**KRISHI VIGYAN KENDRA (IDUKKI)**

**ANNUAL REPORT – (2017-18)**

**(FOR THE PERIOD FROM 01 APRIL 2017 TO 31 MARCH 2018)**

**ICAR - Krishi Vigyan Kendra**,

Bapooji Sevak Samaj,

Pethotty P.O., Santhanpara,

Idukki (Dt.), Pin-685619, Kerala.

Phone: 04868 – 247541, 247715.

E-mail: kvk.Idukki@icar.gov.in, kvksanthanpara@gmail.com

Website URL: www.kvkidukki.org

Bapooji Sevak Samaj,

Kakkattu, Meenadom P.O.,

Pampady, Kottayam (Dt.),

Pin-686 516, Kerala.

Phone: 0481-2506271

E-mail: bkvkchairperson@gmail.com

**GENERAL INSTRUCTIONS**

**Please read the instructions very carefully before starting preparation of the report**

* Annual report is the most important document for the KVK and it directly reflects the overall achievements pertaining to the reported period. Hence due care need to be given by each KVK while preparing the report.
* Period of Report is from 01April 2017 to 31 March 2018
* Action photographs with relevant captions covering various activities of the KVK in High resolution should be submitted separately in a CD/DVD along with this report.
* Prepare Summary tables carefully tallying with the relevant portions of the main report on all aspects.
* Retain the blank column and rows as such and do not merge the cells. Please specify NIL, wherever not applicableor details are not available.
* Check the names of varieties and hybrids and specify in the report.
* Check the units and totals of each data table
* Extension activity under celebrations for each important day, please insert separate rows and give appropriate data separately. Clubbing of data should be avoided.
* Success stories/case studies should be supported with data tables, graphs and photos.

PART I - GENERALINFORMATION ABOUT THE KVK

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| KVK Address | Telephone | | E mail | **Web Address** |
| Office | Fax |
| ICAR - Krishi Vigyan Kendra, Bapooji Sevak Samaj, Pethotty P.O., Santhanpara, Idukki (Dt.), Pin-685619, Kerala. | 04868 – 247541,  247715. | Nil | 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  +91 9446826019 | 04868-247048 | bkvkchairperson@gmail.com | www.kvkidukki.org |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
|  | Residence | Mobile | Email |
| Mr. Sudhakar Soundarajan, Programme Coordinator i/c. | 9495814202 | +91 9526020728 | sudhakarsounda@gmail.com |

1.4. Year of sanction: 1994.

**1.5. Staff position as on 31 March 2018**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | Head/Senior Scientist | Vacant | Programme  Coordinator | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| 2 | Scientist/SMS | Dr. S. Jayababu | Subject Matter Specialist | M | Animal Science | B.V. Sc. & AH | 15600-39100 | 21000 | 19-06-1995 | Permanent | Others |
| 3 | Scientist/SMS | Manju Jincy Varghese | Subject Matter Specialist | F | Soil Science | M.Sc. Agriculture (Soil Science) | 15600-39100 | 21000 | 10-01-2011 | Permanent | Others |
| 4 | Scientist/SMS | Dr. Binu John Sam | Subject Matter Specialist | M | Horticulture | Ph.D. Horticulture | 15600-39100 | 21000 | 17-01-2011 | Permanent | Others |
| 5 | Scientist/SMS | Sudhakar Soundarajan | Subject Matter Specialist | M | Plant Protection | M.Sc. Agricultural Entomology, MBA | 15600-39100 | 21000 | 27-01-2011 | Permanent | OBC |
| 6 | Scientist/SMS | Vacant | Subject Matter Specialist | **-** | Agronomy | **-** | **-** | **-** | **-** | **-** | **-** |
| 7 | Scientist/SMS | Vacant | Subject Matter Specialist | **-** | Agri. Extension | **-** | **-** | **-** | **-** | **-** | **-** |
| 8 | Programme Assistant (Lab Tech.) | 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) | 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 | Rural Craft | 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 | SS-1 | K.O. Jose | Skilled Supporting Staff-1 | M | **-** | **-** | 5200-20200 | 7000 | 05-06-1995 | Permanent | Others |
| 16 | SS-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 | 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 | 102967 | Good condition. |
| Honda Aviator | March - 2009 | 50,000.00 | 12146 | Running condition |
| Motor Bike (Suzuki Shogun) | January - 1995 | 37,972.78 | 8864 | Not in use. |

**C) Equipment & 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 |
| ZETT 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 |
| Ahuja Amplifier SSA 160 636956 | 2003 | 7,010.00 | Good Condition |
| Ahuja Speaker, SRX50DX | 2003 | 1,825.00 | Good Condition |
| Ahuja Mike SHM 1000XLR | 2003 | 2,295.00 | Good Condition (serviced) |
| Ahuja Mike ASMT 80 XLR | 2003 | 1,470.00 | Good Condition |
| Ahuja mike Stand DGV | 2003 | 510.00 | Good Condition |
| Ahuja Mike stand DGT | 2003 | 295.00 | Good Condition |
| Ahuja portable teaching wireless WA 320 AWL 321 | 2003 | 9,700.00 | Good Condition |
| Honda generator Model EBK 2000 AC | 2003 | 32,490.00 | Good Condition |
| LPG Generator 5000 CLS | 2011 | 100000.00 | Good Condition |
| LCD Projector (EPSON\_EBW8) | 2010 | 55186.00 | Good Condition |
| Liberty Show Juno 5 x 7 (MW) Screen | 2010 | 5885.00 | Good Condition |
| Kodak Knoma Camera | 1995 | 1550.00 | Obsolete |
| Tripod Screen 52x70 inch | 1996 | 2029.50 | In working condition |
| **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 | Obsolete |
| FACIT Typewriter (English) | 1995 | 9429.00 | Obsolete |
| Stencil Duplicator | 1995 | 13,700.00 | Obsolete |
| Ortem sewing machine | 1995 | 2,300.00 | Obsolete |
| Computer with Printer | 2003 | 49,750.00 | Obsolete, needs to be replaced by a Desktop computer |
| Photostat Machine | 2003 | 80,000.00 | Obsolete |
| Brush Cutter | 2009 | 23,726.00 | Good, needs servicing |
| Fax Machine | 2009 | 15,000.00 | Needs servicing |
| 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 of SAC meeting conducted during 2017-18**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Number of Participants** | **Salient Recommendations** | **Action taken** | **Remarks, if any** |
| 22/01/2018 | 25 | * More stress to promote organic farming. * Micro-nutrient deficiency reported should be tackled through concerted efforts involving relevant line departments. * Importance to be given for drought management * Skill development programmes may be organized for unemployed and rural youth and educate them for producing good planting materials. * Soil test based nutrient recommendations should be encouraged to reduce the indiscriminate use of chemical inputs. * Mass campaigns in association with ATMA on the correct usage of fertilizers and PP chemicals. * Underutilized production units have to be improved. * Popularization of cool season vegetables for crop diversification. | * Training and other extension programmes for the next year are planned, giving more emphasis to reduction of chemical inputs and making aware of the various organic inputs that can go into the existing farming practices. * Awareness on the different micro-nutrient deficiencies of major and minor crops of Idukki district and its prophylactic and curative measures are being taken up primarily with the help of field level extension functionaries of line departments. * Interventions are being planned in this action plan for the same. * Vocational training programme on good planting material production is being stressed and satellite units shall be promoted * The need for soil test based nutrient management is being emphasized through various mass campaigns and training programmes. Its effects are being seen in the different tracts where such deficiencies were noted. Concerted efforts have been initiated for scaling up these activities in the other parts of Idukki district. * Crop based nutrient management strategies are being undertaken to reduce the over usage of chemical fertilizers and PP chemicals. This, coupled with soil health management strategies have gone a long way in improving the crop and soil health of Idukki district. These efforts shall be given more momentum in the coming years too. * Many production units of agriculture and allied sectors have been idled due to manifold reasons and which could have been rectified with an early intervention. KVK has started cohering efforts of line departments in strengthening these units on a scheduled basis so that they may get back to the mainstream production line within a couple of years. * Crop diversification has been given timely importance among the farmers of Idukki district as the district is suitable for a wide range of cool season fruits and vegetables. | - |

**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 (Bitter gourd & Cowpea) |
| 6 | Cool season vegetables in Devikulam Block |
| 7 | Banana cropping |
| 8 | Rubber as mono-crop |
| 9 | Dairy cattle, Poultry production & Management |
| 10 | Mixed Fodder Production |

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 |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

\* Please provide latest data from authorized sources. Please quote the source

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Population** | **Production** | **Productivity** |
| **Cattle** | | | |
| *Crossbred* | 190581 | 634938 ton (Milk) & 23090.87 MT (meat) | **-** |
| *Indigenous* | - | 5309 ton (milk) | **-** |
| **Buffalo** | 7677 | 4481 ton (milk) & 12385.62 MT (meat) | **-** |
| **Sheep** | | | |
| Crossbred | 35 | - | **-** |
| *Indigenous* | - | - | **-** |
| **Goats** | 168474 | 16898 ton (Milk) & 9092.10 MT (meat) | **-** |
| **Pigs** |  |  | **-** |
| *Crossbred* | 24131 | 19136.5 MT (Meat) | **-** |
| *Indigenous* |  |  |  |
| **Rabbits** | 29678 | **-** | **-** |
| **Poultry** | | | |
| Hens | 932001 | 10.64 crores (Egg) | **-** |
| *Desi* | **-** | 238 crores (Egg) | **-** |
| *Improved* | **-** | 8.25 crores (Egg) & 23119.8 MT (Meat) | **-** |
| Ducks | **-** | 3.10 crores (Egg) | **-** |
| Turkey and others | **-** | **-** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Area** | **Production** | **Productivity** |
| Fish | **-** | **-** | **-** |
| *Marine* | **-** | **-** | **-** |
| *Inland* | **-** | **-** | **-** |
| Prawn | **-** | **-** | **-** |
| Scampi | **-** | **-** | **-** |
| Shrimp | **-** | **-** | **-** |

**Source of Data**: **-** District Animal Husbandry Office, Thodupuzha, Idukki.

* 1. District profile has been **Updated** for 2017-18 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 | Santhanpara,  Rajakumary,  Parathodu,  Senapathy,  Rajakkad & Vathikudy | 2011-2016 | Small cardamom  Black pepper  Cowpea,  Tomato &  Bitter gourd | Stem and Capsule borer, Root Grub  Thrips & Fusarium  Foot rot, Quick wilt disease  Downy mildew & Nematode | BIPM  Crop Improvement  BIPDM |
| 2 | Udumbanchola | Chinnakanal | Chinnakanal | 2 Years | Cardamom | Indiscriminate use of chemical fertilizers | Integrated Nutrient Management, Scientific management of livestock and poultry |
| 3 | Udumbanchola | Santhanpara | Santhanpara | 5 Years | Cardamom, Black Pepper, Banana livestock & Poultry | Indiscriminate use of PP Chemicals | Integrated Pest Management Scientific Disease Management in dairy cattle and Poultry |
| 4 | Udumbanchola | Rajakkad | Rajakkad | 5 Years | Cardamom, Black Pepper, Banana, Vegetables livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific Disease Management in dairy cattle and Poultry |
| 5 | Udumbanchola | Nedumkandam | Nedumkandam | 2 Years | Cardamom, Black Pepper, Banana livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific management of livestock and poultry |
| 6 | Udumbanchola | Santhanpara | Santhanpara | 5 Years | Cardamom, Black Pepper, Banana, Vegetable livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Fodder production and management Fodder production and management |
| 7 | Udumbanchola | Senapathy | Senapathy | 3 Years | Cardamom, Black Pepper, Banana, Vegetables, Mushroom, livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific management of livestock and poultry, Fodder production and management |
| 8 | Devikulam | Devikulam | Vattavada,  Kannan Devan Hills, Marayoor, Mankulam, Anaviratty,  Kanthaloore &  Munnar | 2012-2016 | Cabbage  Potato  Carrot  Straw berry  Beans | Black rot  Bacterial wilt  Root weevil  Powdery mildew  White fly | BIPDM |
| 9 | Devikulam | Adimali | Adimali | 2 Years | Black Pepper, Cardamom, Banana, Vegetables, livestock & Poultry | Pest outbreak | Integrated Pest Management, Scientific management of livestock and poultry |
| 10 | Peermade | Azhutha | Elappara  Kokkayar  Kumily  Peermedu  Periyar  Upputhara & Vagamon | 2010-2016 | Tea  Coffee & Vegetables | Powdery mildew, Leaf spot & Downy mildew | BIPDM |
| 11 | Udumbanchola | Nedumkandam | Santhanpara | 5 years | Tapioca | Non availability of mosaic free varieties in Tapioca | Varietal Evaluation |
| 12 | Udumbanchola | Nedumkandam | Senapathy | 3 years | Bitter Gourd | Micronutrient deficiency | INM |
| 13 | Udumbanchola | Nedumkandam | Chemmannar | 5 years | Banana | Secondary and Micronutrient deficiency | INM |
| 14 | Udumbanchola | Nedumkandam | Senapathy | 3 years | Cardamom | Unscientific Nutrient Management | INM |
| 15 | Udumbanchola | Nedumkandam | Rajakkad | 3 years | Tapioca | Lack of Potassium Efficient Variety | Crop Diversification |
| 16 | Udumbanchola | Nedumkandam | Rajakumary | 5 years | Amorphophallus | Lack of Acrid free variety | Crop Diversification |
| 17 | Udumbanchola | Chinnakanal | Chinnakanal | 2 Years | Cardamom | Indiscriminate use of chemical fertilizers | Integrated Nutrient Management, Scientific management of livestock and poultry |
| 18 | Udumbanchola | Santhanpara | Santhanpara | 5 Years | Cardamom, Black Pepper, Banana livestock & Poultry | Indiscriminate use of PP Chemicals | Integrated Pest Management Scientific Disease Management in dairy cattle and Poultry |
| 19 | Udumbanchola | Rajakkad | Rajakkad | 5 Years | Cardamom, Black Pepper, Banana, Vegetables livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific Disease Management in dairy cattle and Poultry |
| 20 | Udumbanchola | Nedumkandam | Nedumkandam | 2 Years | Cardamom, Black Pepper, Banana livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific management of livestock and poultry |
| 21 | Udumbanchola | Santhanpara | Santhanpara | 5 Years | Cardamom, Black Pepper, Banana, Vegetable livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Fodder production and management Fodder production and management |
| 22 | Udumbanchola | Senapathy | Senapathy | 3 Years | Cardamom, Black Pepper, Banana, Vegetables, Mushroom, livestock & Poultry | Indiscriminate use of chemical inputs | Integrated Crop Management, Scientific management of livestock and poultry, Fodder production and management |
| 23 | Devikulam | Adimali | Adimali | 2 Years | Black Pepper, Cardamom, Banana, Vegetables, livestock & Poultry | Pest outbreak | Integrated Pest Management, Scientific management of livestock and poultry |

2.9 Priority thrust areas

|  |  |
| --- | --- |
| **S. No.** | **Thrust area** |
| 1. | Integrated Nutrient Management in major crops |
| 2. | IPDM in major Plantation and Vegetable crops |
| 3. | Integrated sustainable farming system models |
| 4. | Organic agriculture |
| 5. | Scientific management of livestock and poultry |
| 6. | Scientific Disease Management in dairy cattle and Poultry |
| 7. | Fodder production and management |
| 8. | Popularization of poultry breeds |
| 9. | Value addition of farm produce |

**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 (includes 2 nos. OFTs ongoing in previous F.Y. (2016-17) completed during this F.Y.) | 8 | 40 | 40 | 14 (includes 4 nos. FLDs ongoing in previous F.Y. (2016-17) completed during this F.Y.) | 14 | 115 | 115 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| 119 | 141 | 1965 | 3407 | 201 | 363 | 423 | 1348 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Seed Production (Q)** | | **Planting materials (Nos.)** | |
| **5** | | **6** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
|  |  | 2500 | 2500 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Livestock, poultry strains and fingerlings (No.)** | | **Bio-products (Kg)** | |
| **7** | | **8** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| 100 | 60 | Trichoderma (1000 L) | 2075 |
|  |  | Pseudomonas (1000 L) | 2140 |
|  |  | Beauveria (1000 L) | 325 |
|  |  | Lecanicillium (500 L) | 282 |
|  |  | Metarhizium (200 L) | 170 |
|  |  | Yellow sticky trap (2000 Nos.) | 1000 |
|  |  | Blue sticky trap (1000 Nos.) | 5000 |
|  |  | Neem oil (200 L) | 35 |
|  |  | IIHR-Neem Soap (150 kg) | 200 |
|  |  | IIHR-Pongamia Soap (150 kg) | 5 kg |
|  |  | EPN (100 kg) | 150 |
|  |  | Pheromone trap (1000 Nos.) | 350 |
|  |  | VAM (1000 Kg) | 900 |

**3.B1. Abstract of interventions undertaken**

| **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. | Bio-Intensive Pest Management | Small Cardamom | Heavy infestation of stem and capsule borer leading to heavy usage of PPC | Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, *Conogethes punctiferalis* | - | 5 | 0 | 0 | 0 | 0 | 0 | 0 | *Bacillus thuringiensis*  *Beauveria bassiana*  *Apanteles*  *Friona* | 10 kg  20 kg  20000  20000 |
| 2. | Bio-Intensive Disease Management | Cowpea | Heavy dosage of fungicides are applied for the control of cowpea anthracnose | Biological control of cowpea anthracnose disease, *Colletotrichum destructivum* | - | 5 | 0 | 0 | 0 | 0 | 0 | 0 | *Pichia guilliermondii*  *Hanseniaspora uvarum*  *Trichoderma harzianum* | 12.5 L  12.5 L  12.5 Kg |
| 3. | Bio-Intensive Pest Management | Cowpea | Severe incidence of sucking pests | Assessment of different biological control agents for the management of sucking pests in cowpea |  | 5 | 0 | 0 | 0 | 0 | 0 | 0 | *Lecanicillium saksenae*  Nanma  IIHR neem soap | 1.5 kg  1L  2 kg |
| 4. | Bio-Intensive Disease Management | Cucurbits | Heavy dosage of fungicides are applied for the control of downy mildew | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits | - | 5 | 0 | 0 | 0 | 0 | 0 | 0 | Spray extract of licorice  Spray Pseudomonas  Spray Effective Microorganisms | 10 L  15L  5L |
| 5. | Drought Management | Small cardamom & Black pepper | Reduce production and productivity in all crops | - | Popularization of Pink Pigmented Facultative Methylotrophs (PPFMs) , to protect crops Small cardamom, Black pepper and vegetables from heat and drought condition | 10 | 0 | 0 | 0 | 0 | 0 | 0 | Lime  Azospirillum  VAM  CAN    M:N Mixture  Blue sticky trap  Neem oil  EPN  Trichoderma  Pseudomonas  Methylobacterium | 200kg  10 kg  20 kg  10 kg  2.5 kg  20  7.5L  6500  25 L  25L  10L |
| 6. | Bio-Intensive Pest Management | Vegetables | Famers unawareness of ecological engineering for pest management | - | Ecological engineering methods for the management of  pests of vegetables | 5 | 0 | 0 | 0 | 0 | 0 | 0 | Radish , Sunflower , marigold, maize, mustard, sinia, tulsi seeds, Beet root | 5kg |
| 7. | Integrated Disease Management | Banana | Severe incidence of Panama wilt in banana | - | Integrated Disease Management of Panama wilt of banana in Idukki district | 5 | 0 | 0 | 0 | 0 | 0 | 0 | Pseudomonas  Hexaconazole | 20 kg  2 L |
| 8. | Varietal Evaluation | Yard Long Bean | Lack of High Yielding Varieties | Assessment of high yielding yard long bean varieties for Idukki district | - | 2 | 0 | 0 | 0 | 0.01 | 0 | 0 | *Pseudomonas*  *Trichoderma* | 10 litres  10 litres |
| 9. | Alternative media for mushroom production | Oyster Mushroom | Less availability of paddy straw | - | Oyster mushroom production using banana pseudostem waste and value addition | 1 | 1 | 0 | 0 | 0.2 | 0 | 0 | *0* | 0 |
| 10. | Crop introduction | Big Onion | Lack of onion in homestead vegetable cultivation | - | Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions | 1 | 0 | 0 | 0 | 0.01 | 0 | 0 | *Pseudomonas*  *Trichoderma* | 10 litres  10 litres |
| 11. | Disease Management | Brinjal | High incidence of wilt disease in solanaceous crops | - | Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal) | 1 | 0 | 0 | 0 | 0.01 | 0 | 0 | *Pseudomonas*  *Trichoderma* | 10 litres  10 litres |
| 12. | Integrated Nutrient Management | Bitter gourd | Micronutrient deficiency | Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up | - | 5 | 0 | 0 | FAS-8  FV- 3 | 0 | 0 | 0 | 0 | 0 |
| 13. | Varietal Evaluation | Cassava | Non-availability of mosaic resistant varieties | Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges | - | 5 | 0 | 0 | FAS-6  FV- 4 | 0 | 0 | 0 | 0 | 0 |
| 14. | Crop diversification | Amorphoplallus | Non-availability of acrid free variety | - | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | 5 | 0 | 0 | FAS-8  FV- 3 | 0 | 50 kg | 0 | 0 | 0 |
| 15. | Integrated Nutrient Management | Banana | Secondary and Micronutrient deficiency | - | Demonstration of Ayar in Banana | 10 | 0 | 0 | FAS-15  FV-5 | 0 | 0 | 0 | 0 | 0 |
| 16. | Crop Diversification | Tapioca | Non availability of K efficient variety | - | Demonstration of K efficient Variety in Tapioca-Sree Pavitra | 5 | 0 | 0 | FAS-8  FV-5 | 0 | 250 setts | 0 | 0 | 0 |
| 17. | INM | Cardamom | Unscientific Nutrient Management | - | Integrated Nutrient Management in Cardamom | 5 | 0 | 0 | FAS-7  FV- 6 | 0 | 0 | 0 | 0 | 0 |
| 18. | - | Vegetables | Improper kitchen waste disposal | - | Low cost bio-compost bin for kitchen waste management | 2 | 0 | 0 | 6 | 0 | 0 | 0 | EM Solution | 14 litre |
| 19. | Nutrition Management | Azolla | Shortage of fodder | - | Incorporation of Azolla feed for improving milk production in dairy cattle | 4 | 0 | 0 | Field visit-3  Method demonstration -2 | Azolla seeds | 0 | 0 | 0 | 0 |
| 20. | Feed and fodder management | Hybrid dairy cattle | Lack of nutritious, Palatable high yielding fodder variety for dairy farming | Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district | - | 3 | 0 | 0 | Field visit-3  Method demonstration-2 | 0 | Fodder Slips (Co3,Co4 and Co5) | 0 | 0 | 0 |
| 21. | Disease management | Hybrid dairy cattle | Occurrence of Milk fever disease | - | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows | 3 | 0 | 0 | Field visit-3 | Anionic Mixture | 0 | 0 | 0 | 0 |
| 22. | Evaluation of Breeds | Vigova Duck | Unawareness about new breeds | - | Popularization of Vigova Super M duck in Idukki district | 3 | 0 | 0 | Field visit-3 | Two week old ducklings supplements feed | 0 | 0 | 0 | 0 |

**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. | Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, *Conogethes punctiferalis* | ICRI & NBAIR | Small Cardamom | 5 | 0 | 6 | FAS – 5  Field Visits - 12  Diagnostic Visits - 2  Method Demo - 5 |
| 2. | Biological control of cowpea anthracnose disease, *Colletotrichum destructivum* | NBAIR | Cowpea | 5 | 0 | 3 | FAS – 16  Field Visits - 16  Diagnostic Visits - 4  Method Demo - 5 |
| 3. | Assessment of different biological control agents for the management of sucking pests in cowpea | KAU | Cowpea | 5 | 0 | 2 | FAS – 4  Field Visits - 5  Diagnostic Visits - 2  Method Demo - 5 |
| 4. | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits | JKI, Institute of Biological Control, Darmstadt, Germany | Cucurbits | 5 | 0 | 5 | FAS – 5  Field Visits - 12  Diagnostic Visits - 2  Method Demo - 5 |
| 5. | Popularization of Pink Pigmented Facultative Methylotrophs (PPFMs), to protect crops Small cardamom, Black pepper and vegetables from heat and drought condition | TNAU & ICRI | Small Cardamom | 0 | 10 | 10 | FAS -10  Field Visits - 5  Diagnostic Visits - 4  Method Demo - 10 |
| 6. | Ecological engineering methods for the management of pests of vegetables | NIPHM | Vegetables | 0 | 5 | 3 | FAS – 2  Field Visits - 2  Diagnostic Visits - 2  Method Demo - 5 |
| 7. | Integrated Disease Management of Panama wilt of banana in Idukki district | KAU | Banana | 0 | 5 | 2 | FAS – 5  Field Visits - 4  Diagnostic Visits - 2  Method Demo - 5 |
| 8. | Assessment of high yielding yard long bean varieties for Idukki district | KAU-2006, 2015 & IIHR, 2015 | Yard Long Bean | 5 | 0 | 2 | FAS – 5  Field Visits - 6  Diagnostic Visits - 2 |
| 9. | Oyster mushroom production using banana pseudostem waste and value addition | KAU-2005 | Oyster Mushroom | 0 | 5 | 2 | FAS – 5  Field Visits - 6  Diagnostic Visits - 2 |
| 10. | Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions | IIHR, 2014 | Arka Kalyan | 0 | 5 | 2 | FAS – 5  Field Visits - 6  Diagnostic Visits - 2 |
| 11. | Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal) | KAU, 2012 | Brinjal | 0 | 3 | 2 | FAS – 5  Field Visits - 6 |
| 12. | Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up | KAU | Bitter gourd | 5 | 0 | 1 | FAS-8  FV- 3 |
| 13. | Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges | CTCRI | Cassava | 5 |  | 1 | FAS-6  FV- 4 |
| 14. | Integrated Nutrient Management in Cardamom | ICRI | Cardamom | 0 | 10 | 5 | FAS-7  FV- 6 |
| 15. | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | CTCRI & KAU | Amorphophallus | 0 | 10 | 0 | FAS-8  FV- 3 |
| 16. | Demonstration of potassium efficient variety of Tapioca -Sree Pavitra | CTCRI | Cassava | 0 | 10 | 1 | FAS-5  FV- 3 |
| 17. | Demonstration of Ayar in Banana | KAU | Banana | 0 | 10 | 1 | FAS-4  FV- 2 |
| 18. | Low cost bio-compost bin for kitchen waste management | Innovative technology by Mr. V.P. Davis, Chalakkudy | Vegetables | 0 | 1 | 2 | FAS-10  FV- 6 |
| 19. | Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district | TNAU | Hybrid dairy cattle | 1 | 0 | 3 | Field visit-3  Method demo-2 |
| 20. | Incorporation of Azolla feed for improving milk production in dairy cattle | TANUVAS &KAU | Fodder | 0 | 1 | 4 | Field visit-3  Method demo-2 |
| 21. | Popularization of Vigova Super M duck in Idukki district | CPDO, Hessaraghatta | Poultry-Duck | 0 | 1 | 3 | Field visit-3 |
| 22. | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows | TANUVAS | Hybrid dairy cattle | 0 | 1 | 3 | Field visit-3 |

**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** |
| 5 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 68 | 21 | 6 | 8 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 7 | 3 | 1 | 2 | 12 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 7 | 3 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 12 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 6 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 17 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 47 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 4 | 6 | 0 | 0 | 18 | 49 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 6 | 4 | 0 | 0 | 48 | 68 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 14 | 6 | 0 | 0 | 34 | 23 | 0 | 0 | 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 |  |  |  |  | 1 | 1 |  | 1 |  | 3 |
| Varietal Evaluation |  |  |  |  | 1 |  |  |  | 3 | 4 |
| Integrated Pest Management |  |  |  | 2 |  |  |  |  |  | 2 |
| Integrated Crop Management |  |  |  |  |  |  |  |  |  |  |
| Integrated Disease Management |  |  |  |  | 2 |  |  |  |  | 2 |
| Small Scale Income Generation Enterprises |  |  |  |  |  |  |  |  |  |  |
| Weed Management |  |  |  |  |  |  |  |  |  |  |
| Resource Conservation Technology |  |  |  |  |  |  |  |  |  |  |
| Farm Machineries |  |  |  |  |  |  |  |  |  |  |
| Integrated Farming System |  |  |  |  |  |  |  |  |  |  |
| Seed / Plant production |  |  |  |  |  |  |  |  |  |  |
| Value addition |  |  |  |  |  |  |  |  |  |  |
| Drudgery Reduction |  |  |  |  |  |  |  |  |  |  |
| Storage Technique |  |  |  |  |  |  |  |  |  |  |
| Mushroom cultivation |  |  |  |  |  |  |  |  |  |  |
| **Total** |  |  |  | **2** | **4** | **1** |  | **1** | **3** | **11** |

**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**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cattle** | **Poultry** | **Piggery** | **Rabbit** | **Fisheries** | **TOTAL** |
| Evaluation of Breeds |  |  |  |  |  |  |
| Nutrition Management |  |  |  |  |  |  |
| Disease of Management |  |  |  |  |  |  |
| Value Addition |  |  |  |  |  |  |
| Production and Management |  |  |  |  |  |  |
| Feed and Fodder | 1 |  | 0 | 0 | 0 | 1 |
| Small Scale income generating enterprises |  |  |  |  |  |  |
| **TOTAL** | **1** |  | **0** | **0** | **0** | **1** |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cattle** | **Poultry** | **Piggery** | **Rabbit** | **Fisheries** | **TOTAL** |
| Evaluation of Breeds |  |  |  |  |  |  |
| Nutrition Management |  |  |  |  |  |  |
| Disease of Management |  |  |  |  |  |  |
| Value Addition |  |  |  |  |  |  |
| Production and Management |  |  |  |  |  |  |
| Feed and Fodder |  |  |  |  |  |  |
| Small Scale income generating enterprises |  |  |  |  |  |  |
| **TOTAL** |  |  |  |  |  |  |

**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 trial covering all the Technological Options)** |
| Integrated Nutrient Management | Bitter gourd | Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up | 15 | 5 | 0.12 |
|  |  |  |  |  |
| Varietal Evaluation | Cassava | Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges | 20 | 5 | 0.06 |
| Yard Long Bean | Assessment of high yielding yard long bean varieties for Idukki district | 5 | 5 | 0.2 |
| Integrated Pest Management | Small Cardamom | Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, *Conogethes punctiferalis* | 5 | 5 | 0.25 |
| Cowpea | Assessment of different biological control agents for the management of sucking pests in cowpea | 5 | 5 | 0.10 |
| Integrated Crop Management |  |  |  |  |  |
|  |  |  |  |  |
| Integrated Disease Management | Cowpea | Biological control of cowpea anthracnose disease, *Colletotrichum destructivum* | 5 | 5 | 0.10 |
| Cucurbits | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits | 5 | 5 | 0.25 |
| Small Scale Income Generation Enterprises |  |  |  |  |  |
|  |  |  |  |  |
| Weed Management |  |  |  |  |  |
|  |  |  |  |  |
| Resource Conservation Technology |  |  |  |  |  |
|  |  |  |  |  |
| Farm Machineries |  |  |  |  |  |
|  |  |  |  |  |
| Integrated Farming System |  |  |  |  |  |
|  |  |  |  |  |
| Seed / Plant production |  |  |  |  |  |
|  |  |  |  |  |
| Value addition |  |  |  |  |  |
|  |  |  |  |  |
| Drudgery Reduction |  |  |  |  |  |
|  |  |  |  |  |
| Storage Technique |  |  |  |  |  |
|  |  |  |  |  |
| Mushroom cultivation |  |  |  |  |  |
|  |  |  |  |  |
| **Total** |  |  | **60** | **35** | **1.08** |

**4.B.2. Technologies Refined under various Crops: Nil.**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Thematic areas** | **Name of the livestock enterprise** | **Name of the technology assessed** | **No. of trials** | **No. of farmers** |
| Evaluation of breeds |  |  |  |  |
| Nutrition management |  |  |  |  |
| Disease management |  |  |  |  |
| Value addition |  |  |  |  |
| Production and management |  |  |  |  |
| Feed and fodder | Dairy Cattle | Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district | 5 | 5 |
| Small scale income generating enterprises |  |  |  |  |
| **Total** | | | **5** | **5** |

**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 | Source of technology | Yield | Unit of yield | Observations other than yield | Net Return Rs. / unit | BC Ratio | Remarks if any |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Small cardamom | Perennial | Heavy infestation of stem and capsule borer leading to heavy usage of PPC | Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer , *Conogethes punctiferalis* | 5 | 1. Farmers practice (Recommended Insecticides )  2. Spray of *Bacillus thuringiensis* @ 2g/L  3. Spray of *Beauveria bassiana* @ 5g/L  4. Release of Apanteles sp @ 20,000/ha  5. Release of Friona sp @ 20,000/ha | ICRI & NBAIR | 830 | Kg/ha | - | 442000 | 2.65 | - |
| Cowpea | Field crop | Heavy dosage of fungicides are applied for the control of cowpea anthracnose | Biological control of cowpea anthracnose disease, *Colletotrichum destructivum* | 5 | 1. Farmers practice (Recommended Fungicides)  2. *Pichia guilliermondii*  (NBAIR Strains)@10ml/L  3. *Hanseniaspora uvarum*  (NBAIR Strains) @10ml/L  4. *Trichoderma harzianum*  (NBAIR Strains) @10g/L | NBAIR | 825 | Kg/ha | - | 171000 | 2.30 | - |
| Cowpea | Field crop | Severe incidence of sucking pests | Assessment of different biological control agents for the management of sucking pests in cowpea | 5 | 1. Farmers practice (Recommended Insecticides)  2. Spraying of *Lecanicillium saksenae @* 15g/lit  3. Spraying of Nanma @ 7-10ml/lit 3 times  4. Spraying of IIHR neem soap @ 10 g/lit | KAU,  CTCRI &  IIHR | 760 | Kg/ha | *-* | 153000 | 1.89 | - |
| Cucurbits | Horticulture crop | Heavy dosage of fungicides are applied for the control of downy mildew | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits | 5 | 1.Farmers practice (Recommended fungicide)  2.Spray extract of licorice @/20ml/lit of water from 10-day intervals between each spray  3. Spray *Pseudomonas* @5ml/lit of water from 10-day intervals between each spray  4. Spray Effective Microorganisms @ 5ml/lit of water from 10-day intervals between each spray | JKI, Institute of Biological Control, Darmstadt  ,Germany, KAU & TNAU | 1300 | Kg/ha | *-* | 172000 | 2.40 | - |
| Yard Long Bean | Annual | Lack of High Yielding Varieties | Assessment of high yielding yard long bean varieties for Idukki district | 5 | 1. Farmers practice (Local Varieties) | KAU-2006, 2015 & IIHR, 2015 | 16.6 | t/ha | - | 49000 | 1.25 | - |
|  |  |  |  |  | 2. Vellayani Jyothika |  | 19.5 | t/ha | - | 92500 | 1.46 | - |
|  |  |  |  |  | 3. Githika |  | 20.8 | t/ha | - | 112000 | 1.56 | - |
|  |  |  |  |  | 4. Arka Mangala |  | 23.5 | t/ha | - | 152500 | 1.76 | - |
| Bitter gourd | Commercial | Micronutrient deficiency | Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up | 5 | TO1 - No micronutrient application (FP) | - | 15 | t/ha | - | 120000 | 1.5 | Micronutrient top up spray gave better result in flowering |
|  |  |  |  |  | TO2 - Application of ZnSO4 (0.5%) + Boron (0.1%) based on soil test along with recommended dose of NPK | KAU | 18 | t/ha | - | 155212 | 1.67 |  |
|  |  |  |  |  | TO3 - Foliar spray of micronutrient top up at 30, 45, 60 days after sowing along with recommended dose of NPK | IIHR | 20 | t/ha | - | 215000 | 1.98 |  |
| Cassava | Commercial | Non-availability of mosaic resistant varieties | Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges | 5 | TO1 – Local Variety (FP) | - | 20 | t/ha | - | 105000 | 1.40 | Swarna was found resistant to CMVD |
|  |  |  |  |  | TO2 – Sree Jaya | CTCRI | 25 | t/ha | - | 159980 | 1.58 |
|  |  |  |  |  | TO3 – Vellayani Hraswa | KAU | 30 | t/ha | - | 300000 | 1.87 |
|  |  |  |  |  | TO4 – Suvarna | CTCRI | 35 | t/ha | - | 409980 | 1.98 |
| Dairy cattle | Homestead | Lack of nutritious, Palatable high yielding fodder variety for dairy farming | Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district | 5(40) cents | Technology option 1:- (Farmers Practice-) Hybrid Napier – Co3 | TNAU | On going | | | | | |
|  |  |  |  |  | Technology option 2 :- Cultivation of Hybrid Napier – Co4 | TNAU |
|  |  |  |  |  | Technology option 3 :- Cultivation of Hybrid Napier – Co5 | TNAU |

4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

**1)**

1. Title of Technology Assessed: **Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, *Conogethes punctiferalis***

2. Performance of the Technology on specific indicators: *Bacillus thuringiensis var Kurstaki* was also found to be effective when combination with *Beauveria bassiana.*

3. Specific Feedback from farmers: *Bacillus thuringiensis var Kurstaki* sprays in combination with the releases of parasites Apanteles sp and Friona sp gave effective control of stem and capsule borer.

4. Specific Feedback from Extension personnel and other stakeholders: *Bacillus thuringiensis var Kurstaki*  was effective against in egg and first instar of larvae. Apanteles sp and Friona sp was effective against 3rd & 4th instar larvae and *Beauveria bassiana* was effective controller of adult.

5. Feedback to Research System based on results and feedback received: Apply of different bio-pesticides and parasites against cardamom stem and capsule borer can reduce the pesticide application.

**2)**

1. Title of Technology Assessed: **Biological control of cowpea anthracnose disease, *Colletotrichum destructivum***

2. Performance of the Technology on specific indicators: The treatment in order of merit was with *Hanseniaspora uvarum* (Y73) with 14.25 per cent DI and 72.78 per cent disease control over untreated check*. Pichia guilliermondii* (Y12) showed 18.62 % DI with 59.81% disease control.

3. Specific Feedback from farmers: *Hanseniaspora uvarum* showing least percentage of anthracnose disease.

4. Specific Feedback from Extension personnel and other stakeholders: HU should be produce locally so that farmers can use regularly their field.

5. Feedback to Research System based on results and feedback received: Treatment with respect of yield was *Hanseniaspora uvarum* (Y73) (95.00 q/ha).

**3)**

1. Title of Technology Assessed: **Assessment of different biological control agents for the management of sucking pests in cowpea**

2. Performance of the Technology on specific indicators: Spraying of *Lecanicillium saksenae* was effective controlled of sucking pests.

3.Specific Feedback from farmers: Nil.

4.Specific Feedback from Extension personnel and other stakeholders: Nil.

5. Feedback to Research System based on results and feedback received:Nil.

**4)**

1. Title of Technology Assessed: **Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits**

2. Performance of the Technology on specific indicators: The leaf extract of *Glycyrrhiza glabra* (licorice) is a highly potent alternative control agent against cucumber downy mildew, which is caused by the Oomycete *Pseudoperonospora cubensis.*

3. Specific Feedback from farmers: Effective disease controller.

4. Specific Feedback from Extension personnel and other stakeholders: Nil.

5. Feedback to Research System based on results and feedback received: Protective licorice extract application results in stable high efficacies even under semi-commercial conditions.

**5)**

1. Title of Technology Assessed: **Assessment of high yielding yard long bean varieties for Idukki district**

2. Performance of the Technology on specific indicators: High yield of 23.5 t/ha in comparison with 16.6 t/ha of local.

3. Specific Feedback from farmers: High yield, easily harvestable, good consumer preference.

4. Specific Feedback from Extension personnel and other stakeholders: Highly recommended for high ranges, but needs to be harvested at the correct time and at 3 days interval or it gets over matured.

5. Feedback to Research System based on results and feedback received: Promising variety with good cooking qualities.

**6)**

1. Title of Technology Assessed: **Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up**

2. Performance of the Technology on specific indicators:

a. No of days for attaining first flowering - Earliness in female flower initiation in TO3

b. Girth of the plant - No significant difference

c. Ht of the plant - No significant difference

d. Yield (kg/ha) - Gross yield is increased in TO3

3. Specific Feedback from farmers: Earliness in female flower initiation in TO3.

4. Specific Feedback from Extension personnel and other stakeholders: Better crop stand in TO3 and Gross yield.

5. Feedback to Research System based on results and feedback received: Earliness in female flower initiation in TO3, Better crop stand in TO3 and Gross yield.

**7)**

1. Title of Technology Assessed: **Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges**

2. Performance of the Technology on specific indicators:

a. Average weight of tuber- increased in TO-4

b. Yield (kg/ha) increased in TO-4

3. Specific Feedback from farmers: Swarna was found resistant to cassava mosaic virus disease.

4. Specific Feedback from Extension personnel and other stakeholders: Swarna was found resistant to cassava mosaic virus disease.

5. Feedback to Research System based on results and feedback received: Swarna was found resistant to cassava mosaic virus disease.

**8)**

1. Title of Technology Assessed: **Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district**

2. Performance of the Technology on specific indicators: Very good Effect.

3. Specific Feedback from farmers: Nil.

4. Specific Feedback from Extension personnel and other stakeholders: Nil.

5. Feedback to Research System based on results and feedback received: Nil.

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

4.D.2. Details of Technologies refined:

1. Title of Technology Refined

2. Performance of the Technology on specific indicators

3. Specific Feedback from farmers

4. Specific Feedback from Extension personnel and other stakeholders

5. Feedback to Research System based on results/feedback received

**PART V - FRONTLINE DEMONSTRATIONS**

**5.A. Summary of FLDs implemented**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl.  No. | Category | Farming  Situation | Season | Crop | Variety/ breed | Hybrid | Thematic area | Technology Demonstrated | Area (ha) | | Farmers (No.) | | Farmers (No.) | |
| Proposed | Actual | SC/ ST | Others | Small/ Marginal | Others |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Oilseeds |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Pulses |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Cereals |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Millets |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vegetables | Irrigated | Kharif | Cabbage | NS-160 | - | Bio-intensive management | Ecological engineering methods for the management of  pests of vegetables | 5 | 5 | 15 | 0 | 10 | 0 |
|  |  | Irrigated | Kharif | Brinjal | Swetha | - | Disease Management | Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal) | 0.6 | 0.6 | 0 | 3 | 3 | 0 |
|  | Flowers |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fruit | Irrigated | Kharif | Banana | Nendran | - | IDM | Integrated Disease Management of Panama wilt of banana in Idukki district | 1 | 1 | 0 | 0 | 5 | 0 |
|  |  | Commercial | Annual | Banana | Nendran | - | Integrated Nutrient Management | Demonstration of Ayar in Banana | 0.025 | 0.025 | 0 | 10 | 10 | 0 |
|  | Spices and condiments | Rainfed | Annual | Small cardamom | Njallani | - | ICM | Integrated Crop Management and Popularization of Pink Pigmented Facultative Methylotrophs (PPFMs) for Small cardamom from heat and drought conditions | 1 | M | L | L | Perennial | 0 |
|  |  | Commercial | Perennial | Cardamom | Njallani | - | INM | Integrated Nutrient Management in Cardamom | 1.0 | 1.0 |  | 10 | 10 | 0 |
|  | Commercial |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fodder |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Plantation |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fibre |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Dairy |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Mixed Farming | Throughout the year | Dairy Cattle | Jersey and HF | Cross bred | Feed and Fodder | Incorporation of Azolla feed for improving milk production in dairy cattle | 1 cents | 1 cents | 0 | 10 | 10 | 0 |
|  |  | Mixed Farming | Throughout the year | Dairy Cattle | Jersey and HF | Cross bred | Nutrition Management | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows | 20 | 20 | 0 | 20 | 20 | 0 |
|  | Poultry |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Rabbitry |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Piggery |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sheep and goat |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Duckery | Mixed Farming | Throughout the year | Poultry | Vigova Duck | Hybrid breed | Evaluation of breeds | Popularisation of Dual purpose Vigova Super M duck in Idukki district | 10(10 bird / farmer) | 10(10 bird/farmer | 0 | 10 | 10 | - |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Common carps |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Mussels |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental fishes |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Oyster mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Commercial | Annual | Oyster Mushroom | Florida |  | Alternate Media | Oyster mushroom production using banana pseudostem waste and value addition | 5 | 5 | 0 | 5 | 5 | 0 |
|  | Button mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vermicompost |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sericulture |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Apiculture |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Implements |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Others (Vegetables) | Homestead | Annual | Big Onion | Arka Kalyan | - | Varietal introduction | Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions | 5 | 5 | 0 | 5 | 0 | 0 |
|  | Others (Tuber crops) | Commercial | Annual | Amorphophallus | Gajendra | - | Varietal introduction | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | 0.04 | 0.04 | 0 | 10 | 10 | 0 |
| Commercial | Annual | Tapioca | Sree Pavitra | - | Varietal introduction | Demonstration of potassium efficient variety of Tapioca -Sree Pavitra | 0.04 | 0.04 | 0 | 10 | 10 | 0 |
|  | Others (Vegetables) | Homestead | Throughout the year | vegetables | - | - | Kitchen waste management | Low cost bio-compost bin for kitchen waste management | 2 units | 2 units | 0 | 2 | 0 | 0 |
|  | Others (specify) |  |  |  |  |  |  |  |  |  |  |  |  |  |

**5.A. 1. Soil fertility status of FLDs plots, if analysed**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Millets |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vegetables | Irrigated | Kharif | Cabbage | NS-160 | - | Bio-intensive management | Ecological engineering methods for the management of pests of vegetables | Kharif -2017 | M | M | L | Carrot |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Flowers |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fruit |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Irrigated | Kharif | Banana | Nendran | - | IDM | Integrated Disease Management of Panama wilt of banana in Idukki district | Rainfed | M | M | M | Tapioca |
|  |  | Commercial | Annual | Banana | Nendran |  | Integrated Nutrient Management | Demonstration of Ayar in Banana | Rainfed | M | H | M | **-** |
|  | Spices and condiments |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Commercial | Perennial | Cardamom | Njallani |  | INM | Integrated Nutrient Management in Cardamom | Year round | M | H | H | **-** |
|  | Commercial |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fodder |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Plantation |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Fibre |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Tuber crops | Commercial | Annual | Amorphophallus | Gajendra |  | Varietal introduction | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | Rainfed | M | H | H | - |
|  | Tuber crops | Commercial | Annual | Tapioca | Sree Pavitra |  | Varietal introduction | Demonstration of potassium efficient variety of Tapioca -Sree Pavitra | Summer | M | H | H | - |

**5.B. Results of FLDs**

**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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Millets |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vegetables | Ecological engineering methods for the management of  pests of vegetables | NS-160 | - | Irrigated | 5 | 5ha | 3.5 | 3.2 | 3.5 | 2.2 | 59 | 11000 | 175000 | 65000 | 1.59 | 147000 | 162000 | 15000 | 1.10 |
|  | Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions | Arka Kalyan |  | Irrigated | 5 | 0.5 | Crop not yet harvested | | | | | | | | | | | | |
|  | Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal) | Swetha |  | Irrigated | 3 | 0.6 | Crop not over | | | | | | | | | | | | |
| Flowers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ornamental |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fruit |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Integrated Disease Management of Panama wilt of banana in Idukki district | Nendran | - | Irrigated | 5 | 3ha | 9.25 | 8.65 | 8.5 | 7.0 | 31.0 | 161000 | 210000 | 49000 | 1.30 | 201000 | 22000 | 19000 | 1.09 |
|  | Demonstration of Ayar in Banana | - | - | Rainfed | 10 | 0.025 | 300 | 292 | 296 | 185 | 40 | 151000 | 302095 | 151095 | 2.0 | 144050 | 168300 | 24250 | 1.17 |
| Spices and condiments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Integrated Crop Management and Popularization of Pink Pigmented Facultative Methylotrophs (PPFMs) for Small cardamom from heat and drought conditions | Njallani | - | Rainfed | 5 | 3ha | 8.5 | 8.0 | 7.25 | 5.7 | 49 | 352000 | 755000 | 403000 | 2.14 | 382000 | 672000 | 290000 | 1.75 |
|  | Integrated Nutrient Management in Cardamom | Njallani |  | Perennial | 10 | 1 | 9.8 | 10.0 | 9.9 | 8.0 | 25.0 | 250000 | 653600 | 403600 | 2.6 | 218000 | 414200 | 196200 | 1.90 |
| Commercial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fibre crops like cotton |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Medicinal and aromatic |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fodder |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plantation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fibre |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Others (Tuber crops) | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | Gajendra | - | Commercial | 10 | 0.04 | 400 | 350 | 375 | -300 | 22.0 | 100000 | 220000 | 120000 | 2.2 | 99000 | 150000 | 51000 | 1.5 |
| Others (Tuber crops) | Demonstration of potassium efficient variety of Tapioca -Sree Pavitra | Sree Pavitra | - | Commercial | 10 | 0.04 | 250 | 300 | 275 | 200 | 27 | 220000 | 500000 | 280000 | 2.3 | 210000 | 400000 | 190000 | 1.9 |
| Others (Vegetables) | Low cost bio-compost bin for kitchen waste management | Local | - | Homestead | 2 units | 2 units | 0 | 0 | 0 | 0 | 0 | 10950 | 18000 | 7050 | 1.64 | 0 | 0 | 0 | 0 |
| 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

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** |
|  |  |  |
|  |  |  |
|  |  |  |
|  | |  |

5.B.2. Livestock and related enterprises

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of livestock | Name of the technology demonstrated | Breed | No. of Demo | No.  of Units | Yield (kg/animal) | | | | % 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows | Jersey and HF | 20 | 20 | 18 | 13 | 15 | 14 | 7.14 | 13610 | 30420 | 16810 | 2.24 | 14600 | 23940 | 8230 | 1.63 |
|  | Incorporation of Azolla feed for improving milk production in dairy cattle | Jersey and HF | 10 | 10 | 23 | 19 | 20 | 18 | 11.11 | 400 | 788 | 388 | 1.99 | 219 | 357 | 138 | 1.63 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poultry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rabbitry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pigerry |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sheep and goat |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Duckery | Popularization of Dual purpose Vigova Super M duck in Idukki district | Vigova Duck breed | 10 | 10 (10 bird / farmer) | On Going | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Check if any** |
|  |  |  |
|  |  |  |
|  |  |  |
|  | |  |

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 | | | | % 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 | Oyster mushroom production using banana pseudostem waste and value addition | Florida | 5 | 5 | 0.75 | 0.55 | 0.65 | 0.98 | -33% | 63 | 162.5 | 99.5 | 2.57 | 98 | 245 | 110 | 2.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Button mushroom |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vermicompost |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sericulture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Apiculture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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

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.)**

|  |  |  |
| --- | --- | --- |
| **Data on other parameters in relation to technology demonstrated** | | |
| **Parameter with unit** | **Demo** | **Local** |
|  |  |  |
|  |  |  |
|  |  |  |

5.B.5. Farm implements and machinery: NIL

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Activity** | **No. of activities organised** | **Number of participants** | **Remarks** |
| 1 | Field days | 8 | 158 | - |
| 2 | Farmers Training | 14 | 203 | - |
| 3 | Media coverage | 1 | 60 | - |
| 4 | Training for extension functionaries | 4 | 88 | - |
| 5 | Others (FAS) | 18 | 18 | - |
| 6 | Others (Please specify) |  |  |  |

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS**

**Demonstration details 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 |  |  |  |  |  |  |  |  |  |  |
| Micro Irrigation/Irrigation |  |  |  |  |  |  |  |  |  |  |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management |  |  |  |  |  |  |  |  |  |  |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management |  |  |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |  |  |  |  |
| 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 (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 |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| 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 | 55 | 20 | 75 | 10 | 12 | 22 | 65 | 32 | 97 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 1 | 45 | 25 | 70 | 0 | 0 | 0 | 45 | 25 | 70 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils |  |  |  |  |  |  |  |  |  |  |
| Micro nutrient deficiency in crops | 1 | 35 | 10 | 45 | 0 | 0 | 0 | 35 | 10 | 45 |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers |  |  |  |  |  |  |  |  |  |  |
| Soil and water testing |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 1 | 7 | 10 | 17 | 0 | 0 | 0 | 7 | 10 | 17 |
| Poultry Management | 1 | 8 | 13 | 21 | 0 | 0 | 0 | 8 | 13 | 21 |
| Piggery Management |  |  |  |  |  |  |  |  |  |  |
| Rabbit Management |  |  |  |  |  |  |  |  |  |  |
| Animal Nutrition Management | 1 | 4 | 14 | 18 | 0 | 0 | 0 | 4 | 14 | 18 |
| Animal Disease Management | 1 | 6 | 10 | 16 | 0 | 0 | 0 | 6 | 10 | 16 |
| Feed and Fodder technology | 1 | 7 | 10 | 17 | 0 | 0 | 0 | 7 | 10 | 17 |
| 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 | 2 | 15 | 22 | 37 | 0 | 0 | 0 | 15 | 22 | 37 |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition | 2 | 49 | 31 | 80 | 36 | 4 | 40 | 85 | 35 | 120 |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts | 2 | 0 | 21 | 21 | 0 | 18 | 18 | 0 | 39 | 39 |
| 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 | 3 | 90 | 40 | 130 | 20 | 18 | 32 | 110 | 58 | 168 |
| Integrated Disease Management | 2 | 24 | 16 | 40 | 0 | 0 | 0 | 24 | 16 | 40 |
| Bio-control of pests and diseases | 1 | 19 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 19 |
| Production of bio control agents and bio pesticides | 2 | 45 | 0 | 12 | 0 | 0 | 0 | 57 | 0 | 57 |
| 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 | 3 | 82 | 24 | 106 | 0 | 0 | 0 | 82 | 24 | 106 |
| Bio-pesticides production | 2 | 89 | 21 | 102 | 0 | 0 | 0 | 89 | 21 | 102 |
| 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 |  |  |  |  |  |  |  |  |  |  |
| Apiculture | 3 | 45 | 10 | 65 | 0 | 0 | 0 | 45 | 10 | 65 |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **CapacityBuilding 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** | **33** | **625** | **297** | **872** | **66** | **52** | **112** | **703** | **349** | **1054** |

**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 |  |  |  |  |  |  |  |  |  |  |
| Micro Irrigation/Irrigation |  |  |  |  |  |  |  |  |  |  |
| Seed production |  |  |  |  |  |  |  |  |  |  |
| Nursery management |  |  |  |  |  |  |  |  |  |  |
| Integrated Crop Management | 4 | 0 | 0 | 0 | 99 | 6 | 105 | 99 | 6 | 105 |
| Soil and Water Conservation |  |  |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management |  |  |  |  |  |  |  |  |  |  |
| Production of organic inputs |  |  |  |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |  |  |  |  |
| 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 (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 |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **f) Spices** |  |  |  |  |  |  |  |  |  |  |
| Production and Management technology |  |  |  |  |  |  |  |  |  |  |
| Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| 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 | 1 | 20 | 9 | 29 | 0 | 0 | 0 | 20 | 9 | 29 |
| Integrated water management |  |  |  |  |  |  |  |  |  |  |
| Integrated nutrient management | 1 | 30 | 20 | 50 | 0 | 0 | 0 | 30 | 20 | 50 |
| Production and use of organic inputs |  |  |  |  |  |  |  |  |  |  |
| Management of Problematic soils |  |  |  |  |  |  |  |  |  |  |
| Micro nutrient deficiency in crops |  |  |  |  |  |  |  |  |  |  |
| Nutrient use efficiency |  |  |  |  |  |  |  |  |  |  |
| Balanced use of fertilizers | 2 | 35 | 20 | 55 | 0 | 0 | 0 | 35 | 20 | 55 |
| Soil and water testing |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 2 | 92 | 30 | 122 | 0 | 0 | 0 | 92 | 30 | 122 |
| Poultry Management | 3 | 152 | 90 | 242 | 0 | 0 | 0 | 152 | 90 | 242 |
| Piggery Management |  |  |  |  |  |  |  |  |  |  |
| Rabbit Management |  |  |  |  |  |  |  |  |  |  |
| Animal Nutrition Management | 3 | 132 | 80 | 212 | 0 | 0 | 0 | 132 | 80 | 212 |
| Animal Disease Management | 3 | 122 | 110 | 232 | 0 | 0 | 0 | 122 | 110 | 232 |
| Feed and Fodder technology | 2 | 72 | 50 | 122 | 0 | 0 | 0 | 72 | 50 | 122 |
| 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 | 6 | 27 | 123 | 150 | 7 | 7 | 14 | 34 | 130 | 164 |
| Gender mainstreaming through SHGs | 3 | 6 | 64 | 70 | 2 | 1 | 3 | 8 | 65 | 73 |
| Storage loss minimization techniques |  |  |  |  |  |  |  |  |  |  |
| Value addition | 7 | 71 | 126 | 197 | 1 | 6 | 7 | 72 | 132 | 204 |
| Women empowerment |  |  |  |  |  |  |  |  |  |  |
| Location specific drudgery production |  |  |  |  |  |  |  |  |  |  |
| Rural Crafts | 3 | 0 | 28 | 28 | 0 | 16 | 16 | 0 | 44 | 44 |
| 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 | 18 | 504 | 194 | 698 | 89 | 20 | 109 | 593 | 214 | 807 |
| Integrated Disease Management | 12 | 245 | 62 | 307 | 71 | 18 | 89 | 316 | 80 | 396 |
| Bio-control of pests and diseases | 7 | 129 | 112 | 241 | 69 | 16 | 85 | 198 | 197 | 395 |
| Production of bio control agents and bio pesticides | 12 | 223 | 143 | 366 | 93 | 11 | 104 | 316 | 247 | 563 |
| 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 | 2 | 62 | 10 | 0 | 0 | 0 | 0 | 62 | 10 | 72 |
| Bio-agents production | 4 | 79 | 25 | 104 | 45 | 41 | 86 | 124 | 66 | 190 |
| Bio-pesticides production | 8 | 93 | 18 | 111 | 54 | 18 | 72 | 147 | 36 | 183 |
| Bio-fertilizer production |  |  |  |  |  |  |  |  |  |  |
| Vermi-compost production | 4 | 106 | 22 | 128 | 25 | 31 | 56 | 131 | 53 | 184 |
| Organic manures production |  |  |  |  |  |  |  |  |  |  |
| Production of fry and fingerlings |  |  |  |  |  |  |  |  |  |  |
| Production of Bee-colonies and wax sheets | 2 | 0 | 0 | 0 | 112 | 79 | 191 | 112 | 79 | 191 |
| Small tools and implements |  |  |  |  |  |  |  |  |  |  |
| Production of livestock feed and fodder |  |  |  |  |  |  |  |  |  |  |
| Production of Fish feed |  |  |  |  |  |  |  |  |  |  |
| Mushroom production |  |  |  |  |  |  |  |  |  |  |
| Apiculture |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **CapacityBuilding 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** | **109** | **2200** | **1336** | **3464** | **667** | **270** | **937** | **2867** | **1768** | **4635** |

**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 |  |  | |  | |  |  |  |  |  |  |  |
| Training and pruning of orchards |  |  | |  | |  |  |  |  |  |  |  |
| Protected cultivation of vegetable crops |  |  | |  | |  |  |  |  |  |  |  |
| Commercial fruit production |  |  | |  | |  |  |  |  |  |  |  |
| Integrated farming |  |  | |  | |  |  |  |  |  |  |  |
| Seed production |  |  | |  | |  |  |  |  |  |  |  |
| Production of organic inputs |  |  | |  | |  |  |  |  |  |  |  |
| Planting material production |  |  | |  | |  |  |  |  |  |  |  |
| Vermi-culture |  |  | |  | |  |  |  |  |  |  |  |
| Mushroom Production | 2 | 26 | | 6 | | 32 | 0 | 0 | 0 | 26 | 6 | 32 |
| Bee-keeping |  |  | |  | |  |  |  |  |  |  |  |
| Sericulture |  |  | |  | |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  | |  | |  |  |  |  |  |  |  |
| Value addition |  |  | |  | |  |  |  |  |  |  |  |
| Small scale processing |  |  | |  | |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  | |  | |  |  |  |  |  |  |  |
| Tailoring and Stitching |  |  | |  | |  |  |  |  |  |  |  |
| Rural Crafts | 3 | 21 | | 25 | | 46 | 0 | 26 | 26 | 21 | 72 | 93 |
| Production of quality animal products |  |  | |  | |  |  |  |  |  |  |  |
| Dairying | 2 | 53 | | 44 | | 97 | 0 | 0 | 0 | 53 | 44 | 97 |
| 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** | **7** | **100** | | **75** | | **175** | **0** | **26** | **26** | **100** | **122** | **222** |

**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 |  |  | |  | |  |  |  |  |  |  |  |
| Commercial fruit production |  |  | |  | |  |  |  |  |  |  |  |
| Integrated farming |  |  | |  | |  |  |  |  |  |  |  |
| Seed production |  |  | |  | |  |  |  |  |  |  |  |
| Production of organic inputs |  |  | |  | |  |  |  |  |  |  |  |
| Planting material production |  |  | |  | |  |  |  |  |  |  |  |
| Vermi-culture |  |  | |  | |  |  |  |  |  |  |  |
| Mushroom Production |  |  | |  | |  |  |  |  |  |  |  |
| Bee-keeping |  |  | |  | |  |  |  |  |  |  |  |
| Sericulture |  |  | |  | |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements |  |  | |  | |  |  |  |  |  |  |  |
| Value addition |  |  | |  | |  |  |  |  |  |  |  |
| Small scale processing |  |  | |  | |  |  |  |  |  |  |  |
| Post Harvest Technology |  |  | |  | |  |  |  |  |  |  |  |
| Tailoring and Stitching |  |  | |  | |  |  |  |  |  |  |  |
| Rural Crafts | 4 | 0 | | 48 | | 48 | 0 | 34 | 34 | 0 | 82 | 82 |
| Production of quality animal products |  |  | |  | |  |  |  |  |  |  |  |
| Dairying | 1 | 11 | | 5 | | 16 | 0 | 0 | 0 | 11 | 5 | 16 |
| 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** | **5** | **11** | | **53** | | **64** | **0** | **34** | **34** | **11** | **87** | **98** |

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | |
| **General** | | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Productivity enhancement in field crops |  |  | |  | |  |  |  |  |  |  |  |
| Integrated Pest Management | 2 | 25 | | 17 | | 42 | 0 | 0 | 0 | 25 | 17 | 42 |
| Integrated Nutrient management | 2 | 25 | | 15 | | 40 | 0 | 0 | 0 | 25 | 15 | 40 |
| Rejuvenation of old orchards |  |  | |  | |  |  |  |  |  |  |  |
| Protected cultivation technology |  |  | |  | |  |  |  |  |  |  |  |
| Production and use of organic inputs |  |  | |  | |  |  |  |  |  |  |  |
| 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 | 1 | 30 | | 25 | | 55 | 0 | 0 | 0 | 30 | 25 | 55 |
| Any other (pl.specify) |  |  | |  | |  |  |  |  |  |  |  |
| **Total** | **5** | **80** | | **57** | | **137** | **0** | **0** | **0** | **80** | **57** | **137** |

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | |
| **General** | | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Productivity enhancement in field crops |  |  | |  | |  |  |  |  |  |  |  |
| Integrated Pest Management |  |  | |  | |  |  |  |  |  |  |  |
| Integrated Nutrient management |  |  | |  | |  |  |  |  |  |  |  |
| Rejuvenation of old orchards |  |  | |  | |  |  |  |  |  |  |  |
| Protected cultivation technology |  |  | |  | |  |  |  |  |  |  |  |
| Production and use of organic inputs |  |  | |  | |  |  |  |  |  |  |  |
| 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** |  |  | |  | |  |  |  |  |  |  |  |

7.G. Sponsored training programmes conducted

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | |
| **General** | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **1** | **Crop production and management** |  |  |  |  |  |  |  |  |  |  |
| 1.a. | Increasing production and productivity of crops |  |  |  |  |  |  |  |  |  |  |
| 1.b. | Commercial production of vegetables |  |  |  |  |  |  |  |  |  |  |
| **2** | **Production and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Fruit Plants |  |  |  |  |  |  |  |  |  |  |
| 2.b. | Ornamental plants |  |  |  |  |  |  |  |  |  |  |
| 2.c. | Spices crops |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Soil health and fertility management** | 10 | 65 | 60 | 125 | 15 | 5 | 20 | 80 | 65 | 145 |
| **4** | **Production of Inputs at site** | 15 | 278 | 120 | 398 | 0 | 0 | 0 | 278 | 120 | 398 |
| **5** | **Methods of protective cultivation** |  |  |  |  |  |  |  |  |  |  |
| **6** | **Others (pl.specify)** |  |  |  |  |  |  |  |  |  |  |
| **7** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 7.a. | Processing and value addition |  |  |  |  |  |  |  |  |  |  |
| 7.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **8** | **Farm machinery** |  |  |  |  |  |  |  |  |  |  |
| 8.a. | Farm machinery, tools and implements |  |  |  |  |  |  |  |  |  |  |
| 8.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **9.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| **10** | **Livestock production and management** |  |  |  |  |  |  |  |  |  |  |
| 10.a. | Animal Nutrition Management | 1 | 33 | 96 | 129 | 0 | 0 | 0 | 33 | 96 | 129 |
| 10.b. | Animal Disease Management | 1 | 14 | 89 | 103 | 0 | 0 | 0 | 14 | 89 | 103 |
| 10.c | Fisheries Nutrition |  |  |  |  |  |  |  |  |  |  |
| 10.d | Fisheries Management |  |  |  |  |  |  |  |  |  |  |
| 10.e. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **11.** | **Home Science** |  |  |  |  |  |  |  |  |  |  |
| 11.a. | Household nutritional security |  |  |  |  |  |  |  |  |  |  |
| 11.b. | Economic empowerment of women |  |  |  |  |  |  |  |  |  |  |
| 11.c. | Drudgery reduction of women |  |  |  |  |  |  |  |  |  |  |
| 11.d. | Others (Value addition) | 21 | 198 | 391 | 589 | 46 | 18 | 64 | 244 | 409 | 653 |
| 11.e | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **12** | **Agricultural Extension** |  |  |  |  |  |  |  |  |  |  |
| 12.a. | CapacityBuilding and Group Dynamics |  |  |  |  |  |  |  |  |  |  |
| 12.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
|  | **Total** | **48** | **588** | **756** | **1344** | **61** | **23** | **84** | **649** | **779** | **1428** |

**Details of sponsoring agencies involved**

1. IMISHREE Milk Producers Company

2. DIC

3. ATMA

4. Coffee Board

5. KADS

6. High-range Producer Federation

7. i-STED

8. Department of Agriculture

9. State Horticulture Mission

**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 |  |  |  |  |  |  |  |  |  |  |
| 1.b. | Commercial fruit production |  |  |  |  |  |  |  |  |  |  |
| 1.c. | Commercial vegetable production |  |  |  |  |  |  |  |  |  |  |
| 1.d. | Integrated crop management |  |  |  |  |  |  |  |  |  |  |
| 1.e. | Organic farming |  |  |  |  |  |  |  |  |  |  |
| 1.f. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **2** | **Post harvest technology and value addition** |  |  |  |  |  |  |  |  |  |  |
| 2.a. | Value addition |  |  |  |  |  |  |  |  |  |  |
| 2.b. | Others (pl.specify) |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Livestock and fisheries** |  |  |  |  |  |  |  |  |  |  |
| 3.a. | Dairy farming | 2 | 28 | 40 | 68 | 0 | 0 | 0 | 28 | 40 | 68 |
| 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 |  |  |  |  |  |  |  |  |  |  |
| 4.b. | Production of bio-agents, bio-pesticides,  bio-fertilizers etc. |  |  |  |  |  |  |  |  |  |  |
| 4.c. | Repair and maintenance of farm machinery  and implements |  |  |  |  |  |  |  |  |  |  |
| 4.d. | Rural Crafts | 10 | 0 | 156 | 156 | 0 | 98 | 98 | 0 | 254 | 254 |
| 4.e. | Seed production |  |  |  |  |  |  |  |  |  |  |
| 4.f. | Sericulture |  |  |  |  |  |  |  |  |  |  |
| 4.g. | Mushroom cultivation |  |  |  |  |  |  |  |  |  |  |
| 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** | **12** | **28** | **196** | **224** | **0** | **98** | **98** | **28** | **294** | **322** |

**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 | 7 | 126 | 44 | 170 | 12 | 4 | 16 | 0 | 0 | 0 |
| Kisan Mela | 2 | 75 | 19 | 94 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kisan Ghosthi | 1 | 156 | 0 | 156 | 0 | 0 | 0 | 6 | 8 | 14 |
| Exhibition | 6 | 4578 | 6067 | 10645 | 589 | 1615 | 2214 | 655 | 802 | 1457 |
| Film Show | 9 | 93 | 65 | 158 | 0 | 0 | 0 | 0 | 0 | 0 |
| Method Demonstrations | 13 | 182 | 29 | 211 | 0 | 0 | 0 | 28 | 19 | 47 |
| Farmers Seminar | 6 | 189 | 87 | 276 | 0 | 0 | 0 | 0 | 3 | 4 |
| Workshop | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 39 | 106 |
| Group meetings | 17 | 111 | 10 | 121 | 0 | 0 | 0 | 245 | 398 | 643 |
| Lectures delivered as resource persons | 19 | 645 | 235 | 880 | 0 | 0 | 0 | 0 | 0 | 0 |
| Newspaper coverage | 27 | 225 | 115 | 340 | 0 | 0 | 0 | 35 | 10 | 45 |
| Radio talks | 11 | 387 | 273 | 660 | 114 | 29 | 1434 | 44 | 85 | 129 |
| TV talks | 14 | 137 | 94 | 231 | 58 | 62 | 120 | 15 | 5 | 20 |
| Popular articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Extension Literature | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Advisory Services | 754 | 656 | 84 | 195 | 6 | 8 | 14 | 12 | 19 | 31 |
| Scientific visit to farmers field | 228 | 233 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| Farmers visit to KVK | 440 | 851 | 270 | 1121 | 0 | 0 | 0 | 145 | 49 | 194 |
| Diagnostic visits | 70 | 98 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Exposure visits | 6 | 37 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ex-trainees Sammelan | 6 | 20 | 166 | 186 | 0 | 65 | 65 | 0 | 225 | 225 |
| Soil health Camp | 6 | 55 | 50 | 1050 | 0 | 0 | 0 | 20 | 10 | 30 |
| Animal Health Camp | 2 | 50 | 41 | 91 | 0 | 0 | 0 | 0 | 0 | 0 |
| Agri mobile clinic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soil test campaigns | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Farm Science Club Conveners meet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Self Help Group Conveners meetings | 37 | 0 | 480 | 480 | 0 | 50 | 500 | 0 | 980 | 980 |
| Mahila Mandals Conveners meetings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Celebration of important days (World Honey Bee Day) | 1 | 43 | 21 | 64 | 0 | 0 | 0 | 0 | 0 | 0 |
| Celebration of important days (World Soil Day) | 1 | 77 | 30 | 107 | 0 | 0 | 0 | 4 | 3 | 7 |
| Celebration of important days (National Milk Day) | 1 | 30 | 6 | 36 | 0 | 0 | 0 | 0 | 0 | 0 |
| Celebration of important days (International Women’s Day) | 1 | 7 | 18 | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| Celebration of important days (World Food Day) | 1 | 30 | 4 | 34 | 0 | 1 | 1 | 0 | 0 | 0 |
| Celebration of important days (Mahila Kisan Divas) | 1 | 4 | 26 | 30 | 0 | 0 | 0 | 0 | 3 | 3 |
| Any Other (Specify) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **1249** | **8244** | **7964** | **16308** | **779** | **1834** | **4364** | **1131** | **2609** | **3741** |

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

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

# 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 |  |  |  |  |  |  |
| Medicinal and Aromatic |  |  |  |  |  |  |
| Plantation |  |  |  |  |  |  |
| Spices | Black pepper | Karimunda | 0 | 850 | 8500 | 45 |
|  | Black pepper | Panniyur - 1 | 0 | 485 | 4850 | 16 |
|  | Black pepper | Panniyur - 5 | 0 | 710 | 7100 | 21 |
| Tuber |  |  |  |  |  |  |
| Fodder crop saplings |  |  |  |  |  |  |
| Forest Species |  |  |  |  |  |  |
| Others(specify) |  |  |  |  |  |  |
| **Total** | | | **0** | **2045** | **20450** | **82** |

**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 |  |  |  |  |
| Bio-pesticide | Trichoderma | 2075 | 249000.00 | 621 |
| Bio-fungicide | Pseudomonas | 2140 | 256800.00 | 704 |
| Bio Agents | Beauveria | 325 | 39000.00 | 156 |
| Others (specify) | Lecanicillium | 282 | 33840.00 | 63 |
|  | Metarhizium | 170 | 20400.00 | 34 |
|  | Yellow sticky trap . | 1000 | 45000.00 | 250 |
|  | Blue sticky trap | 5000 | 150000.00 | 412 |
|  | Neem oil | 35 | 12250.00 | 6 |
|  | IIHR-Neem Soap | 200 | 50000.00 | 72 |
|  | IIHR-Pongamia Soap | 5 | 2500.00 | 2 |
|  | EPN | 150 | 90000.00 | 7 |
|  | Pheromone trap | 350 | 52500.00 | 74 |
|  | VAM | 900 | 90000.00 | 410 |
| **Total** | | **12632** | **1091290.00** | **2811** |

# 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 | BV 380 | 60 | 18000.00 | 19 |
| Duals (broiler and layer) |  |  |  |  |
| Japanese Quail |  |  |  |  |
| Turkey |  |  |  |  |
| Emu |  |  |  |  |
| Ducks |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Piggery** |  |  |  |  |
| Piglet |  |  |  |  |
| Others (Pl.specify) |  |  |  |  |
| **Fisheries** |  |  |  |  |
| Fingerlings |  |  |  |  |
| Others (Pl. specify) |  |  |  |  |
| **Total** |  | **60** | **18000.00** | **19** |

**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 |  |  |  |
| News letters | News Letter Vol-5 | Chairperson | 1000 |
| Technical bulletins |  |  | 0 |
| Popular articles |  |  | 0 |
| Extension literature |  |  | 0 |
| Others (Pl. specify) |  |  | 0 |
| **TOTAL** |  |  | **1000** |

**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).**

This will be considered only with suitable photos for further reporting/reference.

**1. Title of the success stories :** Skill development enterprise for Tribal Rural youth

**Details of success stories** :

***1.Background***

A group of 68 tribal school drop-outs is an example how rural youth can effectively utilize their talents, which would help to lead towards personality development and to reduce poverty. The objective of this group is to mainstream scheduled tribes girl children who have been pushed out. With this objective, the academic orientation is not sufficient and it was realised that vocational and life –skill based training is essential. Following this, in collaboration with KVK Rural craft section, we are engaged in vocational skill development training as well as supportive education for the children in adivasi colonies. To livelihood and starvation issues in these colonies are severe. Hence, the plan is to train tribal girl children and start a production unit for fabric designing and Jewellery making.

***2.Intervention process***

* To assess their educational needs and to provide essential training.
* To enhance their life-skills by extending life-skill education.
* Skill development vocational training .
* Motivation to start an enterprise.
* Technical guidance for starting the unit.
* Details about availability of raw materials.
* Advisory services.
* Follow-up visit.
* Technical back up in running the unit as when required.

***3.Intervention Technology***

* To create an environment where women can seek knowledge and information and there by empower them to play positive role in their own development and development of society.
* To enhance the self-image and self-confidence of women and thereby enabling them to recognize their contribution to the economy as producers and workers, reinforcing their need for participating in educational programmes.
* To provide women and adolescent girls with the necessary support structures and an informal learning environment to create opportunities for education.

***4.Impact Horizontal Spread***

This enterprise aimed at empowering 100 rural youth in tribal areas of Idukki district by providing skill development training to make them self-sufficiency and self-reliant. This enterprise will enable women deprived, poverty sticken, working as domestic servants, single parent and widows are being given opportunity to undergo free training and in turn they earn and live on their own. The entire family will be benefited, will support the beneficiary to establish small scale units.

***5.Impact Economic Gains***

They earn an average Income per month of Rs.10000/-

***6.Impact on Employment Generation***

This programme will empower women for their families well being and for their sustainable living , every batch of women / youth-girls will in turn benefit by this programme and will take this as their profession and train other women community and develop their standard of living. Self-employment is the main source of income. So they are engaged more in self-employed manufacturing and trade activities compared to others.

**2. Title of the success stories :** Women Entrepreneurship - A Success

**Details of success stories** :

***1.Background***

Mrs. Lovely Babu, Kollarackal, Rajakumary panchayat in Idukki district. She was raised in a below middle class family. She always dreamt of reaching the sky, but all her talents and dreams were buried due to the responsibilities of her family since she was the elder child. She always had the desire to make varieties of artificial flowers and handicrafts. In her childhood days she used to collect dry leaves and flowers from the forest nearby and used to make different varieties of bouquet arrangements but no one realized her talents and abilities. Even after her marriage, she had been struggling for twenty years to bring up her children and to look after her in laws. But all these problems were silly as compared to her great dream. She always kept in touch with her interest and dreams. Six months ago fortunately, she got a chance to attend the vocational training conducted under KVK Rural craft discipline. She was inspired by the motivations she received from Mrs. Rachel Skaria, Programme Assistant of Rural craft discipline, KVK. Her support brought great changes in Mrs. Lovely’s hidden talents. Both of them combined their ideas and brought a change in their creations and marketing trends. They visited various forests, hills, valleys and farms in the neighbouring states of Kerala, Tamil Nadu and Karnataka to collect raw-materials like varieties of dried grasses, areca sheets, palm leaves, corn husk, different types of cereals etc. They met owners of farms and seek their permission to pick up agricultural wastes; they visited bread factories to collect discarded bread to make different varieties of flowers. Now Mrs. Lovely is an example how a woman can effectively utilize their talents and leisure time for income generation. She has taken bulk orders from fancy stores, local markets and she has participated in flower shows and exhibitions, now she started online marketing. She has employed two ladies to work along with her. The main finishing work is done by her and the rest of the work is done by the women working with her. She purchases the raw materials in bulk at a cheaper rate and the work place is her-own house. Therefore, the profit she gains is comparatively higher.

***2.Intervention process***

* 6 months vocational training.
* Motivation to start an enterprise.
* Technical guidance for starting the unit.
* Details about availability of raw materials given.
* Advisory services.
* Follow-up visits.
* Technical back up in running the unit as when required.

***3.Intervention Technology***

To provide skill development vocational training to make her self-sufficient and self-reliant.

***4.Impact Horizontal Spread***

This enterprise will provide skill development for the women dwellers in identified area, families will be benefited directly and creating a ray of hope for better source of livelihood, and live a sustainable life with self- sufficiency and self-reliance.

***5.Impact Economic Gains***

She earns an average profit of Rs. 25000 / month

***6.Impact on Employment Generation***

Motivated from the above mentioned Mrs. Lovely’s successful enterprise, 12 rural women formed a self help group named Arts Vigyan SHG under Rural Craft discipline KVK; they started designing, jewelry making and production of home care products on a commercial basis. In addition to this unit, they are planning to start a small fancy store with loan availing from nearby Co-operative bank for self-sufficiency and self employment. Also they generate employment opportunities for others.

**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** |
|  |  |  |  |

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

**10.G. Field activities**

i. Number of villages adopted: 10

ii. No. of farm families selected: 42

iii. No. of survey/PRA conducted: 3

**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 | 2342 | 1515 | 42 | 117100.00 |
| Water Samples | 0 | 0 | 0 | 0 |
| Plant samples | 0 | 0 | 0 | 0 |
| Manure samples | 0 | 0 | 0 | 0 |
| Others (specify) | 0 | 0 | 0 | 0 |
| Total | 2,342 | 1,515 | 42 | 1,17,100.00 |

Details of samples analyzed during the 2017-18:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Details | No. of Samples analyzed | No. of Farmers benefited | No. of Villages | Amount realized (Rs.) |
| Soil Samples | 394 | 334 | 20 | 49304.00 |
| Water Samples | 0 | 0 | 0 | 0 |
| Plant samples | 0 | 0 | 0 | 0 |
| Manure samples | 0 | 0 | 0 | 0 |
| Others (specify) | 0 | 0 | 0 | 0 |
| Total | 394 | 334 | 20 | 49,304.00 |

Details of soil health cards issued during the 2017-18 :

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Date (s) | Farmers participated | No. of Samples analyzed | Soil health cards issued | No. of Villages | Public representatives participated | |
| MLA / Minister | Other Dignitaries/ Chief guests |
| 22/6/2017 | 30 | 37 | 37 | 1 | - | Officers of DoA |
| 10/8/2017 | 20 | 26 | 26 | 1 | - | Panchayat members |
| 04/8/2017 | 30 | 35 | 35 | 1 | - | Officers of DoA |
| 06/10/2017 | 30 | 37 | 35 | 1 | - | Panchayat members |
| 12/10/2017 | 35 | 50 | 50 | 1 | - | Panchayat members |
| 24/10/2017 | 50 | 100 | 50 | 2 | - | Officers of DoA |
| 05/12/2017 | 104 | 109 | 109 | 1 | - | Panchayat members, President |

**10.I. Technology Week celebration during 2017-18: Yes**

Period of observing Technology Week: From 23/01/2018 to 25/01/2018

Total number of farmers visited : 315

Total number of agencies involved : 8

Number of demonstrations visited by the farmers within KVK campus : 202

Other Details

| **Types of Activities** | **No. of**  **Activities** | **Number of**  **Farmers** | **Related crop/livestock technology** |
| --- | --- | --- | --- |
| Gosthies | 1 | 170 | Crop |
| Lectures organized | 0 | 0 | - |
| Exhibition | 6 | 14316 | Crop, Value addtion & Rural craft |
| Film show | 9 | 158 | Crop & Livestock |
| Fair | 0 | 0 | - |
| Farm Visit | 3 | 25 | Crop |
| Diagnostic Practicals | 0 | 0 | - |
| Supply of Literature (No.) | 300 | 300 | Crop & Livestock |
| Supply of Seed (q) | 0 | 0 | - |
| Supply of Planting materials (No.) | 2045 | 82 | Crop |
| Bio Product supply (Kg) | 12632 | 2811 | Crop |
| Bio Fertilizers (q) | 0 | 0 | - |
| Supply of fingerlings | 0 | 0 | - |
| Supply of Livestock specimen (No.) | 60 | 19 | Livestock |
| Total number of farmers visited the technology week | 4 | 315 | Crop & Livestock |

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

A. Introduction of alternate crops/varieties

|  |  |  |  |
| --- | --- | --- | --- |
| **State** | **Crops/cultivars** | **Area (ha)** | **Number of beneficiaries** |
| Kerala | Small Cardamom | 50 | 75 |
| Kerala | Black pepper | 10 | 18 |
|  |  |  |  |
|  |  |  |  |

B. Major area coverage under alternate crops/varieties: NIL.

C. Farmers-scientists interaction on livestock management

|  |  |  |  |
| --- | --- | --- | --- |
| **State** | **Livestock components** | **Number of interactions** | **No. of participants** |
| Kerala | Dairy cattle, Goat and Poultry | 18 | 23 |
|  |  |  |  |
| **Total** |  | **18** | **23** |

D. Animal health camps organized

|  |  |  |  |
| --- | --- | --- | --- |
| **State** | **Number of camps** | **No. of animals** | **No. of farmers** |
| Kerala | 2 | 13 | 91 |
|  |  |  |  |
| **Total** | **2** | **13** | **91** |

E. Seed distribution in drought hit states: NIL.

F. Large scale adoption of resource conservation technologies: NIL.

G. Awareness campaign:

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **State** | **Meetings** | | **Gosthies** | | **Field days** | | **Farmers fair** | | **Exhibition** | | **Film show** | |
|  | **No.** | **No.of farmers** | **No.** | **No.of farmers** | **No.** | **No.of farmers** | **No.** | **No.of farmers** | **No.** | **No.of farmers** | **No.** | **No.of farmers** |
| Kerala | 9 | 267 | 1 | 125 | 4 | 60 | 0 | 0 | 2 | 345 | 5 | 300 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total** | **9** | **267** | **1** | **125** | **4** | **60** | **0** | **0** | **2** | **345** | **5** | **300** |

**PART XI. IMPACT**

**11.A. Impact of KVK activities (Not 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)** |
| GAP in small cardamom | 145 | 45% | 210000.00 | 291000.00 |

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

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

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

**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.)** |
| Low cost VAM Production | March-2018 | SHM | 2,40,000.00 |
| Low cost mass multiplication of Trichoderma | September-2017 | ATMA | 8,00,000.00 |

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

a) Is ATMA implemented in your district Yes/No: Yes

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

**Coordination activities between KVK and ATMA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Particulars** | **No. of programmes attended by KVK staff** | **No. of programmes Organized by KVK** | **Other remarks (if any)** |
| **01** | **Meetings** | Monthly Technology Advisory | 8 | 2 | - |
| **02** | **Research projects** |  |  |  |  |
|  |  |  |  |  |  |
| **03** | **Training programmes** | Organic Farming, Capacity building, Soil health management | 35 | 10 | - |
|  |  |  |  |  |  |
| **04** | **Demonstrations** | Drought management | 4 | 4 | - |
|  |  |  |  |  |  |
| **05** | **Extension Programmes** |  |  |  |  |
|  | Kisan Mela |  |  |  |  |
|  | Technology Week | Conducted at KVK & SVF, Vandiperiyar | 2 | 3 | - |
|  | Exposure visit |  |  |  |  |
|  | Exhibition |  |  |  |  |
|  | Soil health camps | Soil Health Campaign | 5 | 6 | - |
|  | 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: NIL.**

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

**12. GKisan Mobile Advisory Services: NIL.**

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

**13.A. Performance of demonstration units (other than instructional farm): NIL.**

**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 | | | | | | | | | |
|  | - | - | 5ha | Thriuthali | Dry cardamom | 600 kg | 240000.00 | 240000.00 | - |
| Floriculture |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Fruits |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Vegetables |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 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. | Trichoderma | 2075 | 103750.00 | 145250.00 | - |
| 2. | Pseudomonas | 2140 | 107000.00 | 149800.00 | - |
| 3. | Beauveria | 325 | 14100.00 | 22750.00 | - |
| 4. | Lecanicillium | 282 | 13250.00 | 19740.00 | - |
| 5. | Metarhizium | 170 | 8500.00 | 11900.00 | - |
| 6. | Yellow sticky trap | 1000 | 22000.00 | 20000.00 | - |
| 7. | Blue sticky trap | 5000 | 50000.00 | 75000.00 | - |
| 8. | Neem oil | 35 | 12250.00 | 6850.00 | - |
| 9. | IIHR-Neem Soap | 200 | 50000.00 | 28000.0 | - |
| 10. | IIHR-Pongamia Soap | 5 | 2500.00 | 1450.00 | - |
| 11. | EPN | 150 | 10000.00 | 30000.00 | - |
| 12. | Pheromone trap | 350 | 22500.00 | 20000.00 | - |
| 13. | VAM | 900 | 40000.00 | 50000.00 | - |

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

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

Accommodation available (No. of beds)

|  |  |  |  |
| --- | --- | --- | --- |
| **Months** | **No. of trainees stayed** | **Trainee days (days stayed)** | **Reason for short fall (if any)** |
| April 2017 |  |  |  |
| May |  |  |  |
| June |  |  |  |
| July |  |  |  |
| August |  |  |  |
| September |  |  |  |
| October |  |  |  |
| November |  |  |  |
| December |  |  |  |
| January 2018 |  |  |  |
| February |  |  |  |
| March |  |  |  |

**13.F. Database management**

|  |  |  |
| --- | --- | --- |
| **S. No** | **Database target** | **Database created** |
| **1.** | Farmers database | Database for (2017-18) |

**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** |
| Revolving Fund Account | State Bank of India | Rajakumary | 70453 | Bapooji Krishi Vigyan Kendra (Rev Fund) | 67155078042 | 6850002932 | SBIN0070453 |
| Main Grant Account | State Bank of India | Rajakumary | 70453 | Bapooji Sevak Samaj Krishi Vigyan Kendra | 57060836995 | 6850002932 | SBIN0070453 |

**14.B. Utilization of KVK funds during the year 2017-2018 (Rs. in lakh)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **A. Recurring Contingencies** | | | | |
| 1 | **Pay & Allowances** | 91.94 | 91.94 | 91.93600 |
| 2 | **Traveling allowances** | 1.80 | 1.80 | 1.80 |
| 3 | **Contingencies** | | | |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 3.50 | 3.50 | 3.50 |
| *B* | POL, repair of vehicles, tractor and equipments | 1.50 | 1.50 | 1.50 |
| *C* | Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained) | 1.00 | 1.00 | 1.00 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 0.70 | 0.70 | 0.70 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 1.80 | 1.80 | 1.80 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 0.65 | 0.65 | 0.65 |
| *G* | Training of extension functionaries | 0.25 | 0.25 | 0.25 |
| *H* | Maintenance of buildings | 4.00 | 4.00 | 4.00 |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory | 0.25 | 0.25 | 0.25 |
| *J* | Library | 0.05 | 0.05 | 0.05 |
| *K* | Farmers Field School | 0.30 | 0.30 | 0.30 |
| *L* | Extension Activities | 1.10 | 1.10 | 1.10 |
| *M* | EDP | 0.32 | 0.32 | 0.32 |
| **TOTAL (A)** | | **109.16** | **109.16** | **109.156** |
| **B. Non-Recurring Contingencies** | |  |  |  |
| 1 | **Works** | 0.00 | 0.00 | 0.00 |
| 2 | **Equipments including SWTL & Furniture (NFC)** | 0.25 | 0.25 | 0.25 |
| 3 | **Vehicle** (Four wheeler/Two wheeler, please specify) | 0.00 | 0.00 | 0.00 |
| 4 | **Library** (Purchase of assets like books & journals) | 0.00 | 0.00 | 0.00 |
| **TOTAL (B)** | | 0.25 | 0.25 | 0.25 |
| **C. REVOLVING FUND** | | 0.00 | 0.00 | 0.00 |
| **GRAND TOTAL (A+B+C)** | | **109.41** | **109.41** | **109.406** |

**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 2015 to March 2016 | 3.57321 | 10.66089 | 9.95650 | 4.27760 |
| April 2016 to March 2017 | 4.27760 | 17.35988 | 20.69216 | 0.94532 |
| April 2017 to March 2018 | 1.22202 | 19.25146 | 12.10905 | 8.36443 |

**15. Details of HRD activities attended by KVK staff**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Staff** | **Designation** | Title of the training programme | Institute where attended | Dates |
| Sudhakar Soundarjan | SMS-Plant Protection | Mass Multiplication of bio -agents and parasites | ICAR-NBAIR | 08/02/2018 |
| Sudhakar Soundarjan | SMS-Plant Protection | Protected vegetable cultivation | TNAU | 15/05/2017 to 17/05/2017 |

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