

REFERENCE BOOK

CALENDAR OF TRAINING PROGRAMMES

2010-11

CENTRAL TRAINING INSTITUTE



**KERALA AGRICULTURAL UNIVERSITY
DIRECTORATE OF EXTENSION**

Mannuthy 680 651, Thrissur, Kerala

REFERENCE BOOK

English

CALENDAR OF TRAINING PROGRAMMES 2010-11

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CENTRAL TRAINING INSTITUTE

The Central Training Institute was established at Mannuthy in 1986 with its sub-unit at Vellayani as a special sub-project under National Agricultural Extension Project (NAEP).

This Institute imparts four categories of training programmes such as In-service, Vocational, Stipendiary & HRD for various client/target groups. The client organizations of this institute are Department of Agriculture, Animal Husbandry, Fisheries, Dairy Development, Forestry, Commodity Boards, Nationalised Banks, Local bodies etc. Stipendiary training programmes are also conducted on subjects related to Meat and Dairy technology. Training of pre-release defence personnel in Dairying is yet another regular training activity under taken as a commitment to the nation. Training is also imparted to less privileged sections of the society like unemployed youth, rural, housewives, etc. Further in recent years the institute has been recognised by the Government of India as a centre for National Training in specialised areas.

The Kerala Agricultural University has a strong faculty for conducting the various training programmes in the disciplines of Agriculture, Animal Husbandry, Dairying, Fisheries, Agricultural Engineering, Co-operation, Home Science, Forestry, etc. For certain topics, the services of experts outside Kerala Agricultural University are also made use of in training courses.

The Training Calendar for 2010-2011 is prepared on the basis of the proposals received. These training programmes will take place if the required course fee is paid by the sponsoring agency or participating trainees. In addition to these training programmes, additional programmes can be conducted on request subject to the approval.

For further information please contact

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Central Training Institute
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Foreword

Over the years there has been substantial increase in the volume of training activity taken up by the Kerala Agricultural University. More and more organizations at the State and National level have started realizing and accepting the training capabilities of the University in the Agriculture and allied sectors. Being the premium institution with R&D functions in these areas the depth and spread of KAU's intellectual and technological resources is unparalleled and largely unutilized. The scope for further broad basing of its training services therefore is huge. The well established statewide network of campuses and research institutions is an added strength for the KAU in this line. Of late the University has embarked on an ambitious programme to offer customised training programmes to prospective clients from outside the nation, especially ASEAN and Third World countries. An easy to access procedure has already been streamlined and put in place to facilitate this. Matching training infrastructure also has to be developed concurrently. Two projects, the International Research and Development Institute for Human Resources in Farm Sciences at the Kerala Agricultural University and the National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture are already in the pipeline. Another area vying for immediate attention is in-house HRD. An imaginative programme to balance the physical, emotional, intellectual and spiritual needs of the University's valued manpower has to be conceived and pursued without further delay to maintain them in a state of alert and anticipated preparedness to meet emerging challenges.

Organizations are facing great pressure to change these days – to facilitate and encourage wholeperson development and fulfillment – beyond traditional training and I am very happy to note that the Central training Institute, Mannuthy has risen to the challenge by fine tuning its training delivery.

Every rupee spend on training in the right institution is never wasted is indeed a saying with a soul.

K. R. Viswambharan

Vice Chancellor

Preface

Training is about knowing where you stand (no matter how good or bad the current situation looks) at present, and where you will be after some point of time. Training is a learning process that involves the acquisition of knowledge, sharpening of skills, concepts, rules, or changing of attitudes and behaviour to enhance the performance of employees.

The stakeholders in training and development are the sponsors of training (like the ICAR) the clients of training (the line departments), the participants (are those who actually undergo the processes), the facilitators (Human Resource Management staff) and the providers (Specialists in the field).

The Central Training Institute, Mannuthy is a subsystem of the Kerala Agricultural University. It ensures that randomness is reduced and training takes place in structured format. The principal objective of training is to make sure the availability of a skilled and willing workforce. In addition to that, there are four other objectives: Individual, Organizational, Functional, and Societal.

Individual Objectives – help employees in achieving their personal goals, which in turn, enhances the individual contribution to an organization.

Organizational Objectives – assist the organization with its primary objective by bringing individual effectiveness.

Functional Objectives – maintain the department's contribution at a level suitable to the organization's needs.

Societal Objectives – ensure that an organization is ethically and socially responsible to the needs and challenges of the society.

The Central Training Institute, Mannuthy has been striving to ensure that all these objectives are met through its multifaceted approach to training as is evident in this Training Calendar.

Dr. M. K. Sheela
Director of Extension

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GUIDELINES FOR THE CONDUCT OF TRAINING PROGRAMMES

A Flow Chart for Monitoring Training Programmes

1. Request from the Sponsoring Agency/Client
2. File No:
3. Topic:
4. Nomination of Course Director:
5. Letter to Course Director:
6. Receipt of the Training Proposal
7. Title of the Training Programme
8. Venue:
9. Proposed Date of Training:
10. Category of Personnel to be trained
11. No. of participants
12. No. of batches
13. Letter and Invoice to the Sponsoring Agency
14. Confirmation and receipt of Course Fee from the Sponsoring Agency
15. Note to Director of Extension/ Vice Chancellor
16. Issue of Proceedings
17. Training Needs Analysis
18. Designing of the Training Schedule
19. Conceptualizing effective Process Mechanics and Training Dynamics
20. Identification, intimation and reminder of Resource Personnel
21. Maintaining Liaison with deputed Trainees
22. Arranging Field Visits
23. Transfer of Course Fee to Comptroller
24. Request for funds from Comptroller
25. Issue of Training Advance Cheque
26. Logistics: Boarding and Lodging, Travel Plans
27. Liaison and Hospitality to Dignitaries for Inaugural/Valedictory
28. Inaugural Function and Ice Breaking Session
29. Conduct of the Training Programme
30. Scrutiny of the List of Participants
31. Issue of Certificates
32. Participants Feedback and Valedictory Function
33. Call letter for details, Reminder
34. Receipt of Details
35. Verification of Bills and Vouchers
36. Rectification if any and adjustment of advance
37. Issue of Proceedings Settling the advance
38. Recording of Training Details
39. Evaluation of Feedback
40. Strategic Reorientation of Training Interventions
41. Documentation and Reporting
42. Audit Verification and Reconciliation of Objections raised

GUIDELINES FOR THE CONDUCT OF TRAINING PROGRAMMES

1. The Course Fee is calculated as estimated expenditure plus 20% institutional overheads. In some cases, where the Course Fee per participant has already been determined, the expenditure will be limited to 80 % of the Course Fee actually received.
2. Sanction Orders for the conduct of a training programme will issued after receipt of the course fee and the remittance particulars have been communicated to the Central Training Institute, Mannuthy.
3. The Course Director may propose a mutually convenient date for the conduct of the training programme. However, the Course Director may make changes in the dates of conduct of the training programme in concurrence with the sponsoring agency and the Central Training Institute, Mannuthy if the situation so warrants.
4. A Email Training Needs Analysis (e-TNA) may be done with the sponsoring agency and the deputéd participants so as to determine their specific training needs and on receipt of this feedback, the schedule of the training programme may be suitably modified and the concerned Resource Persons appraised so that they may be in a position to address the specific issues raised by the participants during their sessions
5. Purchase of equipment if necessary for the effective conduct of the training may be included in the training proposal
6. Total anticipated expenditure for transportation utilising vehicles outside the Kerala Agricultural University pool may be included under POL charges
7. A minimum of Rs.1000 per day may be levied as rent for physical facilities, power and logistics
8. Based on the sanction order an advance may be drawn and disbursed to the course director directly or the funds will be placed at the disposal of the Head of the Institution concerned who can obtain the same from the Comptroller by sending demand.
9. Leave availed by the trainees during training period has to be reported to the sponsoring agency. No leave other than medical leave should be granted to the trainees during the training period.
10. Based on the evaluation, a certificate duly signed by the Course Director, Dean/Head of the Institution concerned and Director of Extension will be issued to the candidates who have successfully completed the course. Blank certificates can be obtained from the Central Training Institute by a responsible person only on submitting a request with list of trainees for whom the certificates are to be issued. The certificate number issued to each trainee should be recorded.

Sd/-
Director of Extension
Mannuthy

PROPOSAL FORMAT FOR TRAINING PROGRAMME

Category of Training Proposal: Tick option A, B or C

- A. In service or Sponsored Training:** training cost i.e. actual expenditure plus 20% institution overheads would have to be borne by the sponsoring Agency/ Department.
- B. Vocational Training:** Training Expenditure will be limited to 80% of the course fee received. The overhead charges need to be remitted to comptroller's Account.
- C. Stipendiary Training:** In cases where the KAU stands to benefit from the services of the trainees a monthly stipend sanctioned by the Vice Chancellor is paid to the trainees. Sufficient funds should be available with the institution proposing stipendiary trainings under the head of account 842 Stipend and specified in the proposal

1. Title of the Training Programme:
2. Category of personnel to be trained:
3. No. of batches:
4. No. of trainees per batch:
5. Duration:
6. Proposed Period:
7. Venue:
8. Course Director: Name and Designation:
9. Cell No:
10. Residence Land Line:
11. Email ID:
12. No. of lecture sessions:
13. No. of practical sessions:
14. Expenditure:
 - ♦ Honorarium @ not exceeding Rs.250 for 1 hour of lecture and Rs.250 for 2 hours of practical (or as stipulated by the sponsoring agency)
 - ♦ TA and DA for Resource Persons
 - ♦ Teaching aids & Stationery
 - ♦ Physical Facilities, Equipment and Logistics
 - ♦ Publicity and Documentation
 - ♦ POL charges, if any
 - ♦ Other items (to be specified)
 - ♦ Total:
 - ♦ 20% Over Head Charges:
 - ♦ Course Fee for the entire training:
 - ♦ Course Fee per participant (In case of Vocational Training):
15. Source/Remittance details of Course Fee:

Practical Utility and Training Syllabus should be attached herewith

Date :.....
Station:.....

Signature:.....
Name:.....
Designation:.....

Sample Registration Form

Title of the Training Programme:
Date and Venue

Name: (In BLOCK LETTERS as you desire it written in the certificate to be issued)			
Age:	Encircle: Dr./Mr./Mrs./Ms.		
Qualifications:			
Designation:			
Completed Years of Service:			
Official Address:			
Pincode			
Residential Address:			
Pincode			
Residential Land Line No. (with STD code)			
Cell Number:			
Email ID:			
In an emergency please inform:	Name:		
	Cell:		
Do you intend to stay at the Institute hostel?	No	Yes	If yes: Room No:
Received the Training Kit	Signature:		
Date:			

Inauguration and Ice Breaking

1. As a policy it is recommended that effort is made to start the training programme on time even if all the participants deputed for it have not reported.
2. Keep the inaugural function a very low key affair, with a brief welcome to the participants by the head of institute and an orientation by the Course Director.
3. Inviting dignitaries for the valedictory function is more significant as the dignitaries would get a better idea of the effectiveness of the training, feedback of the participants and the possibilities of making interventions for improvement.
4. After a brief orientation by the Course Director, an exercise of Ice Breaking should be taken so as to break the stiff mind set of the participants. This may be done by innovative and creative ways of getting to know the participants.
5. Management Games and Group Activities can be incorporated so as to help participants open up.
6. While it is important for all sessions to start on time, it is also important for sessions to stop in time. If the sessions do not stop in time, the entire time schedule of the training programme will be affected.

Creating Opening Exercises

TEN WAYS TO OBTAIN PARTICIPATION

No matter how creatively you design your opening exercises, they may still fall flat if the training group is reluctant to participate. A wide range of methods can be used to obtain active participation in the opening phase of a training programme. Here are ten possibilities, one or many of which likely will suit the opening exercise you have in mind. You can also use these methods when designing activities for other portions of an active training program.

1. **Open sharing:** Ask a question and open it up to the entire group without any further structuring.
 - Use open sharing when you are certain that several group members want to participate. Its straightforward quality is appealing. If you are worried that the discussion might be too lengthy, say before –hand: “I’d like to ask four or five participants to share.”
2. **Anonymous cards:** Pass out index cards and request anonymous answers to your questions. Have the completed cards passed around the group or otherwise distributed.
 - Use anonymous cards to save time or to provide anonymity for personally threatening self-disclosures. The concise expression necessitated by the use of cards is another advantage of this method.
3. **Questionnaires:** Design a short questionnaire to be filled out and tallied on the spot.
 - Use questionnaires to obtain data quickly and in quantifiable form. Feeding back the results immediately can be appealing to participants. You can verbally poll the group instead of using written questions.
4. **Subgroup discussion:** Break participants into subgroups to share (and record) information.
 - Use subgroup discussion when you have sufficient time to process questions and issues. This is the best method for obtaining everyone’s participation.
5. **Seat partners:** Have participants work on tasks or discuss key questions with a participant seated next to them.
 - Use seat partners when you want to involve everybody but don’t have enough time for small group discussion. A dyad is a good configuration for developing a supportive relationship and /or working on complex activities that would not lend themselves to large group configurations.

6. **Whips:** Go around the group and obtain short responses to key questions.
 - Use whips when you want to obtain something quickly from each participant. Sentence stems (e.g., "One thing that makes a manager effective is. . .") are useful in conducting whips. Invite participants to pass when they wish. Avoid repetition, if you want, by asking each participant for a new contribution to the process.
7. **Panels:** Invite a small number of participants to present their views to the entire group.
 - Use panels, when time permits, to gain a focused, serious response to your questions. Rotate panelists to increase participation.
8. **Fishbowl:** Ask a portion of the group to form a discussion circle and have the remaining participants form a listening circle around them. Bring new groups into the inner circle to continue the discussion.
 - Use fishbowls to help bring focus to large group discussions. Although time consuming, this is the best method for combining the virtues of large and small group discussion. As a variation, you can have everyone remain seated and invite different participants to be the discussants as the others listen.
9. **Games:** Use quiz game formats and the like to elicit participants' ideas or knowledge.
 - Use games to pick up energy and involvement. Games are also helpful to make dramatic points that participants will seldom forget.
10. **Calling on the next Speaker:** Ask participants to raise their hands when they want to share their views and request that the present speaker (rather than performing this role yourself).
 - Use calling on the next speaker when you are sure that there is a lot of interest in the discussion/activity and you wish to promote participant interaction. When you are ready to resume your role as moderator, inform the group that you are changing back to the regular format.

Trainee Profiles

Dr. Alexander George, Professor, CTI, Mannuthy

The trainer often has little say in deciding who will be deputed for training. Hence when trainees report for training the trainer no other option but to understand the personality of the Trainee and choose the appropriate stimulus to get the desired behaviour as outcome. It can be useful for the trainer to understand the broad categories under which trainees may be classified. The masculine pronoun has been used for convenience and there is no gender discrepancy in the categorization.

1. **Keen Learner:** He has sincerely come to learn. Whether benefited or not he considers it a privilege to attend the training. The trainer must assume that all trainees belong to this category while that may not be the reality.
2. **Resource & Guide:** He may be a knowledgeable and experienced farmer. The trainer should exploit his presence and appreciate his contribution. However beware of the trainee who only pretends to be a Resource & Guide. This person may keep smiling and nodding his head only to convey the message to the trainer: Please do not disturb me.
3. **Born Superior** has no quarrel with the trainer, but wants to tell colleagues that he is more than equal. He tends to interrupt frequently – an urge that stems from the craving need for recognition. Usually other trainees can handle him once his interruptions become a nuisance.
4. **Grudging Admirer:** This person has a grudge (may be he was senior to the trainer in college, but has now to sit under his juniors tutelage or may be he too had applied for the same post as the trainer but somehow didn't get through the interview). Despite his grudge, this trainee also had an admiration for the trainers' competency or ability. In such cases it is always better for the trainer to acknowledge the Grudging Admirer in order to avoid aggressive behaviour.
5. **Circus Audience:** A certain percentage to trainees deputed come for training only because they had no other option. They may be either disinterested or may have come with some hidden agenda: their native place was close to the training venue, or some work had to be followed up at the Head Quarters or some work had to be avoided at the base office. For such trainees, the training is just a paid holiday and it is the challenge of the trainer to ensure that despite the alternative agenda, the trainee still goes back in some way benefited in Knowledge, Attitude and Skill.
6. **Jealous Opponent:** Unlike the Grudging Admirer, he has no admiration. His is basically an ego problem that stems from an inferiority complex. He asks questions to prove the trainer wrong. If not handled properly, interactions with him may lead to tense situations resulting in a total breakdown of training ambience

Training Feedback Form

Feedback on the training may be obtained from each participant in the following format:

Title of Training Programme:

Dates:

Venue:

Kindly give your rating in terms of **usefulness** of the sessions listed below by encircling the mark of your choice

No.	Session Title	Resource Person	Usefulness Rating								
			Low						High		
1			1	2	3	4	5	6	7	8	9
2			1	2	3	4	5	6	7	8	9
3			1	2	3	4	5	6	7	8	9
Continue rows according to the number of sessions											

Briefly list the ways have you personally benefited from this programme?

- 1.
- 2.
- 3.

Suggest Improvements:

Name:

Signature:

Programme Evaluation Questionnaire

Course Title:

Date:

1. Circle the number that best represents your response to the program.
 - a. I feel that I will be able to use what I have learned.
(never) 1 2 3 4 5 (often)
 - b. The program was presented in an interesting manner.
(never) 1 2 3 4 5 (often)
 - c. The training facilities met my needs.
(never) 1 2 3 4 5 (often)
 - d. The program covered the promised objectives
(never) 1 2 3 4 5 (often)
 - e. The trainer encouraged participation and questions.
(never) 1 2 3 4 5 (often)
2. What did you find most useful in the program ?
3. What did you find least useful in the program ?
4. Is there anything in this program that could be improved ?

Semi Projective Technique

A less standard way to obtain participants reactions is to use a semi – projective technique. Distribute to each participant a sheet of paper with the following instructions written on the top: Imagine that a coworker (or friend) of yours was thinking about attending this program. He or she asked you: “What has this program been like for you?” How would you respond? Please take the next ten minutes to write your response below.

The beauty of this technique is that you will usually obtain a deeper and more personal response than a response than a questionnaire could elicit. The drawback, of course, is that it is much more difficult to quantify or summarize the results.

Valedictory Function

The Valedictory function may be designed as in the model given below. The primary focus of the valedictory function should be to elicit the genuine feedback from the participants so that we may learn how to improve on the training module and delivery in future. Oral feedback should be over and above the written feedback obtained from each participant.

Sample Valedictory Function Programme

Welcome and Report	: Head of Institution
Oral Feedback	: Participants
Presidential Address	: Director of Extension Kerala Agricultural University
Valedictory Address and Issue of certificates	: Vice Chancellor Kerala Agricultural University
Felicitations	: Officer representing the Sponsoring Agency
Vote of Thanks	Course Director

INSTRUCTIONS FOR SETTLEMENT OF ADVANCE

1. Expenditure should be limited to the total advance amount sanctioned.
2. Store Purchase rules should be followed and necessary certificates given for all bills
3. If a single bill exceeds Rs.1000, a copy of the valid rate contract or quotations called, quotations received, tabulated statements and supply orders must be submitted along with the settlement.
4. Permanent stock items if any may be transferred to other stock registers of the institution before submitting the 'Nil' Stock Register for settlement of advance
5. The honorarium payable to teachers of KAU for handling one hour of theory or two hours of practical will be Rs.250 or as agreed to by the sponsoring agency. The honorarium payable to experts from outside KAU will be Rs.500 or as agreed to by the sponsoring agency per one hour session plus TA at admissible rates.
6. Honorarium may be disbursed by the Course Director to the resource persons after obtaining a receipt from them on which the Course Director shall also furnish a certificate as follows: "Certified that the resource person has actually engaged theory and Practical sessions over and above normal duties fulfilling all the criteria laid down for the payment of honoraria"
7. Admissible TA and DA as per government guidelines may be paid if provision exists for the same and the prescribed TA bill included in the settlement bills.
8. The Course Director will submit two copies each of the following documents to the Professor of Extension, Central Training Institute, Mannuthy immediately after the training: report of training, list of trainees with official address, cell number and email ID, schedule of sessions and resource persons, lecture notes/course material and feedback/evaluation report.
9. The Course Director will also ensure that the statement of expenditure along with bills and stock book, report of training, a soft copy of report with a few photographs are submitted without delay to enable adjustment of the advance and/or realisation of fees.

Mannuthy

Sd/-
Director of Extension

BEST COURSE DIRECTOR AWARD

The Central Training Institute, Mannuthy is the nodal point of Kerala Agricultural University's training activity and decided to duly recognize the Training Course Directors who have contributed significantly to the training activities of the university in terms of performance, quality and revenue generation through trainings. The Best Course Award was commenced in the year 2002-2003. The committee constituted by the Honourable Vice Chancellor to select the Best Course Director has approved the criteria fixed for evaluating the training programmes. The criteria for selection of Best Course Director are as follows:

Sl. No. *Criteria*

1. Number of training course proposed
2. Number of training course actually conducted
 - New training
 - Old training
3. Duration
4. Overhead charges, Revenue generated
5. Number of classes handled by Course Director –theory or practical
6. Training notes/resource material etc.,
7. National level training/State level training
8. Feed back of the participants
 - Utility of training
 - Conduct of the training
 - Effectiveness of the training
 - Subject matter coverage
 - Timeliness of the training
 - Future scope for development
9. Presentation of bill settlement of advance
10. Letters of Appreciation to those who came 2nd and 3rd in the short listing
11. Those who work in the Central Training Institute, Mannuthy do not come within the purview of being recipients of this award, and similarly those
 - who are attached to schemes the primary function of which is to conduct training programmes
 - who conduct training programmes that were part of a project
 - who serve in Training Units like the Training Service Scheme/ KVKs are deemed as not coming within the purview of this Award.
12. A score of 5 for International Training Programmes conducted

Mannuthy

Sd/-
Director of Extention

**INTERNATIONAL TRAINING
PROGRAMMES**

International Training Programmes

As per letter No. Trg. (I) 720/09 Dated 22nd July 2009 of the Hon'ble Vice Chancellor, Kerala Agricultural University the teachers of the Kerala Agricultural University are requested to submit training proposals for International Training programmes to the Central Training Institute, Kerala Agricultural University, Mannuthy in the present format itself. The Course Director's liaison with contacts abroad will be vital to ensure participation and therefore will be an important yardstick in short listing prospective programmes.

All the procedures for the conduct of an International Training Programme have already been streamlined as follows and **will be facilitated by the Central Training Institute, Mannuthy:**

Once participants are identified, a letter of invitation will have to be sent to them from the Vice Chancellor, Kerala Agricultural University with the names, designation and addresses so as to enable them to get the necessary visa.

The Course Fee for an international training programme may be calculated **@ US \$ 1250 per participant for a 5-day week**. This would include training cost, accommodation, food, internal transport from and to the nearest airport and within the state of Kerala during the training period. It does not include flight charges or visa expenditure. Any agenda that does not form part of the training programme per se will have to be met from the own resources of the participants.

The funds may be transferred from overseas by bank wire transfer to: The Comptroller, Kerala Agricultural University, Vellanikkara, Thrissur Account No. 10584374023, State Bank of India, Thrissur; IFSC Code 0000 940. For this to occur an invoice will be sent to the sponsoring agency from the Kerala Agricultural University.

20% of the Course Fee will remain with the Comptroller as Institutional Overheads, while another 10% may be used to **upgrade training facilities at the station** where the training is being conducted. Hence training expenditure will have to be limited to 70% of US \$ 1250 per trainee.

A **common brochure** to accompany the specific training profile, highlighting the core competencies of the Kerala Agricultural University and the unique features of Kerala as a highly favoured tourism destination is being conceived to facilitate the marketing of the programme.

A sample of the Letter of Invitation and Invoice are also given here with.

Letter of Invitation (Sample) for International Training Programmes

Trg. (I) 291/08 Dated 4th February 2009

From,

The Vice Chancellor

To

Dr. Patrick Nugawela
Technical Advisor USAID EG Programme
Route de Ngor-BP 45381 Ngor
Dakar, Senegal
patricknugawela@yahoo.com

Sir,

The Kerala Agricultural University is privileged to confirm the invitation of the following four candidates from Senegal:

1. **Mr. Mamadou Dabo**, Technical Expert of the USAID/Economic Growth Program
2. **Mr. Jeseoph Diamacoune**, Extension Agent and Manager of a small processing unit
3. **Mr. Malamine Sane**, Regional Director of the Forestry Department
4. **Mrs. Nafissatou Diop**, Expert in Processing Techniques at Institute of Food Processing

for the Training Programme on '**Development of High Yielding Varieties of Cashew Trees and Cashew Apple Processing**' to be held at the Cashew Research Station, Madakkathara, Thrissur, Kerala, India from **24th to 28th February 2009**.

The Course Fee of 1250 US \$ per participant includes training cost, accommodation, food, internal transport during the training period. However, any agenda that does not form part of the training programme *per se* will have to be met from the own resources of the participants.

This letter is given so as to facilitate the participants to obtain visas from the Indian Embassy.

With warm regards,
Vice Chancellor

Copy to:

Course Director

Tel/Fax:91-0487-2371104 Email: cti@kau.in



Kerala Agricultural University

CENTRAL TRAINING INSTITUTE

Mannuthy P.O., Thrissur 680651, Kerala, INDIA

INVOICE No. (I) 291/08 Dated 4th February 2009 (SAMPLE)

Sl.No	Title of Training	Beneficiaries	No. of Batches	No. of Trainees/ batch	Duration	Date of training	Venue	Name of Course Director	Course fee
I.	Development of High Yielding Varieties of Cashew Trees and Cashew Apple Processing.	Persons working on cashew sector at Senegal	One	4	5 working days	24 to28 February 2009	Cashew Research Station, Madakkathara.	Dr. Jose Mathew, Professor & Head	1,250 US\$ per participant (Air & Visa charges are not included in the course fee) 1,250 x 4= 5000 US\$
				Five Thousand US Dollars Only					5000 US\$
Expenditure includes training cost, accommodation, food, internal transport during the training period. However, any agenda that does not form part of the training programme <i>per se</i> will have to be met from the own resources of the participants									
Bank wire transfer information: THE COMPTROLLER, KERALA AGRICULTURAL UNIVERSITY, VELLANIKKARA, THRISSUR. ACCOUNT No. 10584374023, STATE BANK OF INDIA, THRISSUR; IFSC CODE 0000 940								PROFESSOR OF EXTENSION	
<p>To:</p> <p>Dr. Patrick Nugawela, Technical Lead – BDS Advisor, USAID – Economic Growth Programme, Dakar, Senegal</p>									

PROPOSAL FOR TRAINING INSTITUTE

Proposal for the establishment of

National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture

Background

The sweeping changes consequent on globalisation and liberalisation are giving violent jolts to the national economy and any organisation reluctant to shake out of its lethargic slumber is likely to be doomed. Resources management, activity prioritization, monitoring and evaluation would have to undergo thorough overhauling. The pace of personnel, administrative and financial reforms will also have to be accelerated. Therefore a paradigm shift aimed at the following is definitely the need of the hour and will have to be immediately looked into.

- Reprioritization, redeployment, consolidation and strengthening in most relevant areas and shedding of programmes in non-priority areas or which have outlived their utility.
- Activity to be demand driven, eco-friendly, resource-use efficient and scientifically sound.
- Mobilization of resources both internally as well as through external sources through regional and international linkages.
- Improving work-environment through modernization, knowledge and information management, incentives and adequate operating funds.
- Development of human resources, particularly in frontier areas of tech horticulture.

Obviously, the greater challenge lies before us and efforts have to be reoriented to address these paradigm shifts.

Proposal:

In the above context it is proposed to establish a full fledged institute under the name **National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture.**

Mandate:

The proposed institute will serve four core areas: (1) Training (2) Research (3) Consultancy and (4) Documentation

Its mandate will be:

1. To serve as a think-tank for horticultural development in the State
2. To provide training in technical, managerial and entrepreneurial skills
3. To undertake adaptive/action research for horticultural development
4. To serve as a resource centre and clearing house on horticulture and horticultural related entrepreneurial projects

Clientele Jurisdiction

While the institute will have special jurisdiction over Kerala, the Andaman and Nicobar Islands and the Lakshadweep Islands besides serving the whole nation and may even undertake to serve the third world countries.

Location and Administration:

It is proposed to locate the proposed institute at the main campus of the Kerala Agricultural University at Vellanikkara, Thrissur District. Being on the National Highway (NH-47), 13 km from the Thrissur Railway Station and 50 km from the Kochi International Airport the locale is easily accessible by road, rail and air. The College of Horticulture is located in the same campus with well established separate departments in Floriculture, Plantation Crops, Olericulture, Processing Technology, etc. There will be no dearth of man power, library facilities and demonstration plots if the institute is located here. The triple mandatory functions of Kerala Agricultural University are Research, Teaching and Extension Education, thereby is vested with providing human resources, skill and technology required for the sustainable development in the whole gamut of agriculture including horticulture which is the main stay of Kerala's agriculture. The Kerala Agricultural University fulfills its obligations and commitments through a network of 36 big and small campuses spread though out the length and breadth of the state. The Kerala Agricultural University will be best suited to administer the newly proposed institute.

Programmes perspective

1. **Training:** National Workshops and Training Programmes for scientists and technicians, prospective clients from public and private sectors across the country.
2. **Research:** Problem identification and Demand based HRD interventions, Training Need Analysis
3. **Consultancy:** On Entrepreneurship development and Hand holding services on a design and deliver basis.

Following are some of the knowledge areas where the KAU possesses core competencies, which can be profitably marketed to reap in resources and induce greater levels of sustainability.

1. Micro/Macro Propagation and Nursery Management
2. Tropical Vegetables
3. Commercial Floriculture
4. Production Technology of Fruit Crops
5. Production and Management of Plantation Crops
6. Spices and Condiments
7. Aromatic and Medicinal Plants
8. Precision Farming and Use of Plastics in Agriculture

9. Bio Fertilizers, Bio Pesticides, Organic Farming and Sustainable Practices in Horticulture
10. Biotechnology and Molecular Biology
11. Protected Cultivation
12. Cashew Production Technology
13. Integrated Pest and Disease Management
14. Horticultural Policy Making for the Nation
15. Value addition and Processing Technology
16. Strategic Market Intervention
17. Futures Trading of Agricultural Commodity
18. Application of Radio Tracer Techniques in Agril. Research
19. HRD and Entrepreneurship development
20. Mechanization in Horticulture

New Facility Envisaged:

- Accommodation with en suite facilities (120) in clusters of eight single rooms per floor
- Two classrooms for 35 participants each
- One classroom for 70 persons
- State of the art technology/equipment
- Breakout rooms for group activity, workshop
- Multipurpose Hall to seat 200 persons
- A restaurant/dining area for 150 persons
- A specialized working library with work tables
- Internet Café and personal computers
- Central audio-visual control room
- Administrative Section
- Car park bays and loading dock
- Gymnasium and recreational areas
- Laundry and Drying rooms
- Wide and open lounge areas
- Meditation and Yoga Room
- Sensitivity Training Laboratory
- Vehicles for multiple training activity

Estimated Budget :

Basic Infrastructure (Building and Furnishing)	: 10 crore
Vehicles, Equipment and Installation	: 3.5 crore
Recurring Expenditure for start up (3 years)	: 1.5 crore
TOTAL ESTIMATE	: 15 CRORE

Estimated returns

The course fee for training programmes per participant would be worked out using the formula:

Course fee per participant =

$$\frac{\text{Actual training expenditure} + 20\% \text{ Institutional overheads} + 20\% \text{ profit}}{\text{Number of participants actually attending the Training}}$$

This ensures 20% margin over and above the 20% institutional overheads to meet the continuing expenditure to keep the institute a class above others.

Conclusion

The institute will primarily focus on Kerala, the Andaman and Nicobar Islands and the Lakshadweep Islands by liaising with various state line departments, autonomous organisations in public and private sectors besides meeting international demand particularly from Third World Countries. Efforts will be made to integrate various management tools, techniques and concepts related to training management, to develop need-based consultancy and training programmes for clientele organizations. The **National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture** will also develop an information base on Tropical Horticulture and Entrepreneurship and disseminate the information in this regard. Thus the **National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture** envisages building up its own strength through strong linkages with institutions of academic excellence around the world. It is expected that the **National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture** will develop on international standards by forging linkages with national and international institutions concerned with training and agricultural development.

It is the **National Institute for Research and Development of Human Resources and Entrepreneurship in Tropical and Sub Tropical Horticulture** vision to be counted among the nation's most pioneering, innovative, user friendly and self-supporting training institutions. We shall strive to facilitate the acquisition of managerial and technical skills by extension workers, managers, scientists and administrators in all sectors of agricultural economy to enable them to provide the most effective support and service to the farming community for practicing sustainable agriculture.

TRAINING REPORT
2009-10

TRAINING PROGRAMMES CONDUCTED THROUGH THE CENTRAL TRAINING INSTITUTE, MANNUTHY DURING 2009-2010

I. Vocational Training Programme:						
Sl. No	Order No.& date	Name of Training Programme	Venue	Course Director	Fee Details	Period of Training
1.	Trg (I) 310/09- 3/4/09	Training programme on Public Relation	Public Relation Unit KAU Mannuthy	Dr. Jose Joseph, PRO. KAU	One batch@3000/- per head for 2 trainees	2-4-2009 to 16-5-2009
2.	Trg (I) 321/09-8/4/009	Mechanised Paddy	ARS Mannuthy Transplanting	Dr. U. Jaikumaran Professor & Head	1,45,000/- for 20 rainees in 1 batch	2-4-09 to 12 working days
3.	Trg (I) 340/09-30/4/09	Quality Assurance of Dairy Foods	KAU Dairy Plant Mannuthy	Dr. P.I. Geevarghese Prof. & Head	Rs.30000-1 batch-4 nos.	4.5.09 to 11.5.09
4.	Trg (I) 368/09 -23.4.09	Mushroom & Spawn Production	Rice Research Station	Dr. Reeny Mary, Zacharia, Asst. Prof	5 Batches @ 3000/- for 20 no.s per batch	April , May, June 09. (2 days Aug, Oct each)
5.	Trg(I) 406/09 -13.5.09	Techniques & Application	RARS Pattambi Tissue culture	Dr. M.L. Jyothi Asst. Prof	1 Batch @ 10000/-	May & June of (one month duration)
6.	Trg (I) 462/09 -23.5.09	Techniques in Biotechnology	CPBMB, KAU,	Dr. D. Girija . Prof. Vellanikkara	2 Batches @ 50000/-	20 th May-09 to 2 nd June 09. (2 weeks)9.nos. 3 rd June to 16 th June 09.
7.	Trg (I) 315/09- 23.4.09	Training on Plant Tissue Culture Techniques	CPBMB, Vellanikkara	Dr. P.A.Nazeem (Prof)	3 batches(2 weeks each) @5000 per head	1 st May to 15 th May-09, 1 st July to 15 th July & 1 st Sept to 15 th Sept 09.
8.	Trg(I) 376/09-	Use of Mechanical Coconut Climbers	ARS, Mannuthy	Er.Suma Nair, ARS Mannuthy	1 batch @9900/-	14 th to 16 May 2009.
9.	Trg (i) 504/08- 11.6.08	Hands on Training in the preparation of Milk Products	KAU Dairy Plant, Mannuthy	Dr.S.N. Rajakumar Asst. Professor, KAU Dairy Plant,	1 batch of 25 trainees @ 5520/-(Rs.220 per trainees)	15 th & 16 th of June '09

10.	Trg/ 438/09- 3/6/09	Bioinformatics in Genome & Proteome Analysis (Revised Order SI no 11.)	CPBMB, KAU, Vellanikkara	Dr.R.Kesavachandran Professor	1batch for 3 candidates of Rs.15000/- per trainees	1 Month
11.	462/09-24/6/09	Technique in Plant Biotechnology	CPBMB, COH Vellanikkara	Dr. D. Girija CPBMB, COH, Vellanikkara	30,000/- one batch for 6 nos.	24 th June to 7 th July 09.
12.	504/09 -20.6.09	Hands on training in the preparation of Milk products	Dairy Plant	S.N.Rajkumar Asst. Professor, Dairy Plant	Rs.2928/- for 25 no.s	2days during 6/09
13.	Trg (I) 672/09-6.7.09	Technique & Application of Plant Tissue Culture	CRS (Tissue Cultural Laboratory, Anakkayam	Dr. P.Rajendran. Associate Professor & Head	Rs.5000/- @ per head	15.7.09 to 14.8.09
14.	Trg (I) 524/09- 6/7/09	Preparation of value added products from milk	CV & AS,Pookot	Dr. C.T.Sathian Dept. of L.P.T, (Professor)	1 batch for 4 nos. Rs.4800/-	June -July2009(6 days)
15.	Trg (I) 243/09- 3/6/09	Use of Mechanical Coconut Climbers	Mathilakam,Thalikulam, Kodungaloor,Vellangallur, Mala Block Panchayath	Dr. U.Jaikumaran Course Director & Prof & Agri, ARS Mannuthy	estimate cost of Rs.3,69,000/- (3 batches for 40 nos./batch	27 th & 28 th May 09. (2 days
16.	Trg (I) 565/0 -dt.9.6.09	Mushroom Spawn Production Technology	Dept. of Plant Pathology, COA Vellayani	Dr. M.Suharban, Prof & Head, Dept. of Plant Pathology	Rs.3000/-1 batch for 20.nos.	1 Day of Feb '09
17.	Trg I 302/09 dt.20.7.09	Repair & Maintenance of Plant Protection Equipment for VHSE staff	ARS Mannuthy.	Er. Suma Nair. Asst. Engineer (Agri. Eng) ARS Mannuthy	Rs.5020/-1batch for 24 nos	23.7.09.
18.	Trg I 546/09 dt.3.8.09	Quail Farming Studies in Poultry Science, Mannuthy	Centre for Advanced CAS in Poultry	Dr. A.Jalaludeen, Director,	Rs.7500/-2batches for 15 nos.	3Wd July 09 to August 09.
19.	Trg (I) 721/09 dt.27.7.09	Spices & Plantation Crops, Pepper, Vanilla, Coconut.	KCAET, Tavanur	Dr. Santha Mary Mathew, Professor, KCAET, Tavanur.	2 batches Rs.39000/- for 15 nos.	July -October 2009 (6 days each)
20.	Trg (I) 241/09 5-8-09	Poultry Farming	Centre for Advanced Studies in Poultry Sciences, Mannuthy	Dr. A. Jalaludeen, Director CAS in Poultry	1 batch of 15 trainee @ Rs.7500/-	3 WD during August 09 & Sept 09.
21.	Trg (I) 809/ 09 11.8.09	Mechanised Paddy Transplanting	Parilakkad,Vvadakkanchery Block Panchayath	Dr.H. Jaikumaran, Professor & Head, ARS	100000/-1 batch of 25 trainees for 15 WD	11 th August 2009 to 15 days

22.	Trg (I) 808/ 09 14.8.09	Mechanised Paddy Transplanting	Parilakkad, Vvadakkanchery Block Panchayath	Dr. U.Jaikumaran Professor & Head, ARS	100000/- 2 batches for 25 trainees for 15 WD	11 th August 2009
23.	Trg (I) 701/ 09 14.8.09	Mushroom Spawn Production Technology	Rice Research Station Mon Compu	Dr. Reeny Mary Zacharia Assoc. of R.R.S	3 batches for 15 trainees per batch for 1 week	Aug2009, Nov2009 & March 2010
24.	Trg(I)846/09, 28.8.09	Agri-related Microbiological Enterprises	CoA, Vellayani	Dr.Sakeer Husain, Asst. prof.	1 batch of 22.nos., 15600/-	Aug.Sept.2009-(10 days)
25.	Trg(I)945/096.10.09	Techniques & Application of Tissue Culture	ORARS, Kayamkulam	Dr.M.R.Bindu, Assoc. Prof.	1 batch, 4 nos. 20,000/- @5000/- per head	7 th Oct. -21 st Oct.2009 (2 weeks)
26.	Trg(I)462/09 1/10/09	Techniques in Plant Biotechnology	CPBMB, CoH, Vellanikkara	Dr.D.Girija, Professor	1 batch, 6 nos. 30,000/-	30.9.09 to 13.10.09 (2 weeks)
27.	Trg(I)1091/09, 1.12.09	Skill Development Training on Drying & Processing Technologies for underexploited fruits & Vegetables including Jackfruit	Dept of Home Science, CoA, Vellayani	Dr.Mary Ukkuru.P., Professor & head.	1 batch for 15.nos. 8000/-	Nov.- Dec.09 5 wds.
28.	Trg(I)462/0914.12.09	Plant Tissue Culture & its Applications	CPBMB, CoH, Vellanikkara	Dr.P.A.Nazeem, Prof. & head.	3 batches, 10 nos. each, 50000	Dec.09, Jan & Feb.2010
29.	Trg(I)528/09 18.1.2010	Training on Operation of Coconut Tree Climbing Device	FSRS, Sadanandapuram	Dr.Bini Sam, Assoc. Professor	10 batches of 1 days each, for 10 nos. each @5000/ batch	2009-10
30.	Trg(I)529/0918.1.2010	Operation and Maintenance of Power Tillers	FSRS, Sadanandapuram	Dr.Bini.Sam, Assoc. Prof. (Farm machinery)	1 batch, 12 nos. 1500	2009-10(3 days)
31.	Trg(I)1192/0917.1.2010	PCR and related Techniques	Dept. of Vety. Parasitology, CV&A.S, Pookot	Dr.Reghu Raveendran Asst. Prof.	3 batches for 2 nos each @10000	Jan.Feb & March 2010 (15 days each)
32.	Trg(I)1177/093.2.10	Hands on Training for Skilled Workers in Dairy Sector	LRS, Thiruvazhamkunnu	Dr.Anil Kumar.K., Assoc. Prof. & Head.	2 batches for 20 nos. 48000/- per batch	January & April 2010 (10 days each)
33.	Trg(I)1278/095.2.2010	Total Rice Mechanisation	ARS, Mannuthy	Dr.U.Jaikumaran, Professor & head.	1 batch for 20 nos. 1,32,000/-	22.2.10 to 8.3.10 (12 WD)
34.	Trg(I)130/101.2.2010	Plant Tissue Culture Techniques	ORARS, Kayamkulam	Dr.M.R.Bindu, Assoc. professor	1 batch 2nos. 15000	1.2.2010 to 30.4.2010 (3 months)
35.	Trg(I) 130/1023.2.2010	Plant Tissue Culture Techniques	ORARS, Kayamkulam	Dr.M.R.Bindu, Assoc. Professor	1 batch for 5 nos. 50000/- @10,000 per head	1.3.2010 to 30.4.2010 (2months)
36.	Trg(I)152/1015.2.2010	Processing & value Addition of Jack Fruit	Dept. of Home Science, CoA, Vellayani	Dr.Mary Ukkuru.P. Prof head.	1 batch for 26 nos. 15600/	Feb.2010(5 days)

National (Sponsored)

1	Trg (I) 177/09(i) 21.8.09	NTC on-Commercial Production on Tropical Vegetable Crops	Dept. of Olericulture, COM, KAU – Vellanikkara	Dr.Krishnakumari Prof. Dept. of Olericulture,	I batch, 20 trainees	21 to 28th Oct.2009(8days)
2.	Trg(I)692/0914.8.09	Precision Farming Techniques with Emphasis on Micro Irrigation and Protected Cultivation	KCAET, Tavanur	Dr.E.K.Mathew, Assoc. Professor	National Committee on Plastics Applications in Horticulture(NCPAH)	May 2009 to June 2010
3.	Trg(I)1228/0918.1.2010	Techniques in Biotechnology as part of Entrepreneurship Development	College of Fisheries, Panangad.	Dr.Devika Pillai, Assoc. Prof.	Ministry of Small & Medium Enterprises, Govt. of India.	Jan-Feb 2010 (20 days)
4.	Trg(I)629/093.11.09	Recent Advances in Cultivation & Utilization of Medicinal & Aromatic plants	AICRP on Medicinal Plants & Betelvine, COH, KAU, Vellanikkara	Dr.V.V. Radha Krishnan, Prof. & Head, Dr. Latha, Asst. Prof. Dr.Beena, Asst. Prof.	Directorate of Extension, Ministry of Agriculture & Co-operation, Gol.	18.11.09 to 25.11.09
5.	Trg(I)16/201015.2.2010	HRD training on Participatory Research and extension-Tools and Techniques	CTI, Manuthy	Dr.P.Ahamed, Professor & Head, CC, Mannuthy	ICAR Project	16.2.10 to 20.2.2010
6.	Trg(I)992/0923.2.2010	Futures Trading of Agricultural Commodity	CoH, Vellanikkara	Dr. Joy Mathew, Professor of Extension, Dr.Alexander George, Professor, CTI	Forward Markets Commission, Ministry of Consumer Affairs, Food & Public Distribution, Gol,	24.2.2010 (1 days)
7.	Trg(I)95/1020.1.2010	Biomass Recycling of Sustainable Agriculture	FSRS, Sadanandapuram	Dr. S. Rageena, Professor & head.	Ministry of Science & Technology, Dept of Biotechnology, Govt. of India.	22.2.10 to 15.3.2010.
8.	Trg(I)95/10(i)	Biomass Recycling for Income and Employment	FSRS, Sadanandapuram	Dr. S. Rageena, Professor & head	Ministry of Science & Technology, Dept of Biotechnology, Govt. of India	22.2.10 to 6.3.2010
9.	Trg(I)469/095.11.09	Strategic Extension Campaign for Technology Transfer	Dept of Agri.Ext. , CoA, Vellayani	Dr. Prakash, Prof.	Directorate of Extension, Ministry of Agriculture & Co-operation. Govt. of India	16 th -23 rd Nov.2009

II. Sponsored Training:

Sl. No.	Order No.	Name of Training Programme	Venue	Course Director	Sponsoring Agency	Period of Training
1.	Trg (I) 218/09 18.4.09	Effective Corporate Management	CTI Maanuthy	Dr.Alexander George, Professor	Development Officer, CADA, Thrissur	21.4.2009to 25.4.2009
2.	Trg (I) 250/09 18.4.09	Training on Swadeshi Science Movement	ATIC KAU	Dr. C.B. Manomohan	Agency i.e Swedesh Science Movement Sastra Bhavan	20 th April to 2 nd May 2009.
3.	Trg (I) 131/09 23.4.09	Rabbit Meat Processing	MTU Mannuthy	Dr. P.Kuttinarayan (Prof)	The Director. High Range Development Society, Idukki.	19 th & 20 th May 2009.
4.	Trg (I) 415/09 23.5.09	Rabbit Rearing	Dept. of A.B & G.C.V. & A.S, MTY.	Dr. K.A. Bindu, Assoc. Prof.	AHADS Attapady.	26.5.2009.
5.	Trg.228/09 dt.25.6.09	Technology updates for enchancing Milk Production	Dept of Vety. Parasitology, College of Vety & AS Mannuthy.	Dr. Bindu Lakshmanan, Asst. Prof.	ATMA, Ollukkara Block	29 th & 30 th June 2009.
6.	Trg (I) 605/09 13.7.09	Main Streaming use of common Service centre for Effective delivery of Agricultural Information	MaCTI,MTY	Dr. Joy Mathew Dr. Alexander	MANAGE, HYDERABAD	28 th to 30 th July 2009
7.	Trg (I) 503/09 dt.14.7.09	Dairy Cattle Mgt	Dept. of Animal Husbandry, CoA, Vellayani.	Dr. R. Vijayan, Prof & Head.	Sponsored by ATMA	June to July.
8.	Trg I 707/09 dt.22.7.09	Child Development through Horticulture Therapy	Dept of Home Science, CoA , Vellayani	Dr. Beela G.K. Assist Prof, Dept of Home Science, CoA , Vellayani.	Sponsored by Shri Sathya Orphanage Trust	August 09.
9.	Trg I 705/09 dt.1Aug	Training Need Analysis	CTI, Mannuthy Workshop on Fisheries	Dr. Alexander George, Prof, CTI	Sponsored by VHSE Directorate	August 2009
10.	Trg (I) 761/09 25.7.09	Seed Production Technique Cultivable Fishes for fish farmer	Dept.of Aquaculture, COF Panangad.	Dr. Shyma.S.Assoc. Prof. Dept.of Aquaculture, COF Panagad.	Department of Fisheries, Kerala	27 th to 28 th July 2009.
11.	697/09 dt.16.7.09	Landscape Designing	Dept. of Pomology & Floriculture, College of Horticulture, Vellanikkara	Dr. P.K. Rajeevan, Prof & Head, Dept. of Pomology, COH	VHSE Directorate, Thrissur	17 th July 2009.

12.	664/09 dt.3.8.09	Bee-Keeping for Technical Assistant	The Dept. of Pomology & Floriculture, College of Horticulture, Vellanikara	Dr. P.K. Rajeevan, Professor & Head Dept. of Pomology, COH	Dist.Kudumbasree Mission, Pathanamthitta	3 rd to 20 th August 2009.
13.	554/09 dt.3/8/09	Unit Operations in Milk Processing	KAU Dairy Plant, Mannuthy.	Dr.P.I. Geeyarghese, Prof. & Head, KAU Dairy Plant	VHSE / TA of the concerned School	Nov-Dec.2009
14.	Trg (I) 459/09 (i)	Value addition in Fabric through Dyeing & Printing	Dept. of Homescience, College of Agriculture, Vellayani	Dr. S.Syamakumari, Prof, Department of Home Science, Vellayani	State Resource Centre-Kerala	Dec 09 to Jan 2010.
15.	Trg(I) 459/09 (i)dt.3.8.09.	Art of Salad Preparation & Service as an Enterprise	Dept. of Home Science, College of Agriculture, Vellayani	Dr. S. Syamakumari, Prof, Dept. of Home Science Vellayani	State Resource Centre – Kerala	Aug/Sep/Oct-09
16.	Trg (I) 1031/08 (i) dt.10.8.09	Entrepreneurship Development in Agriculture	TSS,CoA,Vellayani & CTI, Mannuthy	Dr. R. Prakash Dr. B. Seema, Prof, Dr. Alexander George (Prof) 2 batch	VHSE Directorate. Thrissur	August –December
17	Trg (I) 701/ 09 14.8.09	Mushroom Spawn Production Technology	RRS, Moncompu	Dr. Reeny Mary Zacharia Asso.Prof. R.R.S.	SHM	Aug,Nov.09 & March'10
18	Trg (I) 450/09- 7/7/09	Aquarium Keeping and Ornamental Fish Breeding.	COF, Panangad	Dr. T.V. Anna Mercy, Professor	MPEDA, Kochi	4 th – 5 th August 2009 & 2 nd batch 6 th to 7 th August 2009.
19	Trg(1)943/08, 2/4/09	Training Need Assessment (Workshop)	Animation Centre, Vellayambalam, TVPM, through CoA, Vellayani.	Dr.VR.Prakash, Professor	Directorate of VHSE, TVPM	31 st March & 1 st April 2009
20	Trg(1)814/0914.8.09	Mechanised Paddy Transplanting	ARS, Mannuthy	Dr. U. Jaikumaran, Prof. & Head.	Agricultural Officer, Vallathol Nagar, Krishi Bhavan.	13.8.09 onwards(15 days) for 5 nos.
21	Trg(1)867/0922.8.09	Rural Women Empowerment through Agro-Processing & Value Addition	CoH, Vellanikkara, RATTTC Malampuzha & RATTTC, Ytttila.	Dr. P.B.Pushpalatha, Professor	NABARD	6 batches 2 nos.each from 24.8.09 to 28.8.09
22	Trg(1)790/0910.9.09	Aquaculture Seed Production Culture of Fresh Water Food Fishers for rearing farmers	College of Fisheries, Panangad.	Dr.Devika Pillai Assoc. Professor	Dept. of Fisheries, Kerala State.	10.8.09 to 14.8.09
23 .	Trg(1)347/07Dt.19.9.09	Electro Cardio Graphic Diagnosis of Cardiac Disorders and its management in Dogs	Dept. of Clinical Medicine, College of Vety & Animal Sciences, Mannuthy	Dr.Usha Narayana Pillai, Assoc. Prof.(SS)	Dept. of Animal Husbandry, Kerala State	20.8.09 to 24.8.09

24.	Trg(1)1031/0810.8.09	Entrepreneurship Development in Agriculture to VHSE Teachers	TSS, CoA, Vellayani and CTI, Mannuthy	Dr.R.Prakash, Prof. Dr.B.Seema, Prof. Dr. Alexander George, Prof.	Directorate of VHSE, T.V.P.M	5 batches for 30 nos.each, Aug-Dec.2009.
25.	Trg(1)1146/081.10.09	Operation & Maintenance of Tractors & Power Tillers for men	KCAET, Tavanur	Dr.Jayan.P.R, Assoc. Prof.		5 batches of 10 days each from 3/09 to 12/09
26.	Trg(1)910/0913.10.09	IPM and INM Practices in vegetables & Banana for farmers	CTI, Mannuthy	Dr.Binoo.P.Bonny, Assoc. Professor	Asst. Director of Agriculture, for Block panchayaths of Pattambi & Thrithala	One batch for 20 nos. of 20 days on 15 th & 16 th Oct. 2009.
27.	Trg(1)929/09	Recent Advances in Production & Processing Technologies for Cashew	CRS, KAU, Madakkathara	Dr. Jose Mathew, Professor & Head	Kerala State Agency for the Expansion of Cashew Cultivation, Kollam	3 days from 22 nd -24 th Oct. 2009- one batch
28.	Trg(1)893/0915.10.09	Farm Mechanisation for farmers	ARS, Mannuthy	Dr.U.Jaikumaran, Professor & head	Assistant Director of Agriculture, Coyalmannam, Palakkad.	10/09 for 10 trainees - 1 day duration
29.	Trg(1)928/0912.10.09	Crop production Practices in Paddy and Vegetables for farmers	CTI, Mannuthy	Dr.Binoo.P.Bonny, Assoc. Prof.	PAO, Kasaragod	2 batches, for 2 days each, 13 th -14 th Oct. and 27 th -28 th Oct.2009.
30.	Trg(1)892/0929.10.09	GAP & Post Harvest technology of Pepper	CTI, Mannuthy	Dr.E.V.Nybe, Assoc. prof Dr.V.S.Sujatha, Assoc. Prof.	Spices Board.	3 batches during 11/09
31.	Trg(1)986/095/11/09	Self Employment through Ornamental Fish	Center of Fisheries Panagad	Dr..Devika Pillai Assoc. Prof.	State Department of Fisheries	1 batch during Oct/Nov. 2009
32.	Trg(1)888/096/11/09	Establishment of Plant	Dept. of Health Clinic Vellayani	Dr.V.K.Girija, Professor College of Agriculture	Vegetables and Fruits Promotion Council	One candidate during November 2009
33.	Trg(1)985/096/11/09	Homestead Farms – The Traditional Farming System of Kerala	F.S.R.S Sadanandapuram Kottarakara	Dr. S.Rageena (As.&Co.)Professor	Mitranikethan,Vellanadu Trivandrum	Five candidates during November 2009.
34.	Trg(1) 1024/09(ii)3/11/09	On Job training on Plant Protection for VHSE Agri. Students	Dept. of Entomology, COA, Vellayani	Dr. C. Nanda Kumar Prof (Agri. Entomology)	G.V.H.S.S Kulathur Veeranakavu and Parassala	3 batches during 3 rd - 13 Nov 16-26, Nov.14 - 24 Dec.
35.	Trg(1) 1024/093/11/09	On Job training on Nursery Management & Ornamental Gardening	T.S.S., COA, Vellayani	Dr.G.Sobhana, Prof.,Head, T.S.S Dr. C.Lekha Rani Asst. Prof. (Plant Breeding) I.F.,COA,Vellayani	GVHSS Kulathur Veeranakavu & Thiruvalla	3 batches during 3 rd - 13 th Nov. 16-26 th , Nov.14 - 24 th Dec.2009
36.	Trg(1)1024/09(i)3/11/09.	On Job Training on Fruits & Vegetables	T.S.S., COA, Vellayani	Dr. G. Sobhana, T.S.S, COA Dr. M. Abdul Wahab Prof.&Head COA,Vellayani	GVHSS Parasala	One batch during 14 th -24 th Dec. 2009

37	Trg(I)1064/0911/11/2009	Rabbit Rearing for Farmers.	Dept. of Animal Genetics & Breeding and Biostatistics	Dr. K.A.Bindhu Assoc. Prof. College of Vet. & Animal Science	Mala Block Panchayath	One day duration 11.11.2009
38	Trg((I)1067/09(i) 2.11.20097.11.2009	Bee Keeping	Krishi Vigyan Kendra, Sadanandapuram, Kottarakkara.	Dr.Ambily Paul Asst. Professor	Block Panchayath, Vettikkavala, Kollam	16.11.09 to 21.11.09 (6 days)
39.	Trg((I)1067/09(i) 2.11.20097.11.2009	Mushroom Cultivation	Krishi Vigyan Kendra, Sadanandapuram., Kottarakkara	Dr.Ambily Paul Asst. Professor	Block Panchayath, Vettikkavala, Kollam	7.11.09 to 13.11.09 (6 days)
40.	Trg(I)892/0913.11.09	GAP & Post Harvest Technology of Pepper	CTI, Mannuthy	Dr. E. Nybe, Assoc. Prof. Dr.V.S.Sujatha, Assoc. Prof.	Spices Board, Kerala.	2 nd batch 17.11.09 to 19.11.09
41.	Trg(I)1122/0923.11.09	Hands on Training in the Preparation and Quality Control of Milk Products.	KAU Dairy Plant, Mannuthy	Dr. P. I. Geevarghese, Professor & Head	Dairy Development Department/ ATMA, Kerala State	23.11.08 to 24.11.08
42.	Trg(I)1114/0920.11.09	Dairy Farming	Dept. of Dairy Sciences, C.V. & A.S, Mannuthy	Dr.V. Prasad, Prof. & head.	Block Development Officer, Rural Development Block, Cherpu, Thrissur.	23.11.09 to 28.11.09
43.	Trg(I)1139/09 30.11.09	Fresh Water Prawn Culture	KVK, Kumarakom, Kottayam	Dr. Salin. K. R.Asst. Prof (Fisheries)	National Fisheries Development Board	30.11.09 to 6.12.09
44.	Trg(I)1171/0930.11.09	Ornamental Fish Culture	Dept. of Fishery Biology, CoF, Panangad.	Dr. T.V.Anna Mercy, Prof.	N.F.D.B	2.12.09 to 6.12.09
45.	Trg(I)1131/0928.11.09	On Job Training for VHSE Agriculture students	KVK, Sadanandapuram, Kottarakkara.	Dr. P.R.Geetha Lakshmy, Asst. Professor	DVHSS,Thalavoor & APPM VHSS, Avaneeswaram, Kollam	1.12.09 to 11.12.09
46.	Trg(I)1158/094.12.09	Mechanical Paddy Transplanting	ARS, Mannuthy	Dr.U.Jaikumaran, Professor & head.	Directorate of Agriculture, GOA	1 st week of Dec.2009 (15 days)
47.	Trg(I)1099/0930.11.09	On Field Training for VHSE Students	RARS, Pilicode	Dr. Sashikanth, Assoc. Professor	GVHSS, Payannur, Kannur	1.12.09 to 11.12.09
48.	Trg(I)1140/0930.11.09	On the Job Training for VHSE Agri. Students	RARS, Pilicode	Dr. Madhusubramanian, Asst. Prof.	VHSE, Kaikottukadavu, Kannur	30.11.09 to 10.12.09
49.	Trg(I)1159/095.12.09	Dairy Farming Mannuthy	University Livestock Farm, Professor & Head	Dr.V.Prasad, Thottapady, Thrissur.	Aruma Kudumbasree Unit,	7.12.09 to 8.12.09
50.	Trg(I)1200/0917.12.09	Preparation of Indigenous Milk Products for Perspective Entrepreneurs	KAU Dairy Plant, Mannuthy	Dr.S.N.Raja Kumar, Asst. Professor	Block Development Office, Kallekkad.P.O., Palakkad.	On 18.12.09 (1 day)

51.	Trg(1)927/09 31.12.09	Production Technology of Cashewnut & Cocoa	CCRP, CoH, Vellanikkara.	Dr.S.Prasanna Kumary Amma, Assoc. Prof.	Directorate of Cocoa Development, Kochi	Jan-February 2010 (2 batches-2 days each)
52.	Trg(1)927/09(i) 31.12.09	Production Technology of Cocoa	Farmers Plot, Thiruvilluamala	Dr. S.Prasanna Kumary Amma, Assoc. Prof.	Directorate of Cashew nut & Cocoa Development, Kochi.	Jan-February 2010 (2 days)
53.	Trg(1)1099/09 6.1.09	On Job Field Training for VHSE Livestock Management students	RARS, Pilicode	Dr.B.Sashikanth, Assoc. Prof	VHSE, Irriyanni, Kannur	4.1.09 to 15.1.09
54.	Trg(1)1223/09 6.1.10	Preparation of Fermented and Fat Rich Dairy Products	KAU Dairy Plant, Mannuthy	Dr.P.Sudheer Babu, Asst.Professor	Kudumbasree Unit, Thrissur	2 batches -5 days each-during 1/10
55.	Trg(1)1335/09 28.1.2010	Technology Dissemination and Capacity Building on Value Addition & Marketing of Medicinal Plants	Dept. of Agri.Extension, CoH, KAU, Vellanikkara	Dr. Jayasree Krishnankutty, Assoc. professor Dr.Meera.V.Menon, Assoc. Prof.	State Horticulture Mission	7 batches of one week duration
56.	Trg(1)72/10 30.1.2010	Quality Assurance of Milk	KAU Dairy Plant, Mannuthy	Dr. P. I. Geevarghese, Professor & head	Dairy Development Dept./ATMA	1.2.10 to 2.2.10
57.	Trg(1)927/09(ii) 28.1.10	Post Harvest Technology of Cocoa	CCRP, CoH, Vellanikkara	Dr. S. Prasannakumary, Professor	Directorate of Cashew nut & Cocoa Development. Kochi	22.3.10 to 24.3.10.
58.	Trg(1)1132/09 4.2.10	Cashew Production Technology	CRS, KAU, Madakkathara	Dr. Jose Mathew, Prof. & head Dr.Gregory Zacharia, Asst. prof.	Directorate of Cashew nut & Cocoa Development. Kochi	Jan-February 2010
59.	Trg(1)503/10 27.1.2010	Dairy Cattle Management	Dept. of Animal Husbandry, CoA, Vellayani	Dr. R. S. Jiji, Assoc. Professor	ATMA, Pathanamthitta Dist.	28.1.10 to 30.1.2010
60.	Trg(1)11/2010 11.2.2010	Scientific Cultivation of Cashew	RSRS, Sadanandapuram, Kottarakkara	Dr. S. Rageena, Professor & Head	KSACC, Kollam	2/2010 (one day)
61.	Trg(1)10113/20 108.2.2010	Nursery Management	KVK, Sadanandapuram	Dr. P. R.Geetha Lakshmy, Asst. Professor	BDO, Kottarakkara	8.2.10 to 20.2.10
62.	Trg(1)1/2010 11.2.2010	Operation, Maintenance and Repair of Farm Machinery	AICRP on FIM,KCAET, Tavanur	Er.Sindhu Bhaskar, Asst. Prof.	RKVY Project, Wayanad	3 batches of 10 days each feb/March-2010
63.	Trg(1)139/10 11.2.2010	Mechanized Paddy Transplanting	Parlakkad, Wadakkancherry/ARS, Mannuthy	Dr. Jaikumaran, Professor & Head	Asst. Director of Agriculture, Wadakkancherry	4 batches for 15 days each from 11.2.2010.
64.	Trg(1)87/20 10	Total Agricultural Mechanisation	ARS, Mannuthy	Dr. U. Jaikumaran Professor & head.	Command Area Development Authority, Thrissur	Feb-March 2010 (20 days)
65.	Trg(1)192/10 27.2.2010	Women Entrepreneurship Development in Dairy Sector	LRS, Thiruvazhamkunnu	Dr.K.Anil Kumar, Assoc. Prof. & Head	Dst. Mission Co-ordinator, Kudumbasree, Palakkad.	1.3.10 to 3.3.10 & 4.3.10 to 6.3.10 (2 batches)

V. Stipendiary Training:

Sl No.	Order No.	Name of Training	Venue	Course Director	Fee Details	Training	Details Period of Training
1.	Trg(1) 251/09 23.5.09	Veterinary Laboratory Techniques, Pharmacy & Nursing	-	Dr. K.V. Athman		2 Batches , 6 months, 5 person	May-Nov 2009.
2.	Trg 547/09 dt.10.8.09	Hatchery Management	CAS in Poultry Science, Mannuthy	Dr.A.Jalaludeen Director, CAS in Poultry	Rs.1000/- per month	1batch for 1 year, 5 candidate	August 2009 .
3	Trg (1) 550/09 dt. 6 th Aug 09	Preparation and Quality Assurance of Milk & Milk Products	KAU Dairy Plant- Mannuthy	P.I. Geevarghese, Prof & Head,KAU , Dairy Plant, Mannuthy.	Rs.1440/- per Trainee	1 batch for 1year for 2 candidates dt.1.11.09 to 31.10.2010	
4.	Trg (1) 351/09 dt.6 August 09	Operational and maintenance of Dairy Equipments	KAU Dairy Plant- Mannuthy	P.I. Geevarghese, Prof & Head, KAU Dairy Plant, Mannuthy	Rs.1440/- per Trainee	1 batch for 1year for 4 candidates	Nov 2009 to Oct 2010
5	TrgI(552) 09 dt.7 th Aug 09	Hygenic Practices in Dairy Plant & Processing of Milk for preparation of Milk Products	KAU Dairy Plant- Mannuthy	P.I. Geevarghese, Prof & Head,KAU , Dairy Plant, Mannuthy	Rs.1000/- per Trainee	1 batch for 1year for 8 candidates dt.1.11.09 to31.10.2010	Nov 2009 to Oct 2010
6.	Trg(1)553/0913.8.09	Instrumentation and Quality Control in Dairy Industry	KAU Dairy Plant, Mannuthy	Dr.P.I.Geevarghese Prof. & head.	Rs.1850/- per trainee	1 year for 2 candidates	1.11.09 to 31.10.2010
7.	Trg(1)530/0919.9.2009	Nursery Management	FSRS, Sadanandapuram	Dr.Aparna.B, Asst. Prof.	Rs.1500/- per trainee	20 days each in 3 batch	May/June/July/ August/ Sept 2009.

III. In-service Training:

Sl. No.	Order No.	Name of Training Programme	Venue	Course Director	Sponsoring Dept.	Period of Training
1.	Trg (I) 120/09 dt.3.7.09	Routine Laboratory Procedures & Handling of Modern Equipment for disease diagnosis	—	Dr. Subramaniam, Professor, Veterinary Parasitology.	A.D. Dept. Kerala Cov & Assc. Mannuthy	3 batches - 5days each April to June
2.	Trg (I) 121/0913.7.09	Recent Trends in diagnosis and control of infectious and contagious disease	Department of Veterinary Parasitology, COVA Science, Mannuthy.	Dr. H. Subramanian Prof. & Head	"	5 batches - 10 days each from July to Oct.2009
3.	Trg(I) 303/088.8.2009	Advances diagnostic Imaging Techniques in veterinary practice	College of Veterinary and Animal Science, Mannuthy.	Dr. C.B. Devanand. Professor College of Veterinary & Animal Science.	"	17.9.09 to 26.9.09
4.	Trg(I)664/093.8.09	Bee keeping for Technical Assistants of Kudumbasree Mission	Department of Honey Bee, COA, Vellayani	Dr. S. Devanesan Professor, COA, Vellayani	Kudumbasree Mission, Pathanamthitta	3.8.09 to 20.8.09
5.	Trg(I)554/093/8/09	Unit operation in Milk processing for VHSE	KAU Dairy Plant, Mannuthy	Dr. P.I. Geevarghese Prof. & Head	Directorate of VHSE	Nov./Dec.2009
6.	Trg(I) 461/099.10.09	Pig Farm Officers for veterinary surgeons of Animal Husbandry Department	Department of LPM, College of Veterinary and Animal Science Mannuthy.	Dr. P.C. Saseendran Professor	A.H.Dept.Kerala	Nov.2009(2 days)
8.	Trg(I)827/096.2.2010	Herd Health Management, Diagnosis, Treatment and Control of Production Diseases in Cows	Dept of Clinical Veterinary Medicine, C.V. & A.S, Mannuthy	Dr.S.Ajith Kumar, Assoc. Prof.	" "	
9.	Trg(I)177/0921.8.09	National Model Training course for 2009-10 - Techniques & Applications of Biotechnology	CPBMB,CoH, Vellanikkara	Dr.P.A.Nazeem, Prof. & Head, Dr.D.Giriya, Professor		8 days 19.8.10 to 26.8.10

10.	Trg(1)482/0931.1.2.09	Haematology and Haemoparasites	C.V.& A.S., Pookot	Dr.K.Devada, Professor & Head	A.H. Dept. Kerala	Jan 2010 (5 days)
11.	Trg(1)582/095.1.2010	Healthcare management & Chemical Immobilization of Captive Elephants	Eléphant Study Centre, C.V. & A.S, Mannuthy	Dr.P.C.Alex, Professor	"	11.1.10 to 16.1.10
12.	Trg(1)418/0930.1.2010	Management of Infertility in Crossbred cattle of Kerala	Dept. of Animal Reproduction, C.V. & A.S, Mannuthy	Dr.K.N.Aravinda Ghosh, Professor & head	A.H./ Dept., Kerala State	1.2.10 to 3.2.10 and 8.2.10 to 10.2.10
13.	Trg(1)418/09(i)3.2.10	Artificial Insemination and Pregnancy Diagnosis in Goats	Dept. of Animal Reproduction, Obstetrics and Gyanecology, C.V.&A.S, Mannuthy	Dr.Metilda Joseph, Assoc. Professor	A.H.Department, Kerala State	4.2.10 to 6.2.10 and 15.2.10 to 17.2.10
14.	Trg(1)195/092.2.2010	HRD Training on Seed Production Technology	CTI, Mannuthy	Dr.T.R.Gopalakrishnan, ADR, Dr.K.P.Prasanna, Prof.	KVK's	2.2.10 to 4.2.2010
15.	Trg(1)'95/096.2.2010	Gender Issues in Agriculture	CTI, Mannuthy	Dr.P.Rajendran, Prof. & head, Centre for Gender Studies, KAU Dr.Binoo.P.Bonny, Assoc. Prof. Dr.A.Shobana, Prof, CRS, Madakkathara.	KVKS' of South India	23.2.2010 to 25.2.2010
16.	Trg(1)121/099.2.2010	Recent Trends in Diagnosis and Control of Infectious and Contagious Diseases.	Dept. of Vety. Parasitology, C.V. & A.S, Mannuthy	Dr.H.Subramanian, Prof. & head	A.H. Dept , Kerala State	15.2.2010 to 25.2.2010

**TRAINING PROGRAMMES
PROPOSED 2010-11**

In - service

I. MUSHROOM PRODUCTION TECHNOLOGY

Duration	:	4 working days
Proposed period	:	September 2010
Venue	:	Department of Plant Pathology, COA, Vellayani.
No. of batch	:	4
Trainees	:	Women, unemployed youth and farmers
No. of Trainees/batch	:	25
Course Director	:	Dr. M. Suharban, Professor and Head

Syllabus:

Introduction to the world of mushrooms, Major edible mushrooms and their cultivation, Media preparation, isolation, pure culturing and preparation of spawn. Mushroom bed preparation, Medicinal and nutritional values, Pest and diseases of mushrooms Mushroom house design, Nutritional and medicinal value of mushrooms.

Practical Utility:

Mushrooms, the vegetarian's meat is rich in proteins, vitamins and materials. It is said to be a wonder drug curing many diseases including AIDS, Lack of knowledge about mushrooms hinders the consumption of this protein rich vegetable. Hence the course.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding @ Rs.250/- per 1 hour of lecture @ Rs.250/- per 2hour of practical	:	Rs.3000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1500/-
<input type="checkbox"/> Physical facilities, Equipments and logistics	:	
<input type="checkbox"/> Publicity and documentation.	:	
<input type="checkbox"/> POL charges, if any	:	
<input type="checkbox"/> Other items (to be specified)	:	
Refreshments	:	Rs.1500/-
<input type="checkbox"/> Total	:	
<input type="checkbox"/> Over head charges (20%)	:	Rs.1500/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.7500/-
<input type="checkbox"/> Course fee per participant	:	Rs.300/-

2. BIO-INTENSIVE INTEGRATED PEST MANAGEMENT STRATEGIES IN MAJOR SPICES

Duration	:	4 Working Days
Proposed period	:	20.10.2010 to 23.10.2010
Venue	:	Cardamom Research Station, Pampadumpara
No. of Batch	:	1
Trainees	:	Assistant Directors of Agriculture / Agricultural officers
No. of Trainees/batch	:	20
Course Director	:	Dr. R. Narayanan, Assistant Professor (Agricultural Entomology)

Syllabus:

The training imparts lectures, Practical (Laboratory) and field practical (discovery based) taking into consideration of the actual field problems.

1. *General cultivation practices of cardamom, black pepper, ginger and turmeric (Varieties, soil and climate – advanced production technology)*
2. *Ecosystem of major spices crops and crop physiology.*
3. *Climate change and shift in pests and diseases problems.*
4. *Principals and concepts of bio intensive pest management*
5. *Bio ecology of pests and natural enemies of major spices*
6. *Diseases of spices crops and its management*
7. *Bio control agents of pests and diseases*
8. *Integrated nutrient management*
9. *Good Agricultural Practices of spices - IPR regulations*
10. *Safe and judicious use of pesticides*
11. *Pesticide residue management.*

Practical Utility:

*Training imparts knowledge on various aspects of cultivation of major spices based on the principal of bio intensive integrated pest management strategy. The trainees get a hand on experience on the bio ecology of pests, diseases, natural enemies and general nutritional aspects of the spices. Hands on training will be provided on mass production of bio agents like *Trichoderma sp.*, *Pseudomonas sp.* and entomopathogenic nematodes. It is essential that these technologies reach the farmers through the extension personnel and hence imparting training to Agricultural Officers gains importance.*

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1 hour of lecture	:	Rs.2500
@ Rs.250/- per 2hour of practical	:	Rs.1250/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.3000/-
<input type="checkbox"/> Physical facilities, Equipments and logistics	:	Rs.
<input type="checkbox"/> Publicity and documentation.	:	Rs.1000/-
<input type="checkbox"/> POL charges, if any	:	Rs.1000/-
<input type="checkbox"/> Hostel rent	:	Rs.4800/-
<input type="checkbox"/> Total	:	Rs.13550/-
<input type="checkbox"/> Over head charges (20%)	:	Rs.2710/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.16260/-

3. PRODUCTION ENHANCEMENT OF MAJOR SPICES AND ITS VALUE ADDITION

Duration	:	3 Working Days
Proposed period	:	08.12.2010 to 10.12.2010
Venue	:	Cardamom Research Station, Pampadumpara
No. of Batch	:	1
Trainees	:	Assistant Directors of Agriculture /Agri. officers
No. of Trainees/batch	:	20
Course Director	:	Dr. Sreekala. G.S, Assistant Prof. (Horticulture)

Syllabus:

The training imparts lectures, Practical (Laboratory)and field practical (discovery based approach) taking into consideration of the actual field problems.

1. *Importance of spices in current scenario of agriculture - statistics on area production and marketing*
2. *Ecosystem of major spices – disturbance in eco system, climate change – management of standards and shade trees - water conservation and water use efficiency-soil conservation practices.*
3. *Varieties of major spices – recent trends in farmer’s preference for varieties.*
4. *Crop management – nutrition , irrigation, mulching weed control - organic farming practices.*
5. *Integrated pest management in major spices – bio ecology of pests and natural enemies – Diseases of spices and its management – Bio control agents of pests and diseases.*
6. *Processing and product diversification in major spices – value addition of spices products.*
7. *Marketing of major spices – problems and solutions.*
8. *Plenary session - views of practical experience gained – group discussion- formulation of strategy for eco friendly cultivation of black pepper.*
9. *Visit to plantation and processing units.*

Practical Utility:

Kerala is a leading state in the production of major spice crops like Black pepper, Cardamom, Ginger and Turmeric. Much of the area remains unutilized and the cultivation carried out was found to be unscientific which has resulted in below average productivity. Denudation of forests and resultant climate change has threatened the cultivation of spices like cardamom even in the hill reserves of Idukki and Wayanad. An array of pest and diseases has further aggravated the problems in cultivation of major spices. Hence it is imperative that newer production technology has to be transferred to the farmers. Agricultural officers being the prime extension personnel in panchyati raj system imparting training to them becomes imperative.

Expenditure :

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1 hour of lecture	:	Rs.2500
@ Rs.250/- per 2hour of practical	:	Rs.1250/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.3000/-
<input type="checkbox"/> Publicity and documentation.	:	Rs.1000/-
<input type="checkbox"/> POL charges, if any	:	Rs.7000/-
<input type="checkbox"/> Hostel rent	:	Rs.4800/-
<input type="checkbox"/> Other items	:	Rs.2000/-
<input type="checkbox"/> Total	:	Rs.21550/-
<input type="checkbox"/> Over head charges (20%)	:	Rs.4310/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.25860/-

4. MIDDLE AND LARGE SCALE DAIRY UNITS IN RURAL SECTOR

Duration	:	6 Working Days
Proposed period	:	13.09.2010 to 18.09.2010
Venue	:	University Livestock Farm And Fodder Research and Development Scheme, College of Veterinary and Animal Sciences, Kerala Agricultural University, Mannuthy.
No. of Batch	:	1
Trainees	:	Assistant directors and Veterinary surgeons of Department of Animal Husbandry.
No. of Trainees/batch	:	25 Nos.
Course Director	:	Dr. Joseph Mathew, Professor and Head ULF and FRDS, Mannuthy.

Syllabus:

1. Introduction
2. Prospects of mini, middle and large scale dairy units in rural sector
3. Identification of location-guidelines
4. Housing design - modern trends
5. Low cost housing materials
6. Mechanisation
7. Flooring to prevent laminitis
8. Resource integration
9. Marketing strategies
10. Value addition in dairy products
11. Human resource management in dairy units
12. Waste management
13. 14,&15: Economic feeding strategies
16. Rearing and Management of high producers
17. Hoof management
18. Management of high breeding efficiency
19. Selection and culling
20. Calf Management
21. Prospects of male calves rearing for meat as an auxiliary unit in Dairy unit
22. Management of microclimate
- 23, 24 Fodder production, Planning and Management

Practical Utility:

A shift from traditional small holder dairy production systems with one or two cows to mini, middle and large scale dairy enterprises as a full time employment for unemployed and underemployed persons is experienced cow. There is a training need for Veterinary Surgeons and Assistant Directors in the Animal Husbandry Department for motivating the progressive farmers in their respective areas by providing viable project and technical support.

Expenditure :

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1hour of lecture	:	Rs.6000/-
@ Rs.250/- per 2hour of practical	:	Rs.1250/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.5000/-
<input type="checkbox"/> Physical facilities, equipments and logistics	:	Rs.2000/-
<input type="checkbox"/> Publicity and documentation.	:	Rs.2000/-
<input type="checkbox"/> POL charges	:	Rs.4000/-
<input type="checkbox"/> Other items, miscellaneous including refreshment	:	Rs.2000/-
<input type="checkbox"/> Total	:	Rs.25250/-
<input type="checkbox"/> Over head charges (20%)	:	Rs.5050/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.30300/-
<input type="checkbox"/> Course fee dividend per participant	:	Rs.1212/-

5. ADVANCED TRAINING ON ANAESTHESIA, MONITORING AND OPERATION THEATRE MANAGEMENT

Duration	:	5 Working Days
Proposed period	:	October 2010 to December 2010
Venue	:	University Veterinary Hospital, Kokkalai
No. of Batch	:	2
Trainees	:	Veterinary Surgeons in Animal Husbandry Department
No. of Trainees/batch	:	6
Course Director	:	Dr. M. K. Narayanan, Assistant Professor (S.S)

Syllabus:

Planning and designing of a Small Animal Operation Theatre

Equipment Acquisition, Maintenance

Sterilization of surgical instruments and Operation Theatre

Inhalation and injectable anaesthesia of Small Animals for Surgery

Pre-Operative evaluation - Monitoring of the Surgical Patients

Surgical emergencies and resuscitation

Post-Operative care of the patients

Familiarization of different anaesthetic drugs and anaesthetic protocols

Practical Utility:

To create awareness about the latest developments in the field of Anaesthesia, surgery & Modern Theatre Management and to give hands on training on various aspects of patient monitoring.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1 hour of lecture	:	Rs.7500/-
@ Rs.250/- per 2hour of practical		
<input type="checkbox"/> Teaching aids and stationery	:	Rs.3300/-
<input type="checkbox"/> TA/POL charges to experts	:	Rs.1000/-
<input type="checkbox"/> Food @ Rs.150/day/participant	:	Rs.15000/-
<input type="checkbox"/> Institutional charges @ 20%	:	Rs.5360/-
Total	:	Rs.32,160/-
<input type="checkbox"/> Expenditure for 2 batches	:	Rs.64,320/-

6. MANAGEMENT OF INFERTILITY IN CROSSBRED CATTLE OF KERALA

Duration	:	3 Days
Proposed period	:	November and December 2010
Venue	:	Veterinary college hospital, Mannuthy
No. of Batch	:	2
Trainees	:	Veterinary officers of the Animal Husbandry Department
No. of Trainees/batch	:	10
Course Director	:	Dr. K.N. Aravinda Ghosh, Professor & Head, Veterinary college hospital, Mannuthy

Syllabus:

1. Nutritional infertility
2. Repeat breeding
3. Functional infertility
4. Infectious form of infertility
5. Hormonal imbalances
6. Role of insulin and insulin growth factors in reproduction
7. Role of antioxidants in reproduction
8. Metabolic disorders and infertility
9. Effect of dietary PUFA (Poly unsaturated fatty acids)
10. Evaluation of frozen semen quality.

Practical Utility:

In the recent years, the state has been facing a serious decline in milk production. This has resulted in a situation where in the milk security of the state has been compromised. The total cattle production of Kerala as per the 2003 livestock census was 21 lakhs which showed a drastic decline of 14.79% from the last census.

The need of the hours is to increase the production potential of available cattle and buffaloes. The ideal intercalving for optimum production potential of available cattle and buffaloes . The ideal intercalving in heifers in the state is 48 months as against the ideal intercalving for optimum production is 12 months where as the state average is 19-21 months and age at first calving in heifers in the state is 48 months as against the ideal figure of 24 months. It has been estimated that yearly calvers produce 30% more milk when compared to a cow calving at an interval of one and a half year. Thus, a good reproduce management strategy for the state can increase the daily milk production in the state by approximately 9 to 10 lakhs liters .

Hence the present project envisages the most commonly encountered problems in the field and various measures to alleviate the same.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1hour of lecture	:	Rs.3000/-
@ Rs.250/- per 2hour of practical	:	Rs.750
<input type="checkbox"/> Teaching aids and stationery	:	Rs.5000/-
<input type="checkbox"/> POL charges if any	:	Rs.1500/-
<input type="checkbox"/> Other items (to be specified)		
Chemical, equipment, and reagents	:	Rs.7000/-
Food, refreshment& accommodation	:	Rs.6000/-
<input type="checkbox"/> Total	:	Rs.23250/-
<input type="checkbox"/> 20% over head charges	:	Rs.4650/-
<input type="checkbox"/> Course fee per batch	:	Rs.27,900/-
<input type="checkbox"/> Course fee for entire training	:	Rs.55800/-

7. ARTIFICIAL INSEMINATION AND PREGNANCY DIAGNOSIS IN GOATS

Duration	:	3 Days
Proposed period	:	August –September 2010
Venue	:	Department of Animal Reproduction, gynaecology and obstetrics, College of Veterinary and Animal Sciences Mannuthy.
No. of Batch	:	2
Trainees	:	Veterinary officers of the Animal Husbandry Department
No. of Trainees/batch	:	10
Course Director	:	Dr. Metilda Joseph, Associate Professor, Dept. of Animal Reproduction, Gynaecology and Obstetrics

Syllabus:

- *Reproductive anatomy and neuro endocrine control of reproduction in Goats*
- *Semen collection, evaluation and processing*
- *Methods of heat detection and Artificial instemination*
 - o *Cervical*
 - o *Transcervical*
 - o *Intrauterine*
 - o *Laparoscopic insemination*
- *Problems and prospects of Artificial Insemination in Kerala.*
- *Different methods of pregnancy Diagnosis*
 - o *Physical*
 - o *Chemical*
 - o *Hormonal*
 - o *Ultrasonographic methods*
- *Signature and Designation of the Course Director : Dr. Metilda Joseph, Associate Professor*
- *Recommndation of the Head of Station / Institution*

Practical Utility:

Recently, goat farming is gaining significantly more importance among farmers in Kerala. Also Animal Husbandry Department has started implementation of AI programme in goats in a massive scale in Kerala. The training of veterinary officers of the State Animal Husbandry Department will help in enhancing reproductive efficiency and genetic potential of goat population in the state so that the farming community will be benefited by increased milk and meat production from goats and thus contributing to food security in the state.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@ Rs.250/- per 1 hour of lecture	:	Rs.3000/-
@ Rs.250/- per 2hour of practical	:	Rs.750
<input type="checkbox"/> Teaching aids and stationery	:	Rs.6000/-
<input type="checkbox"/> POL charges if any	:	Rs.1500/-
<input type="checkbox"/> Other items (to be specified)		
A.I. guns, Liquid Nitrogen, pH meter, Portable Liquid, straws, sheath Nitrogen container with shoulder bag	:	Rs.10000/-
<input type="checkbox"/> Food, refreshment & accommodation	:	Rs.4000/-
TA/DA as admissible may be sanctioned		
<input type="checkbox"/> Total Expenditure	:	Rs.25250/-
<input type="checkbox"/> Over head charge - 20% of the Total Expenditure	:	Rs.5050/-
<input type="checkbox"/> Course fee per batch	:	Rs.30300/-
<input type="checkbox"/> Course fee for two batches	:	Rs.60600/-

8. UNIT OPERATIONS IN MILK PROCESSING

Duration	:	10 Days
Proposed period	:	November/December 2010
Venue	:	KAU Dairy Plant, Mannuthy
No. of Batch	:	1
Trainees	:	Students of Vocational Higher Secondary School (Dairying)
No. of Trainees/batch	:	To be decided
Course Director	:	Dr. P. I. Geevarghese, Professor & Head, Dairy plant

Syllabus:

- **Introduction – Importance of milk and milk products – Personal hygiene – cleaning and sanitation**
- **Quality control of milk and milk products.**
“Learn while you work”
- **Milk testing**
- **Milk processing operations such as Pasteurization, Cream separation, Homogenization etc. and equipments related to this.**
- **Preparation of various milk products such as khoa, curd, lassi, sambharam, paneer, Ice cream, rassogolla, gulabjamun, srikhand, Yoghurt, whey drink etc.**
- **Packaging of milk and milk products.**

Practical Utility:

To familiarize with the processing and packing of milk and to give practical training in the preparation of various milk products. This will enable them to have practical knowledge of the theory portions studied in schools.

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.2500/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.3500/-
<input type="checkbox"/> POL charges if any	:	
<input type="checkbox"/> Other items	:	Rs.500/-
<input type="checkbox"/> Total	:	Rs.6500/-
<input type="checkbox"/> 20% over head charges	:	Rs.1300/-
<input type="checkbox"/> Course fee per batch	:	Rs.7800/-

9. TRAINING ON OPERATION AND MAINTENANCE OF DAIRY PROCESS EQUIPMENTS

Duration	:	3 Days
Proposed period	:	April 2010
Venue	:	KAU Dairy Plant, Mannuthy
No. of Batch	:	1
Trainees	:	Graduates of science or diploma holders in Engineering
No. of Trainees/batch	:	10
Course Director	:	Dr. P. Sudheer Babu, Assistant Professor, KAU Dairy Plant

Syllabus:

- *Introduction – Importance of milk and milk products - HTST pasteurization – Milk packing and storage equipments – steam production and refrigeration sections in a dairy plant.*
- *Quality control.*
“Learn while you work”
- *Milk processing operations such as Pasteurization, Cream separation, Homogenization etc. and equipments related to this.*
- *Preparation of various milk products such as khoa, curd, lassi, sambharam, paneer, Ice cream, rassogolla, gulabjamun, srikhand etc.*
- *Packaging of milk and milk products.*

Practical Utility:

To familiarize with the processing and packing of milk and to give practical training in the preparation of various milk products. To familiarize with the operation and maintenance of various dairy process equipments.

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.2250/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1500/-
<input type="checkbox"/> POL charges if any	:	
<input type="checkbox"/> Other items	:	Rs.500/-
<input type="checkbox"/> Total	:	Rs.4500/-
<input type="checkbox"/> 20% over head charges	:	Rs.850/-
<input type="checkbox"/> Course fee per batch	:	Rs.5100/-

10. ADVANCES IN DIAGNOSIS, TREATMENT AND PREVENTION OF INFECTIOUS DISEASES IN CANINES

Duration	:	4 Days
Proposed period	:	2 nd to 5 th August 2010, 4 th to 7 th October 2010
Venue	:	Dept. of Veterinary Epidemiology & Preventive Medicine.
No. of Batch	:	2
Trainees	:	Veterinary Surgeons of AH dept., Kerala State
No. of Trainees/batch	:	10
Course Director	:	Dr. K. Vijayakumar, Associate Professor & Head

Syllabus:

This course covers topics on the etiology, epidemiology, pathogenesis, diagnosis, treatment, prevention and control of Rabies, Canine parvoviral infection, Canine distemper, Infectious canine hepatitis, Canine ehrlichiosis, Canine microfilariasis, Canine dermatomycosis, Canine malasseziosis, Canine demodicosis.

Practical Utility:

Canine breeding has recently emerged as a lucrative animal husbandry occupation. Hence the population of costly canine breeds is increasing in Kerala. As competition increased many breeds resort to import of rare breeds and sire lines to the country. Along side, newer infections are also increasing among dogs which result in heavy economic loss to breeders as well as pet owners. This course will specifically help field veterinarians to update their knowledge in these diseases and in turn devise methods for the effective diagnosis, treatment and control of these dreaded infections of canines.

Expenditure:

<input type="checkbox"/> Honorarium @not exceeding		
@Rs.250/-per 1 hour lecture (250x12)	:	Rs.3000/-
@Rs.250/-per 2hour practical (250x4)	:	Rs.1000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.5000/-
<input type="checkbox"/> POL charges if any	:	Nil
<input type="checkbox"/> Chemicals, Diagnostic kits, Biologicals and Miscellaneous	:	Rs.4000/-
<input type="checkbox"/> Total	:	Rs.13000/-
<input type="checkbox"/> 20% over head charges	:	Rs.2600/-
<input type="checkbox"/> Course fee per batch	:	Rs.15600/-

II. CURRENT CONCEPTS IN THERAPEUTIC MANAGEMENT PREVENTION AND CONTROL OF MASTITIS

Duration	:	3 Days
Proposed period	:	13 th to 15 th September 2010, 8 th to 10 th November 2010
Venue	:	Dept. of Veterinary Epidemiology & Preventive Medicine.
No. of Batch	:	2
Trainees	:	Veterinary Surgeons of Animal Husbandry Department
No. of Trainees/batch	:	10
Course Director	:	Dr. K. Vijayakumar, Associate Professor & Head

Syllabus:

Theory sessions: *Functional anatomy of mammary gland, Physiology of lactation, Defense mechanism of mammary gland, Bovine mastitis - Etiology and epidemiology, Pathogenesis of mastitis, Diagnosis of bovine mastitis, Mastitis in other domesticated animals.*

Practical sessions: *Isolation and identification of bacteria, Tests for detection of mastitis, Staining techniques in mastitis*

Practical Utility:

Mastitis is one of the most important diseases affecting livestock enterprise. The disease is complex having multivariousetiology, different degree of intensity with variation in course of disease and residual effects. Mastitis in dairy cow can be brought under reasonable control through application of knowledge currently available. Efforts for increasing milk quality through early mastitis detection and control programmes has gained tremendous impetus during the past four decades. An indepth study on the bovine mastitis complex is the need of the hour in order to provide answers to the pertinent questions that arise while formulating a national programme would provide pertinent information in control and prevention of this great malady.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@Rs.250/-per 1 hour lecture (250x9)	:	Rs.2250/-
@Rs.250/-per 2hour practical (250x3)	:	Rs.750/-
<input type="checkbox"/> Teaching aids and stationery, Printing	:	Rs.5000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Chemicals, Diagnostic kits, Biologicals and Miscellaneous	:	Rs.2000/-
<input type="checkbox"/> Total	:	Rs.10000/-
<input type="checkbox"/> 20% over head charges	:	Rs.2000/-
<input type="checkbox"/> Course fee per batch	:	Rs.12000/-

12. EPIDEMIOLOGICAL INVESTIGATIONS FOR VETERINARIANS

Duration	:	2 Days
Proposed period	:	27 th & 28 th September 2010, 6 th & 7 th December 2010
Venue	:	Dept. of Veterinary Epidemiology & Preventive Medicine.
No. of Batch	:	2
Trainees	:	Veterinary Surgeons of Animal Husbandry Department
No. of Trainees/batch	:	10
Course Director	:	Dr. P.V. Tresamol, Associate Professor

Syllabus:

Epidemiological terms, Components of epidemiology, Types of epidemiology, Investigation of disease outbreaks, Formulation of hypothesis, Testing of hypothesis, Disease prevention and control.

Practical Utility:

Thorough knowledge of epidemiology is very essential for disease outbreak investigation, prevention and control. Knowledge of epidemiology helps the field veterinarians for efficient investigation of disease outbreaks which they have to attend frequently. This training will equip them with knowledge and skill to carry out the investigations in an efficient manner.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding		
@Rs.250/-per 1 hour lecture (250x8)	:	Rs.2000/-
@Rs.250/-per 2 hour practical (250x2)	:	Rs.500/-
<input type="checkbox"/> Teaching aids and stationery, Printing	:	Rs.5000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Chemicals, Diagnostic kits, Biologicals and Miscellaneous	:	Rs.2500/-
<input type="checkbox"/> Total	:	Rs.10000/-
<input type="checkbox"/> 20% over head charges	:	Rs.2000/-
<input type="checkbox"/> Course fee per batch	:	Rs.12000/-

13. ADVANCED CLINICAL PRACTICE IN VETERINARY MEDICINE

Duration	:	5 Working Days
Proposed period	:	8-11-2010 to 12-11-2010
Venue	:	Dept. of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	Veterinary Surgeons / Assistant directors
No. of Trainees/batch	:	10 batch
Course Director	:	Dr. S. Ajith Kumar, Associate Professor, Department of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy

Syllabus:

1. Introduction of the course
2. Use of modern diagnostic equipments like ECG, Ultrasonography and Endoscopy in clinical medical cases (both large and small animals)
3. Current concepts in treating medical cases in the ward
4. Attending emergency cases and usage of equipments in critical care unit
5. Collection and despatch of clinical materials including various biopsies
6. Interpretation of laboratory results

Practical Utility:

Presently, practicing veterinarian is expected to do his clinical practice in par with medical profession while dealing with disease conditions of costly animals. So he should be aware and equipped with modern diagnostic and treatment facilities to deal with these cases. This training will impart practical and on hand training to Veterinarians in diagnosing and treating various medical cases in different Veterinary hospitals under Kerala Agricultural University. This will help in developing the practical knowhow of field veterinarians in dealing with Veterinary medical cases.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding @Rs.250/-per 1 hour lecture @Rs.250/-per 2 hour practical	:	Rs.3750/-
<input type="checkbox"/> Teaching aids and stationery,	:	Rs.5500/-
<input type="checkbox"/> Other items (to be specified) (emergency medicines, Disposable items, ECG paper, Ultrasound gel, documentation, refreshments & other contingencies)	:	Rs.14750/-
<input type="checkbox"/> Over head charges : 20% of the total expenditure	:	Rs.2950/-
<input type="checkbox"/> Course fee per batch	:	Rs.17700/-

14. ADVANCES IN SMALL ANIMAL PRACTICE

Duration	:	5 Working Days
Proposed period	:	19-10-2010 to 23 -10-2010
Venue	:	Dept. of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	Veterinary Surgeons / Assistant directors
No. of Trainees/batch	:	10/ batch
Course Director	:	Dr. N. Madhavan Unny, Assistant Professor, Department of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy

Syllabus:

1. Introduction to the course
2. Current concepts in small animal nephrology
3. Current concepts in small animal gastroenterology
4. Current concepts in small animal cardiology
5. Current concepts in small animal dermatology
6. Current concepts in emergency procedures
7. Current concepts in parasitic and infectious diseases
8. Blood transfusion
9. Veterinary Pediatrics

Practical Utility:

Small animal medicine is an ever expanding field. Concepts in the pathogenesis and treatment of small animal diseases have changed considerably over the years. Use of modern diagnostic aids quite unheard of earlier is now put to use on a regular basis in the diagnosis of small animal disorders. This training aims to impart the recent concepts in the diagnosis and management of small animal diseases to the field veterinarians.

Expenditure:

- | | | |
|---|---|------------|
| <input type="checkbox"/> Honorarium @ not exceeding | | |
| @Rs.250/-per hour lecture | | |
| @Rs.250/-per practical | : | Rs.3750/- |
| <input type="checkbox"/> Teaching aids and stationery, | : | Rs.5500/- |
| <input type="checkbox"/> Other items (to be specified) ECG paper, gel,
medicines, disposables, documentation & refreshment | : | Rs.5500/- |
| <input type="checkbox"/> Total expenditure | : | Rs.14750/- |
| <input type="checkbox"/> over head charges : 20% of the total expenditure | : | Rs.2950/- |
| <input type="checkbox"/> Course fee per batch | : | Rs.17700/- |

15. SPECIAL DIAGNOSTIC AND THERAPEUTIC PROCEDURES

Duration	:	6 Working Days
Proposed period	:	22-11-2010 to 27-11-2010 and 17-01-2011 to 22-01-2011
Venue	:	Dept. of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batches	:	2
Trainees	:	Veterinary Surgeons / Assistant directors
No. of Trainees/batch	:	10 batch
Course Director	:	Dr. Biju P. Habeeb, Assistant Professor, Department of Clinical Veterinary Medicine, College of Veterinary & Animal Sciences, Mannuthy

Syllabus:

Electrocardiography, Ultrasonography, Radiography, Electroencephalography, Endoscopy, Blood Transfusion, Haemodialysis, Peritoneal dialysis, Oxygen therapy, Fluid therapy, Multi para monitor, Blood Pressure monitoring, Biopsy procedures, Clinical sample collection, dispatch and examination. Emergency and critical care procedures.

Practical Utility:

Accurate and timely diagnosis of disease conditions aids in the successful management of patients in the hospitals. Hands on training are a must in using various diagnostic equipments and therapeutic procedures. Updating on the latest knowledge will enable the Veterinarians to deliver a high quality service in the field. Interactions between the Veterinarians and Scientists will pave way to find solutions to field level problems through research work.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding @ Rs.250/-per hour lecture @ Rs.250/-per 2 hour practical	:	Rs.4500/-
<input type="checkbox"/> Teaching aids and stationery,	:	Rs.4500/-
<input type="checkbox"/> Other items (to be specified) medicines, equipments, laboratory wares, disposables items, refreshments & other contingencies	:	Rs.6000/-
<input type="checkbox"/> Total expenditure	:	Rs.15000/-
<input type="checkbox"/> over head charges : 20% of the total expenditure	:	Rs.3000/-
<input type="checkbox"/> Course fee per batch	:	Rs.18000/-

16. PRECISION FARMING AND PROTECTED CULTIVATION

Duration	:	2 Working Days
Proposed period	:	December 11nd and Third week, January 1st and 11nd week
Venue	:	Kelappaji College of Agricultural Engineering and Technology, Tavanur
No. of Batches	:	4
Trainees	:	Agricultural Officers of Department of Agriculture, Kerala state, staff of KVK's and representatives from NGO's.
No. of Trainees/batch	:	30
Course Director	:	Dr. E. K. Mathew, Professor & PI, PFDC, Head Dept. of Irrigation & Drainage Engineering, KCAET, Tavanur Dr. Jalaja. S. Menon, Assistant Professor, PFDC, KCAET, Tavanur.

Syllabus:

Precision Farming – Components – Variable rate farming technology – Comparison with traditional agriculture – Guidelines on implementation of MI and NHM scheme components – Nature of scheme – Pattern of Assistance.

Drip irrigation – Sprinkle irrigation – Estimation of water and power requirement for installation of drip irrigation – Fertigation.

Protected cultivation – Advances in Green House cultivation – Greenhouse for Kerala – Shade house – Low tunnels – Rooting media used in Greenhouses – Plastic Mulching.

Machinery and equipments related to precision farming – Post harvest operations of horticultural crops – Processing techniques of horticultural produces – Equipments for post harvest processing etc.

Practical Utility:

The Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India, is implementing two Centrally Sponsored Schemes on (i) Micro Irrigation (MI), and (ii) National Horticultural Mission (NHM). These schemes are being implemented in Kerala through its Department of Agriculture. It is therefore, essential to make its Agricultural Officers and Agricultural Assistants well acquainted with the new and advanced technologies revelant to these areas besides the precision farming techniques through trainings. Some of the staff of Department of Agriculture has been trained on these topics during the previous years. The funding agency of the PFDC, The National Committee on Plasticulture Applications in Horticulture (NCPAH), GoI, has directed the PFDC to continue with the training programmes during 2010-11 also. These trainings are particularly meant for selected officers of Department of Agriculture, KVK's and representatives from different NGO's.

The major areas that will be covered under the training are Precision Farming, drip and sprinkler irrigation, fertigation, protected cultivation including greenhouse, shade house, and low tunnel, mulching and post harvest technology of horticultural crops.

Expenditure:

<input type="checkbox"/> Honorarium @not exceeding @ Rs.250/-per hour lecture		
<input type="checkbox"/> @ Rs.250/-per 2 hours practical(4x250)	:	Rs.1000/-
<input type="checkbox"/> Teaching aids and stationery,(60x30)	:	Rs.1800/-
<input type="checkbox"/> Other items (food & refreshment)[80x30x2]	:	Rs.4800/-
<input type="checkbox"/> Accommodation (30x30)	:	Rs.900/-
<input type="checkbox"/> 20% over head charges	:	Rs.1700/-
Total	:	Rs.10200/-

17. ADVANCES IN PIG BREEDING AND MANAGEMENT

Duration	:	5 Days
Proposed period	:	2009- 2010
Venue	:	Centre for Pig Production and Research, KAU, Mannuthy
No. of Batch	:	4/year
Trainees	:	Veterinarians
No. of Trainees/batch	:	6/batch
Course Director	:	Dr. R. Thirupathy Venkatachalapathy, Associate Professor, CPPR, Mannuthy.

Syllabus:

Introduction –Swine production, Present status and prospects – Housing of pigs, location, fundamentals of housing, construction of eco-friendly low cost pig pens, types of pens, plan and designing – Breeding, common breeds and characters, selection of breeding stock, mating methods, economically important characters and culling – Care and management of pregnant females, new born, pre and post weaning piglets – Feeding of pigs, preparation of concentrate feed, byproduct utilization, swill feeding, Ration for different age group – Identification and maintenance of records – Common diseases of pigs, treatment and control - preparation of bankable projects and other financial aspects – waste disposal and management.

Practical Utility:

To sensitize the Veterinarians about the recent advances in swine production. Disseminate the recent scientific technologies in swine breeding, feeding and health care for profitable pig rearing.

Expenditure:

<input type="checkbox"/> Honorarium		
@ Rs.250 per hour lecture & Rs.250 per	:	Rs.5000/-
two hour practical (10 lectures and 10 Practical)	:	
<input type="checkbox"/> Teaching aids and stationery		
@ Rs.300 per head (6Nos)	:	Rs.1800/-
<input type="checkbox"/> POL charges	:	Rs.200/-
<input type="checkbox"/> Other items (Field visit)	:	Rs.1,500/-
<input type="checkbox"/> Over Head Charges	:	Rs.1,700/-
<input type="checkbox"/> Course Fee Per Batch	:	Rs.10,200/-

Sponsored

I. MUSHROOM PRODUCTION TECHNOLOGY

Duration	:	4 working Days
Proposed period	:	September 2010
Venue	:	Department of Plant Pathology, COA, Vellayani.
No. of Batch	:	4
Trainees	:	Women, unemployed youth and farmers
No. of Trainees/batch	:	25
Course Director	:	Dr. M. Suharban, Professor and Head

Syllabus:

Introduction to the world of mushrooms Major edible mushrooms and their cultivation Media preparation, isolation pure culturing and preparation of spawn. Mushroom bed preparation, Medicinal and nutritional values, Pest and diseases of mushrooms. Mushroom house design, Nutritional and medicinal value of mushrooms.

Practical Utility:

Mushrooms, the vegetarian's meat is rich in proteins, vitamins and materials. It is said to be a wonder drug curing many diseases including AIDS. Lack of knowledge about mushrooms hinders the consumption of this protein rich vegetable. Hence the course .

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding @ Rs.250/- per 1 hour of lecture @ Rs.250/- per 2 hour of practical	:	Rs.3000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1500/-
<input type="checkbox"/> Physical facilities, Equipments and logistics	:	Rs.
<input type="checkbox"/> Publicity and documentation.		
<input type="checkbox"/> POL charges, if any :		
<input type="checkbox"/> Other items (to be specified) Refreshments	:	Rs.1500/-
<input type="checkbox"/> Total		
<input type="checkbox"/> Over head charges (20%)	:	Rs.1500/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.7500/-
<input type="checkbox"/> Course fee per participant	:	Rs.300/-

2. INTEGRATED PEST AND DISEASE MANAGEMENT IN HORTICULTURAL CROPS

Duration	:	4 Days
Proposed period	:	September 2010
Venue	:	Department of Plant Pathology, COA, Vellayani.
No. of Batch	:	1
Trainees	:	Women, unemployed youth and farmers
No. of Trainees/batch	:	20
Course Director	:	Dr.V.K.Girija, Professor

Syllabus:

Theory

1. *Introduction to IPDM; The general concepts. Chemical, biological and cultural pest and disease management strategies.*
2. *Major fungal diseases of fruit crops and their integrated management.*
3. *Major pests of fruit crops and their integrated management.*
4. *Major viral diseases of fruit crops and vegetables and their integrated management.*
5. *Fungal and bacterial diseases of tropical vegetable crops and their integrated management*
6. *Major pests of vegetable crops and their integrated management*
7. *Major pests of ornamental crops and lawn grass and their integrated management*
8. *Major diseases of ornamental crops and lawn grass and their integrated management.*

Practical

1. *Familiarization with pests and diseases major of fruit crops*
2. *Familiarization with pests and diseases major of vegetable crops*
3. *Familiarization with pests and diseases of ornamental crops and lawn grass.*
4. *Plant protection chemicals and equipments and their use in IPDM.*
5. *Bio control agents of plant pathogens, their mass multiplication and application*
6. *Preparation and use of neem based and botanicals for pest and disease management.*
7. *IPDM of pests and diseases of fruit crops and vegetables.*
8. *Solarisation for management of soil borne pathogens.*

Practical Utility:

Integrated pest and disease management (IPDM) is the eco-friendly approach to pest control incorporating need based use of different components of pest management so as to keep pest populations at low levels and to reduce crop loss. It utilizes regular monitoring to determine the timing of treatments. Biological, cultural, physical, mechanical, chemical and integrated methods are used in site-specific combinations to solve the pest and disease situations.

Expenditure:

<input type="checkbox"/> Honorarium @ not exceeding @ Rs.250/- per 1 hour of lecture @ Rs.250/- per 2 hour of practical	:	Rs.3200/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.2000/-
<input type="checkbox"/> Physical facilities, Equipments and logistics :		
<input type="checkbox"/> Publicity and documentation:		
<input type="checkbox"/> POL charges, if any :		
<input type="checkbox"/> Other items (to be specified) Refreshments	:	Rs.1200/-
<input type="checkbox"/> Total		
<input type="checkbox"/> Over head charges (20%)	:	Rs.1600/-
<input type="checkbox"/> Course fee for the entire training	:	Rs.8000/-
<input type="checkbox"/> Course fee per participant	:	Rs.400/-

3. PRECISION FARMING IN HORTICULTURAL CROPS

Duration	:	2 Working Days
Proposed period	:	Nov. I st II nd , Dec. I st II nd & III rd , Jan. II nd Weeks 2010
Venue	:	Ernakulam, Thrissur, Palakkad, Kottayam
No. of Batches	:	4
Trainees	:	Farmers
No. of Trainees/batch	:	30
Course Director	:	Dr. E. K. Mathew, Pro.& PI, PFDC, Head, Dept. of Irrigation & Drainage Engineering, KCAET, Tavanur Er. Anu Varughese, Asst. Prof., PFDC, KCAET, Tavanur

Syllabus:

Protected cultivation – Advances in Greenhouse cultivation – Materials used in greenhouse construction – climate control in greenhouses – crops that can be cultivated in greenhouse – Greenhouses for Kerala – Low tunnels – Plastic mulching – Availability of materials in Kerala.

Water management need and techniques – CSS on Micro Irrigation – Scheme components – Different

Practical Utility:

The high production cost, low yield and poor quality are the main constraints in vegetables production. Precision farming is a comprehensive approach to farm management to increase the profitability and sustainability and to improve the product quality.

The crop productivity is greatly influenced by the growing environment and management practices. The main purpose of protected cultivation is to create a favourable environment for the sustained growth of crop so as to realize its maximum potential even in adverse climate conditions.

Poor irrigation efficiency of conventional irrigation systems has not only reduced the anticipated outcome of investments made towards water resource development. This therefore calls for massive investments in adoption of improved methods of irrigation such as drip and sprinkler irrigation, including fertigation.

The Ministry of Agriculture had initiated the programme for promoting micro irrigation as centrally sponsored scheme on micro irrigation and National Horticulture Mission. The farmers, who are the beneficiaries of these schemes, are therefore to be well trained on various aspects and functioning of these new methods.

Expenditure:

<input type="checkbox"/> Honorarium		
@ Rs.250/- per 1 hour of lecture		
@ Rs.250/- per 2 hour of practical	:	Rs.750/-
<input type="checkbox"/> DA to participants (100x2x30)	:	Rs.6000/-
<input type="checkbox"/> TA to participants (40x2x30)	:	Rs.2400/-
<input type="checkbox"/> Teaching aids and stationery(50x30)	:	Rs.1500/-
<input type="checkbox"/> Training materials (100x30)	:	Rs.3000/-
<input type="checkbox"/> Other items (food & refreshment)[80x30x2]	:	Rs.4800/-
<input type="checkbox"/> Transportation charges	:	Rs.2000/-
<input type="checkbox"/> 20% overhead charges	:	Rs.4090/-
<input type="checkbox"/> Total Expenditure	:	Rs.24540/-

4. PROTECTED CULTIVATION AND WATER MANAGEMENT

Duration	:	2 Working Days
Proposed period	:	May 4 th week, June 2 nd week, June 4 th week, July 1 st week
Venue	:	Ernakulam, Thrissur, Palakkad, Kottayam
No. of Batches	:	4
Trainees	:	Farmers
No. of Trainees/batch	:	30
Course Director	:	Dr. E. K. Mathew, Pro.& PI, PFDC, Head, Dept.of Irrigation & Drainage Engineering, KCAET, Tavanur Er. Anu Varughese, Asst. Prof., PFDC, KCAET, Tavanur

Syllabus:

Protected cultivation – Advance in Greenhouse cultivation – Materials used in greenhouse construction – climate control in greenhouse – crops that can be cultivated in green houses – Greenhouses for Kerala – Low tunnels – Plastic mulching – Availability of materials in Kerala.

Water Management need and techniques – CSS on Micro irrigation – Scheme components – Different types micro irrigation systems – Drip irrigation – Sprinkler irrigation – Requirement of materials for drip irrigation – variation with crop spacing and area of cultivation – Estimation of water and Power requirement for installation of drip irrigation – Fertigation - Different fertigation– Establishment and maintenance of drip and sprinkler systems.

Practical Utility:

The green house environment has a considerable importance in better space utilization, growing crops in extreme climate conditions and high rainfall areas. The low tunnels are miniature structure producing green house like effect. These tunnels facilitate the entrapment of carbon dioxide, thereby enhancing the photosynthetic activity of the plants and hence the yield. These structures also protect the plant from high winds, rain and snow. Besides, these are inexpensive, easy to construct and dismantle.

Poor irrigation efficiency of conventional irrigation systems has not only reduced the anticipated outcome of investments made towards water resource development. This therefore calls for massive investments in adoption of improved methods of irrigation such as drip and sprinkler irrigation, including fertigation.

The Ministry of Agriculture had initiated the programme for promoting micro irrigation as centrally sponsored scheme on micro irrigation and National Horticulture Mission. The farmers, who are interested in these schemes, are therefore to be well trained on various aspects and functioning of these new methods.

Expenditure:

<input type="checkbox"/> Honorarium		
@ Rs.250/- per 1 hour of lecture		
@ Rs.250/- per 2 hour of practical	:	Rs.750/-
<input type="checkbox"/> DA to participants (100x2x30)	:	Rs.6000/-
<input type="checkbox"/> TA to participants (40x2x30)	:	Rs.2400/-
<input type="checkbox"/> Teaching aids and stationery(50x30)	:	Rs.1500/-
<input type="checkbox"/> Training materials (100x30)	:	Rs.3000/-
<input type="checkbox"/> Other items (food & refreshment)[80x30x2]	:	Rs.4800/-
<input type="checkbox"/> Transportation charges	:	Rs.2000/-
<input type="checkbox"/> 20% Overhead charges	:	Rs.4090/-
<input type="checkbox"/> Total Expenditure	:	Rs.24540/-

5. VALIDATION OF CRITICAL CONTROL POINTS IN CLEAN MILK PRODUCTION

Duration	:	5 Days
Proposed period	:	October 2010, November 2010 & December 2010
Venue	:	Department of Dairy Science, CV & AS, Mannuthy
No. of Batch	:	3
Trainees	:	Dairy Farm Instructors
No. of Trainees/batch	:	10
Course Director	:	Dr. V. Prasad, Professor & Head, Department of Dairy Science

Syllabus:

Theory:-

Concerns and problem of milk quality during its procurement – importance of raw milk quality on processed dairy products – Good managerial practices for clean milk production – Daily routines for cleaning and disinfection – importance of Dairy water supply strengthening infrastructure for clean milk production – Hygienic standards for milk based on its quality and safety – implementation of effective milk quality programmes.

Practical:-

Various analytical techniques for quality assessment of milk – methodology for microbiological evaluation of milk – milk quality and mastitis – Evaluation of milk production practices – A field level study – improving the milk production practices at farmers level – monitoring and recording.

Practical Utility:

Maintaining high standards of hygiene is one of today's most important milk production objectives. Now a days consumers are very much concerned about the safety of milk and milk products and the condition under which these are produced. It is therefore critically important to ensure high quality raw milk produced from healthy animals under good hygienic conditions and that control measures are applied to protect human health. In this training programme, field level officers of Dairy Development Department (Dairy Farm Instructors) will be educated about necessity of production of quality milk at farmers level and up to the point of consumption. Criteria like cleanliness of milch animals, milking premises, right milking methods, simple and inexpensive cleaning and disinfecting routines to eliminate, source of contamination, necessity for filtration of milk, quality of dairy water supply, importance of preservation of milk in cool water before delivering to co-operative society etc are dealt with in this training programme.

In addition, awareness will be created about cleanliness at milk collection point, BMC units, timely and careful transit of milk from societies to Chilling centres / dairies etc. As a result of this training programme, awareness will be created among field level officers about the importance of production of quality milk at farmer's level and up to the points of consumption. Implementation of effective milk quality programmes at different levels of production, procurement, processing and marketing will be possible through this training programme.

Expenditure:

<input type="checkbox"/> Honorarium		
@ Rs.300 per hour lecture	:	Rs.3000/-
<input type="checkbox"/> Rs.300 per 2 hour practical	:	Rs.3000/-
<input type="checkbox"/> Teaching Aids and stationery	:	Rs.2000/-
<input type="checkbox"/> POL charges	:	Rs.2000/-
<input type="checkbox"/> Other Items		
a) Chemicals/Glass wares	:	Rs.3000/-
b) Refreshment charges	:	Rs.1500/-
c) Miscellaneous items	:	Rs.2000/-
d) Training manual	:	Rs.3500/-
<input type="checkbox"/> Total expenditure	:	Rs.20,000/-
<input type="checkbox"/> Over head charges:20% of the total expenditure	:	Rs.4000/-
<input type="checkbox"/> Course Fee Per Batch	:	Rs.24000/-

6. PRODUCTION AND MARKETING OF FARM – FRESH MILK

Duration	: 5 Days
Proposed period	: August 2010, September 2010, October 2010
Venue	: Department of Dairy Science
No. of Batch	: 5
Trainees	: Self Help Group Members
No. of Trainees/batch	: 20
Course Director	: Dr. R. Geetha, Assistant Professor, Department of Dairy Science, C.V. & A.S, Mannuthy

Syllabus:

Theory:-

Production of farm fresh milk – its importance – organic farming in Dairy Sector – Hygienic milk production. Clean managerial practices – cleanliness of milking place – milking utensils – Right milking methods – Importance of filtration – Practices of keeping milk in cool water before delivering to the consumer – Daily routines of cleaning and disinfection – Milk delivering systems. Selection of good dairy animal, their housing, breeding, feeding and other managerial practices – Common diseases affecting cattle – their control measures – Insurance coverage, Importance of fodder cultivation – Value addition of milk – Marketing Dairy products – Utilization of farm yard manure – Biogas plant – Role of banking institutions in entrepreneurship development – Account & registers to be maintained by SHG.

Practical:-

Clean milk production practices – Cleanliness of milch animals, Cattle care, personal hygiene of milking persons, Cleanliness of cattle shed & milking utensils – Right milking methods – Introducing milking machine – Familiarize with crossbred cattle suitable to Kerala – Scientific way of housing, feeding, & breeding – Practices in routine farm activities – Rearing of calves – Utilization of farm yard manure – Wormy composting – Biogas plant – Preparation of various value added dairy products.

Practical Utility:

In this Training Programme Self Help Group members will be educated about scientific methods of production of Farm Fresh milk and its marketing aspects. Knowledge will be created about the importance of organic farming in Dairy sector. They will be educated in hygienic milk production practices that to be followed and right milking methods. Scientific housing, feeding, breeding & managerial practices is another area which will be covered in this training programme. Various diseases affecting cattle & their preventive measures are also dealt with. Knowledge regarding these will help them to minimize losses associated with under managed health, nutrition, reproduction & diseases conditions. Members will be trained in routine farm activities and cleaning methods which will help them to acquire practical skill. This training will provide sufficient knowledge & skill to the entrepreneurs to produce and market the milk produced in their farm profitably.

Expenditure:

<input type="checkbox"/> Honorarium		
@ Rs.300 per hour lecture	:	Rs.3000/-
<input type="checkbox"/> Rs.300 per 2 hour practical	:	Rs.3000/-
<input type="checkbox"/> Teaching Aids and stationery	:	Rs.3000/-
<input type="checkbox"/> POL charges	:	Nil
<input type="checkbox"/> Other items:-		
a) Refreshment charges	:	Rs.5000/-
b) Practical materials	:	Rs.1500/-
c) Miscellaneous items	:	Rs.1000/-
d) Training manual	:	Rs.3500/-
e) TA for participants	:	Rs.3000/-
<input type="checkbox"/> Total expenditure	:	Rs.23,000/-
<input type="checkbox"/> Over head charges:20% of the total expenditure	:	Rs.4600/-
<input type="checkbox"/> Course Fee Per Batch	:	Rs.27600/-

Stipendiary

I. MEAT PROCESSING TECHNOLOGY AND WHOLESOME MEAT PRODUCTION

Duration	:	One Year
Proposed period	:	2010-2011
Venue	:	Meat Technology Unit, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	VHSE Certificate holders (Dairying & A.H)
No. of Trainees/batch	:	8
Course Director	:	Dr. P. Kuttinarayanan, Head of the Department

Syllabus:

Hygiene meat production- different sections of abattoir and their uses - plant personnel hygiene - slaughtering techniques for different species of animals - meat cutting and packing techniques - meat plant sanitation - preparation of different meat products and their packing - preservation and storage of meat products - rendering of slaughter house by products.

Practical Utility:

To improve the present condition of meat products, manpower in the managerial aspects is highly essential. No other agency is available in our state to impart such a manpower development programme. In order to make meat sector viable a good share of meat should be converted to value added products. Hence the training will deal with these two aspects of wholesome meat production and processing technology. By conducting this practical oriental training Meat technology Unit is making use of their study period for the preparation of meat and meat products, rendering of slaughter house by products.

Expenditure:

- Stipend for trainees @ Rs. 900/-
per trainee / per month for 8 trainees : $(900 \times 8) = 7200 \times 12 = 86400/-$

2 . MEAT PLANT OPERATION & MAINTENANCE

Duration	:	One Year
Proposed period	:	2010 - 2011
Venue	:	Meat Technology Unit, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	VHSE Certificate holders (Refrigeration, A/C)
No. of Trainees/batch	:	4
Course Director	:	Dr. P. Kuttinarayanan, Head of the Department

Syllabus:

Broad outline of different sections of abattoir and general aspects of slaughter and meat products preparation. Different section and operation procedure of refrigeration plant. Maintenance & repair of compressors and split unit Air-conditioning - Defrosting Techniques of the deep freezer rooms - filter cleaning, oil cleaning and leakage testing procedures - operation and maintenance of slaughter house rail system and equipments, meat processing equipments and rendering plant. Refrigerants - different types.

Practical Utility:

In order to operate, maintain and trouble shoot, the various machineries of slaughter houses, meat packaging plant, deep freezer, centrally air conditioned processing plant and processing instrument requires trained manpower in these line. There is no agency at present in India imparting such training under one roof with all infrastructural facilities. The development of manpower in this line will help the meat sector entrepreneurs and there by unemployed youth will get job opportunity. By utilizing their service in their training period KUA is get benefited in terms of maintaining and operating various machineries at MTU and rendering plant.

Expenditure:

- Stipend for trainees @ Rs. 900/-
per trainee / per month for 4 trainees : (900 x 4) = 3600 x 12 = 43200/-

3. MEAT PROCESSING-CUM-PLANT OPERATION

Duration	:	Two Years
Dates	:	February 2010
Venue	:	Meat Technology Unit, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	VHSE Certificate holders (Dairying & A.H)
No. of Trainees/batch	:	3
Course Director	:	Dr. P. Kuttinarayanan, Head of the Department

Syllabus:

General aspects of meat production – maintenance of different sections of an abattoir-plant personnel hygiene - maintenance of animals in the lairage - sanitation of meat plant and surroundings - maintenance. Broad outline of different sections of abattoir and general aspects of slaughter and meat products preparation. Different section and operation procedure of refrigeration plant. Maintenance of refrigeration system- meat cutting – packaging technique - methods of preparation of different meat products and their storage - recovery and storage of slaughter house by products.

Practical Utility:

Kerala is basically a consumer state. About 90% of the population is non vegetarians. The non vegetarian food available in Kerala include beef, mutton/chevon, pork, chicken, fish and egg. The production of meat in Kerala is highly unhygienic. The revamping of meat sector requires proper value addition of meat that is produced. To improve the present scenario of these two activities it requires sufficient manpower. Once the meat and meat products are prepared it has to maintain the cold chain to prevent spoilage. To cater these needs manpower development is engorging. By conducting this practical oriented training unemployed youth/woman will get experience in wholesome meat production, processing techniques, packaging, preservation and maintenance of cold chain. By utilizing their training period, MTU is also getting benefits.

Expenditure:

- Stipend for trainees @ Rs. 1050/-
per trainee / per month for 3 trainees : $(1050 \times 3) = 3150 \times 24 \text{ months} = 75600/-$

4. APPRENTICE TRAINING IN THE PREPARATION QUALITY ASSURANCE OF MILK AND MILK PRODUCTS

Duration	:	One Year
Dates	:	February 2010
Venue	:	Meat Technology Unit, College of Veterinary & Animal Sciences, Mannuthy.
No. of Batch	:	1
Trainees	:	VHSE Certificate holders Dairying & Livestock Management (Dairy Husbandry)
No. of Trainees/batch	:	2
Course Director	:	Dr. P. I. Geevarghese, Professor & Head, Dairy plant

Syllabus:

Introduction – Importance of milk and milk products – cleaning and sanitization - personnel hygiene - duties and responsibilities. Preparation of reagents for the testing of milk and milk products. Introduction to various unit operations in milk processing. Reception of milk – platform tests, detection of adulterants, preservatives and neutralizers. Testing of milk - estimation of fat, acidity, SNF, total solids. Analysis of pasteurized and sterilized milk. Preparation of various milk products such as Khoa, Paneer, curd, sambharam, ghee flavoured milk, whey drink, Yoghurt etc. Analysis of milk products for acidity, fat, total solids and comparisons of constituents of the products with the legal standards. Packaging of milk and milk products - milk distribution pattern. Legal standards for the milk and milk products.

Practical Utility:

To give training in various quality control practices followed in dairy plant for milk and milk products. This will enable them to seek job in commercial dairy plant or start independent product manufacturing units.

Expenditure:

- Stipend for trainees @ Rs. 3000/-
per trainee / per month for 2 trainees : $(3000 \times 2) = 6000 \times 12 \text{ months} = 72000/-$

5. TRAINING IN OPERATION AND MAINTENANCE OF DAIRY EQUIPMENTS

Duration	:	One Year
Dates	:	February 2010
Venue	:	1/11/10 - 31/10/11
No. of Batch	:	1
Trainees	:	ITI/VHSC/KGCE Certificate holders in Electrical/ MRAC Trades
No. of Trainees/batch	:	4
Course Director	:	Dr. P.I. Geevarghese, Professor & Head, Dairy plant

Syllabus:

Introduction – Importance of milk and milk products – cleaning and sanitization - familiarization with unit operations in Dairy Plant. Reception of milk – sampling – chilling – storage - distribution. Pasteurization of milk – HTST method – operation of pasteurizer - maintenance of pasteurizer. Packaging of milk – operation of Automatic milk packing machine - care and maintenance of packing machine. Cream separator – operation and maintenance. Homogenizer and Ice-cream freezer – operation and maintenance. Butter churn - operation and maintenance. CIP cleaning of pipe lines and storage tanks. Operation of product manufacturing equipment such continuous Khoa making machine and Ghee kettle. Milk condensing equipments – Roller drier – operation and maintenance. Boiler – Hot water boiler and steam boiler – operation and maintenance. Refrigeration plant – Ammonia compressor – operation and maintenance - cleaning and maintenance of condenser- cooling tower – maintenance of evaporator – Operation of evaporator - operation of valves and other controls in the system. Diesel generator – operation and maintenance.

Practical Utility:

To give practical training in the operation and maintenance of various milk processing and equipment and also to familiarize with the preservation. Processing and packaging of milk and milk products.

Expenditure:

- Stipend for trainees @ Rs. 3000/-
per trainee / per month for 4 trainees : $(3000 \times 4) = 12000 \times 12 \text{ months} = 144000/-$

6. TRAINING IN HYGIENIC PRACTICES IN DAIRY PLANT AND PROCESSING OF MILK FOR PREPARATION OF MILK PRODUCTS

Duration	:	One Year
Proposed period	:	1/11/10 to 31/10/11
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1
Trainees	:	Unemployed youths
No. of Trainees/batch	:	8
Course Director	:	Dr. P.I. Geevarghese, Professor & Head, Dairy Plant

Syllabus:

Introduction – Importance of milk and milk products – cleaning and sanitation-personnel hygiene. Handling of milk in the raw milk reception dock – cleaning of floors – cleaning agents used - washing and sterilization of cans. Importance of chilling milk and operation of milk chillers Cleaning of dairy equipments, pipe lines and maintenance of sanitary conditions in the dairy plant. Pasteurization of milk – its importance – operation and cleaning of pasteurizer. Sampling techniques for drawing milk sample from milk storage tank. Pasteurizer and packing machine. Familiarization of various unit operations such as Ice cream, Khoa, curd, lassi, sambharam, Paneer, butter, ghee, channa, rassogolla, gulabjamun, youghurt etc. Packaging of milk and various milk products. Utilization of by-products - whey – butter milk. Familiarization of various milk testing techniques and maintenance of quality control lab.

Practical Utility:

To familiarize with the hygienic practices followed in a dairy plant during handling, processing and storage of milk and give training in the preparation of various milk products. This will enable them to seek jobs in commercial dairy plant or start independent product manufacturing units.

Expenditure:

- Stipend for trainees @ Rs. 2000/-
per trainee / per month for 8 trainees : $(2000 \times 8) = 16000 \times 12 \text{ months} = 192000/-$

7. TRAINING ON INSTRUMENTATION AND QUALITY CONTROL IN DAIRY INDUSTRY

Duration	:	One Year
Proposed period	:	1/11/10 to 31/10/11
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1
Trainees	:	Graduates in Chemistry/Microbiology/Food science
No. of Trainees/batch	:	2
Course Director	:	Dr. P. I. Geevarghese, Professor & Head, Dairy Plant

Syllabus:

Introduction – milk - definition and composition of milk BIS, PFA and Agmark standards for milk and milk products. Hygienic practices in Dairy processing. Chemical analysis of milk and milk products total solids and SNF - platform tests - Determination of adulterants and preservatives in milk - handling of dairy processing equipments and instrumental methods of analysis. Microbiological analysis of milk and milk products – isolation and identification of spoilage organisms in milk and milk products – propagation and maintenance of starter culture - preparation of fermented milk products like Dahl - yoghurt etc. Selection of equipments for mini milk product manufacturing units – preparation of project report.

Practical Utility:

To familiarize with composition of milk, chemical and microbiological analysis, microbiology of milk and milk products, preparation of fermented milk products, culture propagation, detection of adulterants and preservatives in milk.

Expenditure:

- Stipend for trainees @ Rs. 4000/-
per trainee / per month for 2 trainees : $(4000 \times 2) = 8000 \times 12 \text{ months} = 96000/-$

8. VETERINARY LABORATORY TECHNIQUES, PHARMACY & NURSING

Duration	:	6 months
Proposed period	:	May 2010 & November 2010
Venue	:	University Veterinary Hospital, Kakkalai, Thrissur.
No. of Batch	:	2
Trainees	:	VHSE Certificate holders (Dairying & A.H)
No. of Trainees/batch	:	5
Course Director	:	Dr. M. K. Narayanan, Assistant Professor (SS)

Syllabus:

Elementary knowledge on Anatomy & Physiology of domestic animals. Collection and preservation of clinical materials. Routine laboratory procedures. Pharmacy. Feeding and management of domestic animals. Basic knowledge on diseases of animals and birds. Sterilisation of Instruments. Restraint of animals. Veterinary first aid and Nursing. Maintenance of records & registers.

Practical Utility:

VHSE certificate holders in Dairying / Animal Husbandry is having only limited exposure to the activities of Veterinary Hospital, during their course of study. At present they are eligible for the post of Livestock Inspectors in AH Department. A training imparted in the Veterinary Hospital may make them more suitable to apply for this post. Besides this, the functioning of the UVH can be improved by their presence.

Expenditure:

- Stipend for trainees @ Rs. 1500/-
per trainee / per month for 5 trainees : (1500 x 5) = 7500 x 12 months = 90000/-

Vocational

I. TRAINING ON ENTREPRENEURSHIP DEVELOPMENT IN DAIRY PROCESSING INDUSTRY

Duration	:	3 Working Days
Proposed period	:	May 2010
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1
Trainees	:	Prospective Entrepreneurs
No. of Trainees/batch	:	10
Course Director	:	Dr. P. Sudheer Babu, Assistant Professor, KAU Dairy Plant.

Syllabus:

1. *Market Milk Industry in India - distinctive features*
2. *Reception and processing of milk. Practices followed such as HTST pasteurization, UHT processing etc.*
3. *Indigenous milk product - product description and methods of manufacture*
4. *Ice cream and Frozen Desserts - Technological aspects of ice-cream manufacture*
5. *Other major dairy products – Cheese, Condensed milk, Dried milk etc.- Manufacturing techniques*
6. *Project preparation - Scheduling of information for the installation of a dairy plant*
7. *Market Management - Demand, estimation and analysis - forecasting of market potentials.*

Practical Utility:

To provide adequate technical knowhow to the new entrepreneurs in the field of dairy processing industry.

Basic details regarding various technical aspects of fluid milk processing and milk manufacturing will be dealt with. These exposures will help new entrepreneurs to set up dairy processing facilities in the rural areas of the state.

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.3000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Other items	:	Rs.500/-
<input type="checkbox"/> (20%) Over head charges	:	Rs.900/-
Total	:	Rs.5400/-

2. TRAINING IN QUALITY ASSURANCE OF MILK

Duration	:	2 Days
Proposed period	:	To be decided
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1/2
Trainees	:	Prospective Entrepreneurs and candidates deputed by Dairy Development/ ATMA
No. of Trainees/batch	:	20
Course Director	:	Dr. S .N. Rajakumar, Associate Professor, Dairy Plant.

Syllabus:

Introduction - importance of milk and milk products.

Familiarization to various milk processing operations. Sampling of milk for chemical and microbiological analysis. Estimation of major components in milk. Lactometer reading and the calculation of SNF. Pricing of milk. Estimation of acidity and pH of milk. Clean milk production and measures to enhance the keeping quality of milk-

Practical Utility:

To familiarize with the quality control aspects of milk. This knowledge will enable them to their work efficiency in dairy co-operative societies.

Expenditure :

<input type="checkbox"/> Honorarium	:	Rs.2000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.5000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Other items		
DA to participate @400/-	:	Rs. 8000/-
Total	:	Rs.15000/-
<input type="checkbox"/> (20%)Over head charges	:	Rs.3000/-
Total	:	Rs. 18000/-

3. TRAINING IN THE PREPARATION OF FERMENTED AND FAT RICH DAIRY PRODUCTS

Duration	:	5 Days
Proposed period	:	To be decided
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1/2
Trainees	:	Prospective Entrepreneurs and candidates deputed by Kudumbashree units
No. of Trainees/batch	:	20
Course Director	:	Dr. S. N. Rajakumar, Associate Professor, Dairy Plant.

Syllabus:

Introduction - Importance of milk and milk products.

Familiarization to various milk processing operations. Maintenance of culture for curd preparation. Preparation of various milk products such curd, ghee, butter, sambharam, sip up etc.

Quality control of milk and milk products

Study of the equipments and machinery for product preparation

Preparation of project reports.

Practical Utility:

To familiarize with the processing of milk and give training in the preparation of various fermented and fat rich products. This will enable them to start mini milk products manufacturing units under the kudumbashree units.

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.3750/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.6000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Other Items	:	Rs.2250/-
Total	:	Rs.12000/-
<input type="checkbox"/> (20%)Over head charges	:	Rs.2400/-
Grand total for training	:	Rs.14400/-

4. NURSERY MANAGEMENT AND PLANT PROPAGATION TECHNIQUES

Duration	:	20 working days
Proposed period	:	2010 - 2011
Venue	:	Farming Systems Research Station, Sadanandapuram.
No. of Batch	:	3
Trainees	:	Unemployed youth
No. of Trainees/batch	:	5
Course Director	:	Dr. B. Aparna, Assistant Professor Farming Systems Research Station, Sadanandapuram.

Syllabus:

Introduction to nursery management – Scope and prospects of as Agricultural nursery as an enterprise - Essential requirements - Visit to nursery and identification of plants – Potting mixture - common potting mixture and their preparation - Vegetative propagation techniques - cutting, layering, budding - Wedge grafting/ V Grafting in Cashew - Inarching/ Side grafting. Filling of polythene covers - and planting cuttings (Ornamentals, Pepper etc.) - Common fertilizers and manures, Application techniques - Soil Test based fertilizer applications-Different types of organic manures - ordinary compost, NADEP compost, vermicompost, preparation of vermicompost, Common pest and disease affecting the nursery plants – care and management- preparation of bio pesticides - shade nets and special structure for nursery and ornamental gardening – Orchids and Anthurium – multiplication and planting – Common Farm implement & Machinery - sprayers-operation and maintenance – Banana suckers – selection of suckers – collection, preparation etc. Raising a coconut nursery – selection of seed nuts – sowing – care and maintenance - Nursery of forest plants - concepts and importance of Agro forestry in Integrated farming - Bio fertilizers - Enrichment of organic manures – Preparation of enriched compost - vegetable seeds – familiarization with important vegetable, KAU varieties, seed production techniques.

Practical Utility:

The most important mandate of the station is Homestead farming with other activities such as production and sales of vegetable seeds and planting materials, nursery management and farm advisory services as auxiliary mandate. The station has a good progeny orchard with a collection of more than 20 varieties of mango, two popular varieties of mango, two popular varieties of jack, sapota, guava and minor fruits. It also maintains a scion bank of cashew of all the improved varieties.

At present the station is severely constrained in its activities by the shortage of labour force. Plant propagation works used to be carried out by persons skilled for the same from outside the University by inviting quotations. However in recent years no person has given quotations for the work. This reflects upon the shortage of skilled man power in the locality with respect to plant propagation, seed production and other related works. This creates considerable difficulties to the station in achieving the set targets with regard to seed and seedling production. Under the above circumstances proposal for conducting training on "Nursery management and plant propagation techniques" is proposed with the objective of training the local youth in plant propagation, nursery management, vegetable seed production techniques etc. The trained persons can start self employment ventures in the respective fields. Their services can also be used by the station as well as the sister concerns in and around Kottarakkara. This may also help to generate more income to farm through the sales of quality seeds and planting materials.

Expenditure :

S.No.	Particulars	Expenditure/ Batch (Rs)	Gross Expenditure (Rs)
I.	Stipend to Trainees @ Rs 75/ day	7,500/-	22,500/-
	Total	7,500/-	22,500/-

5. HANDS ON TRAINING IN THE PREPARATION OF MILK

Duration	:	2 Days
Proposed period	:	July 2010(tentative)
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1
Trainees	:	Prospective Entrepreneurs and candidates deputed by voluntary organizations/NGO's
No. of Trainees/batch	:	25
Course Director	:	Dr. P. I. Geevarghese, Professor and Head, Dairy Plant.

Syllabus:

Introduction - importance of milk and milk products - cleaning and sanitation.

Familiarization of various milk testing techniques and quality control of milk and milk products. Familiarization to various milk processing operations

Preparation of various milk products such as khoa, curd, lassi, sambharam, paneer, Ice cream, rassogolla, gulab jamun, yoghurt, whey drink etc.

Selection of equipments for mini milk product manufacturing units – preparation of project report.

Practical Utility:

To familiarize the processing of milk and give training in the preparation of various milk products. This will enable them to start mini milk products manufacturing units .

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.2000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1500/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Other Items	:	Rs.1100/-
Total	:	Rs.4600/-
<input type="checkbox"/> (20%)Over head charges	:	Rs.920/-
<input type="checkbox"/> Grand total for training	:	Rs.5,520/-
<input type="checkbox"/> Course fee per trainee	:	Rs.220/-

6. TRAINING ON ENTREPRENEURSHIP DEVELOPMENT IN DAIRY PROCESSING INDUSTRY

Duration	:	3 Working Days
Proposed period	:	May 2010
Venue	:	KAU Dairy Plant, Mannuthy.
No. of Batch	:	1
Trainees	:	Prospective Entrepreneurs
No. of Trainees/batch	:	10
Course Director	:	Dr. P. Sudheer Babu, Assistant Professor, Dairy Plant.

Syllabus:

1. *Market Milk Industry In India – distinctive features*
2. *Reception and processing of milk. Practices followed such as HTST pasteurization, UHT processing etc.*
3. *Indigenous milk products - products description and methods of manufacture*
4. *Ice cream and Frozen Deserts - Technological aspects of Ice- cream manufacture*
5. *Other major dairy products – Cheese, Condensed milk, Dried milk etc. - Manufacturing techniques*
6. *Project preparation - Scheduling of information for the installation of a dairy plant*
7. *Marketing Management – Demand estimation and analysis – forecasting of market potentials.*

Practical Utility:

To provide adequate technical knowhow to the new entrepreneurs in the field of dairy processing industry.

Basic details regarding various technical aspects of fluid milk processing and milk product manufacturing will be included in programme. Legal and commercial aspects of dairy industry will be dealt with. These exposures will help new entrepreneurs to set up dairy processing facilities in the rural areas of the state.

Expenditure:

<input type="checkbox"/> Honorarium	:	Rs.3000/-
<input type="checkbox"/> Teaching aids and stationery	:	Rs.1000/-
<input type="checkbox"/> POL charges, if any	:	Nil
<input type="checkbox"/> Other items	:	Rs.500/-
<input type="checkbox"/> (20%)Over head charges	:	Rs.900/-
Total	:	Rs.5400/-

7. PROFITABLE PIG REARING

Duration	:	5 Days
Proposed period	:	2009 - 2010
Venue	:	Centre for Pig Production and Research
No. of Batch	:	4/year
Trainees	:	Farmers/self help group/unemployed youth/women
No. of Trainees/batch	:	12/batch
Course Director	:	Dr. A. P. Usha, Professor and Head, CPPR, Mannuthy.

Syllabus:

Introduction – Pig farming, status and prospects – Housing of pigs, location, fundamentals of housing, construction of eco-friendly low cost pig pens – Breeding, common breeds and characters, selection of breeding stock, mating, economically important characters and culling – Care and management of pregnant females, new born, pre and post weaning piglets – Feeding of pigs, preparation of concentrate feed, byproduct utilization, swill feeding, Ration for different age group, marketing – Common problems in pig farming – Financial aspects – waste management.

Practical Utility:

Create awareness among farmers about recent scientific advances in pig rearing. Help to enhance the socio – economic status of farmers and unemployed youth. To increase the profit margin by adopting integrated organic farming practices and waste utilization.

Expenditure:

<input type="checkbox"/> Honorarium	:	
@ Rs.250 per hour lecture & Rs.250 per	:	Rs.5000/-
two hour practical (10 lectures and 10 Practical)	:	
<input type="checkbox"/> Teaching aids and stationery	:	
@ Rs.250 per head (12Nos)	:	Rs.3000/-
<input type="checkbox"/> POL charges	:	Rs.600/-
<input type="checkbox"/> Other items (Field visit)	:	Rs.1,400/-
<input type="checkbox"/> Over Head Charges	:	Rs.2,000/-
<input type="checkbox"/> Course Fee Per Batch	:	Rs.12,000/-
<input type="checkbox"/> Course Fee Per Head	:	Rs.1000/-

**IMPORTANT TELEPHONES EMAIL IDs
AND ADDRESSES**

Cell Numbers and Email IDs of Course Directors

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State Departments, Govt. of Kerala

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Vikas Bhavan P.O., Thiruvananthapuram

The Director of Animal Husbandry,
Department of Animal Husbandry,
Vikas Bhavan P.O., Thiruvananthapuram

The Addl. Chief Secretary,
Coastal Shipping and
Inland Navigation Department,
Vikas Bhavan P.O., Thiruvananthapuram

The Director,
Project Planning & Monitoring Cell (PPM Cell)
Ministry of Agriculture,
Govt. Secretariat, Thiruvananthapuram

The Secretary,
Cultural Affairs Department,
Vikas Bhavan P.O., Thiruvananthapuram

The Principal Secretary,
Co-operation Department,
Vikas Bhavan P.O., Thiruvananthapuram

The Chief Electoral Officer & Principal Secretary,
Election Department,
Vikas Bhavan P.O., Thiruvananthapuram

The Secretary,
Consumer Affairs Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Additional Chief Secretary,
Finance Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Environment Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Food and Civil Supplies Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
Fisheries and Ports Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
General Administration Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Forest and Wild Life Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Health and Family Welfare Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
General Education Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Addl. Chief Secretary,
Home Department,
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The Secretary,
Higher Education Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
Industries Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Housing Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Information Technology Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Information and Public Relations Department,
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The Principal Secretary,
Local Self Government Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Labour and Rehabilitation Department,
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The Secretary,
Planning & Economic Affairs Department,
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The Principal Secretary,
Personnel & Administrative Reforms Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Public Works Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Power Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
Scheduled Castes and Scheduled Tribes
Development Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
Revenue Department,Vikas Bhavan
P.O.,Thiruvananthapuram

The Secretary,
Social Welfare Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Principal Secretary,
Science and Technology Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Taxes Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Secretary,
Stores Purchase Department,
Vikas Bhavan P.O.,Thiruvananthapuram

The Additional Chief Secretary,
Transport Department,
Vikas Bhavan P.O.,
Thiruvananthapuram

The Secretary,
Tourism Department,
Vikas Bhavan P.O., Thiruvananthapuram

The Officer in Charge,
Police Department
Police Headquarters, Thiruvananthapuram

The Director of Vocational Higher Secondary
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Directorate of Vocational Higher Secondary
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Housing Board Building,
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The Director
Urban Poverty Alleviation Department
2nd Floor, Corporation Shopping Complex,
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The Conservator of Forest (Trg.)
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Forest Head Quarters Vazhuthacaud,
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National Development Boards/Corporations/Directorates

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National Oilseeds and Vegetable Oils
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The Director,
National Seeds Corporation,
Beej Bhawan, Pusa Complex,
New Delhi -110012

The Director,
National Institute of Agricultural Marketing,
(A Govt. of India Organisation,
Kota Road, Bambala), (Near Sanganer),
Jaipur -303906.

The Director,
National Horticulture Board,
85, Sector 18, Institutional Area,
Gurgaon, Haryana -122001

The Director,
National Federation of Urban Cooperative
Bank and Credit Society Ltd.,
B-14, 3rd Floor, Naraina Shopping Complex,
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The Director,
National Agricultural Cooperative Marketing
Federation of India Ltd.,
NAFED House, Sidhartha Enclave,
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The Director,
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Directorate of Agriculture
Administration of Daman & Diu
Daman

The Director of Agriculture
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The Director of Agriculture
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The Director of Agriculture
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Govt. of Chattisgarh,
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The Director of Agriculture
Govt. of Jharkhand, Ranchi.(Jharkhand)

The Director of Agriculture
Govt. of Jammu and Kashmir
Talab Tillo, Jammu Division, Jammu (J & K)

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Govt. of Madhya Pradesh,
Bhopal (Madhya Pradesh)

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The Director of Horticulture
Govt. of Sikkim, Gangtok, Sikkim

The Director of Horticulture,
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Horticulture Bhavan, Lucknow(U.P)

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Dy. Director of Horticulture
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The Director of Horticulture
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Directorate of Horticulture, Shimla (H.P)

The Director of Horticulture & Soil Conservation
Govt. of Manipur, Imphal. Manipur

The Director of Horticulture & Plantation Crops
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Tamil Nadu

The Director
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Govt. of Tripura, Agartala Tripura

The Director of Horticulture
Directorate of Horticulture,
Govt. of West Bengal ,
Writer's Building, Calcutta-700001

Directors, State Departments of Animal Husbandry

The Director of Animal Husbandry
Govt. of Andhra Pradesh,
Hyderabad

The Director of Animal Husbandry & Veterinary
Science
Govt. of Karnataka
Bangalore, Karnataka

The Director of Veterinary & Animal Husbandry
Govt. of Assam, Guwahati, Assam.

The Director of Animal Husbandry
Govt. of Himachal Pradesh
Simla, (Himachal Pradesh)

The Director of Animal Husbandry
Govt. of Bihar, Patna (Bihar)

The Director of Animal Husbandry
Govt. of Manipur, Imphal (Manipur)

The Director of Animal Husbandry
Govt. of Jammu & Kashmir,
Srinagar (J & K)

The Director of Animal Husbandry
Govt. of Tripura,
Agartala (Tripura)

The Director of Veterinary & Animal Husbandry
Govt. of Maharashtra,
Poona (Maharashtra)

The Director of Animal Husbandry
Govt. of Pondicherry, Pondicherry

The Director of Animal Husbandry & Veterinary
Service
Govt. of M.P., Bhopal (M.P)

The Director of Animal Husbandry
Govt. of Punjab, Chandigarh (Punjab)

The Director of Animal Husbandry
Marshala Road, P.O Egmore, Chennai

The Director of Animal Husbandry
Govt. of Haryana, Chandigarh (Haryana)

The Director of Animal Husbandry & Veterinary
Service
Govt. of Orissa, Cuttack. (Orissa)

The Director of Animal Husbandry & Veterinary
Govt. of Nagaland, Kohima (Nagaland)

The Director of Animal Husbandry,
Govt. of Uttar Pradesh, Lucknow (U.P)

The Director of Animal Husbandry
Arunachal Pradesh Administration
New Itanagar (Andhra Pradesh)

The Director of Veterinary & Animal Husbandry,
Govt. of Rajasthan, Jaipur, Rajasthan

The Director of Animal Husbandry
Govt. of Mizoram, Aizwal (Mizoram)

The Director of Animal Husbandry
Govt. of Gujarat, Ahmedabad, Gujarat

The Director of Animal Husbandry
Govt. of Meghalaya
Shillong (Meghalaya)

The Director of Animal Husbandry
Delhi Administration, Khyber Pass, Delhi-6

The Director of Animal Husbandry
Govt. of Goa, Daman & Diu, Panaji (Goa)

The Director of Animal Husbandry
Govt. of Kerala, Thiruvananthapuram

The Director of Animal Husbandry
Govt. of Sikkim, Gangtok, Sikkim

The Director of Dairy Development & Animal
Husbandry, N.S. Building
Govt. of West Bengal, Calcutta
(West Bengal)

Directors, State Departments of Fisheries

The Director of Fisheries
Govt. of Andhra Pradesh
Hyderabad

The Director of Fisheries
Govt. of Uttar Pradesh
Lucknow

The Director of Fisheries
Govt. of Assam
Dispur

The Director of Fisheries
Govt. of West Bengal
Calcutta

The Director of Fisheries
Govt. of Bihar
Patna

The Director of Fisheries
Govt. of Arunachal Pradesh
New Itanagar

The Director of Fisheries
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Chandigarh - 160001

The Director of Fisheries
Govt. of Andaman & Nicobar Admn.
Port Blair

The Director of Fisheries
Govt. of Gujarat
Gandhinagar

The Director of Fisheries
Govt. of Goa, Daman & Diu
Panaji

The Director of Fisheries
Govt. of Himachal Pradesh,
Simla

The Director Fisheries
Govt. of Manipur, Imphal

The Director of Fisheries
Govt. of Jammu & Kashmir
Srinagar

The Director of Fisheries
Govt. of Nagaland
Kohima

The Director of Fisheries
Govt. of Karnataka
Bangalore

The Director of Fisheries
Govt. of Meghalaya
Shillong

The Director of Fisheries
Govt. of Kerala
Thiruvananthapuram

The Director of Fisheries
Govt. of Orissa
Bhubaneswar

The Director of Fisheries
Govt. of Madhya Pradesh
Bhopal

The Director of Fisheries
Govt. of Lakshadweep
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The Director of Fisheries
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Govt. of Punjab
Chandigarh

The Director of Fisheries
Govt. of Mizoram
Aizawal

The Director of Fisheries
Govt. of Sikkim
Gangtok

The Director of Fisheries
Govt. of Pondicherry
Pondicherry

The Director of Fisheries
Govt. of TamilNadu
Chennai

The Administrator
Govt. of Dadra & Nagar Haveli,
(T) Silvassa

The Director of Fisheries
Govt. of Tripura
Agartala

Commodity Boards/Institutes, Kerala State

The Director,
Coir Board, Kalavoor.P.O.Alleppey Dist

The Executive Director
Centre for Water Resources Development and
Management,
Kunnamangalam, Kozhikode-673571

The District Mission Co-ordinator,
Kudumbasree, Collectorate,
Kakkanad, Ernakulam Dist.

The Director
Institute of Human Resources Development (IHRD)
Vazhuthacaud,Thiruvananthapuram-695014.

The District Manager
The Kerala State Backward Classes
Development Corporation Ltd.
Mission Quarters, Thrissur-680 001

The Director
Institute of Land Management,
P.T.P Nagar,Thiruvananthapuram-695038

The Project Director
Attappady Hills Area Development Society,
Agali, Palakkad 6785810492-2454517

The Director
Institute of Management in Government
Vikas Bhavan.P.O.Thiruvananthapuram-695033

The General Manager,
South Indian Bank, Head Office,Thrissur

The Executive Director
Kerala Ayurvedic Studies & Research Society,
Kottakkal.P.O.Edarikode.

The Executive Director
Agency for Development of Aquaculture
(ADAK), Thiruvananthapuram-695014

The Secretary,
Kerala State Book Marketing Society,
Punnapuram, Fort.P.O.,
Thiruvananthapuram-695023.

The Director
Agency for Non-Conventional Energy & Rural
Technology (ANERT)
Kesavadasapuram,Thiruvananthapuram.-695004

The Chief Executive Officer
Kerala Bureau of Industrial Promotion (K-BIP)
Kurup's Lane, Sasthamangalam,
Thiruvananthapuram-695 010

The Chairman
Board of Control for Orphanages & Other
Charitable Homes, Kerala.

The Director,
Co-operative Academy of Professional
Education,
Co-bank Towers,Thiruvananthapuram-695018

The Director
Centre for Continuing Education
Rema Plaza 4th Floor, S.S.Kovil Road,
Thampanoor, P.O.,Thiruvananthapuram, Kerala

The Director
Kerala Forest Research Institute, Peechi,
Thrissur-680653

The Director
Centre for Development of Coir Technology
(C-DOCT),Thiruvananthapuram-695041

The Executive Director
Kerala Institute of Labour & Employment,
Ambalamukku,Thiruvananthapuram-695003

The Director
Centre for Management Development,
Thycaud, Thiruvananthapuram-695014

The Director
Kerala Institute of Local Administration
Mulamkunnathukavu.P.O.Thrissur-680 581

The President
Kerala State Veterinary Council,
Thiruvananthapuram-695005

The Director
Kerala Institute of Tourism and Travel Studies
(KITTS),Thiruvananthapuram-695014

The Member Secretary
Kerala State Youth Welfare Board,
Thiruvananthapuram-695035

The Member Secretary
Kerala Rural Development & Marketing Society
(KERAMS), Vellayambalam,
Thiruvananthapuram- 695010

The Managing Director
Malabar Botanical Garden,
Olavanna, Guruvayurappan College.
P.O.Kozhikode - 6730140

The Executive Vice President
Kerala State Council for Science,Technology
and Environment, Sasthra Bhavan, Pattom,
Thiruvananthapuram-695004.

The Director,
State Council of Education Research and
Training (SCERT),
Poojapura, Thiruvananthapuram 695 012

The Executive Director
Kudumbashree, State Poverty Eradication
Mission, Nandavanam,
Thiruvananthapuram-695033

The Director,
State Resource Centre,
Pattom P.O. Thiruvananthapuram 695004

The Chairman,
State Agricultural Prices Board,
Thiruvananthapuram 695 001

The Chief Executive
Thenmala Ecotourism Promotion Society (TEPS),
Vazhuthacaud, Thiruvananthapuram-695014.

The Director,
State Institute of Educational Management and
Training Kerala
Central High School Campus,
Attakulangara, Thiruvananthapuram

The Director & Special Officer,
Theerapatham Urban, Development
Programme, 5th Floor,
Transtower, Vazhuthacaud, Thiruvananthapuram

The Managing Director
Kerala Agro Machinery Corporation Ltd.,
Athani.P.O., Ernakulam-683 585.

The Director
Tropical Botanical Garden & Research
Institute, Thiruvananthapuram-695562

The Member Secretary
Kerala Khadi and Village Industries Board,
Vanchiyoor.P.O. Thiruvananthapuram-695035

The Managing Director
Forest Industries (Travancore) Limited,
Aluva-683106

The Managing Director
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Pattom, Thiruvananthapuram-695004

The Managing Director
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Corporation of Kerala Ltd.,
Thiruvananthapuram-695001

The Managing Director
Kerala State Backward Classes Development
Corporation Ltd., Pattoor,
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The Managing Director
Kerala Agro Industries Corporation Ltd.,
Kissan Jyothi, Fort.P.O.,
Thiruvananthapuram-695023

The Managing Director
Kerala State Cashew
Development Corporation Ltd.,
Kollam-691001.

The Managing Director
Kerala State Women's Development
Corporation Ltd., 'BASANT' TC 20/2170
Thiruvananthapuram -695003

The Managing Director
Kerala State Development Corporation for
Christian Converts from Scheduled Castes and
the Recommended Communities Ltd.,
Kottayam -686 002

The Managing Director
Meat Products of India Ltd.,
Koothattukulam, Ernakulam

The Managing Director
Kerala State Development Corporation for
Scheduled Castes and Scheduled Tribes Ltd.,
PB No.523, Thrissur 680 020

The Managing Director
Oil Palm India Ltd.,
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The Managing Director
Kerala State Handicapped Persons Welfare
Corporation Ltd.,
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The Chief Executive Officer
State Medicinal Plant Board,
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The Managing Director
Kerala State Horticultural Products
Development Corporation Ltd. (Horticorp),
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The Managing Director
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The Managing Director
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Development Corporation Ltd.,
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The Managing Director
Kerala Kerakarshaka Sahakarna Federation Ltd.,
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The Managing Director
Kerala Small Industries Development
Corporation Ltd., (SIDCO)
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The Managing Director
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State Agricultural Universities

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Andhra Pradesh – 500 030

The Vice Chancellor
Marathwada Agricultural University
Parbhani – 431 402 Maharashtra

The Vice Chancellor
Anand Agricultural University,
Anand, Gujarat – 388 110

The Vice Chancellor
Narendra Deva University of Agriculture &
Technology
Kumarghanj, Faizabad – 224 229
Uttar Pradesh

The Vice Chancellor
Assam Agricultural University
Jorhat, Assam -785 013

The Vice Chancellor
Navsari Agricultural University
Navsari – 396 450 Gujarat

The Vice Chancellor
Bidhan Chandra Krishi Viswavidyalaya
Mohanpur, Nadia, West Bengal – 741 252

The Vice Chancellor
Orissa Univ.of Agriculture & Technology
Bhubaneshwar-751 003 Orissa

The Vice Chancellor
Birsra Agricultural University
Kanke, Ranchi, Jharkhand – 834 006

The Vice Chancellor
Punjab Agricultural University
Ludhiana – 141 004 Punjab

The Vice Chancellor
Central Agricultural University P.O.
Box 23, Imphal, Manipur – 795 004.

The Vice Chancellor
Rajasthan Agricultural University
Bikaner – 334 006 Rajasthan

The Vice Chancellor
Chandra Shekar Azad University of Agriculture
& Technology
Kanpur – 208 002 Uttar Pradesh

The Vice Chancellor
Rajendra Agricultural University
Pusa, Samastipur -848 125

The Vice Chancellor
Chaudhary Charan Singh Haryana Agricultural
University
Hisar – 125 004 Haryana

The Vice Chancellor
Sardar krushinagar-Dantiwada Agricultural
University
Sardar Krushinagar Distt.Banaskantha,
Gujarat – 385 506

The Vice Chancellor
CSK Himachal Pradesh Krishi Viswavidyalaya,
Palampur – 176 062
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The Vice Chancellor
Sardar Ballabh Bhai Patel University of
Agriculture & Technology
Modipuram, Meerut – 250 110
Uttar Pradesh

The Vice Chancellor
Dr.Balasaheb Sawant Konkan
Krishi Vidyapeeth
Dapoli Distt.,Ratnagiri – 415 712 Maharashtra

The Vice Chancellor
Sher-E-Kashmir University of Agricultural
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Railway Road, Jammu 180 012

The Vice Chancellor
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The Vice Chancellor
Sher-E-Kashmir University of Agricultural Sciences &
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The Vice Chancellor
Dr.Yashwant Singh Parmar University of
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Solan, Nauni – 173 230 Himachal Pradesh

The Vice Chancellor
Sri Venkateswara Veterinary University Admn.
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Tirupati -517 502

The Vice Chancellor
Govind Ballabh Pant University of Agriculture &
Technology
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The Vice Chancellor
Tamil Nadu Agricultural University
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The Vice Chancellor
Guru Angad Dev University of Veterinary and
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Ludhiana – 141 004 Punjab

The Vice Chancellor
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The Vice Chancellor
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University of Agricultural Sciences,
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The Vice Chancellor
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Junagadh – 362 001 Gujarat

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The Vice Chancellor
Maharana Pratap University of Agriculture &
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The Vice Chancellor
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The Vice Chancellor
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The Vice Chancellor
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Mahatma Phule Krishi Vidyapeeth
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Central Research Institutes

The Officer in Charge
Central Agricultural Research Institute(CARI)
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The Officer in Charge
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