# ANNUAL REPORT 2015-16

## (APRIL 2015 TO MARCH 2016)

ICAR - KRISHI VIGYAN KENDRA- PERAMBALUR.

## PART I - GENERAL INFORMATION ABOUT THE KVK

### 1.1. Name and address of KVK with phone, fax and e-mail

| KVK Address | Telephone | | E mail | Web Address |
|---|---|---|---|---|
| | Office | Fax | | |
| ICAR-Krishi Vigyan Kendra, Hans Roever Campus, Valikandapuram – 621 115. Perambalur District Tamil Nadu, South India | 04328 – 293251, 293592 | -- | pblr_kvk06@yahoo.co.in, kvkpblr@rediffmail.com | **www.roeverkvk.res.in** |

### 1.2 .Name and address of host organization with phone, fax and e-mail

| Address | Telephone | | E mail | Web Address |
|---|---|---|---|---|
| | Office | Fax | | |
| St. John Sangam Trust , Roever Campus, Perambalur – 621 212. TamilNadu | 04328 - 277418 | 04328 - 278110 | sjst@rediffmail.com | www.roeveredu.in |

### 1.3. Name of the Senior Scientist and Head with phone & mobile No

| Name | Telephone / Contact | | |
|---|---|---|---|
| | Residence | Mobile | Email |
| J.Kathiravan, SS& H i/c | -- | 9790491566 | acpkathir@rediffmail.com |

**1.4. Year of sanction**: 2002

## 1.5. Staff Position (as 31st March 2016)

| Sl. No. | Sanctioned post | Name of the incumbent | Designation | M/F | Discipline | Highest Qualification (for PC, SMS and Prog. Asstt.) | Pay Scale | Basic pay | Date of joining KVK | Permanent /Temporary | Category (SC/ST/ OBC//Others) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Programme Coordinator | VACANT | | | | | | | | | |
| 2 | Subject Matter Specialist | Mrs. P. Vijayalakshmi | Subject Matter Specialist | F | Home science | M.Sc.(Home Sci.) | 15600-39100 +GP 5400 | | 18.01.2006 | Permanent | OBC |
| 3 | Subject Matter Specialist | Mr. J. Kathiravan | Subject Matter Specialist | M | Horticulture | M.Sc.(Horti.) | 15600-39100 +GP 5400 | | 16.08.2007 | Permanent | SC |
| 4 | Subject Matter Specialist | VACANT | | | | | | | | | |
| 5 | Subject Matter Specialist | Dr. S.Divya | Subject Matter Specialist | F | Plant protection | M.Sc.(Agrl.Ento.), Ph.D., | 15600-39100 +GP 5400 | | 19.10.2012 | Permanent | OBC |
| 6 | Subject Matter Specialist | Mr. R. Vasanthakumar | Subject Matter Specialist | M | Agrl Extension | M.Sc.(Agrl.Extn) | 15600-39100 +GP 5400 | | 18.10.2012 | Permanent | OBC |
| 7 | Subject Matter Specialist | Ms. M. Punithavathi | Subject Matter Specialist | F | Agronomy | M.Sc.(Ag. ) | 15600-39100 +GP 5400 | | 30.08.2013 | Permanent | OBC |
| 8 | Programme Assistant | Mr. N. SatishKumar | Lab Technician | M | Agriculture | B.Sc.(Ag.) | 9300-34800 +GP 4200 | | 02.11.2009 | Permanent | FC |
| 9 | Programme Assistant | Mrs R. Vidhya | Programme Assistant | F | Computer programmer | M.Sc.(I.T) | 9300-34800 +GP 4200 | | 18.01.2006 | Permanent | OBC |
| 10 | Farm Manager | Mr. V. Karuppasamy | Farm Manager | M | Agriculture | B.Sc.(Ag.) | 9300-34800 +GP 4200 | | 16.03.2007 | Permanent | SC |
| 11 | Accountant/Superintendent | Mr. P. Jayaraman | Assistant | M | Assistant | B.Com, | 9300-34800 +GP 4200 | | 01.10.2002 | Permanent | OBC |
| 12 | Stenographer | Mr. S. Chandrasekar | Stenographer | M | Stenographer cum computer operator | B.A.(Eco.) | 5200-20200 +GP 2400 | | 14.11.2007 | Permanent | OBC |
| 13 | Driver 1 | Mr. M. Raja | Driver | M | Driver cum Mechanic | X | 5200-20200 +GP 2000 | | 26.08.2013 | Permanent | OBC |
| 14 | Driver 2 | Mr. R. Hariharan | Driver | M | Driver cum mechanic | D.M.E | 5200-20200 +GP 2000 | | 01.12.2004 | Permanent | OBC |
| 15 | Supporting staff 1 | Mr. K. Periyasamy | Supporting staff | M | Supporting staff | XII | 5200-20200 +GP 1800 | | 01.10.2002 | Permanent | SC |
| 16 | Supporting staff 2 | Mr. R. Selvakumar | Supporting staff | M | Supporting staff | X | 5200-20200 +GP 1800 | | 01.10.2002 | Permanent | OBC |

### 1.6. Total land with KVK (in ha) : 21.54 ha

| S. No. | Item | Area (ha) |
|---|---|---|
| 1 | Under Buildings | 0.12 |
| 2. | Under Demonstration Units | 0.016 |
| 3. | Under Crops | 13.88 |
| 4. | Orchard<br>Agro-forestry | 4.17<br>0.152 |
| 5. | **Others**<br>Roads<br>Pond<br>Wasteland | <br>1.65<br>0.22<br>1.4 |

### 1.7. Infrastructural Development:

**A) Buildings**

| S. No. | Name of building | Source of funding | Stage | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Complete | | | Incomplete | | |
| | | | Completion Date | Plinth area (Sq.m) | Expenditure (Rs.) | Starting Date | Plinth area (Sq.m) | Status of construction |
| 1. | **Administrative Building** | ICAR | 16.03.2006 | 500 | 29,60,000 | - | - | - |
| 2. | **Farmers Hostel** | ICAR | 03.05.2007 | 300 | 26,98,679 | - | - | - |
| 3. | **Staff Quarters** | ICAR | 03.05.2007 | 400 | 34,96,000 | - | - | - |
| 4. | **Sales Outlet** | Management | 31.03.2011 | | | | | |
| 4. | **Demonstration Units** | | | | | - | - | - |
| | 1 Poly house | ICAR | 31.03.2007 | 80 | 1,00,000 | - | - | - |
| | 2 Goat unit | ICAR | 31.03.2007 | 80 | 1,00,000 | - | - | - |
| | 3 Mushroom shed | Management | 20.10.2006 | 58 | 60,000 | - | - | - |
| | 4 Forage crops | Management | 10.03.2008 | 4000 | 6,000 | - | - | - |
| | 5 Shade net house and Mist chamber | ICAR | 31.03.2012 | 80 | 4,00,000 | - | - | - |
| | 6 Birds Unit | Management | 2009 | | | | | |
| | 7 Poultry Unit | Management | 2009 | | | | | |
| | 8 Vermicompost Unit | Management | 2013 | | | | | |
| | 9 Home care unit | Management | 2007 | | | | | |
| 5 | **Fencing** | ICAR | 31.03.2007 | 1800 rm | 1,79,500 | - | - | - |
| 6 | **Rain Water harvesting system** | ICAR | 31.03.2007 | 4.8 ha | 10,00,000 | - | - | - |
| 7 | **Threshing floor** | ICAR | 31.03.2011 | 450 | 3,00,000 | - | - | - |
| 8 | **Storage godown** | ICAR | 31.03.2011 | 101.99 | 3,00,000 | - | - | - |
| 9 | **Vehicle & Implement Shed** | ICAR | 31.03.2011 | 92.903 | 3,00,000 | | | |

## B) Vehicles

| Type of vehicle | Year of purchase | Cost (Rs.) | Total kms. Run | Present status |
|---|---|---|---|---|
| Jeep (Tempo Trax Cruiser) (Rs. 5,00,000 ICAR fund) | 04.03.2004 | 5,01,374.00 | 151308 | To be condemned |
| Motor cycle(Hero Honda CD Deluxe) (Rs. 40,000 ICAR fund) | 24.03.2006 | 40,430.00 | 75888 | Working |
| Motor cycle(Yamaha Gladiator) (Rs.50,000 ICAR fund) | 06.03.2009 | 50,000.00 | 66563 | Working |
| Tractor with accessories | 21.12.2004 | 4,99.852.00 | 11118 | To be condemned |

## C) Equipments & AV aids

| Name of the equipment | Year of purchase | Cost (Rs.) | Present status |
|---|---|---|---|
| **i. Equipment** | | | |
| FAX system | 2004 | 25,250.00 | Need Replacement |
| Xerox 5816 Plus copier | 2004 | 89,000.00 | Need Replacement |
| Computer, Printer and UPS | 2004 | 75,000.00 | Need Replacement |
| Laptop computer with accessories including LCD projector | 2007 | 99,950.00 | Hard disk need to be replaced and LCD projector - Picturization is poor |
| **ii. AV Aids and Teaching material** | | | |
| Slide Projector Kendermann 35 MM automatic slide projector with 24V. 150W halogen lamp, 50 slides linear tray, forward and reverse operation on remote control with auto focus | 2004 | 25,000.00 | Not Working |
| Over Head Projector with screen (2), Stand and trolley | 2004 | 25,000.00 | Repair |
| Sony Digital camera | 2010 | 25,000.00 | Working |

## 1.8. Details SAC meeting conducted in 2015-16

**SAC Date –** 18.06.15

| S.No | Recommendations | Action Taken |
|---|---|---|
| 1) | **Dr. K. Varadharaajen, Chairman**<br>Effective steps have to be taken to change the Agriculture as a profitable business. | ➢ Training on Soil Health Management and importance of Soil Testing were taught to the farmers in order to reduce the expenditure towards chemical fertilizers.<br>➢ Technologies are disseminated to reduce the production cost in major crops *viz*., Maize, Cotton and Onion.<br>➢ Market informations are being sent through SMS to sell the produce for a better price. |
| 2) | **Dr. H. Philip, DEE, TNAU.**<br>Permanent Board should be fixed in all OFT & FLD plots. It will give publicity to the KVK. | To fix field board in all the OFT/FLD plots, budget is proposed in the action plan (2016-17) |
| | Failure of the technology also to be documented and reported to the source. | Any failure arises will be recorded and informed to the source. |
| | KVK should arrange for a lecture regarding schemes by the concerned department officials while conducting Trainings. Also promote the usage of Agritech portal. | ➢ Mr.Anandan Asst. Director of Horticulture, Alathur block explained about various schemes implemented by the Department of Horticulture during Horticulture training programme.<br>➢ Mrs. Malarvizhi, PO, MahalirThittam explained about schemes available for women under MahalirThittam Project |
| 3) | Find out the possibilities for including demo on fruit crops in IFS. | Fruit crops *viz.,* Mango and Guava have been included one of the components in Mr.M.P.Murugesan's (IFS farmer) field. |
| | Detailed survey regarding knowledge, awareness, adoption of technology is needed. Impact study is also to be carried out. | Impact analysis is being carried out in the cluster villages and will be reported after completion during the annual report. |
| | Extend your operational area and focus on | This year an OFT on varietal assessment wasproposed, but it was not sanctioned. FLD on |

| | | |
|---|---|---|
| | sugarcane cultivated villages of your district. | IPM for borer management in sugarcane is proposed in the action plan. |
| 4) | **Dr.B.T.Rayudu, Principal Scientist ATARI, Zone VIII, ICAR, Bengaluru**<br>PRA to be conducted by Dec- Jan and the SAC Meeting to be conducted between month January and February every year. It would be useful in preparing Action Plan for the financial year to address the immediate problems of the farmers | Since SAC was conducted during June 2015 for the year 2015-2016, it is not planned to conduct SAC again in January-February. The PRA has been conducted during January-February 2016. For the year 2016-17 the PRA will be conducted before SAC meeting. |
| | Include fruit crops as one of the components in IFS | 12 Mango and 20 Guava plants are planted in one of the IFS models |
| | In OFT Ragi, economics on value added products and raw ragi grains have to be worked out and submitted in this year. | Raw Ragi grain - 1 kg @ Rs.25/ kg.<br>Value added Ragi biscuit - 1 Kg Rs.250/-.<br>Expenditure incurred - Rs.175/-<br>Net profit - Rs.75/- |
| 5) | While preparing the Action plan keep linkage with line Departments | KVK taken part in Monthly Zonal Meeting with JDA, Perambalur and the PRA was conducted in the village keeping in view the problem and options discussed with the line departments through which the action plan has been formulated. |
| | Impact analysis to be carryout based on socioeconomic status and technological constraints. Give feedback regarding the impact of the introduced technology, adoption status of the farmers, economically viable / not viable etc. | Impact analysis is being carried out in cluster villages and will be reported after completion during the annual report. |
| | Evaluation should be made as pre training, post training, knowledge and knowledge | Evaluation is being done as advised |

| | | |
|---|---|---|
| | gained immediate, 15 days, one month, 45 days and 2 months after and how they retain their knowledge. A sample of 25-30 farmers may be taken for each training. | |
| | Publicity through All India Radio, One programme for a month to be arranged. Some big programmes like "production technology in onion" may be broad cast for 7 to 8 weeks make it seven parts, broadcast one part in a week. If the response is more for a particular programme quiz programme may be arranged. | Trainings pertaining to every subject are given publicity through newspaper to call for trainees. Every month the KVK participates on one farm related All India Radio programme. |
| 6) | **Dr.M.M. Mustafa, Director, NRCB, Trichy** White onion and Rose onion varieties need to be demonstrated and popularized. | Farmers requested that a demonstration plot may be raised at KVK with white Onion & rose onion verities. After seeing the performance they will be adopting the technologies. The crops will be raised in KVK farm during forthcoming kharif 2016. |
| 7) | Onion storage structure at NRC for Onion and Garlic may be visited and assess the suitable structures for Perambalur district. | SMS Horticulture will be visiting the NRC onion and Garlic during May 2016. |
| 8) | IISR Technologies also to be adopted for Turmeric. | Micronutrient management technologies in Turmeric are proposed under FLD for 2016-17. |
| 9) | Interventions in drought tolerant fruit crops are needed. | Since Monkey and Peacock problems are more in Perambalur district farmers are not coming forward to cultivate fruit crops. OFT is proposed in Acidlime crop. |
| 10) | Trials to be conducted on Post harvest technologies introduced by National Research Centre for Onion and Garlic. | Value addition in Onion is proposed under FLD |
| 11) | Ingredients in value added products to be | Ingredients are mentioned in the labels from July 2015 onwards. |

| | | |
|---|---|---|
| | mentioned in the label. | |
| 12) | **Dr. M. Selvarajan, DEAN, Roever Agricultural College**<br><br>Since onion is the major horticulture crop of the district do more work on onion. | ➢ A Project Proposal on onion has been submitted to ICAR for doing research under Extramural Research project.<br>➢ OFT on Thrips management in onion is proposed for the year 2016 to 17.<br>➢ FLD programme on IDM on onion was conducted during 2015 -16.<br>➢ Diagnostic visit was conducted in the onion field along with the line Department during season and gave advisory through newspaper coverage, mobile SMS, radio announcement etc.,<br>➢ Through our KVK vegetable special is being produced and advised for the onion farmers to use the critical inputs to increase the yield. |
| 13) | Assess the possibilities of Cultivation of Mango and Guava. | Mango and Guava were planted in one of the IFS fields. The performances of these crops are yet to be assessed. |
| | Focus on Post harvest technologies | Training planned for grading and packing |
| 14) | **Mr. P.Aruldassan, Lead Bank Manager, IOB, Perambalur**<br>IOB runs Horticulture Yojana Scheme. In which loans are available up to Rs.33000/- with 11.5% rate of interest for landscaping purpose. Those who are interested in terrace gardening can also avail the facility | This information has been communicated to trainees attended training both KVK and Village level. |
| | Concentrate on production of export quality onion and value addition in onion. IOB ready to sanction any grants for viable projects | Quality requirement for export of Onion was taught to the trainees attended training on onion cultivation. This will be repeated whenever the Onion related trainings are conducted. |
| 15) | Collect the data on Farm ponds available at Perambalur. | Alathur block - 259 Nos<br>Veppanthattai - 431 Nos<br>Veppur block - 375 Nos |

| | | |
|---|---|---|
| | | Peramabalur block - 196 Nos<br>For 2016-17 the district watershed development authority has called an application for constructing farm ponds in registered agricultural lands and this would increase in number. |
| 16) | **Mr. S. Ayyasamy, Joint Director of Agriculture, Perambalur**<br>Try to adopt more villages for carrying out OFT and FLDs. | 13 villages belonging to 4 clusters of all the 4 blocks of Perambalur district have been selected for conducting OFT/FLD. Apart from these villages cluster demonstration of pulse crop has been implemented in Anukkur cluster. IFS has been conducted in Elambalur and Pillayarpalayam villages. |
| 17) | **Mr. N. Rajendran, Executive Engineer, Agrl. Engineering Dept.**<br>Concentrate on Mechanization | Multi crop multi row weeder developed by TNAU for weed management is proposed under OFT.<br>Turmeric harvester developed by KVK, Erode is proposed under FLD |
| 18) | New machineries for a worth of Rs.25 Lakhs are available in Agricultural Engineering department. Any registered society or farmers group developed by KVK may avail the scheme with the subsidy of Rs.10 lakhs under custom hiring mode. | The information was conveyed to the farmers groups developed by KVK. Since the investment is huge no group has come forwarded to avail the subsidy. |
| 19) | **Dr. Sivakumar, Professor, Cotton Research Station, Veppanthattai**<br>Demonstrate on improved varieties like Co45 and Co 51 in Paddy, CoHM6 in Maize, Co6 and Co7 in groundnut and Co7 in greengram. | Maize-CoHM 6, Groundnut-Co 6 and Sorghum hybrid Co5 trials were already conducted. Demonstration on Paddy variety Co 51 and groundnut variety Co7 are proposed in the action plan (2016-17) |
| | Moisture conservation techniques in Maize and Cotton to be demonstrated. | Foliar spray of Methylobacterium and KCl were demonstrated in Training programme. |
| | Power tiller with 60cm and 90cm width are available. Try to demonstrate it for cotton. | Demonstration on power tiller with 60cm width was conducted at Anukkurvillage |

| | | |
|---|---|---|
| 20) | **Dr. J.Diraviam PC, Karur.**<br>Farmer Producer Company may be utilized for technology dissemination | 2 farmer producer companies are present in Perambalur district but not operating. Hence the KVK has taken steps to formulated one youth club and farmers clubs inaugurated by the KVK in to a Farmer producer organization and already technologies are disseminated through these farmers clubs. |
| | Ecological Engineering in Plant Protection may be promoted. | FLD on Ecological engineering based IPM for brinjal is proposed in the action plan (2016-17) |
| 21) | **Mr. B. Saravanan, Programme Executive, All India Radio, Trichy.**<br>Concentrate on value addition in Maize, Cotton & Small Onion. | FLD proposed for Value addition in onion and Maize (2016-17) |
| 22) | Send success stories, training announcements, farmer service announcement periodically. | Monthly schedule are being sent to the AIR. Trichy. 12 Announcements on crop management technologies are sent so far. |
| | Find out the ways to Successful marketing of value added products. | Value added products marketed through MATHI Angadi in Perambalur, Veppanthattai and Siruvachur of College bazar arranged by MahalirThittam. |
| 23) | **Thiru. M.P.Murugesan, Farmer**<br>Marketing help is needed for sale of minor millets and processing of grains. | Tie up will be made with FPO for easy marketing of minor millets |

## PART II - DETAILS OF DISTRICT

### 2.1. Major farming systems/enterprises

| S. No | Farming system/enterprise |
|---|---|
| 1 | Cereal based cropping system<br>Oilseeds based cropping system<br>Cash crop based cropping system<br>Vegetable based cropping system<br>Dairy based farming system |

### 2.2. Description of Agro-climatic zone & major agro ecological situations

| S. No | Agro-climatic Zone | Characteristics |
|---|---|---|
| 1 | North – Eastern zone | A part of Perambalur district comes under this zone, whichcovers Veppanthattai, Perambalur and Kunnam taluk. It receives an annual rainfall of 900 – 975 mm during the north east monsoon period. The mean maximum temperature ranges from 28.5 to 38.4$^{o}$ C while the mean minimum temperature is from 21 to 28$^{o}$C. The major soil types are red sandy loam, clayey loam and saline soil. The major irrigation sources are tanks, wells and tube wells. Since the rainfall is uniformly distributed from July to December, two crop sequences of groundnut followed by pulses or sesamum are practiced. The other crops like sugarcane and millets are raised with the help of well irrigation. |
| 2 | North – Western zone | A part of Perambalur district comes under this zone, which covers Veppanthattai, Perambalur and Alathur blocks. The mean annual rainfall is 875 mm and about 42 per cent of rainfall is received during the South-West monsoon period. The mean monthly maximum temperature is from 31 to 39 $^{o}$ C. The major soils are non – calcareous red, black cotton soil and clay soil. Cultivation in drylands commences from the month of June to August which depends on the south west monsoon and monocropping is followed. In this zone, a significant practice of maize, cotton and chillies under purely rainfed cultivation is followed and paddy, sugarcane, elephant foot yam, onion, tomato and tapioca are cultivated with the help of well irrigation. |

| Sl.No. | Agro ecological situation | Characteristics |
|---|---|---|
| 1 | Dry region | Perambalur district comes under Cd.5.5: dry sub humid of Tamilnadu with a crop growing period of 150 – 180 days moderately large moisture availability. |
| 2 | Sub –humid-coastal plain | |

## 2.3 Soil types

**In Perambalur district, 18 soil series have been identified**

| Slno | Name of the soil series | Soil type | Characteristics | | Total area(ha) | Percentage |
|---|---|---|---|---|---|---|
| | | | Potentials | Limitations | | |
| 1 | Kallagam | Sandy clay | Very deep, fine loamy, very gentle slope, high WHC, medium CEC, neutral reaction, Non – calcareousness | Slightly acidic, moderate sheet erosion | 7,351 | 1.99 |
| 2 | Kallakudi | Clay | Very deep, fine textured, very deep gentle slope, high WHC and CEC | Slow permeability, well drained, moderately alkaline | 24,888 | 6.74 |
| 3 | Kurumbalur | Loamysand | Very deep, loamy textured, moderately rapid permeability, well drained neutral reaction, free from salinity | Low WHC and CEC, low organic matter, moderately alkaline | 6,854 | 1.86 |
| 4 | Padalur | Loamy sand | Coarse loamy textured, rapid permeability, well drained, neutral reaction, free from salinity | Low WHC and CEC, low organic matter, mildly alkaline | 8,029 | 2.18 |
| 5 | Pattukottai | Sandy loam | Very deep, loamy on sub surface, neutral reaction, free from salinity | Low WHC and CEC, low organic matter, acidic reaction | 34,589 | 9.37 |
| 6 | Pilamedu | Clay | Very deep, clay loam to clay, high WHC and CEC, high organic matter, free from salinity | Moderately slow permeability, moderately alkaline, strongly calcareousness | 62,197 | 16.85 |
| 7 | Thevaiyur | Sandy clay loam | Deep soil, fine loamy textured, medium WHC and CEC, neutral reaction, free from salinity | Low organic matter, mildly alkaline, slightly calcareousness | 3,475 | 0.94 |

## 2.4. Area, Production and Productivity of major crops cultivated in the district

| S. No | Crop | Area (ha) | Production (Metric tons) | Productivity (MT/ha) |
|---|---|---|---|---|
| 1 | Maize | 47740 | 403839.3 | 8.46 |
| 2 | Paddy | 7115 | 42526.23 | 5.93 |
| 3 | Cotton | 31116 | 55293.13 | 1.78 |
| 4 | Sugarcane | 5325 | 473925.0 | 89 |
| 5 | Pulses | 2300 | 1686.33 | 0.73 |

| | | | | |
|---|---|---|---|---|
| 6 | Groundnut | 2032 | 5985.68 | 2.92 |
| 7 | Sorghum | 3639 | 681730 | 1.87 |
| 8 | Banana | 187 | 8164 | 43.65775 |
| 9 | Citrus | 293 | 1543 | 5.266212 |
| 10 | Onion | 5790 | 57022 | 9.848359 |
| 11 | Tapioca | 1410 | 97155 | 68.90426 |
| 12 | Chillies | 181 | 52 | 0.287293 |
| 13 | Turmeric | 971 | 2919 | 3.006179 |

**Source:** State Department of Agriculture, TamilNadu

**2.5. Weather data**

| Month | Rainfall (mm) | Temperature $^0$ C | | Relative Humidity (%) |
|---|---|---|---|---|
| | | Maximum | Minimum | |
| April 2015 | 141.5 | 35.18 | 24.55. | 68.48 |
| May 2015 | 81.06 | 38.88 | 25.62 | 62.80 |
| June 2015 | 33.68 | 32.30 | 25.21 | 60.88 |
| July 2015 | 29.16 | 33.66 | 25.18 | 58.62 |
| August 2015 | 107.64 | 34.20 | 24.82 | 62.38 |
| September 2015 | 145.68 | 33.60 | 24.21 | 68.70 |
| October 2015 | 153.06 | 30.60 | 23.82 | 75.82 |
| November 2015 | 286.32 | 30.12 | 23.28 | 76.12 |
| December 2015 | 88.84 | 30.80 | 22.12 | 74.50 |
| January 2016 | 0.00 | 31.62 | 23.18 | 70.50 |
| February 2016 | 0.00 | 32.82 | 23.88 | 60.18 |
| March 2016 | 0.00 | 34.18 | 24.12 | 61.18 |

**Source:** Agro Climate Research Centre, TNAU, Coimbatore

**2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district**

| Category | Population | Production | Productivity |
|---|---|---|---|
| **Cattle** | | | |
| Crossbred | 136412 | 5786.31 | 3280 |
| Indigenous | 133500 | 1194.83 | 895 |
| Buffalo | 60600 | 448.38 | 2070 |
| Sheep | 94358 | 1962646 | 20.8 |
| Goats | 254344 | 6791845 | 40.2 |
| **Poultry** | | | |
| Desi chicken | 301720 | 25030800 | 90 |

**Source:** State Department of Animal Husbandry, Perambalur

2.7. District profile has been **Updated** for 2015-16 Yes / No: **Yes**

## 2.8 Details of Operational Area / Villages

| S. No. | Taluk | Block | Villages | How long the village is covered under operational area of the KVK (specify years) | Major crops & enterprises being practiced | Major problems identified | Identified thrust areas |
|---|---|---|---|---|---|---|---|
| 1 | Veppanthattai | Veppanthattai | Brahmadesam | 1 year | Paddy, Maize, Redgram, Blackgram, Groundnut, Sesamum, Cotton, Sugarcane, Tomato, Gourds, Acidlime, Chillies, Small onion , Banana, Coriander, Tapioca, Turmeric, Bhendi, Dairy, Poultry, Goat | **Greengram** | Introduction of new variety |
| | | | | | | Flower drop | |
| | | | | | | Incidence of yellow mosaic virus | |
| | | | | | | Powdery mildew | |
| | | | | | | Poor plant population | |
| | | | | | | **Kodo millet** | Introduction of new variety |
| | | | | | | Poor Plant population | |
| | | | | | | Smut incidence | |
| | | | | | | Reduction in yield | |
| | | | | | | **Lablab** | Introduction of new variety |
| | | | | | | Heavy flower drop | |
| | | | | | | Poor fruit set | |
| | | | | | | Aphid incidence | |
| | | | | | | Anthracnose incidence | |
| | | | | | | **Cotton** | Integrated Pest Management |
| | | | | | | Tender bolls are damaged by larva | |
| | | | | | | Squares feed by Larva | |
| | | | | | | Leaf holes | |
| | | | | | | **Dairy** | Dairy management |
| | | | | | | Low weight leads to late puberty | |
| | | | | | | Low conception rate | |
| | | | | | | Increase calving interval | |
| 2 | Alathur | Alathur | Adaikampatti | 3 Years | Castor, Sesamum Paddy, Maize, Jowar, Bajra, Redgram, Blackgram, Ragi Groundnut, Cotton, Acidlime, Chillies, Small onion , Coriander, Tapioca, Turmeric, Tomato, Bhendi, Mango , Dairy, Poultry | **Onion** | Integrated Disease Management |
| | | | | | | Whitening of leaves | |
| | | | | | | More basal rot incidence | |
| | | | | | | Tip drying | |
| | | | | | | Eye shaped black spots in leaves | |
| | | | | | | White colour dots in leaves | |
| | | | | | | **Finger Millet** | Introduction of new variety |
| | | | | | | Poor Plant population | |
| | | | | | | Smut incidence | |
| | | | | | | Reduction in yield | |
| | | | | | | **Bengalgram** | Introduction of new variety |
| | | | | | | Low yield | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | Flower drop | |
| | | | | | | Hand injury during harvesting | |
| | | | | | | Ill filled pods | |
| | | | | | | **Aggregatum onion** | Varietal assessment |
| | | | | | | Tip drying of seedlings | |
| | | | | | | Uneven seedling growth | |
| | | | | | | Umbel formation | |
| | | | | | | Shrinking of bulbs at storage | |
| | | | | | | **Coriander** | Introduction of new variety |
| | | | | | | Occurrence of wilt | |
| | | | | | | Early umbel formation | |
| | | | | | | Poor herbage yield | |
| 3. | Kunnam | Veppur | Kizhumathur | 1year | Paddy, Maize, Jowar, Bajra, Redgram, Cotton, Sugarcane, Dairy,Poultry | **Paddy** | Introduction of new variety |
| | | | | | | Dead heart and white ear | |
| | | | | | | Blast incidence | |
| | | | | | | Low yield | |
| | | | | | | **Cowpea** | Introduction of new variety |
| | | | | | | Flower drop | |
| | | | | | | Weed infestation | |
| | | | | | | Pod borer | |
| | | | | | | Low yield | |
| | | | | | | **Ruminants** | Animal Disease management |
| | | | | | | Mastitis in cows | |
| | | | | | | Enteritis in goats and sheep | |
| | | | | | | Economic losses to farmers | |
| | | | | | | **Cumbu napier** | Feed & Fodder Management |
| | | | | | | Open grazing | |
| | | | | | | Feeding fermentedrice gruel | |
| | | | | | | Poor milk yield | |
| | | | | | | low conception rate | |
| | | | | | | High feed cost | |
| **4** | Veppanthattai | Veppanthattai | Thonda mandurai | 2 years | Coconut, Banana, Turmeric | **Coconut** | Integrated Pest Management |
| | | | | | | Leaves shows triangular cut damage | |
| | | | | | | Reduced number of quality fronds | |
| | | | | | | Yield reduction | |
| | | | | | | **Banana** | Integrated Disease Management |
| | | | | | | Leaf spot and yellowing | |
| | | | | | | Drying of leaves | |
| | | | | | | Small fingers | |
| | | | | | | Pre- mature ripening | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | **Turmeric** | Integrated Crop Management |
| | | | | | | Water scarcity (Delayed/absence of summer shower) | |
| | | | | | | Scarcity of quality planting material | |
| | | | | | | High cost of seed rhizome | |
| | | | | | | Poor crop establishment | |
| | | | | | | **Banana** | Integrated Crop Management |
| | | | | | | *Fusarium* wilt incidence | |
| | | | | | | Yellowing of leaves | |
| | | | | | | Less finger size | |
| | | | | | | Poor bunch weight | |
| | | | | | | **Maize** | Varietal Evaluation |
| | | | | | | Disease susceptibility of existing hybrids | |
| | | | | | | Low yield | |
| 5 | Perambalur | Perambalur | Siruvachur | 1year | Paddy, Cotton ,Maize, groundnut | **Groundnut** | Introduction of new variety |
| | | | | | | Water Scarcity | |
| | | | | | | Micro Nutrient Deficiency | |
| | | | | | | Collar Rot | |
| | | | | | | Red Hairy caterpillar | |
| | | | | | | Weed Infestation | |
| | | | | | | Low Yield | |
| | | | | | | **Fodder Sorghum** | Feed & Fodder Management |
| | | | | | | Open grazing | |
| | | | | | | Feeding fermented rice gruel | |
| | | | | | | Poor milk yield | |
| | | | | | | low conception rate | |
| | | | | | | High feed cost | |
| 6 | Perambalur | All Blocks | All clusters | 1year | Sesamum Paddy, Maize, Jowar, Bajra, Redgram, Blackgram, Ragi Groundnut, Cotton, Acidlime, Chillies, Small onion , Coriander, Tapioca, Turmeric, Tomato, Bhendi, Mango , Dairy, Poultry | **Millets** | Value addition |
| | | | | | | Lack of knowledge in value addition | |
| | | | | | | Unawareness of importance of minor millets | |
| | | | | | | **Vegetables** | Nutritional security |
| | | | | | | Low intake of vegetables | |
| | | | | | | Nutritional deficiency | |
| | | | | | | High market price | |

### 2.9 Priority thrust areas for 2015-16

| S. No | Thrust area |
|---|---|
| 1. | Integrated Crop Management |
| 2. | Integrated Nutrient Management |
| 3. | Integrated Pest Management |
| 4. | Integrated Disease Management |
| 5. | Varietal Assessment |
| 6. | Integrated Farming System |
| 7. | Entrepreneurship Development |
| 8. | Soil Moisture conservation |
| 9. | Breeding and nutrition management |
| 10. | Animal Disease management |
| 11. | Nutritional security |

## PART III - TECHNICAL ACHIEVEMENTS

**Details of target and achievements of mandatory activities**

| OFT | | | | FLD | | | |
|---|---|---|---|---|---|---|---|
| 1 | | | | 2 | | | |
| Number of OFTs | | Number of farmers | | Number of FLDs | | Number of farmers | |
| Targets | Achievement | Targets | Achievement | Targets | Achievement | Targets | Achievement |
| 3 | 3 | 15 | 15 | 20 | 20 | 200 | 215 |

| Training | | | | Extension Programmes | | | |
|---|---|---|---|---|---|---|---|
| 3 | | | | 4 | | | |
| Number of Courses | | Number of Participants | | Number of Programmes | | Number of participants | |
| Targets | Achievement | Targets | Achievement | Targets | Achievement | Targets | Achievement |
| 75 | 82 | 1500 | 1999 | 421 | 925 | 4415 | 13671 |

| Seed Production (Qtl.) | | Planting materials (Nos.) | |
|---|---|---|---|
| 5 | | 6 | |
| Target | Achievement | Target | Achievement |
| 2.10 | 13.84 | 24000 | 90324 |

| Livestock, poultry strains and fingerlings (No.) | | | | Bio-products (Kg) | | | |
|---|---|---|---|---|---|---|---|
| 7 | | | | 8 | | | |
| Target | | Achievement | | Name of the products | Target(q) | Achievement (q) | |
| Desi chicks | 1000 | Desi chicks | 939 | *T.viride* | 3 | *T.viride* | 1.30 |
| Desi chickens | | Desichickens | 850 | *Pseudomonas* | 3 | *Pseudomonas* | 1.04 |
| Giriraja | - | Giriraja | 102 | Panchakavya | 300 Lit | Panchakavya | 168 Lit |
| Turkey | - | Turkey | 324 | Plant Booster | - | Plant Booster | 179 Kgs. |
| Japaneese Quailschicks | 5000 | Japanese Quails chicks | 6500 | Vermicompost | 500 | Vermicompost | 162.865 |
| Tellicherry goat | 20 | Tellicherry goat | 24 | Vermiworms | - | Vermiworms | 247.35 |
| Ducks | - | Ducks | 15 | Azolla | 0.5 | Azolla | 0.34 |
| | | | | Mushroom spawn | - | Mushroom spawn | 1030Nos |

## 3.B1. Abstract of interventions undertaken based on thrust areas identified for the district

| S. No | Thrust area | Crop/ Enterprise | Identified Problem | Interventions | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Title of OFT if any | Title of FLD if any | Number of Training (farmers) | Number of Training (Youths) | Number of Training (extn . pers.) | Extension activities (No.) | Supply of seeds (Qtl.) | Supply of planting materials (No.) | Supply of live stock (No.) | Supply of bio products N0/ Kg | |
| | | | | | | | | | | | | | Nos | Kg |
| **Oilseeds** | | | | | | | | | | | | | | |
| 1. | Integrated Crop Management | Groundnut | ➢ Water Scarcity<br>➢ Micro Nutrient Deficiency<br>➢ Collar Rot<br>➢ Red Hairy caterpillar<br>➢ Weed Infestation<br>➢ Low Yield | - | Demonstration on Groundnut variety TMVGn13 | 3 | - | - | 26 | 1.6 | - | - | *Pseudomonas*<br>NPV | 10 kg<br>10 Lit |
| **Pulses** | | | | | | | | | | | | | | |
| 2. | Integrated crop management | Green gram | ➢ Flower drop<br>➢ Incidence of YMV<br>➢ Powdery mildew<br>➢ Poor plant population | - | Demons tration on Green gram Variety Co 8 | 2 | - | - | 19 | 0.84 | - | - | *Rhizobium*<br>*Phosphobacteria* | 33 kg<br>25 kg |
| 3. | Integrated crop management | Cowpea | ➢ Flower drop<br>➢ Weed infestation<br>➢ Pod borer<br>➢ Low yield | - | Demons tration on Cowpea Variety Co (Cp)7 | 3 | - | - | 28 | 1.0 | | | *Rhizobium*<br>*Phosphobacteria* | 100kg<br>100kg |
| 4. | Integrated crop management | Bengal gram | ➢ Flower drop<br>➢ Hand injury during harvesting<br>➢ ILL filled pods<br>➢ Low yield | - | Demons tration on Bengal gram Variety Co 4 | 2 | - | - | 2.1 | 3.0 | - | - | - | - |
| **Cereals** | | | | | | | | | | | | | | |
| 5. | Integrated Crop Management | Paddy | ➢ Dead heart and white ear<br>➢ Blast incidence<br>➢ Low yield | - | Demonstration on TKM 13 Paddy variety and Seed production | | 3 | - | - | 30 | 1.6 | - | *Azospirillum*<br>*Pseudomonas* | 20kg<br>10kg |
| 6. | Varietal assesment | Maize | ➢ Leaf blight<br>➢ Low yield | Assess ment of Maize hybrids | - | | 1 | - | 12 | 0.2 | - | - | - | - |
| **Millets** | | | | | | | | | | | | | | |
| 7. | Varital assesment | Finger millet | Blast incidence<br>Low yield | Assessment of Finger millet varieties | - | | 2 | - | 25 | 0.1 | - | - | - | - |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8. | Integrated crop management | Kodo millet | ➢ Poor Plant population<br>➢ Smut incidence<br>➢ Reduction in yield | - | Demonstration on Kodo millet variety Co 3 | - | 2 | - | 2.7 | 0.4 | - | - | | - |
| 9. | Value addition | Millets | ➢ Lack of knowledge in value addition<br>➢ Unawareness of importance of minor millets | Value Addition In Millet | Value addition in millets for Entrepreneurship Development Programme | 2 | | | 29 | | | | | |
| **Vegetables** | | | | | | | | | | | | | | |
| 10. | Integrated Disease Management | Onion | ➢ Whitening of leaves<br>➢ More basal rot incidence<br>➢ Tip drying<br>➢ Eye shaped black spots in leaves<br>➢ White colour dots in leaves | - | Integrated Disease Management in aggregatum Onion | 3 | - | - | 31 | - | - | - | *Pseudomonas fluorescence* | 23 |
| 11. | Varietal assessment | Onion | ➢ Tip drying of seedlings<br>➢ Uneven seedling growth<br>➢ Umbel formation<br>➢ Shrinking of bulbs at storage | Assessment of Aggregatum Onion varieties | - | 3 | - | - | 26 | 0.05 | | | *T.Viridi* VAM | 1<br>15 |
| 12. | Varietal demonstration | Lablab | ➢ Heavy flower drop<br>➢ Poor fruit set<br>➢ Aphid incidence<br>➢ Anthracnose incidence | - | Demonstration on Lablab variety CoGB1 | 3 | - | - | 32 | 0.3 | | | | |
| 13. | Varietal demonstration | Coriander | ➢ Occurrence of wilt<br>➢ Early umbel formation<br>➢ Poor herbage yield | - | Demonstration on Multicut Coriander variety - Arka Isha | 3 | - | - | 27 | 0.4 | | | Microbial Consortium | 10 |
| 14. | Nutrition gardening | Vegetable | ➢ Low intake of vegetables<br>➢ Nutritional deficiency<br>➢ High market price | Kitchen garden | Demonstration on Nutrition Garden | 2 | - | - | 21 | 0.01 | 80 | - | - | - |
| | **Fruits** | | | | | | | | | | | | | |
| 15. | Integrated Disease Managem | Banana | ➢ Leaf spots and yellowing<br>➢ Drying of leaves | - | Demonstration on Integrated Disease | 2 | - | - | 25 | - | - | - | - | - |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ent in Banana | | ➢ Small fingers<br>➢ Pre mature ripening | | Management in Banana | | | | | | | | |
| 16. | ICM | Banana | ➢ *Fusarium* wilt incidence<br>➢ Yellowing of leaves<br>➢ Less finger size<br>➢ Poor bunch weight | - | Yield enhancement in Banana through efficient input management | 3 | - | - | 34 | - | - | - | - | - |
| **Spices** | | | | | | | | | | | | | | |
| 17. | ICM | Turmeric | ➢ Water scarcity (Delayed/absence of summer shower)<br>➢ Scarcity of quality planting material<br>➢ High cost of seed rhizome<br>➢ Poor crop establishment | - | Rapid multiplication techniques in Turmeric | 4 | - | - | 48 | - | - | - | - | - |
| **Fiber crops** | | | | | | | | | | | | | | |
| | Integrated Pest Management | Cotton | ➢ Tender Bolls are damaged by Spodoptera larvae<br>➢ Leaf holes<br>➢ Squares fed by Larvae | - | Integrated Pest Management for S*podoptera litura* in cotton | 2 | - | - | 28 | - | - | - | | |
| 19 | Nutrition Management | Fodder | ➢ Open grazing<br>➢ Feeding fermented rice gruel<br>➢ Poor milk yield<br>➢ low conception rate<br>➢ High feed cost | - | Demonstra-tion on Cumbu Napier Hybrid Grass – CO (CN) 5 production for small and marginal dairy farmers | 3 | | | 37 | | 3300 sets | | | |
| 20 | Nutrition Management | Fodder | ➢ Open grazing<br>➢ Feeding fermentedrice gruel<br>➢ Poor milk yield<br>➢ low conception rate<br>➢ High feed cost | - | Demonstration on Fodder sorghum (CO FS 31) production for dairy farmers | 2 | | | 21 | 0.1 | | | | |
| | Plantation | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | Integra-ted Pest Manage ment | Coconut | ➢ Leaves shows triangular cut damage<br>➢ Reduced no of quality fronds<br>➢ Yield reduction | - | IPM practises for Rhinocerous beetle in coconut | 3 | - | - | 26 | - | - | - | *Metarhizium anisoplae* | 10 kg |
| | | | ➢ | | | | | | | | | | | |
| **Livestock and poultry** | | | | | | | | | | | | | | |
| 18. | Disease Manage ment | Rumi-nants | ➢ Mastitis in cows<br>➢ Enteritis in goats and sheep<br>➢ Economic losses to farmers | - | Demonstratio n on packages of Ethnoveterina ry medicines in Ruminants | 3 | - | - | 30 | - | - | - | | |
| 19. | Breeding and Nutrition Manage ment | Dairy | ➢ Low weight leads to late puberty<br>➢ Low conception rate<br>➢ Increase calving interval | - | Packages and Practices of Calf management up to one year | 3 | - | - | 28 | - | - | - | | |

**3.B2. Details of technology used during reporting period**

| S.No | Title of Technology | Source of technology | Crop/ enterprise | No.of programmes conducted | | | |
|---|---|---|---|---|---|---|---|
| | | | | OFT | FLD | Training | Others ( Extension Activities) |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | 8 |
| 1. | Demonstration on Groundnut variety TMVGn13 | TNAU, 2009 | Groundnut | - | 1 | 3 | 26 |
| 2. | Demonstration on Greengram Variety Co 8 | TNAU, 2008 | Greengram | - | 1 | 2 | 19 |
| 3. | Demonstration on Cowpea Variety Co (Cp)7 | TNAU, 2002 | Cowpea | - | 1 | 3 | 28 |
| 4. | Demonstration on Bengalgram Variety Co 4 | TNAU, 2011 | Bengalgram | - | 1 | 2 | 21 |
| 5. | Demonstration on TKM 13 Paddy variety and Seed production | TNAU , 2015 | Paddy | - | 1 | 3 | 30 |
| 6. | Assessment of Maize hybrids | TNAU, 2012,UAS, Dharwad, 2013 | Maize | 1 | - | 1 | 12 |
| 7. | Assessment of Finger millet varieties | UAS, 2012, TNAU, 2013 | Finger millet | 1 | - | 2 | 25 |
| 8. | Demonstration on Kodo millet variety Co 3 | TNAU,1980 | Kodo millet | - | 1 | 2 | 17 |
| 9. | Value addition in Millets for Entrepreneurship Development Programme | TNAU | Millets | - | 1 | 2 | 29 |
| 10. | Integrated Disease Management in aggregatum Onion | TNAU, 2013 | Onion | - | 1 | 1 | 31 |
| 11. | Assessment of Aggreagatum Onion Varieties | TNAU, 2001 IIHR, 2010 | Onion | 5 | - | 3 | 26 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12. | Demonstration on Lablab variety CoGB14 | TNAU( 2007)<br>UAS (2013) | Lablab | - | 1 | 3 | 32 |
| 13. | Demonstration on Multicut Coriander variety - Arka Isha | IIHR(2010) | Coriander | - | 1 | 3 | 27 |
| 14. | Demonstration on Nutrition garden | TNAU | Vegetables | - | 1 | 2 | 21 |
| 15. | Demonstration on Integrated Disease Management in Banana | NRCB, 2012 | Banana | - | 1 | 2 | 25 |
| 16. | Yield enhancement in Banana through efficient input management | TNAU, 2014 | Banana | - | 1 | 3 | 34 |
| 17. | Rapid multiplication techniques in Turmeric | TNAU ( 2014) | Turmeric | - | 1 | 4 | 48 |
| 18. | Integrated Pest Management for *Spodoptera litura* in cotton | TNAU 2012 | Cotton | - | 1 | 2 | 28 |
| 19. | Demonstration on Cumbu Napier Hybrid Grass – CO (CN) 5 production for small and marginal dairy farmers | TNAU, 2014 | Cumbu Napier | - | 1 | 3 | 37 |
| 20. | Demonstration on Fodder sorghum (CO FS 31) production for dairy farmers | TNAU, 2014 | Fodder sorghum | - | 1 | 2 | 21 |
| 21. | IPM practices for Rhinocerous beetle in coconut | TNAU, 2012 | Coconut | - | 1 | 3 | 26 |
| 22. | Demonstration on packages of Ethnoveterinary medicines in Ruminants | TANUVAS | Ruminants | - | 1 | 3 | 30 |
| 23. | Packages and Practices of Calf management up to one year | TANUVAS, 2008 | Dairy | - | 1 | 3 | 28 |

**3.B2 contd..**

| Title | No. of farmers covered | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OFT | | | | FLD | | | | Training | | | | Others – Extn. Activities | | | |
| | General | | SC/ST | | General | | SC/ST | | General | | SC/ST | | General | | SC/ST | |
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Demonstration on Groundnut variety TMVGn13 | 0 | 0 | 0 | 0 | 3 | 0 | 7 | 0 | 23 | 3 | 1 | 0 | 14 | 2 | 0 | 0 |
| Demonstration on Greengram Variety Co 8 | 0 | 0 | 0 | 0 | 6 | 2 | 2 | 0 | 13 | 0 | 3 | 0 | 17 | 2 | 0 | 0 |
| Demonstration on Cowpea Variety Co (Cp)7 | 0 | 0 | 0 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 24 | 0 | 23 | 5 | 0 | 0 |
| Demonstration on Bengalgram Variety Co 4 | 0 | 0 | 0 | 0 | 4 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 4 | 0 | 0 |
| Demonstration on TKM 13 Paddy variety and Seed production | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 4 | 0 | 3 | 10 | 19 | 11 | 0 | 0 |
| Assessment of Maize hybrids | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 10 | 0 | 0 | 9 | 9 | 0 | 2 |
| Assessment of Finger millet varieties | 3 | 2 | 0 | 0 | 3 | 0 | 20 | 0 | 9 | 1 | 1 | 2 | 23 | 2 | 0 | 0 |
| Demonstration on Kodo Millet variety Co 3 | 0 | 0 | 0 | 0 | 7 | 2 | 1 | 0 | 12 | 3 | 0 | 0 | 27 | 0 | 0 | 0 |
| Value addition in Millets for Entrepreneurship Development Programme | 0 | 0 | 0 | 0 | 0 | 3 | - | 2 | 0 | 54 | 0 | 8 | 27 | 2 | 0 | 8 |
| Integrated Disease Management in Aggregatum Onion | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 40 | 7 | 9 | 0 | 18 | 13 | 0 | 0 |
| Assessment of Aggregatum Onion Varieties | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 17 | - | - | 4 | 22 | - | - |
| Demonstration on Lablab variety CoGB14 | 0 | 0 | 0 | 0 | 5 | 2 | 3 | - | 38 | 7 | 6 | 2 | 27 | 5 | - | - |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Demonstration on Multicut Coriander variety - Arka Isha | 0 | 0 | 0 | 0 | 7 | 3 | - | - | 33 | 19 | - | - | 21 | 6 | - | - |
| Demonstration on Nutrition garden | 0 | 0 | 0 | 0 | 10 | - | - | - | 23 | 2 | 1 | - | 15 | - | 9 | - |
| Demonstration on Integrated Disease Management in Banana | 0 | 0 | 0 | 0 | 9 | 0 | 1 | 0 | 17 | 0 | 0 | 0 | 25 | 0 | 0 | 0 |
| Yield enhancement in Banana through efficient input management | 0 | 0 | 0 | 0 | 8 | 2 | 0 | 0 | 49 | 2 | 0 | 0 | 21 | 13 | 0 | 0 |
| Rapid multiplication techniques in Turmeric | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 66 | 1 | 0 | 0 | 48 | 0 | 0 | 0 |
| Integrated Pest Management for *Spodoptera litura* in Cotton | 0 | 0 | 0 | 0 | 8 | 0 | 2 | 0 | 35 | 3 | 0 | 0 | 28 | 0 | 0 | 0 |
| Demonstration on Cumbu Napier Hybrid Grass – CO (CN) 5 production for small and marginal dairy farmers | 0 | 0 | 0 | 0 | 21 | 1 | 2 | 1 | 57 | 5 | 8 | 5 | 35 | 2 | 10 | 0 |
| Demonstration on Fodder sorghum (CO FS 31) production for dairy farmers | 0 | 0 | 0 | 0 | 12 | 2 | 1 | - | 38 | 5 | 6 | 4 | 20 | 1 | 0 | 0 |
| IPM practices for Rhinocerous beetle in coconut | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 0 | 12 | 31 | 0 | 0 | 21 | 5 | 0 | 0 |
| Demonstration on packages of Ethnoveterinary medicines in Ruminants | 0 | 0 | 0 | 0 | 8 | 1 | 1 | - | 25 | 5 | 3 | 2 | 22 | 3 | 5 | 0 |
| Packages and Practices of Calf management up to one year | 0 | 0 | 0 | 0 | 8 | 1 | 1 | - | 23 | 8 | 4 | 3 | 20 | 2 | 4 | 2 |

**PART IV - On Farm Trial**

**4.A1. Abstract on the number of technologies assessed in respect of crops**

| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Integrated Nutrient Management | | | | | | | | | | |
| Varietal Evaluation | Maize -1 | | Ragi -1 | | Onion - 1 | | | | | **3** |
| Integrated Pest Management | | | | | | | | | | |
| **Total** | **1** | | **1** | | | | **1** | | | **3** |

**4.A2. Abstract on the number of technologies refined in respect of crops** Nil

**4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises** Nil

**4.A4. Abstract on the number of technologies refined in respect of livestock enterprises** Nil

## 4.B. Achievements on technologies Assessed and Refined

### 4.B.1. Technologies Assessed under various Crops

| Thematic areas | Crop | Name of the technology assessed | No. of trials | Number of farmers | Area in ha |
|---|---|---|---|---|---|
| Varietal Evaluation | Maize | Assessment of Maize hybrids | 5 | 5 | 1 |
| | Finger millet | Assessment of Finger millet varieties | 5 | 5 | 1 |
| | Onion | Assessment of Aggregatum Onion varieties | 5 | 5 | 1 |
| **Total** | | | **15** | **15** | **3** |

### 4.B.2. Technologies Refined under various Crops

Nil

### 4.B.3. Technologies assessed under Livestock and other enterprises

Nil

### 4.B.4. Technologies Refined under Livestock and other enterprises

Nil

## 4.C1.Results of Technologies Assessed

### 1. Assessment of Maize hybrids

| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer | Any refinement needed | Justification for refinement |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Maize | Irrigated | Leaf blight &Low yield | Assessment of Maize hybrids | 5 | Cultivation of Maize hybrid **CO HM6** | | | Trial under progress | | | |

**Contd..**

| Technology Assessed | Source of Technology | Production | Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year) | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|---|---|---|---|---|
| 13 | 14 | 14 | 15 | 16 | 17 |
| **Technology option 1 (Farmer's practice)** cultivation of NK 6240 hybrid | | | q / ha | | |
| **Technology option 2** Cultivation of Maize hybrid **CO HM6 (TNAU, 2012)** | | | q/ ha | | |
| **Technology option 3** Cultivation of Maize hybrid **GH0727 (**UAS, Dharwad, 2013**)** | | | q / ha | | |

## 2. Assessment of Finger millet varieties

| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer | Any refinement needed | Justification for refinement |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Finger millet | Rainfed | Blast incidence<br>Low yield | Assessment of Finger millet varieties | 5 | Cultivation of Finger Millet variety CO 15 | PDI | 6 | 15.23 q / ha | Finger millet variety Co15 gave higher yield. No blast incidence in Co15 and KMR 204 | No. | - |
| | | | | | | No. of tillers/hill | 6.2 | | | | |
| | | | | | | No.of ear head/hill | 4.6 | | | | |

**Contd..**

| Technology Assessed | Source of Technology | Production | Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year) | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|---|---|---|---|---|
| 13 | 14 | 14 | 15 | 16 | 17 |
| **Technology option 1** (Farmer's practice) (Carbendazim + Mancozeb) | | 9.49 | q / ha | 2866.8 | 1.1 |
| **Technology option 2**<br>Foliar spray of (Trifloxystrobin 25 %+Tebuconazole 50 %) 0. 1 % followed by disease incdence | TNAU, 2013 | 12.74 | q/ ha | 11294 | 1.7 |
| **Technology option 3**<br>Seed treatment with Pf @ 10 g/ kg<br>Soil application of *T. viride* @ 2.5 kg+ 250 kg FYM , Foliar spray of ergon @ 1 ml/lit @ 60 DAS and Captan @ 7 % +Hexaconazole 5 % @ 1.5 g/ lit @ 90 and 120 DAS | CICR, 2011 | 15.23 | q / ha | 15063 | 1.9 |

## 3. Assessment of Aggregatum Onion varieties

| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of trials | Technology Assessed | Parameters of assessment | Data on the parameter | Results of assessment | Feedback from the farmer | Any refinement needed | Justification for refinement |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Onion | Irrigated | High bulb cost<br>Reduced bulb size<br>Low yield | Assessment of Aggregatum Onion varieties | 5 | Cultivation of Co(On)5 variety | No. of bulbs/plant<br>Bulb weight<br>Yield (kg/ha) | 4.4<br>37.88<br>18420 | 184.2q/ha | Both the varieties have bigger size bulbs and gave good yiled. Due to bigger in size & attractive colour both varieties have good market preference | Nil | Nil |

**Contd..**

| Technology Assessed | Source of Technology | Production | Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year) | Net Return (Profit) in Rs. / unit | BC Ratio |
|---|---|---|---|---|---|
| 13 | 14 | 14 | 15 | 16 | 17 |
| **Technology Option I**<br>Cultivation of Co(On)5 variety | TNAU, 2001 | 168.8 | q / ha | 71878 | 2.14 |
| **Technology Option II**<br>Cultivation of Arka Ujjwal variety | IIHR, 2010 | 184.2 | q/ ha | 84198 | 2.33 |

## 4.C2.Details of each On Farm Trial for assessment

| Sl.No. | Contents | Details | | | |
|---|---|---|---|---|---|
| 1 | **Title of Technology Assessed** | Assessment of Finger Millet varieties | | | |
| 2 | **Problem Definition** | Blast incidence leading to reduced yield | | | |
| *3* | **Details of technologies selected for assessment/refinement** | TO-1 cultivation of local variety | | | |
| | | TO-2 cultivation of KMR-204 variety | | | |
| | | TO-3 cultivation of Co-15 variety | | | |
| 4 | **Source of technology** | Farmer practice, UAS & TNAU | | | |
| 5 | **Production system and thematic area** | Irrigated – varietal evaluation | | | |
| 6 | **Performance of the technology with performance indicators** | Parameter | TO-I | TO - II | TO - III |
| | | Blast incidence | 34.2 | 2.6 | 0.8 |
| | | No.of Tillers/hill | 3.6 | 5.4 | 6.2 |
| | | Production | 9.49 | 12.74 | 15.23 |
| 7. | **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques** | Technology Parameter | TO-I | TO - II | TO - III |
| | | Reduction in Blast incidence | * | *** | **** |
| | | Production | ** | *** | **** |
| | | Net Return | * | ** | **** |
| | | * Poor ** Moderate *** Good **** Very good | | | |
| 8 | **Final recommendation for micro level situation** | Cultivation of Finger millet variety Co-15 provided better yield due to its blast resistance and increased tiller formation which increased the net return. | | | |
| 9 | **Constraints identified and feedback for research** | Co-15 had minimum blast incidence. A more resistance may be developed. Seed quality was better than local variety. | | | |
| 10 | **Process of farmers participation and their reaction** | Farmers were selected after conduction of PRA and Group meeting. Ragi practicing farmers with good self motivation participated in all OFT activities and since the varietial performance was very good in Co-15 more farmers follow technology option III for successive ragi cultivation. | | | |

| Sl.No. | Contents | Details |
|---|---|---|
| 1 | **Title of Technology Assessed** | Assessment of Aggregatum Onion varieties |
| 2 | **Problem Definition** | High bulb cost lead to increased cost of production |
| *3* | **Details of technologies selected for assessment/refinement** | **Technology Option I**<br>Cultivation of Co(On)5 variety |
| | | **Technology Option II**<br>Cultivation of Arka Ujjwal variety |

<table>
<tr><td>4</td><td>Source of technology</td><td colspan="2">TNAU, IIHR</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td colspan="2">Irrigated – varietal evaluation</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Performance of the technology with performance indicators</td><td>Technology Option I<br>Cultivation of Co(On)5 variety</td><td>No. of Bulb/plot – 6.24<br>Bulb weight (g) – 24.4</td></tr>
<tr><td>Technology Option II<br>Cultivation of Arka Ujjwal variety</td><td>No. of Bulb/plot – 4.40<br>Bulb weight (g) – 37.88</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td colspan="2">
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th></tr>
<tr><td>No. of Bulb/plot</td><td>****</td><td>***</td></tr>
<tr><td>Bulb weight (g)</td><td>***</td><td>****</td></tr>
<tr><td>Yield (Qtl/ha)</td><td>***</td><td>****</td></tr>
<tr><td>Total</td><td>10</td><td>11</td></tr>
</table>
*poor ** moderate *** good **** verygood
</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td colspan="2">Cultivation of Aggregatum Onion variety Arka ujwal through seed will give a higher bulb yield and net return.</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td colspan="2">It was found difficult to control the weeds in nursery. Suitable herbicide may be developed for easy operation</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td colspan="2">Problems in onion cultivation were identified through PRA in Adaikkampatti village. Farmers were selected by conducting group meeting based on the area cultivated by them. Demonstrations and Trainings were conducted in the village. Finally Field Day was conducted at one of the Trial farmer’s field and the trial farmer described about the technologies adopted in his field and shared his feedback to the participants.</td></tr>
</table>

**4.D1. Results of Technologies Refined –** Nil

**4.D.2. Details of each On Farm Trial for refinement=** Nil

# PART V - FRONTLINE DEMONSTRATIONS

## 4. A. Summary of FLDs implemented during 2015-16

| Category | Farming Situation | Season and Year | Crop | Variety/ breed | Hybrid | Thematic area | Technology Demonstrated | Area (ha) | | No. of farmers/ demonstration | | | Reasons for shortfall in achievement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Proposed | Actual | SC/ST | Others | Total | |
| **Oilseeds** | | | | | | | | | | | | | |
| Oilseeds | Rainfed | Kharif 2015 | Groundnut | TMV Gn 13 | - | Introduction of new variety | ➢ Groundnut– TMVGn 13 seeds (Drought tolerant variety) – 200 kg/ha<br>➢ Seed treatment (*P.fluorescens*) 10g/kg + soil application (*P.fluorescens* 2.5kg/ha) on 30 DAS<br>➢ Pre-emergence application of Pendimethalin @3.3l/ha<br>➢ TNAU Groundnut rich – 6 kgs/ha<br>➢ Seed treatment (Sulphur Oxidising Bacteria)@1kg/ha and soil application (Sulphur Oxidising Bacteria)5kg/ha on 45$^{th}$ day<br>➢ Soil drenching with Carbendazim + Mancozeb @ 2 g/lit.<br>➢ Foliar spray of NPV @ 250 LE / ha | 4 | 4 | 7 | 3 | 10 | - |
| **Pulses** | | | | | | | | | | | | | |
| Pulses | Rainfed | Kharif 2015 | Greengram | Co 8 | - | Introduction of new variety | ➢ Variety Co 8<br>➢ Seed treatment with *Rhizobium*@ 10g/kg ofseeds & *Phosphobacteria* @ 10g/kg of seeds<br>➢ Adoption of proper spacing (30x10 cm)<br>➢ Foliar spraying of urea 1% at flowering and another at 15 days interval<br>➢ Pulse wonder 1.12% at flowering<br>➢ and anotherat 15 days interval<br>➢ Spraying of Neem oil 2% | 4 | 4 | 2 | 8 | 10 | - |
| Pulses | Rainfed | Kharif 2015 | Cowpea | Co (Cp)7 | - | Introduction of new variety | ➢ Variety Co (Cp) 7<br>➢ Seed treatment with *Rhizobium*@ & *Phosphobacteria* @ 10g/kg of seeds<br>➢ Pre emergence application of<br>➢ Pendimethalin @ 2.5 litres on 3 day after sowing<br>➢ Spray NAA 40 ppm at flowering stage<br>➢ Pulse wonder @1.12% at flowering and another at 15 days interval<br>➢ Foliar spray of NSKE @ 5% | 4 | 4 | 0 | 10 | 10 | - |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pulses | Rainfed | Rabi 2015 | Bengalgram | Co4 | - | Introduction of new variety | ➢ Seed treatment with *Rhizobium &Phosphobacteria* at 10g/kg *Trichodermaviride* @ 4g/kg of seed<br>➢ Soil application of sulphur@10 kg / ha<br>➢ Pre emergence herbicide Pendimethalin @ 2.5 litres on 3rd day after sowing<br>➢ Pulse wonder 1.12% at flowering and another @ 15 days interval<br>➢ Dimethoate@ 500 ml/ha<br>➢ Pheromone trap @12/ha<br>➢ Harvesting by wearing gloves | 4 | 4 | 0 | 10 | 10 | |
| **Cereals** | | | | | | | | | | | | | |
| **Cereals** | Irrigated | Kharif 2015 | Paddy | TKM 13 | - | Introduction of new variety | ➢ Cultivation of TKM 13<br>➢ Seed treatment with *Azospirillum* 10g/kg of seeds and *P. fluorescens* @ 10 g/ kg<br>➢ Foliar spray of *Methylobacterium* @ 500ml/ha<br>➢ Seed production practices | 4 | 4 | 10 | 10 | 10 | |
| Millets | | | | | | | ➢ | | | | | | |
| Millets | Rainfed | Kharif 2015 | Kodomillet | Co 3 | - | Introduction of new variety | ➢ Variety Co3<br>➢ Adoption of proper spacing (45x10cm)<br>➢ Seed treatment with Carbendazim<br>➢ @ 2g / kg | 4 | 4 | 1 | 9 | 10 | |
| Millets | Rainfed | Kharif 2015 | Minor millets | - | - | Value addition | ➢ Value added products from Minor Millets (Chappathi Ready mix, Adai mix, Uppuma mix, Laddu) | - | - | 5 | 0 | 5 | |
| Vegetables | | | | | | | | | | | | | |
| Vegetable | Irrigated | Kharif, 2015 | Onion | Co-4 | - | Integrated Disease Manage ment | ➢ Bulb treatment with *Trichoderma viride*, @ 4g/kg Basal application of *T. viride*, @2.5kg/ha along with VAM 12.5 kg/ha<br>➢ Foliar spraying of Tebuconazole 0.15% at the time of purple blotch disease incidence<br>➢ Foliar spraying of (Azoxystrobin + Difenconazole) 0.1 % at the time of incidence of Downy Mildew | 4 | 4 | 0 | 10 | 10 | - |
| Vegetable | Irrigated | Rabi 2015 | Lablab | CoGB14 | - | Introduction of new variety | ➢ Cultivation of Lablab variety (CoGB14)<br>➢ Foliar application of Vegetable special@ 3 g/l - on 30, 50,70 & 90 DAS<br>➢ Spraying of COC @ 4g/lit – as soon as anthracnosesymptom appear<br>➢ Spraying of Malathion 50% @ 3 ml/5lit | 2 | 2 | 3 | 7 | 10 | |
| Vegetable | Irrigated | Rabi 2015 | Coriander | Arka isha | - | Introduction of new variety | ➢ Cultivation of Coriander variety Arka Isha<br>➢ Seed treatment with microbial consortium | 2 | 2 | 0 | 10 | 10 | |
| Vegetable | Irrigated | Rabi 2015 | Vegetables | - | - | Nutrition Management | ➢ Cultivation of traditional vegetable varieties<br>➢ Use of Vermicompost as basal<br>➢ Use of Panchakavya to repel pests | 2 | 2 | 0 | 10 | 10 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ➢ Use of pro-tray for nursery raising and Coco peat as medium | | | | | | |
| Fruits | | | | | | | | | | | | | |
| Fruits | Irrigated | Kharif, 2015 | Banana | Rastali | - | Integrated Disease Management | ➢ Field sanitation<br>➢ Application of recommended fertilizer dose (200:40:400)<br>➢ Removal of the dried and diseased leaves<br>➢ Alternate 2 sprays of Mineral oil 1% + Propiconozole (0.1%), Mineral oil 1% + Carbendazim (0.1%) at 20-25 days interval | 4 | 4 | 0 | 10 | 10 | - |
| Fruits | Irrigated | Kharif, 2015 | Banana | Rastali | - | Yield enhancement | ➢ Application of 100% RDF –(110 : 35 : 330 gNPK / plant)<br>➢ *Arbuscularmycorrhiza* fungi @ 250 g/plant<br>➢ *Trichodermaharzianum* @ 50 g/plant<br>➢ Phosphate Solubilizing Bacteria @50 g/plant<br>➢ *Azospirillum* -@50 g/plant<br>➢ Spraying of IIHR banana special@ 5 g / lit 4 times at 6,7,8$^{th}$ MAP | 2 | 2 | 0 | 10 | 10 | |
| Spices | | | | | | | | | | | | | |
| Spices | Irrigated | Kharif, 2015 | Turmeric | Co 2 | - | Rapid multiplication techniques | ➢ Rhizome treatment (Carbendazim 2 g /lit + Monocrotophos 2 ml /lit)<br>➢ Cut down of rhizomes into small pieces with single bud<br>➢ Sowing of rhizome pieces in pro-trays filled with coco peat + *Pseudomonas*<br>➢ Covering of trays with polythene sheet for 7 days and kept under shade<br>➢ Spraying of humic acid (0.5%) after 1 leaf emerged<br>➢ Transplanting (25-30 days) | 2 | 2 | 0 | 10 | 10 | |
| Cash Crop | Rain fed | Kharif, 2015 | Cotton | MRC-7918 | - | Integrated Pest Management | ➢ Summer ploughing<br>➢ Refugia crop – Non Bt Cotton<br>➢ Installation of Pheromone trap with Sl lure @12 no's/ ha during *Spodoptera litura* incidence<br>➢ Setting up of light trap @ 1/acre<br>➢ Blue cloth spreading<br>➢ Provide poison bait with Thiodicarb 75 WP @ 1 kg with rice bran 12.5 kg, jaggery 1.25 kg and water 7.5 lit/ha<br>➢ Foliar spray of NPV @ 1.5 x $10^{12}$POBs/ha *i.e.* (NPV of *S.litura* 0.43% AS @ 3.0 ml/lit )<br>➢ Foliar spray of *Diflubenzuron* 25%WP 300-350 g/ha | 4 | 4 | 0 | 10 | 10 | - |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fodder crops | | Kharif 2015 | Cumbu Napier | Co FS 31 | - | | ➢ Form ridges and furrows using a ridge maker, 60 cm apart<br>➢ Soil Test based fertilizer application<br>➢ First cut on 75-80 days after planting and subsequent cuttings at 45 days interval<br>➢ CO(CN)5 fodder to be fed @ 15-20kg/animal in addition with other forage crops | 1 | 1 | 2 | 13 | 15 | |
| Fodder crops | | Kharif 2015 | Fodder sorghum | Co (CN)5 | - | | ➢ Form ridges and furrows using a ridge maker, 60 cm apart<br>➢ Planting55 cm apart and 4Kg seed/acre.<br>➢ Immediately after planting, give STL based fertilizer application<br>➢ First cut on 75-80 days after<br>➢ CO FS 31 fodder to be fed @ 10kg/ animal in addition with other forage crops | 1 | 1 | 0 | 25 | 25 | |
| Plantation Crop | Irrigated | Kharif, 2015 | Coconut | Long | - | Integrated Pest Management | ➢ Application of *Metarhizium anisopliae* in manure pits @ 1 kg / acre<br>➢ Soak castor cake @ 1 kg in 5 lit mud pots and place in coconut garden<br>➢ Neem seed powder + sand (1:2) @ 150 g/ palm in the base of the 3 inner most leaves in the crown | 4 | 4 | 0 | 10 | 10 | - |
| Rumin ants | - | Kharif 2015 | Ruminants | - | `- | Disease management | ➢ Therapy for mastitis in cows<br>➢ Apply paste made of *Aloe vera*,turmeric,lime@ 250gm,20gm, 10gm. respectively externally on affected udder.<br>➢ Therapy for enteritis in goats &sheep<br>➢ Take 20gm of cumin,20gm. of fenugreek,20gm of poppy seeds,5 gm. of asafoetida, 5 gm. of pepper, 5 gm. of turmeric and finely powder it.<br>➢ Add garlic, Onion,palm-jaggery at sufficient quantity to the powder and make paste<br>➢ This dosage is fed to a goat | - | - | 4 | 6 | 10 | |
| Livestock | - | | Dairy | - | - | Feeding management | ➢ Rotational deworming with broad spectrum deworming drugs namely Fenbendazole, Albendazole, Ivermectin @ 5mg /kg, 10mg/kg, 200 micrograms/kg at 2$^{rd}$ week, 3$^{th}$ month, 5$^{th}$ month thereafter once in two months.<br>➢ Vaccination against FMD once in six months Balanced feeding enriched with TANUVAS Area Specific Mineral Mixture @ 30gm/day | - | - | 4 | 16 | 20 | |

## 5.A. 1. Soil fertility status of FLDs plots during 2015-16

| Sl. No. | Category | Farming Situation | Season and Year | Crop | Variety/ breed | Hybrid | Thematic area | Technology Demonstrated | Season and Year | Status of soil | | | Previous crop grown |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | N | P | K | |
| | **Oilseeds** | | | | | | | | | | | | |
| **1** | Oilseeds | Rainfed | Kharif 2015 | Groundnut | TMV Gn 13 | - | Introduction of new variety | ➢ Groundnut– TMVGn 13 seeds (Drought tolerant variety) – 200 kg/ha<br>➢ Seed treatment (*P.fluorescens*) 10g/kg + soil application (*P.fluorescens* 2.5kg/ha) on 30 DAS<br>➢ Pre-emergence application of Pendimethalin @3.3l/ha<br>➢ TNAU Groundnut rich – 6 kgs/ha<br>➢ Seed treatment (Sulphur Oxidising Bacteria)@1kg/ha and soil application (Sulphur Oxidising Bacteria)5kg/ha on 45$^{th}$ day<br>➢ Soil drenching with Carbendazim + Mancozeb @ 2 g/lit.<br>➢ Foliar spray of NPV @ 250 LE / ha | Kharif 2015 | M | L | M | Groundnut |
| | **Pulses** | | | | | | | | | | | | |
| **2** | Pulses | Rainfed | Kharif 2015 | Greengram | Co 8 | - | Introduction of new variety | ➢ Variety Co 8<br>➢ Seed treatment with *Rhizobium*@ 10g/kg ofseeds & *Phosphobacteria* @ 10g/kg of seeds<br>➢ Adoption of proper spacing (30x10 cm)<br>➢ Foliar spraying of urea 1% at flowering and another at 15 days interval<br>➢ Pulse wonder 1.12% at flowering<br>➢ and anotherat 15 days interval<br>➢ Spraying of Neem oil 2% | Kharif 2015 | M | L | M | Greengram |
| **3** | Pulses | Rainfed | Kharif 2015 | Cowpea | Co (Cp)7 | - | Introduction of new variety | ➢ Variety Co (Cp) 7<br>➢ Seed treatment with *Rhizobium*@ & *Phosphobacteria* @ 10g/kg of seeds<br>➢ Pre emergence application of<br>➢ Pendimethalin @ 2.5 litres on 3 day after sowing<br>➢ Spray NAA 40 ppm at flowering stage<br>➢ Pulse wonder @1.12% at flowering and another at 15 days interval<br>➢ Foliar spray of NSKE @ 5% | Kharif 2015 | L | L | L | Greengram |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4** | Pulses | Rainfed | Rabi 2015 | Bengalgram | Co4 | - | Introduction of new variety | ➢ Seed treatment with *Rhizobium &Phosphobacteria* at 10g/kg *Trichodermaviride* @ 4g/kg of seed<br>➢ Soil application of sulphur@10 kg / ha<br>➢ Pre emergence herbicide Pendimethalin @ 2.5 litres on 3rd day after sowing<br>➢ Pulse wonder 1.12% at flowering and another @ 15 days interval<br>➢ Dimethoate@ 500 ml/ha<br>➢ Pheromone trap @12/ha<br>➢ Harvesting by wearing gloves | Rabi 2015 | L | M | M | Glackgram |
| | **Cereals** | | | | | | | | | | | | |
| **5** | **Cereals** | Irrigated | Kharif 2015 | Paddy | TKM 13 | - | Introduction of new variety | ➢ Cultivation of TKM 13<br>➢ Seed treatment with *Azospirillum* 10g/kg of seeds and *P. fluorescens* @ 10 g/ kg<br>➢ Foliar spray of *Methylobacterium* @ 500ml/ha<br>➢ Seed production practices | Kharif 2015 | L | M | M | Paddy |
| | Millets | | | | | | | | | | | | |
| **6** | Millets | Rainfed | Kharif 2015 | Kodomillet | Co 3 | - | Introduction of new variety | ➢ Variety Co3<br>➢ Adoption of proper spacing (45x10cm)<br>➢ Seed treatment with Carbendazim<br>➢ @ 2g / kg | Kharif 2015 | L | M | M | Cowpea |
| **7** | Millets | Rainfed | Kharif 2015 | Minor millets | - | - | Value addition | ➢ Value added products from Minor Millets (Chappathi Ready mix, Adai mix, Uppuma mix, Laddu) | Kharif 2015 | | | | |
| | Vegetables | | | | | | | | | | | | |
| **8** | Vegetable | Irrigated | Kharif, 2015 | Onion | Co-4 | - | Integrated Disease Management | ➢ Bulb treatment with *Trichoderma viride*, @ 4g/kg Basal application of *T. viride*, @2.5kg/ha along with VAM 12.5 kg/ha<br>➢ Foliar spraying of Tebuconazole 0.15% at the time of purple blotch disease incidence<br>➢ Foliar spraying of (Azoxystrobin + Difenconazole) 0.1 % at the time of incidence of Downy Mildew | Kharif, 2015 | L | M | M | Onion |
| **9** | Vegetable | Irrigated | Rabi 2015 | Lablab | CoGB14 | - | Introduction of new variety | ➢ Cultivation of Lablab variety (CoGB14)<br>➢ Foliar application of Vegetable special@ 3 g/l - on 30, 50,70 & 90 DAS<br>➢ Spraying of COC @ 4g/lit – as soon as anthracnosesymptom appear<br>➢ Spraying of Malathion 50% @ 3 | Rabi 2015 | L | M | L | Onion |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | ml/5lit | | | | | |
| **10** | Vegetable | Irrigated | Rabi 2015 | Coriander | Arka isha | - | Introduction of new variety | ➢ Cultivation of Coriander variety Arka Isha<br>➢ Seed treatment with microbial consortium | Rabi 2015 | L | M | L | Coriander |
| **11** | Vegetable | Irrigated | Rabi 2015 | Vegetables | - | - | Nutrition Management | ➢ Cultivation of traditional vegetable varieties<br>➢ Use of Vermicompost as basal<br>➢ Use of Panchakavya to repel pests<br>➢ Use of pro-tray for nursery raising and Coco peat as medium | Rabi 2015 | | | | |
| | Fruits | | | | | | | | | | | | |
| **12** | Fruits | Irrigated | Kharif, 2015 | Banana | Rastali | - | Integrated Disease Management | ➢ Field sanitation<br>➢ Application of recommended fertilizer dose (200:40:400)<br>➢ Removal of the dried and diseased leaves<br>➢ Alternate 2 sprays of Mineral oil 1% + Propiconozole (0.1%), Mineral oil 1% + Carbendazim (0.1%) at 20-25 days interval | Kharif, 2015 | L | M | M | Banana |
| **13** | Fruits | Irrigated | Kharif, 2015 | Banana | Rastali | - | Yield enhancement | ➢ Application of 100% RDF –(110 : 35 : 330 gNPK / plant)<br>➢ *Arbuscularmycorrhiza* fungi @ 250 g/plant<br>➢ *Trichodermaharzianum* @ 50 g/plant<br>➢ Phosphate Solubilizing Bacteria @50 g/plant<br>➢ *Azospirillum* -@50 g/plant<br>➢ Spraying of IIHR banana special@ 5 g / lit 4 times at 6,7,8$^{th}$ MAP | Kharif, 2015 | M | M | L | Banana |
| | Spices | | | | | | | | | | | | |
| **14** | Spices | Irrigated | Kharif, 2015 | Turmeric | Co 2 | - | Rapid multiplication techniques | ➢ Rhizome treatment (Carbendazim 2 g /lit + Monocrotophos 2 ml /lit)<br>➢ Cut down of rhizomes into small pieces with single bud<br>➢ Sowing of rhizome pieces in pro-trays filled with coco peat + *Pseudomonas*<br>➢ Covering of trays with polythene sheet for 7 days and kept undershade<br>➢ Spraying of humic acid (0.5%) after 1 leaf emerged<br>➢ Transplanting (25-30 days) | Kharif, 2015 | L | M | M | Onion |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **15** | Cash Crop | Rain fed | Kharif, 2015 | Cotton | MRC-7918 | - | Integrated Pest Management | ➢ Summer ploughing<br>➢ Refugia crop – Non Bt Cotton<br>➢ Installation of Pheromone trap with S lure @12 no's/ ha during *Spodoptera litura* incidence<br>➢ Setting up of light trap @ 1/acre<br>➢ Blue cloth spreading<br>➢ Provide poison bait with Thiodicarb 75 WP @ 1 kg with rice bran 12.5 kg, jaggery 1.25 kg and water 7.5 lit/ha<br>➢ Foliar spray of NPV @ 1.5 x $10^{12}$POBs/ha *i.e.* (NPV of *S.litura* 0.43% AS @ 3.0 ml/lit )<br>➢ Foliar spray of *Diflubenzuron* 25%WP 300-350 g/ha | Kharif, 2015 | L | M | L | Cotton |
| **16** | Fodder crops | | Kharif 2015 | Cumbu Napier | Co FS 31 | - | Feed & Fodder Management | ➢ Form ridges and furrows using a ridge maker, 60 cm apart<br>➢ Soil Test based fertilizer application<br>➢ First cut on 75-80 days after planting and subsequent cuttings at 45 days interval<br>➢ CO(CN)5 fodder to be fed @ 15-20kg/animal in addition with other forage crops | Kharif 2015 | L | M | L | Sorghum |
| **17** | Fodder crops | | Kharif 2015 | Fodder sorghum | Co (CN)5 | - | Feed & Fodder Management | ➢ Form ridges and furrows using a ridge maker, 60 cm apart<br>➢ Planting55 cm apart and 4Kg seed/acre.<br>➢ Immediately after planting, give STL based fertilizer application<br>➢ First cut on 75-80 days after<br>➢ CO FS 31 fodder to be fed @ 10kg/ animal in addition with other forage crops | Kharif 2015 | L | M | L | Cotton |
| **18** | Plantation Crop | Irrigated | Kharif, 2015 | Coconut | Long | - | Integrated Pest Management | ➢ Application of *Metarhizium anisopliae* in manure pits @ 1 kg / acre<br>➢ Soak castor cake @ 1 kg in 5 lit mud pots and place in coconut garden<br>➢ Neem seed powder + sand (1:2) @ 150 g/ palm in the base of the 3 inner most leaves in the crown | Kharif, 2015 | M | L | L | Coconut |

## 5.B.1. Crops

| Crop | Name of the technology demonstrated | Variety | Hybrid | Farming situation | No. of Demo. | Area (ha) | Yield (q/ha) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Demo | | | Check | |
| | | | | | | | H | L | A | | |
| **Oilseeds** | | | | | | | | | | | |
| Groundnut | Demonstration on Groundnut TMV Gn 13 | TMV Gn 13 | - | Rainfed | 10 | 4 | 15.87 | 13.26 | 14.56 | 11.00 | 29.73 |
| **Pulses** | | | | | | | | | | | |
| Greengram | Demonstration on Green gram variety Co8 | Co8 | - | Rainfed | 10 | 4 | 7.1 | 5.58 | 6.34 | 5.10 | 27.25 |
| Cowpea | Demonstration on Cowpea variety Co7 | Co7 | - | Rainfed | 10 | 4 | 9.0 | 7.76 | 8.38 | 6.77 | 20.59 |
| Bengalgram | Demonstration on Bengalgram variety Co4 | Co4 | | Irrigated | 10 | 4 | 8.54 | 7.43 | 7.98 | 6.25 | 26.98 |
| **Cereals** | | | | | | | | | | | |
| Paddy | Demonstration on TKM 13 Paddy variety and seed production | TKM 13 | - | Irrigated | 10 | 4 | 54.02 | 47.87 | 50.94 | 43.75 | 16.64 |
| **Millets** | | | | | | | | | | | |
| Kodo millet | Demonstration on Kodo millet Co3 | Co3 | - | Rainfed | 10 | 4 | 13.76 | 12.23 | 12.99 | 9.78 | 31.90 |
| Millets | Value addition | Variety | - | - | 5 | - | - | - | - | - | - |
| **Vegetables** | | | | | | | | | | | |
| Lablab | Demo on Lablab variety CoGB14 | CoGB14 | - | Irrigated | 10 | 2 | 78.00 | 63.50 | 70.15 | 51.80 | 26.16 |
| Vegetables | Kitchen Garden | Variety | - | Irrigated | 10 | 0.2cent | 180 | 130 | - | - | - |
| Onion | Integrated Disease Management | Co-4 | - | Irrigated | 10 | 4 | 141.75 | 118.75 | 129.85 | 93.75 | 27.8 |
| **Fruits** | | | | | | | | | | | |
| Banana | Yield Enhancement in Banana through Efficient input management | Rastali | - | Irrigated | 10 | 2 | 369.52 | 330.98 | 356.58 | 303.54 | 14.87 |
| Banana | Integrated Disease Management | Rasthali | - | Irrigated | 10 | 4 | 49 | 42 | 45.8 | 37.1 | 18.34 |
| **Spices** | | | | | | | | | | | |
| Turmeric | Rapid multiplication technic in turmeric | Co2 | - | Irrigated | 10 | 2 | 305 | 235 | 272.0 | 245.5 | 9.74 |
| Coriander | Demo on multicut coriander variety Arka isha | Arka isha | - | Irrigated | 10 | 2 | 80.60 | 66.94 | 73.17 | 40.94 | 44.05 |
| **Fibre** | | | | | | | | | | | |
| Cotton | Integrated Pest Management for *Spodoptera litura* in cotton | - | MRC 7981 | Rainfed | 10 | 4 | 16.88 | 13.88 | 15.38 | 13.21 | 14.11 |
| **Plantation** | | | | | | | | | | | |
| **Coconut** | Integrated Pest Management practices for rhinocerous beetle in coconut | long | - | Irrigated | 10 | 4 | 12165 | 9138 | 10941.57 | 6610.36 | 39.58 |
| Dairy | Demonstration Fodder sorghum Co31 production for dairy farmers | CoFS31 | - | - | 15 | 15 | 2328 | 1623 | 2153.14 | 1774.85 | 21.54 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dairy | Demo on Cumbu Napier hybrid grass Co(CN)5 production for small, marginal dairy farmers | Co5 | - | - | 25 | 25 | 2208 | 1872 | 2051.2 | 1702.0 | 20.52 |
| 2014-15 | | | | | | | | | | | |
| **Tuber crops** | | | | | | | | | | | |
| Tapioca | Demo on Tapioca variety Yethapur 1 | Yethapur 1 | - | Irrigated | 10 | 2 | 485.0 | 410.0 | 436.5 | 354.0 | 18.90 |

| | **Economics of demonstration (Rs./ha)** | | | | **Economics of check (Rs./ha)** | | | |
|---|---|---|---|---|---|---|---|---|
| | **Gross Cost** | **Gross Return** | **Net Return** | **** BCR** | **Gross Cost** | **Gross Return** | **Net Return** | **** BCR** |
| Demonstration on Groundnut TMV Gn 13 | 35956.3 | 75625.7 | 39669.4 | 2.10 | 30340.7 | 49518 | 19177.3 | 1.60 |
| Demonstration on Green gram variety Co8 | 14401 | 35717 | 21316 | 2.40 | 15479 | 28083 | 12604 | 1.80 |
| Demonstration on Cowpea variety Co7 | 17374 | 38488 | 21114 | 2.20 | 16935 | 28447 | 11512 | 1.60 |
| Demonstration on Bengalgram variety Co4 | 21833 | 41480 | 19648 | 2.00 | 20937 | 27535 | 6598.7 | 1.30 |
| Demonstration on TKM 13 Paddy variety and seed production | 36421 | 91870 | 55450 | 2.50 | 33567 | 61261 | 27695 | 1.80 |
| Demonstration on Kodo millet Co3 | 21673 | 39008 | 17335 | 1.80 | 19087 | 28377 | 9289.7 | 1.50 |
| Value Addition | 1960 | 3180 | 1220 | 1.60 | - | - | - | - |
| Demo on Lablab variety CoGB14 | 41907 | 98210 | 56303 | 2.34 | 40188 | 65100 | 24912 | 1.62 |
| Kitchen Garden | 1350 | 3236.1 | 1886.1 | 2.34 | - | - | - | - |
| Integrated Disease Management in Onion | 44124 | 129850 | 85726 | 2.95 | 41404.5 | 93735 | 52340 | 2.27 |
| Yield Enhancement in Banana through Efficient input management | 133647 | 285266 | 151619 | 2.13 | 141961 | 242835 | 100874 | 1.71 |
| Integrated Disease Management in Banana | 152251 | 366400 | 214149 | 2.41 | 155297 | 296800 | 141503 | 1.91 |
| Rapid multiplication technic in turmeric | 127161 | 326400 | 199239 | 2.57 | 150467 | 294600 | 144133 | 1.96 |
| Demo on multicut coriander variety Arka isha | 38766 | 109755 | 70989 | 2.83 | 29.822 | 61410 | 31588 | 2.06 |
| Integrated Pest Management for *Spodoptera litura* in cotton | 48939 | 69200 | 20260 | 1.41 | 50569 | 59500 | 8930 | 1.18 |
| Integrated Pest Management practices for rhinocerous beetle in coconut | 11057 | 43765.71 | 32708.27 | 3.96 | 11714 | 26441.43 | 14727.14 | 2.27 |
| Demonstration Fodder sorghum Co31 production for dairy farmers | 22563.20 | 62433.60 | 39870.40 | 2.77 | 17020 | 42550 | 25530 | 2.50 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Demo on Cumbu Napier hybrid grass Co(CN)5 production for small, marginal dairy farmers | 26478.72 | 69577.12 | 43098.40 | 2.63 | 18396.40 | 44151.36 | 25754.96 | 2.40 |
| **2014-15** | | | | | | | | |
| Demo on Tapioca variety Yethapur 1 | 50175 | 130950 | 80775 | 2.61 | 48488 | 106200 | 57712 | 2.19 |

**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/ diseases etc.)**

| Name of the technology | Data on other parameters in relation to technology demonstrated | | |
|---|---|---|---|
| | **Parameter** | **Demo** | **Check** |
| **Demonstration on Groundnut TMV(Gn) 13** | No.of Plant/m² | 27.1 | 21.2 |
| | Days to first flowering | 30.6 | 30.9 |
| | No.of Pods/plant | 26.1 | 20.1 |
| | No.of Weeds/ m² | 11.7 | 23.1 |
| | Duration (days) | 104.2 | 104.6 |
| **Demonstration on Greengram Co8** | No.of Plant/ m² | 29.2 | 23.3 |
| | Days to first flowering | 25.7 | 31.3 |
| | No.of pods/plant | 32.2 | 25.6 |
| **Demonstration on Cowpea Co7** | No.of Plant/ m² | 12.4 | 10.1 |
| | Days to first flowering | 31.5 | 36.1 |
| | No.of pods/plant | 28.4 | 22.1 |
| **Demonstration on Bengalgram Co4** | No.of Plant/ m² | 29.2 | 22.5 |
| | Days to first flowering | 35.7 | 35.9 |
| | No.of pods/plant | 22.5 | 17.4 |
| | Duration (Days) | 84.3 | 84.6 |
| **Demonstration on TKM 13 Paddy variety and seed production** | No.of productive tiller/hill | 23 | 18.7 |
| | PDI% | 24.81 | 40.52 |
| | No.of grains/plant | 258.6 | 211.1 |

| | | | |
|---|---|---|---|
| **Demonstration on Kodo millet Co3** | No.of Plant/ m² | 20.7 | 17.2 |
| | Days to first flowering | 65.1 | 69.6 |
| | No.of grains/plant | 174.1 | 153.4 |
| | Duration (Days) | 119.7 | 124.7 |
| **Value addition in Millets** | Shelf life (days) | 90 | - |
| | Consumer acceptability (%) | 84 | - |
| **Demonstration on Lablab variety CoGB14** | Days to first flowering | 41.5 | 44.8 |
| | No. of pods / plant | 46.8 | 38.6 |
| | PDI for anthrocnose | 4.32 | 22.15 |
| | Yield (kg / ha) | 7015 | 5180 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Integrated Disease Management in onion** | **Parameter with unit** | **Demo** | | | **Local** | | | |
| | Purple Blotch (PDI) | **Before** | **75 DAS** | **90 DAS** | **Before** | **75 DAS** | **90 DAS** | |
| | | 1.48 | 0.41 | 0.73 | 1.70 | 3.56 | 4.82 | |
| | Bulb rot disease / $m^2$ | **20 DAS** | **35 DAS** | **50 DAS** | **20 DAS** | **35 DAS** | **50 DAS** | |
| | | 0.15 | 0.45 | 1.03 | 4.5 | 9.5 | 14.78 | |
| | Downy Mildew (PSI) | **Before** | **35 DAS** | **50 DAS** | **Before** | **35 DAS** | **50 DAS** | |
| | | 68.25 | 16.85 | 27.04 | 44.48 | 68.41 | 80.30 | |
| | **Parameter with unit** | **Demo** | | | **Local** | | | |
| **Yield enhancement in Banana through efficient input management** | Wilt affected plants / ha | 0.3 | | | 8.5 | | | |
| | No. of hands / bunch | 6.46 | | | 5.94 | | | |
| | Bunch weight | 15.73 | | | 13.44 | | | |
| | Yield (q/ha) | 356.58 | | | 303.54 | | | |
| | **Parameter with unit** | **Demo** | | | | **Local** | | |
| **Integrated Disease Management in Banana** | | **Before** | **First spray** | **Second spray** | **Third Observation** | **Before** | **First spray** | **Second spray** | **Third Observation** |
| | Banana sigatoka leaf spot (PDI) | 2.32 | 5.49 | 10.22 | 14.36 | 1.97 | 12.63 | 24.73 | 36.88 |
| | No. of hands/ bunch (no) | 9.18 | 7.65 | | | | | | |
| | No. of fingers/ hands (no) | 11.69 | 9.66 | | | | | | |
| | **Parameter with unit** | **Demo** | | | | **Local** | | | |
| **Rapid multiplication techniques in Turmeric** | No. of sprouts / tray | 49.42 | | | | 0 | | | |
| | No. of plants / m2 | 11.74 | | | | 11.06 | | | |
| | No. of rhizomes / plant | 14.72 | | | | 12.74 | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Yield (q/ha) | 245.5 | | | 272.0 | | | | |
| | **Parameter with unit** | **Demo** | | | **Local** | | | | |
| **Demonstration on Coriander variety Co(Cr)** | PDI for wilt | 0.61 | | | 10.91 | | | | |
| | Days to 1st harvest | 41.0 | | | 49.1 | | | | |
| | Duration | 61.4 | | | 51.9 | | | | |
| | Herbage yield (q/ha) | 7318 | | | 4094 | | | | |
| | **Parameter with unit** | **Demo** | | | **Local** | | | | |
| **Integrated Pest Management for *Spodoptera litura* in cotton** | Pheromone trap counts | **90 DAS** | **97 DAS** | | **114 DAS** | **120 DAS** | - | | |
| | | 9.3 | 18.84 | | 9.78 | 23.6 | - | | |
| | No. of egg mass/ $m^2$ | **75 DAS** | | | **105 DAS** | | **75 DAS** | **105 DAS** | |
| | | 0.3 | | | 0.2 | | 0.1 | 0.7 | |
| | No. of larva/ plant | **75 DAS** | **90 DAS** | | **105 DAS** | **120 DAS** | **75 DAS** | **90 DAS** | **105 DAS** | **120 DAS** |
| | | 0.94 | 0.37 | | 0.21 | 0.14 | 1 | 1.41 | 1.54 | 1.15 |
| | No. of square damaged / plant | **75 DAS** | **90 DAS** | | **105 DAS** | **120 DAS** | **75 DAS** | **90 DAS** | **105 DAS** | **120 DAS** |
| | | 1.69 | 0.53 | | 0.43 | 1.16 | 1.63 | 2.33 | 2.59 | 3.93 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Integrated Pest Management practices for Rhinocerous beetle in coconut** | | | | | | |
| | No. of fronds affected/ tree | **Before** | **After** | | **Before** | **After** |
| | | **4.03** | **0.82** | | **4.16** | **5.68** |
| | Infested tree/ ha (%) | **28.9** | **11.83** | | **26.43** | **49** |
| | No. of beetle trapped/ pots | | **Week 1** | **Week 2** | | |
| | | | 3.26 | 14.68 | | |
| | **Parameter** | **Demo** | | | **Check** | |
| **Demonstration on Fodder Sorghum Co31 production fo dairy farmers** | Milk yield in litres | 2051.2 | | | 1702 | |
| | **Parameter** | **Demo** | | | **Check** | |
| **Demo on Cumbu Napier hybrid grass Co(CN)5 production for small, marginal dairy farmers** | Milk yield in litres | 2153.14 | | | 1774.85 | |
| **2014-15** | **Parameter** | **Demo** | | | **Check** | |
| Demo on Tapioca variety Yethapur 1 | Yellow leaves / $m^2$ | 0.4 | | | 3.6 | |
| | Tuber length (cm) | 42.6 | | | 36.8 | |
| | Tuber girth (cm) | 61.2 | | | 12.6 | |

## 5.B.2. Livestock and related enterprises

| Type of livestock | Name of the technology demonstrated | Breed | No. of Demo. | No. of animals | Yield (liter/lactation) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | | | Check | |
| | | | | | H | L | A | | |
| Dairy | Packages & Practices of calf management up to one year | Cross breed dairy cows | 10 | 20 | - | - | - | - | - |
| Dairy | Demonstration on Packages of Ethino veterinary medicines on Ruminants | Cross breed dairy cows | 10 | 10 | - | - | - | - | - |

| | *Economics of demonstration (Rs.) | | | | *Economics of check (Rs.) | | | |
|---|---|---|---|---|---|---|---|---|
| | Gross Cost | Gross Return | Net Return | ** BCR | Gross Cost | Gross Return | Net Return | ** BCR |
| Packages & Practices of calf management up to one year | 9531.00 | 26475 | 16944 | 2.78 | 8472 | 18160 | 9688 | 2.15 |
| Demonstration on Packages of Ethino veterinary medicines on Ruminants | 1715.00 | 4975 | 3260 | 2.90 | 1671.60 | 3400 | 1728.4 | 2.04 |

**Data on additional parameters**

| | Parameter | Demo | Check |
|---|---|---|---|
| **Packages and Practices of Calf Management up to one year** | Body weight of calf at birth | 28.2 Kg | 27.9 Kg. |
| | Body weight of calf at 6 months | 105.9 Kg | 88.5 Kg. |
| | **Parameter** | **Demo** | **Check** |
| **Demonstration on Packages of ethinoveterinary medicines on Ruminants** | Days to recovery | 2.4 | 5.6 |
| | Milk fat (%) | 3.27 | 3.22 |

## 5.B.3. Fisheries – Nil

| Type of Breed | Name of the technology demonstrated | Breed | No. of Demo. | Area (acre) | Yield (kg/acre) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | | | Check | |
| | | | | | H | L | A | | |
| | | | | | | | | | |

## 5.B. 4. Integrated Farming System (2015-16)

| Crop | Name of the technology demonstrated | Variety | Hybrid | Farming situation | No. of Demo. | Area (ha) | Yield (q/ha) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Demo | | | Check | |
| | | | | | | | H | L | A | | |
| Fodder | IFS for Drylands | Co4, CoFs 29 | NA | Rainfed | 3 | 3.15 | 19 | 11 | 14 | 15 | NA |
| Goat | | Tellichery, Sirohi | | | | | 0.40Kg | 0.36 Kg | 0.37 | 0.25 | |
| Desibirds | | Native | | | | | 0.14 | 0.12 | 0.12 | 0.8 | |
| Vermicompost | | Silpauline | | | | | 1.40 | 0.86 | 1.07 | - | |
| Azolla | | Pit | | | | | 3.0 | 0.4 | 1.4 | - | |
| Beehive | | Box | | | | | 0.05 | 0.00 | 0.03 | - | |

| | *Economics of demonstration (Rs./ha) | | | | *Economics of check (Rs./ha) | | | |
|---|---|---|---|---|---|---|---|---|
| | GrossCost | GrossReturn | Net Return | **BCR | GrossCost | GrossReturn | Net Return | **BCR |
| IFS for Drylands | 109866 | 279837 | 169971 | 2.54 | 105000 | 168000 | 63000 | 1.60 |

| Data on other parameters in relation to technology demonstrated | | |
|---|---|---|
| Parameter with unit | Demo | Check if any |
| Employment Mandays /year | 365 | 150 |
| Income Generation rupees/month | 14,164 | 5250 |
| Soil Fertility status/Organic Carbon % | Under progress | - |

## 5.B.5. Farm implements and machinery – Nil

## 5.B.6 Extension and Training activities under FLD

| Sl.No. | Activity | No. of activities organized | Number of participants | Remarks |
|---|---|---|---|---|
| 1 | Field days | 18 | 1286 | - |
| 2 | Farmers Training | 82 | 1915 | - |
| 3 | Media coverage | 8 | Mass | - |
| 4 | Training for extension functionaries | 2 | 24 | - |
| 5 | Others (Please specify)<br>Demonstration<br>Group meeting | <br>40<br>26 | <br>540<br>574 | - |

## PART VI – DEMONSTRATIONS ON CROP HYBRIDS

### Demonstration details on crop hybrids

| Type of Breed | Name of the technology demonstrated | Name of the hybrid | No. of Demo | Area (ha) | Yield (q/ha) | | | | % Increase | *Economics of demonstration (Rs./ha) | | | | *Economics of check (Rs./ha) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | | | Check | | Gross Cost | Gross Return | Net Return | ** BCR | Gross Cost | Gross Return | Net Return | ** BCR |
| | | | | | H | L | A | | | | | | | | | | |
| **Fibre crops** | | | | | | | | | | | | | | | | | |
| Cotton | Integrated Pest Management for *Spodoptera litura* in cotton | MRC 7981 | 10 | 4 | 16.88 | 13.88 | 15.38 | 13.21 | 14.11 | 48939 | 69200 | 20260 | 1.41 | 50569 | 59500 | 8930 | 1.18 |

# *IV. Training Programme*

**Training for Farmers and Farm Women including sponsored training programmes (ON campus)**

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **Crop Production** | | | | | | | | | | |
| Integrated Crop Management | 3 | 71 | 15 | **86** | 20 | 0 | **20** | 91 | 15 | **106** |
| Soil and Water Conservation | | | | | | | | | | |
| Production of organic inputs | 3 | 30 | 33 | **63** | 17 | 25 | **42** | 47 | 58 | **105** |
| **Horticulture** | | | | | | | | | | |
| **a) Vegetable Crops** | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 25 | 0 | **25** | 0 | 0 | **0** | 25 | 0 | **25** |
| Organic Terrace gardening | 1 | 18 | 0 | **18** | 0 | 0 | **0** | 18 | 0 | **18** |
| **f) Spices** | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| **Livestock Production and Management** | | | | | | | | | | |
| Dairy Management | | | | | | | | | | |
| Feed and Fodder technology | 2 | 19 | 1 | **20** | 5 | 1 | **6** | 24 | 2 | **26** |
| Production of quality animal products | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Poultry Management | 1 | 8 | 0 | **8** | 3 | 0 | **3** | **11** | **0** | **11** |
| Goat farming | 1 | 18 | 0 | **18** | 0 | 0 | **0** | **18** | **0** | **18** |
| Composite fish culture | | | | | | | | | | |
| **Home Science/Women empowerment** | | | | | | | | | | |
| Value addition | 3 | 1 | 28 | **29** | 37 | 27 | **64** | 38 | 55 | **93** |
| **Plant Protection** | | | | | | | | | | |
| Integrated Pest Management | 1 | 22 | 0 | **22** | 7 | 0 | **7** | 29 | 0 | **29** |
| **Production of Inputs at site** | | | | | | | | | | |
| Production of Fish feed | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mushroom production | 1 | 11 | 6 | **17** | 16 | 0 | **16** | **27** | **6** | **33** |
| **Capacity Building and Group Dynamics** | | | | | | | | | | |
| Formation and Management of SHGs | 2 | 40 | 0 | **40** | 5 | 0 | **5** | 45 | 0 | **45** |
| Mobilization of social capital | | | | | | | | | | |
| Entrepreneurial development of farmers/youths | | | | | | | | | | |
| **TOTAL** | **19** | **263** | **83** | **346** | **110** | **53** | **163** | **373** | **136** | **509** |

**Training for Farmers and Farm Women including sponsored training programmes (OFF campus)**

| **Area of training** | **No. of Courses** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **General** | | | **SC/ST** | | | **Grand Total** | | |
| | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **Crop Production** | | | | | | | | | | |
| Integrated Crop Management | 4 | 35 | 5 | **40** | 9 | 14 | **23** | 44 | 19 | **63** |
| Soil and Water Conservation | 2 | 40 | 1 | **41** | 3 | 0 | **3** | 43 | 1 | **44** |
| Integrated Nutrient Management | 1 | 9 | 1 | **10** | 1 | 2 | **3** | 10 | 3 | **13** |
| **Horticulture** | | | | | | | | | | |
| **a) Vegetable Crops** | | | | | | | | | | |
| Protective cultivation | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 32 | 0 | **32** | 0 | 0 | **0** | 32 | 0 | **32** |
| Propagation techniques of Ornamental Plants | | | | | | | | | | |
| **b) Fruits** | | | | | | | | | | |
| Others | | | | | | | | | | |
| Integrated Nutrient Management | 2 | 33 | 0 | **33** | 1 | 0 | **1** | 34 | 0 | **34** |
| **f) Spices** | | | | | | | | | | |
| Production and Management technology | 3 | 34 | 0 | **34** | 4 | 0 | **4** | 38 | 0 | **38** |
| Others (pl.specify) | | | | | | | | | | |
| **Livestock Production and Management** | | | | | | | | | | |
| Dairy Management | 4 | 43 | 8 | **51** | 3 | 7 | **10** | 46 | 15 | **61** |
| Feed and Fodder technology | 6 | 60 | 32 | **92** | 10 | 24 | **34** | 70 | 56 | **126** |
| Production of quality animal products | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Others (pl.specify) IFS for Dry lands | 2 | 37 | 3 | **40** | 0 | 0 | **0** | 37 | 3 | **40** |
| Animal disease management | 1 | 14 | 0 | **14** | 0 | 0 | **0** | 14 | 0 | **14** |
| **Home Science/Women empowerment** | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| **Plant Protection** | | | | | | | | | | |
| Integrated Pest Management | 4 | 74 | 4 | **78** | 3 | 0 | **3** | 77 | 4 | **81** |
| Integrated Disease Management | 2 | 22 | 5 | **27** | 0 | 0 | **0** | 22 | 5 | **27** |
| **Capacity Building and Group Dynamics** | | | | | | | | | | |
| Leadership development | | | | | | | | | | |
| Group dynamics | 1 | 9 | 5 | **14** | 6 | 0 | **6** | 15 | 5 | **20** |
| Formation and Management of SHGs | 4 | 70 | 0 | **70** | 6 | 0 | **6** | 76 | 0 | **76** |
| Mobilization of social capital | 1 | 19 | 2 | **21** | 0 | 0 | **0** | 19 | 2 | **21** |
| Entrepreneurial development of farmers/youths | 1 | 16 | 15 | **31** | 0 | 0 | **0** | 16 | 15 | **31** |
| **TOTAL** | **39** | **547** | **81** | **628** | **46** | **47** | **93** | **593** | **128** | **721** |

**7.C. Training for Rural Youths including sponsored training programmes (on campus)**

| **Area of training** | **No. of Courses** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **General** | | | **SC/ST** | | | **Grand Total** | | |
| | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Backyard Poultry Rearing | 1 | 0 | 12 | **12** | 0 | 5 | **5** | 0 | 17 | **17** |
| Soil and Water Conservation technologies | 1 | 0 | 22 | **22** | 0 | 4 | **4** | 0 | 26 | **26** |
| Scientific Goat rearing | 1 | 0 | 20 | **20** | 0 | 4 | **4** | 0 | 24 | **24** |
| Mushroom production | 1 | 0 | 20 | **20** | 0 | 5 | **5** | 0 | 25 | **25** |
| Value addtition | 2 | 10 | 27 | **37** | 7 | 6 | **13** | 17 | 33 | **50** |
| Production of organic inputs | 1 | 18 | 1 | **19** | 3 | 1 | **4** | 21 | 2 | **23** |
| Farm machinery | 1 | 27 | 0 | **27** | 3 | 0 | **3** | 30 | 0 | **30** |
| **TOTAL** | **8** | **55** | **102** | **157** | **13** | **25** | **38** | **68** | **127** | **195** |

**7.D. Training for Rural Youths including sponsored training programmes (off campus) – Nil**

**7.E. Training programmes for Extension Personnel including sponsored training programmes (on campus)**

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Productivity enhancement in field crops | | | | | | | | | | |
| Integrated Pest Management | 1 | 5 | 0 | **5** | 2 | 0 | **2** | 7 | 0 | **7** |
| Household food security | | | | | | | | | | |
| Any other | | | | | | | | | | |
| Nursery Technology | 1 | 14 | 2 | **16** | 1 | 0 | **1** | 15 | 2 | **17** |
| Integrated Crop Management | | | | | | | | | | |
| **Total** | **2** | **19** | **2** | **21** | **3** | **0** | **3** | **22** | **2** | **24** |

**7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus) - Nil**

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Gender mainstreaming through SHGs | | | | | | | | | | |
| Livestock feed and fodder production | | | | | | | | | | |
| Household food security | | | | | | | | | | |
| Any other (pl.specify) | | | | | | | | | | |
| Total | | | | | | | | | | |

***7.G. Sponsored training programmes conducted***

| S.No. | Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | General | | | SC/ST | | | Grand Total | | |
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **1** | **Crop production and management** | | | | | | | | | | |
| 1.a. | Increasing production and productivity of crops | | | | | | | | | | |
| 1.b. | Commercial production of vegetables | | | | | | | | | | |
| **2** | **Production and value addition** | | | | | | | | | | |
| 2.a. | Fruit Plants | | | | | | | | | | |
| **3.** | **Soil health and fertility management** | | | | | | | | | | |
| **4** | **Production of Inputs at site** | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **5** | **Methods of protective cultivation** | | | | | | | | | | |
| **6** | **Others (pl.specify) Nursery Technoloy** | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| | **Livestock production and management** | | | | | | | | | | |
| | Animal Nutrition Management | 3 | 2 | 9 | **11** | 50 | 33 | **83** | 52 | 42 | **94** |
| | Others (pl.specify)Feed and Fodder Technology | 1 | 50 | 4 | **54** | 2 | 1 | **3** | 52 | 5 | **57** |
| **11.** | **Home Science** | | | | | | | | | | |
| 11.a. | Household nutritional security | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| 11.b. | Economic empowerment of women | 4 | 0 | 44 | **44** | 23 | 58 | **81** | 23 | 102 | **125** |
| 11.c. | Drudgery reduction of women | | | | | | | | | | |
| 11.d. | Others (pl.specify) Mushroom cultivation | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| 11.e. | Value Addition | 1 | 0 | 35 | **35** | 0 | 0 | **0** | 0 | 35 | **35** |
| **12** | **Agricultural Extension** | | | | | | | | | | |
| | **Total** | **13** | **52** | **176** | **228** | **75** | **148** | **223** | **127** | **324** | **451** |

**Details of sponsoring agencies involved**
**1** NABARD, Perambalur 2. Mahalir thittam, Perambalur

**7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth**

| S.No. | Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | General | | | SC/ST | | | Grand Total | | |
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **1** | **Crop production and management** | | | | | | | | | | |
| 1.f. | Others (pl.specify) | | | | | | | | | | |
| **2** | **Post harvest technology and value addition** | | | | | | | | | | |
| 2.a. | Value addition | | | | | | | | | | |
| 2.b. | Others (pl.specify) | | | | | | | | | | |
| **3.** | **Livestock and fisheries** | | | | | | | | | | |
| 3.a. | Dairy farming | | | | | | | | | | |
| 3.b. | Composite fish culture | | | | | | | | | | |
| 3.c. | Sheep and goat rearing | **1** | **2** | **10** | **12** | **0** | **3** | **3** | **2** | **13** | **15** |
| 3.d. | Piggery | | | | | | | | | | |
| 3.e. | Poultry farming | | | | | | | | | | |
| 3.f. | Others (pl.specify) | | | | | | | | | | |
| | **Grand Total** | **1** | **2** | **10** | **12** | **0** | **3** | **3** | **2** | **13** | **15** |

## PART VIII – EXTENSION ACTIVITIES

| Nature of Extension Programme | No. of Programmes | No. of Participants (General) | | | No. of ParticipantsSC / ST | | | No.of extension personnel | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Field Day | 18 | 288 | 196 | 484 | 195 | 57 | 252 | 5 | 3 | 8 |
| Kisan Mela | 1 | 1105 | 1038 | 2143 | 432 | 321 | 753 | 65 | 17 | 82 |
| Kisan Ghosthi | 1 | 197 | 50 | 247 | 135 | 38 | 173 | 17 | 6 | 23 |
| Exhibition | 9 | 648 | 337 | 985 | 310 | 170 | 480 | 38 | 21 | 59 |
| Film Show | 2 | 27 | 15 | 42 | 12 | 5 | 17 | 1 | 1 | 2 |
| Method Demonstrations | 32 | 26 | 18 | 44 | 17 | 5 | 22 | 3 | 1 | 4 |
| Farmers Seminar | 1 | 87 | 33 | 120 | 28 | 16 | 44 | 0 | 0 | 0 |
| Workshop | 5 | 145 | 54 | 199 | 38 | 11 | 49 | 38 | 9 | 47 |
| Group meetings | 13 | 127 | 61 | 188 | 23 | 19 | 42 | 16 | 8 | 824 |
| Lectures delivered as resource persons | 66 | 1572 | 979 | 2551 | 528 | 186 | 714 | 187 | 92 | 279 |
| Newspaper coverage | 44 | Mass | | | | | | | | |
| Radio talks | 4 | Mass | | | | | | | | |
| TV talks | 13 | Mass | | | | | | | | |
| Popular articles | 10 | Mass | | | | | | | | |
| Extension Literature | 87 | 773 | 58 | 831 | 239 | 31 | 270 | 8 | 3 | 11 |
| Advisory Services | 460 | 572 | 346 | 918 | 198 | 115 | 313 | 1 | 1 | 2 |
| Scientific visit to farmers field | 103 | 438 | 209 | 647 | 210 | 101 | 311 | 11 | 4 | 15 |
| Farmers visit to KVK | - | 832 | 310 | 1142 | 437 | 188 | 625 | 303 | 56 | 359 |
| Diagnostic visits | 33 | 56 | 26 | 82 | 24 | 12 | 36 | 16 | 7 | 23 |
| Exposure visits | 1 | 8 | 2 | 10 | 3 | 1 | 4 | 0 | 0 | 0 |
| Animal Health Camp | 4 | 92 | 51 | 143 | 33 | 29 | 62 | 2 | 1 | 3 |
| Mahila Mandals Conveners meetings | 1 | 42 | 5 | 47 | 0 | 0 | 0 | 0 | 0 | 0 |
| Voice sms and sms | 12 | 1170 | 366 | 1536 | 391 | 83 | 474 | 28 | 0 | 28 |
| Farmers club formation | 4 | 47 | 26 | 73 | 17 | 11 | 28 | 0 | 0 | 0 |
| Technology Week | 1 | 169 | 89 | 258 | 43 | 32 | 75 | 9 | 3 | 12 |
| **Total** | **925** | **8421** | **4269** | **12690** | **3313** | **1431** | **4744** | **748** | **233** | **981** |

## PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

### 9.A. Production of seeds by KVKs

| Crop category | Name of the crop | Variety | Hybrid | Quantity of seed (qtl) | Value (Rs) | Number of farmers to whom provided |
|---|---|---|---|---|---|---|
| **Oilseeds** | | | | | | |
| | Gingelly | | | 0.02 | 440.00 | 2 |
| **Pulses** | | | | | | |
| | Black gram | VBN 6 | | 1.07 | 21,400.00 | 17 |
| **Fruit crops** | | | | | | |
| | Banana Suckers | Mondan | | 145 Nos. | 2,175.00 | 12 |
| **Vegetables** | | | | | | |
| | Vegetable Cowpea | VNR Type | | 0.55 | 11,000.00 | 20 |
| | Onion | Co 5 | | 0.015 | 1,500.00 | 1 |
| | Onion seed bulb | Co 4 | | 6.45 | 17,415.00 | 2 |
| | Dolichos | Co (GB) 14 | | 0.17 | 10,200.00 | 35 |
| | Moringa | PKM 1 | | 0.215 | 7,740.00 | 20 |
| | Chillies | K2 | | 0.03 | 2,550.00 | 8 |
| | Tomato | PKM1 | | 0.017 | 1,700.00 | 15 |
| | Brinjal | CVK | | 0.026 | 2,600.00 | 18 |
| | Bhendi | Arka Anamika | Sakthi | 0.115 | 6,900.00 | 38 |
| | Beans | | | 0.0025 | 100.00 | 7 |
| | Coriander | Arka Esha & Arka Aroma | | 0.39 | 19,500.00 | 30 |
| | Snake gourd | Co 2 | | 0.05 | 5,500.00 | 18 |
| | Amaranthus | Co 1 , Co 2 | | 0.16 | 9,124.00 | 98 |
| | Pumpkin | Co1 | | 0.02 | 2,000.00 | 7 |
| | Ridged gourd | Jaipur long | | 0.02575 | 1,802.50 | 15 |
| | Ash gourd | Co1 | | 0.04 | 4,000.00 | 22 |
| | Bottle gourd | PSPL | | 0.01575 | 1,260.00 | 20 |
| | Mesta | Local | | 0.08 | 2,400.00 | 22 |
| | Radish | Pusha Chetki | | 0.078 | 3,120.00 | 30 |
| | Bitter gourd | Green long | | 0.03 | 2,700.00 | 20 |
| | Cucumber | | | 0.01675 | 1,675.00 | 22 |
| **Green Manure** | | | | | | |
| | Daincha | | | 0.05 | 200.00 | 10 |
| | Sunhemp | | | 0.05 | 200.00 | 10 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Fodder crop** | | | | | | |
| | Fodder Sorghum | Co FS 29 | | 1.86 | 1,02,300.00 | 42 |
| | Fodder Sorghum | Co FS 31 | | 0.3075 | 19,987.50 | 25 |
| | Sweet Sudan | Multi cuttings | | 1.09 | 81,750.00 | 45 |
| | Erumaipul | | | 0.01 | 500.00 | 5 |
| | Desmanthus | Local | | 0.49775 | 29,865.00 | 45 |
| | Stylosanthus | | | 0.0075 | 750.00 | 2 |
| | Agathi | | | 0.13375 | 8,025.00 | 38 |
| | Desmanthus | Local | | 0.25 | 12,500.00 | 53 |
| **Total** | | | | **13.8433** | **292579** | **774** |
| | **Suckers** | | | **145 Nos.** | | |

### 9.B. Production of planting materials by the KVKs

| Crop category | Name of the crop | Variety | Hybrid | Number | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|---|---|---|
| **I. FRUITS** | | | | | | |
| | Acidlime | Balaji | | 298 | 2980 | 113 |
| | Acidlime | Balaji | | 48 | 1875 | 21 |
| | Acidlime | Balaji | | 889 | 50420 | 267 |
| | Acidlime | | | 202 | 3080 | 43 |
| | Amla | Kanchan | | 43 | 2580 | 14 |
| | Amla | NA7 | | 42 | 1460 | 18 |
| | Amla seedling | | | 192 | 3015 | 36 |
| | Apple | | | 6 | 600 | 4 |
| | Citrus | | | 26 | 520 | 3 |
| | Custard apple | Rampal | | 17 | 960 | 8 |
| | Custard apple | APK 1 | | 1 | 20 | 1 |
| | Fig | | | 34 | 1300 | 9 |
| | Grapes | Bangalore blue | | 5 | 100 | 2 |
| | Guava | L-49 | | 165 | 6600 | 86 |
| | Guava (Layer - big) | | | 81 | 5750 | 38 |
| | Guave (Big) | | | 40 | 800 | 17 |
| | Jack (Big) | | | 47 | 4700 | 26 |
| | Jack | PLR-1 | | 869 | 17325 | 304 |
| | Jack (Graft) | Graft | | 8 | 480 | 2 |
| | Jamun | Graft | | 81 | 6215 | 44 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Jamun | Local | | 11 | 220 | 6 |
| | Mango | Banganapalli | | 250 | 22930 | 111 |
| | Mango (Big) | Banganapalli | | 166 | 16600 | 92 |
| | Mango | Senthura | | 31 | 1750 | 20 |
| | Mango | Alphonse | | 71 | 3550 | 28 |
| | Mango | Bangalora | | 181 | 19660 | 58 |
| | Mango (Big) | Imampasand | | 5 | 375 | 2 |
| | Papaya | | | 228 | 4530 | 25 |
| | Pomegranate | Red | | 118 | 5200 | 14 |
| | Pomegranate | Ganesh | | 135 | 2675 | 15 |
| | Pomegranate | Bhagawa | | 1 | 100 | 1 |
| | Sapota | PKM-1 | | 89 | 8900 | 10 |
| | Sapota | PKM-4 | | 230 | 23000 | 12 |
| | Sathugudi | | | 141 | 14100 | 14 |
| | Singapore cherry | local | | 296 | 5920 | 23 |
| | Singapore cherry | Small | | 228 | 4320 | 18 |
| | Star goosebery | | | 22 | 440 | 5 |
| | Sweet tamarind | | | 6 | 150 | 2 |
| | | **Total** | | **5303** | **245200** | **1512** |
| **II. VEGETABLES** | | | | | | |
| | Chilli | Co CH1 | | 0 | 0 | 0 |
| | Curryleaf | Small | | 400 | 2200 | 2 |
| | Curryleaf | Sengambu | | 295 | 2975 | 68 |
| | Mint | | | 37 | 185 | 12 |
| | Moringa plant | | | 31 | 310 | 11 |
| | Sesbania | | | 19 | 190 | 8 |
| | Thavasi keerai | | | 380 | 5700 | 60 |
| | Tomato | | | 70 | 70 | 1 |
| | | **Total** | | **1232** | **11630** | **162** |
| **III. SPICES** | | | | | | |
| | Tamarind | PKM -1 | | 41 | 4770 | 8 |
| | Tamarind | Graft | | 16 | 800 | 4 |
| | Tamarind | Local | | 8 | 160 | 4 |
| | | **Total** | | **65** | **5730** | **16** |
| **IV. FOREST SPECIES** | | | | | | |
| | Almond | | | 479 | 7195 | 328 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Almond Big | | | 490 | 12250 | 46 |
| | Asoka | | | 0 | 0 | 0 |
| | Bale | | | 25 | 500 | 6 |
| | Baneyan tree | | | 9 | 180 | 2 |
| | Cassia | | | 20 | 380 | 8 |
| | Causaurina | | | 34 | 170 | 7 |
| | Delanix | | | 32 | 640 | 5 |
| | Eucalyptus | | | 298 | 1052.5 | 8 |
| | Hill neem | | | 9 | 135 | 3 |
| | Illuppai | | | 6 | 90 | 2 |
| | Neem | | | 259 | 2590 | 71 |
| | Neem small | | | 25 | 125 | 1 |
| | Neermaruthu | | | 7 | 105 | 1 |
| | Panneer | | | 1 | 75 | 1 |
| | Pisonia | | | 135 | 2025 | 1 |
| | Polyalthia | | | 131 | 2035 | 4 |
| | Poovarasu | | | 10 | 150 | 1 |
| | Pungan | | | 271 | 2710 | 29 |
| | Red sandal | | | 218 | 5450 | 62 |
| | Russalia | | | 3 | 60 | 1 |
| | Sandle big | | | 158 | 18960 | 2 |
| | Sandle small | | | 125 | 6250 | 16 |
| | Teak (big) | | | 1761 | 21132 | 183 |
| | Teak Bharma | | | 1233 | 18495 | 39 |
| | Teak small | | | 1100 | 11000 | 1 |
| | Vanni | | | 24 | 430 | 8 |
| | Wood apple | | | 21 | 435 | 8 |
| | **Total** | | | **6884** | **114620** | **844** |
| **V. ORNAMENTAL CROPS** | | | | | | |
| | Acalypha | | | 50 | 500 | 1 |
| | Adenium | | | 181 | 9050 | 99 |
| | Adenium | | | 8 | 160 | 1 |
| | Agloanima | | | 22 | 550 | 19 |
| | Alamanda | | | 3 | 45 | 1 |
| | Allium | | | 282 | 2820 | 207 |
| | Areca catachu | | | 13 | 195 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Areca large | | | 21 | 4200 | 1 |
| | Areca palm (Big) | | | 140 | 18300 | 89 |
| | Areca palm(small) | | | 368 | 40070 | 49 |
| | Asparagus | | | 2 | 80 | 1 |
| | Assestracea | | | 2 | 20 | 1 |
| | Bamboo golden | | | 24 | 485 | 10 |
| | Bougainvillae | | | 56 | 560 | 48 |
| | Cactus | | | 14 | 575 | 8 |
| | Calphenea | | | 7 | 140 | 1 |
| | campagneapalm | | | 2 | 600 | 1 |
| | Canna | | | 0 | 0 | 0 |
| | Chlorophytum | | | 0 | 0 | 0 |
| | Chrysanthamum | | | 1 | 30 | 1 |
| | Clerodendron | | | 195 | 975 | 1 |
| | Coleus | | | 2 | 20 | 1 |
| | Costus | | | 97 | 2425 | 82 |
| | Crosandra | | | 16 | 320 | 4 |
| | Crotons (BIG) | | | 103 | 4660 | 98 |
| | Crotons (BIG) | | | 14 | 350 | 2 |
| | Crotons(large) | | | 40 | 3375 | 8 |
| | Crotons(Red) | | | 215 | 20250 | 126 |
| | Cycas | | | 0 | 0 | 0 |
| | Cylone gold | | | 44 | 880 | 32 |
| | Dhalia | | | 8 | 320 | 4 |
| | Diffonbackia | | | 47 | 2350 | 32 |
| | Draceena (Dwarf) | | | 39 | 1170 | 20 |
| | Draseena | | | 2 | 50 | 1 |
| | Duranda | | | 1908 | 11448 | 47 |
| | Durantha white | | | 0 | 0 | 0 |
| | Eranthemum | | | 265 | 2660 | 116 |
| | Euphorbia (big) | | | 38 | 1900 | 11 |
| | Euphorbia (small) | | | 10 | 500 | 4 |
| | Ficus | | | 21 | 560 | 9 |
| | Fishtail palm | | | 35 | 3500 | 8 |
| | Fishtail palm(big) | | | 3 | 450 | 1 |
| | Grass | | | 480 | 12000 | 2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Hanging plant | | | 28 | 280 | 19 |
| | Hibiscus | | | 119 | 2390 | 98 |
| | Hibiscus | | | 23 | 760 | 18 |
| | Ixora (rose) | | | 37 | 925 | 25 |
| | Ixora mini | | | 75 | 1500 | 49 |
| | Ixora tall | | | 18 | 450 | 4 |
| | Jasmine | | | 241 | 2410 | 106 |
| | Jasmine | | | 95 | 1425 | 61 |
| | Mania | | | 50 | 500 | 1 |
| | Money plant | | | 8 | 80 | 2 |
| | Nanthiyavattai | | | 149 | 1490 | 103 |
| | Neerium | | | 10 | 100 | 1 |
| | Neerium tall | | | 87 | 1305 | 52 |
| | Neerium varigated | | | 3 | 90 | 1 |
| | Nicanthus | | | 4 | 80 | 4 |
| | Pasiflora creeper | | | 3 | 60 | 1 |
| | Pepromia | | | 8 | 600 | 6 |
| | Periwinkle | | | 11 | 110 | 6 |
| | Phylleondendran | | | 0 | 0 | 0 |
| | Plumeria | | | 40 | 2000 | 20 |
| | Potted plants | | | 1 | 100 | 1 |
| | Potted plants | | | 25 | 5000 | 16 |
| | Potted plants | | | 27 | 6750 | 19 |
| | Potted plants | | | 1 | 300 | 1 |
| | Pritchardia palm | | | 0 | 0 | 0 |
| | Pritchardia palm | | | 0 | 0 | 0 |
| | Purcuria | | | 10 | 500 | 1 |
| | Ribbon grass | | | 0 | 0 | 0 |
| | Rose(big) | | | 238 | 9110 | 216 |
| | Rose(Edward) | | | 0 | 0 | 0 |
| | Rose(Local) | | | 204 | 4600 | 199 |
| | Royal palm (Big) | | | 152 | 21800 | 124 |
| | Royal palm | | | 0 | 0 | 0 |
| | Senbagam | | | 4 | 160 | 3 |
| | Springeri | | | 0 | 0 | 0 |
| | Starlite | | | 0 | 0 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Tabernae varigated | | | 0 | 0 | 0 |
| | Tabernea mini | | | 275 | 4125 | 127 |
| | Tecoma | | | 106 | 3180 | 83 |
| | Thalampoo | | | 0 | 0 | 0 |
| | Thrinax | | | 0 | 0 | 0 |
| | Thuja Big | | | 18 | 1080 | 3 |
| | Thuja | | | 5 | 125 | 3 |
| | Verbena | | | 3 | 30 | 1 |
| | X-mas tree(Big) | | | 0 | 0 | 0 |
| | | **Total** | | **6856** | **221958** | **2526** |
| | | | | | | |
| | Coconut | Tall | | 2090 | 83600 | 702 |
| | Coconut | T X D | | 248 | 12400 | 208 |
| | Coconut | D X T | | 163 | 26500 | 142 |
| | Coconut | MDY | | 229 | 45800 | 196 |
| | | **Total** | | **2730** | **168300** | **1248** |
| | Medicinal plants | | | 44 | 660 | 19 |
| | | **Total** | | **44** | **660** | **19** |
| | Cumbu Napiar | Co 4 | | 4500 | 9000 | 11 |
| | | Co 5 | | 62650 | 31325 | 34 |
| | | **Total** | | **67150** | **40325** | **45** |

## 9.C. Production of Bio-Products

| Bio Products | Name of the bio-product | Quantity (Kg) | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|---|
| Bio-pesticide | Panchakavya | 168 Lit | 23650 | 66 |
| Bio-fungicide | T.viride – Powder form | 102 Kgs. | 10200 | 66 |
| | T.viride – Liquid form | 28 Lit | 8400 | 11 |
| | Pseudomonas - Powder form | 94.4 Kgs. | 9440 | 40 |
| | Pseudomonas – Liquid form | 10 Lit. | 3000 | 6 |
| Organic products | Vermiworm | 247.3 | 98650 | 89 |
| | Effective Microorganism (EM) | 3 Lit | 900 | 3 |
| | Vermicompost | 16286.5 | 118126 | 272 |
| Plant Booster | Vegetable special | 179 Kgs. | 28640 | 49 |
| **Total** | | | **301006** | **602** |

## 9.D. Production of livestock materials

| Particulars of Live stock | Name of the breed | Number | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|---|
| **Dairy animals** | | | | |
| Others (Pl. specify) | | | | |
| **Poultry** | | | | |
| | Native Chicks | 939 | 41330 | 772 |
| | Native Chickens | 850(1074.3Kgs.) | 157272 | 630 |
| Broilers | Giriraja | 102 (208.09 Kgs) | 18619 | 82 |
| Others (Pl. specify) | Turkey | 240(361.33 Kgs) | 51870 | 100 |
| | Turkey chicks | 84 | 15275 | 75 |
| | Quail chicks | 6500 | 48400 | 3 |
| | Moscovy Duck | 15 | 2350 | 6 |
| | | | | |
| Goat | Tellicherry goat | 24 (408.05Kgs) | 78307 | 19 |
| Azolla(kg) | | 34.75 kgs. | 1137.50 | 41 |
| Mineral mixture(kg) | | 6 | 900 | 6 |
| **Total** | | | **415460.5** | **1734** |

## PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION

### 10. A. Literature Developed / published (with full author and reference)

**(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)**

HRKVK Newsletter was published on Quarterly basis and it was started in HRKVK during 2004. For the reported year Quarterly newsletters for two times published and distributed to line departments, Farming community of Perambalur district, various ICAR, TNAU institutes of Tamil Nadu.

**Literature developed/published**

| Item | Title | Authors name | Number |
|---|---|---|---|
| Research papers | Trend analysis of Pest and Disease complex in Bt.cotton Journal of Crop Protection 2015 4(4):431-439 | P.Saravanan, Dr.S.Divya, Dr.P.Venkatesan, Dr.R.K.Tanwar, Ajanta Birah, C. Battopadhyayah, P. Jeyakumar, Anupam Barik. | 1 |
| | Training Needs of Farm Women Towards Entrepreneurial Development Journal of Extension Education Vol. 27,No.1, 2015 | Dr.P.Venkatesan, P.Vijayalakshmi. | 1 |
| Technical reports | | | |
| **News letters** | Half yearly published for two times | All SMS | 600 |
| **Technical bulletins** | Parawilt management | SMS (PP) | 250 |
| **Popular articles** | IPM for Coconut | SMS (PP) | Mass |
| | IDM in Onion | SMS (Hort.),SMS (PP) | Mass |
| | Profitable quail farming | SMS (A.S) | Mass |
| | Azolla cultivation and uses | SMS (A.S) | Mass |
| | Profitable Goat rearing practices | SMS (A.S) | Mass |
| | Zoonotic diseases & its prevention | SMS (A.S) | Mass |
| | Disease management in small onion | SMS (Hort.),SMS (PP) | Mass |
| | IPDM in groundnut | SMS (PP) | Mass |
| | Mealybug and its management | SMS (PP) SMS (Hort.) | Mass |
| | Protray nursery technology for vegetables | SMS(Horti.) FM | Mass |
| **Extension literature** | | | |
| **Leaflets** | Mushroom cultivation | SMS (PP) | 1000 |
| | IPM in Coconut | SMS (PP) | 1000 |
| | Kitchen Garden | SMS (HSc) | 1000 |
| | Value addition in Millets | SMS (HSc) | 1000 |
| | Vermicomposting Technology | SMS (Agro.) | Mass |
| | Green manure crops for Rice | SMS (Agro.) | Mass |
| | ICM Practices in Rice TKM13 | SMS (Agro.) | Mass |
| | ICM in Greengram | SMS (Agro.) | Mass |
| | Vegetable special | SMS(Horti.) | Mass |
| | Soil testing | LT, SMS(Horti) | Mass |
| **Booklets** | Waste to wealth initiation and Organic farming | SMS (PP) SMS (Agro.) | 50 |
| | Livestock rearing and Value addition in Milk | SMS (Home Sci.) | 40 |

| | | | |
|---|---|---|---|
| | Home Care products preparation | SMS (Home Sci.) | 40 |
| | Value addition in Masala powder preparation | SMS (Home Sci.) | 45 |
| | Tractor Operator Training | Farm Manager and Tractor driver | 30 |
| | | | |
| **Others (Pl. specify)** | | | |
| **Oral Presentation** | Impact of weather parameters on the population dynamics of mired bug in Bt.cotton. International conference of Biodiversity and Bioactive Natural products for human wefare 2016 Feb 10-12, 2016. GIAC, Karur. | P.Saravanan A. Karthikeyan J. Kathiravan | |
| **Posters** | Yield enhancement in small onion by adopting seed propagation technique 1st KVK Symposium ,Zone-VIII, 21-22, January 2016 ATARI, Bengaluru, UAS, Dharward. | J.Kathiravan, S.Divya R.Vasanthakumar | |

## 10.B. Details of Electronic Media Produced

| S.No. | Type of Media (CD/VCD/DVD/Audio cassette | Title of the Programme | Number |
|---|---|---|---|
| 1 | DVD | Sucking Pest Management in cotton | 30 |
| 2 | DVD | Mushroom Cultivation | 30 |
| 3 | DVD | Millet value addition | 30 |
| 4 | DVD | Small onion cultivation | 30 |
| 5 | DVD | Protray Nursery technique for turmeric | 30 |
| 6 | DVD | Japanese quil rearing | 30 |
| 7 | CD | Dairy cattle rearing | 30 |

## 10.C. Success Stories / Case studies

### Success Stories

**Title of the success story** Agripreneur in Vermicomposting

**Details of the farmer** Abdul, bramadesam Perambalur

**Details of Success story**

| | | |
|---|---|---|
| 1. | Background | In perambalur district major Farmers rearing cattle milch animal and agricultural crops grown are cotton, maize, paddy, sugarcane and groundnut. In addition to that the farmers are having the substrate material for vermicompost production in their land i.e., Cowdug, maize husk leaf, paddy straw, sugarcane beggases etc.,. To utilize this waste and to generate the additional income to the farmers in KVK we arranged the one day on campus training programme for Vermicompost production. Number of farmers were attended the training. Among the trainee one of the farmer is Abdul he approached us to start the venture on Vermicompost production after the training. Then he started the firm. |
| 2. | Intervention Process | As per our advice he constructed the vermicompost shed of size . He got worms from our KVK and used for vermicompost bed preparation and he marketed his vermicompost in nearby villages. |
| 3. | Intervention Technology | In our training we advised farmers to use cheaply and easily available agricultural waste and cowdung for vermicompost production. In our training farmers gained the knowledge about production technology, storage and marketing. Both theoretical as well as practical class was held in training. |

| | | |
|---|---|---|
| 4. | Impact Horizontal Spread | Numbers of farmers are approaching our KVK for vermicompost production frequently and Abdul act as a model farmer for those farmers. |
| 5. | Impact Economic gains | In a month he is producing approximately 2000 kg of vermicompost and getting 12,000/month. |
| 6. | Impact of employment generation | The vermicompost production act as a self employment with additional income during non cropping season. |

**Title of the success story** Agripreneur in Milky Mushroom Production

**Name of the farmer** Antony, Thondamandhurai, Perambalur

**Details of Success story**

| | | |
|---|---|---|
| 1. | Background | In perambalur district major agricultural crops grown are cotton, maize, paddy, sugarcane and groundnut. Most of the farmers are kept their land free during off season. In addition to that the farmers are having the substrate material for mushroom production in their land i.e., maize husk leaf, paddy straw, sugarcane beggases etc.,. To utilize this waste and to generate the additional income to the farmers in KVK we arranged the one day training programme for mushroom production. Number of farmers were attended the training. Among the trainee one of the farmer is Antony he approached us to start the venture on mushroom production after the training. Then he started the firm. |
| 2. | Intervention Process | As per our advice he constructed the mushroom shed of size 25 x 12 feet . He got spawn from our KVK at fortnight interval and used for mushroom bed preparation and he marketed his mushroom in nearby houses and nearby shops. |
| 3. | Intervention Technology | In our training we advised farmers to use cheaply and easily available agricultural waste for mushroom production. In our training farmers gained the knowledge about spawn production technology, mushroom bed preparation, value addition and marketing. Both theoretical as well as practical class was held in training. |
| 4. | Impact Horizontal Spread | Numbers of farmers are approaching our KVK for mushroom production oyster as well as milky mushroom frequently and Antony act as a model farmer for those farmers. |
| 5. | Impact Economic gains | In a month he is producing approximately 300 kg of milky mushroom. He is shelling @ 220/ kg. Thus he obtaining gross return of 60,000. The cost of production for 300 kg is 12000 rs. The Net Income is 54,750. The B: C ratio he obtained was 1:5 |
| 6. | Impact of employment generation | The mushroom production act as a self employment with additional income during non cropping season. |

**Title of the success story** **Value added products from Millets**

**Name of the farmer** Prakash Perambalur

**Details of Success story**

| | | |
|---|---|---|
| **1.** | **Background** | Minor millets is realized mostly by the rural population in India for its nutritional value. Being a rich source carbohyderates and minerals such as calcium, Phosphorous and iron. There are certain constrains like coarse skin, undesirable colour pigments presence of anti nutrients, poor keeping quality etc which hinders the utilization of these millets. Various processing methods have been developed and standardized to overcome these constrains and improved the nutritive value of millets. These Processing help to improve utilization of millets for product development. These value added products is beginning to gain popularity among urban people. Now-a-days people are highly conscious of their health and they know the value of nutritional security of our ancestors obtained from millets. Mr. Prakash from Perambalur who completed PG degree in Computer Science had an inspiration to become an entrepreneur for which he chose millet based value added products. He had poor knowledge in this field. He approached Mr.Suresh, millet value added products entrepreneur who guided him to approach |
| **2.** | **Intervention Process** | Mr. Prakash and his wife contacted the KVK Home Science specialist through phone where he was advised to undertake training course organized by the KVK. Mr.Prakash and his wife eventually participated in value addition in Millet training programme during December 2014. He and his wife learnt to produce millet biscuits, Laddu and murukku. Labelling and Marketing of the above said products. |
| **3.** | **Intervention Technology** | With the guidance and support of the KVK he started his venture at home with the help of his wife and began selling his product among friends and localities. Due to the increased response for his products he then decided to upscale to a cottage industry level and once again sought the guidance of the KVK where he obtained help in acquiring food safety licence, branding and labeling techniques. He sold his product through mathi angadi, Uzhavar chanthai, KVK exhibitions and towns of the district and gaining popularity |
| **4.** | **Impact Horizontal Spread** | Herbal powders are incorporated products such as Vallarai, Avarambu. Herbs incorporated millet products fetching good market demand in and around the districts. The KVK also guided and supported him in obtaining bank loan. |
| **5.** | **Impact Economic gains** | He produces 150 Kgs millet biscuits 100 Kg Laddu and 20 Kg millet murukku/month for which he spend Rs.23500. The selling cost is @ Rs.40/150gms biscuits, Rs.60/150gm for Laddu, Rs.20/200gms of millet murukku. He could earn a gross income of over Rs.41,980/- and now he earns Rs.18,480. He is selling his product in the brand name of Yaazh. |
| **6.** | **Impact of employment generation** | He employs 2 women members from nearby village in his unit where they get regular employment. The availability of millet based products are gaining popularity among the consumers in and around the district. He plans to incorporate more employees to increase the output to meet the increased demand for his products. |

# Case Study

## EFFORTS OF EXTENSION SYSTEMS IN ENHANCING PRODUCTIVITY OF MAIZE IN PERAMBALUR DISTRICT

### Background

Perambalur is one of the districts of Tamil Nadu where large number of people depend agricultural as a main occupation for their survival. The total geographical area of the district is 3,691 sq. km. of which spread between 10.54' and 11.30' degree Northern latitude and 78.40' and 79.30' degree of the Eastern longitude. Maize and Cotton are the major cash crop of the district. The predominant soil in the district is block cotton with scattered pockets of red soil. Larger areas have been brought under improved hybrids of Maize and *Bt* cotton. Maize is cultivated in 47,298 ha under rainfed condition which occupies 22.20 % of the total cultivated area (Department of Agriculture, Perambalur, Tamil Nadu, 2013) of the district. Perambalur is one of the chief maize producing district in Tamil Nadu But the production and productivity is comparatively less due to various factors viz., non-adoption of new scientific technologies, adoption of poor farm practices, abiotic stress, sudden incidence of pests during early stage of the crop and non-adoption of systematic cultivation practices. Hence, a systematic study was undertaken by the collaborative effort of State Department of Agriculture and Krishi Vigyan Kendra, Perambalur under the guidance of District Collector, Perambalur, Tamil Nadu, India to increase the production of Maize with new scientific technologies.

### Study area

A systematic study was conducted during 2013-14, under rain fed conditions in farmers' fields of Perambalur district in Tamil Nadu, India to increase the maize yield. For the purpose of crop demonstration, 150 revenue villages were selected before the cropping season in the district where Maize is growing predominantly. Five farmers per village were selected by the agricultural officers concerned. Each village was treated as one replication. One control plot was maintained in non-trained farmer field at each village with their own cultivation practices.

### Technologies

The Integrated crop Management practices includes emerging technologies were formulated by Krishi Vigyan Kendra, Perambalur, Tamil Nadu by the expert team for the special scheme of "One Lakh in One Hectare". The practices were summer ploughing with either disc or chisel plough, soil test based fertilizer application, application of *Azospirillum* @ 2 kg/ha, adoption of closer in either spacing of 37.5 cm x30 cm or 30 cm x 30 cm, planting of high yielding certified hybrid maize seed (NK 2640) in the furrows, basal application of Micronutrient mixture (12.5 kg/ha) after planting along with 37.5 kg of sand, application of Atrazin @ 1 kg/ha after 3 DAS and

mechanical weeding by twin wheel hoe for effective weed management, foliar spraying of Maize Maxim@ 3.75 kg/ha as a growth regulator, application of Carbofuron @ 30 kg/ha in tender portion of maize plant during the initiation of the stem borer, Spot drenching of Chlorpyriphos @ 2.5 % for white grub management, mechanical harvesting of matured grains @ 15 % moisture and sale of grains with the moisture level of 12% in the district regulated market.

**Training and technical inputs**

Preliminary farmers training was imparted to 750 farmers at KVK, Perambalur by scientists from KVK and Cotton Research Station (Tamil Nadu Agricultural University, Coimbatore), Veppanthattai, Perambalur, Tamil Nadu before planting. Some of the critical inputs like Bio fertilizers, Hybrid maize seed, Basal Mn mixture, Zinc sulphate and Inorganic fertilizers were given by State Department of Agriculture, Perambalur under NADP-RADP scheme. The soil testing was also done by State Department of Agriculture, Perambalur and report to the farmers before the initiation of crop. The farmers were strictly advised to follow recommended technologies alone throughout the cropping season. The technologies were frequently remembered to the demonstration farmers through Mobile text SMS, Mobile voice SMS, newspapercoverage's, and field visits by KVK and SDA officials.

**Monitoring and Observations**

A team formulated by the District Collector includes JDA, DDAs, ADAs, AOs, AAO and KVK experts to monitor the demonstration fields. The team divided into sub groups and visited the demonstration fields every week and given advisories at the field. The data's like cost of cultivation (`/ha), yield (q/ha), gross income (`/ha), net income (`/ha), cost benefit ratio were collected from the demonstration farmers in the field operation note book maintained by the respective farmers. Every farmer fields were monitored for each farm activity by monitoring team and reporting to the District Collector.

**Production and Economics**

Production of Maize under improved integrated crop management recorded higher grain yield (5,967.54kg/ha), gross income (65,741.68`/ha), net return (40,248.29 `/ha), B: C ratio as compared to non-trained control farmers. The cost of production (27,008.82 `/ha) lower than the control farmers (Tabel.1). All the benefits due to adoption of proper technologies in time and proper monitoring by the extension officials. The production of Maize under Integrated crop management gave the average additional net income of 17,771.90 `./ha to the farmer and increased their net profit.

**Outcome**

A Female farmer Mrs.Poongothai hailing from perambalur who had attended training in the KVK obtained 14.5 tonnes in one hectare in 2014/15 and received Krishi Karman award from our Honourable PM during Mar 2016

**Table: 1. Yield and Economics of improved production technologies in Maize (*Zea mays* L)under rain fed Agroecosystems in Perambalur district of Tamil Nadu**

| Sl.No. | Name of the block | Grain Yield (Kg/ha) | | Gross income (`/ha) | | Cost of Cultivation (`/ha) | | Net Income (`/ha) | | Cost benefit ratio | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Demo* | Control# | Demo* | Control# | Demo* | Control# | Demo* | Control# | Demo* | Control# |
| 1. | Veppanthattai | 5620.08 | 4313.33 | 60501.97 | 48772.30 | 27003.60 | 25352.93 | 33932.74 | 22093.74 | 2.10 | 1.93 |
| 2. | Perambalur | 6738.73 | 4323.68 | 70980.85 | 43283.11 | 35330.80 | 30294.74 | 39059.99 | 12988.37 | 1.97 | 1.35 |
| 3. | Veppur | 5347.45 | 4634.25 | 61710.96 | 54416.81 | 25535.11 | 25731.17 | 37140.67 | 28685.64 | 2.38 | 2.11 |
| 4. | Alathur | 6163.90 | 4184.35 | 69772.95 | 48247.74 | 20165.78 | 22193.00 | 50859.75 | 26137.79 | 3.52 | 2.22 |
| **Average Mean** | | **5967.54** | **4363.90** | **65741.68** | **48679.99** | **27008.82** | **25892.96** | **40248.29** | **22476.39** | **2.4925** | **1.90** |

*** Average mean of 5 farmers/ village in 152 villages**
**# Average of 1 farmer/village in 152 villages**

## 10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

Nil

## 10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area

| Crop/Enterprise | Source | Other-Source | ITK Practiced | Purpose |
|---|---|---|---|---|
| Brinjal | Farmer | | Ash dusting on Brinjal plant | Control fruit and shoot borer |
| Millets grains | Farmer | | Grains were mixed with neem leaves | For avoiding pest damages |
| Onion | Farmer | | Green chillies + Ginger + Garlic each 250 g + Turmeric powder 100 g + Neem oil 500 ml mixed together with 100 lit water and sprayed | To control thrips in Onion |

### 10.F. Indicate the specific training need analysis tools/methodology followed for

**Training Need Index was the tool used to identify the training needs of the beneficiaries in the targeted block/villages**

Training needs of each major subject matter area was assessed over a three point continum such as Most needed, Needed and Not needed and they were quantified by assigning occurs 3,2 and 1 respectively. Index was computed for different items for each subject matter areas. The obtained score for each respondent was worked out by multiplying the number of respondents with their corresponding scores given (i.e. most needed 3, needed 2, and not needed 1). The obtained scores of all the items were added and divided by the potential scores of to arrive at the Training Need Index (subject matter).

Training need index = Summation of obtained score / Potential score

Obtained score of an item =No. of respondents X score given to the corresponding subject matter.

Potential score = Total number of respondents X Highest rank given for subject matter.

### 10.G. Field activities

i. Number of villages adopted - 5
ii. No. of farm families selected - 194
iii. No. of survey/PRA conducted - 5

## 10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab

**1.Year of establishment :** 2006

**2.List of equipments purchased with amount:**

| Sl. No | Name of the Equipment | Qty.(Nos.) | Cost (Rs.) |
|---|---|---|---|
| 1 | PH meter | 1 | 10,125.00 |
| 2 | Conductivity meter | 1 | 10,125.00 |
| 3 | Visible spectrophotometer | 1 | 52,875.00 |
| 4 | Flame photometer | 1 | 43,875.00 |
| 5 | Water quality analyzer | 1 | 37,125.00 |
| 6 | Hot plate | 1 | 1,536.00 |
| 7 | Lab willey mill | 1 | 9,120.00 |
| 8 | Double distillation unit | 1 | 12,000.00 |
| 9 | Hot air oven | 1 | 10,080.00 |
| 10 | Electronic top loading balance | | |
| | Accuracy 0.1mgm | 1 | 57,600.00 |
| | Accuracy 10 mgm | 1 | 19,200.00 |
| 11 | Water bath | 1 | 3,360.00 |
| 12 | Rotary shaker | 1 | 16,800.00 |
| 13 | Centrifuge | 1 | 11,520.00 |
| 14 | Magnetic stirrer | 1 | 2,304.00 |
| 15 | Electronic automatic kel plus Digestion system | 1 | 73,208.00 |
| 16 | Automatic distillation system | 1 | 1,29,724.00 |
| 17 | Refrigerator | 1 | 9,630.00 |
| | **Total** | | **5,10,207.00** |

**Details of samples analyzed so far since establishment of SWTL:**

| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
|---|---|---|---|---|
| **Soil Samples** | 2916 | 926 | 401 | 116325 |
| **Water Samples** | 571 | 467 | 270 | 21900 |
| **Plant samples** | - | - | - | - |
| **Manure samples** | - | - | - | - |
| **Others (specify)** | - | - | - | - |
| **Total** | **3487** | **1393** | **671** | **138225** |

**Details of samples analyzed during the 2015-16 :**

| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
|---|---|---|---|---|
| **Soil Samples** | 304 | 238 | 55 | 15200 |
| **Water Samples** | 144 | 105 | 78 | 7200 |
| **Plant samples** | - | - | - | - |
| **Manure samples** | - | - | - | - |
| **Others (specify)** | **-** | **-** | **-** | **-** |
| **Total** | **448** | **343** | **133** | **22400** |

## 10.I. Technology Week celebration during 2015-16 - Yes

**Period of observing technology week** **:** From 09.02.2016 to 12.02.2016
**Total number of farmers visited** **:** 250
**Total number of agencies involved** : 4
**Number of demonstrations visited by the farmers within KVK campus** **:** 6

| Type of activities | No. of activities | Number of farmers | Related crop / livestock technology |
|---|---|---|---|
| | | | |
| Lectures organized | 8 | 333 | Maize/ Cotton/ Vegetable /Livestock /Fodder |
| Exhibition | 1 | | |
| Film show | 1 | | |
| Farm visit | 4 | | |
| Diagnostic practicals | 2 | | |
| Supply of literature (Nos.) | 340 | | |
| Supply of seed (q) | 4 | | Field crops, vegetable |
| Supply of planting materials(Nos) | 567 | | Field crops, vegetable, forest species, ornamentals |
| Total number of farmers visiting the technology week | | | - |

**10. J. Interventions on drought mitigation (if the KVK included in this special programme) –** Nil

**A. Introduction of alternate crops/varieties**

| State | Crops/cultivars | Area (ha) | Number of beneficiaries |
|---|---|---|---|
| | | | |

**B. Major area coverage under alternate crops/varieties**

| Crops | Area (ha) | Number of beneficiaries |
|---|---|---|
| **Oilseeds** | | |
| Pulses | | |
| Cereals | | |
| Vegetable crops | | |
| **Total** | | |

**C. Farmers-scientists interaction on livestock management**

| State | Livestock components | Number of interactions | No.of participants |
|---|---|---|---|
| | | | |
| **Total** | | | |

**D. Animal health camps organized**

| State | Number of camps | No.of animals | No.of farmers |
|---|---|---|---|
| | | | |
| **Total** | | | |

**E. Seed distribution in drought hit states**

| State | Crops | Quantity (qtl) | Coverage of area (ha) | Number of farmers |
|---|---|---|---|---|
| | | | | |
| **Total** | | | | |

**F. Large scale adoption of resource conservation technologies**

| State | Crops/cultivars and gist of resource conservation technologies introduced | Area (ha) | Number of farmers |
|---|---|---|---|
| | | | |
| **Total** | | | |

**G. Awareness campaign**

| State | Meetings | | Gosthies | | Field days | | Farmers fair | | Exhibition | | Film show | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | No.of farmers | No. | No.of farmers | No. | No.of farmers | No. | No.of farmers | No. | No.of farmers | No. | No.of farmers |
| | | | | | | | | | | | | |
| **Total** | | | | | | | | | | | | |

## PART XI. IMPACT

## 11.A. Impact of KVK activities (Not to be restricted for reporting period).

| Name of specific technology/skill transferred | No. of participants | % of adoption | Change in income (Rs.) | |
|---|---|---|---|---|
| | | | Before (Rs./Unit) | After (Rs./Unit) |
| Value addition in Millets (laddu) | 30 | 25 | 88450 /ha | Rs. 2000 / month |
| Value addition in Millets (laddu) | 20 | 25 | 92250 /ha | Rs. 5000 / month |
| Value addition in Millets (laddu) | 30 | 25 | 12000/ year | Rs. 3000 / month |
| Protray nursery technique for Turmeric | 10 | 100 | - | Net return Rs. 200000 / ha |
| Pheromone traps in Spodoptera management in Cotton | 10 | 66 | 156000 / ha | Rs. 500 saved |
| Brinjal Pheromone traps for Leucinodes management | 26 | 41 | 95000 /ha | Rs. 500 saved |
| Mushroom cultivation | 20 | 20 | - | Average Additional income Rs.54750 / year |
| Vermicomposting techniques | 24 | 20 | - | Rs. 2000 / month |

## 11.B. Cases of large scale adoption

**Title:** Multi stakeholder approach towards mitigation of Para wilt in Cotton

**Back Ground:**

In Perambalur District out of total geographical extent of 3.69 lakh hectare, 2.38 lakh hectare was utilized for agriculture and the major crops were Maize, Cotton, and Onion under rainfed conditions. This year Cotton was grown under 20382 ha in Perambalur district. Due to prolonged heavy rain during the month of October, November and December the outbreak of Para wilt was noticed due to insufficient oxygen in root zone of cotton and 35% of the area was affected by this physiological disorder. This was

caused by the poor drainage in soil or tightening of soil near root zone of crop which makes deficient of oxygen. The main reason for this issue was non awareness of this physiological disorder which hadn't been a major problem in before past.

**Interventions**

**Process**

Hence, KVK team along with the scientists of Tamil Nadu Agricultural University and with the help of inline departments conducted a diagnostic visit in Perambalur district. This team visited all four blocks of Perambalur district. During the visit, They gave recommendation for diseases to the farmers. Also they provided recommended measures through mobile SMS, voice SMS, News paper coverage, Radio announcements and Village information boards to the farmers.

**Technology**

The recommended fertilizer Pottasium nitrate @ 5 kg/ acre soil application and foliar spray of Potassium nitrate fertilizer @ 10 g/ lit foliar spray was very effective in controlling Para wilt in cotton. Demonstrations were conducted mainly on focusing towards manage this disease and recovery of the cotton crops.

**Outcome**

**Horizontal Spread:**

The application of Pottasium nitrate fertilizer both soil and foliar application was demonstrated in Selected farmers field incidence during second fortnight of November, 2013 in our Perambalur district. The disease incidence was 24 - 36 % before the spray. A control plot also maintained in each village as a check. The untreated cotton fields got fully damaged but all the demonstrated fields rejuvenated. A field day was conducted at last and after that all other farmers were also seeing on believing, then most of the cotton farmers followed the same technology after the field day. Thus, the technology spread in a horizontal way by field demonstration, newspaper coverage, mobile SMS, Voice SMS and Radio announcement.

**Economic Gain:**

Our KVK do sent the timely advisory for pest and disease management through SMS to the cotton farmers. After harvest market information *i.e.,* market price of cotton kappas gathered in nearest market like Attur and Konkanapuram (Salem District) were also sent to the cotton farmers through mobile SMS after the rate finalized in the market. We have sent mobile SMS to nearly 2,230 farmers in all the Perambalur District. This timely information created awareness about market prices among the cotton farmers. Based on the market value, they sold the produce @ Rs.5300/q for long Staple Bt cotton hybrids where as Rs. 6500/q for extra long Staple Bt hybrids. The local vendors

previously purchased in lower market prices only. So, the cotton farmers fetched an additional income of Rs.400 to 800 /q for long staple Bt cotton hybrids and Rs. 600 to 1200 /q for extra long staple Bt hybrids.

With the help of advisory services, disseminated of technologies and market information delivered the farmers effectively controlled the disease up to the mark. After the demonstration periodic surveys were being conducted and advised to Spray NPK (19:19:19) foliar application of 1 kg/ acre to boost up the plant and saved yield loss up to 30 - 40 %. They sold the produce to the nearest market and attained good income.

**11.C. Details of impact analysis of KVK activities carried out during the reporting period**

During 2015/16 the KVK introduced varietal demonstration of Groundnut – TMVGn-13. It was recently released one and a red kernel variety. Farmers preferred this variety due to its shorter maturity period compared to the already cultivated one in perambalur district. The oil recovery is also higher but the occurrence of bitterness in oil taste was seen in TMVGn – 13 variety. So farmers felt that they could not use oil for their domestic purpose. Moreover people also use nuts for domestic consumption and this nuts were only for oil purposes so people couldn't use them. Only since yield was comparatively higher than the ruling variety the TMVGn-13 fetched higher income and farmers retained seeds for next sowing.

Recent trends on healthy food habits of the urban population has driven the agricultural sector to substantially increase the production of millets for food. Our district consists of small pockets where minor millets production is still practiced. The large area under cultivation in the district holds only the major crops viz., maize, cotton onion, sugarcane. To increase the farmer per capital income a recently released Co3 varagu variety was introduced to farmer for cultivation in their fields for demonstration purpose in areas located not far from the urban zones. Farmers who have chosen to cultivate varagu provided feedback that they had not gone for any pesticide or fungicide the crop had fetched them a good yield and they are using their harvest for their households and seed materials for next cropping period.

Although the CoGR14 Lablab was recommended for cropping throughout the year. The performance was well only during the Rabi season. But during the summer heavy flower drop was recorded in all the areas where the demonstration were conducted. And this resulted in poor pod formation. Farmers felt that the higher amount of flower produced by the variety would lead a good yield and provide them a better income but the sudden drop of flower could not be controlled by available technologies and hence preference was less for this variety and acceptable during the Rabi only.

Demonstration of multicut coriander variety was carried out with the lager expectance of good performance and was anticipated that it could certainly yield a better performance and could create a competitiveness in the coriander cultivating areas but the ratoon crop had little aroma after ratooning and higher temperatures caused early scorching and withering of leaves. Although the yield was comparatively higher and provided zero seed cost after ratoon the preference was much less due to the market preferable qualities in this variety.

The KVK demonstrated rapid multiplication technique in turmeric in the turmeric belt of Perambalur district. The protray nursery technology introduced in the demonstration yielded a good impact among farmers due to the reduced quantity of seed material requirement. Initially the farmer in the area would need a Transport carrier to procure rhizome for seeding even for a lesser area of cultivation. But the portray nursery technology reduced their burden such that they could procure the seeding material in gunny bags and could he carried even in their own two wheeler/four wheeler. Manual weeding became more important during and after the planting as herbicides could not be applied over the cropped area after planting as there were no specific weedicides available for turmeric. This was a major constrain for the turmeric demonstrating farmers. Considering the low seed cost, reduced nematode and disease appearance (due to seed treatment methods) the preference for portray nursery technique was comparatively better even when it had the weed problem. Preference

was more for the second period and most farmer follow the technique and without further assistance.

## PART XII - LINKAGES

### 12.A.Functional linkage with different organizations

| Name of organization | Nature of linkage |
|---|---|
| TamilNadu Agricultural University, Coimbatore | Technical consultancy , participation in seminar, technical interaction during formulation of OFT and FLD and SAC . |
| State Department of Agriculture | Training programmes , joint diagnostic survey, identification of target groups for implementing the KVK activities such as training , OFT, FLD demonstrations , field days , SAC interactions and participation in monthly zonal workshop |
| State Department of Horticulture | Training programmes , joint diagnostic survey, identification of target groups for implementing the KVK activities such as training , OFT, FLD demonstrations, SAC interactions and field days |
| State Department of Animal Husbandry | Animal health camp, technical interaction and SAC interactions |
| Tamil Nadu Corporation for Development of Women Ltd., | Vocational trainings to self help group members and SAC interactions |
| State Department of Sericulture | Technical interaction , participation in seminar, SAC interactions and meetings |
| National Research Centre for Banana | Technical consultancy , participation in seminar and SAC interactions |
| Veterinary University Training and Research Centre ,Perambalur | Technical consultancy , participation in seminar and technical interaction during formulation of OFT&FLD |
| KVK, Namakkal, Cuddalore, sirugamani, Tindivanam, Karur, Erode, Krishnagiri. | KVK ring |
| ATMA, Perambalur | Technical guidance, Training, FarmSchool, SREP preparation |
| DWDA, Krishnagiri | Watershed Training & Exposure visit. |
| NABARD, Perambalur | Formation of Farmers clubs, Participation in seminar, SAC interactions and identification of target groups, FPO's |
| Community Polytechnic Scheme, Roever Polytechnic, Perambalur | Training to Community Polytechnic Scheme beneficiaries and participation in demonstrations |
| All India Radio, Trichy | Information broadcasting on KVK events to farmers, technical broadcasting to farmers and SAC interactions |
| DMI,NGO, Valikandapuram | Trainings and seminars |
| Thanthai Roever Institute of Agriculture and Rural Development, Perambalur | Collaborative training, NSS meetings |
| A.M.N.T.V (Local T.V.) | KVK activities telecast |
| News papers | News coverage on KVK activities, publication of popular articles on agriculture |
| Integrated Child Development Scheme(ICDS) | Sponsored training, technical consultant |
| National Horticultural Research and Development Foundation, Coimbatore | Technical guidelines and seed materials |
| CICR, Coimbatore<br>NCIPM, New Delhi<br>& CCI, Coimbatore | Sponsored training and technical consultant, Bt cotton IPM research |
| State department of Fisheries, Perambalur | Extension activities and FLD programme |

| | |
|---|---|
| Regional Research Station for forage crops, Chennai | Extension activities |

### 12.B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

| Name of the scheme | Role of KVK | Date/ Month of initiation | Funding agency | Amount (Rs.) |
|---|---|---|---|---|
| OPMAS in Cotton | Pest monitoring and extension activities | 4/1/2015 | NFSM, Ministry of Agriculture | NFSM, Ministry of Agriculture |
| Synthesis and validation of IPM strategy for emerging pest in Cotton | Field experiment | 4/1/2015 | NRC for IPM | NRC for IPM |
| FLD on Cotton | Farmers seletion, Input distribution, and Extension activities | 7/1/2015 | CCi, Coimbatore | CCi, Coimbatore |

## 12.C. Details of linkage with ATMA

**a) Is ATMA implemented in your district** Yes.

**If yes, mention role of KVK in preparation of SREP of the district?**

KVK scientists took part in preparation of SREP

### Coordination activities between KVK and ATMA during 2015-16

| Sl. No. | Programme | Particulars | No.of Programmes attended by KVK Staff | No.of Programmes organized by KVK | Other remarks (if any) |
|---|---|---|---|---|---|
| 1. | Meetings | Strategic Research Extension plan | 3 | - | - |
| 2. | Research Project | - | - | - | - |
| 3 | Demonstration | Soil sampling, Seed treatment with bioagent, Foliar Spray of groundnut rich, Foliar spray of Neem Oil | 5 | - | - |
| 4 | Training Programmes | Soil Health Management ICM in Groundnut IPM, IDM in Ground nut | 4 | - | - |
| 5 | Extension Programmes | Field day | 1 | - | - |
| 6 | Farm School | Farm School on Groundnut | 8 | 1 | - |

**12.D. Give details of programmes implemented under National Horticultural Mission - Nil**

**12.E. Nature of linkage with National Fisheries Development Board -** Nil

**12.F. Details of linkage with RKVY -** Nil

**12. G Kisan Mobile Advisory Services**

| Month | No. of SMS sent | No. of farmers to which SMS was sent | No. of feedback / query on SMS sent |
|---|---|---|---|
| April 15 | 0 | 0 | 32 |
| May 15 | 0 | 0 | |
| June 15 | 1 | 3500 | |
| July 15 | 2 | 3592 | |
| August 15 | 1 | 3592 | |
| September 15 | 1 | 3592 | |
| October 15 | 3 | 3592 | |
| November 15 | 2 | 3592 | |
| December 15 | 2 | 4500 | |
| January 016 | 1 | 4500 | |
| February 016 | 1 | 4500 | |
| March 016 | 0 | 0 | |
| **Total** | **14** | **4500** | |

## PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

### 13.A. Performance of demonstration units (other than instructional farm)

**Performance of demonstration units (other than instructional farm)**

| Sl. No. | Demo Unit | Year of Establishment | Area (ha) | Details of production | | | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Variety | Produce | Qty. | Cost of inputs | Gross income | |
| 1. | Goat | 2007 | .0054 | Tellicherry | Breeding kids | 24 Nos.(408.05 kg.) | 60,000.00 | 78,307.00 | |
| 2. | Poultry shed | 2011 | 0.0144 | Desi Chicks | Desi chicks<br>Desi chicken | 939 Nos.<br>1074.3 Kgs. | 1,34,600.00 | 41,330.00<br>1,57,272.00 | |
| 3. | Birds Demo Unit | 2011 | 0.01 | Poultry<br>Japanese Quail<br>Duck | Giriraja<br>Turkey<br>Turkey Chicks<br>Quail Chicks<br>Duck<br>Love birds<br>Spingers<br>Fancy chicks | 102 (208.09 kgs.)<br>361.33 kgs.<br>84 Nos.<br>6500 Nos.<br>15 Nos.<br>36 Nos.<br>11 Nos.<br>15 Nos. | 1,02,500.00 | 18619.00<br>51870.50<br>15275.00<br>48400.00<br>2350.00<br>5850.00<br>1100.00<br>1500.00 | |
| 4. | Shade net | 2007 | 0.0383 | Commercial varieties | Fruits<br>Vegetables<br>Spices<br>Forestry<br>Ornamentals<br>Plantation crops | 5,275 Nos.<br>1,232 Nos.<br>62 Nos.<br>6,995 Nos.<br>6,873 Nos.<br>2,737 Nos. | 4,63,200.00 | 2,41,625.00<br>12,520.00<br>5,250.00<br>1,12,434.00<br>2,06,655.00<br>1,65,300.00 | Propagation purpose |
| 5. | Poly house | 2007 | 0.0082 | | | | | | |
| 6. | Mist Chamber | 2012 | 0.0096 | | | | | | |
| 7. | Home care products lab | 2007 | 0.0052 | Home care products | Phenoyle<br>Bleaching powder<br>Cleaning powder<br>Soap oil<br>Sampar powder<br>Coriander powder<br>Rasam powder<br>Currymasala powder<br>Idli powder<br>Chicken masala powder<br>Cumbu biscuit<br>Varagu biscuit<br>Sorghum biscuit<br>Ragi biscuit<br>Thenai biscuit<br>Samai biscuit | 10,553 lits<br>8,597 kgs.<br>5,592 kgs.<br>108 lits.<br>300 kgs.<br>450 kgs.<br>44.5 kgs.<br>150 kgs.<br>300 kgs.<br>150 kgs.<br>6.300 kgs.<br>8.700 kgs.<br>5.700 kgs.<br>8.700 kgs.<br>5.200 kgs.<br>2.500 kgs. | 1,98,500.00<br>1,70,350.00<br>48,990.00<br>2,340.00<br>55,480.00<br>53,450.00<br>7,950.00<br>23,450.00<br>38,380.00<br>26,750.00<br>1,100.00<br>1,615.00<br>1,025.00<br>1,035.00<br>1,235.00<br>530.00 | 3,16,590.00<br>2,57,910.00<br>89,472.00<br>4,860.00<br>84,000.00<br>81,000.00<br>15,375.00<br>42,000.00<br>69,000.00<br>43,900.00<br>1,575.00<br>2,175.00<br>1,425.00<br>2,175.00<br>1,820.00<br>875.00 | - |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Valarai Thenai biscuit<br>Valarai Ragi biscuit<br>Spirulina biscuit | 1.300 kgs.<br>5.500 kgs.<br>2.400 kgs. | 290.00<br>1,530.00<br>520.00 | 455.00<br>1,925.00<br>840.00 | |
| 8. | Mushroom | 2007 | 0.0024 | Oyster mushroom | Mushroom<br>Spawn | 117 kgs.<br>1030 Nos. | 14,300.00 | 18,720.00<br>41,440.00 | |
| 9 | Vermicompost Unit | 2012 | 0.0073 | Eudrilus eugeniae | Vermiworms and compost<br>Vermi worms<br>Vermi wash | 16286.5 Kgs.<br>247.3 kgs.<br>17 lits | 1,02,650.00 | 1,18,126.00<br>98,650.00<br>850.00 | - |
| 10. | Azolla unit | 2014 | 0.0036 | Azolla | Azolla | 34.75 kgs | 600.00 | 1,137.50 | - |
| 11 | Fish pond | 2016 | 0.0172 | - | - | - | - | - | - |

**13.B. Performance of instructional farm (Crops) including seed production**

| Name of the crop | Date of sowing | Date of harvest | Area (ha) | Details of production | | | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Variety | Type of Produce | Qty | Cost of inputs | Gross income | |
| **Cereals** | | | | | | | | | |
| Maize | 09.08.2015 | 02.12.2015 | 0.6 | NK 6240 | Grains | 1600 Kgs. | 11,800.00 | 17,600.00 | |
| **Pulses** | | | | | | | | | |
| Black gram | 16.04.2015 | 02.07.2015 | 0.4 | VBN 6 | Grains | 107 Kgs. | 15,200.00 | 21,400.00 | |
| **Fibers** | | | | | | | | | |
| Cotton | 12.08.2015 | 24.02.2016 | 0.4 | MRC 7918 BG II | Lint | 120 Kgs. | 7,300.00 | 4,680.00 | Crop affected due to heavy rain |
| **Spices & Plantation crops** | | | | | | | | | |
| Coconut | 05.08.2007 | Round the year | 2.0 | East Coast Tall | Nuts | 177 Nos. | 30,850.00 | 2,132.00 | Standing crop |
| Coconut | 05.08.2007 | | 0.2 | T x D | - | - | | - | Standing crop |
| Coconut | 05.08.2007 | | 0.4 | Dwarf | - | - | | - | Standing crop |
| Coconut | 30.08.2007 | | 700 trees | T x D | Nuts<br>Dried nuts | 4038 Nos.<br>810 Nos.(Oil) | | 55,939.00<br>15,825.00 | Road side and Bund side trees |
| | | | | | Dried Leaves | 12 loads | | 11,900.00 | For fire wood |
| **Floriculture** | | | | | | | | | |
| **Fruits** | | | | | | | | | |
| Sapota | 05.08.2007 | Round the year (Partially Bearing) | 0.4 | Cricket ball, Oval & PKM 1 | Fruit | 234 kgs | 2,000.00 | 5,140.00 | Standing crop |
| Mango intercrop with Lemon | 10.10.2008 | Partially bearing Round | 0.4 | Neelam, Banganapalli, | Fruit | 339.350 kgs. | 3,600.00 | 6,649.00 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | the year | | Senthura and Lemon, PKM 1 | | 65,765 Nos. | 17,200.00 | 1,70,139.50 | |
| Jamun | 11.12.2012 | - | 0.2 | Jumbo | Fruit | - | 1,500.00 | - | |
| Tamarind | 11.12.2012 | - | 0.2 | PKM 1 | Fruit | - | 1,500.00 | - | |
| Mango | 12.12.2012 | - | 0.4 | Bangalora Himanpasanth Alphonsa | Fruit | - | 3,000.00 | - | |
| Amla | 25.12.2013 | Partially bearing | 0.3 | NA 7 | Fruit | 6 kgs | 2,000.00 | 300.00 | |
| Guava | 04.07.2014 | Partially bearing | 0.4 | Lucknow 46 & 49 | Fruit | 9.750 kgs | 7,200.00 | 340.00 | Standing crop |
| Banana | 17.01.2015 | 24.09.2015 | 0.3 | Mondan | Fruit | 19,685 Nos. | 18,700.00 | 55,990.00 | Standing crop (Ratoon) |
| | | | | | Trees | 17 Pairs | | 6,600.00 | |
| | | | | | Leaves | 1465 Nos. | | 2,545.00 | |
| | | | | | Stem | 289 Nos. | | 3,785.00 | |
| | | | | | Suckers(Seed) | 145 Nos. | | 2,175.00 | |
| | | | | | Flowers | 177 Nos. | | 987.00 | |
| **Forestry** | | | | | | | | | |
| Sandal wood inter crop Agathi & Ponnankanni keerai | 23.10.2015 | - | 0.2 | Sandal | Trunk | 306 bundles | 20,000.00 | 3600.00 | Standing crop |
| **Vegetables** | | | | | | | | | |
| Tomato | 07.12.2014 | 10.01.2015 | 0.2 | PKM 1 | Fruit & Seeds | 3250 Kgs. 1.700 kgs. | 18,600.00 | 32,500.00 1,700.00 | |
| Moringa | 25.01.2015 | 12.02.2016 | 0.1 | Native moringa | Fruit | 112 kgs. | 3,200.00 | 4,061.00 | Ratoon Trees |
| | | | | | | | | | |
| Dolichos | 16.02.2015 | 02.05.2015 | 0.2 | Arka vijay | Fruit Seed | 725 kgs 17 kgs | 7,425.00 | 13,050.00 10,200.00 | |
| Brinjal | 28.03.2015 | 03.06.2015 | 0.2 | Manaparai Brinjal | Fruit | 1492 kgs. | 18,650.00 | 25,752.00 | |
| Radish | 12.04.2015 | 23.05.2015 | 0.1 | Pusha Chetki | Root | 623 kgs | 4,100.00 | 6,230.00 | |
| Mesta | 15.04.2015 | 31.05.2015 | 0.1 | local | Leaves | 788 bundles | 5,460.00 | 7,880.00 | |
| Vegetable Cowpea | 16.04.2015 | 18.07.2015 | 0.15 | VNR Type | Pod Grains | 110 bundles 55 kgs | 1,650.00 5,500.00 | 3,700.00 | |
| Bhendi | 18.04.2015 | 10.05.2015 | 0.2 | Mahyco hybrid | Fruit | 1251 kgs. | 6,850.00 | 12,510.00 | |
| Small Onion | 25.05.2015 | 05.08.2015 | 0.4 | Local | Bulb Seed bulb | 1830 kgs. 645 kgs. | 18,600.00 | 27,450.00 17,415.00 | |
| Onion | 25.05.2015 | 27.08.2015 | 0.1 | Co 5 | Bulb Seed | 470 kgs. 1.5 kgs. | 3,780.00 | 4,700.00 1,500.00 | |
| Snakegourd | 15.06.2015 | 29.08.2015 | 0.1 | Co 2 | Fruit & Seeds | 356 kgs. 5 kgs. | 5,800.00 | 3,560.00 5,500.00 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Bhendi | 24.06.2015 | 19.07.2015 | 0.2 | US Hybrid | Fruit | 1012 kgs. | 7,910.00 | 12,144.00 | |
| Brinjal | 05.07.2015 | 02.10.2015 | 0.2 | Mahyco Hybrid | Fruit | 1340 kgs. | 15,630.00 | 26,800.00 | |
| Radish | 05.07.2015 | 16.08.2015 | 0.15 | Pusa chetki | Root | 987 kgs. | 6,350.00 | 9,870.00 | |
| Mesta | 05.07.2015 | 21.08.215 | 0.1 | Local | Leaves | 1023 Bundles | 5.200.00 | 10,230.00 | |
| Annual Moringa | 12.07.2015 | 12.01.2016 | 0.2 | PKM 1 | Fruit<br>Seed | 145 kgs<br>2.150 kgs | 3,500.00 | 2,900.00<br>7,740.00 | |
| Snakegourd | 20.07.2015 | 01.10.2015 | 0.1 | White long | Fruit &<br>Seeds | 150 kgs.<br>10 kgs. | 7,230.00 | 1,500.00<br>11,000.00 | |
| Coriander | 20.07.2015 | 28.08.2015 | 0.4 | Hybrid | Leaves | 175 bundles | | 2,625.00 | Inter crop for Mango with lemon field |
| Coriander Leaves | 20.07.2015 | 29.08.2015 | | Arka Esha &<br>Arka Aroma | Leaves<br>Seeds | 39 kgs. | 1850.00 | 2,300.00<br>19,500.00 | |
| Amaranthus (Thandukeerai) | 20.07.2015 | 30.08.2015 | | Co 2 | Leaves | 1245 bundles | | 12450.00 | |
| Cluster bean | 07.07.2014 | 15.08.2014 | 0.05 | Pusa Naubahar | Fruit | 150 Kgs. | 1,000.00 | 1,500.00 | |
| Mesta | 07.07.2015 | 21.08.2015 | 0.1 | Local | Leaves | 710 bundles | 3,770.00 | 7,100.00 | |
| Pumpkin | 26.07.2015 | 12.10.2015 | 0.2 | Hybrid | Fruit | 316 kgs. | 4,600.00 | 2,528.00 | |
| Bottle gourd | 26.07.2015 | 12.10.2015 | 0.2 | Hybrid | Fruit | 835 kgs. | 8,980.00 | 6,680.00 | |
| Ash gourd | 26.07.2015 | 27.10.2015 | 0.2 | Hybrid | Fruit | 412 kgs. | 3,700.00 | 4,120.00 | |
| Radish | 02.08.2015 | 23.09.2015 | 0.1 | Push Chetki | Root | 389 kgs. | 2,200.00 | 3,890.00 | |
| Brinjal | 03.09.2015 | 15.12.2015 | 0.2 | Mahyco hybrid | Fruit | 2110 kgs. | 16.800.00 | 31,650.00 | |
| Amaranthus (Thandukeerai) | 05.10.2015 | 19.11.2015 | 0.1 | Co 2 | Leaves | 1215 bundles. | 4,800.00 | 12,150.00 | Inter crop for Mango with lemon field |
| Palakeerai | 05.10.2015 | 19.11.2015 | 0.05 | Local | Leaves | 245 bundles | | 3,675.00 | |
| Coriander | 05.10.2015 | 19.11.2015 | 0.05 | Hybrid | Leaves | 310 bundles | | 3,100.00 | |
| Bhendi | 10.10.2015 | 16.11.2015 | 0.2 | Sakthi Hybrid | Fruit | 1682 kgs. | 13,800.00 | 25,230.00 | |
| Mesta | 10.10.2015 | 29.11.2015 | 0.2 | Local | Leaves | 1411 bundles. | 8,250.00 | 14,110.00 | |
| Bhendi | 03.11.2015 | 20.12.2015 | 0.2 | US Hybrid | Fruit | 856 kgs. | 17,230.00 | 24,438.50 | |
| Dolichos | 03.11.2015 | 04.02.2016 | 0.2 | Arka vijay | Fruit | 893.5 kgs. | 19,960.00 | 33,886.00 | |
| Cluster bean | 16.11.2015 | 02.01.2016 | 0.05 | Pusa Nowbahar | Fruit | 333.5 kgs. | 3,650.00 | 6,423.00 | |
| Mesta | 16.12.2015 | 29.01.2016 | 0.1 | Local | Leaves | 800 bundles | 5,200.00 | 8,000.00 | |
| Radish | 18.12.2015 | 12.02.2016 | 0.1 | Push Chetki | Root | 588.5 kgs. | 6,980.00 | 14,055.00 | |
| Tomato | 28.12.2015 | 26.02.2016 | 0.1 | PKM 1 | Fruit | 1197 kgs. | 8,725.00 | 11,966.00 | |
| Bottle gourd | 30.01.2016 | 06.04.2016 | 0.2 | Mahyco Hybrid | Fruit | 418 kgs. | 2,600.00 | 3,814.00 | |
| Radish | 10.02.2016 | 21.03.2016 | 0.1 | Pusha Chetki | Root | 591.5 kgs. | 6,740.00 | 8,910.00 | |
| Coriander | 18.02.2016 | 30.03.2016 | 0.1 | Hybrid | Leaves | 279 bundles | 2,300.00 | 4,185.00 | |
| Amaranthus (Thandukeerai) | 18.02.2016 | 31.03.2016 | 0.1 | Co 2 | Leaves | 368 bundles | 2,000.00 | 3,680.00 | |
| Bhendi | 02.03.2016 | - | 0.2 | Hybrid | Fruit | - | 5,790.00 | - | Standing crop |
| Mesta | 26.03.2016 | - | 0.2 | Local | Leaves | - | 4,260.00 | - | Standing crop |

| Fodder Crops | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Fodder Sorghum | 10.08.2010 | Round the year | 0.4 | Co FS 29 | Leaves & Seeds | 186 kgs. | 47,960.00 | 1,02,300.00 | Leaves for our goat unit |
| Desmanthus (Velimasal) | 13.06.2012 | Round the year | 0.2 | Local | Leaves & Seeds | 49.775 kgs. | | 29,865.00 | |
| Cumbu Napiar | 28.04.2013 | Round the year | 0.4 | Co 4 | Leaves | 4,500 sets | | 9,000.00 | |
| Cumbu Napiar | 28.03.2015 | Round the year | 0.2 | Co 5 | Leaves | 62,650 sets | | 31,325.00 | |
| Agathi | 28.03.2015 | Round the year | 0.1 | Local | Leaves & Seeds | 13.375 kgs. | | 8,025.00 | |

### 13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)
### Production of Bio-Products

| Sl.No | Name of the product | Qty | Amount (Rs.) | | Remarks |
|---|---|---|---|---|---|
| | | | Cost of inputs | Gross income | |
| 1 | Panchakavya | 168 Lit | 8000 | 23650 | |
| 2 | T.viride – Powder form | 102 Kgs. | 6120 | 10200 | |
| 3 | T.viride – Liquid form | 28 Lit | 6300 | 8400 | |
| 4 | Pseudomonas - Powder form | 94.4 Kgs. | 4720 | 9440 | |
| 5 | Pseudomonas – Liquid form | 10 Lit. | 2000 | 3000 | |
| 6 | Vermiworm | 247.3 | 25000 | 98650 | |
| 7 | Effective Microorganism (EM) | 3 Lit | 750 | 900 | |
| 8 | Vermicompost | 16286.5 | 113400 | 118126 | - |
| 9 | Vegetable special | 179 Kgs. | 22375 | 28640 | |

### 13.D. Performance of instructional farm **livestock and fisheries production**

| Sl.No | Name of the animals / bird/ aquatics | Details of production | | | Amount | | Remarks |
|---|---|---|---|---|---|---|---|
| | | Breed | Type of produce | Qty | Cost of inputs | Gross income | |
| 1 | Goat | Tellecherry | Kid | 24 | 60000.00 | 78307.00 | - |
| 2 | Birds | Poultry<br>Japaneese quail<br>Duck | Giriraja<br>Turkey<br>Turkey Chicks<br>Quail Chicks<br>Duck<br>Love birds<br>Spingers<br>Fancy chicks | 102 (208.09 kgs.)<br>361.33 kgs.<br>84 Nos.<br>6500 Nos.<br>15 Nos.<br>36 Nos.<br>11 Nos.<br>15 Nos. | 102500.00 | 18619.00<br>51870.50<br>15275.00<br>48400.00<br>2350.00<br>5850.00<br>1100.00<br>1500.00 | - |

## 13.E. Utilization of hostel facilities

Accommodation available (No. of beds) - 50

| Months | No. of trainees stayed | Trainee days (days stayed) | Reason for short fall (if any) |
|---|---|---|---|
| April 2015 | - | - | - |
| May 2015 | - | - | - |
| June 2015 | 50 | 2 | - |
| July 2015 | - | - | - |
| August 2015 | - | - | - |
| September 2015 | - | - | - |
| October 2015 | - | - | - |
| November 2015 | - | - | - |
| December 2015 | - | - | - |
| January 2016 | 50 | 2 | - |
| February 2016 | - | - | - |
| March 2016 | - | - | - |

## 13.F. Database management

| S. No | Database target | Database created |
|---|---|---|
| 1 | Trainings Database | Created Discipline wise Trainings database |
| 2 | Soil and Water sample | Created database for soil and water samples |
| 3 | Website updating | Updating every month |
| 4 | KMAS | Collecting farmer nos and send messages by using Farmers portal |

## 13.G. Details on Rain Water Harvesting structure and micro-irrigation system

| Amount sanction (Rs.) | Expenditure (Rs.) | Details of infrastructure created / micro irrigation system etc. | Activities conducted | | | | | Quantity of water harvested in '000 litres | Area irrigated / utilization pattern |
|---|---|---|---|---|---|---|---|---|---|
| | | | No. of Training programmes | No. of Demonstration s | No. of plant materials produced | Visit by farmers(No.) | Visit by officials (No.) | | |
| 1000000 | 1000000 | Drip irrigation for orchard and coconut plantation | 2 | 4 | 5517 | 100 | 5 | 5500 | 6 |

## PART XIV – FINANCIAL PERFORMANCE

## 14.A. Details of KVK Bank accounts

| Bank account | Name of the bank | Location | Branch code | Account Name | Account Number | MICR Number | IFSC Number |
|---|---|---|---|---|---|---|---|
| With Host Institute | - | - | - | - | - | - | - |
| With KVK | State Bank of India | Perambalur | 00796 | KVK Regular account | 11085357213 | 621002002 | SBIN0000796 |
| Revolving fund | State Bank of India | Perambalur | 00796 | KVK Revolving fund | 11085357224 | | |
| FLD oilseeds and pulses | State Bank of India | Perambalur | 00796 | KVK FLD oilseeds and pulses | 11085360622 | | |
| FLD cotton | State Bank of India | Perambalur | 00796 | KVK FLD cotton | 11085364231 | | |
| With Revolving fund | Union Bank of India | Valikandapuram | 543713 | PC HRKVK Corpus Seeds | 437102010023496 | 621026503 | UBIN543713 |
| With Revolving fund | Union Bank of India | Valikandapuram | 543713 | PC HRKVK Corpus Nursery | 437102010023497 | | |
| With Revolving fund | Union Bank of India | Valikandapuram | 543713 | PC HRKVK Corpus Home Science | 437102010023498 | | |
| With Revolving fund | Union Bank of India | Valikandapuram | 543713 | PC HRKVK Corpus Building | 437102010023992 | | |
| With Revolving fund | Union Bank of India | Valikandapuram | 543713 | PC HRKVK Corpus vegetables | 437102010023 | | |

**13. B.Utilization of KVK funds during the year 2015-16(Rs. In lakh)**

| S.No. | Particulars | Sanctioned | Released | Expenditure |
|---|---|---|---|---|
| **A. Recurring Contingencies** | | | | |
| 1 | Pay & Allowances | 82.63 | 90.81 | 82.63 |
| 2 | Traveling allowances | 01.00 | | 01.00 |
| 3 | Contingencies | | | |
| *A* | Stationary and office expenses | 01.55 | | 01.97 |
| *B* | POL and R & M of vehicles | 01.00 | | 01.25 |
| *C* | Vocational Training (Meals) | 0.45 | | 0.45 |
| *D* | Vocational Training (Training Meterials) | 0.16 | | 0.16 |
| *E* | FLD | 3.30 | | 3.30 |
| *F* | FLD on special pulse programme | | | |
| *G* | On-Farm Testing | 0.23 | | 0.23 |
| *H* | Training of extension functionaries | 0.00 | | 0.00 |
| *I* | Maintenance of building | 0.00 | | 0.00 |
| *J* | Extension activities | 0.45 | | 0.45 |
| *K* | Library | 0.04 | | 0.04 |
| *L* | Farmers Field School | 0.00 | | 0.00 |
| | **Total (A)** | **90.81** | | **91.48** |
| **B. Non-Recurring Contingencies** | | | | |
| 1 | Equipments and furniture | 00.00 | 00.00 | 00.00 |
| 2 | Works - Demo unit | | | |
| 3 | Demonstration unit | 00.00 | 00.00 | 00.00 |
| 4 | Library maintenance | 00.00 | 00.00 | 00.00 |
| 5 | Vehicle | 00.00 | 00.00 | 00.00 |
| 6 | Soil Testing Laboratory | 00.00 | 00.00 | 00.00 |
| | **TOTAL NON-RECURRING(B)** | | | |
| **TOTAL (B)** | | **00.00** | **00.00** | **00.00** |
| **C. REVOLVING FUND** | | | | |
| **GRAND TOTAL (A+B+C)** | | **90.81** | **90.81** | **91.48** |

* **Excess amount (Rs 67,000) met out from Revolving fund**

**14. Revolving Fund 2015-16 (Rs. In Lakhs)**

| Year | OB as on 1st April | Income | Expenditure | Net balance 1st April |
|---|---|---|---|---|
| April 2013 to March 2014 | 3.75 | 19.69 | 18.90 | 4.54 |
| April 2014 to March 2015 | 4.54 | 33.60 | 29.42 | 8.72 |
| April 2015 to March 2016 | 8.72 | 51.50 | 47.91 | 12.31 |

## 15. Details of HRD activities attended by KVK staff during 2015-16

| Name of the staff | Designation | Title of the training programme | Institute where attended | Dates |
|---|---|---|---|---|
| Mr. J. Kathiravan | SMS (Horticulture) | Agroforestry models - establishment and management' | Institute of Forest Genetics and Tree Breeding, Indian Council of Forestry Research and Education, Coimbatore | 11/18/2015 to 11/20/2015 |
| Mr.V.Karuppasamy | Farm Manager | Farm Managers Training | TamilNadu Agricultural University, Coimbatore | 3/23/2016 to 3/24/2016 |

## 17. Please include any other important and relevant information which has not been reflected above (write in detail).

### Online Pest Monitoring and Advisory services in Cotton

The OPMAS on cotton project was implemented by KVK Perambalur in coordination with National Research Centre for Integrated Pest Management (ICAR), New Delhi and funded by Ministry of Agriculture, Department of Agriculture and Cooperation, Government of India, New Delhi under National Food Security Mission Commercial crops programme. The major objectives are

- Development and implementation of web-based pest monitoring and advisory services for emerging pests, diseases and any other significant problems in Cotton crop
- Sharing the information on pest scenario with state / central agencies for developing IPM strategies
- Awareness through validation and demonstration of management strategies, trainings and electronic media to enhance the capabilities of farmers
- Socio-economic studies for impact analysis
- Collection of real time weather data, development of pest correlation with weather data and statistical analysis of pest data for hot spots
- Monitoring of resistance in pink bollworm population.

Based on the above objective KVK Perambalur implement this programme in 18 selected major cotton cultivated villages at Perambalur and Salem districts in Tamilnadu during 2015-16. The major findings, achievement and impacts are depicted below.

- Lowest seed cotton yield due to heavy rainfall
- Heavy incidence of *S.litura* on BG II *Bt* hybrids
- Incidence of mealybugs (*Paracoccus marginatus* Williams & Granara de Willink) on *Bt* Cotton hybrids
- Root rot (*Rhizoctonia solani* Kuehn) incidence
- Severe incidence of Para wilt on *Bt* Cotton
- Higher Labour cost increase the cost of production

Achievements are

| **Extension activities** | **Achievement** | **No. of farmers benefitted** |
|---|---|---|
| No. of data observed | 1378 | 4500 |
| No. of data fed in online | 1378 | 4500 |
| Training of farmers | 12 | 349 |
| News paper coverages | 15 | Mass |
| No. of SMS sent | 22 | 4515 |
| No. of voice SMS sent | 7 | Mass |
| Popular articles | 1 | Mass |
| Advisory to the farmers through village information board | 2 nos/week/village (based on the pest and disease incidence) | Mass |
| Diagnostic visits | 8 | 108 |
| Scientist visits | 3 | mass |
| Field day | 5 | 175 |
| Success story | 2 | - |

# SUMMARY FOR 2015-16

## I. TECHNOLOGY ASSESSMENT

**Summary of technologies assessed under various crops**

| Thematic areas | Crop | Name of the technology assessed | No. of trials |
|---|---|---|---|
| Integrated Nutrient Management | | | |
| | | | |
| Varietal Evaluation | Maize | Assessment of Maize hybrids | 5 |
| | Finger millet | Assessment of Finger millet varieties | 5 |
| | Onion | Assessment of Aggregatum Onion varieties | 5 |
| **Total** | | | **15** |

**Summary of technologies assessed under livestock** **-** Nil

**Summary of technologies assessed under various enterprises** **-** Nil

**Summary of technologies assessed under home science** **-** Nil

## II. TECHNOLOGY REFINEMENT

**Summary of technologies refined under various crops** **-** Nil

**Summary of technologies assessed under refinement of various livestock** **- Nil**

**Summary of technologies refined under various enterprises** **-** Nil

**Summary of technologies refined under home science** **-** Nil

## III. FRONTLINE DEMONSTRATION

| Crop | Name of the technology demonstrated | Variety | Hybrid | Farming situation | No. of Demo. | Area (ha) | Yield (q/ha) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Demo | | | Check | |
| | | | | | | | H | L | A | | |
| **Oilseeds** | | | | | | | | | | | |
| Groundnut | Demonstration on Groundnut TMV Gn 13 | TMV Gn 13 | - | Rainfed | 10 | 4 | 15.87 | 13.26 | 14.56 | 11.00 | 29.73 |
| **Pulses** | | | | | | | | | | | |
| Greengram | Demonstration on Green gram variety Co8 | Co8 | - | Rainfed | 10 | 4 | 7.1 | 5.58 | 6.34 | 5.10 | 27.25 |
| Cowpea | Demonstration on Cowpea variety Co7 | Co7 | - | Rainfed | 10 | 4 | 9.0 | 7.76 | 8.38 | 6.77 | 20.59 |
| Bengalgram | Demonstration on Bengalgram variety Co4 | Co4 | | Irrigated | 10 | 4 | 8.54 | 7.43 | 7.98 | 6.25 | 26.98 |
| **Cereals** | | | | | | | | | | | |
| Paddy | Demonstration on TKM 13 Paddy variety and seed production | TKM 13 | - | Irrigated | 10 | 4 | 54.02 | 47.87 | 50.94 | 43.75 | 16.64 |
| **Millets** | | | | | | | | | | | |
| Kodo millet | Demonstration on Kodo millet Co3 | Co3 | - | Rainfed | 10 | 4 | 13.76 | 12.23 | 12.99 | 9.78 | 31.90 |
| Millets | Value addition | Variety | - | - | 5 | - | - | - | - | - | - |
| **Vegetables** | | | | | | | | | | | |
| Lablab | Demo on Lablab variety CoGB14 | CoGB14 | - | Irrigated | 10 | 2 | 78.00 | 63.50 | 70.15 | 51.80 | 26.16 |
| Vegetables | Kitchen Garden | Variety | - | Irrigated | 10 | 0.2cent | 180 | 130 | - | - | - |
| Onion | Integrated Disease Management | Co-4 | - | Irrigated | 10 | 4 | 141.75 | 118.75 | 129.85 | 93.75 | 27.8 |
| **Fruits** | | | | | | | | | | | |
| Banana | Yield Enhancement in Banana through Efficient input management | Rastali | - | Irrigated | 10 | 2 | 369.52 | 330.98 | 356.58 | 303.54 | 14.87 |
| Banana | Integrated Disease Management | Rasthali | - | Irrigated | 10 | 4 | 49 | 42 | 45.8 | 37.1 | 18.34 |
| **Spices** | | | | | | | | | | | |
| Turmeric | Rapid multiplication technic in turmeric | Co2 | - | Irrigated | 10 | 2 | 305 | 235 | 272.0 | 245.5 | 9.74 |
| Coriander | Demo on multicut coriander variety Arka isha | Arka isha | - | Irrigated | 10 | 2 | 80.60 | 66.94 | 73.17 | 40.94 | 44.05 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fibre** | | | | | | | | | | | |
| Cotton | Integrated Pest Management for S*podoptera litura* in cotton | - | MRC 7981 | Rainfed | 10 | 4 | 16.88 | 13.88 | 15.38 | 13.21 | 14.11 |
| **Plantation** | | | | | | | | | | | |
| Coconut | Integrated Pest Management practices for rhinocerous beetle in coconut | long | - | Irrigated | 10 | 4 | 12165 | 9138 | 10941.57 | 6610.36 | 39.58 |
| Dairy | Demonstration Fodder sorghum Co31 production for dairy farmers | CoFS31 | - | - | 15 | 15 | 2328 | 1623 | 2153.14 | 1774.85 | 21.54 |
| Dairy | Demo on Cumbu Napier hybrid grass Co(CN)5 production for small, marginal dairy farmers | Co5 | - | - | 25 | 25 | 2208 | 1872 | 2051.2 | 1702.0 | 20.52 |
| 2014-15 **(Tuber crops)** | | | | | | | | | | | |
| Tapioca | Demo on Tapioca variety Yethapur 1 | Yethapur 1 | - | Irrigated | 10 | 2 | 485.0 | 410.0 | 436.5 | 354.0 | 18.90 |

| | **Economics of demonstration (Rs./ha)** | | | | **Economics of check (Rs./ha)** | | | |
|---|---|---|---|---|---|---|---|---|
| | **Gross Cost** | **Gross Return** | **Net Return** | ****BCR** | **Gross Cost** | **Gross Return** | **Net Return** | ****BCR** |
| Demonstration on Groundnut TMV Gn 13 | 35956.3 | 75625.7 | 39669.4 | 2.10 | 30340.7 | 49518 | 19177.3 | 1.60 |
| Demonstration on Green gram variety Co8 | 14401 | 35717 | 21316 | 2.40 | 15479 | 28083 | 12604 | 1.80 |
| Demonstration on Cowpea variety Co7 | 17374 | 38488 | 21114 | 2.20 | 16935 | 28447 | 11512 | 1.60 |
| Demonstration on Bengalgram variety Co4 | 21833 | 41480 | 19648 | 2.00 | 20937 | 27535 | 6598.7 | 1.30 |
| Demonstration on TKM 13 Paddy variety and seed production | 36421 | 91870 | 55450 | 2.50 | 33567 | 61261 | 27695 | 1.80 |
| Demonstration on Kodo millet Co3 | 21673 | 39008 | 17335 | 1.80 | 19087 | 28377 | 9289.7 | 1.50 |
| Value Addition | 1960 | 3180 | 1220 | 1.60 | - | - | - | - |
| Demo on Lablab variety CoGB14 | 41907 | 98210 | 56303 | 2.34 | 40188 | 65100 | 24912 | 1.62 |
| Kitchen Garden | 1350 | 3236.1 | 1886.1 | 2.34 | - | - | - | - |
| Integrated Disease Management in Onion | 44124 | 129850 | 85726 | 2.95 | 41404.5 | 93735 | 52340 | 2.27 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Yield Enhancement in Banana through Efficient input management | 133647 | 285266 | 151619 | 2.13 | 141961 | 242835 | 100874 | 1.71 |
| Integrated Disease Management in Banana | 152251 | 366400 | 214149 | 2.41 | 155297 | 296800 | 141503 | 1.91 |
| Rapid multiplication technic in turmeric | 127161 | 326400 | 199239 | 2.57 | 150467 | 294600 | 144133 | 1.96 |
| Demo on multicut coriander variety Arka isha | 38766 | 109755 | 70989 | 2.83 | 29.822 | 61410 | 31588 | 2.06 |
| Integrated Pest Management for S*podoptera litura* in cotton | 48939 | 69200 | 20260 | 1.41 | 50569 | 59500 | 8930 | 1.18 |
| Integrated Pest Management practices for rhinocerous beetle in coconut | 11057 | 43765.71 | 32708.27 | 3.96 | 11714 | 26441.43 | 14727.14 | 2.27 |
| Demonstration Fodder sorghum Co31 production for dairy farmers | 22563.20 | 62433.60 | 39870.40 | 2.77 | 17020 | 42550 | 25530 | 2.50 |
| Demo on Cumbu Napier hybrid grass Co(CN)5 production for small, marginal dairy farmers | 26478.72 | 69577.12 | 43098.40 | 2.63 | 18396.40 | 44151.36 | 25754.96 | 2.40 |
| **2014-15** | | | | | | | | |
| Demo on Tapioca variety Yethapur 1 | 50175 | 130950 | 80775 | 2.61 | 48488 | 106200 | 57712 | 2.19 |

## Livestock and related enterprises

| Type of livestock | Name of the technology demonstrated | Breed | No. of Demo. | No. of animals | Yield (liter/lactation) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | | | Check | |
| | | | | | H | L | A | | |
| Dairy | Packages & Practices of calf management up to one year | Cross breed dairy cows | 10 | 20 | - | - | - | - | - |
| Dairy | Demonstration on Packages of Ethno veterinary medicines on Ruminants | Cross breed dairy cows | 10 | 10 | - | - | - | - | - |

| | *Economics of demonstration (Rs.) | | | | *Economics of check (Rs.) | | | |
|---|---|---|---|---|---|---|---|---|
| | Gross Cost | Gross Return | Net Return | ** BCR | Gross Cost | Gross Return | Net Return | ** BCR |
| Packages & Practices of calf management up to one year | 9531.00 | 26475 | 16944 | 2.78 | 8472 | 18160 | 9688 | 2.15 |
| Demonstration on Packages of Ethino veterinary medicines on Ruminants | 1715.00 | 4975 | 3260 | 2.90 | 1671.60 | 3400 | 1728.4 | 2.04 |

**Fisheries - Nil**

**Integrated Farming System (2015/16)**

| Crop | Name of the technology demonstrated | Variety | Hybrid | Farming situation | No. of Demo. | Area (ha) | Yield (q/ha) | | | | % Increase |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Demo | | | Check | |
| | | | | | | | H | L | A | | |
| Fodder | IFS for Drylands | Co4, CoFs 29 | NA | Rainfed | 3 | 3.15 | 19 | 11 | 14 | 15 | NA |
| Goat | | Tellichery, Sirohi | | | | | 0.40Kg | 0.36 Kg | 0.37 | 0.25 | |
| Desibirds | | Native | | | | | 0.14 | 0.12 | 0.12 | 0.8 | |
| Vermicompost | | Silpauline | | | | | 1.40 | 0.86 | 1.07 | - | |
| Azolla | | Pit | | | | | 3.0 | 0.4 | 1.4 | - | |
| Beehive | | Box | | | | | 0.05 | 0.00 | 0.03 | - | |

| | *Economics of demonstration (Rs./ha) | | | | *Economics of check (Rs./ha) | | | |
|---|---|---|---|---|---|---|---|---|
| | GrossCost | GrossReturn | Net Return | **BCR | GrossCost | GrossReturn | Net Return | **BCR |
| IFS for Drylands | 109866 | 279837 | 169971 | 2.54 | 105000 | 168000 | 63000 | 1.60 |

| Data on other parameters in relation to technology demonstrated | | |
|---|---|---|
| **Parameter with unit** | **Demo** | **Check if any** |
| Employment Mandays /year | 365 | 150 |
| Income Generation rupees/month | 14,164 | 5250 |
| Soil Fertility status/Organic Carbon % | Under progress | - |

## Farm implements and machinery – Nil

## DEMONSTRATIONS ON CROP HYBRIDS

### Demonstration details on crop hybrids

| Type of Breed | Name of the technology demonstrated | Name of the hybrid | No. of Demo | Area (ha) | Yield (q/ha) | | | | % Increase | *Economics of demonstration (Rs./ha) | | | | *Economics of check (Rs./ha) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Demo | | | Check | | Gross Cost | Gross Return | Net Return | ** BCR | Gross Cost | Gross Return | Net Return | ** BCR |
| | | | | | H | L | A | | | | | | | | | | |
| **Fibre crops** | | | | | | | | | | | | | | | | | |
| Cotton | Integrated Pest Management for *Spodoptera litura* in cotton | MRC 7981 | 10 | 4 | 16.88 | 13.88 | 15.38 | 13.21 | 14.11 | 48939 | 69200 | 20260 | 1.41 | 50569 | 59500 | 8930 | 1.18 |

## *IV. Training Programme*

### Training for Farmers and Farm Women including sponsored training programmes (ON campus)

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **Crop Production** | | | | | | | | | | |
| Integrated Crop Management | 3 | 71 | 15 | **86** | 20 | 0 | **20** | 91 | 15 | **106** |
| Soil and Water Conservation | | | | | | | | | | |
| Production of organic inputs | 3 | 30 | 33 | **63** | 17 | 25 | **42** | 47 | 58 | **105** |
| **Horticulture** | | | | | | | | | | |
| **a) Vegetable Crops** | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 25 | 0 | **25** | 0 | 0 | **0** | 25 | 0 | **25** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Organic Terrace gardening | 1 | 18 | 0 | **18** | 0 | 0 | **0** | 18 | 0 | **18** |
| **f) Spices** | | | | | | | | | | |
| Production and Management technology | | | | | | | | | | |
| **Livestock Production and Management** | | | | | | | | | | |
| Dairy Management | | | | | | | | | | |
| Feed and Fodder technology | 2 | 19 | 1 | **20** | 5 | 1 | **6** | 24 | 2 | **26** |
| Production of quality animal products | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Poultry Management | 1 | 8 | 0 | **8** | 3 | 0 | **3** | **11** | **0** | **11** |
| Goat farming | 1 | 18 | 0 | **18** | 0 | 0 | **0** | **18** | **0** | **18** |
| Composite fish culture | | | | | | | | | | |
| **Home Science/Women empowerment** | | | | | | | | | | |
| Value addition | 3 | 1 | 28 | **29** | 37 | 27 | **64** | 38 | 55 | **93** |
| **Plant Protection** | | | | | | | | | | |
| Integrated Pest Management | 1 | 22 | 0 | **22** | 7 | 0 | **7** | 29 | 0 | **29** |
| **Production of Inputs at site** | | | | | | | | | | |
| Mushroom production | 1 | 11 | 6 | **17** | 16 | 0 | **16** | **27** | **6** | **33** |
| **Capacity Building and Group Dynamics** | | | | | | | | | | |
| Formation and Management of SHGs | 2 | 40 | 0 | **40** | 5 | 0 | **5** | 45 | 0 | **45** |
| **TOTAL** | **19** | **263** | **83** | **346** | **110** | **53** | **163** | **373** | **136** | **509** |

**Training for Farmers and Farm Women including sponsored training programmes (OFF campus)**

| **Area of training** | **No. of Courses** | **No. of Participants** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | **General** | | | **SC/ST** | | | **Grand Total** | | |
| | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **Crop Production** | | | | | | | | | | |
| Integrated Crop Management | 4 | 35 | 5 | **40** | 9 | 14 | **23** | 44 | 19 | **63** |
| Soil and Water Conservation | 2 | 40 | 1 | **41** | 3 | 0 | **3** | 43 | 1 | **44** |
| Integrated Nutrient Management | 1 | 9 | 1 | **10** | 1 | 2 | **3** | 10 | 3 | **13** |
| **Horticulture** | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **a) Vegetable Crops** | | | | | | | | | | |
| Protective cultivation | | | | | | | | | | |
| Others (pl.specify) | | | | | | | | | | |
| Integrated Nutrient Management | 1 | 32 | 0 | **32** | 0 | 0 | **0** | 32 | 0 | **32** |
| Propagation techniques of Ornamental Plants | | | | | | | | | | |
| **b) Fruits** | | | | | | | | | | |
| Others | | | | | | | | | | |
| Integrated Nutrient Management | 2 | 33 | 0 | **33** | 1 | 0 | **1** | 34 | 0 | **34** |
| **f) Spices** | | | | | | | | | | |
| Production and Management technology | 3 | 34 | 0 | **34** | 4 | 0 | **4** | 38 | 0 | **38** |
| Others (pl.specify) | | | | | | | | | | |
| **Livestock Production and Management** | | | | | | | | | | |
| Dairy Management | 4 | 43 | 8 | **51** | 3 | 7 | **10** | 46 | 15 | **61** |
| Feed and Fodder technology | 6 | 60 | 32 | **92** | 10 | 24 | **34** | 70 | 56 | **126** |
| Production of quality animal products | | | | | | | | | | |
| Others (pl.specify) IFS for Dry lands | 2 | 37 | 3 | **40** | 0 | 0 | **0** | 37 | 3 | **40** |
| Animal disease management | 1 | 14 | 0 | **14** | 0 | 0 | **0** | 14 | 0 | **14** |
| **Home Science/Women empowerment** | | | | | | | | | | |
| Value addition | | | | | | | | | | |
| **Plant Protection** | | | | | | | | | | |
| Integrated Pest Management | 4 | 74 | 4 | **78** | 3 | 0 | **3** | 77 | 4 | **81** |
| Integrated Disease Management | 2 | 22 | 5 | **27** | 0 | 0 | **0** | 22 | 5 | **27** |
| **Capacity Building and Group Dynamics** | | | | | | | | | | |
| Leadership development | | | | | | | | | | |
| Group dynamics | 1 | 9 | 5 | **14** | 6 | 0 | **6** | 15 | 5 | **20** |
| Formation and Management of SHGs | 4 | 70 | 0 | **70** | 6 | 0 | **6** | 76 | 0 | **76** |
| Mobilization of social capital | 1 | 19 | 2 | **21** | 0 | 0 | **0** | 19 | 2 | **21** |
| Entrepreneurial development of farmers/youths | 1 | 16 | 15 | **31** | 0 | 0 | **0** | 16 | 15 | **31** |
| **TOTAL** | **39** | **547** | **81** | **628** | **46** | **47** | **93** | **593** | **128** | **721** |

**Training for Rural Youths including sponsored training programmes (on campus)**

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Backyard Poultry Rearing | 1 | 0 | 12 | **12** | 0 | 5 | **5** | 0 | 17 | **17** |
| Soil and Water Conservation technologies | 1 | 0 | 22 | **22** | 0 | 4 | **4** | 0 | 26 | **26** |
| Scientific Goat rearing | 1 | 0 | 20 | **20** | 0 | 4 | **4** | 0 | 24 | **24** |
| Mushroom production | 1 | 0 | 20 | **20** | 0 | 5 | **5** | 0 | 25 | **25** |
| Value addtition | 2 | 10 | 27 | **37** | 7 | 6 | **13** | 17 | 33 | **50** |
| Production of organic inputs | 1 | 18 | 1 | **19** | 3 | 1 | **4** | 21 | 2 | **23** |
| Farm machinery | 1 | 27 | 0 | **27** | 3 | 0 | **3** | 30 | 0 | **30** |
| **TOTAL** | **8** | **55** | **102** | **157** | **13** | **25** | **38** | **68** | **127** | **195** |

**. Training for Rural Youths including sponsored training programmes (off campus) – Nil**

**Training programmes for Extension Personnel including sponsored training programmes (on campus)**

| Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | General | | | SC/ST | | | Grand Total | | |
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Productivity enhancement in field crops | | | | | | | | | | |
| Integrated Pest Management | 1 | 5 | 0 | **5** | 2 | 0 | **2** | 7 | 0 | **7** |
| Household food security | | | | | | | | | | |
| Any other | | | | | | | | | | |
| Nursery Technology | 1 | 14 | 2 | **16** | 1 | 0 | **1** | 15 | 2 | **17** |
| Integrated Crop Management | | | | | | | | | | |
| **Total** | **2** | **19** | **2** | **21** | **3** | **0** | **3** | **22** | **2** | **24** |

**. Training programmes for Extension Personnel including sponsored training programmes (off campus) - Nil**

***Sponsored training programmes conducted***

| S.No. | Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | General | | | SC/ST | | | Grand Total | | |
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **1** | **Crop production and management** | | | | | | | | | | |
| 1.a. | Increasing production and productivity of crops | | | | | | | | | | |
| 1.b. | Commercial production of vegetables | | | | | | | | | | |
| **2** | **Production and value addition** | | | | | | | | | | |
| 2.a. | Fruit Plants | | | | | | | | | | |
| **3.** | **Soil health and fertility management** | | | | | | | | | | |
| **4** | **Production of Inputs at site** | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| **5** | **Methods of protective cultivation** | | | | | | | | | | |
| **6** | **Others (pl.specify) Nursery Technoloy** | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| | **Livestock production and management** | | | | | | | | | | |
| | Animal Nutrition Management | 3 | 2 | 9 | **11** | 50 | 33 | **83** | 52 | 42 | **94** |
| | Others (pl.specify)Feed and Fodder Technology | 1 | 50 | 4 | **54** | 2 | 1 | **3** | 52 | 5 | **57** |
| **11.** | **Home Science** | | | | | | | | | | |
| 11.a. | Household nutritional security | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| 11.b. | Economic empowerment of women | 4 | 0 | 44 | **44** | 23 | 58 | **81** | 23 | 102 | **125** |
| 11.c. | Drudgery reduction of women | | | | | | | | | | |
| 11.d. | Others (pl.specify) Mushroom cultivation | 1 | 0 | 21 | **21** | 0 | 14 | **14** | 0 | 35 | **35** |
| 11.e. | Value Addition | 1 | 0 | 35 | **35** | 0 | 0 | **0** | 0 | 35 | **35** |
| **12** | **Agricultural Extension** | | | | | | | | | | |
| | **Total** | **13** | **52** | **176** | **228** | **75** | **148** | **223** | **127** | **324** | **451** |

**Details of sponsoring agencies involved**

**1** NABARD, Perambalur 2. Mahalir thittam, Perambalur

**Details of Vocational Training Programmes carried out by KVKs for rural youth**

| S.No. | Area of training | No. of Courses | No. of Participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | General | | | SC/ST | | | Grand Total | | |
| | | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| **1** | **Crop production and management** | | | | | | | | | | |
| 1.f. | Others (pl.specify) | | | | | | | | | | |
| **2** | **Post harvest technology and value addition** | | | | | | | | | | |
| 2.a. | Value addition | | | | | | | | | | |
| 2.b. | Others (pl.specify) | | | | | | | | | | |
| **3.** | **Livestock and fisheries** | | | | | | | | | | |
| 3.a. | Dairy farming | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.b. | Composite fish culture | | | | | | | | | | |
| 3.c. | Sheep and goat rearing | **1** | **2** | **10** | **12** | **0** | **3** | **3** | **2** | **13** | **15** |
| 3.d. | Piggery | | | | | | | | | | |
| 3.e. | Poultry farming | | | | | | | | | | |
| 3.f. | Others (pl.specify) | | | | | | | | | | |
| | **Grand Total** | **1** | **2** | **10** | **12** | **0** | **3** | **3** | **2** | **13** | **15** |

## V. EXTENSION ACTIVITIES

| Nature of Extension Programme | No. of Programmes | No. of Participants (General) | | | No. of ParticipantsSC / ST | | | No.of extension personnel | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Field Day | 18 | 288 | 196 | 484 | 195 | 57 | 252 | 5 | 3 | 8 |
| Kisan Mela | 1 | 1105 | 1038 | 2143 | 432 | 321 | 753 | 65 | 17 | 82 |
| Kisan Ghosthi | 1 | 197 | 50 | 247 | 135 | 38 | 173 | 17 | 6 | 23 |
| Exhibition | 9 | 648 | 337 | 985 | 310 | 170 | 480 | 38 | 21 | 59 |
| Film Show | 2 | 27 | 15 | 42 | 12 | 5 | 17 | 1 | 1 | 2 |
| Method Demonstrations | 32 | 26 | 18 | 44 | 17 | 5 | 22 | 3 | 1 | 4 |
| Farmers Seminar | 1 | 87 | 33 | 120 | 28 | 16 | 44 | 0 | 0 | 0 |
| Workshop | 5 | 145 | 54 | 199 | 38 | 11 | 49 | 38 | 9 | 47 |
| Group meetings | 13 | 127 | 61 | 188 | 23 | 19 | 42 | 16 | 8 | 824 |
| Lectures delivered as resource persons | 66 | 1572 | 979 | 2551 | 528 | 186 | 714 | 187 | 92 | 279 |
| Newspaper coverage | 44 | Mass | | | | | | | | |
| Radio talks | 4 | Mass | | | | | | | | |
| TV talks | 3 | Mass | | | | | | | | |
| Popular articles | 5 | Mass | | | | | | | | |
| Extension Literature | 87 | 773 | 58 | 831 | 239 | 31 | 270 | 8 | 3 | 11 |
| Advisory Services | 465 | 572 | 346 | 918 | 198 | 115 | 313 | 1 | 1 | 2 |
| Scientific visit to farmers field | 113 | 438 | 209 | 647 | 210 | 101 | 311 | 11 | 4 | 15 |
| Farmers visit to KVK | - | 832 | 310 | 1142 | 437 | 188 | 625 | 303 | 56 | 359 |
| Diagnostic visits | 33 | 56 | 26 | 82 | 24 | 12 | 36 | 16 | 7 | 23 |
| Exposure visits | 1 | 8 | 2 | 10 | 3 | 1 | 4 | 0 | 0 | 0 |
| Animal Health Camp | 4 | 92 | 51 | 143 | 33 | 29 | 62 | 2 | 1 | 3 |
| Mahila Mandals Conveners meetings | 1 | 42 | 5 | 47 | 0 | 0 | 0 | 0 | 0 | 0 |
| Voice sms and sms | 12 | 1170 | 366 | 1536 | 391 | 83 | 474 | 28 | 0 | 28 |
| Farmers club formation | 4 | 47 | 26 | 73 | 17 | 11 | 28 | 0 | 0 | 0 |
| Technology Week | 1 | 169 | 89 | 258 | 43 | 32 | 75 | 9 | 3 | 12 |
| **Total** | **925** | **8421** | **4269** | **12690** | **3313** | **1431** | **4744** | **748** | **233** | **981** |

## VI.PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

### Production of seeds by KVKs

| Crop category | Name of the crop | Variety | Hybrid | Quantity of seed (qtl) | Value (Rs) | Number of farmers to whom provided |
|---|---|---|---|---|---|---|
| | | | | | | |
| Oilseeds | | | | 0.02 | 440.00 | 2 |
| Pulses | | | | 1.07 | 21,400.00 | 17 |
| Vegetables | | | | 8.49675 | 114,786.50 | 468 |
| Green Manure | | | | 0.1 | 400.00 | 20 |
| Fodder crop | | | | 4.1565 | 155,678.50 | 255 |
| **Total** | | | | **13.84325** | **294,880.00** | **774** |
| Suckers | | | | **145 Nos.** | 2,175.00 | 12 |

### Production of planting materials by the KVKs

| Crop category | Number | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|
| I. Fruits | 5275 | 2,41,625 | 1512 |
| II. Vegetables | 1232 | 12,520 | 162 |
| III. Spices | 62 | 5,250 | 16 |
| IV. Forest species | 6995 | 1,12,434 | 844 |
| V. Ornamentals | 6873 | 2,06,655 | 2526 |
| vi. Plantation crops | 2737 | 1,65,300 | 1248 |
| vii. Medicinal plants | 44 | 660 | 19 |
| viii. Fodder slips | 67150 | 40,325 | 45 |
| **Total** | **90368** | **7,84,769** | **6372** |

## Production of Bio-Products

| Bio Products | Name of the bio-product | Quantity (Kg) | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|---|
| Bio-pesticide | Panchakavya | 168 Lit | 23650 | 66 |
| Bio-fungicide | T.viride – Powder form | 102 Kgs. | 10200 | 66 |
| | T.viride – Liquid form | 28 Lit | 8400 | 11 |
| | Pseudomonas - Powder form | 94.4 Kgs. | 9440 | 40 |
| | Pseudomonas – Liquid form | 10 Lit. | 3000 | 6 |
| Organic products | Vermiworm | 247.3 | 98650 | 89 |
| | Effective Microorganism (EM) | 3 Lit | 900 | 3 |
| | Vermicompost | 16286.5 | 118126 | 272 |
| Plant Booster | Vegetable special | 179 Kgs. | 28640 | 49 |
| **Total** | | | **301006** | **602** |

## Production of livestock materials

| Particulars of Live stock | Name of the breed | Number | Value (Rs.) | Number of farmers to whom provided |
|---|---|---|---|---|
| **Dairy animals** | | | | |
| Others (Pl. specify) | | | | |
| **Poultry** | | | | |
| | Native Chicks | 939 | 41330 | 772 |
| | Native Chickens | 850(1074.3Kgs.) | 157272 | 630 |
| Broilers | Giriraja | 102 (208.09 Kgs) | 18619 | 82 |
| Others (Pl. specify) | Turkey | 240(361.33 Kgs) | 51870 | 100 |
| | Turkey chicks | 84 | 15275 | 75 |
| | Quail chicks | 6500 | 48400 | 3 |
| | Moscovy Duck | 15 | 2350 | 6 |
| | | | | |
| Goat | Tellicherry goat | 24 (408.05Kgs) | 78307 | 19 |
| Azolla(kg) | | 34.75 kgs. | 1137.50 | 41 |
| Mineral mixture(kg) | | 6 | 900 | 6 |
| **Total** | | | **415460.5** | **1734** |

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

| Samples | No. of Samples | No. of Farmers | No. of Villages | Amount realized (Rs.) |
|---|---|---|---|---|
| Soil | 304 | 238 | 55 | 15200 |
| Water | 144 | 105 | 78 | 7200 |
| Plant | | | | |
| Manure | | | | |
| Others (pl.specify) | | | | |
| **Total** | **448** | **343** | **133** | **22400** |

## VIII. SCIENTIFIC ADVISORY COMMITTEE

| Number of SACs conducted |
|---|
| 1 |

## IX. NEWSLETTER

| Number of issues of Newsletter published |
|---|
| 2 |

## X. RESEARCH PAPER PUBLISHED

| Number of Research paper published |
|---|
| 2 |

## XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

| Activities conducted | | | | |
|---|---|---|---|---|
| No. of Training programmes | No. of Demonstrations | No. of plant materials produced (Nos.) | Visit by farmers (No.) | Visit by officials (No.) |
| 2 | 4 | 5517 | 100 | 5 |

----------XXXXXXX----------