**ANNUAL REPORT 2012-13**

**(FOR THE PERIOD APRIL 2012 TO MARCH 2013)**

KRISHI VIGYAN KENDRA (IDUKKI)

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 |
| Bapooji Krishi Vigyan Kendra, Santhanpara P.O., Idukki (Dt.),  Pin-685619, Kerala. | 04868 – 247541,  247715. | 04868 – 247715 | kvksanthanpara@gmail.com | www.kvkidukki.org |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Address | Telephone | | E mail | Web Address |
| Office | Fax |  |  |
| Bapooji Sevak Samaj,  Kakkattu,  Meenadom P.O.,  Pampady, Kottayam (Dt.),  Pin-686 516, Kerala. | 0481-2506271  +919446826019 | Nil | chairmankvkidukki@rediffmail.com | www.kvkidukki.org |

1.3. Name of the Programme Coordinator with phone & mobile No

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
|  | Residence | Mobile | Email |
| Dr. Benjamin Mathew, Programme Coordinator i/c. | Nil | 9447095299 | benjaminbkvk@gmail.com |

1.4. Year of sanction: 1994

**1.5. Staff Position (as 31st March 2012)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  No. | Sanctioned post | Name of the incumbent | Designation | M/F | Discipline | Highest Qualification  (for PC, SMS and Prog. Asst.) | Pay  Scale | Basic pay | Date of joining KVK | Permanent  /Temporary | Category (SC/ST/  OBC/  Others) |
| 1 | Programme  Coordinator | Vacant | Programme  Coordinator | - | - | - | - | - | - | - | - |
| 2 | SMS | Dr. S. Jayababu | Subject Matter Specialist | M | Animal Science | B.V.Sc. in Animal Husbandry | 15600-39100 | 21000 | 19-06-1995 | Permanent | Others |
| 3 | SMS | Manju Jincy Varghese | Subject Matter Specialist | F | Soil Science | M.Sc. Agriculture (Soil Science) | 15600-39100 | 21000 | 10-01-2011 | Permanent | Others |
| 4 | SMS | Dr. Benjamin Mathew | Subject Matter Specialist | M | Horticulture / Extension | Ph.D. Horticulture | 15600-39100 | 21000 | 17-01-2011 | Permanent | Others |
| 5 | SMS | Pramod Chacko | Subject Matter Specialist | M | Agronomy | M.Sc. Agriculture (Agronomy) | 15600-39100 | 21000 | 17-01-2011 | Permanent | Others |
| 6 | SMS | Dr. Binu John Sam | Subject Matter Specialist | M | Horticulture | Ph.D. Horticulture | 15600-39100 | 21000 | 17-01-2011 | Permanent | Others |
| 7 | SMS | Sudhakar Soundarajan | Subject Matter Specialist | M | Plant Protection | M.Sc. Agricultural Entomology, MBA | 15600-39100 | 21000 | 27-01-2011 | Permanent | OBC |
| 8 | Programme Assistant (Lab Tech.)  / T-4 | Jayisy Joseph | Programme Assistant | F | Home Science | M. Sc. Home Science (Extension for Rural Development) | 9300-34800 | 13500 | 20-06-1995 | Permanent | Others |
| 9 | Programme Assistant (Computer)  / T-4 | Biju Narayanan | Programme Assistant | M | Computer Application | M.C.A., PGDCA | 9300-34800 | 13500 | 01-10-2007 | Permanent | OBC |
| 10 | Programme Assistant/ Farm Manager | Rachel Skariakutty | Programme Assistant | F | Farm Manager | M.A. Sociology (P.G. Diploma in Rural Development) | 9300-34800 | 13500 | 05-06-1995 | Permanent | Others |
| 11 | Assistant | Shaji. K. Kakkattu | Assistant | M | - | - | 9300-34800 | 13500 | 05-06-1995 | Permanent | Others |
| 12 | Jr. Stenographer | Daisy Daniel | Jr. Stenographer | F | - | - | 5200-20200 | 7100 | 05-06-1995 | Permanent | Others |
| 13 | Driver | P. Nandagopal | Driver | M | - | - | 5200-20200 | 7200 | 05-06-1995 | Permanent | OBC |
| 14 | Auxiliary Staff | K.T. Mathew | Peon/ Messenger | M | - | - | 5200-20200 | 7000 | 05-06-1995 | Permanent | Others |
| 15 | Supporting Staff-1 | K.O. Jose | Skilled Supporting Staff-1 | M | - | - | 5200-20200 | 7000 | 05-06-1995 | Permanent | Others |
| 16 | Supporting Staff-2 | P. Sabu | Skilled Supporting Staff-2 | M | - | - | 5200-20200 | 7000 | 05-06-1995 | Permanent | Others |

**1.6. Total land with KVK (in ha) :** 27.60 ha.

|  |  |  |
| --- | --- | --- |
| S. No. | Item | Area (ha) |
| 1 | Under Buildings | 0.074 ha |
| 2. | Under Demonstration Units | 0.5 ha |
| 3. | Under Crops | 0.5 ha |
| 4. | Orchard/Agro-forestry | 0.5 ha |
| 5. | Others | 26.026 ha |

**1.7. Infrastructural Development:**

**A) Buildings**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  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 | 2002 | 740 | 47,85,208.10 | - | - | - |
| 2. | Farmers’ Hostel | NA | - | - | - | - | - | *Master Plan & Estimate submitted. Sanction pending*. |
| 3. | Staff Quarters | NA | - | - | - | - | - | - |
| 4. | Demonstration Units |  |  |  |  |  |  |  |
|  | 1. Duck cum fish culture unit. | RF | 15-06-2009 | 50 | 7,000.00 | - | - | - |
|  | 2. Mushroom unit | Grama Panchayath, Santhanpara | 2002 | 10 | 85,000.00 | - | - | - |
|  | 3. Spawn production unit | SHM | 2009 | 10 | 3,00,000.00 | - | - | - |
|  | 4. Mist Chamber | SHM | 2009 | 96 | 2,72,832.00 | - | - | - |
|  | 5. Rain Shelter | SHM | 2009 | 50 | 1,04,091.00 | - | - | - |
| 5 | Fencing | NA | - | - | - | - | - | *Urgent requirement as the area is constantly facing intuition of wild animals and other intruders* |
| 6 | Rain Water harvesting system | NA | - | - | - | - | - | - |
| 7 | Threshing floor | NA | - | - | - | - | - | - |
| 8 | Farm godown | NA | - | - | - | - | - | - |
| 9 | Vehicle garage |  |  |  |  |  |  | *Urgently required* |

B) Vehicles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of vehicle | Year of purchase | Cost (Rs.) | Total kms. Run | Present status |
| Mahindra Bolero SLE | May - 2012 | 5,78,380.36 | 18417 | Good condition. |
| Motor Bike (Suzuki Shogun) | January - 1995 | 37,972.78 | 8828 | In running condition with poor fuel efficiency. |
| Honda Aviator | March - 2009 | 50,000.00 | 8270 | Running condition |

**C) Equipments & AV aids**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the equipment** | **Year of purchase** | **Cost (Rs.)** | **Present status** |
| **A.V. aids (Specify)** | | | |
| Television | 1995 | 20,894.00 | Not working |
| GE OHP | 1996 | 7,100.00 | Good but not in use |
| 2ET Slide Projector | 1996 | 11,556.00 | Not working |
| Sharp Video Player | 1996 | 10,000.00 | Not working |
| Pentax SLR Camera | 1996 | 13,599.15 | Not working |
| Public Address System | 2003 | 26,755.00 | Good |
| Power Generator | 2003 | 32,492.00 | Good |
| LCD Projector (EPSON – EBW8) | 2010 | 55,186.00 | Good |
| Liberty Show Juno 5 x 7 (MW) Screen | 2010 | 5,885.00 | Good |
| **Soil Science Lab Equipments (Specify)** | | | |
| KEMI HOT PLATE with Energy Regulator | 2006 | 5,400.00 | Bad |
| Electronic Balance | 2006 | 1,00,000.00 | Under use but needs repair |
| Physical Balance | 2006 | 8,991.00 | Good |
| Spectrophotometer | 2006 | 1,17,499.00 | Under use but needs repair |
| Electronic Automatic KEL PLUS model KES 12L (Nitrogen Analyzer) | 2006 | 97,043.00 | Under use but needs repair |
| Conductivity Meter (PH Meter Utech 510) | 2006 | 21,935.00 | Under use but needs repair |
| HOT AIR OVEN | 2006 | 13,725.00 | Good |
| Water bath WDB2 350 x 400 100mm Size 12 | 2006 | 41,895.00 | Good |
| Flame Photometer | 2006 | 45,000.00 | Under use but needs repair |
| Conductivity Meter | 2006 | 13,500.00 | Not working and requires new |
| LG 280 Litre Fridge Model – GI 296 TM V-Guard Stabilizer | 2006 | 250.00 | Good |
| Mixer grinder 750 Watts | 2006 | 4,500.00 | Bad and requires new |
| Online UPS System with Battery | 2006 | 36,916.00 | Needs repair |
| Fume Cupboard KEMI | 2006 | 2,68,192.00 | Good |
| **Bio-control Lab Equipments** | | | |
| Laminar Flow Chamber | 2000 | 50,000.00 | Under use but needs repair |
| Refrigerator | 2000 | 10,760.00 | Under use but needs repair |
| Chemical Balance | 2000 | 1,800.00 | Bad and required new |
| Auto Clave | 2000 | 19,000.00 | Bad and required new |
| Step up Stabilizer | 2008 | 4,595.00 | Good |
| Other Equipments | | | |
| FACIT Typewriter (Malayalam) | 1995 | 9,735.00 | Bad and not in use |
| FACIT Typewriter (English) | 1995 | 9429.00 | Bad and not in use |
| Stencil Duplicator | 1995 | 13,700.00 | Bad and not in use |
| Computer with Printer | 2003 | 49,750.00 | Obsolete, needs to be replaced by a laptop & printer |
| Photostat Machine | 2003 | 80,000.00 | Bad and outdated machine, urgently requires a new machine |
| Brush Cutter | 2009 | 23,726.00 | Good |
| Fax Machine | 2009 | 15,000.00 | Needs Repair |
| Laptop Computer (DELL Studio 14 N) | 2010 | 37,150.00 | Good |
| Inkjet Printer (Epson TX 111 AIO) | 2010 | 1,779.00 | Good |

**1.8. Details SAC meeting conducted in 2012-13:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Date | Number of Participants | No. of absentees | Salient Recommendations | Action taken |
| 1. | 17/12/2012 | 21 | 2 | 1. Zinc and Boron deficiency is reported from many parts of Idukki. A scientific intervention by BKVK through its mandatory trials supported by technology backstopping by KAU is warranted to mitigate this problem.  2. KVK is permitted to avail the technology of preparing IIHR specials at a concessional rate. ICAR through ZPD would support KVK in the necessary formalities.  3. KVK shall not promote any farmer released variety unless passed by the Varieties Release Committee of KAU.  4. KVK should not take up any intervention that would promote any one particular private company especially through its FLDs / OFTs.  5. Steps to be initiated to popularize commercial mushroom farming in Idukki district. The different types should be popularized so that year round production is ensured.  6. Value addition in mushroom to be strengthened so that the different products are made available to the tourist hot spots round the year.  7. Cassava extracts have been proved to be effective against many pests. KVK may take up suitable intervention so that the same may be produced at the farmer level.  8. KVK needs to take up measures in collaboration with engineering department of KAU to make refinement in the constraints currently faced by paddy transplanter.  9. KVK should try to formulate a cheaper dairy cattle food supplement mix and popularize the same similar to the work by TANUVAS.  10. Lime application should be promoted in Idukki district based on soil test values. | OFT, FLDs and trainings are proposed during the year 2013-14 in accordance with the major recommendations by the delegates. |

**PART II - DETAILS OF DISTRICT**

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

|  |  |
| --- | --- |
| S. No | Farming system/enterprise |
| 1 | Cardamom and Pepper based farming system in the High Ranges of the District |
| 2 | Paddy belts in specific locations |
| 3 | Homestead based farming |
| 4 | Tea plantation |
| 5 | Vegetables |
| 6 | Cool season vegetables |
| 7 | Banana cropping |
| 8 | Rubber mono-crop |
| 9 | Dairying |

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

|  |  |  |
| --- | --- | --- |
| S. No | Agro-climatic Zone | Characteristics |
| 1. | Zone-XIII | High Ranges |
| 2. | Zone-VII | *Malayoram* |
| 3. | High altitude zone – Vattavada & Kanthalloor | Climate suitable for cool season vegetables and temperate fruits |

|  |  |  |
| --- | --- | --- |
| S. No | Agro ecological situation | Characteristics |
| 1. | Agro Ecological Zone-1 | Major part is mono-cropped with rubber, other areas - homestead farming is practiced with tapioca, banana and vegetables, altitude up to 500M above mean sea level, humid tropics spread over the zone. South West and North East monsoon are active and moderately distributed. South West monsoon with June maximum (South of 110 N latitude) |
| 2. | Agro Ecological Zone-2 | Major cropping pattern – Pepper, Cardamom, Coffee, Areca nut, Cocoa and Rubber intercropped, altitude 500M above mean sea level, humid tropics spread over the zone. Steep slopes |
| 3. | Agro Ecological Zone-3 | High altitude zone – Vattavada & Kanthalloor. Cool season vegetables occupy major area. Potato, temperate fruits are grown in a small scale. Zone includes the only wheat-growing tract of Kerala. North-East monsoon is prominent. |

2.3 Soil type/s

|  |  |  |  |
| --- | --- | --- | --- |
| S. No | Soil type | Characteristics | Area in ha |
| 1. | Manakkattu series | Clayey very deep, developed from gneissic parent material | NA |
| 2. | Cheenikuzhy series | Fine loamy texture. | NA |
| 3. | Thommankuthu series | Clayey texture. | NA |
| 4. | Venmani series | Clayey texture. | NA |
| 5. | Marayoor series | Clay loam to clayey texture. | NA |
| 6. | Pampadumpara series | Clayey texture. | NA |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Crop | Area (ha) | Production (Metric tons) | Productivity (kg /ha) |
| 1. | Cardamom | 32723 | 7232 | 250 |
| 2. | Pepper | 87274 | 30919 | 354 |
| 3. | Banana | 2665 | 23265 | 8730 |
| 4. | Rice | 1819 | 4744 | 2608 |
| 5. | Coconut | 17012 | 80 million nuts | 5209 (Numbers/ha) |
| 6. | Tapioca | 6223 | 240290 | 37883 |
| 7. | Coffee | 12915 | 8150 | 616 |
| 8. | Tea | 24648 | 44192 | 1514 |

**Source of Data: -** Economics and Statistics Department, Kerala State.

2.5. Weather data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Month | Rainfall (mm) | Temperature 0 C | | Relative Humidity (%) |
|  |  | Maximum | Minimum |  |
| April 2012 | 178.4 | 28.9 | 18.2 | 97.0 |
| May 2012 | 24.9 | 27.6 | 19.1 | 97.7 |
| June 2012 | 208 | 24.8 | 17.9 | 98.9 |
| July 2012 | 194.2 | 24.5 | 17.9 | 99.1 |
| August 2012 | 283.4 | 24.2 | 17.1 | 99.4 |
| September 2012 | 153.4 | 25.4 | 17.8 | 98.3 |
| October 2012 | 327.9 | 26.2 | 17.6 | 97.9 |
| November 2012 | 150.8 | 26.8 | 16.7 | 94.8 |
| December 2012 | 12.3 | 24.6 | 16.2 | 94.8 |
| January 2013 | 0.4 | 25.9 | 14.9 | 90.0 |
| February 2013 | 92.1 | 26.0 | 15.6 | 94.2 |
| March 2013 | 21.5 | 28.0 | 17.5 | 90.0 |

**Source of Data**: **-** Indian Cardamom Research Institute, Myladumpara, Idukki.

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Population** | **Production** | **Productivity** |
| **Cattle** | | | |
| *Crossbred* | 78910 | Milk – 367 Lakh Litres | Milk – 385 Lakh Litres |
| *Indigenous* | 9870 | - | - |
| **Buffalo** | 5455 | Milk – 25 Lakh Litres | Milk – 40 Lakh Litres |
| **Sheep** | | | |
| Crossbred | - | - | - |
| *Indigenous* | - | - | - |
| **Goats** | 97830 | Meat – 75.77 Ton | - |
| **Pigs** | | | |
| *Crossbred* | 11241 | 8.70 T | - |
| *Indigenous* | - | - | - |
| **Rabbits** | 39276 | 5249 Kg | - |
| **Poultry** | | | |
| Hens | 295389 | 126.90 Billions | - |
| *Desi* | 4439 |
| *Improved* | - | - | - |
| Ducks | 25065 | - | - |
| Turkey | 3660 | - | - |
| Others (Quail) | 912 | Egg – 2.07 Lakh |  |
| Others (Horses) | 12 | - |  |
| Others (Dog) | 59525 | - |  |
| Others (Elephant / Mithun) | 7 | - |  |

**Source of Data**: – Economics and Statistics Department, Kerala State.

* 1. District profile has been **Updated** for 2012-13 Yes/No: Yes

2.8 Details of Operational area / Villages

| Sl. No. | Taluk | Name of the block | Name of the village | How long the village is covered under operational area of the KVK (specify the years) | Major crops & enterprises | Major problem identified | Identified Thrust Areas |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Udumbanchola | Nedumkandam, Kattappana | Anakkara,  Anavilasom,  Ayyappankoil,  Chakkupallom,  Chathurangappara,  Chinnakanal,  Kalkoonthal,  Kanthippara,  Karunapuram,  Kattappana,  Konnathady,  Pampadumpara,  Parathodu,  Pooppara,  Pottankadu (Bison Valley),  Rajakkad,  Rajakumary,  Santhanpara,  Thankamany,  Udumbanchola,  Upputhodu,  Vathikudy,  Vandanmedu & Senapathy | 1995 onwards | Cardamom, Pepper, Ginger, Banana, Vegetables,  Rice.  Dairy cattle, goat, quail & poultry. | 1) Unscientific crop management practices.  2) Use of local varieties of crops with poor yield potential.  3) Labour scarcity in paddy farming.  4) Heavy pest & disease incidence in crops.  5) Infertility problem in dairy cows.  6) Poor growth performance and production.  7) Low productivity in poultry.  8) Lack of mechanization in pepper processing  8) Labour shortage in paddy farming  9) Heavy infestation of shoot borer in ginger.  10) Heavy infestation of cardamom root grub. | 1) Productivity improvement of major crops.  2) Introduction of high yielding improved crop varieties, livestock and poultry breeds.  3) Farm mechanization.  4) Integrated Pest and Disease Management (IPDM) in major crops.  5) Scientific management of livestock & poultry.  6) Self-employment and Income generation of rural youth & women.  7) Value addition of farm produce.  8) Mechanized pepper threshing  9) Mechanization in paddy farming  10) Trial on cultural method of shoot borer control in ginger.  11) Varietal trial of root grub resistant Thiruthali variety cardamom. |
| 2 | Peermedu | Azhutha | Elappara,  Kokkayar,  Kumily,  Manjumala,  Mlappara,  Peerumedu,  Periyar,  Peruvanthanam,  Upputhara &  Vagamon | 1995 onwards | Tea,  Coffee,  Cardamom.  Dairy cattle, goat, poultry & piggery. | 1) Unscientific crop management.  2) Heavy pest & disease incidence in crops.  3) Infertility problem in dairy animals.  4) Mastitis.  5) Ecto and endo parasitic infestation. | 1) Productivity improvement of major crops.  2) IPDM in major crops.  3) Scientific management of livestock & poultry.  4) Trial on pest resistant cardamom variety. |
| 3 | Devikulam | Devikulam, Adimali | Anaviratty,  Kannan Devan Hills,  Kanthalloor,  Keezhanthoor,  Kottakomboor,  Kunjithanny,  Mankulam,  Mannamkandam,  Marayoor,  Pallivasal,  Parathode  Pullukandam  Vattavada &  Vellathooval | 1995 onwards | Cardamom,  Pepper,  Tea,  Rice.  Dairy cattle, goat, poultry & piggery. | 1) Unscientific crop management practices.  2) Heavy pest & disease incidence in crops.  3) Mastitis and ecto & endo parasitic infestation.  4) Poor growth rate and body weight gain in dairy calves.  5) Lack of entrepreneurship among rural youth and women.  6) Low productivity in pepper due to depletion of soil organic matter. | 1) Productivity improvement of major crops.  2) Integrated Pest and Disease Management (IPDM) in major crops.  3) Scientific management of livestock & poultry.  4) Self-employment and Income generation of rural youth & women.  5) Popularization of consortium bio fertilizers. |
| 4 | Thodupuzha | Thodupuzha, Elamdesom & Idukki | Alakkodu,  Arakkulam,  Elappally,  Idukki,  Kanjikkuzhy,  Karikkodu,  Karimannoor,  Karimkulam,  Kodikkulam,  Kudayathoor,  Kumaramangalam,  Manakkad,  Muttom,  Neyyasserry,  Purappuzha,  Thodupuzha,  Udumbannoor,  Vannapuram &  Velliyamattam | 1995 onwards | Rubber,  Coffee,  Coconut,  Vegetables,  Tree spices,  Tapioca,  Rice.  Dairy cattle, goat, poultry, piggery & turkey. | 1) Unscientific crop management practices.  2) Lack of entrepreneurship among rural youth and women.  3) Mastitis and infertility problem in dairy animals.  4) Labour shortage in paddy farming. | 1) Productivity improvement of major crops.  2) Self-employment and Income generation of rural youth & women.  3) Scientific management of livestock & poultry.  4) Mechanization in paddy farming. |

2.9 Priority thrust areas

|  |  |
| --- | --- |
| S. No. | Thrust area |
| 1. | Productivity improvement of major crops |
| 2. | Paddy farm mechanization |
| 3. | Introduction of high yielding improved crop varieties, livestock and poultry breeds |
| 4. | Integrated Crop Management |
| 5. | Integrated Pest and Disease Management (IPDM) in major crops |
| 6. | Self-employment and Income generation of rural youth & women |
| 7. | Nutritional security for homestead |
| 8. | Value addition of farm produce |
| 9. | Scientific management of livestock and poultry |
| 10. | Drudgery reduction |
| 11. | Improvement in reproductive efficiency in dairy cattle |
| 12 | Feed and nutrient management in livestock |

**PART III -TECHNICAL ACHIEVEMENTS**

**3.A. 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** |
| 8 | 7 | 33 | 28 | 10 | 10 | 70 | 70 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| 425 | 405 | 11300 | 11967 | 500 | 467 | 2200 | 2104 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Seed Production (Qtl.)** | | **Planting materials (Nos.)** | |
| **5** | | **6** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| Vegetable seeds – 0.05q | Vegetable seeds – 0.0264q |  |  |
|  |  | Spices – 7000 nos. | Spices – 6752 nos. |
| Mushroom spawn – 12q | Mushroom spawn – 9.65q | Ornamental crops – 2000 nos. | Ornamental crops – 1113 nos. |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Livestock, poultry strains and fingerlings (No.)** | | **Bio-products (Kg)** | |
| **7** | | **8** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| Vigova Super M Duck-200 nos. | Vigova Super M Duck-200 nos. | Pseudomonas – 1000 L | Pseudomonas – 1250 L |
|  |  | Trichoderma – 500 L | Trichoderma – 114 L |
|  |  | EPN-8000 nos. | EPN-22550 nos. |
|  |  | Vermicompost – 30q | Vermicompost – 20q |
|  |  |  |  |

**3.B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in Sl.No.2.9**

| **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 (extension personnel)** | **Extension activities**  **(No.)** | **Supply of seeds (Qtl.)** | **Supply of planting materials (No.)** | **Supply of livestock (No.)** | **Supply of bio products** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | **No.** | **Kg** |
| 1. | Integrated Pest and Disease Management (IPDM) in major crops | Cardamom | Recurring occurrence of pest | Management of cardamom root grub with microbial bio-pesticides | - | 5 | 0 | 0 | 2 | - | - | - | - | *Metarhizium anisopliae-30 kg*  EPN (IJs)-3750 cadavers |
| 2. | Productivity improvement of major crops | Cardamom | Lack of knowledge in apiary | - | Popularization of honey bee colonies in cardamom plantations | 5 | 2 | 0 | 1 | - | Bee hives with colonie-12 nos | - | - | *-* |
| 3. | Integrated Pest and Disease Management (IPDM) in major crops | Cardamom | Heavy infestation of root grub in cardamom | Varietal trial of root grub resistant Thiruthali variety cardamom | - | 1 | - | - | 8 | - | - | - | - | *-* |
| 4. | Farm mechanization | Paddy | Labour scarcity | - | Mechanization in paddy farming | 2 | 2 | 4 | 13 | - | - | - | - | *-* |
| 5. | Self-employment and Income generation of rural youth & women. | Mushroom | Large demand & inadequate supply. | Performance of different types of mushrooms for year round production in Idukki district |  | 3 | 2 | 0 | 0 | Spawn – 100  pkts | - | - | - | Vermicompost – 6 kg |
| 6. | Integrated Crop Management | Black Pepper | High incidence of P & D in living standards of black pepper. | Use of concrete poles as standards in Black Pepper |  | 0 | 0 | 0 | 2 | - | Rooted Pepper cuttings – 90 nos. | - | - |  |
| 7. | Integrated Crop Management | Banana | Lodging of banana plants nearing maturity. | Different types of props and supports to mitigate lodging / breaking of banana pseudostem |  | 0 | 0 | 0 | 2 | - | - | - | - | - |
| 8. | Popularization of consortium bio fertilizers. | Cowpea | Indiscriminate use of chemical inputs |  | Use of microbial consortium for organic production of cowpea | 3 | 0 | 0 | 0 | - | - | - | - | Rhizobium – 2 kg  VAM – 2 kg  Panchagavyam – 40 kg |
| 9. | Productivity improvement of major crops. | Bitter gourd | Low fruit set and yield |  | Foliar spray of Boron to increase the fruit set and size in bitter gourd | 1 | 0 | 0 | 0 | - | - | - | - |  |
| 10. | Productivity improvement of major crops | Cowpea | Poor yield & Less profitability  High disease incidence | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district |  | 3 | 2 | 1 | 3 | 0.002 | - | - | - | *Pseudomonas & Trichoderma* 10 L each |
| 11. | Productivity improvement of major crops | Cauliflower | No availability of quality seed | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District |  | 3 | 2 | 1 | 3 | 0.001 | - | - | - | *Beauveria* – 5kg |
| 12. | ICM | Banana | Low yield | - | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | 5 | 3 | 2 | 10 | - | - | - | - | IIHR Banana special-5kg each  SOP-1kg each |
| 13. | Nutritional security for homestead | Vegetables | Non-availability of quality vegetables | - | Popularization of organic kitchen garden in homesteads for nutritional security | 4 | 5 | - | 10 | - | - | - | - | Vegetable seed kit 25no. |
| 14. | Crop improvement | Vegetables | Use of inferior quality seedlings for planting | - | Popularization of portray nursery method in vegetables | 2 | - | - | 2 | - | Protray – 20 nos. | - | - | Pseudomonas – 2L |
| 15. | Value addition of farm produce | Mushroom | Mushrooms are highly perishable | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushroom | - | 2 | - | - | 6 | - | - | - | - | - |
| 16. | Self-employment and Income generation of rural youth & women | Under exploited fruits | 1) Under exploited fruits are wasted.  2) Less profitability. | - | Product diversification and extension of shelf life in under exploited fruits | 3 | - | - | 16 | - | - | - | - | - |
| 17. | Production and improvement of dairy cattle | Dairy cattle | Unaware and low production of mixed fodder | - | Popularization of mixed fodder system | 5 | 4 | - | 2 | Desmanthus – 0.08  Fodder Sorghum – 0.04  Agathi – 0.024  Subabul – 0.22 | Hybrid Napier CO4 – 40000 sets | - | - | - |
| 18. | Production and improvement of poultry | Poultry – duck | Low meat production | - | Performance of Vigova Super M duck in backyard system | 5 | 3 | - | 1 | - | - | 200 nos. Vigova Super M ducklings | - | - |

**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 (Specify)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 1. | Management of cardamom root grub with microbial bio-pesticides | ICRI | Cardamom | 1 | 0 | 15 | Field visits – 30  Demonstrations – 5 |
| 2. | Popularization of honey bee colonies in cardamom plantations | KAU, | Cardamom | 0 | 1 | 8 | Field visits –10  FAS – 15 |
| 3. | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | KAU, IIHR | Cow pea | 1 | 0 | 2 | Field visits – 5  FAS - 7 |
| 4. | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Namdhari seeds, IARI | Cauliflower | 1 | 0 | 2 | Field visits - 2 |
| 5. | ICM in Banana | KAU & IIHR | Banana | 0 | 1 | 6 | Field visits – 10  FAS - 15 |
| 6. | Popularization of organic kitchen garden in homesteads for nutritional security | - | Vegetables | 0 | 1 | 8 | Field visits-15 |
| 7. | Performance of different types of mushrooms for year round production in Idukki district | KAU | Mushroom | 1 |  | 5 | Field visits – 10  FAS – 20  Demonstrations - 5 |
| 8. | Use of concrete poles as standards in Black Pepper | KAU, IISR | Black Pepper | 1 |  |  | Field visits - 2 |
| 9. | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | KAU, TNAU | Banana | 1 |  |  | Field visits – 2  FAS – 4 |
| 10. | Use of microbial consortium for organic production of cowpea | KAU | Cowpea | 0 | 1 |  | Demonstrations - 3  Field visits – 2  FAS – 2 |
| 11. | Foliar spray of Boron to increase the fruit set and size in bitter gourd | IIHR | Bittergourd | 0 | 1 |  | Field visits – 2  FAS – 2 |
| 12. | Varietal trial of root grub resistant Thiruthali variety cardamom | Farmer Innovation | Cardamom | 1 |  | 5 | Field visits – 15 |
| 13. | Mechanization in paddy farming | FLD | Paddy |  | 1 | 8 | Field visits –10  FAS – 15 |
| 14. | Popularization of portray nursery method in vegetables | KAU | Vegetables | - | 1 | - | Field visit – 2  Demo – 1  FAS-2 |
| 15. | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushroom | DMR, Solan | Mushroom | 1 | - | - | Field visit – 2  FAS-6 |
| 16. | Product diversification and extension of shelf life in under exploited fruits | KAU | Under exploited fruits | - | 5 | 3 | Field visit – 4  Demonstration – 10  FAS - 30 |
| 17. | Popularization of mixed fodder system | TANUVAS | Dairy cattle | - | 20 | 9 | Field visit - 2 |
| 18. | Performance of Vigova Super M duck in backyard system | CPDO, Hessarghatta | Poultry – duck | - | 10 | 9 | Field visit -1 |

**3.B2 contd..**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **No. of farmers covered** | | | | | | | | | | | | | | | |
|  | **OFT** | | | | **FLD** | | | | **Training** | | | | **Others (Specify)** | | | |
|  | **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** |
| 1. | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 15 | 0 | 0 | 15 | 10 | 0 | 0 |
| 2. | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 4 | 4 | 0 | 0 | 15 | 0 | 0 | 0 |
| 3. | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4. | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 15 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6. | 0 | 0 | 0 | 0 | 10 | 15 | 0 | 5 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7. | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 56 | 67 | 12 | 8 | 64 | 21 | 11 | 6 |
| 8. | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 4 | 0 | 0 |
| 9. | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 2 | 0 | 0 |
| 10. | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 6 | 0 | 0 |
| 11. | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 0 |
| 12. | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 10 | 15 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13. | 0 | 0 | 0 | 0 | 7 | 1 | 0 | 2 | 17 | 13 | 0 | 1 | 0 | 0 | 0 | 0 |
| 14. | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15. | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 0 | 0 |
| 16. | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 6 | 50 | 0 | 0 | 3 | 42 | 0 | 0 |
| 17. | 0 | 0 | 0 | 0 | 13 | 7 | 0 | 0 | 200 | 45 | 20 | 5 | 0 | 0 | 0 | 0 |
| 18. | 0 | 0 | 0 | 0 | 5 | 4 | 1 | 0 | 200 | 27 | 10 | 3 | 0 | 0 | 0 | 0 |

**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 |  |  |  |  | 2 |  |  | 1 |  | **3** |
| Integrated Pest Management |  |  |  |  |  |  |  | 1 |  | **1** |
| Integrated Crop Management |  |  |  |  |  | 1 |  | 1 |  | **2** |
| Integrated Disease Management |  |  |  |  |  |  |  |  |  |  |
| Small Scale Income Generation Enterprises |  |  |  | 1 |  |  |  |  |  | **1** |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technology |  |  |  |  |  |  |  |  |  |  |
| Farm Machineries |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming System |  |  |  |  |  |  |  |  |  |  |
| Seed / Plant production |  |  |  |  |  |  |  |  |  |  |
| Value addition |  |  |  |  |  |  |  |  |  |  |
| Drudgery Reduction |  |  |  |  |  |  |  |  |  |  |
| Storage Technique |  |  |  |  |  |  |  |  |  |  |
| Mushroom cultivation (Packaging) |  |  |  | 1 |  |  |  |  |  | **1** |
| Total |  |  |  | **2** | **2** | **1** |  | **3** |  | **8** |

**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 (Per trail covering all the Technological Options)** |
| Integrated Nutrient Management |  |  |  |  |  |
| Varietal Evaluation | Cow pea | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | 5 | 5 | 0.04 |
| Cauliflower | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | 5 | 5 | 0.03 |
| Cardamom | Varietal trial of root grub resistant Thiruthali variety cardamom | 5 | 5 | 0.4 |
| Integrated Pest Management | Cardamom | Management of cardamom root grub with microbial bio-pesticides | 5 | 5 | 2.5 |
| Integrated Crop Management | Black Pepper | Use of concrete poles as standards in Black Pepper | 3 | 3 | 0.25 |
| Banana | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | 3 | 3 | 0.50 |
| Integrated Disease Management |  |  |  |  |  |
| Small Scale Income Generation Enterprises | Mushroom | Performance of different types of mushrooms for year round production in Idukki district | 4 | 4 | 0.05 |
| Weed Management |  |  |  |  |  |
| Resource Conservation Technology |  |  |  |  |  |
| Farm Machineries |  |  |  |  |  |
| Integrated Farming System |  |  |  |  |  |
| Seed / Plant production |  |  |  |  |  |
| Value addition |  |  |  |  |  |
| Drudgery Reduction |  |  |  |  |  |
| Storage Technique |  |  |  |  |  |
| Mushroom cultivation (Packaging) | Mushroom | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushroom | 3 | 3 | 3 units |
| **Total** |  |  | **33** | **33** |  |

**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**

**Results of On Farm Trial**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |
| Cardamom | Perennial crop | Heavy root grub incidence | Management of cardamom root grub with microbial bio-pesticides | 5 | Evaluation of root grub management using microbial biopesticides & EPN. | Root grub incidence, Effectiveness &  BCR | Comparative root grub control evaluation in cardamom. | Root grub is controlled by 95 % in all the EPN treated plots and  *Metarhizium anisopliae* indicate that 80 % control of root grub when compare to control plots. | EPN is effective in controlling of root grub and increasing yield substantially. | - | - |
| Perennial crop | Heavy infestation of root grub | Varietal trial of root grub resistant Thiruthali variety cardamom | 5 | .Root grub resistant Thiruthali variety cardamom | % reduction in root grub attack  Yield  BCR | Comparative root grub control evaluation in cardamom. | Ongoing | Thiruthali variety shows better root grub resistance. | - | - |
| Cow Pea | Annual | Poor yield & Less profitability  High disease incidence | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | 5 | Varietal performance of three varieties | Incidence of anthracnose  BCR | C.B.2011 shown field resistance on anthracnose But the yield parameter of Vellayani Jyothika found superior than other varieties | Vellayani Jyothika can be recommended for the farmers of Idukki dist based on the yield performance and BCR | Farmers are well accepted with the performance of Vellayani Jothika | - | - |
| Cauliflower | Annual | No availability of quality seed | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | 5 | Varietal performance of two varieties | Yield  BCR | - | Due to the non availability of Pusa Meghana seeds the assessment was not carried out this year. | - | - | - |
| Black Pepper | Perennial crop | High incidence of P & D in living standards of black pepper. | Use of concrete poles as standards in Black Pepper | 3 | Using concrete poles as standards instead of live standards | BCR | Ongoing for three years from 2012-13 | Concrete poles supplied and rooted cuttings of Black Pepper planted | Adoptability restricted for small farmers as cost involved is high | - | - |
| Banana | Commercial crop | Lodging of banana plants nearing maturity. | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | 3 | 1. Single propping by bamboo/ casuarina / eucalyptus props  2. Double propping by bamboo/ casuarina/ eucalyptus props  3. Support by ¾ inch nylon / polythene tapes | Percentage of plants damaged/ survived during wind.  BCR. | Ongoing | Props and supports supplied.  The crop is just coming to bearing stage | Need to wait till monsoon to assess the suitability of the technology assessed | - | - |
| Mushroom | Commercial crop | Large demand & inadequate supply. | Performance of different types of mushrooms for year round production in Idukki district | 4 | Assessing the suitability of growing Milky mushrooms during summer months followed by oyster mushroom during cooler regimes | Yield realization per bed in relation to prevailing weather conditions. | Ongoing and shall be over by July 2013 | Oyster mushroom – Average yield of 0.8 kg per bed in 4 harvests  Milky mushroom – Beds prepared | Skeptical on the marketability of Milky mushrooms | - | - |
| Mushroom | - | Mushrooms are highly perishable | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushroom | 3 | Assessment of different types of packaging materials (Tray packs, stand packs, PP pouches, CFB boxes) | Shelf life | - | Tray packs with cling film cover is more suitable for packaging | - | - | - |

**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 | 15 | 16 | 17 | 18 |
| Technology option 1 (Farmer’s practice- Drenching Chlorpyriphos @ 0.04%) | - | 0.8 | t/ha | Rs.2,80,000 | 1.7 |
| Technology option 2 (Soil application of *Metarhizium anisopliae @2*5g/plant mixed with cow dung ) | ICRI | 1 | t/ha | Rs.3,50,000 | 2.4 |
| Technology option 3(Soil application of EPN (IJs) @ 4 cadaver / plant ) | ICRI | 1.3 | t/ha | Rs.5,30,000 | 3.1 |
| Technology option 1 (Farmer’s practice- Njallani variety) | Farmer Innovation | On going | | | |
| Technology option 2 (*Thiruthali variety* ) | Farmer Innovation |
| Technology option 1 (Farmer’s practice- Lola) | - | 12.5 | t/ha | Rs.1,40,625 | 1.1 |
| Technology option 2 (Vellayani Jothika) | KAU | 18.8 | t/ha | Rs.1,75,600 | 1.5 |
| Technology option 3 (Arka Mangala) | IIHR | 13.6 | t/ha | Rs.1,52,764 | 1.2 |
| Technology option 4 (C.B 2011) | Farmer Innovation | 10.1 | t/ha | Rs.1,02,214 | 0.8 |
| Technology option 1 (Farmer’s practice -NS-60) | Namdhari seeds | Due to the non availability of Pusa Meghana seeds the assessment was not carried out this year. | | | |
| Technology option 2 (Pusa Shakthi ) | IARI |
| Technology option 3 (Pusa Meghana) | IARI |
| Technology option 1 Farmers practice (Live standards of Glyricidia ) | - | More than 50% Glyricidia standards damaged by caterpillar | - | - | Ongoing for three years from 2012-13 |
| Technology option 2 (Live standards of Erythrina) | KAU | More than 30% Erythrina standards damaged by Erythrina wasp | - | - |
| Technology option 3 (Concrete Poles) | IISR | - | - | - |
| Technology option 1 Farmers practice (Single propping by bamboo/ casuarina / eucalyptus props) | - | Ongoing | | | |
| Technology option 2 (Double propping by bamboo/ casuarina/ eucalyptus props ) | KAU | Props supplied. The crop is just coming to bearing stage | - | - | Need to wait till monsoon to assess the suitability of the technology assessed |
| Technology option 3 (Support by ¾ inch nylon / polythene tapes) | TNAU | Supports supplied. The crop is just coming to bearing stage | - | - | - |
| Technology option 1 (Oyster Mushroom) | KAU | Oyster mushroom – Average yield of 0.8 kg per bed in 4 harvests | kg/bed | Rs. 200/bed | 3.33 |
| Technology option 2 (Milky mushroom ) | KAU | Milky mushroom – Beds prepared | - | - | Ongoing |
| Technology option 3 | Nil | - | - | - | - |
| Technology option 1 (Farmer’s practice-Ordinary packaging) | Nil | - | - | - | - |
| Technology option 2 (Packaging of mushrooms in poly propylene pouches ) | DMR | - | - | - | - |
| Technology option 3(Packaging of mushrooms in CFB) | DMR | - | - | - | - |
| Technology option 4(Packaging of mushrooms in Tray packs with cling film cover ) | DMR | Tray packs with cling film cover is more suitable for packaging | - | - | - |

4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following

details

**1)**

1 Title of Technology Assessed: **Management of cardamom root grub, *Basilepta fulvicorne* with microbial bio-pesticides and Entomopathogenic Nematodes**

2 Problem Definition: Low productivity due to root grub incidence.

3 Details of technologies selected for assessment: Application of *Metarhizium anisopliae* @ 25g/plant with cow dung and EPN @ 4 cadavers/ plant twice in a year (April-May & September-October).

4 Source of technology: ICRI, Myladumpara.

5 Production system and thematic area: Cardamom based cropping system and Integrated management of cardamom root grub.

6 Performance of the Technology with performance indicators: The yield and BCR data recorded after the treatments indicated the following results. The percentage reduction of root grub attack was 53 % and the yield 0.6 t/ha with the BCR of 1.7 in farmers practice, 77 % and the yield 1 t/ha with the BCR of 2.4 in management with *Metarhizium anisopliae* and 88 % with the yield of 1.3 t/ha with the BCR of 3.1 in management with Entomopathogenic Nematodes.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: EPN is effective in controlling of root grub and increasing yield substantially.

8 Final recommendation for micro level situation: Nil.

9 Constraints identified and feedback for research: Microbial bio-pesticides and Entomopathogenic Nematodes show significant results on the productivity of cardamom only if the technology is continuously practiced for three years and maintain shade area properly.

10 Process of farmer’s participation and their reaction: The cardamom growers association had adopted the technology and more than 400 farmers are practicing the technology in over 250 ha area.

**2)**

1 Title of Technology Assessed: **Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district**

2 Problem Definition: Poor yield, less profitability & High disease incidence.

3 Details of technologies selected for assessment:-

Tech 1 - Lola

Tech 2 - Vellayani Jyothika

Tech 3 - Arka Mangala

Tech 4 - C.B. 2001

4 Source of technology: KAU, IIHR & Farmer Innovation.

5 Production system and thematic area: Introduction of high yielding improved crop varieties.

6 Performance of the Technology with performance indicators: Incidence of Anthracnose and yield parameters

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: Nil.

8 Final recommendation for micro level situation: Vellayani Jyothika can be recommended for the farmers of Idukki dist based on the yield performance and BCR.

9 Constraints identified and feedback for research: The seeds of C.B.2001 was not readily available, but this variety shown tolerance to anthracnose disease in field condition.

10 Process of farmer’s participation and their reaction: Farmers are well accepted with the performance of Vellayani Jothika.

**3)**

1 Title of Technology Assessed: **Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District**

2 Problem Definition: No availability of quality seed.

3 Details of technologies selected for assessment:-

Tech 1 – NS 60

Tech 2 – Pusa Meghana

Tech3 – Pusa Shakthi

4 Source of technology: Namdhari seeds, IARI.

5 Production system and thematic area: Introduction of high yielding improved crop varieties.

6 Performance of the Technology with performance indicators: Not conducted.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: Nil.

8 Final recommendation for micro level situation: Nil.

9 Constraints identified and feedback for research: Due to the non availability of Pusa Meghana seeds the assessment cannot carried out this year.

10 Process of farmer’s participation and their reaction: Nil.

**4)**

1 Title of Technology Assessed: **Use of concrete poles as standards in Black Pepper**

2 Problem Definition: High incidence of P & D in living standards of black pepper.

3 Details of technologies selected for assessment: Using concrete poles as standards instead of live standards.

4 Source of technology: IISR.

5 Production system and thematic area: Integrated Crop Management in perennial crop of Black Pepper.

6 Performance of the Technology with performance indicators: Ongoing.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: Percentage of live standards affected by pests and diseases.

8 Final recommendation for micro level situation: Ongoing.

9 Constraints identified and feedback for research: Erection of poles is cumbersome.

10 Process of farmer’s participation and their reaction: Adoptability restricted for small farmers as cost involved is high.

**5)**

1 Title of Technology Assessed: **Different types of props and supports to mitigate lodging / breaking of banana pseudostem**

2 Problem Definition: Lodging of banana plants nearing maturity.

3 Details of technologies selected for assessment:-

a. Single propping by bamboo/ casuarina / eucalyptus props.

b. Double propping by bamboo/ casuarina/ eucalyptus props.

c. Support by ¾ inch nylon / polythene tapes.

4 Source of technology: KAU and TNAU.

5 Production system and thematic area: Integrated Crop Management in Banana.

6 Performance of the Technology with performance indicators: Ongoing.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: Percentage of plants damaged/ survived during wind and BCR.

8 Final recommendation for micro level situation: Ongoing.

9 Constraints identified and feedback for research: Low availability of bamboo / casuarina poles and high cost.

10 Process of farmer’s participation and their reaction: Need to wait till monsoon to assess the suitability of the technology assessed.

**6)**

1 Title of Technology Assessed: **Performance of different types of mushrooms for year round production in Idukki district**

2 Problem Definition: Large demand & inadequate supply.

3 Details of technologies selected for assessment: Assessing the suitability of growing Milky mushrooms during summer months followed by oyster mushroom during cooler regimes to ensure year round supply.

4 Source of technology: KAU.

5 Production system and thematic area: Small Scale Income Generation Enterprise in Mushroom Farming.

6 Performance of the Technology with performance indicators: Yield per bed.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: Yield realization per bed in relation to prevailing weather conditions.

8 Final recommendation for micro level situation: Ongoing.

9 Constraints identified and feedback for research: Ongoing.

10 Process of farmer’s participation and their reaction: Skeptical on the marketability of Milky mushrooms.

**7)**

1 Title of Technology Assessed: **Varietal trial of root grub resistant Thiruthali variety cardamom**

2 Problem Definition: Heavy infestation of root grub.

3 Details of technologies selected for assessment: Thiruthali variety cardamom.

4 Source of technology: Farmer developed.

5 Production system and thematic area: Cardamom based cropping system and crop improvement

6 Performance of the Technology with performance indicators: The Thiruthali variety cardamom shows better root grub resistance.

7 Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring

techniques: The Thiruthali variety cardamom shows better root grub resistance.

8 Final recommendation for micro level situation: The trial is ongoing and the final recommendation is possible only after 3 years.

9 Constraints identified and feedback for research: Nil.

10 Process of farmer’s participation and their reaction: The farmers are happy with the root grub resistant nature of the variety.

**8)**

1 Title of Technology Assessed: **Assessment of different types of packaging material for enhancement of shelf life and marketability in mushroom (Ongoing)**

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

4.D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the following details: Nil.

**PART V - FRONTLINE DEMONSTRATIONS**

**5.A. Summary of FLDs implemented during 2012-13**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  No. | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Pulses |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Cereals | Mono crop | Kharif 2012 | Paddy | Palthony | - | Farm mechanization | Mechanization in paddy farming | 5 | 5 | 2 | 8 | 10 | - |
|  | Millets |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vegetables | Mixed farming | Seasonal | Vegetables | Local | - | Nutritional security for homestead | Popularization of organic kitchen garden in homesteads for nutritional security | 0.4 | 0.4 | 5 | 20 | 25 | - |
|  |  | Mono crop | Rabi  2012 | Cowpea | Local | - | Integrated Nutrient Management | Use of microbial consortium for organic production of cowpea | 0.08 | 0.08 |  | 4 | 4 | - |
|  |  | Mono crop | Rabi  2012 | Bittergourd | Local | - | Productivity improvement of major crops. | Foliar spray of Boron to increase the fruit set and size in bitter gourd | 0.05 | 0.05 |  | 3 | 3 | - |
|  |  | Mixed farming | Seasonal | Vegetables | - | - | Crop improvement | Popularization of portray nursery method in vegetables | 5 units | 5 units | - | - | - | - |
|  | Flowers |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fruit (Under exploited fruits) | Mixed farming | - | Jack fruit, Banana | Local | - | Product diversification (preservation) | Product diversification & extension of shelf life of under exploited fruits | 3 units | 3 units | - | 3 | 3 | - |
|  |  | Mono crop |  | Banana | Nendran | - | ICM | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | 2 | 2 | - | 5 | 5 | - |
|  | Spices and condiments |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Commercial |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fodder |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fibre |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Dairy | Mixed farming | Throughout the year | Dairy cattle | Cross bred cattle | - | Production and improvement of dairy cattle | Popularization of mixed fodder system | 20 | 0.04 | 0 | 20 | 20 | - |
|  | Poultry | Mixed farming | Throughout the year | Poultry | Poultry – duck | - | Production and improvement of poultry | Performance of Vigova Super M duck in backyard system | 10 | 200 | 1 | 9 | 10 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Rabbitry |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Pigerry |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sheep and goat |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Duckery |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Common carps |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Mussels |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental fishes |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Oyster mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Button mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vermicompost |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sericulture |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Apiculture | Mono crop | Perennial crop | Cardamom | Njallani | - | Better pollination | Popularization of honey bee colonies in cardamom plantations | 2.5 | 2.5 | - | 5 | 5 | - |

**5.A. 1. Soil fertility status of FLDs plots during 2012-13**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Pulses |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Cereals | Mono Crop | Kharif 2012 | Paddy | Palthony | - | Farm mechanization | Mechanization in paddy farming | Kharif  2012 | M | L | H | Cow pea |
|  | Millets |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vegetables | Mixed farming | Seasonal | Vegetables | Local | - | Nutritional security for homestead | Popularization of organic kitchen garden in homesteads for nutritional security | Seasonal | H | H | M | Fallow |
|  |  | Mono crop | Rabi  2012 | Cowpea | Local | - | Integrated Nutrient Management | Use of microbial consortium for organic production of cowpea | Rabi  2012 | M | M | M | Bitter gourd |
|  |  | Mono crop | Rabi  2012 | Bitter gourd | Local | - | Productivity improvement of major crops. | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Rabi  2012 | M | M | M | Snake gourd |
|  | Flowers |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fruit | Mono crop | Perennial | Banana | Nendran | - | ICM | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Perennial | M | H | M | Cowpea & Bitter gourd |
|  | Spices and condiments |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Commercial |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fodder |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Plantation |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fibre |  |  |  |  |  |  |  |  |  |  |  |  |

**5.B. Results of Frontline Demonstrations**

**5.B.1. Crops**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crop | Name of the technology demonstrated | Variety | Hybrid | Farming situation | 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 |  |  |  |  |  |  |  |  |  |  |
| Oilseeds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pulses |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cereals | Mechanization in paddy farming | Palthony | - | Mono crop | 10 | 5 | 34.2 | 30.6 | 32.4 | 29.1 | 11.34 | 30200 | 45644 | 15444 | 1.51 | 42156 | 40243 | -1913 | 0.95 |
| Millets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vegetables | Popularization of organic kitchen garden in homesteads for nutritional security | Local | - | Seasonal | 25 | 0.4 | Ongoing | | | | | | | | | | | | |
|  | Use of microbial consortium for organic production of cowpea | Local | - | Monocrop | 4 | 0.08 | 120 | 100 | 110 | 80 | 37.5 | 135000 | 220000 | 85000 | 1.62 | 142000 | 160000 | 18000 | 1.12 |
|  | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Local | - | Monocrop | 3 | 0.05 | 150 | 140 | 145 | 120 | 20.8 | 275400 | 435000 | 159600 | 1.58 | 275000 | 360000 | 85000 | 1.30 |
|  | Popularization of portray nursery method in vegetables | - | - | Seasonal | 5 units | 5 units | - | - | - | - | - | 16000 | 22000 | 6000 | 1:1.37 | 27000 | 28000 | 1000 | 1:1.07 |
| Flowers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fruit | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Nendran | - | Perennial | 5 | 2 | Ongoing | | | | | | | | | | | | |
| Spices and condiments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fibre crops like cotton |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fodder |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plantation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fibre |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Others (Apiculture) | Popularization of honey bee colonies in cardamom plantations | Njallani | - | Perennial crop | 5 | 2.5 | H |  |  | - | 30% | 1.5 lakhs | 9 lakhs | 7.5 lakhs | 6.0 | 1.25 lakhs | 5 lakhs | 3.5 lakhs | 2.8 |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

H – Highest Yield, L – Lowest Yield A – Average Yield

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

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Check** |
| a. Visual difference in crop stand  b. Difference in pest & disease incidence | Plants more green in colour  No major pest or disease incidence | Normal stand of the crop  Aphids and Serpentine leaf miner found in almost 75% area |
| Pollination & fruit set | Better pollination & fruit set almost to about 80% | Fruit set only to the tune of 60% |

5.B.2. Livestock and related enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of livestock | Name of the technology demonstrated | Breed | No. of Demo | No.  of Units | Yield (q/ha) | | | | % Increase | \*Economics of demonstration Rs./unit) | | | | \*Economics of check  (Rs./unit) | | | |
| Demo | | | Check if any | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Dairy | Popularization of mixed fodder system | Cross bred cattle | 20 | 0.04 | 16 L | 12 L | 11 L | 10 L | 33 | 6200 | 12800 | 6600 | 2.06 | 8200 | 21000 | 12800 | 1.56 |
| Poultry | Performance of Vigova Super M duck in backyard system | Poultry – Vigova Super M duck | 10 | 200 birds | 2.75 kg | 2 kg | 2.25 kg | 2.1 kg | 28 | 57000 | 135000 | 78000 | 1.36 | 61000 | 125000 | 64000 | 1.04 |
| Rabbitry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sheep and goat |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Duckery |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.):** Nil.

5.B.3. Fisheries: Nil.

5.B.4. Other enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Enterprise | Name of the technology demonstrated | Variety/ species | No. of Demo | Units/ Area {m2} | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./unit) or (Rs./m2) | | | | \*Economics of check  (Rs./unit) or (Rs./m2) | | | |
| Demo | | | Check if any | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Oyster mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Button mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vermicompost |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sericulture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apiculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Others (Fruits) | Product diversification & extension of shelf life of under exploited fruits | Local | 3 | - | - | - | - | - | - | 6093 | 11765 | 5672 | 1.93 | - | - | - | - |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

**Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.): Nil.**

5.B.5. Farm implements and machinery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of the implement | Cost of the implement in Rs. | Name of the technology demonstrated | No. of Demo | Area covered under demo  in ha | Labour requirement in Mandays | | % save | Savings in labour (Rs./ha) | \*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 |
| Power Tiller | 137158 | Mechanized paddy farming | 30 | 11 | 31 | 55 | 43 | 16800 | 30200 | 45644 | 15444 | 1.5 | 42156 | 40243 | -1913 | 0.95 |
| Paddy Transplanter | 154650 |
| Cono weeder | 1550 |
| Paddy reaper | 73767 |
| Paddy thresher | 17063 |
| Pepper Thresher | 27140 | Mechanized pepper threshing | - | 10 | - | - | - | - | Rs.1.3/kg | | | | Rs.3/kg | | | |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than labour saved (viz., reduction in drudgery, time etc.): Nil.**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Activity** | **No. of activities organised** | **Number of participants** | **Remarks** |
| 1 | Field days | 3 | 34 | Ecodon field day |
| 2 | Farmers Training | 17 | 356 | - |
| 3 | Media coverage |  |  |  |
| 4 | Training for extension functionaries | 1 | 25 | Training on application of IIHR and SOP (ICM of banana) |
| 5 | Others (Field visit) | 33 | 98 | - |
| 6 | Others (Demonstration) | 15 | 57 | - |
| 7 | Others (Fest, Carnival, One-day workshop) | 3 | 150 | - |
| 8 | Others (FAS) | 28 | 30 | - |
| 9 | Others (Please specify) |  |  |  |
| 10 | Others (Please specify) |  |  |  |

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS:** Nil.

**PART VII. TRAINING**

**7.A. Training of 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** |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technologies |  |  |  |  |  |  |  |  |  |  |
| Cropping Systems |  |  |  |  |  |  |  |  |  |  |
| Crop Diversification |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming | 2 | 32 | 21 | 53 | 0 | 0 | 0 | 32 | 21 | 53 |
| Micro Irrigation/Irrigation | 1 | 10 | 5 | 15 | 0 | 0 | 0 | 10 | 5 | 15 |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management |  |  |  |  |  |  |  |  |  |  |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management |  |  |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Others (Paddy Mechanization) | 2 | 34 | 8 | 42 | 0 | 0 | 0 | 34 | 8 | 42 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop |  |  |  |  |  |  |  |  |  |  |
| Off-season vegetables |  |  |  |  |  |  |  |  |  |  |
| Nursery raising |  |  |  |  |  |  |  |  |  |  |
| Exotic vegetables |  |  |  |  |  |  |  |  |  |  |
| Export potential vegetables |  |  |  |  |  |  |  |  |  |  |
| Grading and standardization |  |  |  |  |  |  |  |  |  |  |
| Protective cultivation | 3 | 56 | 10 | 66 | 0 | 0 | 0 | 56 | 10 | 66 |
| Others (Organic farming) | 4 | 42 | 25 | 67 | 0 | 5 | 5 | 42 | 30 | 72 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Training and Pruning |  |  |  |  |  |  |  |  |  |  |
| Layout and Management of Orchards |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit |  |  |  |  |  |  |  |  |  |  |
| Management of young plants/orchards | 1 | 22 | 31 | 53 | 0 | 0 | 0 | 22 | 31 | 53 |
| Rejuvenation of old orchards |  |  |  |  |  |  |  |  |  |  |
| Export potential fruits |  |  |  |  |  |  |  |  |  |  |
| Micro irrigation systems of orchards |  |  |  |  |  |  |  |  |  |  |
| Plant propagation techniques |  |  |  |  |  |  |  |  |  |  |
| Others (Hi-tech banana cultivation) | 1 | 84 | 30 | 114 | 0 | 0 | 0 | 84 | 30 | 114 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery Management | 1 | 32 | 21 | 43 | 0 | 0 | 0 | 32 | 21 | 43 |
| Management of potted plants |  |  |  |  |  |  |  |  |  |  |
| Export potential of ornamental plants |  |  |  |  |  |  |  |  |  |  |
| Propagation techniques of Ornamental Plants |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **d) Plantation crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **e) Tuber crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition | 4 | 22 | 45 | 57 | 0 | 0 | 0 | 22 | 45 | 57 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **g) Medicinal and Aromatic Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Production and management technology |  |  |  |  |  |  |  |  |  |  |
| Post harvest technology and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |  |  |
| Soil fertility management | 2 | 140 | 12 | 152 | 6 | 3 | 9 | 146 | 15 | 161 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 3 | 164 | 19 | 183 | 14 | 12 | 26 | 178 | 31 | 209 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils |  |  |  |  |  |  |  |  |  |  |
| Micro nutrient deficiency in crops |  |  |  |  |  |  |  |  |  |  |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers |  |  |  |  |  |  |  |  |  |  |
| Soil and water testing |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 7 | 245 | 37 | 282 | 10 | 22 | 32 | 267 | 47 | 314 |
| Poultry Management | 2 | 47 | 21 | 68 | 0 | 0 | 0 | 47 | 21 | 68 |
| Piggery Management | 2 | 24 | 20 | 44 | 0 | 0 | 0 | 24 | 20 | 44 |
| Rabbit Management | 2 | 21 | 21 | 42 | 0 | 0 | 0 | 21 | 21 | 42 |
| Animal Nutrition Management |  |  |  |  |  |  |  |  |  |  |
| Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| Feed and Fodder technology | 7 | 345 | 37 | 382 | 10 | 8 | 18 | 355 | 45 | 400 |
| Production of quality animal products |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening |  |  |  |  |  |  |  |  |  |  |
| Design and development of low/minimum cost diet |  |  |  |  |  |  |  |  |  |  |
| Designing and development for high nutrient efficiency diet |  |  |  |  |  |  |  |  |  |  |
| Minimization of nutrient loss in processing |  |  |  |  |  |  |  |  |  |  |
| Processing and cooking |  |  |  |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition |  |  |  |  |  |  |  |  |  |  |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  |  |  |  |  |  |  |  |  |
| Women and child care |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agril. Engineering** |  |  |  |  |  |  |  |  |  |  |
| Farm machinery and its maintenance |  |  |  |  |  |  |  |  |  |  |
| Installation and maintenance of micro irrigation systems |  |  |  |  |  |  |  |  |  |  |
| Use of Plastics in farming practices |  |  |  |  |  |  |  |  |  |  |
| Production of small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  |  |  |  |  |  |  |  |  |
| Small scale processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Plant Protection** |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 7 | 106 | 20 | 126 | 68 | 26 | 94 | 174 | 46 | 220 |
| Integrated Disease Management | 4 | 68 | 20 | 88 | 38 | 13 | 51 | 81 | 33 | 114 |
| Bio-control of pests and diseases | 3 | 40 | 16 | 56 | 2 | 4 | 6 | 42 | 22 | 64 |
| Production of bio control agents and bio pesticides | 3 | 40 | 30 | 70 | 22 | 20 | 42 | 62 | 50 | 112 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Integrated fish farming |  |  |  |  |  |  |  |  |  |  |
| Carp breeding and hatchery management |  |  |  |  |  |  |  |  |  |  |
| Carp fry and fingerling rearing |  |  |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| Hatchery management and culture of freshwater prawn |  |  |  |  |  |  |  |  |  |  |
| Breeding and culture of ornamental fishes |  |  |  |  |  |  |  |  |  |  |
| Portable plastic carp hatchery |  |  |  |  |  |  |  |  |  |  |
| Pen culture of fish and prawn |  |  |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  |  |  |  |  |  |  |  |  |
| Edible oyster farming |  |  |  |  |  |  |  |  |  |  |
| Pearl culture |  |  |  |  |  |  |  |  |  |  |
| Fish processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| Seed Production |  |  |  |  |  |  |  |  |  |  |
| Planting material production |  |  |  |  |  |  |  |  |  |  |
| Bio-agents production |  |  |  |  |  |  |  |  |  |  |
| Bio-pesticides production |  |  |  |  |  |  |  |  |  |  |
| Bio-fertilizer production |  |  |  |  |  |  |  |  |  |  |
| Vermi-compost production |  |  |  |  |  |  |  |  |  |  |
| Organic manures production |  |  |  |  |  |  |  |  |  |  |
| Production of fry and fingerlings |  |  |  |  |  |  |  |  |  |  |
| Production of Bee-colonies and wax sheets |  |  |  |  |  |  |  |  |  |  |
| Small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Production of livestock feed and fodder |  |  |  |  |  |  |  |  |  |  |
| Production of Fish feed |  |  |  |  |  |  |  |  |  |  |
| Mushroom production | 5 | 12 | 65 | 77 | 0 | 0 | 0 | 12 | 65 | 77 |
| Apiculture | 4 | 32 | 0 | 32 | 45 | 14 | 59 | 77 | 14 | 91 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |  |  |
| Leadership development |  |  |  |  |  |  |  |  |  |  |
| Group dynamics |  |  |  |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  |  |  |  |  |  |  |  |  |
| Mobilization of social capital |  |  |  |  |  |  |  |  |  |  |
| Entrepreneurial development of farmers/youths | 1 | 32 | 6 | 38 | 0 | 1 | 1 | 32 | 7 | 39 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agro-forestry** |  |  |  |  |  |  |  |  |  |  |
| Production technologies |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming Systems |  |  |  |  |  |  |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |  |  |  |  |  |  |
| **TOTAL** | **71** | **1630** | **520** | **2150** | **215** | **128** | **343** | **1852** | **638** | **2470** |

**7.B Training of 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** |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technologies |  |  |  |  |  |  |  |  |  |  |
| Cropping Systems |  |  |  |  |  |  |  |  |  |  |
| Crop Diversification |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming | 2 | 11 | 0 | 11 | 6 | 12 | 18 | 16 | 18 | 34 |
| Micro Irrigation/Irrigation |  |  |  |  |  |  |  |  |  |  |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management | 3 | 45 | 8 | 53 | 15 | 10 | 25 | 60 | 18 | 78 |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management | 2 | 60 | 30 | 90 | 0 | 0 | 0 | 60 | 30 | 90 |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Others (Paddy cultivation) | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 25 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop | 1 | 10 | 5 | 15 | 20 | 5 | 25 | 30 | 10 | 40 |
| Off-season vegetables |  |  |  |  |  |  |  |  |  |  |
| Nursery raising |  |  |  |  |  |  |  |  |  |  |
| Exotic vegetables |  |  |  |  |  |  |  |  |  |  |
| Export potential vegetables |  |  |  |  |  |  |  |  |  |  |
| Grading and standardization |  |  |  |  |  |  |  |  |  |  |
| Protective cultivation | 5 | 125 | 89 | 214 | 0 | 0 | 0 | 125 | 89 | 214 |
| Others (Hi-tech vegetable cultivation) | 6 | 194 | 33 | 227 | 33 | 19 | 52 | 227 | 52 | 279 |
| Others (Organic farming) | 15 | 344 | 140 | 484 | 25 | 60 | 85 | 369 | 200 | 569 |
| Others (Cool season vegetables) | 7 | 413 | 23 | 436 | 158 | 18 | 176 | 571 | 41 | 612 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Training and Pruning |  |  |  |  |  |  |  |  |  |  |
| Layout and Management of Orchards |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit |  |  |  |  |  |  |  |  |  |  |
| Management of young plants/orchards |  |  |  |  |  |  |  |  |  |  |
| Rejuvenation of old orchards |  |  |  |  |  |  |  |  |  |  |
| Export potential fruits |  |  |  |  |  |  |  |  |  |  |
| Micro irrigation systems of orchards |  |  |  |  |  |  |  |  |  |  |
| Plant propagation techniques |  |  |  |  |  |  |  |  |  |  |
| Others (Hi-tech banana cultivation) | 3 | 57 | 40 | 97 | 12 | 5 | 17 | 69 | 45 | 114 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery Management |  |  |  |  |  |  |  |  |  |  |
| Management of potted plants |  |  |  |  |  |  |  |  |  |  |
| Export potential of ornamental plants |  |  |  |  |  |  |  |  |  |  |
| Propagation techniques of Ornamental Plants |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **d) Plantation crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **e) Tuber crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology | 2 | 50 | 12 | 62 | 0 | 0 | 0 | 50 | 12 | 62 |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology | 6 | 165 | 45 | 210 | 0 | 0 | 0 | 165 | 45 | 110 |
| Processing and value addition | 3 | 30 | 15 | 45 | 0 | 0 | 0 | 30 | 15 | 45 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **g) Medicinal and Aromatic Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Production and management technology |  |  |  |  |  |  |  |  |  |  |
| Post harvest technology and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |  |  |
| Soil fertility management | 7 | 140 | 70 | 210 | 0 | 0 | 0 | 140 | 70 | 210 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 5 | 182 | 60 | 242 | 0 | 0 | 0 | 182 | 60 | 242 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils | 3 | 127 | 20 | 147 | 0 | 0 | 0 | 127 | 20 | 147 |
| Micro nutrient deficiency in crops |  |  |  |  |  |  |  |  |  |  |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers | 2 | 44 | 20 | 64 | 0 | 0 | 0 | 44 | 20 | 64 |
| Soil and water testing | 3 | 75 | 5 | 80 | 0 | 0 | 0 | 75 | 5 | 80 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 3 | 81 | 16 | 97 | 0 | 0 | 0 | 81 | 16 | 97 |
| Poultry Management | 1 | 8 | 5 | 13 | 0 | 0 | 0 | 8 | 5 | 13 |
| Piggery Management |  |  |  |  |  |  |  |  |  |  |
| Rabbit Management |  |  |  |  |  |  |  |  |  |  |
| Animal Nutrition Management |  |  |  |  |  |  |  |  |  |  |
| Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| Feed and Fodder technology | 1 | 40 | 14 | 54 | 0 | 0 | 0 | 40 | 14 | 54 |
| Production of quality animal products |  |  |  |  |  |  |  |  |  |  |
| Others (Entrepreneurship development programme) | 2 | 48 | 20 | 68 | 0 | 0 | 0 | 48 | 20 | 68 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening |  |  |  |  |  |  |  |  |  |  |
| Design and development of low/minimum cost diet |  |  |  |  |  |  |  |  |  |  |
| Designing and development for high nutrient efficiency diet |  |  |  |  |  |  |  |  |  |  |
| Minimization of nutrient loss in processing |  |  |  |  |  |  |  |  |  |  |
| Processing and cooking |  |  |  |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition | 12 | 67 | 170 | 237 | 0 | 0 | 0 | 67 | 170 | 237 |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  |  |  |  |  |  |  |  |  |
| Women and child care |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agril. Engineering** |  |  |  |  |  |  |  |  |  |  |
| Farm machinery and its maintenance |  |  |  |  |  |  |  |  |  |  |
| Installation and maintenance of micro irrigation systems |  |  |  |  |  |  |  |  |  |  |
| Use of Plastics in farming practices |  |  |  |  |  |  |  |  |  |  |
| Production of small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  |  |  |  |  |  |  |  |  |
| Small scale processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Plant Protection** |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 15 | 346 | 169 | 515 | 16 | 18 | 24 | 362 | 187 | 549 |
| Integrated Disease Management | 10 | 245 | 70 | 315 | 22 | 6 | 28 | 267 | 76 | 343 |
| Bio-control of pests and diseases | 8 | 315 | 68 | 383 | 20 | 0 | 20 | 335 | 68 | 403 |
| Production of bio control agents and bio pesticides | 3 | 55 | 42 | 97 | 0 | 0 | 0 | 55 | 42 | 97 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Integrated fish farming |  |  |  |  |  |  |  |  |  |  |
| Carp breeding and hatchery management |  |  |  |  |  |  |  |  |  |  |
| Carp fry and fingerling rearing |  |  |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| Hatchery management and culture of freshwater prawn |  |  |  |  |  |  |  |  |  |  |
| Breeding and culture of ornamental fishes |  |  |  |  |  |  |  |  |  |  |
| Portable plastic carp hatchery |  |  |  |  |  |  |  |  |  |  |
| Pen culture of fish and prawn |  |  |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  |  |  |  |  |  |  |  |  |
| Edible oyster farming |  |  |  |  |  |  |  |  |  |  |
| Pearl culture |  |  |  |  |  |  |  |  |  |  |
| Fish processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| Seed Production |  |  |  |  |  |  |  |  |  |  |
| Planting material production |  |  |  |  |  |  |  |  |  |  |
| Bio-agents production |  |  |  |  |  |  |  |  |  |  |
| Bio-pesticides production |  |  |  |  |  |  |  |  |  |  |
| Bio-fertilizer production |  |  |  |  |  |  |  |  |  |  |
| Vermi-compost production |  |  |  |  |  |  |  |  |  |  |
| Organic manures production |  |  |  |  |  |  |  |  |  |  |
| Production of fry and fingerlings |  |  |  |  |  |  |  |  |  |  |
| Production of Bee-colonies and wax sheets |  |  |  |  |  |  |  |  |  |  |
| Small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Production of livestock feed and fodder |  |  |  |  |  |  |  |  |  |  |
| Production of Fish feed |  |  |  |  |  |  |  |  |  |  |
| Mushroom production | 2 | 9 | 44 | 53 | 0 | 0 | 0 | 9 | 44 | 53 |
| Apiculture | 1 | 15 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 15 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |  |  |
| Leadership development |  |  |  |  |  |  |  |  |  |  |
| Group dynamics |  |  |  |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  |  |  |  |  |  |  |  |  |
| Mobilization of social capital |  |  |  |  |  |  |  |  |  |  |
| Entrepreneurial development of farmers/youths |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agro-forestry** |  |  |  |  |  |  |  |  |  |  |
| Production technologies |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming Systems |  |  |  |  |  |  |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |  |  |  |  |  |  |
| **TOTAL** | **134** | **3326** | **1233** | **4559** | **327** | **153** | **470** | **3644** | **1374** | **4944** |

**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** |
| Nursery Management of Horticulture crops | 4 | 86 | | 59 | 145 | 0 | 0 | 0 | 86 | 59 | 145 |
| Training and pruning of orchards | 2 | 41 | | 28 | 69 | 0 | 0 | 0 | 41 | 28 | 61 |
| Protected cultivation of vegetable crops | 3 | 42 | | 32 | 74 | 0 | 0 | 0 | 42 | 32 | 74 |
| Commercial fruit production | 2 | 29 | | 4 | 33 | 0 | 0 | 0 | 29 | 4 | 33 |
| Integrated farming | 2 | 38 | | 19 | 57 | 0 | 0 | 0 | 38 | 19 | 57 |
| Seed production |  |  | |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  | |  |  |  |  |  |  |  |  |
| Planting material production |  |  | |  |  |  |  |  |  |  |  |
| Vermi-culture | 3 | 42 | | 32 | 74 | 0 | 0 | 0 | 42 | 32 | 74 |
| Mushroom Production | 6 | 132 | | 0 | 132 | 0 | 0 | 0 | 132 | 0 | 132 |
| Bee-keeping | 3 | 52 | | 22 | 74 | 0 | 0 | 0 | 52 | 22 | 74 |
| Sericulture |  |  | |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  | |  |  |  |  |  |  |  |  |
| Value addition | 4 | 54 | | 14 | 68 | 0 | 0 | 0 | 54 | 14 | 68 |
| Small scale processing |  |  | |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  | |  |  |  |  |  |  |  |  |
| Tailoring and Stitching |  |  | |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  | |  |  |  |  |  |  |  |  |
| Production of quality animal products |  |  | |  |  |  |  |  |  |  |  |
| Dairying | 6 | 376 | | 80 | 456 | 0 | 0 | 0 | 376 | 80 | 456 |
| Sheep and goat rearing |  |  | |  |  |  |  |  |  |  |  |
| Quail farming |  |  | |  |  |  |  |  |  |  |  |
| Piggery |  |  | |  |  |  |  |  |  |  |  |
| Rabbit farming |  |  | |  |  |  |  |  |  |  |  |
| Poultry production |  |  | |  |  |  |  |  |  |  |  |
| Ornamental fisheries |  |  | |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  | |  |  |  |  |  |  |  |  |
| Freshwater prawn culture |  |  | |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  | |  |  |  |  |  |  |  |  |
| Pearl culture |  |  | |  |  |  |  |  |  |  |  |
| Cold water fisheries |  |  | |  |  |  |  |  |  |  |  |
| Fish harvest and processing technology |  |  | |  |  |  |  |  |  |  |  |
| Fry and fingerling rearing |  |  | |  |  |  |  |  |  |  |  |
| Any other (pl.specify) |  |  | |  |  |  |  |  |  |  |  |
| **TOTAL** | **35** | **892** | | **290** | **1182** | **0** | **0** | **0** | **892** | **290** | **1182** |

**7.D. Training for Rural Youths 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** |
| Nursery Management of Horticulture crops |  |  | |  |  |  |  |  |  |  |  |
| Training and pruning of orchards |  |  | |  |  |  |  |  |  |  |  |
| Protected cultivation of vegetable crops | 3 | 174 | | 10 | 184 | 0 | 0 | 0 | 174 | 10 | 184 |
| Commercial fruit production |  |  | |  |  |  |  |  |  |  |  |
| Integrated farming |  |  | |  |  |  |  |  |  |  |  |
| Seed production |  |  | |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  | |  |  |  |  |  |  |  |  |
| Planting material production |  |  | |  |  |  |  |  |  |  |  |
| Vermi-culture |  |  | |  |  |  |  |  |  |  |  |
| Mushroom Production | 2 | 35 | | 20 | 55 | 0 | 0 | 0 | 35 | 25 | 55 |
| Bee-keeping |  |  | |  |  |  |  |  |  |  |  |
| Sericulture |  |  | |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  | |  |  |  |  |  |  |  |  |
| Value addition | 7 | 45 | | 82 | 127 | 0 | 0 | 0 | 45 | 82 | 127 |
| Small scale processing |  |  | |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  | |  |  |  |  |  |  |  |  |
| Tailoring and Stitching |  |  | |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  | |  |  |  |  |  |  |  |  |
| Production of quality animal products |  |  | |  |  |  |  |  |  |  |  |
| Dairying | 3 | 129 | | 22 | 151 | 0 | 0 | 0 | 129 | 22 | 151 |
| Sheep and goat rearing |  |  | |  |  |  |  |  |  |  |  |
| Quail farming |  |  | |  |  |  |  |  |  |  |  |
| Piggery |  |  | |  |  |  |  |  |  |  |  |
| Rabbit farming |  |  | |  |  |  |  |  |  |  |  |
| Poultry production |  |  | |  |  |  |  |  |  |  |  |
| Ornamental fisheries |  |  | |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  | |  |  |  |  |  |  |  |  |
| Freshwater prawn culture |  |  | |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  | |  |  |  |  |  |  |  |  |
| Pearl culture |  |  | |  |  |  |  |  |  |  |  |
| Cold water fisheries |  |  | |  |  |  |  |  |  |  |  |
| Fish harvest and processing technology |  |  | |  |  |  |  |  |  |  |  |
| Fry and fingerling rearing |  |  | |  |  |  |  |  |  |  |  |
| Any other (Hi-tech horticulture) | 4 | 163 | | 20 | 183 | 0 | 0 | 0 | 163 | 20 | 153 |
| **TOTAL** | **19** | **546** | | **154** | **700** | **0** | **0** | **0** | **546** | **154** | **700** |

**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 | 1 | 69 | | 36 | 105 | 0 | 0 | 0 | 69 | 36 | 105 |
| Integrated Pest Management | 2 | 25 | | 15 | 40 | 0 | 0 | 0 | 25 | 15 | 40 |
| Integrated Nutrient management | 1 | 0 | | 10 | 10 | 0 | 14 | 14 | 0 | 24 | 24 |
| Rejuvenation of old orchards |  |  | |  |  |  |  |  |  |  |  |
| Protected cultivation technology | 1 | 7 | | 2 | 9 | 0 | 0 | 0 | 7 | 2 | 9 |
| Production and use of organic inputs | 1 | 10 | | 4 | 14 | 0 | 0 | 0 | 10 | 4 | 14 |
| Care and maintenance of farm machinery and implements |  |  | |  |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  | |  |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  | |  |  |  |  |  |  |  |  |
| Women and Child care |  |  | |  |  |  |  |  |  |  |  |
| Low cost and nutrient efficient diet designing |  |  | |  |  |  |  |  |  |  |  |
| Group Dynamics and farmers organization |  |  | |  |  |  |  |  |  |  |  |
| Information networking among farmers |  |  | |  |  |  |  |  |  |  |  |
| Capacity building for ICT application |  |  | |  |  |  |  |  |  |  |  |
| Management in farm animals |  |  | |  |  |  |  |  |  |  |  |
| Livestock feed and fodder production |  |  | |  |  |  |  |  |  |  |  |
| Household food security |  |  | |  |  |  |  |  |  |  |  |
| Any other (pl.specify) |  |  | |  |  |  |  |  |  |  |  |
| **Total** | **6** | **111** | | **67** | **178** | **0** | **14** | **14** | **111** | **81** | **192** |

**7.F. Training programmes for Extension Personnel 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** |
| Productivity enhancement in field crops |  |  |  | |  |  |  |  |  |  |  |
| Integrated Pest Management | 5 | 65 | 21 | | 86 | 0 | 0 | 0 | 65 | 21 | 86 |
| Integrated Nutrient management |  |  |  | |  |  |  |  |  |  |  |
| Rejuvenation of old orchards |  |  |  | |  |  |  |  |  |  |  |
| Protected cultivation technology | 4 | 54 | 20 | | 74 | 0 | 0 | 0 | 54 | 20 | 74 |
| Production and use of organic inputs |  |  |  | |  |  |  |  |  |  |  |
| Care and maintenance of farm machinery and implements |  |  |  | |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  | |  |  |  |  |  |  |  |
| Formation and Management of SHGs | 1 | 25 | 10 | | 35 | 0 | 0 | 0 | 25 | 10 | 35 |
| Women and Child care |  |  |  | |  |  |  |  |  |  |  |
| Low cost and nutrient efficient diet designing |  |  |  | |  |  |  |  |  |  |  |
| Group Dynamics and farmers organization |  |  |  | |  |  |  |  |  |  |  |
| Information networking among farmers |  |  |  | |  |  |  |  |  |  |  |
| Capacity building for ICT application |  |  |  | |  |  |  |  |  |  |  |
| Management in farm animals |  |  |  | |  |  |  |  |  |  |  |
| Livestock feed and fodder production |  |  |  | |  |  |  |  |  |  |  |
| Household food security |  |  |  | |  |  |  |  |  |  |  |
| Any other (pl.specify) |  |  |  | |  |  |  |  |  |  |  |
| **Total** | **10** | **144** | **51** | | **195** | **0** | **0** | **0** | **144** | **51** | **195** |

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 | 5 | 114 | 25 | 139 | 5 | 2 | 7 | 119 | 27 | 146 |
| 1.b. | Commercial production of vegetables | 22 | 463 | 232 | 695 | 0 | 0 | 0 | 463 | 232 | 695 |
| **2** | **Production and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Fruit Plants | 4 | 113 | 49 | 162 | 12 | 5 | 17 | 118 | 54 | 179 |
| 2.b. | Ornamental plants |  |  |  |  |  |  |  |  |  |  |
| 2.c. | Spices crops | 15 | 843 | 268 | 1111 | 105 | 98 | 203 | 948 | 366 | 1314 |
| **3.** | **Soil health and fertility management** |  |  |  |  |  |  |  |  |  |  |
| **4** | **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| **5** | **Methods of protective cultivation** | 5 | 125 | 89 | 214 | 0 | 0 | 0 | 125 | 89 | 214 |
| **6** | **Others (Mushroom)** | 7 | 30 | 65 | 95 | 0 | 0 | 0 | 30 | 65 | 95 |
| **7** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 7.a. | Processing and value addition | 10 | 94 | 215 | 309 | 0 | 0 | 0 | 94 | 215 | 309 |
| 7.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **8** | **Farm machinery** |  |  |  |  |  |  |  |  |  |  |
| 8.a. | Farm machinery, tools and implements | 2 | 40 | 10 | 50 | 0 | 0 | 0 | 40 | 10 | 50 |
| 8.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **9.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| **10** | **Livestock production and management** |  |  |  |  |  |  |  |  |  |  |
| 10.a. | Animal Nutrition Management | 18 | 845 | 158 | 1003 | 60 | 20 | 80 | 905 | 178 | 1083 |
| 10.b. | Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| 10.c | Fisheries Nutrition |  |  |  |  |  |  |  |  |  |  |
| 10.d | Fisheries Management |  |  |  |  |  |  |  |  |  |  |
| 10.e. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **11.** | **Home Science** |  |  |  |  |  |  |  |  |  |  |
| 11.a. | Household nutritional security | 4 | 25 | 175 | 200 | 0 | 0 | 0 | 25 | 175 | 200 |
| 11.b. | Economic empowerment of women | 2 | 5 | 20 | 25 | 0 | 0 | 0 | 5 | 20 | 25 |
| 11.c. | Drudgery reduction of women | 1 | 0 | 14 | 14 | 0 | 0 | 0 | 0 | 14 | 14 |
| 11.d. | Others (Value addition) | 2 | 18 | 38 | 56 | 0 | 0 | 0 | 18 | 38 | 56 |
| **12** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 12.a. | Capacity Building and Group Dynamics | 2 | 24 | 10 | 34 | 0 | 1 | 1 | 24 | 11 | 35 |
| 12.b. | Others (Block level research extension interface) | 2 | 144 | 20 | 164 | 0 | 0 | 0 | 144 | 20 | 164 |
|  | **Total** | **101** | **2883** | **1388** | **4271** | **182** | **126** | **308** | **3058** | **1514** | **4579** |

**Details of sponsoring agencies involved**

1. ATMA (Department of Agriculture)
2. Spices Board
3. Coffee Board
4. VFPCK
5. Fertilizers Association of India, Chennai.
6. NGOs (PDS, HOPS, HDS, VOSARD, MAS, KPMC Trust, CFCD, MBS, MSS etc.)
7. Lead Bank

**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.a. | Commercial floriculture | 3 | 45 | 26 | 71 | 0 | 0 | 0 | 45 | 26 | 71 |
| 1.b. | Commercial fruit production | 3 | 56 | 9 | 65 | 0 | 0 | 0 | 56 | 9 | 65 |
| 1.c. | Commercial vegetable production | 3 | 45 | 23 | 68 | 0 | 0 | 0 | 45 | 23 | 68 |
| 1.d. | Integrated crop management | 3 | 48 | 20 | 68 | 0 | 0 | 0 | 48 | 20 | 68 |
| 1.e. | Organic farming | 3 | 45 | 26 | 71 | 0 | 0 | 0 | 45 | 26 | 71 |
| 1.f. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **2.** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Value addition | 3 | 23 | 11 | 34 | 0 | 0 | 0 | 23 | 11 | 34 |
| 2.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| 3.a. | Dairy farming | 2 | 41 | 16 | 57 | 0 | 0 | 0 | 41 | 16 | 57 |
| 3.b. | Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| 3.c. | Sheep and goat rearing |  |  |  |  |  |  |  |  |  |  |
| 3.d. | Piggery |  |  |  |  |  |  |  |  |  |  |
| 3.e. | Poultry farming |  |  |  |  |  |  |  |  |  |  |
| 3.f. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **4.** | **Income generation activities** |  |  |  |  |  |  |  |  |  |  |
| 4.a. | Vermi-composting | 2 | 18 | 24 | 42 | 0 | 0 | 0 | 18 | 24 | 42 |
| 4.b. | Production of bio-agents, bio-pesticides,  bio-fertilizers etc. | 3 | 45 | 23 | 68 | 0 | 0 | 0 | 45 | 23 | 68 |
| 4.c. | Repair and maintenance of farm machinery  and implements |  |  |  |  |  |  |  |  |  |  |
| 4.d. | Rural Crafts | 1 | 18 | 20 | 38 | 0 | 0 | 0 | 18 | 20 | 38 |
| 4.e. | Seed production |  |  |  |  |  |  |  |  |  |  |
| 4.f. | Sericulture |  |  |  |  |  |  |  |  |  |  |
| 4.g. | Mushroom cultivation | 3 | 30 | 19 | 49 | 0 | 0 | 0 | 30 | 19 | 49 |
| 4.h. | Nursery, grafting etc. |  |  |  |  |  |  |  |  |  |  |
| 4.i. | Tailoring, stitching, embroidery, dying etc. |  |  |  |  |  |  |  |  |  |  |
| 4.j. | Agril. para-workers, para-vet training |  |  |  |  |  |  |  |  |  |  |
| 4.k. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **5.** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 5.a. | Capacity building and group dynamics |  |  |  |  |  |  |  |  |  |  |
| 5.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
|  | **Grand Total** | **29** | **414** | **217** | **631** | **0** | **0** | **0** | **414** | **217** | **631** |

**PART VIII – EXTENSION ACTIVITIES**

**Extension Programmes (including extension activities undertaken in FLD programmes)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nature of Extension Programme** | **No. of Programmes** | **No. of Participants (General)** | | | **No. of Participants**  **SC / ST** | | | **No. of extension personnel** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Field Day | 3 | 20 | 14 | 34 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kisan Mela |  |  |  |  |  |  |  |  |  |  |
| Kisan Ghosthi | 2 | 60 | 42 | 102 | 0 | 0 | 0 | 14 | 0 | 14 |
| Exhibition | 3 |  |  |  |  |  |  |  |  |  |
| Film Show |  |  |  |  |  |  |  |  |  |  |
| Method Demonstrations |  |  |  |  |  |  |  |  |  |  |
| Farmers Seminar | 2 | 117 | 60 | 177 | 0 | 0 | 0 | 0 | 0 | 0 |
| Workshop |  |  |  |  |  |  |  |  |  |  |
| Group meetings |  |  |  |  |  |  |  |  |  |  |
| Lectures delivered as resource persons |  |  |  |  |  |  |  |  |  |  |
| Newspaper coverage | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Radio talks | 5 |  |  |  |  |  |  |  |  |  |
| TV talks | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Popular articles |  |  |  |  |  |  |  |  |  |  |
| Extension Literature | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Advisory Services | 340 | 250 | 110 | 360 | 20 | 10 | 30 | 25 | 0 | 25 |
| Scientific visit to farmers field | 95 | 300 | 82 | 382 | 0 | 0 | 0 | 0 | 0 | 0 |
| Farmers visit to KVK | 206 | 1413 | 632 | 2045 | 0 | 0 | 0 | 35 | 15 | 50 |
| Diagnostic visits |  |  |  |  |  |  |  |  |  |  |
| Exposure visits |  |  |  |  |  |  |  |  |  |  |
| Ex-trainees Sammelan |  |  |  |  |  |  |  |  |  |  |
| Soil health Camp |  |  |  |  |  |  |  |  |  |  |
| Animal Health Camp |  |  |  |  |  |  |  |  |  |  |
| Agri mobile clinic |  |  |  |  |  |  |  |  |  |  |
| Soil test campaigns | 1 | 130 | 23 | 153 | 0 | 0 | 0 | 10 | 0 | 10 |
| Farm Science Club Conveners meet |  |  |  |  |  |  |  |  |  |  |
| Self Help Group Conveners meetings |  |  |  |  |  |  |  |  |  |  |
| Mahila Mandals Conveners meetings |  |  |  |  |  |  |  |  |  |  |
| Celebration of important days (specify) |  |  |  |  |  |  |  |  |  |  |
| Any Other (Technology Week) | 5 | 298 | 70 | 368 | 0 | 0 | 0 | 20 | 14 | 34 |
| Any Other (District Level Seminar) | 2 | 200 | 130 | 330 | 0 | 0 | 0 | 50 | 35 | 85 |
| **Total** | **679** | **2788** | **1163** | **3951** | **20** | **10** | **30** | **154** | **64** | **218** |

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

**9.A. Production of seeds by the KVKs**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Crop category | **Name of the crop** | **Variety** | **Hybrid** | **Quantity of seed**  **(qtl)** | **Value**  **(Rs)** | **Number of farmers to whom provided** |
| Cereals (crop wise) |  |  |  |  |  |  |
| Oilseeds |  |  |  |  |  |  |
| Pulses |  |  |  |  |  |  |
|  | Cowpea | Lola | - | 0.0030 | 1800 | 110 |
| Commercial crops |  |  |  |  |  |  |
| Vegetables |  |  |  |  |  |  |
|  | Tomato | Sakthi | - | 0.0025 | 10000 | 325 |
|  | Bitter gourd | Preethi | - | 0.0070 | 13290 | 511 |
|  | Bitter gourd | Priyanka | - | 0.0015 | 2426 | 29 |
|  | Snake gourd | Kaumudi | - | 0.0035 | 6000 | 168 |
|  | Carrot | Improved Kuroda | - | 0.0004 | 200 | 20 |
|  | Beet root | Action | - | 0.0005 | 250 | 25 |
|  | Cauliflower | NS60 | - | 0.0002 | 320 | 32 |
|  | Cauliflower | Pusa Sakthi | - | 0.0002 | 250 | 25 |
|  | Cauliflower | Pusa Sarath | - | 0.0003 | 300 | 30 |
|  | Cabbage | Pusa Drum Head | - | 0.0033 | 1673 | 33 |
|  | Cabbage | Golden Acre | - | 0.0046 | 2150 | 46 |
|  | Cabbage | Pride of India | - | 0.0021 | 1197 | 21 |
|  | Chilli | Ujwala | - | 0.0001 | 420 | 31 |
| Flower crops |  |  |  |  |  |  |
| Spices |  |  |  |  |  |  |
| Fodder crop seeds |  |  |  |  |  |  |
|  | Desamathus | - | - | 0.08 | 4080 | 20 |
|  | Fodder Sorghum | - | - | 0.04 | 1400 | 20 |
|  | Agathi | - | - | 0.024 | 1200 | 20 |
|  | Subhabul | - | - | 0.22 | 6600 | 20 |
|  |  |  |  |  |  |  |
| Fiber crops |  |  |  |  |  |  |
| Forest Species |  |  |  |  |  |  |
| Others (specify) |  |  |  |  |  |  |
| **Total** |  |  |  | **0.39** | **53,556** | **1486** |

# 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** |
| Commercial |  |  |  |  |  |  |
| Vegetable seedlings |  |  |  |  |  |  |
| Fruits |  |  |  |  |  |  |
| Ornamental plants |  |  |  |  |  |  |
|  | Balsom | - | - | 117 | 2505 | 117 |
|  | Golden Cyprus | - | - | 104 | 5368 | 95 |
|  | Dianthus | - | - | 192 | 3169 | 120 |
|  | Poinsettia | - | - | 73 | 1575 | 44 |
|  | Bougainvillea | - | - | 75 | 2500 | 75 |
|  | Table Palm | - | - | 20 | 1250 | 20 |
|  | Anthurium | - | - | 162 | 2300 | 150 |
|  | Peperomia | - | - | 60 | 600 | 45 |
|  | Jasmine | - | - | 25 | 250 | 25 |
|  | Marigold | - | - | 160 | 1500 | 65 |
|  | Coleus | - | - | 100 | 500 | 25 |
|  | Bud rose | - | - | 25 | 1250 | 25 |
| Medicinal and Aromatic |  |  |  |  |  |  |
| Plantation |  |  |  |  |  |  |
| Spices | Black Pepper | Panniyoor-1 | - | 506 | 7590 | 135 |
|  | Panniyoor-2 | - | 120 | 1398 | 14 |
|  | Panniyoor-4 | - | 29 | 435 | 08 |
|  | Panniyoor-5 | - | 628 | 9288 | 218 |
|  | Panniyoor-6 | - | 24 | 288 | 05 |
|  | Panniyoor-7 | - | 609 | 8623 | 198 |
|  | Chengannoor | - | 50 | 600 | 10 |
|  | Karimunda | - | 2216 | 20316 | 410 |
|  | Kottanadan | - | 1148 | 16186 | 272 |
|  | Malabar Excel | - | 252 | 3395 | 95 |
|  | Pournami | - | 153 | 1660 | 56 |
|  | Panchami | - | 173 | 1822 | 69 |
|  | IISR-Sakthi | - | 77 | 1142 | 35 |
|  | IISR-Thevam | - | 127 | 1552 | 65 |
|  | Sreekara | - | 134 | 1435 | 89 |
|  | Subhakara | - | 463 | 4953 | 202 |
|  | Cardamom tillers | Njallani | - | 25 | 980 | 16 |
| Tuber |  |  |  |  |  |  |
| Fodder crop saplings | Cumbu napier | Co4 | - | 40,000 | 10000 | 40 |
| Forest Species |  |  |  |  |  |  |
| Others(specify) |  |  |  |  |  |  |
| **Total** |  |  |  |  | **1,14,430** | **2,743** |

**9.C. Production of Bio-Products**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bio Products** | **Name of the bio-product** | **Quantity**  **Kg** | **Value (Rs.)** | **Number of**  **farmers to**  **whom provided** |
| Bio Fertilizers | Azolla | 2 kg | 96 | 25 |
| Bio-pesticide | EPN | 22550 nos- | 22550 | 200 |
| Bio-fungicide | Pseudomonas | 1250 | 125000 | 1000 |
|  | Trichoderma | 114 | 11400 | 95 |
| Others | Mushroom Spawn | 965.1 kg | 96510 | 500 |
|  | Vemiwash | 5L | 300 | 5 |
|  | Vermicompost | 2000 kg | 17170 | 150 |
|  | Vermiculture | 3 kg | 750 | 10 |
| **Total** |  |  | **2,73,776** | **1985** |

# 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** |  |  |  |  |
| Cows |  |  |  |  |
| Buffaloes |  |  |  |  |
| Calves |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Poultry** |  |  |  |  |
| Broilers |  |  |  |  |
| Layers |  |  |  |  |
| Duals (broiler and layer) |  |  |  |  |
| Japanese Quail |  |  |  |  |
| Turkey |  |  |  |  |
| Emu |  |  |  |  |
| Ducks | Vigova Super M Duck | 200 nos. | 23150 | 10 |
| Others (Pl. specify) |  |  |  |  |
| **Piggery** |  |  |  |  |
| Piglet |  |  |  |  |
| Others (Pl.specify) |  |  |  |  |
| **Fisheries** |  |  |  |  |
| Fingerlings |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Total** |  |  | **23,150** | **10** |

**PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND**

**DROUGHT MITIGATION**

**10. A. Literature Developed/Published (with full title, author & reference)**

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

(B) Literature developed/published

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Title** | **Authors name** | **Number** |
| Research papers |  |  |  |
| Technical reports | Agriculture Promotional Programme | Published in Indian Journal of Fertilizers Vol-8 No.4 April 2012 (The Fertilizer Association of India) | - |
| Soil test campaign and Farmers’ Meet on Soil Health Enhancement | Published in Indian Journal of Fertilizers Vol-8 No.7 July 2012 (The Fertilizer Association of India) | - |
| News letters |  |  |  |
| Technical bulletins |  |  |  |
| Popular articles | Quail egg pickle (Kadamutta Achar) published in Vanitha “issue-39” Vol-1 March | Ms. Jayisy Joseph, Programme Assistant (Home Science) | - |
| Extension literature | Importance of soil testing | Ms. Manju Jincy Varghese, SMS (Soil Science) | 1000 copies |
| Organic Pest and Disease management in Cardamom | Mr. Sudhakar Soundarajan, SMS (Plant Protection) | 5000 nos. |
| Others (Pl. specify) |  |  |  |
| **TOTAL** |  |  |  |

**10.B. Details of Electronic Media Produced:** Nil.

**10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).**

**A Successful group unit in product diversification (Women in Agriculture - Konnathady)**

Bapooji KVK adopted Konnathady Panchayat for the year 2012-13. As a part of FLD programme, 3 trainings conducted on value added product preparation and 56 participants were covered through the demonstrations. Value added product preparation practical classes helped the trainees to prepare various products. Three trainees sold home-made products (Jack products) at CDS Onam market at Konnathady on August 2012.

Mrs. Mini Thankachan, Mrs. Salomy Joseph-Aythamattathil and Mrs. Rosily Joy, Kalakettiyil motivated through the training showed interest to start small scale unit at Vellaplackal house on September-2012. Timely technical guidance given by KVK. This group is trained with a view of minimization of fruit wastage through product diversification with locally available raw-materials. Asparagus pickle, Nutmeg pickle, Banana pseudostem pickle, Papaya jelly, Jam, Passion fruit squash, Rose apple extract, Chilly in brine, Jack products etc. were the products prepared in this unit. The group registered as Women in Agriculture. Product preparation and packaging related aspects given by BKVK. Through value added product preparation and its sale, the group aims supplementary income.

In January 2013, the group members participated in the Idukki Fest and Kattappana Carnival with their home-made products. The group gained Rs.11,765/- through the sale of diversified products with a profit of Rs.5,672/. The group is getting income through local sale also.

***KVK Intervention:***

* Off campus demonstration on value added product preparation.
* Identified the interested group from the trainees.
* Regular technical guidance.
* Motivated the group to start the unit.
* Field visit and demonstrations.
* Implemented FLD on product diversification and extension of shelf life in under exploited fruits.
* Guidelines given for marketing.
* Present status – Running successfully.

***Impact:***

The group is empowered and motivated through training. Home-made products prepared by the unit were sold in local market, shops, fests, carnivals etc. From Agriculture department, this group got Rs.30,000/- as an award for their involvement in product diversification. These entrepreneurs feel proud of getting employment and good social status in their area.

**Enhanced Soil health status in different areas**

In the existing situation, farmers’ awareness on balanced and efficient use of fertilizers is to be updated. Rational use of fertilizers and manures for optimum supply of all essential nutrients for crop production needs to be worked out and emphasized. In this context Bapooji Krishi Vigyan Kendra, Santhanpara along with Fertilizer Association of India conducted crop demonstrations on balanced fertilizer application in Kharif and Rabi seasons respectively. Three plot demonstrations were conducted in paddy at Anakkara and Kanakapuzha villages of Idukki district. Soil test based fertilizer recommendations along with organic matter was demonstrated in these plots. The demonstration plot done through scientific methods showed better results compared to farmers’ practice. A farmer’s meet was conducted at the time of harvest to disseminate the technologies related to balanced fertilizer application and to share the farmers’ feed back of the demo. More than 50 farmers’ participated in the programme.

***KVK Intervention:***

* Conducted soil campaign at KVK.
* Field visit.
* Demonstrations.

***Impact:***

The Farmers’ were benefitted with the soil test based fertilizer recommendations. The farmers’ cost of inputs (Chemical fertilizers) was nearly reduced to half.

**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 which can be considered for technology development (in detail with suitable photographs)

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Crop / Enterprise** | **ITK Practiced** | **Purpose of ITK** |
| 1 | Cardamom and Banana | Spray Coffee powder @ 100g  Or Vinegar @ 100 ml with 100 L of water. | Management of slug and snail. |
| 2 | Banana | Fenugreek powder @ 50 g plant at the time of planting. | Management of Bunchy top disease and nematode |

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

**Identification of courses for farmers/farm women**

* Training needs analysis done at village level.
* Interactive sessions during field visits.

**Rural Youth**

* Interactive sessions conducted in the major Higher Secondary Schools in this block.

**Inservice personnel**

* Training needs analysis done at district level.

**10.G. Field activities**

i. Number of villages adopted: 8

ii. No. of farm families selected: 35

iii. No. of survey/PRA conducted:1

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

Status of establishment of Lab : Functioning.

1. Year of establishment : 2005-06

2. List of equipments purchased with amount :

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Name of the Equipment | Qty. | Cost |
| 1. | LPG Cylinder | 1 | 4600.00 |
| 2. | Water bath WDB-2 350’400’100mm 12 holes | 1 | 4815.00 |
| 3. | Machinery for Homogensing (khan shaker) Model LKS2 platform size 75cmx43cmx10cm | 1 | 20,880.00 |
| 4. | Rotary Shaker | 1 | 16,200.00 |
| 5. | Machinery for drying (Hot air oxen) with digital temperature control, size 455’455’455’ | 1 | 13,725.00 |
| 6. | Conductivity meter (PH meter Eutech 510) | 1 | 21,935.00 |
| 7. | Genesis 20 visible Spectrophotometer meter | 1 | 1,12,499.00 |
| 8. | CITIZEN Physical Balance Model CTL-600 | 1 | 8,991.00 |
| 9. | Micro processor based conductivity | 1 | 13,500.00 |
| 10. | Micro Processor Based Flame Photometer with N, K & Ca FILTERS & Compressor | 1 | 45,000.00 |
| 11. | Electronic Automatic KEL  PLUS Micro processor  Based Twelve Place Micro Block Digestion System | 1 | 97,043.00 |
| 12. | Electronic Balance  Model: CP 2245  Srl.No.18606016 | 1 | 1,00,000.00 |
| 13. | Hot plate | 1 | 5,400.00 |
| Total | | 12 | 4,64,588.00 |

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 | 796 | 428 | 145 | 36810.00 |
| Water Samples | 11 | 9 | 9 | 550.00 |
| Plant samples | 0 | 0 | 0 | 0.00 |
| Manure samples | 3 | 2 | 2 | 150.00 |
| Others (specify) | 0 | 0 | 0 | 0.00 |
| Total | 810 | 439 | 156 | 37,510.00 |

Details of samples analyzed during the year 2012-13:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
| Soil Samples | 169 | 74 | 50 | 8550.00 |
| Water Samples | 2 | 2 | 2 | 100.00 |
| Plant samples | 0 | 0 | 0 | 0.00 |
| Manure samples | 1 | 1 | 1 | 50.00 |
| Others (Soil Test Campaign for major & micro nutrients) | 100 | 100 | 100 | 30000.00 |
| Total | 272 | 177 | 153 | 38,700.00 |

**10.I. Technology Week celebration during 2012-13: Yes.**

Period of observing Technology Week: From 18/12/2012 to 22/12/2012

Total number of farmers visited : 450

Total number of agencies involved : 15

Number of demonstrations visited by the farmers within KVK campus : 7

Other Details

| **Types of Activities** | **No. of**  **Activities** | **Number of**  **Farmers** | **Related crop/livestock technology** |
| --- | --- | --- | --- |
| Gosthies |  |  | Mushroom Cultivation, Apiculture |
| Lectures organized | 13 | 450 | Hi-Tech Agriculture, Mushroom Cultivation, Animal Husbandry, Apiculture, Cardamom and Black Pepper |
| Exhibition | 15 stalls | 450 | Hi-Tech Agriculture, Apiculture, Agri-inputs |
| Film show | 11 |  | Hi-Tech Agriculture, Mushroom Cultivation, Animal Husbandry, Apiculture, Cardamom and Black Pepper |
| Fair | 15 |  | Hi-Tech Agriculture, Apiculture, Agri-inputs |
| Farm Visit | 5 |  | KVK Demo Units |
| Diagnostic Practicals | 9 |  | Hi-Tech Agriculture, Mushroom Cultivation, Apiculture, PP applications, ITK |
| Supply of Literature (No.) | 5 |  | IPDM, Soil Testing |
| Supply of Seed (q) | - | - | - |
| Supply of Planting materials (No.) | - | - | *-* |
| Bio Product supply (Kg) | - | - | - |
| Bio Fertilizers (q) | - | - | - |
| Supply of fingerlings | - | - | - |
| Supply of Livestock specimen (No.) | - | - | - |
| Total number of farmers visited the technology week | - | 450 | - |

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

**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)** |
| ECODON | 65 | 78% | 12,000 | 20,000 |
| IIHR BANANA SPECIAL | 35 | 65% | 5,000 | 7,500 |
| EPN | 200 | 50% | 4,500 | 22,500 |
| Bio-management of Banana Pseudostem weevil | 50 | 80% | 1,200/ha | 3,100 |
| Product diversification in minor fruits | 56 | 70% | 6093 | 11,765 |
| Paddy Task Force on Farm Mechanization | 20 | 100% | -1913/ha | 15444/ha |

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

**11.B. Cases of large scale adoption**

**(Please furnish detailed information for each case)**

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

**Integrated Farming System (IFS)**

Bapooji Krishi Vigyan Kendra implemented integrated farming system at Konnathody panchayat selecting three women farmers (Mrs. Kunjumol, Mrs Manju and Mrs Reshmi). They have a traditional type of farm land with crops like coffee, pepper, cardamom, arecanut, vegetable, paddy, banana and a dairy unit. By implementing IFS, KVK could introduce yielding varieties of fodder grass (Co-3, Co-4, agathi and desmanthus) in an area of one hectare of high yielding arecanut garden with micro sprinkler irrigation system. The practice drastically reduced fodder expenses from 400 to Rs. 50 a day when they depended solely on paddy straw as cattle feed. The complete switch over to organic farming became possible through effective recycling of crop waste to vermicompost, bio-gas plant and with the technology demonstrated to the farmers. The dairy unit has 15 cows and produces nearly 92 litres milk a day. Dairy farming plays a vital role in the sustainability of the system not only as a major source of income, but by enhancing the nutrient recycling and meeting energy requirement for the household. They also have to set up 25 honey bee colonies (*Apis cerana indica*) in cardamom plantation. The average production from this system is 350 kg from a cardamom plantation per acre, 1.4 kg of dried arecanut, 1 kg of dried pepper per vine, 10 kg bunch from each banana plant, 1 tonne of vermicompost, 75 kg of honey, 110 tonnes of cowdung, 170 tonnes of fodder grass. The selected women farmers said integrative farming ensures 90 per cent of nutrient requirement through bio-mass produced in the farm itself, one of the basic requirements of organic farming practices.

**Farmers Field School (FFS) on Integrated Crop Management in Black Pepper**

***Problem identified:***

* Soil acidity and depletion of soil organic matter due to indiscriminate use of chemical fertilizers leads to deficiency of nutrients.
* Unscientific pest and disease management.
* Lack of mechanization in post harvest management.
* Pest problems in live standards.

***Objectives:***

* Awareness creation among farmers on integrated nutrient management and Integrated Pest and disease management.
* Popularization of Pepper Thresher.
* Trials on alternate standards for black pepper.

Activities:

|  |  |
| --- | --- |
| **Activities** | **Objectives achieved** |
| Meetings | Identified the problems in black pepper at Konnathady and Parathodu |
| Formation of FFS group (20 farmers/group) | Conducted field demonstration on ICM in Pepper |
| Supply of FFS kit and critical inputs | 100 no’s - IPDM kit supplied to farmers |
| Field day | Five farmers’ field days were conducted at different stages of crop growth |

***Conclusion :-***

FFS conducted on ICM in Black Pepper at Konnathady and Parathodu of Adimali block, Idukki district. The training classes included live demonstration on various aspects of Identifying the pest and disease in various crops and their control measure, extract of neem leaf, wild sunflower, white chrysanthemum flower, 3% malimulaku extract, Fish amino acid, Jeeva mirutham, Custard apple seed extract , 2% neem oil + garlic emulsion and Village-level production, integration and implementation of EPN and Trichoderma sp. The group members were trained on ICM practices in Black Pepper. Throughout the training, participants practiced some exercises to build group trust and coherence. After the training farmers can identified the insect pests and natural enemies. They can also prepare botanical extracts and spray it on Black Pepper, Cardamom and vegetable crops efficiently.

**PART XII – LINKAGES**

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

|  |  |
| --- | --- |
| **Name of organization** | **Nature of linkage** |
| ATMA | Demonstration and Trainings |
| State Planning Board | Demonstration and Scouting and documentation of farm innovations |

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

**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** | **Date/ Month of initiation** | **Funding agency** | **Amount (Rs.)** |
| Soil Health Enhancement Programme | April, 2012 | Fertilizer Association of India, Chennai | 80,000.00 |
| Paddy Task Force on Farm Mechanization | July ,2012 | State Planning Board | 5,17,500.00 |
| Scouting and documentation of farm innovations | December, 2012 | State Planning Board | 1,50,000.00 |

**12.C. Details of linkage with ATMA**

a) Is ATMA implemented in your district: Yes.

If yes, role of KVK in preparation of SREP of the district? We actively participated in the final formulation of SREP preparation of the Idukki District. We discussed the technologies that can take up in ATMA demonstrations. We also explained the areas which can cover under various trainings programmes.

**Coordination activities between KVK and ATMA during 2012-13**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Particulars** | **No. of programmes attended by KVK staff** | **No. of programmes Organized by KVK** | **Other remarks (if any)** |
| **01** | **Meetings** | GB/BTT | 24 | - | **-** |
| **02** | **Research projects** | - | - | - | **-** |
|  |  |  |  |  |  |
| **03** | **Training programmes** |  |  |  |  |
|  |  | Field day -Ecodon | 3 |  | **-** |
|  |  | Organic vegetable cultivation | 18 | 5 | **-** |
|  |  | Hi-tech Vegetable cultivation | 8 | 4 | **-** |
|  |  | Hi-tech Banana cultivation | 7 | 3 | **-** |
|  |  | Soil Health Management | 8 | 5 | **-** |
|  |  | Cardamom Pest and Disease Management | 9 | 3 | **-** |
|  |  | Black Pepper Pest and Disease Management | 5 | 2 |  |
|  |  | Diary and Cattle Management | 1 | 5 |  |
| **04** | **Demonstrations/ assessment** |  |  |  |  |
|  |  | Assessment of IIHR Banana special along with K2SO4 for quality production of banana in Idukki district. |  | 3 | On going |
|  |  | Introduction of different type and varieties of Mushrooms for year round production in Idukki |  | 2 | On going |
|  |  | Management of Banana Pseudostem weevil through Bioagents. |  | 3 | On going |
|  |  | Management of cardamom root grub through bio pesticides and EPN |  | 3 | On going |
|  |  | Organic kitchen gardens for homesteads for nutritional security |  | 3 | On going |
|  |  | Subsidiary income generation through apiculture in cardamom plantations |  | 3 | On going |
|  |  | Assessment on the efficacy of bio-fertilizer consortium in black pepper |  | 3 | On going |
| **05** | **Extension Programmes** |  |  |  |  |
|  | Kisan Mela |  |  |  |  |
|  | Technology Week |  |  |  |  |
|  | Exposure visit |  |  |  |  |
|  | Exhibition |  |  |  |  |
|  | Soil health camps |  |  |  |  |
|  | Animal Health Campaigns |  |  |  |  |
|  | Others (Pl. specify) |  |  |  |  |
| **06** | **Publications** |  |  |  |  |
|  | Video Films |  |  |  |  |
|  | Books |  |  |  |  |
|  | Extension Literature |  |  |  |  |
|  | Pamphlets |  |  |  |  |
|  | Others (Pl. specify) |  |  |  |  |
| **07** | **Other Activities** (Pl. specify) |  |  |  |  |
|  | Watershed approach |  |  |  |  |
|  | Integrated Farm Development |  |  |  |  |
|  | Agri-preneurs development |  |  |  |  |

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

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

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Funds received if any Rs.** | **Expenditure during the reporting period in Rs.** | **Remarks** |
| **1** | **Project submitted on cardamom sucker production** | **-** | **-** | **-** | **-** |

**12. G Kisan Mobile Advisory Services: Not initiated.**

**PART XIII - PERFORMANCE OF INFRASTRUCTURE IN KVK**

**13.A. 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. | Mushroom production unit | 2010 | 50 m2 | Oyster mushroom var. CO1 | Mushroom | 0.71950 q | 2878.00 | 215855.00 | Revolving Fund |
| 2. | Mushroom Spawn production unit | 2009 | 10 m2 | Var. CO1, CO2 & Florida | Spawn | 3217 packets | 22519.00 | 96510.00 | Funded by SHM |
| 3. | Mist Chamber | 2009 | 96 m2 | Panniyoor-1, 2, 4, 5, 6 & 7 Sreekara  Subhakara  Panchami  Pournami  IISR Thevam  IISR Shakthi  Excel  Kottanadan  Karimunda  Chengannoor | Pepper vines | 6709 rooted cuttings | 13418.00 | 80683.00 | Funded by SHM |
| 4. | Rain Shelter | 2009 | 50 m2 | - | Ornamental plants | 1113 nos. | 2226.00 | 25272.00 | Funded by SHM |
| 5. | Terrace cultivation of vegetables | 2010 | 170 m2 | Local | Tomato | 15.20 q | 7600.00 | 45589.00 | Revolving Fund |
| Maharani | Cabbage |
| Local | Garden Beans |
| INDAM-9803 | Cauliflower |
| - | Cowpea |
| Improved Kuroda | Carrot |
| Action | Beetroot |
| INDAM Mahabharath | Capsicum |

**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 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Pulses |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Oilseeds |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Fibers |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Spices & Plantation crops | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
| Floriculture |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Fruits |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Vegetables | 07/08/2012 | 28/12/2012 | 0.15 | Arun | Amaranthus seeds | 1.5 kg | 1260 | 3250 | - |
|  |  |  |  |  |  |  |  |  |  |
| Others (specify) | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl.  No. | Name of the Product | Qty | Amount (Rs.) | | Remarks |
| Cost of inputs | Gross income |
| 1. | Pseudomonas | 1250 L | 60,000.00 | 65,000.00 | - |
| 2. | Trichoderma | 114 L | 5,472.00 | 5,928.00 | - |
| 3. | EPN | 22550 nos. | 6,765.00 | 15,785.00 | - |
| 4. | Vermiculture | 3 kg | 50.00 | 700.00 | - |
| 5. | Vermicompost | 2000 kg | 800.00 | 16,370.00 | - |

**13.D. Performance of instructional farm (livestock and fisheries production):** Nil.

**13.E. Utilization of hostel facilities:** Nil.

**13.F. Database management :** Nil.

**13.G. Details on Rain Water Harvesting Structure and micro-irrigation system:** Nil.

**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 | State Bank of Travancore | Rajakumary | 453 | Chairman | 57060837003 | - | SBTR0000453 |
| With KVK | State Bank of Travancore | Rajakumary | 453 | Chairman & Programme Coordinator | 57060836995 | - | SBTR0000453 |

**14.B. Utilization of KVK funds during the year 2012-13 (Rs. in lakh)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **A. Recurring Contingencies** | | | | |
| 1 | **Pay & Allowances** | 70.50 | 70.50 | 70.42725 |
| 2 | **Traveling allowances** | 1.70 | 1.70 | 1.70 |
| 3 | **Contingencies** | | | |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 2.80 | 2.80 | 2.80008 |
| *B* | POL, repair of vehicles, tractor and equipments | 2.10 | 2.10 | 2.10005 |
| *C* | Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained) | 0.95 | 0.95 | 0.95 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 0.75 | 0.75 | 0.75 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 1.50 | 1.50 | 1.50 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1.00 | 1.00 | 1.00 |
| *G* | Training of extension functionaries | 0.25 | 0.25 | 0.25020 |
| *H* | Maintenance of buildings | 0.35 | 0.35 | 0.35005 |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory | 0.00 | 0.00 | 0.00 |
| *J* | Library | 0.05 | 0.05 | 0.05 |
| *K* | Extension activities | 0.25 | 0.25 | 0.25041 |
| *L* | Farmers Field School | 0.25 | 0.25 | 0.25 |
| **TOTAL (A)** | | **82.45** | **82.45** | **82.37804** |
| **B. Non-Recurring Contingencies** | |  |  |  |
| 1 | **Works** | 0 | 0 | 0 |
| 2 | **Equipments including SWTL & Furniture** | 0 | 0 | 0 |
| 3 | **Vehicle** (Four wheeler/Two wheeler, please specify) | 0 | 0 | 0 |
| 4 | **Library** (Purchase of assets like books & journals) | 0 | 0 | 0 |
| **TOTAL (B)** | | 0.00 | 0.00 | 0.00 |
| **C. REVOLVING FUND** | |  |  |  |
| **GRAND TOTAL (A+B+C)** | | **82.45** | **82.45** | **82.37804** |

**14.C. Status of revolving fund (Rs. in lakh) for the three years**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Opening balance as on 1st April** | **Income during the year** | **Expenditure during the year** | **Net balance in hand as on 1st April of each year** |
| April 2010 to March 2011 | 5.39085 | 3.44458 | 6.03395 | 2.80148 |
| April 2011 to March 2012 | 2.80148 | 9.17622 | 7.95126 | 4.02645 |
| April 2012 to March 2013 | 4.11341 | 15.40938 | 12.65084 | 6.87195 |

**15. Details of HRD activities attended by KVK staff during 2012-13**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the staff** | **Designation** | Title of the training programme | Institute where attended | Dates |
| Mr. Sudhakar Soundarajan | SMS (Plant Protection) | Plant Health Management -Plant Protection | Kerala State Planning Board, Thiruvananthapuram. | 07/02/2013 to 08/02/2013 |
| Ms. Jayisy Joseph | Programme Assistant (Home Science) | National conference on emerging avenues in food technology for better health and safety – Eminence’ 13. | TKM Institute of Technology Management, Kollam. | 08/03/2013 to 09/03/2013 |
| Dr. Benjamin Mathew | Programme Coordinator i/c | Hi-tech Agriculture | Kerala Agricultural University | 4/12/2012 to 6/12/2012 |
| Dr. Benjamin Mathew | Programme Coordinator i/c | Plant Health Management -Plant Protection | Kerala State Planning Board, Thiruvananthapuram. | 07/02/2013 to 08/02/2013 |

**16. Please include any other important and relevant information which has not been reflected above (write in detail):** Nil.

**SUMMARY FOR 2012-13**

# 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 | Cow pea | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | 5 |
| Cauliflower | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | 5 |
| Integrated Pest Management | Cardamom | Management of cardamom root grub with microbial bio-pesticides | 5 |
|  | Varietal trial of root grub resistant Thiruthali variety cardamom | 1 |
| Integrated Crop Management | Black Pepper | Use of concrete poles as standards in Black Pepper | 3 |
| Banana | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | 3 |
| Integrated Disease Management |  |  |  |
| Small Scale Income Generation Enterprises | Mushroom | Performance of different types of mushrooms for year round production in Idukki district | 4 |
| Weed Management |  |  |  |
| Resource Conservation Technology |  |  |  |
| Farm Machineries |  |  |  |
| Integrated Farming System |  |  |  |
| Seed / Plant production |  |  |  |
| Value addition |  |  |  |
| Drudgery Reduction |  |  |  |
| Storage Technique |  |  |  |
| Others (Pl. specify) |  |  |  |
| **Total** |  |  | **25** |

**Summary of technologies assessed under livestock:** Nil.

**Summary of technologies assessed under home science**

|  |  |  |  |
| --- | --- | --- | --- |
| **Thematic areas** | **Enterprise** | **Name of the technology assessed** | **No. of trials** |
| Value Addition | Mushroom | Assessments of different types of packaging material for  Enhancement of shelf life and marketability in mushroom | 3 |

# II. TECHNOLOGY REFINEMENT: Nil

**III. FRONTLINE DEMONSTRATION**

**Crops**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crop | Thematic area | Name of the technology demonstrated | No. of KVKs | No. of Farmer | Area  (ha) | Yield (q/ha) | | % change in yield | Other parameters | | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demons  ration | Check |  | Demonstration | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
| **Cereals** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Millets** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Oilseeds** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Pulses** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vegetables | Nutritional security | Popularization of organic kitchen garden in homesteads for nutritional security | 1 | 25 | 0.4 | On going | | | | | | | | | | | | |
|  | Integrated Nutrient Management | Use of microbial consortium for organic production of cowpea | 1 | 4 | 0.08 | 110 | 80 | 37.5 | Plants more green in colour  No major pest or disease incidence | Normal stand of the crop  Aphids and Serpentine leaf miner found in almost 75% area | 135000 | 220000 | 85000 | 1.62 | 142000 | 160000 | 18000 | 1.12 |
|  | Productivity improvement of major crops. | Foliar spray of Boron to increase the fruit set and size in bitter gourd | 1 | 3 | 0.05 | 145 | 120 | 20.8 | Better pollination & fruit set almost to about 80% | Fruit set only to the tune of 60% | 275400 | 435000 | 159600 | 1.58 | 275000 | 360000 | 85000 | 1.30 |
|  | Crop improve ement | Popularization of portray nursery method in vegetables | 1 | 5 | 0.2 | - | - | - | - | - | 16000 | 22000 | 6000 | 1:1.25 | 27000 | 28000 | 1000 | 1:1.07 |
| **Flowers** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ornamental** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fruit (Under exploited fruits)** | Product diversification ( Preservation) | Minimization of fruit wastage through product diversification | - | 3 | 3 units | - | - | - | BCR & Increase in income | - | 6093 | 11765 | 5672 | 1.93 | - | - | - | - |
|  | ICM | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | 1 | 5 | 2 | On going | | | | | | | | | | | | |
| **Fibres like Cotton** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Spices and condiments** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Commercial** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Medicinal and aromatic** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fodder** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Plantation** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fibre** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Others (Apiculture)** | Better pollination | Popularization of honey bee colonies in cardamom plantations | - | 5 | 2.5 | 1300 | - | 30% | - | - | 1.5 lakhs | 9 lakhs | 7.5 lakhs | 6.0 | 1.25 lakhs | 5 lakhs | 3.5 lakhs | 2.8 |
| **Others (pl.specify)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total** | |  |  |  |  | | | | | | | | | | | | |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

Livestock

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Category | Thematic area | Name of the technology demonstrated | No. of KVKs | No. of Farmer | No. of units | Major parameters | | % change in major parameter | Other parameter | | \*Economics of demonstration (Rs.) | | | | \*Economics of check  (Rs.) | | | |
| Demons  ration | Check |  | Demons  ration | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
| **Dairy** | Production and improvement of dairy cattle | Popularization of mixed fodder system | 1 | 20 | 0.04 | 16 L | 12 L | 33 | Fat-5.11%  SNF-9.19% | Fat-4.5%  SNF-8.10% | 6200 | 12800 | 6600 | 2.06 | 8200 | 21000 | 12800 | 1.56 |
| **Poultry** | Production and improvement of poultry | Performance of Vigova Super M duck in backyard system | 1 | 10 | 200 birds | 2.75 kg | 2 kg | 28 | - | - | 57000 | 135000 | 78000 | 1.36 | 61000 | 125000 | 64000 | 1.04 |
| **Rabbitry** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Pigerry** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Sheep and goat** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Duckery** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Others (pl.specify)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total** | |  |  |  |  | | | | | | | | | | | | |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

Fisheries: Nil.

Other enterprises: Nil.

Women empowerment: Nil

Farm implements and machinery

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of the implement | Crop | Name of the technology demonstrated | No. of KVKs | No. of Farmer | Area (ha) | Filed observation (output/man days/ha) | | % change in major parameter | Labor reduction (man days) | | | | Cost reduction (Rs./ha or Rs./Unit ect.) | | | |
| Demons  ration | Check |  |  |  |  |  |  |  |  |  |
| Power Tiller | Paddy | Mechanized paddy farming | - | 30 | 11 | 31 | 55 | 43 | 24 man days / ha | | | | 16800 | | | |
| Paddy Transplanter |
| Cono weeder |
| Paddy reaper |
| Paddy thresher |

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Other enterprises**

**Demonstration details on crop hybrids: Nil**

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** |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technologies |  |  |  |  |  |  |  |  |  |  |
| Cropping Systems |  |  |  |  |  |  |  |  |  |  |
| Crop Diversification |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming | 2 | 32 | 21 | 53 | 0 | 0 | 0 | 32 | 21 | 53 |
| Micro Irrigation/Irrigation | 1 | 10 | 5 | 15 | 0 | 0 | 0 | 10 | 5 | 15 |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management |  |  |  |  |  |  |  |  |  |  |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management |  |  |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Others (Paddy Mechanization) | 2 | 34 | 8 | 42 | 0 | 0 | 0 | 34 | 8 | 42 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop |  |  |  |  |  |  |  |  |  |  |
| Off-season vegetables |  |  |  |  |  |  |  |  |  |  |
| Nursery raising |  |  |  |  |  |  |  |  |  |  |
| Exotic vegetables |  |  |  |  |  |  |  |  |  |  |
| Export potential vegetables |  |  |  |  |  |  |  |  |  |  |
| Grading and standardization |  |  |  |  |  |  |  |  |  |  |
| Protective cultivation | 3 | 56 | 10 | 66 | 0 | 0 | 0 | 56 | 10 | 66 |
| Others (Organic farming) | 4 | 42 | 25 | 67 | 0 | 5 | 5 | 42 | 30 | 72 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Training and Pruning |  |  |  |  |  |  |  |  |  |  |
| Layout and Management of Orchards |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit |  |  |  |  |  |  |  |  |  |  |
| Management of young plants/orchards | 1 | 22 | 31 | 53 | 0 | 0 | 0 | 22 | 31 | 53 |
| Rejuvenation of old orchards |  |  |  |  |  |  |  |  |  |  |
| Export potential fruits |  |  |  |  |  |  |  |  |  |  |
| Micro irrigation systems of orchards |  |  |  |  |  |  |  |  |  |  |
| Plant propagation techniques |  |  |  |  |  |  |  |  |  |  |
| Others (Hi-tech banana cultivation) | 1 | 84 | 30 | 114 | 0 | 0 | 0 | 84 | 30 | 114 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery Management | 1 | 32 | 21 | 43 | 0 | 0 | 0 | 32 | 21 | 43 |
| Management of potted plants |  |  |  |  |  |  |  |  |  |  |
| Export potential of ornamental plants |  |  |  |  |  |  |  |  |  |  |
| Propagation techniques of Ornamental Plants |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **d) Plantation crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **e) Tuber crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition | 4 | 22 | 45 | 57 | 0 | 0 | 0 | 22 | 45 | 57 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **g) Medicinal and Aromatic Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Production and management technology |  |  |  |  |  |  |  |  |  |  |
| Post harvest technology and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |  |  |
| Soil fertility management | 2 | 140 | 12 | 152 | 6 | 3 | 9 | 146 | 15 | 161 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 3 | 164 | 19 | 183 | 14 | 12 | 26 | 178 | 31 | 209 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils |  |  |  |  |  |  |  |  |  |  |
| Micro nutrient deficiency in crops |  |  |  |  |  |  |  |  |  |  |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers |  |  |  |  |  |  |  |  |  |  |
| Soil and water testing |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 7 | 245 | 37 | 282 | 10 | 22 | 32 | 267 | 47 | 314 |
| Poultry Management | 2 | 47 | 21 | 68 | 0 | 0 | 0 | 47 | 21 | 68 |
| Piggery Management | 2 | 24 | 20 | 44 | 0 | 0 | 0 | 24 | 20 | 44 |
| Rabbit Management | 2 | 21 | 21 | 42 | 0 | 0 | 0 | 21 | 21 | 42 |
| Animal Nutrition Management |  |  |  |  |  |  |  |  |  |  |
| Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| Feed and Fodder technology | 7 | 345 | 37 | 382 | 10 | 8 | 18 | 355 | 45 | 400 |
| Production of quality animal products |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening |  |  |  |  |  |  |  |  |  |  |
| Design and development of low/minimum cost diet |  |  |  |  |  |  |  |  |  |  |
| Designing and development for high nutrient efficiency diet |  |  |  |  |  |  |  |  |  |  |
| Minimization of nutrient loss in processing |  |  |  |  |  |  |  |  |  |  |
| Processing and cooking |  |  |  |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition |  |  |  |  |  |  |  |  |  |  |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  |  |  |  |  |  |  |  |  |
| Women and child care |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agril. Engineering** |  |  |  |  |  |  |  |  |  |  |
| Farm machinery and its maintenance |  |  |  |  |  |  |  |  |  |  |
| Installation and maintenance of micro irrigation systems |  |  |  |  |  |  |  |  |  |  |
| Use of Plastics in farming practices |  |  |  |  |  |  |  |  |  |  |
| Production of small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  |  |  |  |  |  |  |  |  |
| Small scale processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Plant Protection** |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 7 | 106 | 20 | 126 | 68 | 26 | 94 | 174 | 46 | 220 |
| Integrated Disease Management | 4 | 68 | 20 | 88 | 38 | 13 | 51 | 81 | 33 | 114 |
| Bio-control of pests and diseases | 3 | 40 | 16 | 56 | 2 | 4 | 6 | 42 | 22 | 64 |
| Production of bio control agents and bio pesticides | 3 | 40 | 30 | 70 | 22 | 20 | 42 | 62 | 50 | 112 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Integrated fish farming |  |  |  |  |  |  |  |  |  |  |
| Carp breeding and hatchery management |  |  |  |  |  |  |  |  |  |  |
| Carp fry and fingerling rearing |  |  |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| Hatchery management and culture of freshwater prawn |  |  |  |  |  |  |  |  |  |  |
| Breeding and culture of ornamental fishes |  |  |  |  |  |  |  |  |  |  |
| Portable plastic carp hatchery |  |  |  |  |  |  |  |  |  |  |
| Pen culture of fish and prawn |  |  |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  |  |  |  |  |  |  |  |  |
| Edible oyster farming |  |  |  |  |  |  |  |  |  |  |
| Pearl culture |  |  |  |  |  |  |  |  |  |  |
| Fish processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| Seed Production |  |  |  |  |  |  |  |  |  |  |
| Planting material production |  |  |  |  |  |  |  |  |  |  |
| Bio-agents production |  |  |  |  |  |  |  |  |  |  |
| Bio-pesticides production |  |  |  |  |  |  |  |  |  |  |
| Bio-fertilizer production |  |  |  |  |  |  |  |  |  |  |
| Vermi-compost production |  |  |  |  |  |  |  |  |  |  |
| Organic manures production |  |  |  |  |  |  |  |  |  |  |
| Production of fry and fingerlings |  |  |  |  |  |  |  |  |  |  |
| Production of Bee-colonies and wax sheets |  |  |  |  |  |  |  |  |  |  |
| Small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Production of livestock feed and fodder |  |  |  |  |  |  |  |  |  |  |
| Production of Fish feed |  |  |  |  |  |  |  |  |  |  |
| Mushroom production | 5 | 12 | 65 | 77 | 0 | 0 | 0 | 12 | 65 | 77 |
| Apiculture | 4 | 32 | 0 | 32 | 45 | 14 | 59 | 77 | 14 | 91 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |  |  |
| Leadership development |  |  |  |  |  |  |  |  |  |  |
| Group dynamics |  |  |  |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  |  |  |  |  |  |  |  |  |
| Mobilization of social capital |  |  |  |  |  |  |  |  |  |  |
| Entrepreneurial development of farmers/youths | 1 | 32 | 6 | 38 | 0 | 1 | 1 | 32 | 7 | 39 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agro-forestry** |  |  |  |  |  |  |  |  |  |  |
| Production technologies |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming Systems |  |  |  |  |  |  |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |  |  |  |  |  |  |
| **TOTAL** | **71** | **1630** | **520** | **2150** | **215** | **128** | **343** | **1852** | **638** | **2470** |

**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** |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technologies |  |  |  |  |  |  |  |  |  |  |
| Cropping Systems |  |  |  |  |  |  |  |  |  |  |
| Crop Diversification |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming | 2 | 11 | 0 | 11 | 6 | 12 | 18 | 16 | 18 | 34 |
| Micro Irrigation/Irrigation |  |  |  |  |  |  |  |  |  |  |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management | 3 | 45 | 8 | 53 | 15 | 10 | 25 | 60 | 18 | 78 |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management | 2 | 60 | 30 | 90 | 0 | 0 | 0 | 60 | 30 | 90 |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Others (Paddy cultivation) | 1 | 25 | 0 | 25 | 0 | 0 | 0 | 25 | 0 | 25 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |  |  |
| Production of low value and high volume crop | 1 | 10 | 5 | 15 | 20 | 5 | 25 | 30 | 10 | 40 |
| Off-season vegetables |  |  |  |  |  |  |  |  |  |  |
| Nursery raising |  |  |  |  |  |  |  |  |  |  |
| Exotic vegetables |  |  |  |  |  |  |  |  |  |  |
| Export potential vegetables |  |  |  |  |  |  |  |  |  |  |
| Grading and standardization |  |  |  |  |  |  |  |  |  |  |
| Protective cultivation | 5 | 125 | 89 | 214 | 0 | 0 | 0 | 125 | 89 | 214 |
| Others (Hi-tech vegetable cultivation) | 6 | 194 | 33 | 227 | 33 | 19 | 52 | 227 | 52 | 279 |
| Others (Organic farming) | 15 | 344 | 140 | 484 | 25 | 60 | 85 | 369 | 200 | 569 |
| Others (Cool season vegetables) | 7 | 413 | 23 | 436 | 158 | 18 | 176 | 571 | 41 | 612 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **b) Fruits** |  |  |  |  |  |  |  |  |  |  |
| Training and Pruning |  |  |  |  |  |  |  |  |  |  |
| Layout and Management of Orchards |  |  |  |  |  |  |  |  |  |  |
| Cultivation of Fruit |  |  |  |  |  |  |  |  |  |  |
| Management of young plants/orchards |  |  |  |  |  |  |  |  |  |  |
| Rejuvenation of old orchards |  |  |  |  |  |  |  |  |  |  |
| Export potential fruits |  |  |  |  |  |  |  |  |  |  |
| Micro irrigation systems of orchards |  |  |  |  |  |  |  |  |  |  |
| Plant propagation techniques |  |  |  |  |  |  |  |  |  |  |
| Others (Hi-tech banana cultivation) | 3 | 57 | 40 | 97 | 12 | 5 | 17 | 69 | 45 | 114 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery Management |  |  |  |  |  |  |  |  |  |  |
| Management of potted plants |  |  |  |  |  |  |  |  |  |  |
| Export potential of ornamental plants |  |  |  |  |  |  |  |  |  |  |
| Propagation techniques of Ornamental Plants |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **d) Plantation crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **e) Tuber crops** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology | 2 | 50 | 12 | 62 | 0 | 0 | 0 | 50 | 12 | 62 |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology | 6 | 165 | 45 | 210 | 0 | 0 | 0 | 165 | 45 | 110 |
| Processing and value addition | 3 | 30 | 15 | 45 | 0 | 0 | 0 | 30 | 15 | 45 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **g) Medicinal and Aromatic Plants** |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Production and management technology |  |  |  |  |  |  |  |  |  |  |
| Post harvest technology and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |  |  |
| Soil fertility management | 7 | 140 | 70 | 210 | 0 | 0 | 0 | 140 | 70 | 210 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 5 | 182 | 60 | 242 | 0 | 0 | 0 | 182 | 60 | 242 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils | 3 | 127 | 20 | 147 | 0 | 0 | 0 | 127 | 20 | 147 |
| Micro nutrient deficiency in crops |  |  |  |  |  |  |  |  |  |  |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers | 2 | 44 | 20 | 64 | 0 | 0 | 0 | 44 | 20 | 64 |
| Soil and water testing | 3 | 75 | 5 | 80 | 0 | 0 | 0 | 75 | 5 | 80 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 3 | 81 | 16 | 97 | 0 | 0 | 0 | 81 | 16 | 97 |
| Poultry Management | 1 | 8 | 5 | 13 | 0 | 0 | 0 | 8 | 5 | 13 |
| Piggery Management |  |  |  |  |  |  |  |  |  |  |
| Rabbit Management |  |  |  |  |  |  |  |  |  |  |
| Animal Nutrition Management |  |  |  |  |  |  |  |  |  |  |
| Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| Feed and Fodder technology | 1 | 40 | 14 | 54 | 0 | 0 | 0 | 40 | 14 | 54 |
| Production of quality animal products |  |  |  |  |  |  |  |  |  |  |
| Others (Entrepreneurship development programme) | 2 | 48 | 20 | 68 | 0 | 0 | 0 | 48 | 20 | 68 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening |  |  |  |  |  |  |  |  |  |  |
| Design and development of low/minimum cost diet |  |  |  |  |  |  |  |  |  |  |
| Designing and development for high nutrient efficiency diet |  |  |  |  |  |  |  |  |  |  |
| Minimization of nutrient loss in processing |  |  |  |  |  |  |  |  |  |  |
| Processing and cooking |  |  |  |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition | 12 | 67 | 170 | 237 | 0 | 0 | 0 | 67 | 170 | 237 |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts |  |  |  |  |  |  |  |  |  |  |
| Women and child care |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agril. Engineering** |  |  |  |  |  |  |  |  |  |  |
| Farm machinery and its maintenance |  |  |  |  |  |  |  |  |  |  |
| Installation and maintenance of micro irrigation systems |  |  |  |  |  |  |  |  |  |  |
| Use of Plastics in farming practices |  |  |  |  |  |  |  |  |  |  |
| Production of small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  |  |  |  |  |  |  |  |  |
| Small scale processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Plant Protection** |  |  |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 15 | 346 | 169 | 515 | 16 | 18 | 24 | 362 | 187 | 549 |
| Integrated Disease Management | 10 | 245 | 70 | 315 | 22 | 6 | 28 | 267 | 76 | 343 |
| Bio-control of pests and diseases | 8 | 315 | 68 | 383 | 20 | 0 | 20 | 335 | 68 | 403 |
| Production of bio control agents and bio pesticides | 3 | 55 | 42 | 97 | 0 | 0 | 0 | 55 | 42 | 97 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Fisheries** |  |  |  |  |  |  |  |  |  |  |
| Integrated fish farming |  |  |  |  |  |  |  |  |  |  |
| Carp breeding and hatchery management |  |  |  |  |  |  |  |  |  |  |
| Carp fry and fingerling rearing |  |  |  |  |  |  |  |  |  |  |
| Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| Hatchery management and culture of freshwater prawn |  |  |  |  |  |  |  |  |  |  |
| Breeding and culture of ornamental fishes |  |  |  |  |  |  |  |  |  |  |
| Portable plastic carp hatchery |  |  |  |  |  |  |  |  |  |  |
| Pen culture of fish and prawn |  |  |  |  |  |  |  |  |  |  |
| Shrimp farming |  |  |  |  |  |  |  |  |  |  |
| Edible oyster farming |  |  |  |  |  |  |  |  |  |  |
| Pearl culture |  |  |  |  |  |  |  |  |  |  |
| Fish processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| Seed Production |  |  |  |  |  |  |  |  |  |  |
| Planting material production |  |  |  |  |  |  |  |  |  |  |
| Bio-agents production |  |  |  |  |  |  |  |  |  |  |
| Bio-pesticides production |  |  |  |  |  |  |  |  |  |  |
| Bio-fertilizer production |  |  |  |  |  |  |  |  |  |  |
| Vermi-compost production |  |  |  |  |  |  |  |  |  |  |
| Organic manures production |  |  |  |  |  |  |  |  |  |  |
| Production of fry and fingerlings |  |  |  |  |  |  |  |  |  |  |
| Production of Bee-colonies and wax sheets |  |  |  |  |  |  |  |  |  |  |
| Small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Production of livestock feed and fodder |  |  |  |  |  |  |  |  |  |  |
| Production of Fish feed |  |  |  |  |  |  |  |  |  |  |
| Mushroom production | 2 | 9 | 44 | 53 | 0 | 0 | 0 | 9 | 44 | 53 |
| Apiculture | 1 | 15 | 0 | 15 | 0 | 0 | 0 | 15 | 0 | 15 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |  |  |
| Leadership development |  |  |  |  |  |  |  |  |  |  |
| Group dynamics |  |  |  |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  |  |  |  |  |  |  |  |  |
| Mobilization of social capital |  |  |  |  |  |  |  |  |  |  |
| Entrepreneurial development of farmers/youths |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Agro-forestry** |  |  |  |  |  |  |  |  |  |  |
| Production technologies |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming Systems |  |  |  |  |  |  |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |  |  |  |  |  |  |
| **TOTAL** | **134** | **3326** | **1233** | **4559** | **327** | **153** | **470** | **3644** | **1374** | **4944** |

**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** |
| Nursery Management of Horticulture crops | 4 | 86 | | 59 | | 145 | | 0 | | 0 | | 0 | | 86 | | 59 | | 145 |
| Training and pruning of orchards | 2 | 41 | | 28 | | 69 | | 0 | | 0 | | 0 | | 41 | | 28 | | 61 |
| Protected cultivation of vegetable crops | 3 | 42 | | 32 | | 74 | | 0 | | 0 | | 0 | | 42 | | 32 | | 74 |
| Commercial fruit production | 2 | 29 | | 4 | | 33 | | 0 | | 0 | | 0 | | 29 | | 4 | | 33 |
| Integrated farming | 2 | 38 | | 19 | | 57 | | 0 | | 0 | | 0 | | 38 | | 19 | | 57 |
| Seed production |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Production of organic inputs |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Planting material production |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Vermi-culture | 3 | 42 | | 32 | | 74 | | 0 | | 0 | | 0 | | 42 | | 32 | | 74 |
| Mushroom Production | 6 | 132 | | 0 | | 132 | | 0 | | 0 | | 0 | | 132 | | 0 | | 132 |
| Bee-keeping | 3 | 52 | | 22 | | 74 | | 0 | | 0 | | 0 | | 52 | | 22 | | 74 |
| Sericulture |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Repair and maintenance of farm machinery and implements |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Value addition | 4 | 54 | | 14 | | 68 | | 0 | | 0 | | 0 | | 54 | | 14 | | 68 |
| Small scale processing |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Post Harvest Technology |  |  | |  | |  |  | |  | |  | |  | |  | |  | |
| Tailoring and Stitching |  |  | |  | |  |  | |  | |  | |  | |  | |  | |
| Rural Crafts |  |  | |  | |  |  | |  | |  | |  | |  | |  | |
| Production of quality animal products |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Dairying | 6 | 376 | | 80 | | 456 | | 0 | | 0 | | 0 | | 376 | | 80 | | 456 |
| Sheep and goat rearing |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Quail farming |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Piggery |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Rabbit farming |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Poultry production |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Ornamental fisheries |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Composite fish culture |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Freshwater prawn culture |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Shrimp farming |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Pearl culture |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Cold water fisheries |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Fish harvest and processing technology |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Fry and fingerling rearing |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| Any other (pl.specify) |  |  | |  | |  | |  | |  | |  | |  | |  | |  |
| **TOTAL** | **35** | **892** | | **290** | | **1182** | **0** | | **0** | | **0** | | **892** | | **290** | | **1182** | |

**Training for Rural Youths 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** |
| Nursery Management of Horticulture crops |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Training and pruning of orchards |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Protected cultivation of vegetable crops | 3 | 174 | 10 | 184 | | 0 | | | 0 | | | 0 | | | 174 | | | 10 | | | 184 |
| Commercial fruit production |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Integrated farming |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Seed production |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Production of organic inputs |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Planting material production |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Vermi-culture |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Mushroom Production | 2 | 35 | 20 | 55 | | 0 | | | 0 | | | 0 | | | 35 | | | 25 | | | 55 |
| Bee-keeping |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Sericulture |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Repair and maintenance of farm machinery and implements |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Value addition | 7 | 45 | 82 | 127 | | 0 | | | 0 | | | 0 | | | 45 | | | 82 | | | 127 |
| Small scale processing |  |  |  |  | |  | | |  | | |  | | |  | | |  | | |  |
| Post Harvest Technology |  |  |  |  | |  | |  | | | |  | | |  | | |  | | |  |
| Tailoring and Stitching |  |  |  |  | |  | |  | | | |  | | |  | | |  | | |  |
| Rural Crafts |  |  |  |  | |  | |  | | | |  | | |  | | |  | | |  |
| Production of quality animal products |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Dairying | 3 | 129 | 22 | 151 | | 0 | | | 0 | | 0 | | | 129 | | | 22 | | | 151 | |
| Sheep and goat rearing |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Quail farming |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Piggery |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Rabbit farming |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Poultry production |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Ornamental fisheries |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Composite fish culture |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Freshwater prawn culture |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Shrimp farming |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Pearl culture |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Cold water fisheries |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Fish harvest and processing technology |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Fry and fingerling rearing |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| Any other (Hi-tech horticulture) | 4 | 163 | 20 | 183 | | 0 | | | 0 | | 0 | | | 163 | | | 20 | | | 153 | |
| Any other (pl.specify) |  |  |  |  | |  | | |  | |  | | |  | | |  | | |  | |
| **TOTAL** | **19** | **546** | **154** | **700** | **0** | | **0** | | | **0** | | | **546** | | | **154** | | | **700** | | |

**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 | 1 | 69 | | 36 | | 105 | 0 | 0 | 0 | 69 | 36 | 105 |
| Integrated Pest Management | 2 | 25 | | 15 | | 40 | 0 | 0 | 0 | 25 | 15 | 40 |
| Integrated Nutrient management | 1 | 0 | | 10 | | 10 | 0 | 14 | 14 | 0 | 24 | 24 |
| Rejuvenation of old orchards |  |  | |  | |  |  |  |  |  |  |  |
| Protected cultivation technology | 1 | 7 | | 2 | | 9 | 0 | 0 | 0 | 7 | 2 | 9 |
| Production and use of organic inputs | 1 | 10 | | 4 | | 14 | 0 | 0 | 0 | 10 | 4 | 14 |
| Care and maintenance of farm machinery and implements |  |  | |  | |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  | |  | |  |  |  |  |  |  |  |
| Formation and Management of SHGs |  |  | |  | |  |  |  |  |  |  |  |
| Women and Child care |  |  | |  | |  |  |  |  |  |  |  |
| Low cost and nutrient efficient diet designing |  |  | |  | |  |  |  |  |  |  |  |
| Group Dynamics and farmers organization |  |  | |  | |  |  |  |  |  |  |  |
| Information networking among farmers |  |  | |  | |  |  |  |  |  |  |  |
| Capacity building for ICT application |  |  | |  | |  |  |  |  |  |  |  |
| Management in farm animals |  |  | |  | |  |  |  |  |  |  |  |
| Livestock feed and fodder production |  |  | |  | |  |  |  |  |  |  |  |
| Household food security |  |  | |  | |  |  |  |  |  |  |  |
| Any other (pl.specify) |  |  | |  | |  |  |  |  |  |  |  |
| **Total** | **6** | **111** | | **67** | | **178** | **0** | **14** | **14** | **111** | **81** | **192** |

**Training programmes for Extension Personnel 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** |
| Productivity enhancement in field crops |  |  |  | |  |  |  |  |  |  |  |
| Integrated Pest Management | 5 | 65 | 21 | | 86 | 0 | 0 | 0 | 65 | 21 | 86 |
| Integrated Nutrient management |  |  |  | |  |  |  |  |  |  |  |
| Rejuvenation of old orchards |  |  |  | |  |  |  |  |  |  |  |
| Protected cultivation technology | 4 | 54 | 20 | | 74 | 0 | 0 | 0 | 54 | 20 | 74 |
| Production and use of organic inputs |  |  |  | |  |  |  |  |  |  |  |
| Care and maintenance of farm machinery and implements |  |  |  | |  |  |  |  |  |  |  |
| Gender mainstreaming through SHGs |  |  |  | |  |  |  |  |  |  |  |
| Formation and Management of SHGs | 1 | 25 | 10 | | 35 | 0 | 0 | 0 | 25 | 10 | 35 |
| Women and Child care |  |  |  | |  |  |  |  |  |  |  |
| Low cost and nutrient efficient diet designing |  |  |  | |  |  |  |  |  |  |  |
| Group Dynamics and farmers organization |  |  |  | |  |  |  |  |  |  |  |
| Information networking among farmers |  |  |  | |  |  |  |  |  |  |  |
| Capacity building for ICT application |  |  |  | |  |  |  |  |  |  |  |
| Management in farm animals |  |  |  | |  |  |  |  |  |  |  |
| Livestock feed and fodder production |  |  |  | |  |  |  |  |  |  |  |
| Household food security |  |  |  | |  |  |  |  |  |  |  |
| Any other (pl.specify) |  |  |  | |  |  |  |  |  |  |  |
| **Total** | **10** | **144** | **51** | | **195** | **0** | **0** | **0** | **144** | **51** | **195** |

**Sponsored training programmes**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | 5 | 114 | 25 | 139 | 5 | 2 | 7 | 119 | 27 | 146 |
| 1.b. | Commercial production of vegetables | 22 | 463 | 232 | 695 | 0 | 0 | 0 | 463 | 232 | 695 |
| **2.** | **Production and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Fruit Plants | 4 | 113 | 49 | 162 | 12 | 5 | 17 | 118 | 54 | 179 |
| 2.b. | Ornamental plants |  |  |  |  |  |  |  |  |  |  |
| 2.c. | Spices crops | 15 | 843 | 268 | 1111 | 105 | 98 | 203 | 948 | 366 | 1314 |
| **3.** | **Soil health and fertility management** |  |  |  |  |  |  |  |  |  |  |
| **4.** | **Production of Inputs at site** |  |  |  |  |  |  |  |  |  |  |
| **5.** | **Methods of protective cultivation** | 5 | 125 | 89 | 234 | 0 | 0 | 0 | 125 | 89 | 234 |
| **6.** | **Others (Mushroom)** | 7 | 30 | 65 | 95 | 0 | 0 | 0 | 30 | 65 | 95 |
| **7.** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 7.a. | Processing and value addition | 10 | 94 | 215 | 309 | 0 | 0 | 0 | 94 | 215 | 309 |
| 7.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **8.** | **Farm machinery** |  |  |  |  |  |  |  |  |  |  |
| 8.a. | Farm machinery, tools and implements | 2 | 40 | 10 | 60 | 0 | 0 | 0 | 40 | 10 | 60 |
| 8.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **9.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| **10.** | **Livestock production and management** |  |  |  |  |  |  |  |  |  |  |
| 10.a. | Animal Nutrition Management | 18 | 845 | 158 | 1003 | 60 | 20 | 80 | 905 | 178 | 1083 |
| 10.b. | Animal Disease Management |  |  |  |  |  |  |  |  |  |  |
| 10.c | Fisheries Nutrition |  |  |  |  |  |  |  |  |  |  |
| 10.d | Fisheries Management |  |  |  |  |  |  |  |  |  |  |
| 10.e. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **11.** | **Home Science** |  |  |  |  |  |  |  |  |  |  |
| 11.a. | Household nutritional security | 4 | 25 | 175 | 200 | 0 | 0 | 0 | 25 | 175 | 200 |
| 11.b. | Economic empowerment of women | 2 | 5 | 20 | 25 | 0 | 0 | 0 | 5 | 20 | 25 |
| 11.c. | Drudgery reduction of women | 1 | 0 | 14 | 14 | 0 | 0 | 0 | 0 | 14 | 14 |
| 11.d. | Others (Value addition) | 2 | 18 | 38 | 56 | 0 | 0 | 0 | 18 | 38 | 56 |
| **12** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 12.a. | Capacity Building and Group Dynamics | 2 | 24 | 10 | 34 | 0 | 1 | 1 | 24 | 11 | 35 |
| 12.b. | Others (Block level research extension interface) | 2 | 144 | 20 | 164 | 0 | 0 | 0 | 144 | 20 | 164 |
|  | **Total** | **101** | **2883** | **1388** | **4271** | **182** | **126** | **308** | **3058** | **1514** | **4579** |

**Details of Vocational Training Programmes carried out 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.a. | Commercial floriculture | 3 | 45 | 26 | 71 | 0 | 0 | 0 | 45 | 26 | 71 |
| 1.b. | Commercial fruit production | 3 | 56 | 9 | 65 | 0 | 0 | 0 | 56 | 9 | 65 |
| 1.c. | Commercial vegetable production | 3 | 45 | 23 | 68 | 0 | 0 | 0 | 45 | 23 | 68 |
| 1.d. | Integrated crop management | 3 | 48 | 20 | 68 | 0 | 0 | 0 | 48 | 20 | 68 |
| 1.e. | Organic farming | 3 | 45 | 26 | 71 | 0 | 0 | 0 | 45 | 26 | 71 |
| 1.f. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **2** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Value addition | 3 | 23 | 11 | 34 | 0 | 0 | 0 | 23 | 11 | 34 |
| 2.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| 3.a. | Dairy farming | 2 | 41 | 16 | 57 | 0 | 0 | 0 | 41 | 16 | 57 |
| 3.b. | Composite fish culture |  |  |  |  |  |  |  |  |  |  |
| 3.c. | Sheep and goat rearing |  |  |  |  |  |  |  |  |  |  |
| 3.d. | Piggery |  |  |  |  |  |  |  |  |  |  |
| 3.e. | Poultry farming |  |  |  |  |  |  |  |  |  |  |
| 3.f. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **4.** | **Income generation activities** |  |  |  |  |  |  |  |  |  |  |
| 4.a. | Vermi-composting | 2 | 18 | 24 | 42 | 0 | 0 | 0 | 18 | 24 | 42 |
| 4.b. | Production of bio-agents, bio-pesticides,  bio-fertilizers etc. | 3 | 45 | 23 | 68 | 0 | 0 | 0 | 45 | 23 | 68 |
| 4.c. | Repair and maintenance of farm machinery  and implements |  |  |  |  |  |  |  |  |  |  |
| 4.d. | Rural Crafts | 1 | 18 | 20 | 38 | 0 | 0 | 0 | 18 | 20 | 38 |
| 4.e. | Seed production |  |  |  |  |  |  |  |  |  |  |
| 4.f. | Sericulture |  |  |  |  |  |  |  |  |  |  |
| 4.g. | Mushroom cultivation | 3 | 30 | 19 | 49 | 0 | 0 | 0 | 30 | 19 | 49 |
| 4.h. | Nursery, grafting etc. |  |  |  |  |  |  |  |  |  |  |
| 4.i. | Tailoring, stitching, embroidery, dying etc. |  |  |  |  |  |  |  |  |  |  |
| 4.j. | Agril. para-workers, para-vet training |  |  |  |  |  |  |  |  |  |  |
| **5** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 5.a. | Capacity building and group dynamics |  |  |  |  |  |  |  |  |  |  |
|  | **Grand Total** | **29** | **414** | **217** | **631** | **0** | **0** | **0** | **414** | **217** | **631** |

V. Extension Programmes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activities** | **No. of programmes** | **No. of farmers** | **No. of Extension Personnel** | **TOTAL** |
| Advisory Services | 340 | 410 | 25 | 435 |
| Diagnostic visits | 5 | 25 | 0 | 25 |
| Field Day | 3 | 34 | 2 | 26 |
| Group discussions |  |  |  |  |
| Kisan Ghosthi | 2 | 102 | 14 | 116 |
| Film Show |  |  |  |  |
| Self -help groups |  |  |  |  |
| Kisan Mela |  |  |  |  |
| Exhibition |  |  |  |  |
| Scientists' visit to farmers field | 95 | 382 | 0 | 382 |
| Plant/animal health camps |  |  |  |  |
| Farm Science Club |  |  |  |  |
| Ex-trainees Sammelan |  |  |  |  |
| Farmers' seminar/workshop | 2 | 177 | 9 | 186 |
| Method Demonstrations |  |  |  |  |
| Celebration of important days |  |  |  |  |
| Special day celebration |  |  |  |  |
| Exposure visits |  |  |  |  |
| Others (Technology Week) | 5 | 368 | 34 | 402 |
| Others (District Level Seminar) | 2 | 330 | 85 | 415 |
| Others (Soil Campaign) | 1 | 153 | 10 | 163 |
| **Total** | **455** | **1981** | **179** | **2150** |

Details of other extension programmes

|  |  |
| --- | --- |
| **Particulars** | **Number** |
| Electronic Media |  |
| Extension Literature | 2 |
| News Letter |  |
| News paper coverage | 5 |
| Technical Articles | 1 |
| Technical Bulletins |  |
| Technical Reports |  |
| Radio Talks | 5 |
| TV Talks | 5 |
| Animal health camps (Number of animals treated) |  |
| Others (FAI Journal) | 2 |
| **Total** | **20** |

1. **PRODUCTION OF SEED/PLANTING MATERIAL**

**Production of seeds by the KVKs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Crop category | **Name of the crop** | **Name of the Variety** | **Quantity of seed**  **(q)** | **Value**  **(Rs)** | **Number of farmers** |
| Cereals (crop wise) |  |  |  |  |  |
| Oilseeds |  |  |  |  |  |
| Pulses |  |  |  |  |  |
|  | Cowpea | Lola | 0.0030 | 1800 | 110 |
| Commercial crops |  |  |  |  |  |
| Vegetables |  |  |  |  |  |
|  | Tomato | Sakthi | 0.0025 | 10,000 | 325 |
|  | Bitter gourd | Preethi | 0.0070 | 13,290 | 511 |
|  | Bitter gourd | Priyanka | 0.0015 | 2,426 | 29 |
|  | Snake gourd | Kaumudi | 0.0035 | 6,000 | 168 |
|  | Carrot | Improved Kuroda | 0.0004 | 200 | 20 |
|  | Beet root | Action | 0.0005 | 250 | 25 |
|  | Cauliflower | NS60 | 0.0002 | 320 | 32 |
|  | Cauliflower | Pusa Sakthi | 0.0002 | 250 | 25 |
|  | Cauliflower | Pusa Sarath | 0.0003 | 300 | 30 |
|  | Cabbage | Pusa Drum Head | 0.0033 | 1673 | 33 |
|  | Cabbage | Golden Acre | 0.0046 | 2150 | 46 |
|  | Cabbage | Pride of India | 0.0021 | 1197 | 21 |
|  | Chilli | Ujwala | 0.0001 | 420 | 31 |
| Flower crops |  |  |  |  |  |
| Spices |  |  |  |  |  |
| Fodder crop seeds |  |  |  |  |  |
|  | Desamathus | - | 0.08 | 4080 | 20 |
|  | Fodder Sorghum | - | 0.04 | 1400 | 20 |
|  | Agathi | - | 0.024 | 1200 | 20 |
|  | Subhabul | - | 0.22 | 6600 | 20 |
| Fiber crops |  |  |  |  |  |
| Forest Species |  |  |  |  |  |
| Others (specify) |  |  |  |  |  |
| **Total** |  |  | **0.39** | **53,556** | **1486** |

# Production of planting materials by the KVKs

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crop category** | **Name of the crop** | **Name of the Variety** | **Number** | **Value (Rs.)** | **Number of farmers** |
| Commercial |  |  |  |  |  |
| Vegetable seedlings |  |  |  |  |  |
| Fruits |  |  |  |  |  |
| Ornamental plants |  |  |  |  |  |
|  | Balsom | - | 117 | 2505 | 117 |
|  | Golden Cyprus | - | 104 | 5368 | 95 |
|  | Dianthus | - | 192 | 3169 | 120 |
|  | Poinsettia | - | 73 | 1575 | 44 |
|  | Bougainvillea | - | 75 | 2500 | 75 |
|  | Table Palm | - | 20 | 1250 | 20 |
|  | Anthurium | - | 162 | 2300 | 150 |
|  | Peperomia | - | 60 | 600 | 45 |
|  | Jasmine | - | 25 | 250 | 25 |
|  | Marigold | - | 160 | 1500 | 65 |
|  | Coleus | - | 100 | 500 | 25 |
|  | Bud rose | - | 25 | 1250 | 25 |
| Medicinal and Aromatic |  |  |  |  |  |
| Plantation |  |  |  |  |  |
| Spices | Black Pepper | Panniyoor-1 | 506 | 7590 | 135 |
|  | Panniyoor-2 | 120 | 1398 | 14 |
|  | Panniyoor-4 | 29 | 435 | 08 |
|  | Panniyoor-5 | 628 | 9288 | 218 |
|  | Panniyoor-6 | 24 | 288 | 05- |
|  | Panniyoor-7 | 609 | 8623 | 198 |
|  | Chengannoor | 50 | 600 | 10 |
|  | Karimunda | 2216 | 20316 | 410 |
|  | Kottanadan | 1148 | 16186 | 272 |
|  | Malabar Excel | 252 | 3395 | 95 |
|  | Pournami | 153 | 1660 | 56 |
|  | Panchami | 173 | 1822 | 69 |
|  | IISR-Sakthi | 77 | 1142 | 35 |
|  | IISR-Thevam | 127 | 1552 | 65 |
|  | Sreekara | 134 | 1435 | 89 |
|  | Subhakara | 463 | 4953 | 202 |
|  | Cardamom tillers | Njallani | 25 | 980 | 16 |
| Tuber |  |  |  |  |  |
| Fodder crop saplings | Cumbu napier | CO4 | 40,000 | 10,000 | 40 |
| Forest Species |  |  |  |  |  |
| Others(specify) |  |  |  |  |  |
| **Total** |  |  |  | **1,14,430** | **2,743** |

**Production of Bio-Products**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bio Products** | **Name of the bio-product** | **Quantity**  **Kg** | **Value (Rs.)** | **Number of**  **farmers to**  **whom provided** |
| Bio Fertilizers | Azolla | 0.0020 | 96 | 25 |
| Bio-pesticide | EPN | 22550 no’s- | 22,550 | 200 |
| Bio-fungicide | Pseudomonas | 1250 | 1,25,000 | 1000 |
|  | Trichoderma | 114 | 11,400 | 95 |
| Others | Mushroom Spawn | 3217 packets | 96,510 | 500 |
|  | Vemiwash | 5L | 300 | 5 |
|  | Vermicompost | 2000 kg | 17,170 | 150 |
|  | Vermiculture | 3 kg | 750 | 10 |
| **Total** |  |  | **2,73,776** | **1985** |

# Production of livestock and related enterprise materials

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Particulars of Live stock | **Name of the breed** | **Number** | **Value (Rs.)** | **No. of Farmers** |
| **Dairy animals** |  |  |  |  |
| Cows |  |  |  |  |
| Buffaloes |  |  |  |  |
| Calves |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Poultry** |  |  |  |  |
| Broilers |  |  |  |  |
| Layers |  |  |  |  |
| Duals (broiler and layer) |  |  |  |  |
| Japanese Quail |  |  |  |  |
| Turkey |  |  |  |  |
| Emu |  |  |  |  |
| Ducks | Vigova Super M Duck | 200 | 23150 | 10 |
| Others (Pl. specify) |  |  |  |  |
| **Piggery** |  |  |  |  |
| Piglet |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Fisheries** |  |  |  |  |
| Fingerlings |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Total** |  |  | 23150 | 10 |

**VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2012-13**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Samples | **No. of Samples** | **No. of Farmers** | **No. of Villages** | **Amount realized (Rs.)** |
| Soil | 169 | 74 | 50 | 850.00 |
| Water | 2 | 2 | 2 | 100.00 |
| Plant | 0 | 0 | 0 | 0.00 |
| Manure | 1 | 1 | 1 | 50.00 |
| Others (Soil Test Campaign) | 100 | 100 | 1 | 30000.00 |
| **Total** | **272** | **177** | **54** | **38,700.00** |

VIII. SCIENTIFIC ADVISORY COMMITTEE

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

**IX. NEWSLETTER**

|  |
| --- |
| **Number of issues of newsletter published - Nil** |
|  |

**X. RESEARCH PAPER PUBLISHED**

|  |
| --- |
| **Number of research paper published - Nil** |
|  |

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

|  |
| --- |
| **Activities conducted - Nil** |

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