

Imprints

25 Years of KVK Palakkad

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Farm Science Centre
Krishi Vigyan Kendra





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2011/AT/11

Imprints -25 years of KVK Palakkad

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Printed at

Lumiere Printing Works, Thrissur

Citation

Rajendran.P, Divakar Suma, Prasad R.M. and Jose A.I. 2004. Imprints - 25 years of KVK Palakkad, Kerala Agricultural University, Thrissur

Message

The transformation from the stage of "Ship to mouth" to the present "Farm to ship" is a testimony to the success of Indian Agricultural Research System. The total food grain production from 52 million tones during 1951 to the present 208 million tones signals a co-ordinated effort among scientists, farmers, policy makers and above all the people of this land. Pundit Jawaharlal Nehru in his first address to the nation mentions "Everything can wait, but not agriculture". This was followed up by the famous slogan of Lal Bahadur Shastri "Jai Jawan, Jai Kissan".

Despite increased production and availability of food grains, there is a sizable section of our community below poverty line. With the opening of market globally, on an international scale, competition has come in the unit value of agricultural produce. At this juncture, it is important that the agriculture extension system needs a new focus. This focus is given by the establishment of Krishi Vigyan Kendras in each and every district of India. Appropriately market led extension is also gaining importance.

The Krishi Vigyan Kendra, Palakkad located at Regional Agricultural Research Station, Pattambi is one of the earliest Krishi Vigyan Kendras in the country. It has done commendable and visible work in the rice bowl of Kerala - Palakkad. The KVK is celebrating its Silver Jubilee during 2004. During the celebrations the KVK is publishing a detailed book on its activities, achievements and future programs. I complement the University, its Director of Extension, Training Organizer of KVK, Palakkad and his staff for the initiatives taken. I wish the publication will be of immense use to all others in the Indian agriculture extension service system.

December, 2004
New Delhi

Dr. P. DAS
Deputy Director General (AE)
Indian Council of Agricultural Research
Krishi Anusandhan Bhavan, Pusa
New Delhi-110 012

Message

The growth of Indian agriculture is dependent on 103 million farm families cultivating 140 million hectares of land. It is impossible to reach such a huge number of farmers. The effective dissemination and transfer of appropriate technologies to needy farmers is very much essential for increasing agricultural production in the country. It is very difficult for farmers' to gather latest information of technologies from various research institutes. Keeping this in view the ICAR, New Delhi established a network of Krishi Vigyan Kendras (KVK) in the country covering most of the rural districts to function as single window system, where all information are made available to the needy farmers of the region.

The KVKs create awareness and motivate farmers for adopting modern technologies by conducting regular on and off campus training programmes, undertaking on farm testing, frontline demonstrations and providing farm advisory services. The cardinal principle in all the training activities is 'learning by doing' and imparting skill-oriented training. Krishi Vigyan Kendra, Palakkad is no exception to it. And, this KVK has done yeomen services to the farming community of Palakkad district in particular and Kerala state in general since its inception in 1979.

It is nice to hear that KVK Palakkad, celebrating its Silver Jubilee has done a lot of commendable extension approaches viz., cooperative farming, women's group enterprises, transfer of technology through master trainees.

I am very glad that KVK is bringing out a document on achievements so far made by the centre. This publication is a collection of information about the progress so far made by the KVK since inception. I congratulate KVK Palakkad, appreciate their contributions, and extend my sincere thanks to the scientists who have brought laurels to this KVK. I am sure, this publication will help its users in their endeavors for generating need based technologies for farmers and using the same for better satisfaction and income.

I wish KVK Palakkad success in their endeavour.

September 17, 2004
Bangalore

Dr. S. Prabhu Kumar
Zonal Coordinator
Transfer of Technology Projects (ICAR)
Zonal Coordinating Unit – Zone VIII
NDRI Campus, Adugodi
Bangalore – 560 030

Foreword

Krishi Vigyan Kendra, Palakkad (1979-2004) is the first of its kind of the Kerala Agricultural University, being the prestigious transfer of technology project of the Indian Council for Agricultural Research. This Kendra is celebrating the year 2004 as the Silver Jubilee year. The Kendra has earned a name for itself in the Agricultural Scenario of Palakkad through its participatory approaches.

The initiatives on group farming approaches, women entrepreneurship and sponsored computer training programmes are some of the many commendable efforts of this Kendra. Through its 'On farm testing' and 'Front line demonstration' programmes, the centre has to a great extent aided in popularizing the new technologies of our research station.

I am happy that a publication is being brought out on the occasion of the Silver Jubilee. The publication is well drafted and presented and will definitely portray the significant activities of the Kendra in the past 25 years.

Vellankkara
December 2004

Dr. K.V. Peter
Vice Chancellor
Kerala Agricultural University

Preface

Krish Vigyan Kendra, Palakkad was established on October 2nd 1979, in the premises of the Regional Agricultural Research Station, Pattambi. The objective behind establishing this transfer of technology project of ICAR has been to bridge the gap between the farmer and research stations. The training programmes based on the felt need of farmers, 'Lab to land programmes', 'On farm testing', 'Front Line demonstrations', 'Client oriented research' and 'Problem oriented research' are the various programmes implemented to achieve this objective.

The Kendra has also been successful in promoting quite a few agro based enterprises. The support given to group rice farming in and around Palakkad district has gained much appreciation. The KVK has established linkages with many of the welfare and development departments to implement its programmes.

The participatory approach and team work of the personnel at the Kendra has helped in creating a coveted place in the heart of the farming fraternity.

Mannuthy
December 2004

Dr. M.K. Sheela
Director of Extension
Kerala Agricultural University

LIST OF ABBREVIATIONS USED

ADS	- Area Development Society
ATIC	- Agricultural Technology Information Centre
CDS	- Community Development Society
DRDA	- District Rural Development Agency
DST	- Department of Science and Technology
DWCRA	- Development of Women and Children in Rural Areas
FAS	- Farm Advisory Services
FOIS	- Fish Oil Insecticidal Solution
FSRE	- Farming Systems Research and Extension
GALASA	- Group Approach for Locally Adapted and Sustainable Agriculture
GKY	- Ganga Kalyan Yojana
HYVP	- High Yielding Varieties Programme.
IAAP	- Intensive Agricultural Area Programme
IADP	- Intensive Agricultural District Programme
ICAR	- Indian Council of Agricultural Research
IRDP	- Integrated Rural Development Programme
ITK	- Indigenous Technical Knowledge
IVLP	- Institute Village Linkage Programme
KHDP	- Kerala Horticultural Development Programme
KVK	- Krishi Vigyan Kendra
KIRTADS	- Kerala Institute for Research Training and Development of SC/ST
LLP	- Lab to Land Programme
MWS	- Million Wells Scheme
NABARD	- National Bank of Agriculture and Rural Development
NARP	- National Agricultural Research Project
NATP	- National Agricultural Technology Programme
NES	- National Extension Service
NHG	- Neighbourhood Help Groups
NWDPRA	- National Watershed Development in Rainfed Areas
ORP	- Operational Research Programme
PCARDBS	- Primary Cooperative Agricultural and Rural Development Banks
PLP	- Potential Linked Credit Plan
PMIUPEP	- Prime Minister's Integrated Urban Poverty Eradication Programme
PRA	- Participatory Rural Appraisal
SGSY	- Swarna Jayanthi Gram Swarozgar Yojana
SJSRY	- Swarna Jayanthi Sahari Rozgar Yojana
SITRA	- Supply of Improved Tools to Rural Artisans
SUME	- Scheme for Urban Micro Enterprises
TELAP	- Technology Evaluation and Impact Assessment Project
TRACES	- Tracking Agricultural Prospect and Effective and Scientific Coordination Samithi
TRYSEM	- Training for Rural Youth in Self Employment
T & V System	- Training and Visit System
UNCED	- United Nations Conference on Environment and Development

TRAINING ORGANIZERS (1979 – 2004)

1979 to 1981	-	Dr. O. Abdulrahman Kunju
1982 to 1987	-	Dr. G.T. Nair
1988 to 1989	-	Dr. B. Babu
1990 to 1992	-	Dr. G.B. Pillai
1992 to 1993	-	Dr. N.K. Vimalakumari
1993 to 1994	-	Dr. P. Rajendran
1994 to 1996	-	Dr. G.S. Narayanan
1997 to 1998	-	Dr. P. Ahamed
1998 -	-	Dr. P. Rajendran.

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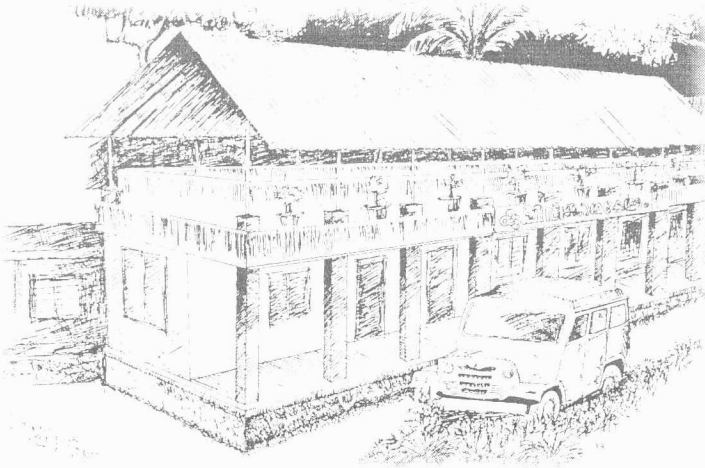
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CHAPTER - 1

INTRODUCTION



The Krishi Vigyan Kendras (KVKs) have their origin, from the recommendations of the Education Commission (1964-66) which constituted a committee under the chairmanship of Dr. Mohan Sinha Mehta. The Indian Council of Agricultural Research (ICAR) translated these recommendations into the concept of reality by instituting Krishi Vigyan Kendras (Farm Science Centres) to provide a mechanism for vocational agricultural training, to minimize the time lag between the generation of agricultural technology and its adoption by the end users. The first KVK was established in 1974 in Pondicherry under the administrative control of the Tamil Nadu Agricultural University. India has sustained a significant rise in agricultural production in which the contribution of the KVKs is quite phenomenal and vital. With this conviction, the

Government of India pronounced from time to time, the establishment of KVK in each district of the country. As on date there are 487 KVKs established in India. In this context it is worth mentioning that Kerala State is the first in the country in getting KVKs in all the districts.

The KVK is a unique institution which does not have any parallel in the country. KVK tries to provide an effective mechanism for linking the research scientists with the farmers. The salient features of KVK in the field of Agricultural Extension include

- Institutional nature
- Farm based activities
- Inbuilt research extension linkages
- Multi-disciplinary team of scientists

- Participatory management
- GO-NGO partnership
- Comprehensive and broad-based approach
- Need based research/extension formulations
- Institutionalized feed back
- Feed forward arrangements with due consideration to agri-ecological environment and production systems.

The concept of KVK, right from the beginning rested in its flexibility, resiliency and sensitivity to the changing needs and opportunities. The mandate in the early stages of its establishment was confined to the emphasis of imparting trainings on crop production, horticultural production, livestock production, fisheries, farm machinery and tools, home science and other allied vocational enterprises. But, with the changing scenario in the country, the mandates of the KVK have become more elastic,

flexible and comprehensive to hasten the process of revolution in agricultural production. Now, the mandate of a KVK covers activities like vocational trainings to various segments of the farming community, in-service training of extension officials, front line demonstrations and on-farm testing with due consideration to prevailing agro-climatic conditions, production systems and micro environments.

The KVK Palakkad was established by the ICAR at Pattambi on October 2, 1979 under the Kerala Agricultural University. It has successfully completed 25 years of its existence in the field by serving the farming community. An attempt is made in this publication to trace the growth and development of this institution over a period of 25 years and the impact it has produced on agriculture and rural development.

CHAPTER - 2

BACKDROP OF AGRICULTURAL EXTENSION IN INDIA



Agricultural extension in India has matured over the years since independence. The evolution of KVK as an extension institution in this system can be best appreciated only through a better understanding of the emergence of agricultural extension as seen today.

A rapid appraisal of the extension approaches adopted in India reveals that during the pre-independence decades, sporadic and isolated efforts aimed at rural development and agriculture were adopted by a few welfare minded individuals. The field level functionaries otherwise known as 'Village Guides', of these projects, were not trained but were required to perform a 'whole-role' of disseminating knowledge and information related not only to

agriculture, but other development aspects of the people as well.

The 'whole role' concept was well appreciated by the Government of India and was ultimately adapted to a great extent in its Comprehensive Community Development Programme (CDP) and National Extension Service (NES) launched during fifties. But from mid sixties onwards, this approach was replaced by production-oriented approach.

In the initial stages of development, the emphasis on implementation of the programmes aiming at quick and intensive food production in resource endowed areas (IADP, IAAP and HYVP) enhanced the food production level remarkably, but created

the socio-economic disparities between regions and farmers. The Government of India entrusted the task for evolving relevant production technologies and strategies for first line extension system in the country to ICAR.

With a view to strengthening the research extension farmer linkage, Training and Visit Programme (T&V) was introduced in 1974. Regular training of extension functionaries at different levels and their prefixed visits to selected contact farmers were also taken up. The research based programmes such as National Demonstration Scheme (NDS), Lab to Land Programme (LLP), Operational Research Project (ORP) etc. were launched during this period.

Farming System Research / Extension (FSRE) emerged as a response to the need to identify opportunities for appropriate technology change among poor farmers. This approach was characterized by an applied problem solving approach, conducted by multidisciplinary teams with a degree of farmer's participation and effective linkages of researchers and extension workers.

A large number of projects for productivity enhancement through centrally sponsored schemes, externally aided projects and private initiatives of local communities and NGOs were initiated during late 1980's. The largest project in terms of scope and extent was the National Watershed Development Project for Rainfed Areas (NWDPR), implemented by the Ministry of Agriculture. Impact evaluation studies both on the ground and through remote sensing techniques showed that watershed based interventions led to increase in groundwater recharge, increase in number of wells and water bodies, enhancement of cropping intensity, changes in cropping pattern, higher yields of crops and reduction in soil losses.

The NWDPR was restructured by retaining the technical strengths of the older programme and incorporating the lessons learnt from successful projects, especially on community participation. It

is now mandatory for the "watershed development" to be planned, implemented, monitored and maintained by the watershed community themselves.

The farmer centered approaches in development were initiated in Asia based on the Action Plan of the United Nations Conference on Environment and Development (UNCED) held in June, 1992. Farmer centered model of integrated participatory development in agriculture gave emphasis on community empowerment, women partnership in decision making, focused on rainfed areas and thus helped to improve natural resources management, sustainable agriculture, food security and poverty alleviation.

National Agricultural Technology Project (NATP) was launched in 1998. The diverse activities of the project, planned under the three major components were

- (i) Agro-ecosystem Research,
- (ii) Innovations in Technology Dissemination, and
- (iii) Organization and Management System.

National Agricultural Research Project Phase I was implemented during 1980-81 with research components of food crops, oil seeds, farming systems and basic research. NARP Phase II was implemented in April, 1988 with the components viz., horticulture & PFT, soil and water management, farm machinery animal nutrition and management, and agroforestry.

Under ICAR, the KVK system was strengthened to cover all the districts in the country during IX Plan period. Further, 20 Agricultural Technology Information Centres (ATIC) were established in Phase I for providing single window delivery system.

Indian Agricultural Extension/Development System

In the Indian context, there are four major organizational streams devoted to extension work

for agricultural and allied production.

- The ICAR extension system
- Extension system of the Ministry of Agriculture/ state Agricultural and Allied Departments
- Extension system of the Ministry of Rural Development/ State Development Departments.
- Development works of NGOs

ICAR Extension System

ICAR is responsible for first-line extension activities through its four main programmes.

- National Demonstrations
- Farm Science Centres (KVK)
- Operational Research Project
- Lab to Land Programme

From eighth Five Year Plan onwards, ICAR decided to merge the three programmes into the Farm Science Centres with the following three dominant objectives:

- Farm Advisory Services
- Vocational Training
- On-farm Research Trial

The Farm Science model is down to earth in its approach and functions on the principles of 'teaching by doing' and learning by doing'

Extension system of the Ministry of Agriculture/ State Agricultural and Allied Departments

After independence, the Nation was concerned more about food self-sufficiency. Rice production had to be maximized and the first ever revolution for modernization of Indian Agriculture came into being through the Community Development Programme. The productivity of food grains like paddy reached a plateau by 1970s. During this time the Kerala Land Reforms Act was implemented resulting in the fragmentation of farm holdings. The next initiative of the government agencies was the HYV programme alias high yielding variety programme. Kerala innovated the so called 'Ela

programme' in the paddy fields forming part of the micro watersheds. Under the Ela programme the personnel of the Agricultural Department were entrusted with the distribution of inputs at subsidized rates and the management of crop loans. Agricultural Demonstrators were redesignated as Agricultural Officers. Then came the T&V System which was the complete answer to the challenges Agricultural of Extension. With this programme, innovations could be farmer originated in which case the Extension Scientist could replicate them scientifically and validate them.

The Kerala Horticulture Development Programme (KHDP) was a poly crop based programme encompassing fruit and vegetable crops integrated into the homestead farming system. It innovated the approach of entrusting implementation to a couple of self help groups constituted locally of concerned farm families. It borrowed from T & V System the idea of selecting master farmers.

The most recent project being implemented at Attappady (Palakkad District) is a Japanese funded programme for ecological restoration of hilly terrains, the units of intervention being watersheds, designated as development units.

Extension System of the Ministry of Rural Development / State Development Departments

The Government of India had taken a decision to restructure and revamp some of the poverty alleviation programmes through the Ministry of Rural Development. In accordance with this, it was decided to merge all the self-employment programmes viz. Integrated Rural Development Program (IRDP), Development of Women and Children in Rural Areas (DWCRA), Training for Rural Youth in Self Employment (TRYSEM), Supply of Improved Tools to Rural Artisans (SITRA) and Ganga Kalyan Yojna (GKY) as well as Million Well Scheme (MWS) into one self employment programme, which was known as Swarna Jayanthi Gram Swarozgar Yojana (SGSY).

Swarna Jayanthi Shahari Rozgar Yojana (SJSRY), another poverty alleviation programme comparable to SGSY was implemented in urban areas. This scheme has replaced earlier schemes like Scheme for Urban Micro Enterprises ((SUME), Prime Ministers Integrated Urban Poverty Eradication Programme (PMIUPEP) etc. Formation of Neighbourhood Help Groups (NHGs), Area Development Societies (ADS) and Community Development Societies (CDS) have also been implemented in Palakkad District during 1998-2000.

Development works of NGOs

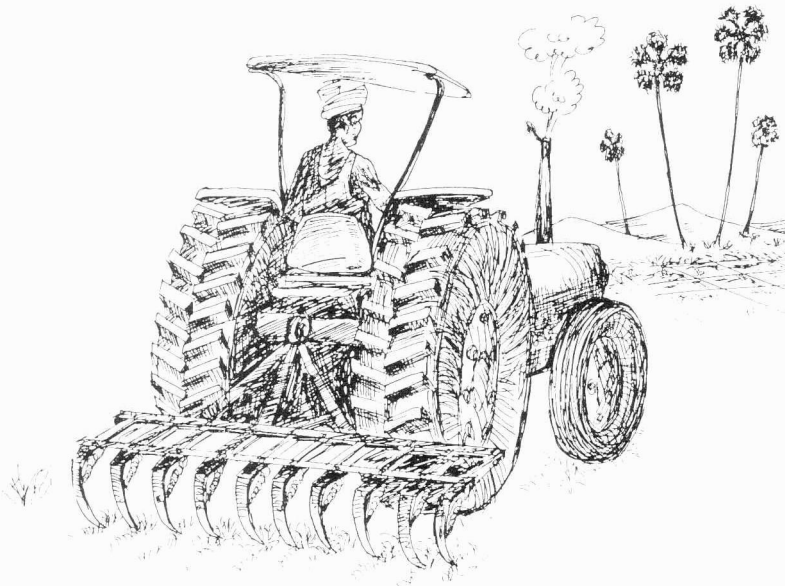
Most of the programmes of the State Rural Development Department, Agriculture Department, banking sector and the like are implemented through

the NGOs too. The advantages of this sector has been that their operations do not get affected by the red tapism of government machinery. Community based activities of Young Men's Christian Association (YMCA), Bharat Sevak Samaj (BSS), Nehru Yuva Kendras etc. are worth mentioning in this regard. Education based community models of Mithrakethan, Peermedu Development Society (PDS) Abhaya, Integrated Rural Technology Centre (IRTC) are note worthy.

Krishi Vigyan Kendra, Palakkad (at Pattambi) established during 1979 also had undergone refinement through these stages of evolution of Agricultural Extension. The changes that had occurred in the scenario of Agricultural Extension get reflected in the activities of KVK also, as is evident in the following page:

CHAPTER - 3

KVK PALAKKAD AND THE EXTENSION SCENARIO



According to Dr. Mohan Sinha Mehta Committee, constituted in 1974, the KVKs were envisaged to be the centres for demonstration of cutting edge agricultural technology for the farmers.

MANDATES OF KVK

- 1) The Kendra will impart learning through work experience and hence will be concerned with technical literacy, the acquisition of which does not necessarily require a precondition of the ability to read and write.
- 2) The Kendra will impart training to only those workers who are already employed or to the

practising farmers and fishermen. In other words, the Kendra will cater to the needs of those who are already employed or those who wish to be self employed.

- 3) There will be no uniform syllabus for the Kendra. The syllabus and programme of each Kendra will be tailored to the felt needs, natural resources and potential for agricultural growth in that particular area.

Krishi Vigyan Kendra is an innovative first line transfer of technology project which aims to reduce the time lag between the generation of technology and its adoption by farmers in the larger interest of

the farming community and nation. The KVK, Palakkad is imparting need based, skill oriented training for the needy farmers of Palakkad district in various disciplines like Agriculture, Horticulture, Social Forestry, Animal Husbandry, Fisheries and Home Science. Unlike the conventional way of giving trainings, the KVK is disseminating knowledge to the grass root level farming community by organizing trainings with emphasis to work experience. The syllabus for each training is so tailored as to cater to the specific felt needs of each group of trainees.

In order to achieve the above objectives, the KVK performs the following major functions through an integrated approach incorporating the following programmes.

- 1) Farm advisory services (Lab to Land Programme, National Demonstration etc)
- 2) On farm research (Problem oriented research, client oriented research and watershed programmes)
- 3) Need based trainings to farmers, grass root level workers and trainers. (On campus and off campus)
- 4) Consultancy services (Farmers and farmer groups)
- 5) Collaboration with three-tier system of governance, for imparting training and technical guidance, preparation of action plan and monitoring of rural development programmes. (Linkages and collaborative programs)

THRUST AREAS

Krishi Vigyan Kendra, Palakkad employed PRA tools to identify the thrust areas for its activity. The following thrust areas were identified.

- I. Drought proofing measures
 - a) Rain water conservation and harvesting
 - b) Sustainable crop productivity
 - c) Alternate land use system through farm diversification

- II. Resource mobilization through group action to overcome resource poorness.
- III. Income generating activities – Training and facilitating forward linkages.
- IV. Women empowerment.

Palakkad tract, once known as the rice bowl of Kerala is under the threat of vanishing rice fields. The common constraints on sustainable rice productivity of the tract were assessed to be:

- Increasing thrust on cash crops – conversion of prime rice lands
- Nutrient and pest problems consequent to monocropping
- Moisture stress during growth period
- Usage of conventional varieties and non-availability of quality seeds
- Limited use of organic manures, composts and biofertilizers
- Gender discrimination in farming activities
- Labour shortage in peak seasons

Efforts made by KVK to address some of the issues are:

- Introduction of drought tolerant varieties released from RARS, Pattambi
- Dry land agricultural practices to overcome moisture stress in collaboration with watershed development programmes
- Organizing women groups for rice cultivation and strengthening the existing Samithis
- Appropriate rice farm mechanization
- Integrated pest and disease management

In line with the mandates and thrust areas identified for the district by various agencies and the role KVK is expected to play in technology transfer, the vision and mission of KVK, Palakkad are framed.

VISION

Krishi Vigyan Kendra, Palakkad should stand out as a transfer of technology centre in the national scenario, live with innovative extension approaches and technical know how.

Table 1. Action points suggested under Potential Linked Credit Plan 2002 -07 for Palakkad district prepared by NABARD

Thrust area	Strategy	Action Points
Rain water management	Conservation of rain water	Construction of structures
Minor irrigation development	Exploiting all minor water resources	Construction of surface wells and shallow tube wells
Crop diversification	Increase area under fruits and vegetables	Productivity of rice and millets is low and there is need for diversification to horticulture crops such as mango, banana and coconut. Fruit processing and marketing should be systematized by developing appropriate infrastructure.

MISSION

The mission of KVK framed is the development of Palakkad district with respect to natural resources and human resources, the people of this district should identify this rural development centre as an enterprise promoting and capacity-building unit. Also, our mission is to strive hard to protect and preserve the natural resources of the Bharathapuzha belt.

PRESENT STAGE OF KVK

The thrust of the X Five Year Plan is on modernizing Indian agriculture and reducing rural poverty by promoting value addition, accelerating agribusiness, strengthening rural infrastructure and micro finance interventions. In Kerala, the grass root level planning in the form of People's Plan / Kerala Development Project complements the national agenda and areas such as high value agriculture, agro-processing, information technology, rural tourism, market-led-extension etc. have been identified for development through credit and technology.

The Potential Linked Credit Plan (PLP) for Palakkad District prepared by NABARD is a comprehensive documentation of potentials for rural economic activities; it also assesses the gaps in infrastructure/linkage support. According to this, the thrust areas, strategies and action points have been identified in Table 1.

The two major activities envisaged are:

1) Land Development

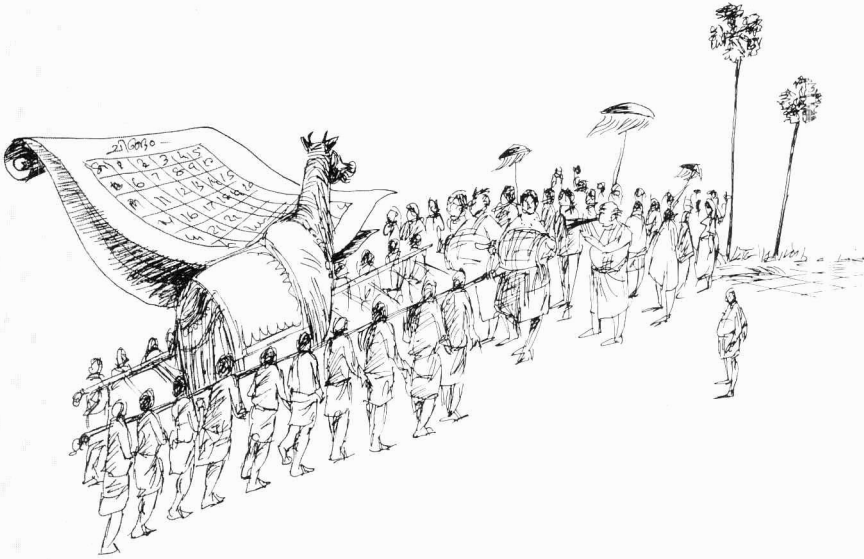
- There is an urgent need for greater coordination by the Department of Soil Conservation, Agriculture and financial institutions in preparing specific area plans/schemes and its implementation
- Soil Conservation Wing at district level should be strengthened
- Awareness gap about techno-economic parameters and the importance of the sector has been identified as one of the major shortcomings for successful implementation of Land Development schemes. Suitable steps like conducting awareness programmes may be taken up by the Government Departments / Development Agencies.

2) Farm Mechanization

- Kerala Agro Industries Corporation or Regional Agro Industries Corporation may ensure supply of farm equipments within a reasonable time after granting the bank loan.
- The State Government may consider making the subsidy schemes credit linked.
- More Agro Service Centres may be encouraged by the Government/Banks in the district.

CHAPTER - 4

PROFILE OF PALAKKAD DISTRICT



Palakkad District is a landlocked district situated in the central region of Kerala. The district economy is predominantly agrarian and has the largest share in terms of the gross cropped area and the area under irrigation in Kerala. However, the district is undergoing a change in the industrial front and Palakkad is one of the industrially advanced districts of Kerala in recent times. The district accounts for about 11.5% of the total land area of the state with the share of the population being 8.2%.

As per the reorganization of wards under the new Panchayath Raj System, the district is divided into 25 District Panchayath Wards, 13 Block Panchayaths with 140 Block Panchayath Wards, 90 Grama Panchayaths with 1308 Grama Panchayath Wards and four Municipalities.

Palakkad district falls under west coast plain and Western Ghat zone. The district can be divided into two natural divisions viz. the mountainous highlands and the undulating midlands based on the physical features. The mountainous Highlands are mostly concentrated in the northern and southern parts, which extend from either side up to the Palakkad Ghats on the east. A major part of the remaining area is midland region of gently undulating land of paddy fields and low hills of mixed cropped gardens. The important soil types are laterites along western and northwestern parts and red soil and black soil in the eastern parts adjoining Tamil Nadu.

The district has an extent of 28,56 ha of wastelands in different categories. Attappady valley, the only Tribal Development Block in the district, accounts

DISTRICT PROFILE AT A GLANCE

Name of the District	: Palakkad
Geographical area	: 4389.80 sq. km.

Particulars	No
Blocks	: 13
Taluks	: 5
Villages	: 167
Municipalities	: 4
District Panchayath Wards	: 25
Block Panchayaths	: 13
Block Panchayath Wards	: 140
Grama Panchayaths	: 90
Grama Panchayath Wards	: 1308
Rainfall (mm)	: 2390

Details of Agriculture

Land Utilisation Pattern – 1999-2000	: in ha
a) Geographical area	: 4,38,980
b) Forest	: 1,36,257
c) Land put to nonagricultural use	: 41,514
d) Barren & uncultivable land	: 3,402
e) Land under miscellaneous tree crops	: 1,794
f) Cultivable waste	: 16,622
g) Fallow other than current	: 6,570
h) Current fallow	: 13,267
i) Net sown area	: 2,17,176
j) Gross cropped area	: 3,04,507
k) Net irrigated area	: 65,057

Irrigation

a) By canals	: 40,159
b) By wells	: 12,909
c) By tanks	: 3,738
d) Minor & lift Irrigation	: 693
e) By other sources	: 7,558

Size of holdings	No.	Area (ha)
a) Less than 1 ha	: 3,36,709 (87%)	60,017 (34%)
b) Between 1 and 2 ha	: 30,214 (8%)	41,155 (23%)
c) Above 2 ha	: <u>20,636</u> (5%)	<u>77,412</u> (43%)
	<u>3,87,559</u> (100%)	<u>1,78,584</u> (100%)

Animal Husbandry (1996 Census)

a) Plough animals	: 34,571
b) Dairy animals:	

i. Cattle	:	3,03,526
ii. Buffaloes	:	16,439
c) Sheep	:	490
d) Goat	:	1,62,488
e) Poultry (No. of birds)	:	22,73,383

Population (in '000)	<u>1991 Census</u>	<u>2001 (Provisional)</u>
a) Male	:	1,156
b) Female	:	1,226
Total	:	2,382
		2,617

Classification of workers

a) Cultivators	:	97,289
b) Agricultural labourers	:	3,48,299
c) Household/cottage Industries	:	21,904
d) Allied agro activities	:	24,796
e) Other workers	:	2,94,075

(Source: Potential linked credit plan of NABARD, 2002)

for a major share of the total waste lands in the district. The reclamation of waste lands are a key area for development of the district.

Palakkad district with the largest cropped area in the state also accounts for the largest number of farm machineries. Nearly 35 percent of the registered tractors and tillers in the state are in this district. Considering the non availability of local labourers for timely farm operations and the upward trend in wage rates, farm mechanization has become an integral part of farming in the district. Although there is a wide gap between the power requirements for farm operations and its availability in the district, the high initial investment cost, seasonal nature of the requirements, undulating topography and the fragmented nature of the holdings are limiting factors affecting popularization of the farm mechanization. However, increase in mechanization may be necessary considering the nonavailability of local labourers for timely farm operations and the upward trend in wage rates.

Dairy development is one of the major economic activities taken up in the district. As per 1996 Census, the district has 363338 cattle and 35693

buffaloes. There has been a drastic reduction in the buffalo population during the last 10 years. There are 98 Veterinary Institutions (veterinary hospitals, dispensaries and poly clinics) and 166 Artificial Insemination Centres. Further 13 Dairy Extension Centres and one Dairy Training Centre are also functioning in the district. Animal Health Care Centres are also provided by MLMA. In the poultry sector, large-scale influx of poultry birds from the neighbouring states and the resultant low price create problems for broiler farmers in the district.

Palakkad being a landlocked district, the fisheries potential is limited to inland/fresh water sector. The district ranks first in terms of fresh water area brought under culture with assistance from Fish Farmer's Development Agency. The Malampuzha National Fish Seed Farm is the largest fresh water fish seed farm in Kerala.

The major mineral resource available in the district is limestone, which is widely used in the cement industry. Decorative granite stone is available in Attappady. Granite for construction purposes and China clay are also available in the district.

The major forest produce in the district is timber. Teak, rosewood, jack and anjili are some of the important species of timber. The Silent Valley National Park and Parambikulam Wildlife Sanctuary also fall in the district.

The credit delivery system in the district comprises mainly of 242 branches of commercial banks, five Primary Cooperative Agricultural and Rural Development Banks (PCARDBs), 26 branches of the Palakkad District Cooperative Bank, 89 Service Cooperative Banks, one branch of State Cooperative Bank and the district office of the Kerala Financial Cooperation. Out of the 242 branches of commercial banks, 132 are in the public sector. Canara Bank with about 40 branches acts as the Lead Bank in the district. The Service Cooperatives are also financing group loans for SHGs (Self help groups)

The area and production of major crops of the district are presented in Table 2.

The agriculture census data (2000) on pattern of holding indicate dominance of small and marginal farmers. Out of 387599 individual operational holdings in the district, 336709 i.e. 87% are holdings of less than one hectare and 30214 numbers are between 1 and 2 ha in terms of land area.

The main improvements needed to support production relate to the availability of seeds and other inputs, extent of irrigation, remunerative/assured prices, marketing facilities and a strong credit delivery system. There are five State Seed Farms and other four horticultural farms in the district. Out of the two fertilizer quality control laboratories in the state, one is at Pattambi. The State Government has set up a Paddy Development Agency at Palakkad. An industrial cooperative (PADDYCO) has started functioning for procurement of paddy. The service cooperatives are also financing group loans for 'Swasraya Sanghams'.

Kerala State comes under the coastal agro-eco-

Table 2. Area and production of major crops in Palakkad

Sl. No.	Crop	Area (ha)	Production (T)
1	Rice	120809	262494
2	Other cereals/millet	7611	5214
3	Pulses	4660	3510
4	Groundnut	10031	8371
5	Sugar cane	22488	18137
6	Areca nut	3623	2854
7	Cashew	5750	2069
8	Coconut	48929	237*
9	Rubber	28112	28122
10	Tapioca	7272	148981
11	Banana	8653	77195
12	Pineapple	124	797

*Million nuts

(Source: Directorate of Economics and Statistics, Thiruvananthapuram and Farm Guide 2002, FIB, Thiruvananthapuram)

system. The west coast plain is a long narrow strip between the Western Ghats and Arabian Sea comprising an area of 7.3 million hectares. The lush evergreen vegetation, backwater and rivers criss crossing the land, and undulating topography are some of the characteristic features of this system.

Agro climatically, Palakkad district lies in the central zone. The zone can be basically classified into three natural physiographic divisions viz., the high land, mid land and the low land.

Identification of problems in the district

This KVK Palakkad had made an attempt to identify the major problems in the district in relation to farming. Randomly selected 10 padasekharams in western blocks of Palakkad (rainfed) were selected for the study. Tools of PRA included focused group interview and matrix ranking. The problems were ranked by the farmers and the Rank Based Quotient (RBQ) calculated based on this. Rank Based Quotient, Magnitude Value and rank of different problems identified by the farmers in the PRA is given in Table 3.

Table 3. Problems faced by farmers

Sl. No.	Problem	RBQ Value	Average % loss	Area under crops (ha)	Magnitude Value (M.V)	Rank
1	High labour wages	72.96	32.67	80	229094	II
2	Non-availability of labour	41.48	32.67	80	108412	V
3	Water scarcity	64.81	50.41	80	261365	I
4	Pest & Diseases	48.89	30.80	80	120464	III
5	Sub division and fragmentation of land	3.70	50.00	156	23860	XII
6	Absence of male member to manage farm	2.59	50.00	80	10360	XX
7	Lack of green leaf manure	5.56	31.67	80	14086	XVII
8	Poor soil fertility	11.85	52.14	80	49428	VII
9	Non-availability of tractor in time	7.78	30.00	36	8402	XXI
10	Lack of organization in cultural practices	14.07	44.17	36	23372	XIII
11	Low productivity	16.30	37.86	80	49369	VIII
12	High cost of inputs	12.59	21.67	80	21826	XV
13	Farm being far off from house	2.96	62.50	36	6660	XXII
14	Cut in subsidy	1.48	20.00	80	2368	XXVII
15	Weed problem	8.52	32.5	80	22152	XIV
16	Lack of mechanization	10.00	30.0	36	10800	XIX
17	Inefficient labour	10.00	43.75	80	35000	X
18	Low price of agricultural produce	29.26	46.79	80	109526	IV
19	Lack of interest in new generation	1.11	15.00	80	1332	XXIX
20	Poor extension services	15.19	22.78	136	47059	IX
21	Red tapism in credit facilities	5.56	42.50	80	8904	XVI
22	Inefficient technology	8.52	28.75	136	3313	XI
23	Low transport facilities	5.56	30.00	80	3344	XVIII
24	Lack of market intelligence	3.70	21.67	80	6414	XXIII
25	Improper electric supply	3.70	20.0	80	5920	XXIV
26	Monopoly of middleman	1.85	17.50	80	2590	XXVI
27	Information available in English	1.11	25.0	80	2220	XXVIII
28	Low rain fall	11.48	90.00	80	12656	VI
29	No watershed management	2.22	30.00	80	5228	XXV

Water scarcity was the main problem faced by the farmers, followed by high labour wages which affected the profit from agriculture. Pests and diseases especially during rains was the next major

problem, followed by non-availability of labour. Percentage of loss was sensed to be highest due to low rainfall and greater distance of farm from homesteads.

CHAPTER - 5

KVK PALAKKAD THROUGH THE AGES



The extension system has to maintain effective linkages with different stake holders involved with agricultural development. It is the research extension linkage that assumes a greater significance in view of the pivotal role played by research in the development scenario. KVKs can support other agricultural development agencies in the district through training and consultancy in those areas where the KVK has more technical competence than these agencies. This chapter summarises the highlights of activities of KVK, Palakkad all through these years.

Period 1979-85

NARP Phase-I was implemented in the Kerala Agricultural University (KAU) during 1980-81 with research components of food crops, oil seeds, farming

systems and basic research. During the initial three years, KVK Palakkad was functioning as a unit under the erstwhile Central Rice Research Station, Pattambi with limited manpower. In the initial stages, more emphasis was given to the extension activities of the research station by organizing seminars, exhibitions, field days and village surveys. The Scientists were entrusted with in-depth survey of nearby villages with their field of specialisation, which in turn helped them to make their training effective.

Period 1985-95

NARP Phase-II was implemented in KAU during April 1988 with the component namely Horticulture and Post-harvest Technology, Soil and Water Management, Farm Machinery, Animal Nutrition

and Management and Agro forestry. The activities of KVK got a momentum during this phase with diverse training programmes and field level activities including demonstrations.

Period 1995-2002

This period was characterized by the participatory approach, IVLP and Technology Evaluation and Impact Assessment Project (TEIAP). Participatory Rural Appraisal (PRA) method was adopted for problem identification and resources mapping and assessment of rural behaviour patterns. Scientists were able to test and refine new technologies in the farmer's fields.

Period 2003 onwards

This period is characterized by the importance given to "Extension plus". More emphasis is given to agricultural diversification, post harvest technology, value addition and market led extension. During this phase, Cyber extension is also accorded an important role. The establishment of Virtual University for Agricultural Trade has added new dimension to the role to be played by KVK.

A. Trainings organized by KVK

An outline of the trainings organized by KVK Palakkad over a period of 25 years is presented.

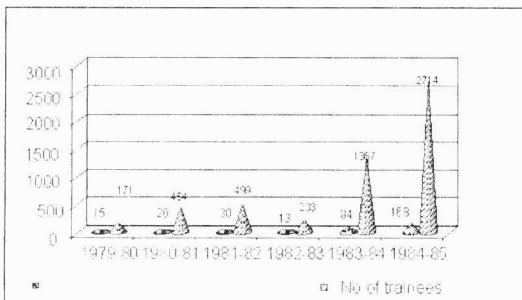


Figure 2. Number of training programmes conducted during 1979-85 at KVK Palakkad

a) 1979-1985

The field training programmes implemented during this period were more of awareness campaigns with orientation motives. Trainings on all allied fields of agriculture were conducted

b) 1985-1995

This phase of trainings focused on imparting need based vocational trainings in agriculture and allied fields. Integrated training programmes were also conducted during this period.

c) 1995 - 2003

Trainings have been refined to the stage where subject matter is designed based on training need assessment, with emphasis given on integrated farming approach. Beneficiaries were selected mostly from a particular locale than the earlier scattered approach.

Training need assessment

A more democratic approach of planning training programmes was arrived at during 1999-2000. The trainees and staff of KVK had an elaborate session of identifying, prioritizing and listing need-based training schedules. The emphasis was given on the training need assessment. Considering the fact that needs varied from area to area, group to group and farmer to farmer, the introduction of 'Training need assessment' as an entry point of all the trainings improved feed back of the programmes.

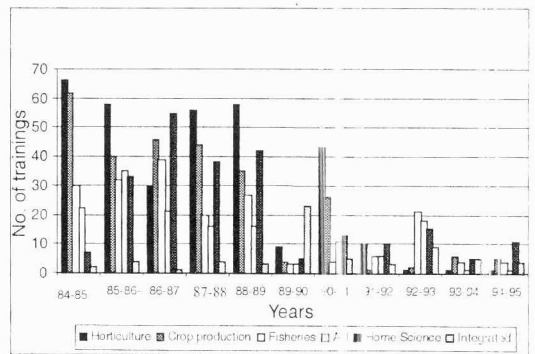


Figure 3. No. of training programmes conducted at KVK, Palakkad during 1985-95

Table 4. Number of training programmes conducted during 1985-95 at KVK, Palakkad

Year		Topics						Total
		Horticulture	Crop production	Fisheries	AH	Home Science	Integrated	
1985-86	Trainings	58	40	32	35	33	4	202
	Trainees	1166	758	481	488	598	104	3595
1986-87	Trainings	30	46	39	21	55	1	192
	Trainees	609	863	584	255	828	20	3159
1987-88	Trainings	56	44	20	16	38	4	178
	Trainees	1006	668	297	238	485	60	2754
1988-89	Trainings	58	35	27	16	42	3	181
	Trainees	1080	803	270	200	480	67	2900
1989-90	Trainings	9	4	3	3	5	23	47
	Trainees	597	522	444	291	447	531	2832
1990-91	Trainings	43	26	4	11	13	5	102
	Trainees	1067	521	396	424	640	47	3095
1991-92	Trainings	10	1	6	6	10	3	36
	Trainees	596	42	430	345	751	85	2249
1992-93	Trainings	1	2	21	18	15	9	
	Trainees	16	29	658	613	234	201	1751
1993-94	Trainings	1	6	4	1	5	5	
	Trainees	22	195	128	34	180	136	695
1994-95	Trainings	1	5	4	1	11	4	26
	Trainees	26	173	202	18	501	99	1019
1995-96	Trainings	5	6	1	2	4	4	22
	Trainees	130	128	26	55	159	127	625

Need assessment is central to selecting the correct problems of action and provides the necessary information and determines appropriate interventions. Knowledge of what to change helps in determining appropriate training interventions. Being the Knowledge Centre for the District, KVK undertook training need assessment as a first and foremost activity before designing training programmes.

For area development programmes, Participatory Rural Appraisal methodology is practised for interacting with local people and communities, understanding them and learning from them to identify the training needs. Participatory methods are being employed for problem-cause analysis, identifying technology interventions and developing technology modules for on-farm testing and

Frontline Demonstrations.

KVK employed methods like group discussion techniques, brain storming, critical incident methods etc., in identifying the training needs.

A comparison of training programmes organized by KVK, Palakkad during the three periods is given in Table 6.

B. Significant extension programmes implemented

a. Lab to Land Programme (LLP)

The National Organization Committee of the ICAR Golden Jubilee Celebrations, at its meeting held on

Table 5. No. of training programmes conducted during 1995-2003 at KVK, Palakkad

		Horticulture	Crop production	AH	Home Science	Integrated	Total
1996-97	Trainings	7	7	5	5	5	29
	Trainees	255	172	154	118	169	868
1997-98	Trainings	2	6	3	16	12	39
	Trainees	120	208	40	380	570	1118
1998-99	Trainings	0	3	0	2	6	11
	Trainees	0	139	0	48	358	545
1999-00	Trainings	5	8	6	0	10	29
	Trainees	77	110	89	0	174	450
2000-01	Trainings	23	13	0	6	18	60
	Trainees	482	780	0	144	576	1982
2001-02	Trainings	5	9	0	20	23	57
	Trainees	129	644	0	605	873	2251
2002-03	Trainings	5	18	0	9	25	57
	Trainees	317	1061	0	486	1052	3916

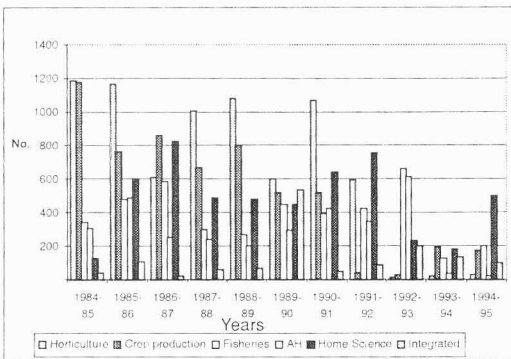


Figure 4. Number of trainees trained at KVK, Palakkad during 1985-95

5th August, 1978 decided that programme of transfer of technology later on designated as Lab to Land Programme (LLP) should be taken up as one of the most important activities of KVKs. The programme aimed at assisting selected families in developing and implementing individual farm plans for improving the entire farming system and thereby generating more employment and income. The basic objective was to bring the scientists and the farmers into close contact and to introduce low cost relevant technologies, which could help in diversification of labour, creating supplementary

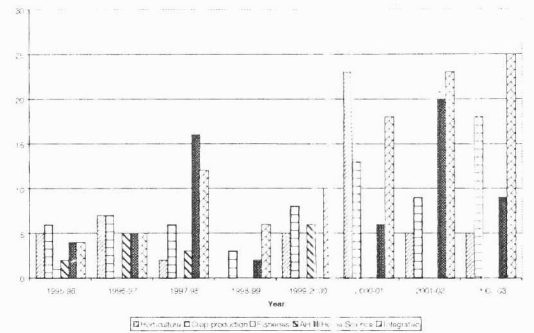


Figure 5. No. of training programmes conducted during 1995-03 at KVK Palakkad

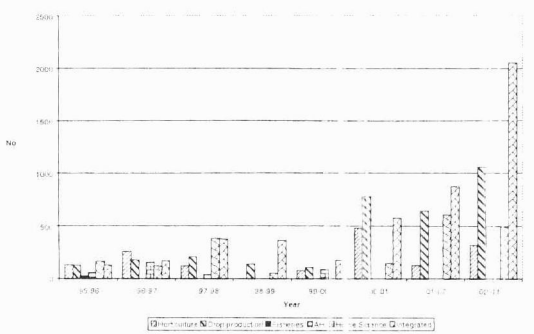


Figure 6. Number of trainees trained at KVK, Palakkad during 1995-2003



Plate 1. Nursery training in progress



Plate 2. A scene from the training programme on dairying



Plate 3. Bakery training in progress



Plate 4. Training on Mushroom cultivation



Plate 5. Training on use and maintenance of sprayers

source of income in the field of agriculture, animal husbandry, horticulture and rural crafts. LLP was initially sanctioned to KVK, Palakkad in 1979-80. Benchmark survey was conducted in the village for selecting the participants. The participants were classified into small and marginal farmers and landless labourers. Each class was then subdivided into resource rich and resource poor. Critical inputs to increase the income/production of the farmers were identified and made available. The major enterprises initiated through LLP were

- 1) High yielding variety rice cultivation
- 2) Coconut based high density multi species cropping
- 3) Model nutrition garden
- 4) Composite vegetable/fruit cultivation
- 5) Mushroom cultivation
- 6) Introduction and popularization of energy saving cum drudgery reducing devices
- 7) Back yard poultry development
- 8) Reducing fuel consumption

A glimpse of the LLP Report of 1989-90 (scanned print) showing category of farmers and details of interventions are reproduced herewith.

b. Farm Science Clubs

Right from the early stages, farm science clubs in schools were organized by KVK, Palakkad. Each scientist was allotted with one school and with the help of an assigned teacher, a batch of 22 to 30

students were selected through aptitude test to form the club. The following activities were undertaken in the school under this programme.

- Classes on scientific subjects related to crop production, animal husbandry, fisheries, home science etc.
- Method demonstration of agricultural operations
- Organizing kitchen garden in their home by supplying vegetable seeds free of cost
- Competitions are arranged for the selection of the best garden
- Quiz and essay competition
- Study tour to research stations
- Tree planting in public land

Eleven farm science clubs functioned in 1987-88 in the schools around the KVK. These clubs had 275 members including boys and girls. Each club had a student leader selected from the members. The members of the club were selected by the teachers of the school taking into consideration their interest in agriculture and allied subjects. The day to day activities of the club were supervised by a teacher of the school. The scientists visited the club almost every fortnight and the classes on different aspects of scientific crop production, animal husbandry, fisheries and home science were conducted.

Quiz competitions covering all technical subjects covered in the classes were organized in the club.

Table 6. Comparison of Training programs

Characteristic	1979-83	1985-95	1995-2003
Purpose	Awareness	Awareness + orientation	Skill orientation
Nature	Subject oriented	subject oriented + integrated	Mostly integrated
Learning experience	Class room type	Class room type and Experiential learning	Experiential learning
Trainers	Resource persons	Resource persons	Resource persons and progressive farmers
Mode of training	Theory	Theory & Experiential	Experiential
Approach	Instructional	Instructional and participatory	Participatory

Name	Area	KIND of crops	Technical information			Fertilizer per ha	Pesticide per ha	Yield per ha	No. of birds
			Fertilizers kg/ha	Chemical inputs kg/ha	Agri. implements per ha				
1	2	3	4	5	6	7	8	9	10
Chayachan, A	1000	800	- do -	- do -	Fertilizers 18.80 Coconut seedlings 100- Pineapple suckers 6- Smokeless charcoal 100- Agrl. implements 52.75 Poultry birds 110- Banana suckers 4- Mango grafts 12- Citrus seedlings 3- Vegetable seeds 16- Books & publications 14.50	- 120 nuts/pl./year (25%) 120t/ha (20%) -	- -	1400	1000
Chayachan, B	1200	700	- do -	- do -	Fertilizers 19.80 Coconut seedlings 150- Pineapple suckers 6- Smokeless charcoal 100- Bee Hive 120- Banana suckers 4- Mango grafts 12- Citrus seedlings 3- Vegetable seeds 14.50 Books & publications 14.50	- 120nuts/yr/pl. (20%) -	- -	1500	1000
Chayachan, C	1000	1000	- do -	- do -	Fertilizers 16.80 Coconut seedlings 50- Pineapple suckers 6- Smokeless charcoal 100- Agrl. Implements 52.10 Bee Hive 120- Banana suckers 4- Mango grafts 12- Citrus seedlings 3- Vegetable seeds 14.50 Books & Publications 14.50	- 120 nuts/yr/pl. (50%) 175 t/ha (20%) -	- -	1600	1300

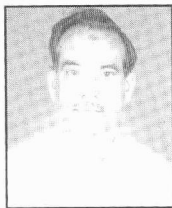
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Name	Area	KIND of crops	Technical information			Fertilizer per ha	Pesticide per ha	Yield per ha	No. of birds	
			Fertilizers kg/ha	Chemical inputs kg/ha	Agri. implements per ha					
1	2	3	4	5	6	7	8	9	10	11
Chayachan, D	1000	800	- do -	- do -	Fertilizers 17.80 Coconut seedlings 50.00 Pineapple suckers 6.00 Smokeless charcoal 100.00 Agrl. implements 52.96 Poultry birds 110.00 Banana suckers 4.00 Mango grafts 12.00 Citrus seedlings 3.00 Vegetable seeds 16.00 Books & Publications 14.50	- 120 nuts/yr/pl. 170t/ha (20%) -	- -	1400	1200	
Chayachan, E	1500	700	- do -	- do -	Fertilizers 16.90 Coconut seedlings 100.00 Pineapple suckers 6.00 Smokeless charcoal 100.00 Agrl. implements 52.75 Poultry birds 110.00 Banana suckers 4.00 Mango grafts 12.00 Citrus seedlings 3.00 Vegetable seeds 16.00 Books & publications 14.50	- 125 nuts/yr/pl. (50%) 120t/ha (20%) -	- -	2000	800	
Chayachan, F	1300	800	- do -	- do -	Coconut seedlings 50.00 Pineapple suckers 6.00 Agrl. implements 192.68 Poultry birds 110.00 Banana suckers 4.00 Mango grafts 12.00 Citrus seedlings 3.00 Vegetable seeds 16.00 Books & publications 14.50	150 nuts/yr/pl. (40%) 120t/ha (20%) -	- -	1500	1200	
Chayachan, G	1300	800	- do -	- do -	Coconut seedlings 50.00 Pineapple suckers 6.00 Agrl. implements 192.68 Poultry birds 110.00 Banana suckers 4.00 Mango grafts 12.00 Citrus seedlings 3.00 Vegetable seeds 16.00 Books & publications 14.50	150 nuts/yr/pl. (40%) 120t/ha (20%) -	- -	1500	1200	

Study tours, shramadan, social forestry activities, awareness programmes etc. were also carried out. In the words of Sri. Abdul Majeed, Headmaster of the Government Keezhayoor Government UP School



Plate 6. Farm Science Club members of Keezhayur School
 “Until 2000, our school was housed in a rented building. Hence we couldn’t grow even a single plant. At that time KVK Palakkad conducted orientation sessions with the view of promoting interest in gardening at the homes of students. The first real endeavour was the Seminar on Agriculture.



Sri. Abdul Majeed
 Headmaster, U.P. School, Keezhayur

The seminar is even today a memorable event in the minds of our parents and teachers as it was an eye opener for us into the field of Agriculture. Today the people of the locality have joined hands in procuring the present one acre and 20 cents for the School. Krishi Vigyan Kendra has helped us immensely in setting up a vegetable garden which is of great use to the noon meal programme. Besides, they have also helped us in setting up a beautiful garden, and also couple of shade trees.

The Farm Science Club formed has been conducting many classes related to Agriculture for the students as well as for the members of PTA with the help from the KVK. We are proud of our association with KVK.

c. Village Youth club

Another attempt made by KVK was to organize youth clubs. The following activities were undertaken.

- 1) Training for self employment
- 2) Evening classes
- 3) Sramadhan programmes



Plate 8. Planting saplings in the school premises

Kitchen gardens were raised in the homesteads of members of village youth clubs. The members were usually school dropouts and unemployed youth. Vegetable seeds were supplied to the members and scientists of KVK supervised the establishment of gardens. They were also imparted with regular trainings. Fifty nine youth clubs with 720 members were organized by KVK Palakkad.

Members of the village youth clubs were taken for study tours to the educational and research institutions of KAU. Under the shramadan programme, the members of these clubs planted seedlings of trees on the sides of roads and common places such as schools, libraries, campuses attached to panchayaths / village.

d. Village Adoption Programme

KVK had implemented many activities under this programme. A brief outline of the nature of activities is presented. An extension counter was opened at the premises of Panchayath Office, Thrithala during 1981. A team of scientists visited the counter on all Wednesdays for offering consultation, more or less in the form of present day Agro-clinic. Adaptive trials of rice culture and gingelly varieties were tried out in 1981-82. Trainings on all allied fields of agriculture were conducted. During 1986-87, the Kerala Agricultural University had allotted two villages for KVK, Palakkad for implementing this programme. The main activities organized were trainings, demonstrations and evening discussion classes. The village adoption programme of 1990-91 in Mudavannoor and Keezhayoor villages had many highlights. The main programmes were – training classes, demonstration plots, animal health camps, vaccination camps for poultry birds, kissan melas cum exhibitions, crop wise discussions and field days.

In 1994, village adoption programme was conducted in Pulassery, in collaboration with Abhayam, a charitable organization. The main programmes were upgradation of local breeds of goats, popularization of broiler rabbit rearing and vegetable gardening. The most recently adopted village is Varode, Ottapalam. A base line survey



Plate 9. FLD Programme at Varode

was conducted to collect the background information. Many of the FLD/OFT programmes are being implemented in this village at present.

e. National Demonstrations

In March 1994, Thirumittakkode Panchayath in Thrithala block was selected for the National Demonstration Programme. Twenty four national demonstrations were conducted under three systems, viz., rice-based, coconut-based and arecanut-based, to demonstrate recommended technologies leading to higher production and income. The cropping sequence pattern adapted was rice-sesamum, coconut and arecanut over an area of 8.4 hectares of which rice was allotted with 3.3 hectares. The varieties RM-7 and Annapoorna were used. RM-7 shows a percentage yield increase of 22 per cent over the check and Annapoorna gave a 9 per cent increase in yield over the check. The need based critical inputs and technical advice were provided by KVK.

f. Problem Oriented Research (POR)

A new dimension in the extension approach was implemented through the KVK Palakkad, namely the problem-oriented approach, which focused on research input in the form of technical know-how and physical input suited to a prevalent problem.

In this context, in 1996-97, low productivity of Kootumundakan system (ratoon) of rice cultivation was identified as the problem faced by 20 farm families of the village named Maruthur. In this system, no cultivation is practised after the harvest of the first crop season. Variety manuring and plant protection measures are not for the second crop. Despite this limitation, majority of the farmers (80%) are still continuing the practice as it requires only less labour and capital inputs.

The interventions in this micro-farming situation was to improve the productivity of the system through refinements in varietal mixture, input



Plate 10. Problem oriented research on rice

management and cultural practices. Productivity of the first crop in which varieties like 'Chenkayama' and 'Thavalakannan' were used ranges between 0.5 t/ha to 1 t/ha. A series of new varietal combinations were evaluated through on farm trials conducted under this micro-farming situation. The results of the trial concluded during 1998-99 with different combinations are indicated in table 7.

It was observed that the combination evolved by farmers was more productive. Inclusion of high yielding varieties in the mixture was not effective. The vegetative / reproductive growth phases mismatched and the performance was negatively affected.

g. Client Oriented Research (COR)

An exclusive programme for the SC/ST population aiming at their agricultural development was undertaken during 1994-95. This scheme was implemented at the Mattaya belt on selected beneficiaries, which was well appreciated. The



Plate 11. Distribution of critical inputs for the client oriented research

main highlights of the programme were:

- 1) Introduction of improved crosses of goats
- 2) Introduction of new varieties of vegetables
- 3) Scientific cultivation of coconut
- 4) Developing backyard poultry
- 5) Utilization of family labour in using agricultural implements

Forty six farm families were selected who belonged to SC/ST communities and classified as resource

Table 7. Performance of modified varietal combinations in the Koottumundakan system of rice cultivation

Combinations	Cumulative green yield t/ha	Straw yield/ha	Grain yield increase (per cent)
Farmer's combination Chenkayama & Chettadi	3.61	4.2	-
Aiswarya & Chettadi	3.04	4.0	-15.8
Chenkayama & Nila	2.72	3.5	-24.7
Aiswarya & Nila	2.82	3.4	-21.9

rich (10 no.), Medium resources (18 no.) and resource poor (18 no.). The critical inputs were distributed for the above enterprises. Over all results showed that Kitchen garden could raise the financial status of the families. Similarly, goat rearing was also economical, if the goats were not sold off.

h. Institution Village Linkage Programme (IVLP)

Krishi Vigyan Kendra Palakkad was one of the three implementing centres in Kerala for the prestigious pilot project on Technology Assessment and Refinement (TAR) through Institution Village Linkage Programme (IVLP) launched by the ICAR. This was first implemented in the year 1995-96 in Ezhuvanthala and Pattisseri villages in 324 selected families. The KVK provided leadership in identifying the problems through PRA. Five major problems were prioritised. When the performance of rice varieties was assessed, Aiswarya (Ptb-52) proved to be the best variety having multi adaptability.

Intervention on nutrition garden with the limited resource of homesteads was seen to meet the full domestic vegetable requirement of the family thereby contributing to the food security.

The intervention on *in situ* green leaf manuring using daincha (*Sebania aculeata*) in the traditional transplantec 'Koottumundakan' system of rice cultivation proved to be a suitable and profitable technique. Koottumundakan is a system of rice cultivation in which a mixture of seeds of a non-photo sensitive (viruppu) variety and a photo sensitive (mundakan) variety of rice in the proportion of 70:30 is sown during viruppu season (Apr-May). First crop variety will be harvested in August-Sept and second crop variety in Dec-Jan]

The intervention entitled skill training cum verification trial on self-propelled rice transplanter proved to be a cheaper and less difficult substitute for the costly conventional nursery and manual transplanting. The skill training cum verification

trial on mechanical harvesting of rice proved to be cost effective.

The mechanical threshing of rice crop using bur type power thresher was proved to be a faster and cheaper substitute for the conventional manual method of beating or treading by feet.

The practice of using pitcher irrigation was proved to be a low cost and easy to practice technology to help the coconut seedling to survive the peak summer. Deworming of calves of cross bred cows resulted in better agility, shining skin, absence of potbelly, good appetite, weight gain and satisfactory growth rate. Deworming of lactating cows enhanced average daily milk yield by 0.5 – 0.75 litre.

Gramalekshmi breed of poultry was found to be the best breed suitable for the backyard of the small production system, when compared to Athulya and White Rock. The domestic income of farm women could be increased. Similarly rearing of Malabari breed of goat could help improve the domestic income of farm women. Genetic upgradation of existing non-descript local goat strains could be achieved through the superior bucks of pure Malabari breed used in the project.

The feed back from comparative evaluation of the performance of cross bred broiler rabbits (Russian Chincilla and New Zealand White) was that they were not as adaptable for the homestead backyard production system of the project village as that of desi species.

Besides enhanced yields both during the first and second crops, the *in situ* cropping of daincha could provide biomass of 12.7 t/ha worth Rs.6,300. With a high B:C ratio of 11:8 the practice could suppress weed growth (by 70%) in the succeeding rice crop. Application of nitrogenous fertilizer could be avoided in the first crop and could be reduced to half in the succeeding second crop. This was a significant result communicated to the farmers which was readily accepted by them.

In the on-farm trial on evaluation of new varietal combinations to replace the traditional combinations followed in the 'Koottumundakan' system of rice cultivation, the farmers' age old practice of mixing local varieties emerged as the most suitable and rewarding. New combinations tried with high yielding varieties showed inferior performance. This was a good revelation of the research system and application of significant indigenous technology. Determination of the exact stage of first cut (harvest of the first crop variety) in the high yielding variety combination was a problem. These facts have been fed back to the research system to find out the best combination(s) from on-station trials.

The quantitative performance of high yielding varieties of rice was distinctly influenced by micro-farming situations and planting systems.

* Aiswarya (Ptb 52) followed by Kanchana (Ptb 50) was proved to be the best rice variety sequence in the rainfed uplands during first and second crop seasons.

* Aiswarya (Ptb 52) followed by Kanchana (Ptb 50) was found to be the most suitable variety sequence for the rainfed transplanted double cropped low-lands during first and second crop seasons.

When the green manure crop daincha (*Sesbania aculeate*) was grown *in situ* in the summer rice fallows of terraced uplands, there was a green leaf



Plate 12. Observations being taken at the green manuring plot

biomass of 18.8 t/ha worth Rs 9388. The B:C ratio was 1 : 9.95. The bio-mass production of sunhemp (*Crotalaria juncea*) was 17.7 t/ha. Both the green manure crops proved to be a low cost and sustainable technology.

In the summer rice fallows of double cropped wetlands, green manure bio mass production of daincha and sunhemp was 12.7 t/ha and 11.6 t/ha, respectively. The succeeding first crop of rice recorded 25 per cent increase in productivity due to green manuring over farmers practice of little green leaf manuring.

Till 1999, IVLP was implemented as part of KVK activity and from 1st April 1999, it was delinked to RARS, Pattambi.

i. Technology Evaluation and Impact Assessment Project (TEIAP)

The KVKs have been established with the objective of transferring latest agricultural technologies including latest varieties. However, their interaction with the research efforts and availability of information on latest technologies in case of varieties, availability of seeds of the latest types were limited. Keeping the situation in view, the Heads of the Crops and Extension Divisions of the Indian Council of Agricultural Research have agreed to have a collaborative project to enhance interaction amongst the researchers and KVK scientists. The All India Coordinated Crop Improvement Project of ICAR organized multi-locational trials on various crop production technologies in different parts of the country in an attempt to identify superior yielding varieties. They also carried out experiments in developing crop production and production technologies. However, the number of testing locations available with these projects was not sufficient to represent all the variables of any production technology. This is particularly so in the advanced trial stages of testing the promising varieties/technologies, where a large number of trial sites are required.

Table 8. Performance of medium duration rice varieties

Entry No.	IET No.	Designation	Yield kg/ha
101201	14725	TNAU 92084	508.3
101202	14728	P 2412	1011.1
101203	14735	RPP 7-23-1-2-3	538.8
101204	15128	TNAU 93122	761.1
101205	15134	AS 93182	555.5
101206	15136	SKL 7-11-1-13	963.8
101207	15138	UPR 1598-152-2	222.2
101208	15139	UPR 1600-31-1-2	141.6
101209	15140	AD 92216	186.1
101210	15141	AD 92215	1088.8
101211	15142	RP 3923-P 88-68-6-2-1	344.4
101212	15143	RP 3924-P7-40-5-1	258.3
101213	15144	HKR 95-101	655.5
101214	15145	HKR 95-104	1013.8
101215		Jaya (check)	408.3
101216		Suaksha (check)	386.1
101217		Jyothi (local check)	624.9

KVK Palakkad is one of the KVKs identified under TEIAP. Under this project, 60 Cooperating Centres in 21 states were started in 1997-98. In Kerala, KVK, Palakkad was the only centre with cotton and rice as the identified crops.

The Scientists were trained to familiarize with the methodologies to be followed for conduct of trials and recording of data. Field demonstration in farmers fields and state seed farms were organized. The trials for cotton were laid out at the Farm at Erudampathy.

The report on activities under the project is presented.

1. Crop: Rice

a) Advanced Varietal Trial -1, Irrigated Medium (AVE-1 IM)

Objective : To study the performance of medium duration rice varieties.

No. of entries : 17

The trial laid out in randomized block design with three replications was conducted in the Regional Agricultural Research Station farm during the kharif season of 1998. The seeds were sown on June 3, 1998 and transplanting of seedlings was done during July 1998. The entries and the corresponding yield obtained are presented below in Table 8.

Though the growth and performance of the varieties were good in the initial stages, the incessant rains during the final stages of the crop made the plant protection measures taken against the severe attack of rice bug ineffective which ultimately reflected on the yield performance of the crop.

Due to this unsatisfactory performance of the crop yield and also as the availability of seeds was not adequate for any further trials, multiplication of the promising varieties could not be done in the farmers' fields.

b. Advanced Varietal Trial – 2, Irrigated Medium (AVT-2 IM)

Objective : To study the comparative performance of mid-early

Table 9. Performance of advanced variety trials

Entry No.	IET No.	Designation	Yield (g/ha)
1401	15178	R741-1-55-2-1-1	4155
1402	15179	BG380-2	4116
1403	15185	OR1511-10	4523
1404	15191	ORS-206-1	4488
1405	15192	HRI-120	4310
1406	16434	HRI-122	4868
1407	16435	3RI 160	4887
1408	16436	POC 713	4924
1409	16437	AD 92216	4354
14110	Jaya	National check	4699
1411	Nagendra Triguna	Regional check	4507
1412	Aiswarya	local check	4852

duration rice varieties and hybrids.

No. of entries : 12

It was observed that entry number 1406 which was a hybrid variety yielded the maximum.

2. Crop : Cotton

CVT on *Gossypium hirsutum*

No. of entries : 15

Date of sowing : 23.10.98

Date of harvest : 30.03.99

The trial was laid out at the Integrated Seed Development Farm, Eruthempathy under the Department of Agriculture, being the area in the district with cotton cultivation.

The entries and corresponding yield obtained are presented in Table 10.

Due to heavy rains in the initial stages, the crop was fully covered with water, which subsequently affected its later performance. Further, even after repeated sprayings of recommended insecticides the attack of insect pests such as boll worm caterpillar, bugs etc. was severe during the final stages of the crop growth which ultimately reflected on the yield



Plate 13. Varietal screening plot of cotton

of the crop. Based on the above observations it can be inferred that entry no CMH120 MB and L613 performed better.

KVK Palakkad could thus serve as an effective link between the research station and farmer in a very notable national programme.

j. Front line demonstration (FLD)

The aim of FLD is to demonstrate the production potentialities of the newly developed varieties of cereals, pulses and oilseeds on farmer's fields.

Table 10. Performance of cotton varieties

Entry No	Yield of lint + seed, kg/ha
CWROK	29.63
ARB 8821-7	201.98
ARB 8908	212.04
CPD 446	222.63
VRS 16	134.63
RAH 100	143.33
CNH 120 MB	266.67
ARB 104	237.04
SCS 27	101.56
ARB 8824	106.70
L 613	258.33
VRS 19	223.61
IRA 5166 (ZC)	140.74
MCU 5 CT (CC)	246.30
LC	133.33

FLD on pulse, vegetables, sesamum and home science topics were taken up in 1987-88. Field days were also conducted.

In the 'Assessment of alternative rice threshing technology using threshers', during harvest season of mundakan crop in December 1998, the results showed that the axial flow paddy thresher has maximum efficiency. Further advantage of this thresher is that no further processing of grains is needed after threshing, while it is essential in other methods.

On evaluation of new varietal combinations to replace the traditional combinations, followed in the 'Kettumundakan' systems of rice cultivation, the farmer's age-old practice of mixing local varieties emerged as the most suitable one.

In the evaluation of the production potential of fodder grasses as intercrop in coconut based homesteads, hybrid napier (*Pennisetum typhoido purpureum*) with a per hectare green fodder yield of 16 t out performed guinea grass.

Of the three strains of oyster mushrooms, pleurotus species variety Vellayani-1 out-performed the variety Co-1 and non-descript strain purchased from private agencies.

In 2001-02, the performance of a new rice variety, Harsha released from RARS, Pattambi, was demonstrated in 50 cents. The performance was good. There was no disease occurrence noticed but pests like leaf roller, case worm, stem borer etc. had attacked the crop to some extent. The crop took only 104 days and yielded 4720 kg/ha.

A biological method for the control of stem borer in paddy was demonstrated. Pheromone traps were used in an area of 10 acres of paddy land during the second crop season of 2001. This was found to be effective among the farmers.

'Aruna' variety of bhindi was also introduced in 2000-01. It showed good results like heavier weight, longer size and slow maturity phase.

GALASA

In 1999-2000, KVK Palakkad was identified as the Liaison Centre of the GALASA programme (Group approach for locally adapted and sustainable agriculture) implemented as part of the People's Planning Programme by the District Panchayath.



Plate 14. FLD plot of rice – Harsha

Palakkad in collaboration with the Kerala Agricultural University. This novel programme aimed at reviving rice cultivation in Palakkad district through effective application of technologies and by minimizing the cost of cultivation. The basic approach is to mobilize and utilize the local resources, man power and infra structure so as to ensure the sustainability of the programme as well as of the production system. Further, group effort is conceived as the most critical input in the entire programme.

The technology interventions were

1. Use of organic manure
2. Use of mat nursery and farm machinery like transplanter
3. Proper plant protection

The demonstrations were conducted in three padasekharams, one each in Nallepilly, Elappully and Thenkurissi panchayaths in a total area of 224 hectares with the participation of 310 farmers. The result showed an increase in the yield of rice to about 7.2 t/ha from the average yield of 4.0 t/ha, along with a reduction in the cost of cultivation with a net saving of Rs.1000 per hectare compared to the farmer's conventional practice. As a special feature, an amount of Rs.1000 per acre was given to those farmers who cultivated and applied green manure and the same amount was collected back after the harvest of the crop – in the form of the revolving fund.

k. On Farm Testing (OFT)

This programme has been implemented to test and evaluate the research findings of the Research Station at the farmer's field and to refine or modify the technologies, if required for better adoption.

In 1994-95, the enterprises demonstrated were popularisation of new varieties of vegetables, scientific cultivation of coconut and development of backyard poultry. In 2001, one of the noted astrowhite varieties of backyard poultry, 'Gramalakshmi' was evaluated for its performance in rural areas. It seemed to require excellent management for good results.

In the same year, in the identification trial of a suitable variety of tuber crop Coleus (*Coleus parviflorus*) for the rain fed area, variety 'Sreedhara' was found to be the best suited.

In the evaluation of rice varieties for their suitability for direct seeding, the variety Harsa performed best with less pest attack.

In the trial held in 2000 to study the effectiveness of different control measures against mite (*Aceria guerironis*) in coconut, with D cofol (0.1%) neem oil + garlic suspension (2% spray), FOIS + kerosene spray, FOIS + brine spray, FOIS alone and control, none of the treatments was seen to have significant influence on the control of mite attack.



Plate 15. OFT plot of coleus

In 1999, in the comparative evaluation of *in situ* cultivation of green manure crops in summer rice fallows, daincha superceded sunhemp and cowpea in the growth performance and green matter yield.

C. OTHER PROGRAMMES

The KVK is actively involved in organizing and participating in field days, farmers' fairs, agricultural exhibitions, seminars, celebration of World Food Day, Women in Agriculture, Zoonoses Day, Science Day and so on. A glimpse of the celebration is presented in Plates 16-18.

The KVK, Palakkad has been actively involved in many of the national programmes like NWDPR

and state sponsored programmes like group farming. The assistance of KVK has been mostly sought after by the various agencies mainly for the conduct of training. Under water fed development, trainings for the Mithrakissans of the NWDPR programmes in the districts of Palakkad and Malappuram were taken up by the Kendra during the period from 1991 onwards.



Plate 16. Agricultural Award Celebrations



Plate 17. Kisan Divas celebrations



Plate 18. World Food Day celebrations

The long-term sponsored programmes that were undertaken by the Kendra during 1993-2004 are presented in Table 11.

Long-term trainings for Scheduled Caste were initiated during the IRDP period. Six month trainings in tailoring and embroidery and handicrafts were started during 1993-94. Under TRYSEM scheme and short term leadership trainings for SC/ST youths were organized in collaboration with KIRTADS.

The Government of Kerala introduced the programme of group farming in rice during 1990s. The KVK identified Samithies in different locations of the district and performed an enabler role in these activities. Paruthikkavu Nelulpadaka Samithy, TRACES, Anakkara, Women's Group at Vattankulam are a few among them. The KVK has cultivated a good relationship with these groups by imparting training directly on their fields with periodic review.

Operational Research Programme (ORP) was implemented in two villages namely Mudavannur and Nellya, as the SC/ST programme in 1993-94. Two training programmes for SC/ST on Garment making and handicrafts sponsored by District Industries Centre, Palakkad have been conducted since 1994. The trainings were of 6 month duration.

The KVK actively involved in the People's Planning Programme implemented by the Kerala state. The staff of this Kendra were deputed as resource persons in the state level training programme for the members of Krishi Karma Samithies of various Panchayaths in Palakkad, Malappuram and Kozhikode districts.

Under the NWDPR, KVK conducted Participatory Rural Appraisal (PRA) for identifying the needs of the beneficiary families in watersheds. Based on the PRA resource map, training need assessment, action plan etc. were prepared and few need based training programmes were also conducted.

Table 11. Sponsored Trainings

Year	Discipline	No. of courses	No. of beneficiaries			No. of SC/ST			Sponsoring agency
			M	F	T	M	F	T	
1993-94	Training on tailoring and embroidery	1	-	15	15	-	15	15	Dist. Industries Centre, Palakkad
1999-00	Computer training for rural women	1	-	27	27	-	2	2	Dist. Panchayath, Palakkad
2000-01	Computer training for rural women	1	-	17	17	-	2	2	Dist. Panchayath, Palakkad
	Quality seed production & IPM in Rice	6	44	6	50	5	3	8	Kerala Minor Irrigation Project funded by IIC
	Women in Agriculture	1	-	10	10	-	3	3	State Dept of Agri
2001-02	Computer training for rural women	2	-	23	23	-	6	6	Dist. Panchayath, Palakkad
2002-03	Computer training for rural women	2	-	26	26	-	10	10	Dist. Panchayath, Palakkad
	Handicrafts training for rural women	1	-	17	17	-	17	17	Block Panchayath, Pattambi
	Preservation of fruits and vegetables	1	-	20	20	-	5	5	Block Panchayath, Pattambi
2003-04	Computer training for rural women	1	-	14	14	-	2	2	Dist. Panchayath, Palakkad
	Total	17	44	160	204	5	50	55	

Media Coverage: TV and newspaper coverage on various activities of the Kendra has been found to be one of the important and effective approaches for information dissemination to the farmers.

Radio talks are recorded and broadcast frequently on topics by the Scientists of the Kendra of farmer's interest and specific importance.

Field Days under the Front line demonstration programme are regularly conducted

Veterinary camps and clinics were conducted in various parts of the district.

Consultations have been given at the Kendra on breeding and management of animals, plant protection, scientific cultivation aspects, advanced technologies, nursery management, agro forestry, agricultural engineering, processing, etc.

‘ഫീൽഡ് സ്കൂൾ’ കർഷകരെ ആകർഷിക്കുന്നു



Plate 19. News paper coverage

Preparation of farm plan under RSVY programme: The KVK Palakkad prepared farm plans for 160 farmers selected for establishment of model demonstration units of coconut based integrated farming system in the Sreekrishnapuram and Mannarghat blocks under the RSVY Programme of Palakkad district on request from the State Planning Board, Kerala.



Plate 20. Harvest festival at Kulukkallur



Plate 21. Inaugural session of the National Seminar

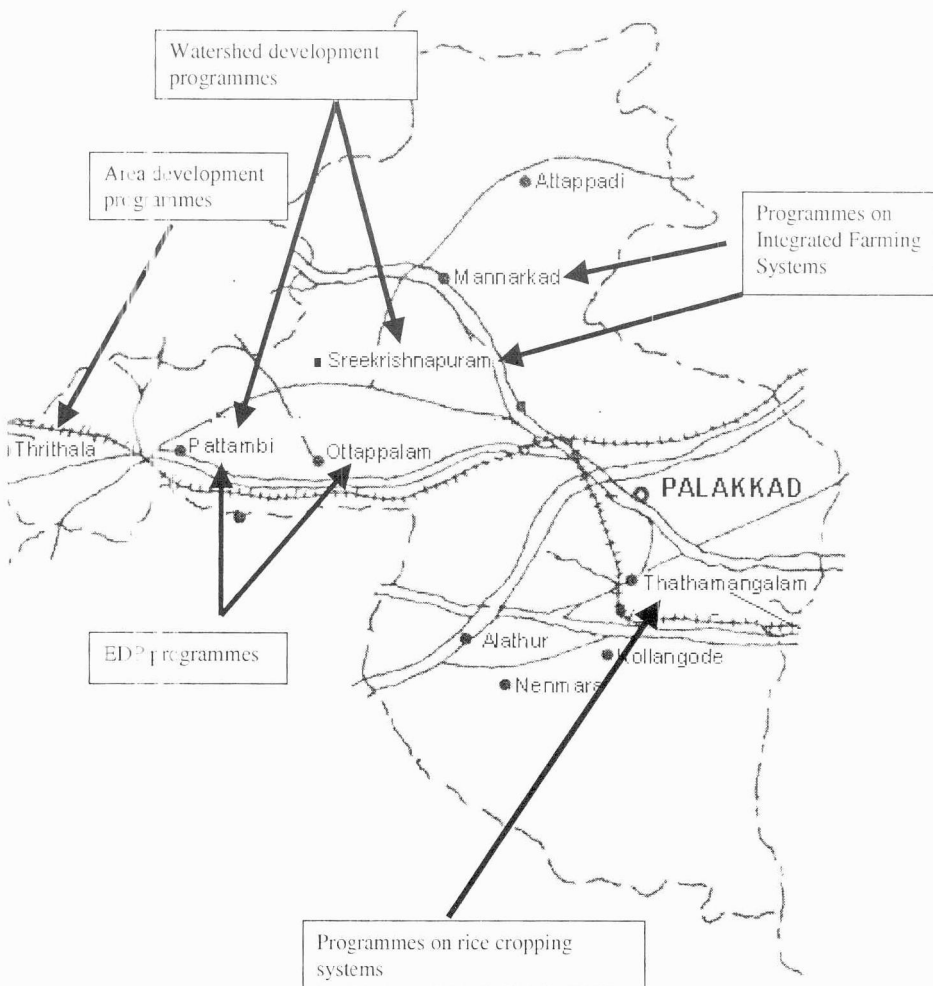


Figure 7. Activity map of Krishi Vigyan Kendra, Palakkad



Plate 22. District seminars

Mahila Vedi

The KVK has constituted a women cell alias Mahila Vedi comprising of 30 rural women entrepreneurs with an intention of sharing the experiences in their respective fields so as to monitor their enterprises initiated after the training received from the KVK. The women's cell is meeting periodically and discusses the progress and action plan.

A national seminar on "Scaling up of good extension practices in rice production systems" was organized from 30th Sep. to 1st Oct. 2004 as part of the Silver Jubilee celebrations of the KVK. The delegates included Scientists from KVKs and Extension Departments of different Universities and extension personnel from State Departments

District Level Seminar: As a part of the Silver Jubilee celebrations of the Kendra three District

level seminars were conducted at different locations in the district on various topics such as Integrated Farming System, Agricultural Finance and Women Empowerment.

Competitions: Essay competition on rice was conducted among the high school students during 2002. Quiz competitions on various occasions have been conducted for students, farmers and farm women. A state level photography competition was conducted on the topic of rice cultivation during 2002.

This chapter has tried to present the multifarious activities of the Kendra over the years in a very precise form without highlighting the details. A lot has been done, a lot more needs to be done in the years to come along with widening area of operation. The activities with the aim of agricultural development is to be in tune with the need of the time.

CHAPTER - 6

LINKAGES OF KVK PALAKKAD



The KVK has maintained functional linkage with various development departments and agencies viz. Agriculture, Rural Development, District Rural Development Agency (DRDA), Animal Husbandry, Forestry, National Bank for Agriculture and Rural Development (NABARD), Department of Science and Technology (DST), Kerala Horticulture Development Programme (KHDP), Scheduled Caste Development Corporation, Kerala Minor Irrigation Project (KMIP) State Planning Board, financing institutions and voluntary organizations operating in the area in order to effectively implement various programmes. The representatives of some of these departments are members of the Scientific Advisory committee (SAC) of the KVK.

Through its 25 years the KVK could effectively implement its mandate with the linkages it had

established with many departments and agencies. The most significant among them are listed and briefly explained. Linkages were more earnestly established during later phase of 1995-2004, which have now become more productive and sustainable.

Model Continuing Education Centre

The KVK Palakkad is functioning as the Model Continuing Education Centre, under the Palakkad District Panchayath Saksharatha Samithi since 1999. The continuing education to neoliterates, drop-outs and training programmes to “Preraks” are coordinated by the Saksharatha Samithy. The Prerak in charge of the unit at the KVK arranges collaborative vocational programmes also. A counter for the display of literature of Saksharatha Samithi is also housed at the KVK.

NAARM, Hyderabad

The KVK Palakkad is one of the National Training Centres for Field Experience Training for the ARS Probationers. The main objective of this training programme is to provide ARS Probationers an opportunity for gaining first hand experience and insight into the agricultural and rural development scenario in general and on the problems of farming community in particular. PRA guidelines were followed for conducting studies on basic resources, crops grown, social structure, indigenous technologies, problems of livelihood and working patterns of the farmers.

Centre for Studies on Gender Concerns in Agriculture

This Kendra is functioning as the nodal centre for the centre for gender concerns of the Kerala Agricultural University at the Central Zone. The Training Organizer is functioning as the Co-principal Investigator for the project on "Gender analysis of farming systems for sustaining the technological development programmes and livelihood under NATP".

Kerala State Women's Development Corporation

The Kendra actively collaborated with the Corporation's project to impart vocational training to the women in the Tirurangadi Block of Malapuram. Training Organizer also functioned as a member of the Project Monitoring Committee.

State Department of Agriculture

The KVK actively collaborated with the district level coordination committee of the State Department of Agriculture in three districts namely, Thrissur, Palakkad and Malappuram in the following central sector schemes.

- i) National Watershed Development Programme for Rainfed Areas.

- ii) Macro Management in Agriculture.
- iii) Youth and agriculture

Kerala Minor Irrigation Project

Under a memorandum of understanding with the Kerala Agricultural University, the Kerala Minor Irrigation Project identified the KVK Palakkad for organizing training programmes on 'Quality Seed Production' and 'Integrated Pest Management' in rice to the beneficial farmers under the project during 2001-02.



Plate 23. Training programmes organized by KMIP

Kerala Horticulture Development Programme (KHDP)

The KVK Palakkad served as a training centre for the technical staff of KHDP, being implemented by the Government of Kerala in collaboration with EU. Training on communication skills to the master farmers of KHDP was organized by KVK Palakkad during 2000.

Farmer's Training Centre, Alathur

The KVK has been offering the facilitator's role to this training centre under the auspices of the State Department of Agriculture. Trainings have been imparted to Agriculture Officers, Assistants and farmers at KVK Palakkad.

RATTC, Malappuram

The KVK has been offering the services of resource personnel for the various training programmes organised by RATTC to Agriculture Officers and Assistants. The curriculum for each training is designed after a detailed training need assessment.

Integrated Child Development Services (ICDS)

ICDS of the Department of Social Welfare is in regular contact with the KVK for technical support in their training programmes and establishment of nutrition gardens. Many of the field oriented programmes are implemented with joint collaboration. Some OFT programmes are also implemented through Anganwadis.

Directorate of Health Services

The KVK has extended technical assistance in health campaigns organized by the Primary Health Centres (PHCs) in and around Pattambi. The personnel from the Home Science Department serve as resource persons in their observances like Nutrition Week, Health campaigns of Pre School children, Pregnant and Lactating Women etc.

RAWE training programme

The KVK Palakkad is one of the training centres of the RAWE training programme for the B.Sc. (Ag.) students from the three different Agricultural Colleges under the Kerala Agricultural University. The students are given ample opportunities for interacting with farmers, visiting the different farming situations in the district and conducting trainings for the farmers during a period of one week. They are also given exposure to the training need assessment.

Kerala Institute for Research, Training & Development Studies of SC & ST (KIRTADS)

Vocational training programmes exclusively for SC

& ST farmers and farm women were organized by KVK Palakkad with the financial assistance of KIRTADS. The course was of two week duration on "Integrated agriculture". The beneficiaries were volunteers of KIRTADS selected from five districts.

NGO collaboration

In the past 5-6 years, it was felt that research and extension in agriculture under the public system somehow was failing to adequately address the needs of the farmer clients. Also the State Government was finding the costs of the system to be very high. The idea of collaboration between government and non-government organization's was mooted at this time to cut the cost and make this system more need based. It was thought that non-government organizations would be able to effectively play an intermediary role in organising farmer groups for skill development, to develop farmer's ability to articulate needs and also to assist government bodies in responding to farmer's needs. On the other hand the government organizations would provide financial and technical support and wide geographical coverage.

Some of the cases where KVK Palakkad had established collaboration with NGOs are presented.

1. Association of Non-traditional Employment of Women (ANEW)

ANEW is an NGO working in the field of micro-credit for rural women for self-employment in Palakkad district. The KVK has made a tie up arrangement with ANEW in training all their beneficiaries in opening up new ventures with the credit available through ANEW. The KVK has adopted a village Varode near Ottappalam and ANEW has extended their credit facilities to this area to complement the activity. The KVK has also prepared projects for development of a horticulture nursery, vegetable demonstration unit and model homestead at the ANEW farm.

2. Elm Crest

Elm Crest is an NGO working in the field of sanitation and drinking water supply under the Government of Kerala. The NGO has formed self-help groups of women for their programmes. The organizers realized the relevance of KVKs for imparting agri-based vocational trainings for their beneficiaries. A training need assessment of these beneficiaries was organized by the Kendra. The KVK imparted trainings in the field of commercial vegetable cultivation and processing of fruits and vegetable preservation.



Plate 24. Planting saplings at the Hellen Keller Institute for visually challenged

3. Helen Keller Institute for Visually Challenged, Ottapalam

Hellen Keller institute for Visually challenged is a non-governmental organization based at Vaniamkulam in Palakkad district. This organization

focuses its attention on vocational training programmes for the inmates who are blind. The KVK associated itself with the various activities of Hellen Keller institute for its programmes. The association has also resulted in setting up a biogas plant and an orchard for the hostels of the institution.

People's Planning Programme

The KVK Palakkad actively involved in the People's Planning Programme implemented by the Kerala State. The staff of this Kendra served as resource persons in the state level training programmes and as members of Krishi Karma Samithis of various Panchayaths in Palakkad, Malappuram and Kozhikkode districts.

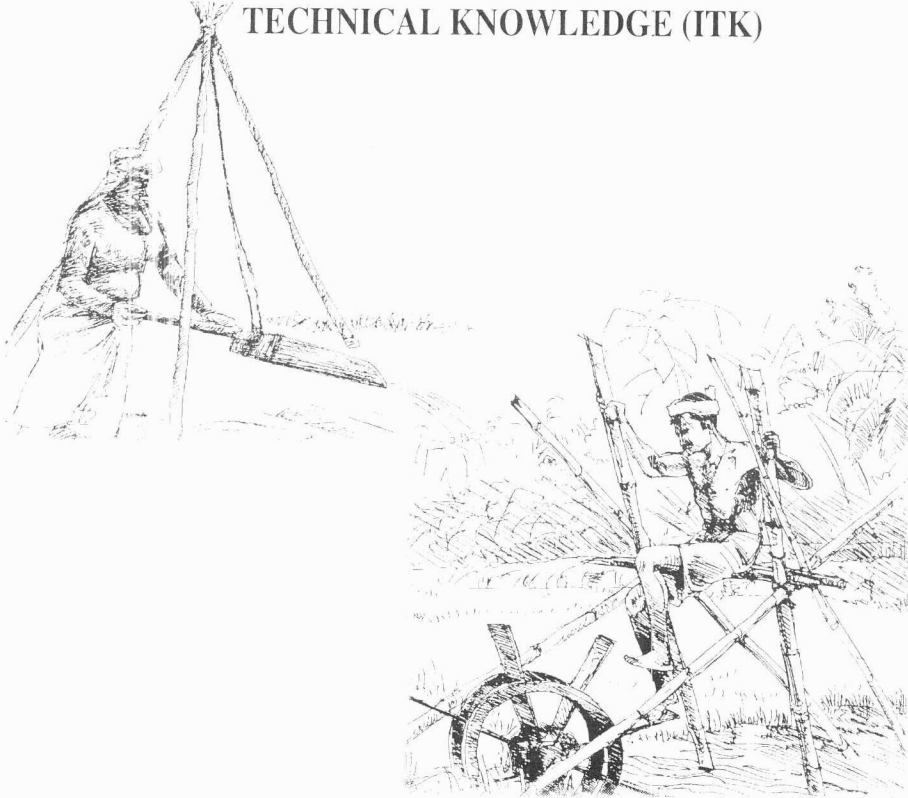
Media participation

The scientists are contributing to the broadcasts of All India Radio (Farm & Home Programme) of both Thrissur and Kozhikode regularly. The local ACV and PCV Channels and narrow cast programmes of Door Darshan are also giving extensive coverage to all the activities of the Kendra.

Only through strengthening the linkages and through seeking more avenues of collaboration, farm science centres can reach out to the farming community at large. KVK, Palakkad is quite aware of these and strives to establish functional linkages with many organisations involved in agricultural developments.

CHAPTER - 7

DOCUMENTATION OF INDIGENOUS TECHNICAL KNOWLEDGE (ITK)



The farmers all over the world have a tradition of experimentation and developing indigenous knowledge for solution to many of their agricultural problems in harmony with nature. The key features of such indigenous knowledge are reducing risks, affordability, ready availability, compatibility with current practices, visible results within a reasonable amount of time and satisfying multiple needs. Documentation of such indigenous knowledge resources will provide a base to the agricultural researchers and extensionists for appropriate blending with the research information.

A few of the notable innovative ideas identified in

the various fields of agriculture and allied sciences, which are verified and documented by the KVK are presented.

Plant Protection

- Vegetable seeds can be stored without pest attack by mixing them with cow dung and ash and keeping them as cakes in the kitchen wall. This helps in retaining the viability of seed.
- Preserving pulse seeds as dry pods as such reduces the incidence of pulse beetles during storage.
- Spraying the extract of a local variety of chilly

namely "kanthari" which is very hot compared to all other chillies is effective in controlling vegetable pests.

- Using green leaves of kodaku tree as multi-purpose green leaf manure is good for improving soil health. These leaves have a principle which works against harmful soil bacteria and fungi.
- Erecting bird rests using coconut fronds is helpful to destroy rice pests.
- Using garlic and flour of bengal gram is effective as repellent against rats, and the practice is not hazardous to poultry.
- Using a mixture of garlic and asafoetida is effective as insect pest repellent, which is non-hazardous and pollution free.
- Erecting of bird scares using muslin or polythene sheets is found to be effective in keeping away birds from paddy fields.
- Depositing salt and sand mixture in the coconut fronds to kill rhinoceros beetle is found to be effective.
- Brushing or sweeping rice plants using branched bamboo thorns, leaves of the plant 'parakom', and use of coir dipped in kerosene is effective to knock down leaf roller.
- Leaves of parakom can be applied in the root zone of banana to control rhizome weevil. This has double advantage in the form of organic manuring and pest control.
- Application of neem leaves protects seedlings from crab attack.
- Aphids in cowpea can be controlled by application of warm ash.
- Mixing neem leaves with cowpea seeds prevents storage pests.
- Neem leaves are kept along with paddy seeds for storage.

Agronomy

- Chettuvazha cultivation along with paddy (semi-mixed cum relay cropping of banana in rice fields) can be taken up in one year.
- Fringe cropping with cowpea can be taken up

along the bunds of standing paddy crop, saving labour and land.

- In the riverbed system of vegetable cultivation in summer season on the sand deltaic beds of Bharatapuzha, a good crop of summer vegetable is possible without any addition of organic manure and fertilizer.
- To reduce the incidence of pest and diseases, the planting of paddy should be done 15 days in advance of the full moon day.
- Planting pigeon pea along bunds of the paddy fields acts as wind breaks against the eastern destructive winds of Palakkad district.
- Exposing seeds to dim light after drying increase the vigour of the seeds. This practice is done during the cool nights of November and December.
- Relay planting of Nendran banana with transplanted rice can be successfully practised.

Fisheries and Animal Husbandry

- Crushed tobacco mixed with tender coconut can be used as an antidote for hydrocyanic acid poisoning in cattle and goats.
- Tamarind seeds, which are available in plenty in summer, can be used as a substitute for fish feed.
- A wild variety of cactus common in the locality is ideal for the eradication of predatory fishes.
- Neem oil can be used on the wounds of livestock to repel flies.
- A mixture of neem leaf and turmeric can be used for controlling worms in calves - they act as system purifiers and disinfectants.
- Ground punna bark can be applied to heal the wounds of cattle.
- Ajwain seeds fried, ground and mixed with jaggery syrup is useful to treat diarrhoea in goats.
- Mango preserved in brine solution can be applied on the mouth of goats to cure infections, which is a low cost disinfectant.
- Giving coconut oil or coconut milk or arrack to goats is useful to cure stomach upset which act

as antiparasitic.

- Lemon grass oil has a repellent action on poultry lice.
- Crushed leaves of 'kolappa' spread on the floor of poultry house can ward off poultry lice.
- Tender bamboo is a fish poison.

Home Science

- The tender seeds of tapioca can be used with red gram dhal for making pugath.
- To prevent dandruff and hair fall, apply the liquid obtained by boiling shoe flower and its leaves with little lime.

- Cutting both ends of ladies finger can extend keeping quality.
- Application of lime juice or tamarind can reduce rancidity of coconut or palm oil.

Agricultural Engineering

- The indigenous water lifting devices like piccottah, chakram (water wheel), swing basket and thonithekku (scoop basket) are used for irrigation in small-scale operation. They do not require electricity/fuel.
- A low cost, easy to operate frame for designing contour is effectively utilised by the farmers.

CHAPTER - 8

SUCCESS STORIES FROM THE FIELD



KVK Palakkad has successfully demonstrated that a KVK can do more than a lot and is not confined in its endeavours to a limited sense of capacity building. The success stories clearly depicts that a KVK can be responsive to the realities of farmers and can transform their livelihood by technology application. Since the mid 90s the emphasis of trainings shifted its focus from mere skill development to enterprise oriented training. The KVK has promoted those individuals who approached the Kendra with the motive of starting a means of livelihood in agriculture and allied fields. A few of the successful enterprises initiated with the technical support of the KVK are presented.

1. The KVK Palakkad helps to identify opportunities: The case of Puthama Achchar, Pattambi

Mr. P. M. Kunhi Mohammed (37), Padinjarakath House, Poovakkodu, Maruthur P.O., Pattambi and Mr.P.M. Yusuf (28) are brothers belonging to a poor rural family. Mr. Kunhi Mohammed and his family were struggling to meet their both ends with the meagre wages they obtained from the field work as labourers. Their mother had expired and their family included an aged father and two younger brothers. Kunhi Mohammed also worked as a Madrassa Teacher, which provided him a meagre amount as



Plate 25. Earning a living; Mr. Kunhi Mohammed at his Pickling unit

salary. Though Mr. Yusuf was doing his B.Com. degree, dropped out the course as it was not easy to go about as he could not even afford to pay the fees. He was in dire need of generating income for the family.

It was at this time, during 1998 that the two brothers heard of the one-month training programme at the Krishi Vigyan Kendra, Palakkad on Processing of Fruits and Vegetables. They decided to attend the training. During the course of the training programme itself, the two brothers started practising at home, what they learnt from the training. Thus, immediately after completion of the training they started to produce jam and halwa with a capital of Rs.3000 from their own earnings. But their products could not catch the attention of the customers in the market and as such the venture flopped and the amount invested was completely lost.

Though their first experience was bitter, without losing much of their enthusiasm they took it as a challenge and decided to go ahead with some other products. They purchased all the fruits on a mango tree in a season worth Rs.50 and started producing pickles. They made small polythene packets of mango pickle and marketed them at the premises of Vanneri High School at Puththanpalli, Perumpadappa, the main customers being the students. Each packet was sold at Rs. 0.50. This

they continued for two months and finally they obtained Rs.500 from their investment of Rs.50. With this they got motivated and decided to expand the business.

With the available Rs.500 they purchased variety of fruits such as mango, lemon, dates, amlas and garlic and also a few cans. They prepared different types of pickles and made polythene packets of 250g each and sold @ Rs.10 except garlic which was sold @ Rs.15. They used a bicycle for door-to-door marketing of the produce. From this they received a profit of 40 per cent. In addition they participated in a three day local *vipanana mela* and sold their produces for an amount of Rs.3000 which boosted their confidence.

From then on, they decided to expand the business further. They procured different fruits during the peak seasons and stored them using salt and turmeric powder in airtight containers. Thus they procured 3 t mango, 1 t lemon, 500 kg garlic, 500 kg dates and 1 ton kannimanga (tender mango) annually. The pickles produced in different lots were packed in small polythene bags except 'kannimanga achar', which was packed in glass bottles as taste difference was noticed when packed in polythene. The produces were sold through retail shops at 20% commission and through door-to-door delivery at 25% commission. At present they are getting a profit of 50%.

During the peak fruit season, the customers prepare pickles themselves, which resulted in a reduction in the marketing of pickles. To tackle this problem they collected the fruits in lot and stored as such for preparing pickles in the off-season. They also prepared pineapple and grape squashes, in times of demand.

With regard to the infrastructure, they started their production unit initially at Puththanpalli in Perumpadappa block and gradually shifted to Pattambi giving the name as *Puthuma Achar* with

SSI register number 0907/16342. Now they are operating the unit in a rented building at Rs.1100 per month. They pay monthly an amount of Rs.100 for electricity charges and Rs. 150/- as telephone charges. The unit possesses a ginger slicer developed by Mr. Kunhi Mohammed himself, a mixy, an electronic weigh balance, a sealing machine and a two-wheeler. They are planning to purchase more machineries and a carriage vehicle for easy marketing with an intention to develop the unit.

Mr. Kunhi Mohammed is engaged fully in the production unit and Mr. Yusuf in the marketing side. There are three lady assistants and three boys for marketing in the produces. The lady assistants are working from 8.30 a.m. to 5.30 p.m. and they were paid Rs.600 per month in the initial period and now they are being paid Rs.800 monthly. The marketing assistants are engaged on 25 per cent commission basis based on the order of selling.

The brothers are quite satisfied with the on going business and the major constraints faced in the marketing is lack of FPO certification. Till date they have not availed any loan but they are planning to get it for further expansion of the unit. The KVK Palakkad is their source of inspiration, guidance and support, which they acknowledge.

2. The KVK Palakkad inculcates the message of diversification: The Case of SC/ST Women's Co-Operative Society, Pattambi

A group of SC/ST women was given training on tailoring and embroidery at the KVK Palakkad for a period of six months during 1994. As a follow up of this training programme the KVK Palakkad initiated a co-operative society in the campus with the financial aid of District Industries Centre (DIC), Palakkad. The organization was christened as "Pattambi Samyuktha Readymade Patitkajathi



Plate 26. Members of the Cooperative Society running of canteen

Vanitha Industrial Co-operative Society Ltd' and started functioning from June 30, 1995.

The members of the society constituted entirely of un-employed ladies of scheduled caste and scheduled tribe. Due to lack of working capital available for purchase of machines, the society started with sewing machines available at the KVK. The society started "job work" in tailoring and switched to production of ready-made clothes utilizing the funds created in the above process.

An admission fee of Rs.25 was collected from each member. In addition an amount of Rs.100 was collected as individual share from each member. The Government of Kerala contributed an amount of Rs.900 for each member making the capital share to Rs.1000 from each member. The society continued its activities with increased working capital available. Each member was able to earn an amount of Rs.300-500 per month.

The society employed a paid member as secretary to maintain the accounts. The organization has a seven member Director Board. The members meet twice every month to take stock of the functioning of the society.

The society started door-to door sales of their products which were in high appreciation in and around Pattambi. In addition, materials were supplied through the regular textile shops.

Due to intense competition and lack of scope for expanding the working capital of the organization, it was felt difficult to expand the venture. Hence it was decided to diversify the activities of the society. Thus the unit started a training cell to train women in tailoring and embroidery. At present there are about 20 students who attend the training program.

In addition, they also started operating the canteen of the Regional Agricultural Research Station, Pattambi since last two years and is running successfully. Other than serving food to the staff, as an income generating activity, they also receive orders for catering jobs and when special functions are organized at the Station and also from outside.

At present each member of the society draws an amount of Rs. 1000-2000 per month from its various diversified activities. The KVK continues its support in training and management of the society. The members attribute their success to the support and encouragement provided by the KVK.

3. The KVK convinces the need of group approach: Paruthikkavu Nellulpadhaka Padasekhara Samithy

Paruthikkavu Nelu padhaka Padasekhara Samithi is located in Chittoor, Thathamangalam Municipality of Palakkad District in Kerala. This is a group of farmers who have organized themselves to successfully run their agriculture as a profitable and sustainable model for the State. The Samithi was initiated with the formation of a Karshaka Charcha Samithi (Farmers Discussion Forum) in 1980 with 25 farmers spread over 25 ha of paddy fields.

Though there was a well organized Karshaka Charcha Samithi functioning the farmers were practising the various cultural operations individually. The Samithi identified this practice as bringing a great loss to the individual farmer. The KVK Palakkad intervened at this point and suggested certain measures to reduce the cost of cultivation of rice and to make rice farming



Plate 27. Members of Paruthikkavu Padasekhara Samithy with the Zonal Co-ordinator, ICAR

profitable. With this inspiration, the Samithi started its activities in 1982 with community paddy nursery using Jaya variety of paddy during the first crop. With the implementation of the community nursery in the padasekharam they could realize that this single practice could reduce the economic loss remarkably. They were motivated to practice this group approach in other cultural operations too and thus they started group farming in 1989.

The group farming along with a scientific approach in paddy cultivation reduced the cost of cultivation and increased the income of the farmers. A comparison worked out is presented in Table 12.

The Samithi's activities proved to be successful and soon this attracted the attention of farmers of the area and the membership of the Samithi increased to cover more farmers spread over 75 ha of paddy fields. Presently the Samithi has 102 members with land holdings ranging from 30 cents to 10 acres. The common nursery concept was widely appreciated and the All India Radio prepared a special programme for the benefit of other farmer organizations in the State as a model for reducing the cost of cultivation through group approach in farming. This was later on adopted by the Department of Agriculture, Kerala as a model to be extended throughout the state.

The exemplary work of Paruthikkavu Nelulpadhaka Padasekhara Samithi in the field of rice farming

Table 12. Comparison of individual vs group farming

	Cost of cultivation for 1 ha (Rs)	Average yield, kg/ha (Rs)	Cost of paddy (Rs)	Profit
Individual farming	Rs. 12500	3250	19500	7000
Group farming	Rs. 10500	5000	30000	19500

led them to become the recipient of the first “Nel Kathir ” award instituted for the best rice group farming society in the State by the Government of Kerala. The latest recognition secured was as one of the eight farmer organizations by Government of India’s Ministry of Agriculture being a part of their “Integrating Front Line Extension System in the Country”. This is a pointer towards the future in Agricultural Extension strategies to be adopted for meaningful transfer of technology.

Though the concept of group farming has been evaluated many a time, a few conclusions of the farmers’ organization are presented herewith.

1. The interest in group farming in the area increased

Indicator : Increase in area over the years under paddy cultivation in group farming

Measuring tool : Records of the samithy regarding acreage.

2. Membership in the samithy increased

Measuring tool : Records of the samithy regarding membership

3. Paddy farming has become more profitable

3.1. Production under group farming has increased

Measuring tool : Yield data collected by KVK Palakkad and Samithy records

3.2. Cost of cultivation has come down

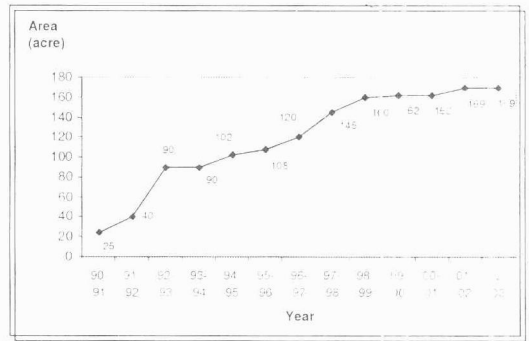


Figure 8. Area under group farming over the years

Measuring tool : Comparison between earlier traditional nursery (in normal situations of individual farming) and community nursery as stated by farmers of the group and others in nearby areas.

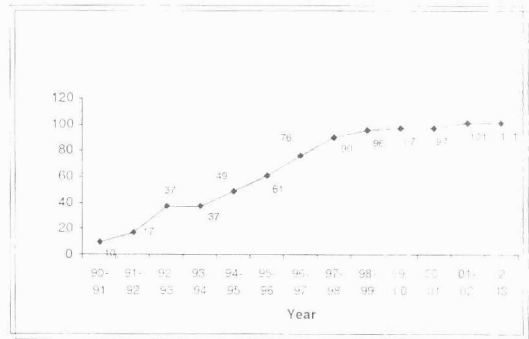


Figure 9. Membership in the Samithies

3.3. Quantity of paddy sold as seed increased (due to higher value)

Measuring tool : Records maintained by the samithy

3.4. Repayment of bank loans has increased

Measuring tool : Records of loan availed by the members and its repayment as collected by the Primary Co-operative Samithy.

Table 13. Yield from group farming

Year	Yield in kg/acre	Yield in terms of yield : seed ratio (Vernacular unit - <i>Meni</i>)
1990-91	850-950	10
1991-92	900-1000	10
1992-93	1100-1200	11
1993-94	1200-1250	12
1994-95	800-850	8
1995-96	1200-1300	13
1996-97	1250-1350	13
1997-98	1500-1550	15
1998-99	1000-1050	10
1999-00	1650-1700	16
2000-01	1700-1750	17
2001-02	1700-2000	20
2002-03	2000-2300	23

* 1994-95 drought year

3.5. The fertility status of soil increased

3.5.1 Indicator : Preparation of soil map every year:

Measuring tool : Verification of soil fertility maps prepared by the samithy.

The samithy has kept records of soil maps prepared since 1990 along with the recommendation of fertilizers to be applied.

3.5.2. Indicator: Soil pH has moved towards neutral over the years.

Measuring tool: Records kept by the samithy regarding the soil pH.

Table 14. Comparison of profit: Traditional vs community nursery

Particulars	Traditional nursery		Community nursery		Net Profit
Seed quantity	125 kg/ha	Rs.1250	80 kg/ha	Rs.800	Rs.450
Nursery area for 1 ha main field	25 cents	Rs.500	10 cents	Rs.200	Rs.300
Cow dung	1 t	Rs.600	0.4 t	Rs.240	Rs.360
Pulling of seedlings	20 women	Rs.1000	8 women	Rs.400	Rs.600
Total					Rs.1710

Table 16. Details of loan availed by the members

Year	No of members who availed loan	No. of defaulters
1990-91	10	0
1991-92	15	0
1992-93	25	0
1993-94	30	0
1994-95	30	0
1995-96	40	30
1996-97	60	10
1997-98	70	14
1998-99	80	15
1999-00	85	32
2000-01	80	14
2001-02	88	15

* Learning: The market forces have an impact on the repayment of the loan.

Table 15. Quantity of seed produced from 1991-2002

Year	Quantity (kg)
1991-92	1000
1992-93	1500
1993-94	2000
1994-95	1000
1995-96	2500
1996-97	2500
1997-98	5000
1998-99	5000
1999-00	5000
2000-01	7000
2001-02	20000

4. The KVK bridges the digital divide: Computer Training Programme for Women



Plate 28. Computer training in progress at KVK Palakkad

The Krishi Vigyan Kendra started a computer training centre equipped with one P- III server and five celeron work stations along with other accessories like printers, scanner and UPS for imparting vocational training in computer for educated, unemployed women of western blocks of Palakkad district. This project was financed by District Panchayath, Palakkad. The Kendra has already completed training 8 batches.

Details of trainees who completed the training programme are furnished in Table 17.

The extent of employment to computer trainees in computer related vocations is given in Fig. 10.

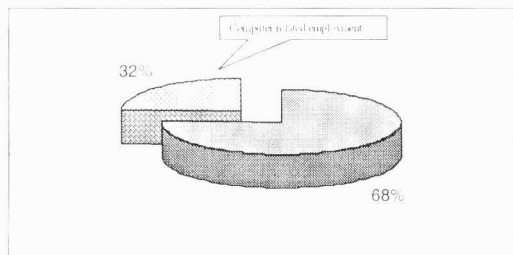


Figure 10. Pie diagram showing computer related employment of Batch 1 trainees.

About 24% women who completed the training programme are working in areas related to computer

and are earning average pay of Rs 1500 per month. One trainee has set up her own training centre. At present there is a problem in getting more people

Table 17. Details of computer trainees

Batch	No. of trainees	Trainees who have taken up computer related vocations	
		Number	% of total
Batch 1	22	7	32
Batch 2	17	4	24
Batch 3	16	5	31
Batch 4	7	4	57
Batch 5	15	4	27
Batch 6	11	5	45
Batch 7	14	3	21
Batch 8	22	on going	

employed in computer field due to a slow down in the computer related sector. There has been an attempt to link up with the District Industries Centre to give financial aid to the trainees to set up their own shops.

5. Subhasree – a striking evidence of women empowerment and promotion of master trainers by KVK

Subhasree Food Products, a known name in and around Nellaya Panchayath offers an interesting case of the innovative extension approaches adopted by KVK.

Sreedevi Amma (49) belongs to an ancient aristocratic family. The sudden death of her husband and teenaged daughter came as a blow to her. It took her months to come out of the trauma. These days she earned her living through making papads for Rs.40/day

Resolving to work for a social cause she organized a group of 10 women into the "Subhasree Vanitha Society" in January, 2000. She promised to give her colleagues 3-4 days of employment per week

in papad making. The profit was shared among the members.

In July 2000, her group also ventured into pickle and wafer making. This coincided with the training she received at KVK on "Fruit and vegetable preservation" which boosted her confidence. In



Plate 29. Inauguration of Subhasree food processing unit

August 2000 her group took up door to door sales to ensure instant sale of products. The returns were not comparable to the efforts put in, but she took it up as a challenge. The area of marketing taken up were offices and homes at Palakkad town, Mannarakkad and Malappuram. Onam fairs and Jubilee celebration at KAU campus, Pattambi helped the group monetarily and also with regard to greater exposure.

The initial investment on the enterprise was Rs.100 per head which amounted to Rs.1,000. The Block Panchayath disbursed an amount of Rs.10,000 as subsidy and Rs.16,500 as loan towards the fruit processing unit. Last year, Vijaya bank granted a loan of Rs.1,00,000 towards the upgradation of the FP unit. The repayment amount being Rs.1,120 per month.

The members of Subhasree Vanitha Society ensures participation in all trainings on food processing at KVK namely, baking, catering, preparation of milk products and the like. Thus, on inspiration to take up baking, after attending the bakery course in 2003,

she purchased an electric oven worth Rs.4,500/- for the production of 'sugar free biscuits'. This has also become popular in addition to their conventional pickle and chutney items.

The women are earning an amount of Rs.20/day for 24 days a month, which has attracted many more women into the group. However managing a larger group was difficult, which led to formation of 3 women's' groups in Nellaya Panchayath working on the same line.

In April, 2004, her group initiated a 'Vanitha Canteen' at the main road side at Nellaya, in a rented building. Vegetarian meals are in great demand in this canteen at a nominal rate of Rs.10. The auto drivers and bank staff are their regular clients.

Highlighting, another aspect of this enterprise led by Sreedevi is that, KVK utilizes her services as a Master trainer in many of the Off-campus training programmes. It has helped to boost her morale and also helped to give wider exposure to her group.



Plate 30. Pickles being packed at the Unit

The trainees are inspired to take up such ventures from this master trainer.

In April, 2004 KVK arranged Mrs. Sreedevi as a resource person to handle classes for Centre for Management Development, Kerala State, in their workshop for "Women enterprises". They called her for similar workshops at Palakkad and Malappuram. The Institute of Printing Technology, Shoranur, too made use of her services in similar

training programmes under the Community Polytechnic Centre. She is actually able to inspire women into such enterprises, which is more motivating than a trainer from a training centre.

Recalling her achievements, Sreedevi points out that group functioning was her strength, she does not ignore the economic losses at times and it had only made her to go on with it as a challenge. Besides, she cherishes the recognition her occupation has brought her today. She recognizes the thrust and partnership facilitated by Krishi Vigyan Kendra, Palakkad.

6. KVK. Empowering landless women for sustainable agriculture

This venture was taken up on a group of landless rural women at Vattamkulam with the collaboration of the Vattamkulam Krishibhavan. The whole programme was designed after participatory planning process in connection with the Watershed area development programme. The major technological interventions by the KVK included water harvesting, organic farming, scientific cultivation of rice and, vegetables, processing of fruits and vegetables and rice farm mechanization. The programme is being organized through three self help groups of women namely Grameena, Susthira and Swasraya. The groups started rice cultivation in leased lands of 3 acres during 2001 – 2002. Now they are cultivating rice in an area of



Plate 31. Paddy cultivation undertaken by women of Vattamkulam being harvested

36 acres using improved varieties from RARS, Pattambi. They are also preparing vermicom post, biopesticides and cultivating azolla as green manure as well as animal feed. KVK is imparting both on campus and off campus trainings to update on the advanced information in the concerned fields. The initial performance of these experiments was well honored by the Hon. Minister for Agriculture, Government of Kerala at a public function.



Plate 32. Minister of state facilitating the Women's group engaged in group farming

7. KVK in participatory farm mechanization.

With the active collaboration of Krishi Bhavan, Anakkara participatory technological interventions in rice cultivation are being attempted by the Krishi Vigyan Kendra in the Perumbalam padasekharam of Thrithala block. The farmers of the area were abstaining from rice cultivation due to the high wage



Plate 33. Demonstration on the use of cono-weeder

rate and non availability of labour in time. The Kendra's objective was to demonstrate a technology which could substitute the labourers and reduce the cost of cultivation and thereby bringing the farmers back to their rice fields. Appropriate mechanization at various stages of the crop such as use of mechanical transplanter, conoweeder etc. was carried out in the area with the active support from the Agricultural Engineering College, Tavanur under the Kerala Agricultural University This

technology has resulted in reduction of cost of cultivation to the tune of 30 per cent and the Krishi Bhavan has plans to extend this program to other padasekharams under the Krishi Bhavan. For effective implementation of the proposed programme a farmer centered organization, Tracking Agricultural prospect and effective and scientific coordination samithy, 'TRACES' has been formed and the KVK is imparting trainings on various aspects of rice cultivation to this group.

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CHAPTER - 9

INNOVATIVE METHODOLOGIES ADOPTED BY KVK PALAKKAD



All through the 25 years, KVK has tried out many approaches and techniques for transfer of technology in the field of Agriculture. A few significant novel attempts are listed below:

‘Catch them young’ programme

This innovative methodology of transfer of technology aims at imparting the basic know-how of various aspects of agriculture and allied subjects to the younger generation – UP School students. This programme envisages cultivation of various crops in the school premises along with earning a small pocket money and diversion from the monotonous curriculum. This programme has been successfully implemented in and around most of the schools in Pattambi.

Recognising the ‘unrecognised’

KVK, Palakkad initiated the programme for

recognizing individuals for their outstanding contributions in various fields, coming under its mandate like best young entrepreneur, young farmer, agricultural entrepreneur etc. They would otherwise never get a forum for receiving a recognition. This is an effort that has been appreciated by one and all.



Plate 34. Palakkad Panchayath President facilitating the young entrepreneur

Keeda Nireekshana Sena

This was a novel attempt initiated by the Kendra in Nellaya Panchayath. A group of enthusiastic farmers including a number of youth had volunteered for the training programme on control of mites in coconut and pests in rice. They were also given training on other aspects such as repair and maintenance of plant protection equipments, IPM campaign for rodent control, biological control of crop pests etc. KVK still continues to have feed back with these volunteers who look into the plant protection of coconut and rice in their areas.

Pariipoornatha

This programme, initiated in 1999-2000, envisaged field level demonstration in water shed management in a mini water shed in Vaniyamkulam Panchayath. The programme involves formation of native groups, training on water and soil conservation and agro forestry. This would be monitored through Panchayaths or other related development agencies.

Women's cell

The Krishi Vigyan Kendra Palakkad has been in the forefront of organizing various women empowerment programmes in the field of agriculture and allied areas. The KVK accords prime importance in including women in the mandatory activities. During the year 2002-03, the KVK conducted a total of 90 training programmes with a total of 5210 trainees of which 40 per cent were women.

Computer training programme for rural women

The KVK has started a computer training centre at a total cost of Rs. 5.7 lakhs funded by the Palakkad District Panchayath. The centre is equipped with one P-III server and five celeron work stations along with other accessories like printer, scanner and UPS for imparting vocational training in computer for educated, unemployed women of western blocks of Palakkad District.

Vocational training programme on fruit and vegetable processing

Unemployment is the burning issue among the educated women in our society. Considering the role of women in development, there is an essential need to be instrumental in opening avenues of self-employment. Fruit and vegetable processing is a field with lot of potential in this regard. Under the auspices of the Pattambi Block Panchayath, young women aged 18-35 years were given one month training on fruits and vegetable preservation in 1999-2000.

Training programme on handicrafts

As an earnest effort to bring back the neglected rural crafts, a few sponsored training programmes on various crafts were conducted. This also aimed to provide employment to our rural youth. Since 1993, training on various handicrafts using bamboo, reeds and canes were organized. The latest training is on value added products of coconut shell and banana fibre for a period of three months, imparted to a group of 25 SC women under the auspices of Block Panchayath.

Kitchen garden at work places

The KVK has links with the ICDS, the welfare programme for women and children below poverty line. The programme envisages setting up of nutritional cum medicinal gardens around these institutions so that it will serve as demonstration cum training activity. As an initiating step, the Kendra organized an orientation programme for the Anganawadi workers of Thrithala and Pattambi Blocks. Anganawadies having sufficient basic facilities were selected and the demonstration units were established. The programme is going on well and will be extended to other area of the district. Based on need assessment, training on nutrition gardening, growth monitoring and child health, processing of weaning foods etc. are also being conducted.

Vocational training programme of the Kerala State Women's Development Corporation

The Kendra actively collaborates with the agency's project to impart vocational training to all women in the Tirurangadi Block of Malappuram district. The project envisages capacity building, entrepreneurship, financial management etc. among the women in the block. The training organizer acts as a member of the Project Monitoring Committee. The KVK organized several orientation training programmes on gender analysis to the link workers of the project.

Women in Agriculture Programme of the Department of Agriculture

Palakkad district was identified for the central

scheme – 'women in agriculture' in the IX Plan. Thirty self-help groups with 600 members were formed by the State Department of Agriculture. Krishi Vigyan Kendra Palakkad conducted an induction training programme on agro-enterprises at various locations in the Kerala Agricultural University. Training need assessment of the members was conducted by the KVK and detailed training programmes on topics like poultry rearing, nursery management, fruit and vegetable preservation, mushroom cultivation etc. were imparted to the members. At the end of the programme a 'Mahila Goshti' was organized where products produced by these units were exhibited. The programme was rated as highly successful by the Agricultural Department in inciting the women towards entrepreneurship in agriculture.

CHAPTER - 10

SWOT Analysis of KVK PALAKKAD



Just as any other organization is evaluated, using this management tool, KVK Palakkad after 25 years of its existence is analysed for its strengths (S), weaknesses (W), opportunities (O) and threats (T).

Analysis of strengths

KVKs are the transfer of technology projects of ICAR discharging the mandate of disseminating scientific information to the farmers and motivating them to adopt the latest technologies. KVKs lay emphasis on skill based vocational training, comprehensive in approach covering all facets of prevailing farming system in the country.

The KVK Palakkad has attained a name for itself in this district during the last 25 years through its various attempts of transfer of technology in the form of trainings, workshops, seminars and demonstrations. The flexibility of training content

and approaches to different socio-cultural settings of the farmers have been appreciated by the farming community at large which reflects its strength.

Analysis of weaknesses

Agriculture, in the general scenario has proved to be a non-viable enterprise, in the context of increased wages, lack of aptitude and falling market prices of cash crops. This has affected the morale of the fraternity of KVKs. Model demonstration plots in all agricultural and allied fields are lacking at the KVK premises.

Analysis of opportunities

Opportunities before the KVKs are immense. The productivity per unit of area is low and there is a growing problem of under - and un-employment

among the rural people. KVKs can more fervently go into studying the gaps and needs and identify technologies, which would help solve these problems.

Analysis of threats

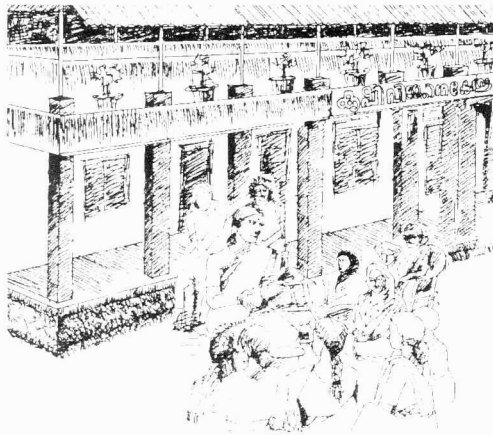
In the light of globalization, the avenues of self-employment enterprises requires refined training in areas of quality control, packaging, marketing and the like. This would require the staff of KVKs to

be well oriented with the latest technological breakthroughs. Further, the linkage between KVK and research institution needs to be strengthened particularly in view of privatisation of research, extension and input management.

The KVK Palakkad will rise up through these challenges to restore agriculture to its coveted seat, through its determination and team effort.

CHAPTER - 11

IMPACT STUDIES



In 1985-86, a quick oral critical point test was evolved to assess the impact of training, since the paper and pencil test was not giving correct assessment due to discussion effect.

In this method, the trainees are allotted marked seats, which they are not to change during the entire training. Critical information points of the content of the training are identified by the trainer in advance and questions are formed on these points, which are asked before and after the training. The trainer asks the questions to the group and gives the liberty to anyone in the group to answer after raising the hands. The trainee then asks others if they agree or disagree and also the reason. The process is repeated and thus the knowledge score of each individual is worked out.

Follow up surveys are held frequently. In the follow up survey on trainees of paddy cultivation, percentage of farmers adopting improved varieties for the first crop was seen to be 65 percent in a field in 1995 and 63 percent in the survey

held in 1996. After series of trainings in IPM to a group of farmers bio pesticide application was observed to increase from 23 percent to 63 percent.. Smokeless chulah was accepted by 75 per cent of the farm women, having been convinced of its time and fuel saving nature. Such evaluations are often useful for assessing the impact of training.

Evaluation studies revealed that there was significant difference between trained farmers and untrained farmers in their extent of knowledge about the improved paddy cultivation practices. Trained farmers had significantly higher knowledge scores when compared with untrained farmers.

Trainees had more favourable attitude towards high yielding varieties, soil testing and fertilizer application when compared to untrained farmers.

The knowledge and adoption of farmers/ farm women who attended various trainings at the KVK Palakkad during 1994-97 are presented in Table 18, based on evaluation conducted on the respondents.

Table 18. Knowledge and adoption level of trainings

Sl. No.	Training	Percentage of population showing Knowledge increase	Percentage of adoption in the population
1	Methods of scientific cultivation and intercropping in coconut garden	67	18
2	Techniques of raising rooted pepper cuttings and scientific method of cultivation	71	19
3	Economic use of water	82	22
4	Integrated farming	72	24
5	Identification of pest and diseases of paddy & their control measures	65	19
6	IPM in major vegetables	76	21
7	Propagation techniques and nursery management of fruit and ornamental plants	71	11
8	Scientific methods of vegetable growing	73	12
9	Mushroom cultivation	81	22
10	Commercial floriculture	73	4
11	Cultivation of medicinal and aromatic plants	71	6
12	Training in back yard poultry and its management	65	3
13	Training in bee keeping	73	6
14	Ornamental fish culture	65	8
15	Dairy cattle management	75	24
16	Clean milk production	65	19
17	Fodder production	69	7
18	Sterility in cows	76	52
19	Rabbit rearing	81	17
20	Training in growing fuel wood and softwood trees in homestead	81	6
21	Agro-forestry and organic farming	78	18
22	Biodiversity conservation	78	3
23	Fruit and vegetable preservation	81	12
24	Food adulteration and its hazards	87	24
25	Encouraging use of locally available food products	79	29
26	Diarrhoea management	80	65
27	Training on handicrafts	84	4
28	Training on tailoring	80	4
29	Leadership training	79	2
30	Transfer of technology methods	76	26
31	Maintenance and repair of plant protection equipments	79	12
32	Fish processing and preservation	78	7
33	Preparation of low cost weaning food	75	4
34	Preparation of balanced meal	89	35
35	Vaccination of poultry	75	12
36	Husk burial in coconut garden	83	23
37	Rizhobium treatment in pulses	61	11
38	Foliar application of urea in sesamum	71	10
39	Layering, budding and grafting methods	78	8
40	Preparation of pesticides solutions and their applications	77	6
41	Different mulching practices	75	5
42	Preparation of tobacco decoction	78	28
43	Preparation of Bordeaux mixture	87	17

CHAPTER - 12

MONITORING AND EVALUATION OF KVK ACTIVITIES



Local Management Committees (LMCs) were responsible for monitoring and evaluation of KVKs till 1998. Thereafter, Scientific Advisory Committees (SACs) were formed to look after this function.

Important recommendations of the Local Management Committee

1989-90 Date 21.6.1989

1. Joint Director of Agriculture of Palakkad district may be made available at LMC meeting.
2. Trainings should be conducted in Alathur Block also.
3. Film shows should be conducted for Village Youth Club members.

1990-91 Date 5.6.1990

1. The area of operation of KVK Palakkad should be extended to other parts of Palakkad district like Mannarkad Taluk.
2. The need for post-training evaluation as well as the need of incorporating need-based training programmes like mushroom cultivation was stressed.
3. On campus trainings on agriculture and allied aspects to tribal people deputed by KIRTADS were suggested.
4. It was decided to select a mini-watershed of 5-7 ha of land to demonstrate watershed management.

5. Taking up demonstration of cultivation of fodder species in 0.5 ha utilizing inputs from KLDMM board was decided upon.

1994-1995 Date 28.1.1995

- 1) The number of poultry birds supplied under Lab to Land Programme may be increased.
- 2) Necessary guidance should be given to multiply the inputs supplied by KVK and to widen the circle of beneficiaries especially under National Demonstration Programme and watershed programme.
- 3) The programme under Problem Oriented Research should be so designed to cover all areas of agriculture.

1991-92 Date 22.4.91

1. Suggestions were made to include of social forestry in training programme.
2. The need for giving poultry to tribal youth in training programmes was stressed.
3. Popularising hay box through publications was suggested.

- 4) A purchase committee should be constituted to purchase goats under Client Oriented Research Programme for SC/ST.
- 5) It was suggested to conduct more training programmes in Agricultural Engineering, Agro-forestry, Crop Management and Preservation of Fruits and Vegetables.

1992-93 Date 5.5.1992

1. Stress should be given to include more number of on-campus trainings utilizing expertise of RARS Scientists
2. Progress report in Malayalam should be sent to LMC members.
3. Draft proposal for on farm research under NWDPR should be routed through Director of Extension.
4. Administration of KVK should be autonomous nature.

- 6) Wide publicity should be given for training programmes of KVK.
- 7) Training programmes should be so chalked out that the rural development programmes are effectively collaborated with the KVK activities.

1993-94 Date 8.2.93

1. Contents of each training programme have to be documented in the form of publications.
2. Activities of community canning centre have to be revived and the processed products disposed through sales counter.
3. Instructional units in paddy may be started during first crop season.
4. All KVK Scientists have to be associated with projects of RARS.
5. A state level seminar cum demonstration on rice farm mechanization may be conducted.

- 8) Suggestions were made to set up more number of training programmes in duck-cum-fisheries demonstration programme.
- 9) For the beneficiaries of Village Adoption Programme, the committee suggested to supply poultry birds and KAU publications.
- 10) The committee suggested doubling the production of vegetable seeds.
- 11) Recommendations were made to extend all activities of the KVK to eastern side of Palakkad district

- 12) More emphasis to be given on Agricultural Engineering especially in the introduction and popularization of improved agricultural implements designed by KAU.
 - 13) Enhanced budget allocation may be requested.
 - 14) Artificial insemination units should be started at Abhayam and RARS.
 - 15) Fodder development programmes in the stations should be strengthened.
5. In the area of On Farm Testing (OFT), more efforts and emphasis are to be put in to see that the problems expressed by larger sections of the farmers are identified for OFT.
 6. KVKs must demonstrate the latest technologies in farmers' situations with the active involvement of farmers and extension personnel in all stages of demonstration and training and thus facilitating the participation of all concerned to promote the technologies for its adoption.

Recommendations of QRT

The Eighth Quinquennial Review Team of ICAR recommended the following technical guidelines for the effective implementation of KVK's. The technical recommendations for the Zone VIII (KVK Palakkad comes under this zone) is presented.

1. It is suggested that the well thought out training programme and curriculum for long/medium duration may be structured to use the hostel facilities in KVKs.
 2. The KVKs which are conducting frontline demonstrations on oilseeds and pulses should expand their areas and also select new farmers every year with innovations and new varieties of the demonstrating crops so as to popularize the same in larger areas and help more farmers.
 3. It is suggested that KVK should organize more off-campus training programmes so as to cover more area and numbers of farmers at a time to accrue the benefits of the programmes conducted by the KVKs.
 4. More field days, exhibitions, kisan melas, farmers interaction meetings and other extension activities should be organized by each KVK so as to reach more number of farmers.
7. There is a need to enhance the KVKs coverage by collaborating with other agencies and line departments working for the rural communities.
 8. KVKs need to pay attention to the sponsored programmes.
 9. Each KVK should regularly send their trainers to update their knowledge and skills so as to make them competent in conducting their training programmes more effectively and purposefully in their respective disciplines. It is also suggested that they should also visit the best performing KVKs particularly those recognized by the Council as the best KVKs to gain benefit of their activities.
 10. NGO KVKs need to be provided technical back up by SAU and ICAR and serve better for the cause of farming community in the their area.
 11. The Trainer' Training Centres need to revise their programmes to suit to the needs of the KVK trainers so that the participation of KVK trainers in TTC programmes is encouraged. Critical analysis of the training needs, particularly of the home scientists of KVKs will help the TTC Avinashilingam in

attracting greater participation in their training programmes.

12. Identification of the target groups other than the KVKs, analysis of their training needs and development of suitable training modules will help in improving participation of other than KVK trainers in TTC programmes.
13. KVKs should show greater accountability of their activities through follow up actions and monitoring the impact on the individuals, families and communities. Farmer to farmer spread of technologies need to be encouraged and facilitated through supportive activities.
14. KVKs must conduct agro-eco-system analysis for each for the villages where demonstrations are taken up. The brief profile of each of the villages may be maintained as the benchmark and compared for determining its impact.
15. Impact analysis needs to be done periodically (2-3 years) by some independent agency. Possibly, Zonal Coordinating Units may get it done. It is especially needed for those KVKs where performance is poor and they need special attention and support.
16. Each KVK has done good work in some areas, but the documentation, publication and preparation of video films of the activities especially of success stories are poor in many KVKs. Each KVK should publish its newsletter periodically, giving details of activities and training programmes etc.

Important recommendations of Scientific Advisory Committee

1st SAC (28/9/98)

Sl. No.	Suggestions	Action Taken
1	Attempts may be made to take up more no. of on-campus trainings	The number of on campus training are designed with more number of days (4-5) duration. More number of on-farm trainings included in the Action Plan 1998-99
2	Impact of trainings may be properly compiled and documented	Action initiated
3	Publication may be brought out on KVK achievements	Action initiated
4	On-farm trial programme may be conducted on priority	On-farm trial programmes are initiated on a priority basis
5	Reappropriation of funds under contingencies may be done with approval from Zonal Coordinator	Noted for future guidance

2nd SAC (26.11.99)

Sl. No.	Suggestions	Action Taken
1	Report of activities may be prepared in malayalam	Done
2	Computer training programmes may be strengthened	Being strengthened
3	The KVK need of vehicle urgently	Action taken
4	Corpus amount of KAU revolving fund may be refunded	Action initiated
5	FLD/OFT programmes without may be organized duplication of IVLP.	Noted for future guidance.

3rd SAC (24/2/01)

Sl. No.	Suggestions	Action Taken
1	Schedule of trainings may be informed to all the Grama Panchayaths in the district	The detailed activities of this KVK were informed to all the 94 Panchayaths in the district through KVK booklet with a request to sponsor potential trainees for the KVK trainings.
2	Area General Managar, NABARD, Palakkad may be included as a member of the SAC	KAU accepted the proposal and the AGM, NABARD, Palakkad has been included.
3	The Corpus amount of ICAR Revolving Fund of the Kendra may be refunded	The corpus amount of Revolving Fund received from the ICAR (Rs.1 Lakh) was refunded fully during the month of July 2001
4	Activities of KVK may be documented using latest technologies	Being done
5	Make follow up of KVK activities and conduct impact assessment of the programme	Two feed back programmes were organized at the KVK involving the participants of the previous trainings, feed back data collected and are being analysed
6	Organize a symposium on Youth in Agriculture for assessing the needs of the youth in the district	Organized the symposium on 13.3.2001. President, District Panchayath, Palakkad inaugurated the programme.
7	KVK will chalk out innovative extension strategy to reach the unreached population	Innovative extension strategies like "Catch the Young", "Crop Gardens at Work Places" etc. were chalked out and are being implemented.

4th SAC (28/11/01)

Sl. No.	Suggestions/recommendations	Action taken
1	The Block and District level Panchayath Raj Institutions will be informed regularly on the training schedules by the Kendra	Informed the block level institutions, but the response was very poor.
2	Identification of potential trainees, especially youths, for the vocational training programmes will be done with the co-operation of the three-tier Panchayati Raj Institutions.	Action initiated through conducting block level one day programme. This could not be completed owing to the employees' strike. This will be taken up before the next reporting period.
3	Linkages with the line department should be strengthened and efforts should be made to conduct TNA for the field level extension workers of line departments on major agricultural policy concepts.	Linkages with FTC, ICDS Agriculture and Forest Departments strengthened. Many training programmes were conducted during the period
4	Suitable changes and/or modifications will be proposed for specialized training for the members of the Self Help Groups among women in the district at the Computer Centre of the Kendra, financed by District Panchayath, Palakkad	A meeting for this purpose could not be convened despite our best efforts
5	At block and district level orientation training on watershed management may be organized for the people's representatives with the co-operation of District Panchayath.	Not yet materialized despite our best efforts.
6	Efforts for the collection and documentation of indigenous knowledge systems and utilization of folk media for transfer of technology may be initiated.	Action initiated

5th SAC (22/7/02)

Sl.No.	Suggestions/recommendations	Action taken
1	The report of activities presented in the SAC meeting should also be prepared in Malayalam for a better transparency among the members.	Prepared
2	An awareness programme may be organized for the members of the three-tier Panchayath Raj System, about the role of KVK in the development of the area, in collaboration with the District Panchayath.	Despite repeated attempts this could not be organized.
3	Furnish proposals for strengthening of the computer training programme for the rural women being undertaken at the KVK under the District Panchayath.	Submitted a proposal under Xth Plan for the District Panchayath.
4	The house felt the urgent need of a suitable vehicle for the Kendra.	A new vehicle purchased
5	The advance amount from the KAU may be refunded	Refunded
6	The IVLP Coordinator may be enrolled as a member of the SAC	Done
7	Transmit discipline wise list of the staff members to the All India Radio so as to involve them in various AIR programmes.	Done
8	The number of KVK staff meeting convened should also be reported in the SAC	Done. Meetings are held on the first working day of every month.

6th SAC (6-6-03)

Sl. No.	Salient Recommendations	Action taken
1	Focusing activities in selected areas	Activities are planned on area basis during the current year
2	Programmes on water harvesting may be taken up	July- August months were observed as water months and intensive training programmes on water harvesting were organized during the period. The KVK Newsletter for the period highlighted the significance of the topic.
3	Establishment of watershed model at KVK	Action initiated
4	Publication of 25 years of activities of KVK	Action initiated. Draft prepared for editing
5	Silver Jubilee celebration of KVK	Action initiated. Included in the agenda of 7 th SAC meeting
6	Associating with VVV clubs of NABARD	Action initiated. Discussions held



Plate 35. The recent SAC meeting in progress

CHAPTER - 13

REFLECTIONS



An attempt is made to portray some of the cases which reflect the impact of the KVK trainings on the society.

Case I

Agriculture-based Small Scale Industries are the only answer for the unemployment problem in the rural area.



Sri. P.M. Kunhimohammed (37), Padinjarakath House, Poovakkodu, Maruthur (PO), Pattambi.

Sri. Kunhimohammed found it difficult to make both ends meet, with the meagre earnings from wage labour and the teacher's salary from the Madrassa. It was in 1998, he heard of the one month training programme at KVK, Pattambi on "Processing fruits and vegetables". Kunhimohammed spoke to Dr. Suma Divakar, Home Scientist at KVK on the evolution of his enterprise.

Q: How was the beginning?

During the time of training at the KVK itself, myself and my brother practised the items at home and soon after the completion of the training we started producing jam and halwa with an initial capital of Rs.3,000. This venture however failed. But we didn't lose heart. We brought the mangoes from the neighbouring tree for Rs.50 and pickled them, the Customers were mainly the students from the Government School. This attempt procured an amount of Rs.500. from then on there was no turning back.

Q: What are your present assets?

We have been able to purchase a plot of 50 cents, but the unit is still functioning in a rented building, opposite to the KVK. Three assistants are engaged in the unit @ Rs.800 per month. Besides two marketing assistants are also engaged on 25% commission basis. There is a ginger slicer (developed by myself), mixi, electronic weighing balance, sealing machine along with a 2-wheeler.

Q: How often do you visit KVK?

About once in two months to share my experiments and clarify doubts.

Case 2

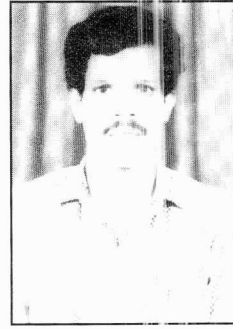


**Smt. Sreedevi, K (49),
Subhalakshmi Food Products, Nelloya**

“Subhasree Food Products”, a known name in and around Nelloya Panchayath offers an interesting case of our enterprises. Proprietor of “Subhasree food products”, Smt. Sreedevi Amma admits that she has earned herself a name in Nelloya Panchayath due to the “Almighty’s support and the constant support from KVK”

Case 3

Shri. Gopalakrishnan is a mason by occupation. But he has taken up mushroom cultivation as an additional income generating activity. When he contacted KVK for the first time, he had already started cultivation. But he received a scientific



**Shri. P.Gopalakrishnan (45),
Puthenkulangarathodi, Vilavoor (PO) – 679 309
(Ph: 04926-163964)**

orientation only after his training at KVK

He has been interacting thereafter, with his doubts and also experiments in mushroom cultivation. He has been successful in production of mushrooms in longer columns, and also substituting the substrates with other agricultural wastes.

Case 4



**Smt. P.K. Sundari (35), Member, Pattambi
Samyuktha Readymade Pattikajathi Vanitha
Industrial Cooperative Society, RARS Campus,
Pattambi**

Smt. Sundari was one amongst the trainees who recovered the sponsored training in tailoring and embroidery at KVK Palakkad for a period of 6 months during the year, 1994.

Standing at a juncture of poverty, spinster-ship and lack of moral support from home, she was

convinced by the efforts of KVK to participate in the initiation of the cooperative society. The organization was christened as Pattambi Samyuktha Readymade Pattikajathi Vanitha Industrial Cooperative Society Ltd. and started functioning from 30.6.1955.

The members of the society constituted of unemployed SC/ST women. The society started with job work in tailoring and switched to production of readymades clothes utilizing the funds created in the above process.

Due to intense competitions and lack of scope for expanding the working capital of the organization, it was decided to diversify the activities of the Society. The training centre for tailoring and embroidery is now functioning, wherein about 20 students are on rolls.

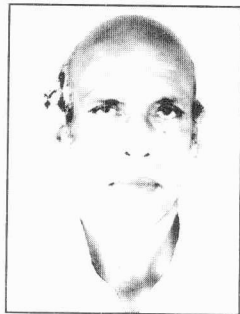
Case 5



Smt. V.P. Shoba (27), Member, Pattambi Samyuktha ready made Pattikajathi Vanitha Industrial Cooperative Society, RARS Campus, Pattambi

Smt. Shoba is yet another member of the Cooperative Society. She claims to have been successful or standing on her own feet, she says that she has become an asset to her family, by being able to provide for her parents and siblings. She owes all the credit to KVK's initiative in training her and also in involving her in the Cooperative Society.

Case 6



**Sri. Sankaranarayanan, M.K (61)
Madathilkunnath house, Mudavannur,
Mezhatthoor (PO), Ph : 0466 - 2272982**

Sri. Sankaranarayanan, a leading farmer of Pattambi admits that KVK Palakkad essentially is the force behind his endeavours in agriculture. Many of the new varieties of paddy have been successfully demonstrated in his fields. He has also gone into organic farming with technical support from the Kendra. He has been a member of the Local Management Committee of the KVK. He has confidence that the Kendra will continue to be a source of support for the farming community

Case 7



**Sri. Lughman (33), Edappalam, Vilayoor
Ph : 944738 3341**

Sri. Lughman, an engineering diploma holder opted to become a full-fledged farmer after giving a trial on real estate and car business. He settled on banana cultivation and expanded his area of cultivation from

2 acres to 45 acres. The KVK has been at his aide through technical support and trainings. He has been a beneficiary of the FLD programme. Now he has earned himself a reputation among farmers as a successful banana farmer.

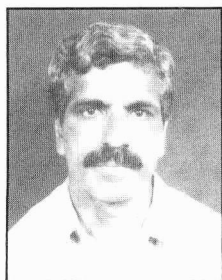
Case 8



**Mrs. & Mr. Balachandran, Ullattil Garden,
Kavalappara , Ph : 0466 - 2222287**

Ullattil Gardens is one among the best nurseries in Shoranur. Sri. Balachandran acknowledges that KVK Palakkad was instrumental in his initiation of a nursery. Till then they were getting engaged in the manufacture of scissors and knives in small scale industry. When labour problems caused havoc, they established the nursery with the technical support of KVK Palakkad. Their plant collection includes quite a few from the KVK. Both husband and wife are beneficiaries of many trainings and FLD programmes.

Case 9



**Sri. U.P. Raveendranath (45), Secretary, TRACES,
Anakkara Phone : 0466-2254898**

As the Secretary of the Peumbalam-Melidium padasekhara Samithy (Anakkara). Sri. Raveendranath has been in contact with Krishi Vigyan Kendra, from 1990 onwards. He recalled the services rendered by Krishi Vigyan Kendra, Pattambi in taking latest farming technologies to the farmers of the area. Later on, the Kendra rendered its services in organising TRACES (Tracking Agricultural Prospects and Effective and Scientific Coordination Samithi), a farmer organization comprising the farmers of the above area. Technologies like rice farm mechanization, organic farming, value addition, introduction of new varieties etc. were some of the areas where KVK helped the samithy.

Case 10.



**Smt. Suhara Pootheri (38), Vallaparambu House,
Panamenna - 679 501 Phone : 0466-2242564**

“Krishi Vigyan Kendra helped me to lay foundations of entrepreneurship and widen the knowledge base and in stimulating interest in starting an enterprise. I was exposed to varied options available in rural area for income generation like food processing, nursery management, soapmaking, goat reary etc. through vocational training programs. She had also been a beneficiary of the KVK’s OFT programme on weaning funds. Further, by giving me opportunity to serve as master trainer of the KVK, I could take the message of rural entrepreneurship to many women folk of my own background. My experience with KVK has been very motivating and rewarding”.

Case 11.



**Smt. C. Sathyabhama (41), Agricultural Officer,
Anakkara, Palakkad Phone : 0466 - 2254160**

“KVK, Pattambi helped the farmers of Anakkara to achieve the objective of Organic farming, self employment for youth and mechanization in rice farming. They brought many successful farmer organisations to Anakkara, which motivated the farmers to organize themselves to bring revolution in the mindset of the farmers. The farmer organisation TRACES is today a living example of the services of this KVK in my area”.

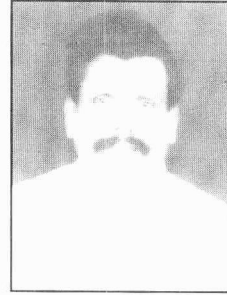
Case 12.



**Smt. N.P. Padmini Amma (71), Aashirwad,
Kuzhianamkunnu, Vadanamkurussi
Phone : 0466-2233018**

“Krishi Vigyan Kendra through their continued support and motivation made me a real farmer adopting latest technologies in agriculture especially rice cultivation. I was given the opportunity to serve as the testing ground for all the latest varieties in rice

released by the Agricultural University. Today I am in a position to sell off all my paddy crop as seed material due to the technical help and supervision rendered by the KVK. I am sure that this Kendra will continue to be a boon for the farmers like me in future also.”



**Sri. T.A. Viswanathan, Secretary, Paruthikavu
Padasekhara Samithi, Thathamangalam P.O.,
Chittoor Phone : 04923-227381, 94475 33969**

“I owe the success of myself and my organisation to the KVK. In fact, the KVK, Palakkad and particularly Rajendran Sir were behind all the successful efforts of the Samithi. Right from community nursery to the recent ‘SRI’ technology, KVK has guided us properly to reap good dividends. Our farmers will ever remember with gratitude the helping hand of KVK, Palakkad.”



Plate 36. Sri. T.A. Viswanathan receiving Bio-control critical input from Dr. P. Das, DDG (Extn.) ICAR.



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To Conclude

Twenty five years have elapsed into history. The Kendra has had many achievements to claim in the agricultural scenario of Palakkad district, but challenges lie ahead, more is to be done with team effort, people's participation and above all with ultimate goal of integrated agricultural development. It is really a matter of pride to present a glimpse of the activities of KVK Palakkad for the past 25 years. However, we have tried to cover the activities as much as possible, but very briefly. Our humble efforts will continue to widen our areas of activities in the whole of Palakkad district.

In this respect, we also put the job before the readers to point out some activities which we expect to take up in the coming years