptive trials were in operation at Pilicode, on 31-12-83. At the Institute of Agricultural Technology, Tavanur which comes under this sub-project 3 projects were in operation. At the Pepper Research Station, Panniyur there was 2 research projects in operation.

The fourth regional workshop of the region was held on 27-7-83. The fifth workshop was conducted on 5-12-83 and the KAEP Zonal workshop was held on 6-12-83.

Civil works:

The following items of civil works were in progress:

Construction of quarters Type V (5 nos)	- 9.50 lakhs
"                    Type IV single unit	- 0.96 "
Construction of quarters Type II 2 nos. (duplex)	1.96 "
Construction of trainees hostel	6.20 "
Construction of Administrative building and laboratory	22.00 "

Of these the construction of the trainees' hostel is almost complete and the other items of work are making good progress.

### 3.09 f) NARP - High Range Region:

The ICAR has conveyed administrative sanction for the sub-project on High Range Region at Ambalavayal on 24-8-83.

The University has on 30-10-83 accorded sanction for the implementation of this project with Headquarters at Ambalavayal and sub-station at the Cardamom Research Station, Pampadumpara.

Mr K Kannan took charge as Associate Director of ~~Research~~ on 1-11-83. Steps for the formulation of research projects on the <sup>basis</sup> ~~basis~~ of felt problems of the area were initiated.

The positions of one Associate Professor and 4 Asst. Professors under NARP is remaining vacant.

### 3.10: KADP - Kerala Agricultural Development Project

This sub-project for Research and training was started in the University on 18-4-1977. Dr K Kumaran, Dr R Vikraman Nair Mr KK Vidyadharan and Dr Abi Cheeran continued as Professor for Coconut, Cocoa, Cashew and Pepper respectively. Dr PA Wahid, continued as Professor (Radiotracer). There were two positions of Associate Professors and five positions of Assistant Professor, besides 2 posts of Junior Asst Professors. None of the posts remained vacant during the period.

There were altogether 47 research projects on various aspects of cocoa, cashew, cocoa and black pepper.

### 3.11: MSCR - Multi State Cashew Research Project.

Mr S Balakrishnan Professor of Horticulture continued to be in charge of the project. None of the posts in the project remained vacant during the year.

The technical programme for the project includes establishment of demonstration-cum-multiplication plots with different recommended types of cashew adopting efficient propagation techniques, demonstration of package of practices in cultivators' fields and establishment of progeny nursery for rapid vegetative propagation.

A total of 1900 layers and 2690 epicotyl grafts were prepared and their establishment is under study.

A progeny garden was initiated at the Central Farm Aralam. Closely planted quick multiplication plots were established one each at the Regional Agricultural Research Station, Ambalavayal and at the Central State Farm, Aralam. Thirteen demonstration-cum-multiplication plots were established during the period.

### 3.12: CRWDP - Coconut Root wilt Disease Project

A total of 19 multidisciplinary research projects continued to be in operation at the College of Horticulture, Vellanikkara, Regional Agricultural Research Station, Kumarakom, Rice Research Station, Vyttila and at the Rice Research Station, Kayamkulam to study the aetiology and possible control of the dreaded root (wilt) disease of coconut.

One project on the Mycoplasma like Organism as a possible causal agent of coconut root (wilt) disease was approved for implementation during the period. This project comprises of studies on chemotherapy with antibiotics, isolation and characterisation of MLOs and studies on the collateral hosts of the causal organism. Experiments on chemotherapy were commenced. Technique, for the injection of antibiotics into the stem by gravitational flow-cum-transpirational pull method were standardised. A cheap wet type nozzle was fabricated and tested successfully. Oxytetracycline and pencillion were applied to p lms of

medium disease intensity at Kumarakom at 4, 6, 8 g/tree both by spraying and stem injection. Kernel and water of nuts from treated palms showed antibiotic activity confirming translocation.

### 3.13: Western Ghats Research Projects

Sanction for implementation of the following four research projects in the University was issued by the Department of Environment, Government of India, during April, 1983.

1. Ecological studies and utilisation of the grass land flora available in the Westernghats (3 years Rs.1,07,800/-)
2. Development of viable models of agro-eco system to compromise with various eco systems of tribal hamlets along with the Westernghats (3 years: Rs.1,13,400/-)
3. Impact of development projects in the Western Ghat region on forest dependent population. A case study of Wynad and Idukki districts. (3 years - Rs.1,55,200/-).
4. Restoration of degraded environment in the Champakkad tribal colony (3 years Rs.2,81,200/-)

The Vice Chancellor formally inaugurated this project at Chempakkad on 25-4-83. One Jr Asst Professor was posted for this project and he joined duty on 14-7-83.

3.14: ICAR Adhoc projects

The following project proposals were formulated and forwarded to the Council for their approval.

1. ORP on Pepper in Idukki (Rs.5,80,295/-)
2. PL 480 - Survey of the edible mushroom flora of Kerala and exploring the possibility of standardising the techniques for the large scale cultivation of promising ones (Rs.18,16,000/-).
3. Germplasm enhancement and evaluation of Indian pepper, eggplant, and tomato lines for sources of disease resistance - improved horticultural attributes. (PL 480 - Rs.40,56,400/-).
4. Soil test crop Response coordination projects (Rs.1,89,500/-)
5. Estimation of damage due to pests, diseases and drought in black pepper in Calicut district (Rs.6,62,854/-)
6. Poverty and rural transformation in Kerala (Rs.4,70,000/-)
7. Evaluation of the germplasm of jackfruit and standardisation of cultural and manurial practices. (Rs.3,22,902/-)
8. Standardisation of micropopagation techniques in Coconut (Rs.3,50,450/-)
9. Investigation on the etiology of Yellow leaf disease of arecanut (Rs.3,95,000/-)
10. Nutritional studies on pulses (Rs.81,700/-)
11. Establishment of blood group for cattle and buffaloes (Rs.2,50,000/-)
12. Design and development of wind turbines and its feasibility studies in Kerala (Rs.4,81,195/-)
13. All India Coordinated mushroom improvement project (Rs.11.795 lakhs).



During the period, the following adhoc projects were sanctioned by the Council for implementation.

1. Mechanical control and utilization of floating type aquatic weeds (Rs.2,56,920/- College of Horticulture, ~~Agriculture, Vellayani~~). *Vellanikkara*.
2. Marketing of coconut and cocoa in Kerala (Rs.99,600/- College of Horticulture, Vellanikkara).
3. Breeding rabbit for meat production (Rs.3,21,225/-) College of Veterinary & Animal Sciences, Mannuthy.

The Council has agreed to the following adhoc project proposals and formal orders on these are awaited:

- a) Studies on the strains of rhizobia of pulses, the effect of nutrients on them and standardisation of mass culturing technique (Rs.37,800/- for 3 years).
- b) Research on Cymbopogon flexuosus and other Cymbopogon spp.

The adhoc project on survey, collection and evaluation of germplasm of jack fruit was terminated on 30-6-83.

### 3.15: ICAR Coordinated Projects & ORP

During the period, the ICAR sanctioned the ORP on resource development on watershed basis for implementation in the University. This ORP is sanctioned for a period of 3 years at an estimated cost of Rs.6,04,572/- A committee was appointed to suggest suitable locations in the Palghat district for the ORP.



A total of 27 All India Coordinated Research Projects in the faculty of Agriculture, 3 in the faculty of Veterinary and Animal Sciences and 1 in the faculty of fisheries continued to be in operation. The National seed Project continued to be under operation at Regional Agricultural Research Station, Pattambi.

The ORP on integrated Pest management in the Kuttanad area also continued to be under implementation in the Kuttanad area.

### 3.16: Seminars and workshops conducted:

The Kerala Agricultural University hosted the Annual workshop of the ICAR Co-ordinated Project for Research on Chemistry of Submerged Soil under Rice Cultivation in High Rainfall Areas. This was held at Vellanikkara on 20-21, May, 1983. The University also hosted the workshop of the All India Coordinated Agronomic Research Project and the Long Term Fertilizer Experiment. This was held at Vellanikkara on 26-28, May, 1983.

The State Level Seminar on Pulses and Oilseeds was conducted at Malampuzha on 16-4-83.

A seminar on Stagnation in Agricultural Production with Special reference to paddy was conducted at the College of Agriculture, Vellayani on 1-3, July, 1983. This seminar was organised by the University in collaboration with the State Planning Board to review the current status of the rice production technology in relation to the measures for breaking the yield barriers of rice in the State.

An Agricultural Seminar was held at Pattimalam - Attappadi on 21-7-83 in connection with the layout of

the Cashew demonstration plot under Multi-State Cashew Research project. The Vice-Chancellor inaugurated the planting of the demonstration plot.

A workshop on "Economics of Animal Production in Kerala" was held at the College of Veterinary & Animal Sciences, Mannuthy on 6th June, 1983.

### 3.17: Research Stations/Centres/Farms.

In the Faculty of Agriculture, there are 18 Research Stations besides the five units, namely, Cashew Research Centre, Madakkathara, Sugarcane Research Centre, Menonpara, Pepper Research Centre, Vellanikkara, AICRP Centre at Karumadi and the Pineapple Research Centre at Vellanikkara. During the year, the Model Agronomic Research Station was re-organised as Cropping Systems Research Centre after merger of the Model Agronomic Research Station with the Headquarters Unit of the AICARP.

In the Faculty of Veterinary & Animal Sciences, there are five Research Stations. In this Faculty, research work is also in progress at the AICRP Centre on goats and the Fodder Research Centre, Mannuthy.

### Vacancies of Academic Positions in Farms/Stations/Projects.

None of the academic positions in the Rice Research Station, Vyttila, Sugarcane Research Station, Thiruvalla, Coconut Research Station, Balaramapuram, Cashew Research Station, Anakkayam, Cashew Research Centre, Madakkathara; Sugarcane Research Centre, Vellanikkara and Coordinated Projects other than AICRP on Biological control; AICRP on Agricultural drainage, AICRP on Spices & Cashew, AICRP on Agricultural By-products and AICRP on Floriculture; AICRP

on Fruits, remained vacant as on 31-12-83.

In the Research Stations/Farms/Projects, the following academic positions were vacant as on 31-12-83. The vacancies existing in the NARP have been presented separately.

Station	Plan/ Non-plan	Positions vacant	No.of posts vacant
<u>Faculty of Agriculture</u>			
RARS Pilicode	<u>Plan</u>	Assoc Professor	1
	AICC & AIP	Assoc Professor	1
	Non-plan	Asst Professor	2
Pepper Research Station, Panniyur	<u>Plan</u>	Asst Professor(Agro)	1
	AICRP on Spices & Cashew		
	<u>Non-plan</u>	Assoc Professor(Bot)	1
		Assoc Professor(Agro)	1
RARS Ambalavayal	Non-Plan	Jr Asst Professor	1
		Asst Professor (Bot)	1
RARS Pattambi	Non-Plan	Asst Professor(Agro)	1
		Assoc Professor (PP)	1
		" (Agro)	1
		Horticultural Research Assistant (JAP)	1
	<u>Plan</u>		
	AICRP	Asst Professor (Ent)	1
	AIC Pulses Project	Asst Professor (Bot)	1
ARS Mannuthy	Non-plan	Jr Asst Professor	1
		Jr Asst Professor (Chem)	1
		Jr Asst Professor(PP)	1
		Jr Asst Professor (Engg)	1

Banana Research Station, Kannara	<u>Plan</u>	Asst Professor (PP)	1
	AICRP on fruits	Jr Asst Professor	1
Command Area Res. Centre, Vellanikkara	Plan	Jr Asst Professor	1
Agronomic Research Station, Chalakudy	Plan	Assoc Professor (Ag.Engg)	1
AICRP on Agrl. Drainage, Karumadi	Plan	Assoc Professor (Ag.Engg)	1
		Asst Professor (Ag.Engg)	1
Rice Research Station, Moncompu	<u>Non-plan</u>	Assoc Professor (Agro)	1
	a) Station	Asst Professor (Ent)	1
		Asst Professor (Chem)	1
	b) Fisher-ies project	Jr Asst Professor (Fisheries)	1
	c) Ecosystem project	Jr Asst Professor (")	3
	<u>Plan</u>		
	a) ORP	Asst Professor (PP)	1
	Jr Asst Professor (Ent)	2	
	Jr Asst Professor (FP)	2	
b) AICRIP	Jr Asst Professor (Agro)	2	
Rice Research Station, Kayamkulam	Non-Plan	Asst Professor (Agron)	1
		Asst Professor (Bot)	1
Aromatic & Medicinal Plants Research Station Odakkali	Non-plan	Asst Professor (Chem)	1
		Jr Asst Professor (Chem)	1
Cardamom Research Station, Pampadumpara	Non-plan	Asst Professor (Chem)	1
		<u>Plan</u>	
		AICRP on Spices & Cashew	Asst Professor (Ent.)
		Jr Asst Professor (PP)	1

RARS Kumarakom	Non-plan	Jr Asst Professor (Agro)	1
	Plan(CRWDP)	Asst Professor (Chem)	1
		Asst Professor (Nem)	1
		Jr Asst Professor (Agro)	1
AIC Floricultural Improvement Project, Vellanikkara	Plan	Jr Asst Professor (Hort)	1
AICRP on Bio-control of crop pests, Vellanikkara	Plan	Jr Asst Professor (Engg)	1
<u>Faculty of Veterinary &amp; Animal Sciences.</u>			
Cattle Breeding Farm, Thumburmuzhy	Non-Plan	Jr Asst Professor	1
Pig Breeding Farm Mannuthy	Non-Plan	Jr Asst Professor	1
AICRP on Agricultural By-products	Plan	Assistant Professor	1
University Livestock Farm Mannuthy	Non-plan	Jr Asst Professor	1

3.18: Participation of academic staff in Symposia/Workshops/Seminars.

The Academic staff of the University have been deputed to attend the various National/International workshops/seminars as per details given in Table

Details of Seminars/ workshops/symposia	Venue & Date	Names of partici- pant scientists
Annual workshop of AICRP	Rajendra Nagar Hyderabad 9-12 April 83	Sri N Rajappan Nair Dr K Karunakaran Dr L Nadarajan Dr MJ Thomas Mr VP Sukumara Dev Mr MRC Pillai
Annual Kharif Oil seeds workshop	Hyderabad, 22-25 April 1983	Smt S Santhakumari
V workshop of the All India Coordinated Project on Nematode Pests of crops	Solan 20-26 May 1983	Dr TS Venkitesan Dr K John Kurien
Annual Convention of Essential Oil Asson of India	Regional Res. Lab. Trivandrum May, 19 83	Mr PKC Nair
National Seminar on Breeding for Resistance to Pest & Diseases	TNAU, Coimbatore 25-27 May 1983	Dr L Nadarajan Dr K Karunakaran Dr VG Nair Mr R Gopimony & Mr VP Sukumara Dev
6th International Conference on Soils	Karl Marx University, Leipzig, FRG, 6-12 June '83	Dr AI Jose
Workshop on Extension Methodology on Livestock Improvement with small holders	Kodaikanal 3-4 June, 1983	Dr BR Krishnan Nair

(1)	(2)	(3)
Seminar on Role of Agricultural Economists in the Regional Agricultural Research Programme (NARP)	GB Pant Agricultural University Pantnagar, 18-20 May '83.	Dr. V Radhakrishnan
Workshop on the role of Agricultural Economists in the NARP	University of Agrl. Science, Hebbal, 20-21 Oct. '83	Mr ER Narayanan Nair
Symposium on Genetics and Improvement of Heterotic systems	TNAU, Coimbatore, 7-9 December, 1983.	Dr K Karunakaran
Workshop on Intensification of Research & Training in Pulses & Oilseeds	IARI, New Delhi 28-9-'83 to 2.10.1983	Mr AI Thomas
Workgroup meeting on Nematological problems of Plantation Crops	CPCRI, Kayamkulam	Dr TS Venkitesan Mr Job Sathiakumar Charles
2nd Workshop on AICRP on Agricultural Land drainage	IARI, New Delhi, 29-10-'83 to 1.11.1983	Mr U Jayakumaran Mr TP George
Summer Institute on Agroclimatology & Crop growth	UAS, Hebbal, July, 1983	Dr GSLHV Rao and Mr K Vasanthakumar
Annual Workshop on AICRP on Sugarcane	Shahjāhārpūr, Sept. 26-29 1983	Mr S Sukumaran Nair Dr NN Potti
Workshop on ORP	Mohanlal Sukhadial University, Udaipur 22-24 September, 1983	Dr MJ Thomas

(1)	(2)	(3)
Annual Workshop of the Co-ordinated Project on Chemistry of Submerged Soils	KAU Hqrs, Vellanikkara 20-21 May 1983	Dr KP Rajaram, Mr PKG Menon Mr K Anila Kumar
Symposium on Fertilizer Management in Acid Soils	College of Agriculture, Vellayani 27-28 November, 1983	Dr KP Rajaram Dr N Mohana Kumaran Mr PR Ramasubramaniam Mr Abdul Hameed Dr S Pushakala Mr VS Devadas
First Indian Agro Meteorological Congress	Andhra University, Waltair, 6-8 June '83	Dr GSLHV Rao
Workshop on 'Economics of Animal Production in Kerala'	College of Vety&Animal Sciences, 6th June '83	Mr R Balakrishnan Asan Dr P Ramachandran
Seminar on Pesticides & Environment	TKAS, Coimbatore, 4-5 August 1983	Mr C Nandakumar
All India Co-ordinated Cashew & Spices Workshop	CPCRI Regional Stn., Calicut, 10-11 November, 1983	Dr Abicheeran Dr P Karunakaran Mr KK Vidyadharan Mr S Balakrishnan Mr D Seetharama Rao Mr PG Veeraraghavan Mr V Sukumara Pillai Mr PK Unnikrishnan Nair
Workshop of the All India Coordinated Coconut, Arecanut Improvement Project	UAS, Uebbal 25-28 Oct. 1983	Dr RR Nair Mr TC Radhakrishnan Mr PC Balakrishnan Mr Abdulkader



(1)	(2)	(3)
Summer Institute on Immuno genetics and Bio-chemical polymorphism in domestic animals	IVRI, Izatnagar 6-6-1983 to 5.7.1983	Dr B Nandakumar
Summer Institute on Instrumentation and Vet. Clinical biochemistry	Vety.College, Mathura, 8-30, June '83	Dr.V.Vijayakumar
Summer Institute on Problems and Progress of Phyto-nematology	HAU,Hissar, 14-6-'83 to 8-7-'83	Mr Job Sathia Kumar Charles

3.19 Important Visitors

Name	Institutional affiliation	Date of visit
(1)	(2)	(3)
Mr Vasco M Mondane	Director General, Ministry of Cashew, Mozambique	CRS, Madakkathara 26-4-1983
Dr BS Bodade	Project Co-ordinator, AIC Tribal Area Research Project	KAU HORS, Nilambur, Champakkad, Amboori, 26-28 May, 1983
Dr NS Randhawa	Dy. Director General, ICAR, New Delhi	KAU HORS, 20-27 May, 1983
Mr MS Ram	Dy. Chairman, State Planning Board	May 1983

(1)	(2)	(3)
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Dr NS Randhawa	Dy. Director General, ICAR, New Delhi	KAU HORS, 20-27 May, 1983
Mr MS Ram	Dy. Chairman, State Planning Board	May 1983

(1)	(2)	(3)
Mr SR Sastri	Joint Director, Central Sericulture Research & Training Institute,Vellayani	College of Agricul- ture, Vellayani 25-5-1983
Dr SS Chatterjee	Project Co-ordinator All India Co-ordinated Vegetable Improvement Project	College of Horticul- ture, Vellanikkara. May,1983
Dr C Kempanna	Asst.Director General, ICAR, New Delhi	Sugarcane Research Station,Tiruvalla 19-10-1983
Dr Maharaj Singh	Dy.Director General (Edn)  ICAR	College of Horticul- ture, College of Agriculture, College of Vety.&Animal Sciences, College of Fisheries, October,1983.
Dr KPA Menon	Chairman, NSC	KAU HORS 5.11.1983
Dr GVK Rao	Chairman, High Level Commission on Land & Water Resources	RARS,Pattambi 9.11.1983
Mr Cyriac John	Hon.Minister for Agriculture,Govt. of Kerala	RARS,Pilicode 23.7.1983
Dr A Balasubramonian	Senior Scientist (NARP), ICAR	NARP Southern Region Vellayani 28-30,November'83, NARP Northern Region, Pilicode,24-10-'83

(1)	(2)	(3)
Dr Benjamin Mouthner & Dr D Mathur	World Bank Consultants	RARS, Kumarakom June '83
Mr MM Tamisin	IRRI, Philippines	RARS, Pattambi 19-7-83
Mr Rama Rao	World Bank Consultant	RARS, Kumarakom 4-8-1983
Dr Sudha Nagarkatti	Project Co-ordinator, AICRP on Bio Control of Crop Pests	College of Horticulture, Vellanikkara 12.8.1983
Dr MC Nambiar	Project Co-ordinator, AICSpices & Cashew Res. Project CPCRI, Kasargod	CRS, Pampadumpara 3.6.1983
Dr NS Ramaswami, Director, Indian Institute of Management, Bangalore	KAU Hqrs & College of Vety. & Animal Sciences, Mannuthy	20.8.1983
Dr RP Singh	Director of Extension, UPAU, Pant Nagar	SRS Tiruvalla October 83
Dr AM Michael	Project Director, Water Technology Centre, IARI, New Delhi	AICRP on Agricultural Drainage, Karumady 2.6.1983
Dr KL Sahni	Project Director, AICRP on Goats	AICRP on Goat Centre, Mannuthy, 16-17 Sept. 1983

(1)	(2)	(3)
Mr NR Krishna Moorthy	Managing Director, KSD & P, Alleppey	Aromatic & Medicinal Plants Research Stn., Odakkali 2.8.1983
Dr K Raghavan Nambiar	Professor, College of Engg., Trichur	College of Vety. & Animal Sciences, Mannuthy 5.11.1983
Mr K Karunakaran	Hon. Chief Minister of Kerala	In connection with the inauguration of the Scheme for the Socio-Economic Uplift of the SC and other Backward Communities, Jawahar Colony, Nilambur 6.11.1982

3.18<sup>20</sup> Publications

The Research Report 1981-82 and the publication 'Kerala Agricultural University at a Glance' were brought out during the period. Work on the compilation of 1982-83 was taken up and pursued.

The Agri Res. J. Kerala and the Kerala Vet. Res. Journal continued to be under publication. The Agri. Res. J. Kerala Part II of June '82 was released during the period. The K V R J Vol. 14 Part 2 of 1983 was released during the report period.

The Editorial Board of the Agri.Res.J.Kerala met at the KAU HORS on 5.4.1983 and the Board for the K.V.R.J.met at Mannuthy on 9.5.1983.

3.19<sup>21</sup> Training to Academic Staff

Mr D Joseph, Associate Professor (Ent) was deputed to the Banares Hindu University for training in faunistic studies on Soil arthropoda associated with Coconut Root System. He underwent the training from 25.7.1983 to 6.8.1983 under Dr Janardan Singh, Reader, Department of Zoology - Entomology.

Dr P Ramachandran, Associate Professor, AICRP on Agricultural By Products visit<sup>ed</sup> ~~that~~ the GB Pant Agricultural University Pant Nagar from 4.8.1983 to 7.8.83 to study the project work on ammonification of straw.

3.20<sup>22</sup> Perspective Master Plan for the Research Stations for up to 2000 AD

Perspective master plans for development of the Research Stations in the University for the period up to 2000 AD were prepared. The plans were prepared with the objective of developing the major stations into full fledged stations with laboratories and equipment necessary for conducting PG Research upto Ph.D level.

Meetings were held in the College of Horticulture, Vellanikkara (19.11.1983) and the College of Agriculture (29.11.1983) to discuss the perspective plans for up to 2000 AD with special reference to the VIIth Plan period.

3.21 Improvement in the management of KAU Farms

A meeting of Heads of Research Stations was held on 12.5.1983 at the KAU HORS to discuss the various measures that are to be taken up for overall improvement

in the management of the farm in the light of the Vice-Chancellor's suggestions. The ways and means of increasing farm receipts, through improvement in manpower input-output ratios, rationalisation in pricing, precise advance programming of farm operations etc. were discussed and decision on these aspects were taken. ❦

### 3.24 KAU Varietal Release Committee

The Varietal Release Committee of the University met on 13.12.1983 and approved the rice cultures 1537-2, 4-4, 1907, 25100, 1537-2 for cultivation in the State. The Culture 1537-2(115 days duration) is particularly suited to Kuttanad tract and this has good tolerance to BPH, Sheath blight, BLB and Sheath rot.

The Culture 1907 is a medium stature variety for growing in the Virippu, Mundakan, Punja seasons and also for the modan crop. Culture 25100 is suitable for growing in the 2nd crop season in place of PTB 4 and CO 25. This variety with a duration of 150-180 days possesses the same degree of resistance to BPH.

### 3.25 Services rendered to cultivators

The following kinds and quantities/numbers of seeds and planting materials of crops were distributed during the period through the Research Stations/Farms/Projects.

Paddy seeds	: 88,454 kg
Fruits and spices	: 20,264 nos
Ornamentals	: 11,839 Nos

#### Coconut seedlings:

WCT	: 18,572 nos
Komadan	: 2071 nos
Hybrids	: 7540 nos
Pulse seeds	: 165 kg
Banana suckers	: 8697 nos
Sugarcane setts	: 136.17 tonns



Oil seeds	: 141.6 kg
(Sesamum & groundnut)	
Coffee seedlings	: 70,874 nos
Pepper rooted cuttings	: 1,69,507 nos
Vegetable seeds	: 574.05 kg
Cashew seeds	: 4726 kg
Cashew air layers	: 1133 nos
Cashew epicoty/ grafts	: 200 nos

At the Veterinary Hospitals at Kokkalai and Mannuthy and at the Goat Farm, Mannuthy, the following services were rendered:

No.of does of farmers artificially inseminated	: 473 nos.
Bucks issued for breeding	: 26 nos
Out patients treated	: 20,597 nos
AR Vaccination	: 64 nos
Birds treated/vaccinated	: 7167 nos

A total of 1050 fish fingerlings, 1225 Etroplus fingerlings and 60 nos Rohu fingerlings were issued during the period from the AICRP on Brackish Water Centre at Vyttila.

In the ND Scheme at Sadanandapuram, Mr K Raveendran Nair, Asst Professor held charge of the Associate Professor's post. Two posts of Asst Professors in Plant Pathology and Water Management remained vacant.

At the KVK Pattambi, Dr GT Nair joined as Professor of Extension on 25-11-1983. One post of Associate Professor (Home Science) and another post of Asst Professor (Home Science) remained vacant.

At the KVK Ambalavayal, Mr M Muhammed Hussain joined as Associate Professor (Extension) on 30-11-1983.

At the Extension Education Centre, Kayamkulam the <sup>post of</sup> Associate Professor (Agronomy) remained vacant.

The AICRP on SCs & OBCs at Nilambur was formally inaugurated during the period. Mr P Rajendran, Asst Professor was posted against Associate Professor (Extension). One post of Jr Asst Professor (Small scale Industry) remained vacant.

At the Tribal Area Research Scheme, Amboori, Dr RS Aiyer functioned as the Project Coordinator. One Post of Asst Professor (AH) and five posts of Jr Asst Professor remained vacant.

#### 4.03: Publication and Reports

##### Publication of periodicals

Kalpadhenu: Kalpadhenu has been made as a monthly publication made up-to-date. During the period under report 4 issues were brought out.

KAU News Letter:

This monthly publication was brought out regularly. During the period under report 4 issues in Vol.X were brought out.

Agres News:

This quarterly publication was also published. Research journals, Agri. Research Journal of Kerala, and The Kerala Veterinary Journal were also brought out during the period.

The Agri Abstracts, the Horti Abstracts and the Anivet Abstracts continued to be published. Three issues of the Nutrition Newsletter were brought out during the period.

Non-periodicals

The following books/booklets/bulletins were published during the period:

Tapioca (booklet); "Kozhivalarthal Oru Ethinottam" (Booklet); Report on case study of Agriculture among tribals (Booklet - English); Water Resources Development in KAU (Booklet); Soil Farming factors (Technical bulletin); Package of Practices Recommendation 1982 (Agri.); Diseases of Crop plants of Kerala - book; Vegetable cultivation - Two leaflets; Contageous diseases of cattle and their control; (Leaflet) Lab-to-Land at KAU - Leaflet and Locust control - Leaflet - Malayalam.

4.04: Farm News Service:All India Radio Programme

Instructions to farmers and Extension workers were regularly broadcast through AIR under this programme. In all, 29 broadcasts were

made from AIR Trichur and Calicut Stations during the period under report.

Agricultural Science News Programme

Eleven broadcasts were made on Science news items during the period under report.

Farm School on the AIR programme

A Farm School on AIR Programme on "Crop Protection" was broadcast during the period. A total of 1850 farmers were attending the programme.

Farm News Service through News papers

Four articles were published under this programme during the period. Seventy two letters from farmers were received and these were promptly answered.

Correspondence courses

Two distance education programmes were started during the period. One course on "Dairying" is in progress with 285 registered participants. Another correspondence course on 'Infant Feeding' with 500 registered candidates was also in progress.

4.05: New programmes started during the year

A programme on Adult Education for the benefit of farm labourers was organised by the Directorate of Extension. With the facilities available in the colour Lab, a programme for the supply of Educational aids to Development Departments was taken up. An additional village, Vilvattom, was adopted under the Village Adoption programme during this period.

4.06: Training Programmes

The following training programmes were conducted at various Stations and Colleges of the

Kerala Agricultural University from 1-4-1983 to 31-12-1983. A training programme was conducted for 5 IAS Officers on field training at Kerala Agricultural University stations on 18-4-1983. Training in Laboratory Techniques for Livestock Assistants was conducted at College of Veterinary & Animal Sciences, Mannuthy on 25-3-1983 and for the 2nd batch on 26-9-1983. Livestock Assistant training for Inseminators of Kerala Livestock Development and Milk Marketing Board was conducted at College of Agriculture, Vellayani from 1-2-1983 for a period of 11 months. Forty four candidates were trained under this programme. A training programme was conducted for Agricultural Officers of the Indian Overseas Bank on 16-4-1983, for a period of 2 weeks for 23 trainees at the Communication Centre, Mannuthy. Training on Social forestry for Forest Rangers and forest guards was conducted at College of Agriculture, Vellayani on 18-6-83 for 12 trainees. The duration of the course was 4 days. Training on Rice production technology for Junior Agricultural Officers, was conducted at Rice Research Station, Pattambi on 5-8-1983. The period of the training was 4 days for 30 trainees. An inservice training programme conducted to Agricultural Demonstrators of Agricultural Department on 18-7-1983. The venue of the training was Institute of Agricultural Technology, Tavanur. Training for Dairy Science for Defence personnel (7 nos) was held at the College of Veterinary & Animal Sciences for one month on 1-7-1983. A training programme conducted to SMS and Agricultural Officers for Rice Production Technology. The training course lasting for 4 days was conducted in 6 batches at the Regional Agricultural Research Station, Pattambi and separately for

six batches at Moncompu. This course commenced at Pattambi on 5-7-1983 and 21-11-1983, and at Moncompu on 5-7-1983 and 21-11-1983. A batch of 125 trainees were being trained at the College of Agriculture, Vellayani from 1-9-1983 and one batch of 56 trainees were being trained at the College of Horticulture, Vellanikkara from 26-9-1983. The duration of the course is for 6 months. The Inservice Training programme for Tribals commenced on 25-10-1983 for a period of 45 days for 30 tribals at the Institute of Agricultural Technology, Tavanur. The training programme on Plant Protection for SMS and Agricultural Officers commenced on 18-10-83 at College of Agriculture, Vellayani for six days with 30 candidates. One batch of 30 SMS and Agricultural Officers of the Department of Agriculture were trained on pulses production from 5-10-1983 at Regional Agricultural Research Station, Pattambi for 3 days. A training programme for the Extension Officers of the Development Department of Kerala was commenced on 26-9-1983. The second batch was from 21-11-83 for 2 weeks for 32 persons. This training was held at the College of Agriculture, Vellayani. A training programme conducted to Agricultural Officers of the Union Bank of India was held on 21-11-83. The duration of the course was 2 weeks, 24 candidates participated. One batch of SMS and JAOs were trained on Plant Protection from 28-11-83 at College of Agriculture, Vellayani for 3 days. A batch of 10 defence personnel were trained in Poultry Science for a period of one month from 1-12-1983 at the College of Veterinary and Animal Sciences, Mannuthy.

**4.07: Farm Advisory Service**

The following seminars were organised during the period.

<u>Venue</u>	<u>Date</u>	<u>No. of participants</u>
Moncompu Alleppey	16-8-83	54
Pandanadu Alleppey	13-9-83	74
Venmony Alleppey	20-9-83	58
Vilvattom Trichur	8-10-83	52
Valakkuzhy Pathanamthitta	10-10-83	54
Chokkad Malappuram	20-10-83	86
Mallappally Pathanamthitta	29-10-83	57
Ezhupunna Alleppey	18-11-83	86

The members of staff in the FAS also participated in 12 seminars organised by Development Departments.

**4.08: Exhibition and Graphic Service Unit**

The following exhibitions were conducted by this Unit during the period under report.

Participated in Trichur Pooram Exhibition (1983) and bagged the 'Best Stall' award.

Exhibition at Vazhachal in connection with "Eco Development Camp" organised by the NSS Units of College of Horticulture.

Exhibition at Cheruthuruthy in connection with Science Fair.

Exhibition at Sri Rama Polytechnic, Tripprayar and bagged Merit award.

Exhibition at Cashew Reserarch Station, Anakayam in connection with lab-to-land programme.

Exhibition at Irinjalakuda in collaboration with Canara Bank.

In the Colour lab. attached to this Unit, 11300 colour slides on crop cultivation



aspects were prepared for supplying them to the Department of Agriculture, Govt. of Kerala. Besides this, 1367 Nos. of colour slides, 387 Nos. of Black and white slides, 88 nos. of copied colour slides, 78 nos of colour negatives, 529 nos of black and white photos, 130 nos of black and white negatives and 4 nos of 20" x 30" sized black and white Blow-Ups were also prepared. Forty nos of charts, 104 graphs 9 nos of enlarged graphs, 50 nos of cover designs, 37 nos of posters and 94 nos of Illustrations were also prepared during this period.

The Public Address system was used in 18 University functions. Five film shows and 27 slide shows were also arranged during this period.

4.09: Village Adoption Programme

Twenty-two villages around Educational Institutions and Research Stations of the Kerala Agricultural University have been adopted under this programme. These villages are being developed to serve as model villages and to serve as 'field laboratories' to the Scientists working in the University.

4.10: National Demonstration

During this period, the National Demonstration Scheme was shifted from Trichur to Sadanandapuram in Quilon district. Demonstrations emphasising multiple cropping, whole farm development and higher productivity per unit area per unit time were laid out under this scheme.



During the II crop season, 8 rice-based demonstration projects, one problem soil demonstration, ten entire farming demonstrations, one pulse/tapioca demonstration were laid out in this area.

#### 4.11: Krishi Vignan Kendras

Krishi Vignan Kendra, Pattambi

The Trainings conducted during the period under report by the KVK, Pattambi are detailed below:

Sl. No	Name of Training	No. of batch- es	Duration in days	No. of farm- ers train- ed
1	Inland pisciculture	5	2	50
2	Breeding of carps	1	3	10
3	Processing and pickling of fishes	8	1	160
4	Backyard poultry	10	1	100
5	Clean milk production	5	1	50
6	Calf-rearing	5	1	61
7	Vaccination of poultry	5	1	50
8	Goat rearing	4	1	41
9	Rabbits for meat	1	2	10
10	Buffaloe management	1	1	49
11	Management of milch animals	2	1	27
12	Chick rearing	4	1	41
13	Vegetable cultivation	1	1	10
14	Fuel and softwood trees raising	2	2	20
15	Plant population in second crop rice	1	1	10
16	Economics of use of irri- gation water for coconut	1	1	12
17	Coconut cultivation	4	1	99

The KVK Pattambi also organised a Farm Science club at Pattambi High School.

KVK for Tribals, Ambalavayal

The following training programmes were conducted by the Kendra during this period for the benefit of tribal farmers/women.

Sl. No	Name of training	No. of batches	Duration in days	Participants
1	Top dressing for tapioca	2	1	20
2	Fertilizer application for ground nut	1	1	10
3	Back-yard poultry	1	1	15*
4	Management of Goats	2	2	30
5	Plant Protection spraying	1	2	10
6	Rodent control in tapioca gardens	4	2	80
7	Rice diseases and their control	1	2	15
8	Rice pests and their control	1	2	15
9	Soil testing	1	1	15
10	Weed control	1	1	15
Total				225

\*Tribal Women

#### 4.12: Extension Education, Centre, Kayamkulam

##### Training programmes:

Nine one-day training courses on intensification of cultivation of pulses and oilseeds were conducted for the benefit of 360 Agricultural Demonstrators during this period. Besides these, twelve training programmes for the benefit of farmers were also organised. In these training courses over six hundred farmers participated.

Demonstrations:

Three demonstrations on Pulses and Oilseeds were laid out on forty selected plots in and around the centre during the period under report.

Seminar

A seminar on pulses and oilseeds was conducted at Adoor on 20-10-83 in which 48 farmers participated.

4.13: Monthly workshops under the T&V System.

Scientists of the University acted as Resource personnel in the T & V monthly workshops.

Fortyeight monthly workshops were conducted in the various districts of the State with the participation of officers of the Department of Agriculture and Scientists of Kerala Agricultural University.

4.14: National Service Schemes:

The NSS Programme is conducted in the Colleges under Kerala Agricultural University. There are at present 8 NSS Units in all. The NSS units of the College of Agriculture, Vellayani, organised two community centres, one at Kakkamoola and another at Muttakkad with facilities for reading newspapers, weeklies etc. A camping programme was organised from 24-6-83 to 26-6-83 at the Tribal areas of Puravimala, Thenmala, Ayyavilakam etc. of Amboori village. A blood grouping campaign was conducted with the help of Sree Chitra Medical Centre, Tri-vandrum and a list of 160 blood donors was prepared. Twenty NSS volunteers from College of Agriculture, have donated blood during the period. A cleaning campaign was organised to clean the Government Hospital, Vellayani

and College Hostel premises. The NSS Volunteers also celebrated the Vanamahotsava and Human rights day in all the campuses.

Under the auspices of the NSS Units of Fisheries College, Panangad a morbidity and fertility survey was conducted.

The NSS volunteers of the College of Veterinary and Animal Sciences, Mannuthy donated blood for the needy patients in the District Hospital and Amala Cancer Institute, Trichur. The volunteers also helped in arranging functions, meetings, seminars/workshops. A blood grouping camp was also organised by the NSS units in the College of Veterinary & Animal Sciences.

A training camp was organised in the Directorate of Extension with assistance from officers of the Adult Education Programme for two days on 19th and 20th of November, 1983. The NSS Programme officers also underwent training at Kalamassery and Hyderabad during this period.

15: KAU Project Centre, Nilambur (Scheme for the Socio-economic uplift of SCs and OBCs.)

The mid-term assessment meeting at All India Level was conducted at the Directorate of Extension from 11-10-83 to 13-10-1983. The project centre has popularised cultivation of vegetables in the homesteads of Harijan and Girijan colonies in Nilambur area.

The centre is concentrating on the upliftment of 300 selected SC, OBC and tribal families in Nilambur area by introducing viable technologies. Fodder development programme, social forestry, providing improved potters' wheels and improved agricultural implements and some of the development oriented research programmes successfully conducted by the centre. The project centre

arranged training in Tailoring and embroidery, clean milk production, Adult Education, Animal Management and allied aspects. The scientists of the Centre, in collaboration with Development agencies in Nilambur area have conducted seminars and group discussions.

#### 4.16: KAU Press

##### Additional equipment/machinery installed

A calendar rimming machine and a cutting machine, knife sharpening machine were purchased and installed in the KAU Press. The following printing works were completed during the period.

Kalpadhenu - Issue Nos 5, 6 (Vol XI No 1; Vol XI No 2); News letter - April-June; July-August, September-November issues; Kozhivalarthar Oru Ethinottam (Booklet); Maracheeni (Booklet); Soybean cultivation and processing (Booklet); Soil forming factors (Booklet); Package of Practices Recommendation (1982) Agri - Book; Diseases of crop plants of Kerala (Book); College magazines (IAT and Horticultural College magazines); Anivet Abstracts (Vol 9 Nos 1, 2 and 3); Agriculture Res. Journal of Kerala, Vol 20 (1); Kattuveezhcha, contagious diseases in cattle and their control; High Yielding Variety of Bittergourd and Newly released seed varieties (4 leaf lets); A case study of Muduvas of Parambikulam (Booklet); Annual accounts and audit report (1978-79); Kerala Journal of Vety. Science. Vol 14(1 & 2); Water resources Development in KAU; Thesis Abstracts; Annual report (1981-82); Research Report (1980-81).

Apart from the above works, 126 nos of invitations, notices, letter pads, cover pages, forms calendar, registers have also been completed during this period.

#### 4.17: Lab-to-Land Programme

Under the II Phase of Lab-to-Land Programme 1100 poor farm families were selected in 31 transfer of Technology centres in the University. The significant feature of the II Phase Lab-to-Land Programme is the identification of beneficiary farmers from among the weaker sections of the population on a cluster basis.

Fertilizers, horticultural plants, rooted pepper cuttings, goats, poultry, feed for goats and poultry, honey-bee colonies, seeds of vegetables, fingerlings are some of the important inputs given under this programme.

Improvement of local stock of goat by introduction of Sannen x Malabari crosses and Alpine X Malabari crosses of bucks has also been achieved. Local duck rearing at Vyttila centre has been highly profitable to the farmers.

In Ollukkara centre assistance is provided to start homestead occupations among Harijans. Mat weaving, Chair making etc., have been undertaken in this Centre, to provide additional employment and income to the beneficiary farmers.

#### 4.18: Extension Lecture Series

The following extension lectures were arranged during this period:

Name of Lecturers	Topics	Date and Venue
Dr P Basak, Head, Groundwater Division, CWRDM Calicut	1 - Status of Groundwater Utilization	27-5-83 Horticultural College
	2 - Salt water Intrusion in coastal Kerala	Vellanikkara

Dr NS Ramaswamy, Director IIM Bangalore	Management of Agricultural Research	20-8-1983 Veterinary College Mannuthy
Dr M Aram, Vice Chancellor, Gandigram Rural Institute, Madurai	Gandhian perspe- ctive of Higher Education	9-9-1983 Veterinary College Mannuthy
Dr K Raghavan Nambiar, Professor, Govt. Engineering College, Trichur	Management of Water Pollution due to land use practices.	5-11-1983 College of Horticulture, Vellanikkara.
Dr PN Narasimhan, Emeritus Professor College of Agricul- ture, Bapatla	Chemistry of Submerged Soils	20-12-1983 College of Agriculture, Vellayani.



CHAPTER-5

ENGINEERING WING

- 5.01 Mr KR Krishna Pillai continued as the Director of Physical Plant. M/s PO Thomas and SJ Mathew continued as the Executive Engineers. M/s KG Achuthan, TK Rajan, V Ramachandran Nair and Thomas Mathew M continued as Assistant Executive Engineers. There were 4 Assistant Engineers on higher grade and 15 on the lower cadre.
- 5.02 The budget provision for the year under works plan is Rs.62.10 lakhs. It has been decided to provide an additional allotment of Rs.76 lakhs. The expenditure as on 31.12.1983 is Rs.96 lakhs. In addition, an amount of about 30 lakhs has been expended under miscellaneous heads and 11.5 lakhs under maintenance.
- 5.03 At the Vellanikkara Campus, the BT surfacing and construction of culverts from A road junction to Store building and duplex quarters have been completed. The formation of 'C' road and construction of culverts along Ladies Hostel and Radio Isotope Laboratory has been completed and tenders invited for metalling. Formation of 'C' road including metalling and construction of culverts to Type IV, V & VI quarters has been completed. The construction of Type IV, V & VI quarters has also been completed and the construction of Type II duplex quarters is nearing completion. The construction of Ladies Hostel Block II, Bachelors Hostel and Trainees' Hostel are in progress. The construction works of compound wall around Ladies Hostel and fencing around Pepper Nursery are also in progress. Construction of Glass House, Net House, Laboratory cum Research building for CRS Madakkathara are in progress. The construction works of providing irrigation facilities in Instructional Farm, Vellanikkara has been completed. Electric connection is to be received. The work of construction of a Shool building has been started. The work of providing street lights in the main campus is in progress.



At the Mannuthy Campus the balance works of Dairy Technology building are in progress. Erection of machineries is in progress. Arrangements are being made for erection of machineries in Meat Technology building. The balance works of water supply works and electrification of the building have also been arranged and the works are in progress. The civil works of Rearing House, Layer House and Breeder House are completed and the electriciation works are in progress. The construction of a Dormitory building for Hostel employees is nearing completion. The construction of a building for 100 experimental animals is also in progress. The construction works of Ladies Hostel, additional Lecture hall and 2 Cage Houses are also in progress. The construction of a Community type Bio-gas Plant has been arranged and is in progress.

At the Fisheries College, Panangad the construction of three semi-permanent sheds have been completed and the construction of 4th block has been started. The construction of Dormitory building is nearing completion. The construction of approach road to Laboratory at Pudukkottai and construction of 6 nos. of experimental fish ponds has been completed. The construction of a Basket ball court at Panangad is in progress. The construction of Type IV & V quarters are also in progress. A Master Plan for Fisheries College campus is also under preparation.

At Vellayani the construction of a Soil Processing Lab. and Weight training hall has been completed. The construction of a Deep litter Poultry building has been arranged and is in progress.

At Panniyur the construction of Type IV & II quarters is in progress and the construction of Demonstrators' quarters have been completed.

At Thiruvazhamkunnu, the construction of Type IV quarters has been completed. The construction of cow barn for 100 cows and Milk chilling Plant is in progress.

The construction of laboratory building has been started.

At Tavanur, the construction of Poultry shed has been completed. The construction of concrete Basket ball court has been completed. The construction of Type IV & V quarters are in progress.

At Pampadumpara, the construction of Type II and Type IV quarters are in progress. The work of water supply arrangements has been completed.

Under NARP Scheme the following works are in progress.

I. Pilicode	Construction of Type II, IV & V quarters	10 Nos
	Construction of Trainees' Hostel	
	Construction of Laboratory building	
II. Pattambi	Construction of Type II, IV & V quarters.	6 "
	Besides, the construction of a building for KVK is also in progress	
Mannuthy	Construction of Type V quarters	1 No
III. Kumarakom	Construction of Type II, IV & V quarters	5 Nos
Moncompu	Construction of Type IV & V quarters	2 Nos.
IV. Vellayani	Remodelling the Agronomy, Soil Science & Agricultural Chemistry Laboratories	

6.04: The details of various Civil Works in progress are given in Table IX.

TABLE IX: PROGRESS OF CIVIL WORKS(1.4.1983 to 31.12.1983)

Budget item No	Name of work	Estimate amount in lakhs	Expenditure up to date	Progress as on 31.12.'83
(1)	(2)	(3)	(4)	(5)

V.f(iii) CIVIL WORKS(PLAN)I. MAIN CAMPUS - A ROAD

- |    |   |      |             |   |
|----|---|------|-------------|---|
| 1. | Formation of C Road-Soling metalling, construction of culverts etc.(TS No.18/82-83)     | 1.92 | 2,40,343.90 | Work completed  |
| 2. | Formation of C Road - along Ladies Hostel and Isotope Lab. from A road(TS No.101/81-82) | 2.5  | 42,697.56   | Work of culverts completed, soling & metalling work tendered. |

B. ELECTRICITY:

- |  |  |      |             |                  |
|--|--|------|-------------|------------------|
|  | Providing street lights in the Main Campus,Vellanikkara (TS No.40/82-83) | 7.00 | 1,47,764.00 | Work in progress |
|--|--|------|-------------|------------------|

C. WATER SUPPLY:

- |  |   |      |          |                |
|--|---|------|----------|----------------|
|  | Construction of <b>G.L.tank</b> and pump house for Duplex quarters(25 Nos) at Main Campus Vellanikkara. | 1.40 | 2,864.61 | Work completed |
|  | - do - - do - for Hostel Blocks(TS No.135/80-81)  | ..   | 7,676.50 | Work completed |

II. COLLEGE AND LAB BUILDINGS

- |    |  |       |             |  |
|----|--|-------|-------------|--|
| 1. | Construction of Dairy Technology building at Mannuthy(TS No.111/77-78) | 6.50  | 7,80,673.01 | Balance works rearranged and are in progress.Civil works nearing completion. Erection of equipments in progress. |
| 2. | Construction of Lab & Library building at Vellayani(TS No.25/78-79)    | 30.00 | 2,657.82    | Estimate for balance work being verified for rearranging the balance work.                                       |

(1)	(2)	(3)	(4)	(5)
3.	Construction of an additional Lecture hall for Vety.College Mannuthy. (TS No.34/83-84)	2.25	32,997-80	Work in progress
4.	Construction of Deep litter poultry unit at Vellayani (TS No.54/83-84)	2.61	443.60	Work in progress
5.	Construction of Meat Technology building at Mannuthy(TS No.17/77-78)	9.00	..	Building work completed, water supply and electrification works arranged. Work of refrigeration plant also arranged.

## FISHERIES COLLEGE

Construction of Semi-permanent sheds for Fisheries College Panangad (Ist & 2nd blocks) -do-	5.60	4,93,566.25	Work completed
3rd block (TS No.59/81-82)	2.60	2,82,230.87	Work completed
-do-4th block(TS No.56/83-84)	3.76	710.68	Work in progress
Construction of Breeding (Layer) House for Ducks at Mannuthy(TS No.7/81-82)	1.94	3,14,419.03	Civil work completed. Electrification arranged.
-do- Rearing House -do- (TS No.8/81-82)	1.40	1,95,256.34	-do-
-do- Brooder House -do- (TS No.9/81-82)	2.40	2,98,324.52	Civil work completed. Agreement executed for electrical works.
Construction of building 100 experimental animals for Vety.College, Mannuthy (TS No.93/81-82)	3.25	1,26,355.40	Work in progress
Construction of School building at Main Campus, Vellanikkara.	5.50	599.00	Work in progress
Soil Processing-cum-digestion room, Vellayani (TS No.13/82-83)	1.145	93,206.00	Work completed

(1)	(2)	(3)	(4)	(5)
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### III. INSTRUCTIONAL FARM

Providing irrigation facilities to Instructional Farm, Main Campus, Vellanikkara (TS No.72/82-83)	1.05	46,164.20 <sup>9</sup>	Construction of Pump House & tank completed. Pump set erected. Electric connection awaited.
Fencing in the Pepper Nursery - balance portion (TS No.97/82-83)	2.50	599.00	Work in progress
Instructional Farm, Mannuthy Providing fencing in the Western and Southern side of the Campus (TS No.49/83-84)	1.02		Work in progress

### IV. WORKSHOP/GLASS HOUSE

Construction of a Glass House Instructional Farm, Vellanikkara (TS No.119/81-82)	3.09	1,87,094.78	-do-
-do- Net House - do- (TS No.118/81-82)	2.65	50,303.50	-do-

### V. SPORTS, GAMES & STUDENTS AMENITIES

Construction of a Stadium & Playground at Main Campus, Vellanikkara (TS No.40/81-82)	0.93	14,562.23	Earth work for levelling the stadium area is in progress.
-do- -do- an auditorium at Vellayni campus			Estimate checked & work is to be arranged.

### VI. STAFF QUARTERS

Construction of quarters for Asst. Professors (3 Nos) - Type IV and Assoc. Professors (4 Nos) Type V at Vellanikkara (TS No.143/79-80)	7.59	2,34,559.77	Work completed
Construction of Type II quarters (Duplex) 5 Nos at Vellanikkara (TS No.78/81-82)	4.35	5,07,137.54	Civil work is nearing completion. Electrical work arranged.

(1)	(2)	(3)	(4)	(5)
Construction of Type VI quarters for Professors(6Nos) at Vellanikkara(TS No.141/79-80)		8.51	1,94,773.47	Work completed
Construction of Bachelors Hostel at Main Campus,Vellanikkara (TS No.95/82-83)		9.00	79,33,815.00	Work in progress
Construction of Type VI quarters for Assoc.Dean(1 No.) and 2 Nos.Type V for Assoc. Professors(TS No.142/79-80)		3.28	4,47,002.88	Work completed
Construction of Type IV quarters for Asst.Profesors(Duplex) at Thiruvazhamkunnu(TS No.74/81-82)		3.44	4,88,183.98	-do-
Construction of Type IV quarters for Asst.Professors (2 Nos) at i.e. 1 No.Duplex type at IAT Tavanur (TS No.79/81-82)		1.62	0	Work in progress
			2.85	1,17,374.07
Construction of Type V quarters 1 No.IAT Tavanur (TS No.79/81-82)		1.23	0	
Construction of Type IV quarters 4 Nos(2 Nos.Duplex) and Type II quarters 4 Nos (2 Nos.duplex) at PRS Panniyur(TS No.97/81-82)		3.40	1,68,295.00	Work in progress
		1.88	0	
Construction of quarters for Demonstrators & Watchman at PRS Panniyur(TS No.96/80-81)		5.28	0	
		0.61	46,404.00	-do-
Const ruction of Type IV quarters( duplex) for Asst. Professors for Fisheries College,Panangad(TS No.107/82-83)		14.25	2,92,589.60	-do-
Construction of Tupe V quarters for Assoc.Professors for Fisheries College,Panangad (TS No.108/82-83)		10.00	1,35,707.05	-do-

#### VII. STUDENTS HOSTEL

1. Construction of Ladies Hostel at Mannuthy (TS No.106/82-83)	41.00	15,09,489.38	Work in progress
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(1)	(2)	(3)	(4)	(5)
2.	Construction of Ladies Hostel at Vellanikkara (TS No.154/79-80)	21.00	31,40,912.78	Work completed
3.	-do-Block No.II, Vellanikkara(TS No.101/82-83)	42.00	12,81,060.60	Work in progress
4.	-do- Trainees Hostel at Main Campus(TS No.96/82-83)	9.00	5,21,015.59	-do-
5.	Constructing compound wall to Ladies Hostel, Main Campus(TS No.121/82-83)	1.40	2,11,575.45	-do-

#### VIII. REGIONAL RESEARCH STATION

	Construction of cattle barns for 100 milking cows at LSF Thiruvazhamkunnu (TS No.19/82-83)	3.80	2,25,993.00	-do-
	-do- Dormitory building for men students at Fisheries College, Panangad (TS No.90/81-82)	4.55	1,74,729.65	Civil work nearing completion and electrification work completed.
	Constructing A Training & Research Building at CRS Madakkathara(TS No.5/83-84)	2.00	1,92,030.15	Work in progress

#### IX. WORKS FOR PROVIDING BASIC FACILITIES

	Providing irrigation facilities at CRS Pampadumpara (TS No.25/81-82)	1.52	1,81,205.13	Work completed
	Constructing a building for milk chilling unit at LRS Thiruvazhamkunnu (TS No.8/83-84)	1.92	8,402.28	Work in progress
	Improvements to water supply system relaying the pipe lines and construction of two pump houses at CBF Thumburmuzhi(TS No.42/83-84)	1.21	177.54	-do-
	Installation of community pipe bio-gas plant at Mannuthy.	2.266	1,500.00	Agreement executed. Work started.

(1)	(2)	(3)	(4)	(5)
<u>NARP PILICODE</u>				
	Construction of quarters Type V (5 Nos) Assoc.Profess- ors, CRS Pilicode (TS No.44/81-82)	9.50	4,40,280.31	Work in progress
	-do- Type IV single unit for Asst.Professors	0.96		-do-
	-do- Type II 2 Nos(Duplex)	1.96	45,276.00	-do-
	Construction of Trainees Hostel at CRS Pilicode (TS No.73/81-82)	6.20	6,55,364.83	-do-
	Construction of Administra- tive building & Lab building at CRS Pilicode(TSNo.92/83-84)	22.00	7,27,929.32	-do-
<u>NARP PATTAMBI</u>				
	1. Construction of Type II quarters(Duplex) at RRS Pattambi	1.20	90,426.80	-do-
	2. -do- Type IV -do-	2.40	2,46,454.30	-do-
	3. -do- Type V -do-(2 Nos)	3.40	64,745.00	-d -
<u>NARP MANNUTHY</u>				
	Construction of Type V Quarters at Mannuthy	1.70	32,070.45	-do-
<u>KADP</u>				
	Construction of Radio Isotop Lab building at Vellanikkara.		1,08,851.17	Work completed
<u>AICRP</u>				
	Construction of Cage House 2 Nos. at Mannuthy	6.70	1,87,197.55	Work in progress
<u>KVK - RARS PATTAMBI UNDER ICAR</u>				
	Construction of Office and hostel for KVK Pattambi (TS No.51/83-84)	2.53	532.62	Work in progress
<u>NARP KUMARAKOM</u>				
	1. Constructing staff quarters Type IV(Duplex) at RARS Kumarakom	3.10	532.62	Work in progress
	2. Constructing staff quarters Type V at RARS Kumarakom	2.30	355.08	-do-



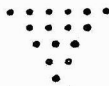
NARP MONCOMPU

- |  |      |        |                     |
|--|------|--------|---------------------|
| 1. Constructing staff quarters<br>Type IV Single Unit at<br>RRS Moncompu | 1.65 | 266.31 | Work in<br>progress |
| 2. -do- Type V at RRS Moncompu   | 2.23 | 355.08 | -do-                |

NARP(SR) VELLAYANI

- |   |      |        |      |
|---|------|--------|------|
| 1. Remodelling and furnish-<br>ing of the existing la-<br>boratories - Dept. of<br>Agronomy at Agrl. College,<br>Vellayani (TS No.73/83-84)     | 2.15 | 266.31 | -do- |
| 2. Remodelling and furni-<br>shing of the existing<br>laboratories - Dept of<br>Soil Sciences & Agrl.<br>College, Vellayani<br>(TS No.74/83-84) | 2.64 | 266.31 | -do- |

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## CHAPTER - 6

## KAU ESTATE

- 6.01 Mr TM Ibrahimkutty continued as Estate Officer till 15.7.1983. Mr VS Appukuttan Nair took charge on 16.7.'83 and continued till 15.9.1983. Mr KT Narayanan Nambiar took over on 15.9.1983 and is continuing.
- 6.02 The total area of the Estate on 31.12.1983 is 379.5615 ha. During the period an area of 11.1948 ha was newly acquired for the Estate. A total 42,500 rubber trees in 170 blocks were available for tapping. The total number of rubber trees in the Estate is 48,915 nos.
- 6.03 A total of 27,954.730 kg of rubber was produced during the period out of which 22,000.000 kg was disposed off in auction. The receipts during the period came to Rs.4,61,848.52.

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## CHAPTER-7

## FINANCE

## 7.01 General

Mr NM Abdul Kadir continued as the Comptroller. One post of Assistant Comptroller was upgraded as Dy. Comptroller in July 1983 and Mr TM Ibrahimkutty assumed charge of this post on 15.7.1983. He entered on leave with effect from 3.9.1983 and Mr VS Appukuttan Nair took charge on 16.9.1983. Mr PC Raveendran Pillai and B Sankar Naik continued as the Assistant Comptrollers at headquarters.

At the Audit wing Vellayani, Mr VS Appukuttan Nair continued as Asst Comptroller till 18-7-83. Mr EV Karunakaran Nair took over on 11.8.83 and continued upto 25.8.83. Mr M Krishnan Nair took charge on 25.8.83 and continued for the rest of the report period.

## 7.02 Annual Budget 1983-84

The annual budget of the University for 1983-84 shows a receipt of Rs.1173 lakhs and an expenditure of Rs.1130.84 lakhs. The quantum of grant-in-aid received till 31.12.1983 and other items of receipt works out to Rs.892.81 lakhs as follows:

	Plan	Non-Plan	Total
	(Rs. lakhs)		
State Government	200.00	400.00	600.00
ICAR	233.89	..	233.89
Govt. of India-Department of Environment	1.02	..	1.02
Internal resources	-	53.92	53.92
Interest on short-term deposits of General Fund	-	3.98	3.98
<b>Total</b>	<b>434.91</b>	<b>457.90</b>	<b>892.81</b>

## 7.03 Post-budget commitments

The post-budget commitments are Rs.164.82 lakhs under the following items.

i. Teachers pay revision with effect from 1.4.79	12.00
ii. DA and Ad-hoc DA	49.57
iii. DA revision and special festival allowance to pensioners	2.61
iv. Internship allowance to Vety.graduates	0.34
v. Construction of students hostels	24.00
vi. Additional expenditure under works	76.00
	<hr/>
	164.52 lakhs
	<hr/> <hr/>

#### 7.04 Audit of accounts

Audit of accounts for the period from 1979-80 onwards is in arrears. However, the Government Auditor is taking up the audit of schemes sponsored by Indian Council of Agrl.Research and other agencies on a priority basis and 80% of the audit certificates for 1980-81 were issued. The remaining certificates will also be issued shortly to enable continued drawal of assistance by the University from the grantee institutions.

#### 7.05 Finance Committee & Accounts Committee

The Finance Committee did not meet during the period. The Accounts Committee is reviewing the audit report for 1977-78.

