**ICAR - KRISHI VIGYAN KENDRA, BENGALURU RURAL DISTRICT**

**ANNUAL REPORT -2017-18**

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

UNIVERSITY OF AGRICULTURAL SCIENCES, BENGALURU

ICAR-KRISHI VIGYAN KENDRA, BENGALURU RURAL DISTRICT

**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 applicable or 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 - GENERAL INFORMATION ABOUT THE KVK

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| KVK Address | Telephone | | E mail | **Web Address** |
| ICAR-Krishi Vigyan Kendra,  Hadonahalli-561205, Thubagere Hobli  Doddaballapura Taluk , Bengaluru Rural District | Office  +919449866928 | Fax  Nil | [kvkbrd@gmail.com](mailto:kvkbrd@gmail.com)  kvk.Bengaluru@icar.gov.in | **http://www.kvkbrd.org** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Address | Telephone | | E mail | **Web Address** |
| Office | Fax |  |  |
| University of Agricultural Sciences, Gandhi Krishi Vigyan Kendra, Bengaluru – 560065 | 080-23330153 | 080-23330277 | vc@uasbangalore.edu.in | www.uasbangalore.edu.in |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
|  | Residence | Mobile | Email |
| Dr. Mallikarjuna Gowda, A.P. | +9900584815 | +919449866928 | mallikarjuna.gowda@gmail.com |

1.4. Year of sanction: 2006

**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. Asstt.)** | **Pay**  **Scale** | **Basic pay** | **Date of joining KVK** | **Permanent**  **/Temporary** | **Category (SC/ST/**  **OBC/**  **Others)** |
| 1 | Head/Senior Scientist | Dr. Mallikarjuna Gowda, A.P. | Senior Scientist and Head | M | Horticulture | Ph.D | 37400-67000 +9000 AGP | 46400 | 01.02.18 | Permanent | OBC |
| 2 | Scientist/SMS | Dr.B.Manjunath | Scientist | M | Plant Pathology | Ph.D | 15600-39100  +6000 AGP | 27570 | 27.09.13 | Permanent | OBC |
| 3 | Scientist/SMS | Dr. Venkate Gowda. J | Scientist | M | Agronomy | Ph.D | 15600-39100  +6000 AGP | 21600 | 30.01.18 | Permanent | OBC |
| 4 | Scientist/SMS | Dr. Veeranagappa, P | Scientist | M | Soil Science & Agricultural Chemistry | Ph.D | 15600-39100  +6000 AGP | 21600 | 05.02.18 | Permanent | OBC |
| 5 | Scientist/SMS | - | - | - | - | - | - | - | - | - | - |
| 6 | Scientist/SMS | - | - | - | - | - | - | - | - | - | - |
| 7 | Scientist/SMS | - | - | - | - | - | - | - | - | - | - |
| 8 | Programme Assistant ( Lab Tech.) | Smt. Manjula, B.V. | Programme Assistant (Lab Tech.) | F | Agril. Marketing & Cooperation | M.Sc (Agri) | 9300-34800 | 15210 | 03.12.13 | Permanent | OBC |
| 9 | Programme Assistant (Computer) \* | Mr. N. Papanna | Programme Assistant (Computer) | M | Computer Science | B.Com | 9300-34800 | 17570 | 19.01.11 | Permanent | OBC |
| 10 | Programme Assistant/ Farm Manager | Mr.N.Jagadish | Farm Manager | M | Sericulture | M.Sc (Seri) | 9300-34800 | 17570 | 20.12.10 | Permanent | SC |
| 11 | Assistant | Smt. M.K.Meenakshi | Assistant | F | Accounts | B.Com | 16000-29600 | 17650 | 03.07.13 | Permanent | OBC |
| 12 | Jr. Stenographer | Mrs.Rukmini, S. | Stenographer | F | Steno | BA | 14550  (Consolidated) | 14550 | 20.01.17 | Contract | General |
| 13 | Driver - 1 | Mr.Nagaraja M | Driver 1 | M | Tractor Driver | S.S.L.C. | 11600-21000 | 19000 | 30.05.11 | Permanent | ST |
| 14 | Driver - 2 | Mr.Venu Gopal H.R. | Driver 2 | M | Jeep Driver | S.S.L.C. | 11600  (Consolidated) | 11600 | 04.01.17 | Contract | OBC |
| 15 | SS-1 | Mr.A.R. Channakeshave Gowda (on deputation) | Supporting staff 1 | M | Attender | PUC | 11600-21000 | 12000 | 27.01.11 | Permanent | OBC |
| 16 | SS-2 | Mr.N.Murali | Supporting staff 2 | M | Asst. Cook cum Caretaker | 7th Standard | 10400-16400 | 12250 | 17.10.08 | Permanent | OBC |

Note: \* On working arrangement to DE office, UAS, Bengaluru**1.6. Total land with KVK (in ha): 21.28 ha**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Item** | **Area (ha)** |
| 1 | Under Buildings | 0.80 |
| 2. | Under Demonstration Units | 0.15 |
| 3. | Under Crops | 12.33 |
| 4. | Orchard/Agro-forestry | 8.00 |
| 5. | Others | --- |

**1.7. Infrastructural Development:**

**A) Buildings**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S.  No. | Name of building | Source of  funding | Stage | | | | | |
| Complete | | | Incomplete | | |
| Completion  Date | Plinth area (Sq.m) | Expenditure (Rs.) | Starting Date | Plinth area  (Sq.m) | Status of construction |
| 1. | Administrative  Building | ICAR | 31-8-08 | 550 | 4900000 | - | - | - |
| 2. | Farmers Hostel | ICAR | 31-8-08 | 300 | 3200000 | - | - | - |
| 3. | Staff Quarters |  |  |  |  | - | - | - |
|  | 1 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
|  | 2 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
|  | 3 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
|  | 4 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
|  | 5 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
|  | 6 | ICAR | 31-01-08 | 66.66 | 635000 | - | - | - |
| 4. | Demonstration Units |  |  |  |  | - | - | - |
|  | 1 Naturally ventilated polyhouse | NHM | 2009 | 240 | 1800000 | - | - | - |
|  | 2 Shade net house | NHM | 2009 | 438 | - | - | - | - |
|  | 3 Fan & Pad Mist chamber | NHM | 2009 | 52 | 257000 | - | - | - |
|  | 4 Vermi compost Unit | NHM | 2009 | 18 | 150000 | - | - | - |
|  | 5 Piggery Unit | ICAR | 2008 | 58 | 248000 | - | - | - |
|  | 6 Drum composter | UAS, (B) | 2013 | - | 35000 | - | - | - |
|  | 7 Dairy Demonstration Unit | RKVY | 2008 | 53 | 180000 | - | - | - |
|  | 8 Millets Processing Unit | INSIMP | 2008 | 32 | 100000 | - | - | - |
|  | 9 Sheep cum Poultry Unit | RKVY | 2014 | 55 | 90000 | - | - | - |
|  | 10 Silage Unit | RKVY | 2015 | 2.25 | 25000 | - | - | - |
|  | 11 Biogas plant | RKVY | 2015 | 2.0 | 45000 | - | - | - |
|  | 12 Apiary Unit | UAS, (B) | 7.11.16 | 9 | 16000 | - | - | - |
|  | 13 Azolla Demonstration Unit | UAS, (B) | 2006 | 18 | 8000 | - | - | - |
|  | 14 Information & Demonstration Centre on Bioenergy | Biofuel Board | 2011 | 72 | 587000 | - | - | - |
| 5 | Fencing | ICAR | 24-09-09 | 2.0 lakh (53.21 acres) | 1116700 | - | - | - |
| 6 | Rain Water harvesting system | - | - | - | - | - | - | - |
| 7 | Threshing floor | - | - | - | - | - | - | - |
| 8 | Farm godown | ICAR | 5-11-2011 | 341 Sq.ft | 300000 | - | - | - |
| 9 | Vehicle & implement shed | ICAR | 5-11-2011 | 608 Sq. ft | 500000 | - | - | - |
| 10 | Approach road formation to KVK farm | ICAR | 24-09-09 | 1000 m | 100000 | - | - | - |
| 11 | Construction of Watchman cum implement shed | ICAR | 30-08-09 | - | 250000 | - | - | - |
| 12 | Compound wall | ICAR | 24-09-09 | - | 922000 | - | - | - |

B) Vehicles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of vehicle** | **Year of purchase** | **Cost (Rs.)** | **Total kms. Run** | **Present status** |
| Four Wheeler (Mahindra Bolero) | 3/31/2017 | 666793 | 17146 | Running |
| Two Wheeler (HONDA ACTIVA) | 5/12/2009 | 45925 | 66731 | Running/ Needs Replacement |
| Two Wheeler (TVS VICTOR) | 4/4/2005 | 38941 | 78824 | Running/ Needs Replacement |
| Two Wheeler (Super Splender) | 5/12/2014 | 50535 | 53170 | Running |
| Four Wheeler (Tractor) | 7/22/2006 | 301369 | 2527.2 | Running/ Needs Replacement |

**C) Equipment & AV aids**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the equipment** | **Year of purchase** | **Cost (Rs.)** | **Present status** |
| Sofa 3 Seater | 7/30/2014 | 12387 | Good Condition |
| Customized Table | 7/30/2014 | 17341 | Good Condition |
| Customized Coffee Table | 7/30/2014 | 3305 | Good Condition |
| Visitor Chairs | 7/30/2014 | 21554 | Good Condition |
| High Back Chair | 7/30/2014 | 6550 | Good Condition |
| UPS System 3 KVA | 7/28/2014 | 49058 | Good Condition |
| HP Laser Jet M 1005 Printer | 6/10/2014 | 12766 | Good Condition |
| Computer with accessories | 3/31/2007 | 75000 | Good Condition |
| Digital camera | 3/31/2007 | 20000 | Good Condition |
| Photocopier | 3/31/2007 | 75000 | Good Condition |
| OHP | 3/31/2007 | 25000 | Good Condition |
| Slide projector | 3/31/2007 | 25000 | Good Condition |
| Mini oven | 3/13/2008 | 6000 | Good Condition |
| Electric water heaters | 1/2/2009 | 20000 | Good Condition |
| LCD projector | 2/13/2009 | 44990 | Good Condition |
| LG 42" LCD Television | 3/22/2010 | 63000 | Good Condition |
| Laptop with carry case | 3/22/2010 | 36500 | Not in use |
| Generator and accessories | 3/20/2010 | 98700 | Good Condition |
| Motorized screen | 2/13/2009 | 25875 | Good Condition |
| Research microscope | 12/8/2009 | 0\* | Good Condition |
| PH meter | 1/22/2009 | 12692 | Good Condition |
| Digital micro pp pets | 1/27/2009 | 37654 | Good Condition |
| LG Refrigerator | 1/27/2009 | 54666 | Good Condition |
| Laminar air flow | 1/28/2009 | 89800 | Good Condition |
| Auto clave | 3/30/2009 | 57375 | Good Condition |
| Desktop computers | 2/13/2009 | 23000 | Not in use |
| Desktop computers | 9/10/2009 | 23000 | Not in use |
| Photo copier | 2/13/2009 | 55120 | Not in use |
| Printer | 2/13/2009 | 15645 | Not in use |
| Computer table | 2/13/2009 | 2779 | Not in use |
| Video camera | 2/13/2009 | 184000 | Not in use |
| Voltage stabilizer | 2/13/2009 | 2760 | Not in use |
| Touch screen kiosk | 2/13/2009 | 124569 | Not in use |
| Weed cutter | 3/18/2009 | 30000 | Good Condition |
| Fax machine | 3/21/2009 | 15590 | Scrapped |
| UPS 3 KVA with 4 batteries | 3/31/2009 | 59600 | Good Condition |
| Falcon premium system | 3/27/2009 | 59600 | Good Condition |
| Public addressing system | 8/27/2009 | 37600 | Good Condition |
| Aspee knapsack sprayer | 9/1/2009 | 1500 | Good Condition |
| Digital camera | 2/25/2010 | 17800 | Good Condition |
| Filing cabinet | 3/12/2010 | 7500 | Good Condition |
| Steel book case | 3/12/2010 | 24000 | Good Condition |
| EPABX | 3/18/2010 | 49800 | Scrapped |
| Aspee gutter rocking sprayer | 2/1/2010 | 4669 | Good Condition |
| Elisa reader | 2/5/2010 | 0\* | Not in use |
| Pulverizer (MS) Box type | 10/25/2010 | 17520 | Good Condition |
| Seed cum fertilizer drill | 8/18/2010 | 27000 | Good Condition |
| Power tiller - VST Shakti 130 DI with rotary unit & tool kit | 12/18/2010 | 16105 | Good Condition |
| Micro processor controller based vis spectrophotometer | 2/23/2011 | 53000 | Good Condition |
| Reciprocatory shaker | 2/23/2011 | 24000 | Good Condition |
| Scientec make water bath | 2/23/2011 | 8500 | Good Condition |
| Digital flame photometer with Na, K filter & compressor | 2/23/2011 | 42000 | Good Condition |
| Fume cup board completely made out of FRP | 2/23/2011 | 62000 | Good Condition |
| Single distillation in quartz along with softnee | 2/23/2011 | 59825 | Good Condition |
| Micro controller PH/MV meter | 2/23/2011 | 19000 | Good Condition |
| Bench top conductivity | 2/23/2011 | 18000 | Good Condition |
| Hot plate castron top | 2/23/2011 | 4500 | Good Condition |
| Auger post hole type | 3/26/2011 | 5300 | Good Condition |
| Auger screw type | 3/26/2011 | 5500 | Good Condition |
| N Analyzer | 6/26/2011 | 398000 | Good Condition |
| Refrigerator kelvinator | 7/6/2011 | 7700 | Good Condition |
| Rotary shaker | 5/15/2012 | 70224 | Good Condition |
| Laptop computer | 6/23/2012 | 45005 | Good Condition |
| Glass double distillation unit | 6/27/2012 | 24772 | Good Condition |
| Videocon refrigerator | 6/27/2012 | 8245 | Good Condition |
| Filing cabinet | 6/28/2012 | 24052 | Good Condition |
| UPS 3 KVA system | 7/28/2014 | 49058 | Good Condition |
| Exide 100 AH Red tubular Batteries | 3/28/2016 | 39743 | Good Condition |
| Laptop | 3/30/2016 | 34288 | Good Condition |
| Laptop | 3/31/2016 | 34288 | Good Condition |
| Colour printer | 3/31/2016 | 3745 | Good Condition |
| Sony Camera | 3/31/2016 | 15031 | Good Condition |
| Electronic Digital Platform weighing Balance | 2/28/2017 | 8500 | Good Condition |
| 35 kg capacity Best Make Electronic Digital weighing scale with built in battery | 2/28/2017 | 3200 | Good Condition |
| 16" Sevana make sealing machine | 2/28/2017 | 3100 | Good Condition |
| 12" Sevana make sealing machine | 2/28/2017 | 2400 | Good Condition |
| Sealing MK FSI045 | 2/28/2017 | 7200 | Good Condition |
| Jack Fruit Cutter Tool | 3/4/2017 | 4279 | Good Condition |
| Tray Drier for Jack(triple wall outer MS with coating) | 3/4/2017 | 98000 | Good Condition |
| Vessel for suitable fix heating & Mixing machine | 3/4/2017 | 37000 | Good Condition |
| De-Huller millet machine 2 HP (100 kg/hr) | 3/4/2017 | 98470 | Good Condition |
| Tray Drier for Nutri-Millet (triple wall outer MS with coating) | 3/7/2017 | 98000 | Good Condition |
| Papad Machine | 3/7/2017 | 22000 | Good Condition |
| Jack fruit chips cutting machine | 3/7/2017 | 8800 | Good Condition |
| Double head Pulvarizer Motor 10 HP 1440rpm | 3/7/2017 | 99000 | Good Condition |
| Jack fruit chips cutting machine | 3/8/2017 | 9988 | Good Condition |
| 12" Sevana make sealing machine | 3/9/2017 | 2400 | Good Condition |
| Mixi Grinder Machine | 3/9/2017 | 25921 | Good Condition |
| Kadai MS | 3/9/2017 | 8000 | Good Condition |
| Heating and Mixing Machine | 3/9/2017 | 47000 | Good Condition |
| Roasting Machine 5 kg Capacity | 3/10/2017 | 49000 | Good Condition |
| Stainless steel 304 Grade fruit cum Paneer Press | 3/10/2017 | 17175 | Good Condition |
| 20 kg cap Seico Make electronic digital weighing scale with battery Model; Chotu | 3/10/2017 | 4008 | Good Condition |
| Stove | 3/12/2017 | 1150 | Good Condition |
| Wooden Stand | 3/16/2017 | 6250 | Good Condition |
| Papad Making Roling Machine with 0.25 HP single Phase motor | 3/24/2017 | 22000 | Good Condition |
| Polisher 3 HP | 3/24/2017 | 97325 | Good Condition |
| 300 kg Axpert make digital Platform weighing scale with built in battery side grill | 3/24/2017 | 8500 | Good Condition |
| Rava DA Bag Closer | 3/24/2017 | 6858 | Good Condition |
| Pressure Cooker | 3/24/2017 | 7950 | Good Condition |
| Refracto meters for Sugar hand held Sugar range | 3/25/2017 | 2850 | Good Condition |
| Refracto meters for Sugar hand held Sugar range 28-62 % | 3/25/2017 | 2900 | Good Condition |
| Refracto meters for Sugar hand held Sugar range 58-90 % | 3/25/2017 | 2980 | Good Condition |
| Pen Type PH meter eutech make | 3/25/2017 | 6500 | Good Condition |
| Sevai making Machine with 2 HP Mptor | 3/25/2017 | 33000 | Good Condition |
| Elenpro freezer model EF205 WDH 31X25X32 | 3/25/2017 | 28750 | Good Condition |
| Exide Battery | 3/31/2016 | 39743 | Good Condition |
| Aqua Monane Swift | 7/21/2016 | 20000 | Good Condition |
| Dual core system intel dual core | 7/9/2016 | 21800 | Good Condition |
| Dell Vastro -3558 Laptop with carry bag | 7/11/2016 | 36375 | Good Condition |
| HPM - 1005 MFP all in one LAzer jet Printer | 7/11/2016 | 14400 | Good Condition |
| Dry Seed Roaster with SS Board | 7/7/2016 | 82818 | Good Condition |
| Chaff cutter Manual Handle operated | 7/15/2016 | 10500 | Good Condition |
| Slagati SM 1 TB Hard disk | 7/17/2016 | 5000 | Good Condition |
| Brush Cutter ( Kissan Kraft) | 7/14/2016 | 14990 | Good Condition |
| Sony Hard Disk | 12/2/2015 | 5000 | Good Condition |
| Canon Digital Camera | 11/8/2016 | 11800 | Good Condition |
| Mridapar kshak soil testing mini lab solar operator | 12/27/2015 | 75000 | Good Condition |
| Executive high back Chairs | 10/25/2016 | 5500 | Good Condition |
| works at on chair | 10/25/2016 | 5284 | Good Condition |
| Visitors chairs | 10/25/2016 | 2000 | Good Condition |
| Visitors chairs | 10/25/2016 | 4368 | Good Condition |
| Computer Chair | 10/28/2016 | 3930 | Good Condition |
| Airport Sofa | 10/28/2016 | 7000 | Good Condition |
| Double table | 10/28/2016 | 6159 | Good Condition |
| Computer table | 10/28/2016 | 3250 | Good Condition |
| UPS and Battery | 2/28/2017 | 28000 | Good Condition |
| Tractor drawn water drum/tanker | 4/24/2017 | 94950 | Good Condition |

\*Transferred from different departments of UAS (B)

**1.8. Details of SAC meeting conducted during 2017-18**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Number of Participants** | **Salient Recommendations** | **Action taken** | **Remarks, if any** |
| 13.12.2017 | 52 | Conduct programmes about cultivation of vegetables and flowers under poly house for doubling farmers income | Planned to take up FLD and capacity building programmes under protected cultivation for doubling farmers income | Nil |
|  |  | Organise capacity building programmes for jack growers about processing and marketing of tender jack as vegetable | Training programmes on processing and marketing of tender jack as vegetable will be arranged to the members of jack CBA’s and FPO’s through ARYA during June 2018. | Nil |
|  |  | Create awareness programmes about food wastage | Discussions about food wastage is being emphasized in every training programme. Campaigns will be arranged in each cluster villages to avoid the food wastage. | Nil |
|  |  | Encourage mushroom growers for marketing their produce through malls. | A survey about demand and consumption pattern of mushroom in Bengaluru Rural district was conducted and marketing linkage was provided to mushroom CBA under ARYA in towns and city. | Nil |
|  |  | Organise relevent training programmes effectively to improve the rate of adoption of farm technologies. | Various capacity building programmes will be taken up both on campus and off campus to create awareness about the adoption of latest and improved farm technologies in collaboration with line departments | Nil |
|  |  | Organize skill based training programmes in agriculture | Two on campus skill based training programmes (6 days duration) for rural youth on integrated pest management and value addition in minor millets are being scheduled during may 2018 | Nil |
|  |  | Information and communication technologies should be used effectively to reach large number of farmers | Mobile based short message services, display of technological information of various crops and enterprises through LED monitor and farmers and line departments whatsapp groups | Nil |
|  |  | Conduct awareness programmes about importance of soil and water analysis before taking up crop for efficient nutrient management | Soil health camps are being conducted in each cluster villages to highlight the importance of soil health and fertility status | Nil |
|  |  | Enhance the number of soil and water samples to be analyzed by KVK utilizing the available budget | Soil testing laboratory will be upgraded through AAS for micro nutrient analysis | Nil |
|  |  | Organize capacity building programmes on Integrated soil and water management | Wide publicity through mass media and campaign mode to farmers about the importance of soil and water testing and capacity building programmes will be organized in collaboration with line departments | Nil |
|  |  | Conduct training programmes and animal health campaigns about Integrated Animal Management practices in collaboration with Dept. of Animal husbandry | Animal health camps are being conducted at adopted village in collaboration with Dept. of Animal husbandry | Nil |

**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 | Field crops - Finger millet, Maize, Redgram, Bengalgram, Fieldbean, Cow pea, Horse gram, Fruit crops -Banana, Mango, Sapota, Grapes, Jack, Plantation crops - Coconut, Arecanut, Vegetables- Tomato, Potato, Cabbage, Cucumber, Cauliflower, Pole bean, French bean, Beetroot, Ridge gourd, Green leafy vegetables, Flower crops- Jasmine, China Aster, Marigold, Rose, Hi-tech floriculture, Sericulture, Fodder crops, Dairy, Fisheries, Piggery, Sheep and Goat farming, Rabbit farming, Poultry farming *etc*. |

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

|  |  |  |
| --- | --- | --- |
| S. No | Agro-climatic Zone | Characteristics |
| 1 | Eastern Dry Zone (Zone-V) | * Altitude : 629 – 950 above MSL  Climate: Semi Arid  * Average Rainfall : 817 mm * Majority of the area is red sandy loam and clay lateritic soils in patches * Low Organic Carbon * Low water holding capacity, More of soil erosion * Alarming reduction in underground water * Silting of tanks   Due to delayed monsoon, crops are sown late |

|  |  |  |
| --- | --- | --- |
| S. No | Agro ecological situation | Characteristics |
| 1 | Agro-eco-sub region IV | Hot, moist, semiarid ecological sub region with length of the growing period from 120 to 150 days |

2.3 Soil type/s

|  |  |  |  |
| --- | --- | --- | --- |
| S. No | Soil type | Characteristics | Area in ha |
| 1. | Deep red clayey soil | Low in nitrogen, medium in phosphorous and low to medium in potassium status with medium water holding capacity | 95386 |
| 2. | Deep, alluvial clayey soils | Low in nitrogen, medium in phosphorous and low to medium in potassium status with medium water holding capacity | 52833 |
| 3. | Deep lateritic clayey soil | Low in nitrogen, medium in phosphorous and low to medium in potassium status with medium water holding capacity | 46686 |
| 4. | Deep lateritic gravelly clay soil | Low in nitrogen, medium in phosphorous and low to medium in potassium status with medium water holding capacity | 14645 |

**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 | Finger millet | 38,884 | 95632 | 2,460 |
| 2 | Maize | 14,867 | 25247 | 1,698 |
| 3 | Redgram | 1416 | 814 | 575 |
| 4 | Horse gram | 1730 | 1135 | 656 |
| 5 | Field bean | 1702 | 1377 | 810 |
| 6 | Cowpea | 660 | 608 | 920 |
| 7 | Bengal gram | 87 | 184 | 2115 |
| 8 | Mango | 7,030 | 66,563 | 9470 |
| 9 | Banana | 1514 | 31157 | 20580 |
| 10 | Grapes | 2083 | 35,620 | 17100 |
| 11 | Sapota | 1015 | 8587 | 8460 |
| 12 | Guava | 701 | 13,695 | 19540 |
| 13 | Jack | 367 | 12,111 | 33000 |
| 14 | Potato | 1,794 | 23,922 | 13330 |
| 15 | Tomato | 1,838 | 58,822 | 32000 |
| 16 | Beans | 655 | 12,120 | 18500 |
| 17 | Cabbage | 441 | 11,887 | 26960 |
| 18 | Cauliflower | 350 | 5,091 | 14550 |
| 19 | Cucumber | 232 | 3,700 | 15950 |
| 20 | Other vegetables | 3511 | 49,692 | 14150 |
| 21 | Ginger & Others | 567 | 3119 | 5500 |
| 22 | Chrysanthemum | 129 | 1,092 | 8470 |
| 23 | Rose | 418 | 2,446 | 5850 |
| 24 | Others | 100 | 900 | 9000 |

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

* ***Source:*** *Bengaluru Rural District at a glance (2015-16), Published by Dept. of Agriculture. Govt. of Karnataka*

**2.5. Weather data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Month | Rainfall (mm) | Temperature 0 C | | Relative Humidity (%) |
|  |  | Maximum | Minimum |  |
| April-2017 | 33 | 37.2 | 22.5 | 52.65 |
| May-2017 | 187 | 35.0 | 22.2 | 62.90 |
| June-2017 | 39 | 31.3 | 21.7 | 72.21 |
| July-2017 | 34 | 31 | 21.3 | 71.20 |
| August-2017 | 161 | 31.3 | 22.4 | 71.99 |
| September-2017 | 268 | 31 | 21.7 | 75.78 |
| October-2017 | 288 | 21.9 | 20.5 | 75.64 |
| November-2017 | 24 | 29.7 | 19.8 | 71.94 |
| December-2017 | 0 | 29.6 | 17.6 | 66.56 |
| January-2018 | 0 | 29.7 | 14.6 | 64.06 |
| February-2018 | 10 | 31.7 | 14.9 | 55.37 |
| March-2018 | 47 | 33.4 | 18.2 | 54.39 |

\* Please provide latest data from authorized sources. Please quote the source, Source: KSNDMC, Bengaluru

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Population** | **Production** | **Productivity** |
| **Cattle** | | | |
| Crossbreed | 110264 | 199666 ltrs | 6.036 ltr/day |
| Indigenous | 50185 | 31948 ltrs | 2.122 ltr/day |
| **Buffalo** | 27351 | 19972 ltrs | 2.434 ltr/day |
| **Sheep** | | | |
| Crossbred | 3931 | 4357 | 15 Kg/animal |
| Indigenous | 137462 | - | - |
| **Goats** | 92900 | 23252 | 14 Kg/animal |
| **Pigs** | 4447 | 1443 | 55 kg/animal |
| Crossbred | 2036 | **-** | **-** |
| Indigenous | 2411 | **-** | **-** |
| **Rabbits** | 166 | **-** | **-** |
| **Poultry** | 8165758 | 1224864 | **-** |
| Hens | - | - | - |
| Desi | - | - | - |
| Improved | **-** | **-** | - |
| Ducks | **-** | **-** | **-** |
| Turkey and others | **-** | **-** | **-** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Area** | **Production** | **Productivity** |
| Fish | 17000 ha | 3744 | 232 tons/ha |
| *Marine* | Not applicable | **-** | **-** |
| *Inland* | Not applicable | **-** | **-** |
| Prawn | Not applicable | **-** | **-** |
| Scampi | Not applicable | - | - |
| Shrimp | Not applicable | **-** | **-** |

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

* *Source: Bangalore Rural District at a glance (2012-13), Published by Dept. of Economics & Statistics, Govt. of Karnataka*
  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 | Devanahalli | Kasaba | Bannimangala, Sunnaghatta, Bachahalli | 1 Year | Finger millet, Ginger, Rose, Pole bean, Fodder crops, dairy farming, Sheep farming | Intermittent drought and blast incidence in finger millet, low yield due to local varieties, soft rot in ginger, non availability of green fodder throughout the year, lower peak milk production, decreased reproductive efficiency after calving, inefficient reproductive management practices, incidence of post parturient milk fever, delayed onset of oestrus in dairy animals | Integrated Crop Management and scientific dairy farming |
| 2 | Doddaballapura | Tubagere | Rameshwara, C hosahalli, Hadripura, M hosahalli | 1 Year | Finger millet, maize, field bean, cabbage, cucumber, minor millets, sheep, dairy animals | Downy mildew and stem borer incidence in maize, intermittent drought and blast incidence in finger millet, pests and diseases in cabbage wilt incidence, higher flower drop and imbalanced nutrition in cucumber, lower peak milk production, decreased reproductive efficiency after calving, inefficient reproductive management practices, incidence of post parturient milk fever, delayed onset of oestrus in dairy animals, lack of knowledge on nutrition | Integrated Crop Management and scientific dairy farming |
| 3 | Hosakote | Kasaba | Sonnallipura, Lakkondahalli, Hasigala, Vapasandra, Thimmasandra | 1 Year | Bengal gram, Finger millet, Mulberry, Vegetables, dairy & sheep | Low yield due to wilt incidence, sterility mosaic disease , imbalanced nutrition in bengalgram, lack of awareness about new varieties in finger millet, low nutrition & yields, poor keeping quality of leaves in mulberry, lower peak milk production, decreased reproductive efficiency after calving, inefficient reproductive management practices, incidence of post parturient milk fever, delayed onset of oestrus in dairy animals | Integrated Crop Management and scientific dairy farming |
| 4 | Nelamangala | Thyamagondalu | Ballagere, Kenchanapura, Tadsighatta, Vadakunte | 1 Year | Finger millet, tomato, cucumber, Bengal gram, Potato, Redgram, dairy Farming | Intermittent drought and blast incidence in finger millet, low yield due to wilt incidence, sterility mosaic disease , imbalanced nutrition in bengalgram, pests and diseases in tomato, potato and cucumber, lack of awareness about new varieties in redgram, nutrition insecurity, malnourishment in children , non availability & high cost of vegetables, lower peak milk production, decreased reproductive efficiency after calving, inefficient reproductive management practices, incidence of post parturient milk fever, delayed onset of oestrus in dairy animals | Integrated Crop Management and scientific dairy farming |

**2.9 Priority thrust areas**

|  |  |
| --- | --- |
| **S. No** | **Thrust area** |
| 1 | Integrated crop management |
| 2 | Introduction of latest suitable varieties |
| 3 | Integrated pest management |
| 4 | Integrated disease management |
| 5 | Integrated Nutrition Management and Soil test based fertilizer application |
| 6 | Promotion of inter cropping and weed control |
| 7 | Promotion of nutritious fodder cultivation for farm animals |
| 8 | Integrated health and nutrition management practices in farm animals |
| 9 | Post Harvest Technology, Processing and Value addition |
| 10 | Nutrition garden |

**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** |
| 04 | 04 | 17 | 17 | 16 | 16 | 272 | 272 |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| 112 | 204 | 2905 | 7195 | 525 | 1162 | 8960 | 18474 |
|  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Seed Production (Q)** | | **Planting materials (Nos.)** | |
| **5** | | **6** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| Finger millet (ML-365) – 40 q | 52.16 q | 20000 | 807 |
| Redgram (BRG-5) – 35 q | 2.00 q |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Livestock, poultry strains and fingerlings (No.)** | | **Bio-products (Kg)** | |
| **7** | | **8** | |
| **Target** | **Achievement** | **Target** | **Achievement** |
| Calves - 04 Nos. | 03 | Vermi compost - 06 tons | 6 tons |
| Piglets (Yorkshire) - 20 Nos. | 40 | Vegetable special – nutrient mixture - 01 ton | 111 kg |
| Poultry - 50 Birds | 15 |  |  |
| Sheep - 5 Nos. | 5 |  |  |

**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** | |
| **1** | Integrated crop management | Bengal gram | Wilt incidence (> 20%), pod borer menace  (> 38%), dry root rot and collar rot (>17%) | - | Integrated crop management in Bengalgram  Var. JAKI 9218  (**NFSM**) | 3 | - | - | 3 | 10 | - | - | - | - |
|  | Integrated crop management | Red gram | Wilt incidence  (30%), sterility mosaic disease (35 %), imbalanced nutrition | - | Demonstration of BRG 5/ BRG 3 to augment wilt and SMD (**NFSM**) | 3 | - | - | 3 | 3 | - | - | 10 | kg |
|  | Integrated crop management | Pole bean | Lack of knowledge about INM, IPM & IDM | **FFS -** Integrated crop management in polebean | **-** | 6 | - | - | 6 | - | - | - | - | - |
| 2 | Introduction of latest suitable varieties | Bengal gram | Low yield due to wilt incidence, moisture stress during crop growth period | Assessment of Bengal gram varieties for wilt and drought conditions | **-** | 2 | - | - | 3 | 1 | - | - | - | - |
|  |  | Ginger | Low yielding local varieties (15-17t/ha fresh rhizome),  soft rot disease causes yield loss to the extent of 25-30%  Non-availability of quality planting material of improved varieties | Assessment of Ginger Varieties for Bengaluru Rural District | - | 2 | - | - | 2 | 2 | - | - | - | - |
|  |  | Finger millet | Intermittent drought and blast incidence | - | Addressing drought and blast vulnerability using Finger millet var. ML 365/ ML 322 | 2 | - | - | 3 | 2.5 | - | - | 10 | kg |
| 3 | Integrated pest management | Cabbage | DBM (>42%) infestation | Assessment on Management of Diamond backmoth in cabbage | - | 2 | - | - | 6 | - | - | - | 10 | kg |
| 4 | Integrated disease management | Tomato | Incidence of ToLCV, Fusarium wilt, Early blight, Late blight, leaf miner (> 38%) | - | Integrated Management of Major Pests and Diseases in Tomato | 2 | - | - | 3 | - | - | - | 50 | kg |
|  |  | Maize | Downy mildew incidence (>38%), stem borer incidence (23%) | - | Management of Downy mildew and Stem Borer in Maize | 2 | - | - | 3 | - | - | - | - | - |
|  |  | Potato | Severity of late blight disease (>40% ) | - | Management of Late Blight in Potato through Integrated approach | 2 | - | - | 3 | - | - | - | 50 | kg |
| 5 | Integrated Nutrition Management and Soil Test Based Fertilizer application | Cucumber | 30-35% yield reduction due to imbalanced nutrition and flower drop  Existing NPKB 154(L):42(M):98(L):0.15(L)  Wilt incidence (25%) | - | Yield and quality enhancement in cucumber for higher returns | 2 | - | - | 3 | - | - | - | 15 | kg |
|  |  | Tomato | Lower yield due to indiscriminate use of Water Soluble Fertilizers and lack of recommended schedule  Existing NPK 143(L):28(M):117(L) | - | Fertigation in tomato for enhanced yields | 2 | - | - | 3 | - | - | - | - | - |
|  |  | Mulberry | Low quality leaf, Imbalanced nutrition  Existing NPKS status – 119(L):35(M):123(L):6.2(L) | - | Nutrient Management in Mulberry | 2 | - | - | 2 | - | - | - | - | - |
| 6 | Promotion of inter cropping and weed control | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7 | Promotion of nutritious fodder availability for farm animals | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 8 | Integrated health and nutrition management practices in farm animals | Dairy animals | Lower peak milk production & persistency of lactation  Decreased reproductive efficiency after calving such as delayed onset of oestrus and oestrus demonstration symptoms  Increased calving accidents such as dystocia, septic metritis and increased incidence of metabolic disorders such as ruminal acidosis, ketosis & milk fever | - | Bypass fat as an energy source during the transition phase in dairy animals | 2 | - | - | 2 | - | - | - | - | - |
|  |  | Dairy animals | Delayed onset of oestrus  Anoestrus  Juvenile genitalia  Smooth ovaries | - | Integrated approach for the Reproductive management of Anoestrus in Heifers | 2 | - | - | 2 | - | - | - | - | - |
|  |  | Dairy animals | Incidence of post parturient milk fever  Lower milk yield  Delayed onset of oestrus | - | Management of Milk Fever (Post Parturient Hypocalcimea) | 2 | - | - | 2 | - | - | - | - | - |
|  |  | Sheep | Lower meat yield due to imbalanced nutrition and incidence of bacterial and viral diseases (FMD, HS, ET, PPR, BT) | - | Integrated nutritional and disease management in sheep | 2 | - | - | 2 | - | - | - | - | - |
| 9 | Post Harvest Technology, Processing and Value addition | Finger millet | Less acceptability of value added products from existing varieties due to brown color | - | Demonstration and Value Addition of Finger millet Variety KMR 340 | 6 | - | - | 6 | - | - | - | - | - |
|  |  | Foxtail millet | Intermittent drought, low yield, less income by selling the grains without processing | - | Demonstration and Value Addition of Foxtail millet Var. DHFT-109-3 | 6 | - | - | 6 | - | - | - | - | - |
| 10 | Nutrition garden | Nutrition garden | Nutrition insecurity  Non availability / High cost of vegetables  Unhygienic methods of handling foods  Non utilization of existing bio-mass  Lack of knowledge on nutrition | - | Nutrition Garden in schools | 4 | - | - | 5 | - | - | - | - | - |
| 11 | Income generating activities | Mushroom | Non availability of paddy straw as substrate | Assessment of local crop waste as substrate for oyster mushroom cultivation | - | 6 | - | - | 4 | - | - | - | - | - |

**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 Bengal gram varieties for wilt and drought conditions | UAS (B), JNKVV & ICRISAT  UAS (R) | Bengal gram | 1 | - | 2 | Field visits, Field day |
| 2 | Assessment of Ginger Varieties for Bengaluru Rural District | IISR | Ginger | 1 | - | 2 | Field visits, Field day |
| 3 | Assessment on Management of Diamond backmoth in cabbage | UAS (B)  IIHR  IIVR | Cabbage | 1 | - | 2 | Method demonstration, Field visits, diagnostic visits, Field day |
| 4 | Assessment of local crop waste as substrate for oyster mushroom cultivation | IIHR | Mushroom | 1 | - | 6 | Method demonstration, Field visits, Field day |
| 5 | Management of Downy mildew and Stem Borer in Maize | UAS (B) | Maize | - | 1 | 2 | Field visits, diagnostic visits, Field day |
| 6 | Addressing drought and blast vulnerability using Finger millet var. ML 365/ ML 322 | UAS(B) | Finger millet | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 7 | Production of finger millet var. KMR 340 & Value Addition | UAS (B) | Finger millet | - | 1 | 6 | Method demonstration, Field visits, Field day |
| 8 | Production and Value Addition of Foxtail millet Var. DHFT-109-3 | UAS (D) | Foxtail millet | - | 1 | 6 | Method demonstration, Field visits, Field day |
| 9 | Demonstration of BRG 5 to augment wilt and SMD (**NFSM**) | UAS(B) | Redgram | - | 1 | 3 | Method demonstration, Field visits, Field day |
| 10 | Integrated crop management in Bengalgram Var. JAKI 9218  (**NFSM**) | UAS (B) | Bengal gram | - | 1 | 2 | Field visits, Field day |
| 11 | Nutrient Management in Mulberry | CSR&TI | Mulberry | - | 1 | 2 | Field visits, Field day |
| 12 | Yield and quality enhancement in cucumber for higher returns | IIHR | Cucumber | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 13 | Fertigation in tomato for higher yield | IIHR | Tomato | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 14 | Integrated Management of Major Pests and Diseases in Tomato | UAS (B) | Tomato | - | 1 | 2 | Method demonstration, Field visits, diagnostic visits, Field day |
| 15 | Management of Late Blight in Potato through Integrated Approach | UAS (B) | Potato | - | 1 | 2 | Method demonstration, Field visits, diagnostic visits, Field day |
| 16 | Bypass fat as an energy source during the transition phase in dairy animals | NDDB & NIANP | Dairy animals | - | 1 | 2 | Field visits, Field day |
| 17 | Integrated approach for the Reproductive management of Anoestrus in Heifers | KVAFSU | Dairy animals | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 18 | Management of Milk Fever (Post Parturient Hypocalcimea) | NDDB & NIANP | Dairy animals | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 19 | Integrated nutritional and disease management in sheep | NDDB & NIANP | Sheep | - | 1 | 2 | Method demonstration, Field visits, Field day |
| 20 | Nutrition Garden in schools | IIHR | Nutrition garden | - | 1 | 6 | Method demonstration, Field visits, Field day |

**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** |
| 9 | 6 | 2 | 0 | 183 | 31 | 51 | 9 |  |  |  |  |  |  |  |  |

**PART IV - On Farm Trial**

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cereals** | **Oilseeds** | **Pulses** | **Commercial Crops** | **Vegetables** | **Fruits** | **Flower** | **Plantation crops** | **Tuber Crops** | **TOTAL** |
| Integrated Nutrient Management | - | - | - | - | - | - | - | - | - | - |
| Varietal Evaluation | - | - | 1 | - | 1 | - | - | - | - | 2 |
| Integrated Pest Management | - | - | - | - | 1 | - | - | - | - | 1 |
| Integrated Crop Management | - | - | - | - | - | - | - | - | - | - |
| Integrated Disease Management | - | - | - | - | - | - | - | - | - | - |
| 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 | - | - | - | 1 | - | - | - | - | - | 1 |
| Total | 1 | - | - | 1 | 2 | - | - | - | - | 4 |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Thematic areas | Cereals | Oilseeds | Pulses | Commercial Crops | Vegetables | Fruits | Flower | Plantation crops | Tuber Crops | TOTAL |
| Integrated Nutrient Management | - | - | - | - | - | - | - | - | - | - |
| Varietal Evaluation | - | - | - | - | - | - | - | - | - | - |
| Integrated Pest Management | - | - | - | - | - | - | - | - | - | - |
| Integrated Crop Management | - | - | - | - | - | - | - | - | - | - |
| Integrated Disease Management | - | - | - | - | - | - | - | - | - | - |
| 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** | - | - | - | - | - | - | - | - | - | - |

**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 | - | - | - | - | - | - |
| Small Scale income generating enterprises | - | - | - | - | - | - |
| **TOTAL** | - | - | - | - | - | - |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cattle** | **Poultry** | **Piggery/Sheep** | **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 | - | - | - | - | - |
| - | - | - | - | - |
| Varietal Evaluation | Bengal gram | Assessment of Bengal gram varieties for wilt and drought conditions | 5 | 5 | 0.4 |
| Ginger | Assessment of Ginger Varieties for Bengaluru Rural District | 3 | 3 | 0.1 |
| Integrated Pest Management | Cabbage | Assessment on Management of Diamond backmoth in cabbage | 5 | 5 | 0.2 |
| - | - | - | - | - |
| Integrated Crop Management | - | - | - | - | - |
| - | - | - | - | - |
| Integrated Disease Management | - | - | - | - | - |
| - | - | - | - | - |
| 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 | Mushroom | Assessment of local crop waste as substrate for oyster mushroom cultivation | 04 | 04 | - |
| **Total** |  |  | **17** | **17** | **-** |

**4.B.2. Technologies Refined 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 | - | - | - | - | - |
| - | - | - | - | - |
| Varietal Evaluation | - | - | - | - | - |
| - | - | - | - | - |
| Integrated Pest Management | - | - | - | - | - |
| - | - | - | - | - |
| Integrated Crop Management | - | - | - | - | - |
| - | - | - | - | - |
| Integrated Disease Management | - | - | - | - | - |
| - | - | - | - | - |
| 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** |  |  |  |  |  |

**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 | - | - | - | - |
| Small scale income generating enterprises | - | - | - | - |
| **Total** | | | - | - |

**4.B.4. Technologies Refined 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 | - | - | - | - |
| Small scale income generating enterprises | - | - | - | - |
| **Total** | - | - | - | - |

**4.C1.** **Results of Technologies Assessed**

**Results of On Farm Trial -1:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 | Wilt incidence (%) | Pod borer incidence (%) | 11 | 12 | 13 |
| Bengal gram | Rainfed | Low yield due to wilt incidence, moisture stress during crop growth period | Assessment of Bengal gram varieties for wilt and drought conditions | 05 | T.O.1 - Annigere-1 (Farmer practice) | Local | 8.25 | Q/ha | 22.0 | 7.88 | 27564 | 2.18 | Nil |
|  |  |  |  |  | T.O.2 - JG-11 | UAS, B | 9.08 | Q/ha | 10.20 | 6.78 | 31818 | 2.36 | Nil |
|  |  |  |  |  | T.O.3 - GBM-2 | UAS, Raichur | 8.6 | Q/ha | 5.56 | 7.02 | 29329 | 2.25 | Nil |
|  |  |  |  |  | T.O.4 – JAKI-9218 | JNKVV & ICRISAT | 10.27 | Q/ha | 0 | 4.22 | 37882 | 2.61 | Nil |

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

**1. Title of Technology Assessed:** Assessment of Bengal gram varieties for wilt and drought conditions

**2. Performance of the Technology on specific indicators:** Yield (Q/ha), Wilt incidence (%), Pod borer incidence (%)

**3. Specific Feedback from farmers**: Low incidence of pest and no incidence of disease results in higher yield

**4. Specific Feedback from Extension personnel and other stakeholders**: Good performance of JAKI 9218 with respect to disease incidence, yield and returns

**5. Feedback to Research System based on results and feedback received**: Recommended variety can be replaced with JAKI 9218 due to its higher yield and returns

**Results of On Farm Trial: 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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 |
| Ginger | Irrigated | Low yield of existing variety, soft rot incidence 25-30% | Assessment of suitable Ginger varieties for Bengaluru Rural District | 03 | T.O.1 (Farmer practice) | Local | 18.11 | t/ha |  | 323497 | 2.75 | Reduced soft rot incidence with good no. of Rhizome per clump helped in increased yield |
|  |  |  |  |  | T.O.2 – Reo-degenerio | IISR | 19.65 | t/ha |  | 434763 | 3.23 |  |
|  |  |  |  |  | T.O.3 - Maran | IISR | 28.13 | t/ha |  | 694484 | 4.37 |  |
|  |  |  |  |  | T.O.4 – IISR-Varadha | IISR | 30.12 | t/ha |  | 748054 | 4.46 |  |

**Observations other than yield**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Technology Assessed** | **Plant height (cm)** | **No. of tillers/clump** | **No. of Rhizome/clump** | **No. of primary fingers** | **No. of secondary fingers** | **Yield/plant (gm)** | **Soft rot incidence (%)** |
|  | **10 a** | **10 b** | **10 c** | **10 d** | **10 e** | **10 f** | **10 d** |
| T.O.1 (Farmer practice) | 65.29 | 15.79 | 18.27 | 5.56 | 13.27 | 764.8 | 28.21 |
| T.O.2 – Reo-degenerio | 67.08 | 17.61 | 21.33 | 6.13 | 14.69 | 832.59 | 15.76 |
| T.O.3 - Maran | 70.84 | 21.27 | 28.77 | 7.59 | 21.38 | 1192 | 11.00 |
| T.O.4 – IISR-Varadha | 73.72 | 24.47 | 31.37 | 8.32 | 23.36 | 1276 | 7.88 |

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

**1. Title of Technology Assessed:** Assessment of suitable Ginger varieties for Bengaluru Rural District

**2. Performance of the Technology on specific indicators:** Plant height (cm), No. of tillers/clump, No. of Rhizome/clump, No. of primary fingers, No. of secondary fingers, Yield/plant (gm), Soft rot incidence (%),Yield (t/ha)

**3. Specific Feedback from farmers**: Reduced soft rot incidence with good growth and development of plant in IISR – Varada helped in getting maximum rhizome yield

**4. Specific Feedback from Extension personnel and other stakeholders**: IISR -Varadha performed well and was suitable for the area because of higher yield and good price

**5. Feedback to Research System based on results and feedback received**: Since area under ginger is increasing, scientific production techniques along with fertigation schedules and location specific technologies to manage soft rot incidence is required.

**Results of On Farm Trial: 3**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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**  **Pest severity (%)** | **Net Return Rs. / unit** | **BC Ratio** | **Remarks if any** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Cabbage | Irrigated | DBM (>42%) infestation | Assessment on Management of Diamond backmoth in cabbage | 05 | T.O.1 Indiscriminate use of pesticides (Farmer practice) | Farmer practice | 38.72 | t/ha | 6.96 | 378886 | 4.04 | Nil |
|  |  |  |  |  | T.O.2 - Intecropping with Mustard (25:2), Spray the crop with Dichlorvos (0.05%) and 5% NSKE | UAS (B) | 32.58 | t/ha | 10.54 | 324690 | 4.28 | Nil |
|  |  |  |  |  | T.O.3 - Intercropping with Mustard (trap crop), Installation of light traps, Spraying of Neem Soap (10g/l), Spraying of Novaluron (0.075%) or Indocarb (0.05%) | IIHR | 36.67 | t/ha | 6.75 | 384912 | 5.19 | Nil |
|  |  |  |  |  | T.O.4 – Intercropping with Mustard (trap crop) (25:2), Installation of WOTA-T traps (DBM traps), Use of Sticky traps, Spray of Bt (1g/l), Neem Soap (5g/l), Entomopathogenic fungi (Beauveria bassiana) (0.2%),Emamectin benzoate 5SG (0.05%), Chlorfenapyr 10SC (0.1%), Spinosad 2.5SC (0.15)% | IIVR | 44.92 | t/ha | 1.05 | 562480 | 6.05 | Nil |

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

**1. Title of Technology Assessed:** Assessment on Management of Diamond backmoth in cabbage

**2. Performance of the Technology on specific indicators:** Pest severity (%), Yield (t/ha)

**3. Specific Feedback from farmers**: Good quality and marketable heads, increase in yield and net returns

**4. Specific Feedback from Extension personnel and other stakeholders**: IPM practices resulted in increased yield and returns

**5. Feedback to Research System based on results and feedback received**: Eco friendly practices helped in getting good quality heads with increased net returns

**Results of On Farm Trial: 4**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| **Biological efficiency (%)** | **Labour (manhours)/**  **100 kg mushroom** | **Production cost (Rs)/**  **100 kg mushroom** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10 a** | **10 b** | **10 c** | **11** | **12** | **13** |
| Mushroom | - | Non availability of paddy straw as substrate | Assessment of local crop waste as substrate for oyster mushroom cultivation | 05 | Paddy straw as substrate using local methods | FP | 121 | gm/one cover | 34.64 | 57 | 7275 | 2725/  100 kg mushroom | 1.37 | Nil |
| **T1 -** Paddy straw as substrate | IIHR | 210 | gm/one cover | 59.93 | 43 | 4775 | 5225/  100 kg mushroom | 2.09 | Nil |
| **T2 -** Maize straw as substrate | TNAU | 250 | gm/one cover | 71.50 | 44 | 4071 | 5929/  100 kg mushroom | 2.46 | Nil |
| **T3 -** Arecanut as substrate | CPCRI | 144 | gm/one cover | 41.07 | 35 | 6230 | 3770/  100 kg mushroom | 1.61 | Nil |
| **T4 -** Coconut leaf stalk and bunch waste as substrate | CPCRI | 110 | gm/one cover | 31.29 | 65 | 7692 | 2308/  100 kg mushroom | 1.30 | Nil |

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

1. Title of Technology Assessed - Assessment of local crop waste as substrate for oyster mushroom cultivation

2. Performance of the Technology on specific indicators - Yield – 250 gm/one cover, Biological efficiency – 71.50%, Suitability of substrate – 64%

3. Specific Feedback from farmers – Locally available maize stalk is useful in oyster mushroom cultivation

4. Specific Feedback from Extension personnel and other stakeholders – Scope to motivate villagers to undertake oyster mushroom cultivation using maize substrate for produce good quality

5. Feedback to Research System based on results and feedback received – Performance of maize as substrate is superior than arecanut and coconut waste. Development of low cost machinery to chop maize stalk and suitability of maize substrate as cattle feed after mushroom production may be studied.

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Crop/ enterprise | Farming situation | Problem definition | Title of OFT | No. of  trials | Technology Refined | 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 |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - |

4.D.2. Details of Technologies refined:

1. Title of Technology Refined: Nil

2. Performance of the Technology on specific indicators: Nil

3. Specific Feedback from farmers: Nil

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

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

**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 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | Pulses | Rainfed | *Kharif* | Redgram | BRG-5 | - | Integrated Crop Management | Wilt resistant variety, Seed treatment with *rhizobium*, Installation of pheramone traps, Pulse magic spray, spray of spinosad (microbial insecticide) | 20 | 20 | 18 | 32 | 48 | 2 |
| 2 |  | Rainfed | *Rabi* | Chickpea | JAKI 9218 | - | Integrated Crop Management | Use of wilt resistant variety JAKI 9218, seed treatment with *rhizobium,* pheramone traps, use of need based PP measures | 20 | 20 | 13 | 37 | 43 | 7 |
| 3 | Cereals | Rainfed | *Kharif* | Maize | CP 818 | - | Integrated Pest and Disease Management | Seed treatment with Metalaxyl+Mancozeb, Application of Carbofuran granules | 2 | 2 | 2 | 8 | 6 | 4 |
| - | - | - | *-* | - | - | - | - | - | - | - | - | - | - | - |
| 4 | Millets | Rainfed | *Kharif* | Finger millet | ML-365 | - | Variety Introduction | Blast resistant variety, seed treatment with *azospirillum* | 10 | 10 | 3 | 22 | 23 | 2 |
| 5 |  | Rainfed | *Kharif* | Finger millet | KMR-340 | - | Processing and Value Addition | White colour ragi var. KMR 340 | 4 | 4 | 0 | 10 | 10 | 0 |
| 6 |  | Rainfed | *Kharif* | Foxtail millet | DHFT-109-3 | - | Processing and Value Addition | Introduction of foxtail millet var. DHFT-109-3 | 4 | 4 | 1 | 9 | 7 | 3 |
| 7 | Vegetables | Irrigated | *Kharif* | Cucumber | - | Kareena | Integrated Nutrient Management | Foliar spraying of boric acid and salicylic acid 50ppm @ 20th & 40th days after planting | 1 | 1 | 2 | 3 | 2 | 3 |
| 8 |  | Irrigated | *Rabi* | Potato | - | Kufri Jyothi | Integrated Disease Management | Enrichment of FYM with biocontrol agents, prophylactic spray, need based plant protection Chemicals | 1 | 1 | 1 | 4 | 2 | 3 |
| 9 |  | Irrigated | *Rabi* | Tomato | - | Arka Rakshak | Integrated Pest and Disease Management | Growing of Triple disease resistant hybrid, Enrichment of FYM with biocontrol agents, Yellow sticky traps, Pheramone traps, pp chemicals | 1 | 1 | 1 | 4 | 3 | 2 |
| 10 |  | Irrigated | *Rabi* | Tomato | - | NS 501 | Integrated Nutrient Management | Fertigation schedule | 1 | 1 | 3 | 2 | 3 | 2 |
| 11 |  | Protected irrigation | *Kharif* | Vegetable crops | IIHR HY varieties | - | Nutrition garden | Establishment of scientific nutrition garden | 0.08 | 0.08 | 0 | 4 | 4 | 0 |
| - | Flowers | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Ornamental | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fruit | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Spices and condiments | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 12 | Commercial | Irrigated | - | Mulberry | V1 | - | Integrated Nutrient Management | Fertigation scheduling and foliar nutrition of micro nutrients | 1 | 1 | 2 | 3 | 4 | 1 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Medicinal and aromatic | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fodder | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Plantation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fibre | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 13 | Dairy | - | - | Cattle | Dairy cow | - | Nutrition Management | Bypass supplement, chelated mineral mixture | 20 | 20 | 18 | 2 | 15 | 5 |
| 14 |  | - | - | Heifers | Heifers | - | Nutrition Management | Albendazole bolus, chelated minerals supplementation and feeding of curry leaves | 40 | 40 | 0 | 40 | 32 | 8 |
| 15 |  | - | - | Cattle | Dairy cow | - | Disease Management | Syrup of calcium, magnesium, borogluconate | 20 | 20 | 6 | 14 | 13 | 7 |
| - | Poultry | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Rabbitry | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Piggery | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 16 | Sheep and goat | - | - | Sheep | Local | - | Nutrition Management | Urea enrichment of crop residues, slow release polymer coated urea supplementation in the concentrates, chaff cutting of forages, mineral mixture supplementation, ration balancing, vaccination and deworming | 40 sheeps | 40 sheeps | 3 | 5 | 7 | 1 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Duckery | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Common carps | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Mussels | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Ornamental fishes | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Oyster mushroom | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Button mushroom | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Vermicompost | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Sericulture | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Apiculture | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Implements | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | 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 | - | - | - | - | - | - | - | - | - | - | - | - |
|  | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1 | Pulses | Rainfed | *Kharif,* 2017 | Redgram | BRG-5 | - | Integrated Crop Management | Wilt resistant variety, Seed treatment with *rhizobium,* Installation of pheramone traps, Pulse magic spray, spray of spinosad (microbial insecticide) | *Kharif,* 2017 | 249.3 (B)  254.9 (A) | 27.2 (B)  31.3 (A) | 138.3 (B)  141.7(A) | Maize |
| 2 |  | Rainfed | *Rabi,* 2017 | Chick pea | JAKI 9218 | - | Integrated Crop Management | Use of wilt resistant variety JAKI 9218, seed treatment with *rhizobium*, pheramone traps, use of need based PP measures | *Rabi,* 2017 | 233.7 (B)  242.7 (A) | 32.7 (B)  37.2 (A) | 143.6 (B)  149.1 (A) | Maize |
| 3 | Cereals | Rainfed | *Kharif,* 2017 | Maize | CP 818 | - | Integrated Pest and Disease Management | Seed treatment with Metalaxyl+Mancozeb, Application of Carbofuran granules | *Kharif,* 2017 | 198.6 (B)  210.1 (A) | 17.8 (B)  25.1 (A) | 117.8 (B)  126.6 (A) | Ragi |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4 | Millets | Rainfed | *Kharif,* 2017 | Finger millet | ML-365 | - | Variety Introduction | Blast resistant variety, seed treatment with *azospirillum* | *Kharif,* 2017 | 195.2 (B)  193.1(A) | 55.2 (B)  60.1(A) | 176.4 (B)  183.1 (A) | Redgram |
| 5 |  | Rainfed | *Kharif,* 2017 | Finger millet | KMR-340 | - | Processing and Value Addition | White colour ragi var. KMR 340 | *Kharif,* 2017 | 213.8 (B)  220.1 (A) | 13.8 (B)  18.1 (A) | 154.2 (B)  163.1 (A) | Redgram |
| 6 |  | Rainfed | *Kharif,* 2017 | Foxtail millet | DHFT-109-3 | - | Processing and Value Addition | Introduction of foxtail millet var. DHFT-109-3 | *Kharif,* 2017 | 154.6 (B)  163.1 (A) | 34.6 (B)  38.0 (A) | 154.2 (B)  161.0 (A) | Maize |
| 7 | Vegetables | Irrigated | *Kharif,* 2017 | Cucumber | - | Kareena | Integrated Nutrient Management | Foliar spraying of boric acid and salicylic acid 50ppm @ 20th & 40th days after planting | *Kharif,* 2017 | 284.41 (B)  268.11 (A) | 53.9 (B)  50.67 (A) | 177.9 (B)  186.11 (A) | Tomato |
| 8 |  | Irrigated | *Rabi,* 2017 | Potato | - | Kufri Jyothi | Integrated Disease Management | Enrichment of FYm with biocontrol agents, prophylactic spray, need based plant protection Chemicals | *Rabi,* 2017 | 263.1 (B)  273.5 (A) | 28.3 (B)  35.1 (A) | 125.5 (B)  131.9 (A) | Ragi |
| 9 |  | Irrigated | *Rabi,* 2017 | Tomato | - | Arka Rakshak | Integrated Pest and Disease Management | Growing of Triple disease resistant hybrid, Enrichment of FYM with biocontrol agents, Yellow sticky traps, Phreamone traps, pp chemicals | *Rabi,* 2017 | 210.1 (B)  223.5 (A) | 30.1 (B)  36.6 (A) | 135.1 (B)  137.5 (A) | Maize |
| 10 |  | Irrigated | *Rabi,* 2017 | Tomato | - | NS 501 | Integrated Nutrient Management | Fertigation schedule | *Rabi*, 2017 | 165.23 (B)  146.54 (A) | 22.67 (B)  18.10 (A) | 124.50 (B)  102.36 (A) | Ragi |
| 11 |  | Protected irrigation | *Kharif,* 2017 | Vegetable crops | IIHR HY varieties | - | Nutrition garden | Establishment of scientific nutrition garden | *Kharif,* 2017 | - | - | - | - |
| - | Flowers | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Ornamental | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fruit | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Spices and condiments | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| 12 | Commercial | Irrigated | - | Mulberry | V1 | - | Integrated Nutrient Management | Fertigation scheduling and foliar nutrition of micro nutrients | *Kharif,* 2017 | 165.23 (B)  146.54 (A) | 22.67 (B)  18.10 (A) | 124.50 (B)  102.36 (A) | Mulberry |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Medicinal and aromatic | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fodder | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Plantation | - | - | - | - | - | - | - | - | - | - | - | - |
| - |  | - | - | - | - | - | - | - | - | - | - | - | - |
| - | Fibre | - | - | - | - | - | - | - | - | - | - | - | - |

Note: (B) – Before, (A) - After

**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 | Demonstration of BRG 5 to augment wilt and SMD (NFSM) | BRG 5 | - | Rainfed | 50 | 20 | 11.5 | 8.7 | 10.49 | 7.43 | 41.14 | 24000 | 54548 | 30548 | 2.27 | 23200 | 38446 | 15246 | 1.66 |
|  | Integrated crop management in Bengalgram  Var. JAKI 9218 (NFSM) | JAKI 9218 | - | Rainfed | 50 | 20 | 10.5 | 9.0 | 9.73 | 7.89 | 23.23 | 23500 | 58602 | 35102 | 2.50 | 22000 | 47249 | 25249 | 2.15 |
| Cereals | Management of downy mildew and stem borer in maize | CP 818 | - | Rainfed | 10 | 2 | 61.37 | 61.14 | 61.30 | 55.60 | 10.25 | 41403 | 101950 | 60546 | 2.46 | 42803 | 91175 | 48372 | 2.13 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Millets | Addressing drought and blast vulnerability through Finger millet variety ML 365 | ML 365 | - | Rainfed | 25 | 10 | 27.50 | 22.00 | 23.82 | 19.39 | 22.84 | 38000 | 70473 | 32473 | 1.85 | 37000 | 58638 | 21638 | 1.58 |
|  | Production of finger millet var. KMR 340 & Value Addition | KMR 340 | - | Rainfed | 10 | 4 | 23.3 | 21.2 | 22.10 | 19.21 | 14.94 | 38000 | 89700 | 51700 | 2.36 | 37000 | 58679 | 21679 | 1.59 |
|  | Production and Value Addition of Foxtail millet Var. DHFT-109-3 | DHFT-109-3 | - | Rainfed | 10 | 4 | 15.2 | 13.5 | 14.40 | 12.04 | 19.52 | 27000 | 50837 | 23837 | 1.88 | 26000 | 42278 | 16278 | 1.63 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Vegetables | Yield and quality enhancement in cucumber for higher returns | Kareena | - | Irrigated | 05 | 1 | 30.00 | 28.75 | 29.35 | 25.60 | 14.64 | 73306 | 293628 | 220322 | 4.00 | 69341 | 217818 | 148477 | 3.14 |
|  | Fertigation in tomato for higher yield | NS 501 | - | Irrigated | 05 | 1 | 72.65 | 69.34 | 70.99 | 63.19 | 12.34 | 130592 | 354960 | 224367 | 2.71 | 134888 | 315960 | 181072 | 2.34 |
|  | Integrated management of major pests and diseases in Tomato | Arka Rakshak | - | Irrigated | 05 | 1 | 62.96 | 62.54 | 62.85 | 55.20 | 13.85 | 184336 | 628540 | 444204 | 3.41 | 197410 | 441568 | 244158 | 2.24 |
|  | Management of Late blight in Potato through integrated approach | Kufri jyothi | - | Irrigated | 05 | 1 | 24.25 | 23.95 | 24.1 | 20.01 | 21.18 | 110500 | 361500 | 251000 | 3.27 | 113854 | 285150 | 171296 | 2.50 |
|  | Nutrition garden in schools | IIHR HY varieties | - | Protected irrigation | 05  Schools | 6.4  gunta | 630/school (5 monhs) | 315 kg/school (5 months) | 461.25 kg/ school  (5 months) | No vegetable production | 100 | 16912 | 24750 | 7837 | 1.46 | 10912 | 10912 | 0 | 1 |
| Flowers | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ornamental | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fruit | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Spices and condiments | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Commercial | Nutrient Management in Mulberry | V1 | - | Irrigated | 5 | 1 | 78.20/dfl | 73.65/dfl | 75.14 per DFL | 63.21  per DFL | 18.87 | 9234 (per 100 dfl) | 26302 (per 100 dfl) | 17068 (per 100 dfl) | 2.85 | 8034 (per 100 dfl) | 18965 (per 100 dfl) | 10931 (per 100 dfl) | 2.36 |
| Fibre crops like cotton | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Medicinal and aromatic | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fodder | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Plantation | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fibre | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 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** | | | |
| **Name of the technology demonstrated** | **Parameter with unit** | **Demo** | **Check** |
| Demonstration of BRG 5 to augment wilt and SMD (NFSM) | (A)Plant height (cm), (B) Wilt incidence (%), (C) SMD incidence (%) (D) Pod borer incidence (%), (E) % Increase over check | (A) 190.98, (B) 1.24, (C) 2.31, (D) 2.13, (E) 41.18 | (A) 176.24, (B) 7.42, (C) 10.57, (D) 8.61, (E) - |
| Integrated crop management in Bengalgram  Var. JAKI 9218 (NFSM) | 1. (A)Plant height (cm), (B) Pods/plant (no.), (C) Wilt incidence (%), (D) Pod borer incidence (%), (E) % Increase over check | (A) 40.48, (B) 25.41, (C) 1.63, (D) 4.10, (E) 23.03 | (A) 38.58, (B) 22.68, (C) 5.75, (D) 10.82, (E) - |
| Management of downy mildew and stem borer in maize | (A) Plant height (cm), (B) Cob weight/plant (gm), (C) DM incidence (%), (D) Stem borer incidence (%), (E) % increase over check | (A) 196.07, (B) 222.97, (C) 5.39, (D) 4.64, (E) 10.6 | (A) 194.12, (B) 218.42, (C) 14.82, (D) 16.43, (E) - |
| Addressing drought and blast vulnerability through Finger millet variety ML 365 | 1. (A) Plant height (cm), (B) Productive tillers (no.), (C)Blast severity (%), (D) % increase over check, (E) Straw yield (t/ha) | (A)126.62, (B) 5.88, (C) 2.41, (D) 22.78, (E) 5.23 | (A)121.99, (B) 4.74, (C) 8.02, (D) -, (E) 4.68 |
| Production of finger millet var. KMR 340 & Value Addition | (A) Plant height (cm), (B) Productive tillers (no.), (C) Straw yield (t/ha), (D) Malt price (Rs/kg), (E) Mixture (Rs/kg), (F) Papad (Rs/kg), (G) Laddu (Rs/kg) | (A) 125.52, (B) 5.80, (C) 5.06, (D) 200, (E) 250, (F) 250, (G) 300 | (A) 116.75, (B) 4.72, (C) 4.83, (D) 160, (E) 220, (F) 200, (G) 250 |
| Production and Value Addition of Foxtail millet Var. DHFT-109-3 | (A) Plant height (cm), (B) Productive tillers (no.), (C) Straw yield (t/ha), (D) Price (Rs./kg), (E) Profit (%) | (A) 127.30, (B) 5.88, (C) 2.57, (D) 80, (E) 36.28 | (A) 120.40, (B) 5.08, (C) 2.06, (D) 30, (E) 27.87 |
| Yield and quality enhancement in cucumber for higher returns | (A)Flower drop (%), (B) No. of fruits/vein, (C) Wt. of fruits (kg), (D) Length of fruits, (E) % increase in yield | (A) 12, (B) 17, (C) 0.37, (D) 24.01, (E) 12.77 | (A) 22, (B) 13, (C) 0.40, (D) 19.15, (E) - |
| Fertigation in tomato for higher yield | (A)Fruit drop (%), (B) No. of branches/plant, (C) Wt. of fruits (kg), (D) No. of fruits/plant (E) % increase in yield | (A) 5.8, (B) 15.42, (C) 51.48, (D) 92.75, (E) 11.0 | (A) 20, (B) 13.61, (C) 40.68, (D) 76.22, (E) - |
| Integrated management of major pests and diseases in Tomato | (A)Early blight incidence (%), (B) Bacterial wilt incidence (%), (C) ToLCV incidence (%), (D) Late blight incidence (%), (E) Leaf minor incidence (%), (F) Fruit borer incidence (%), (G) % increase in yield | (A) 0.00, (B) 0.00, (C) 0.00, (D) 3.30, (E) 2.50, (F) 2.21, (G) 13.85 | (A) 6.62, (B) 3.12, (C) 4.61, (D) 6.83, (E) 7.12, (F) 5.86, (G) - |
| Management of Late blight in Potato through integrated approach | A)Late blight incidence (%), (B) % increase in yield | (A) 7.40, (B) 20.43 | (A) 28.93, (B) - |
| Nutrition garden in schools | 1. (A) Vegetable production (kg/month/school), (B) Amount spent on vegetables (Rs/ month/school), (C) Vegetables available (g./child/day), (D) Vegetable consumption adequacy (%) | (A) 115, (B) 4228, (C) 125, (D) 41.06 | (A) Nil, (B) 2728, (C) 61, (D) 20.12 |
| Nutrient Management in Mulberry | (A)No. of shoots/plant, (B) Shoot length (cm), (C) Leaf yield (kg/plant/cut), (D) % increase in leaf yield | (A) 28, (B) 95, (C) 0.54, (D) 20.37 | (A) 26, (B) 89.18, (C) 0.43, (D) - |

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 | Bypass fat as an energy source during the transition phase in dairy animals | HF/jersey | 20 farmers | 20 Animals | 18.63 | 15.26 | Milk yield  17.12 ltrs/day | Milk yield  14.20  ltrs/day | 20.56 | 28885 | 46319 | 17463 | 1.60 | 28316 | 38373 | 10057 | 1.35 |
|  | Integrated approach for the Reproductive management of Anoestrus in Heifers | HF/jersey | 40 Farmers | 40 Animals | Onset of oestrus  155 days | Onset of oestrus  40 days | Onset of oestrus  83.72 days | Onset of oestrus  110.00 days | No. of AI for conception reduced from 5.82 to 3.50 No’s | 25256 | 47540 | 21283 | 1.81 | 25056 | 32293 | 7236 | 1.31 |
|  | Management of Milk Fever (Post Parturient Hypocalcimea) | HF/jersey | 20 Farmers | 20  animals | Milk yield  17.16 ltrs/day | Milk yield  13.57 ltrs/day | Milk yield  15.62 ltrs/day | Milk yield  13.31  ltrs/day | 17.58 | 27828 | 42176 | 14348 | 1.54 | 27452 | 35932 | 8480 | 1.30 |
| Poultry | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rabbitry | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pigerry | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sheep and goat | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sheep | Integrated nutritional and disease management in sheep | Local | 8 Farmers | 8  Sheep | Body weight  36.48 kg/sheep | Body weight  34.2 kg/sheep | Body weight  35.30 kg/sheep | Body weight  25.27 kg/sheep | Incidence of ecto&endo parasites reduced from 32 to 5% | 4595 | 7768 | 3173 | 1.69 | 3713 | 5571 | 1858 | 1.50 |
| Duckery | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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

\*\* BCR= GROSS RETURN/GROSS COST

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

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Data on other parameters in relation to technology demonstrated** | | |
| **Name of the technology demonstrated** | **Parameter with unit** | **Demo** | **Check if any** |
| Bypass fat as an energy source during the transition phase in dairy animals | (A)Milk fat (%), (B) SNF (%), (C) Conception (%), (D) No. of AI/conception | (A)3.6, (B) 8.6, (C) 90, (D) 2 | (A)3.4, (B) 8.4, (C) 40, (D) 3 |
| Integrated approach for the Reproductive management of Anoestrus in Heifers | (A)Conception % after 6 months, (B) No. of AI/conception | (A) 76, (B) 3.5 | (A) 20, (B) 5.82 |
| Management of Milk Fever (Post Parturient Hypocalcimea) | (A)Milk fat (%), (B) SNF (%), (C) Incidence of Ruminal acidosis (%) | (A) 3.6, (B)8.5, (C) 0 | (A) 3.42, (B) 8.41, (C) 25 |
| Integrated nutritional and disease management in sheep | (A)Incidence of ecto parasites (%), (B) Incidence of endo parasites (%) | (A) 5, (B) 0 | (A) 32, (B) 38.38 |

5.B.3. Fisheries

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Breed** | **Name of the technology demonstrated** | **Breed** | **No. of Demo** | **Units/ Area (m2)** | **Yield (q/ha)** | | | | **% Increase** | **\*Economics of demonstration Rs./unit) or (Rs./m2)** | | | | **\*Economics of check**  **Rs./unit) or (Rs./m2)** | | | |
| **Demo** | | | **Check if any** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| Common carps | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |
| Mussels | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |
| Ornamental fishes | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |
| 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., reduction of percentage diseases, effective use of land etc.)**

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

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 | - | - | - | - | - | - |  | - | - | - | - | - | - | - | - | - | - |
| 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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of the implement** | **Cost of the implement in Rs.** | **Name of the technology demonstrated** | **No. of Demo** | **Area covered under demo**  **in ha** | **Labour requirement in Mandays** | | **% save** | **Savings in labour (Rs./ha)** | **\*Economics of demonstration (Rs./ha)** | | | | **\*Economics of check**  **(Rs./ha)** | | | |
| **Demo** | **Check** | **Gross cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** | **Gross**  **Cost** | **Gross**  **Return** | **Net Return** | **\*\***  **BCR** |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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

\*\* BCR= GROSS RETURN/GROSS COST

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

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

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Activity** | **No. of activities organised** | **Number of participants** | **Remarks** |
| 1 | Field days | 7 | 364 | - |
| 2 | Farmers Training | 44 | 1056 | - |
| 3 | Media coverage | - | - | - |
| 4 | Training for extension functionaries | - | - | - |
| 5 | Others (Please specify) Method Demonstrations | 48 | 912 | - |

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS**

**Demonstration details on crop hybrids**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of Breed | Name of the technology demonstrated | Name of the hybrid | No. of Demo | Area (ha) | Yield (q/ha) | | | | % Increase | \*Economics of demonstration (Rs./ha) | | | | \*Economics of check  (Rs./ha) | | | |
| Demo | | | Check | Gross  Cost | Gross  Return | Net Return | \*\*  BCR | Gross  Cost | Gross  Return | Net Return | \*\*  BCR |
|  |  |  |  |  | H | L | A |  |  |  |  |  |  |  |  |  |  |
| **Cereals** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bajra | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Maize | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Paddy | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sorghum | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Wheat | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Oilseeds** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Castor | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mustard | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Safflower | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sesame | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sunflower | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Groundnut | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Soybean | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Pulses** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Greengram | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Blackgram | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bengalgram | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Redgram | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Vegetable crops** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Bottle gourd | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Capsicum | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cucumber | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tomato | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Brinjal | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Okra | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Onion | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Potato | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Field bean | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Commercial crops** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sugarcane | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Coconut | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Fodder crops | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Maize (Fodder) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Sorghum (Fodder) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

H-High L-Low, A-Average

\*Please ensure that the name of the hybrid is correct pertaining to the crop specified

**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 | 1 | 22 | 1 | 23 | 7 | 1 | 8 | 29 | 2 | 31 |
| Cropping Systems | - | - | - | - | - | - | - | - | - | - |
| Crop Diversification | - | - | - | - | - | - | - | - | - | - |
| Integrated Farming | - | - | - | - | - | - | - | - | - | - |
| Micro Irrigation/Irrigation | - | - | - | - | - | - | - | - | - | - |
| Seed production | 1 | 4 | 11 | 15 | 4 | 7 | 11 | 8 | 18 | 26 |
| Nursery management | - | - | - | - | - | - | - | - | - | - |
| Integrated Crop Management | 1 | 13 | 0 | 13 | 3 | 0 | 3 | 16 | 0 | 16 |
| Soil and Water Conservation | - | - | - | - | - | - | - | - | - | - |
| Integrated Nutrient Management | - | - | - | - | - | - | - | - | - | - |
| Production of organic inputs | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) Protection of Plant Varieties and Farmers Right Act-2001 | 1 | 41 | 41 | 82 | 20 | 22 | 42 | 61 | 63 | 124 |
| **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 | - | - | - | - | - | - | - | - | - | - |
| Integrated water management | - | - | - | - | - | - | - | - | - | - |
| Integrated nutrient management | - | - | - | - | - | - | - | - | - | - |
| Production and use of organic inputs | - | - | - | - | - | - | - | - | - | - |
| Management of Problematic soils | - | - | - | - | - | - | - | - | - | - |
| Micro nutrient deficiency in crops | - | - | - | - | - | - | - | - | - | - |
| Nutrient use efficiency | - | - | - | - | - | - | - | - | - | - |
| Balanced use of fertilizers | - | - | - | - | - | - | - | - | - | - |
| Soil and water testing | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Livestock Production and Management** |  |  |  |  |  |  |  |  |  |  |
| Dairy Management | 1 | 12 | 1 | 13 | 12 | 5 | 17 | 24 | 6 | 30 |
| Poultry Management | - | - | - | - | - | - | - | - | - | - |
| Piggery Management | - | - | - | - | - | - | - | - | - | - |
| Rabbit Management | - | - | - | - | - | - | - | - | - | - |
| Animal Nutrition Management | 5 | 60 | 44 | 104 | 40 | 30 | 70 | 100 | 74 | 174 |
| Animal Disease Management | 2 | 60 | 47 | 107 | 12 | 10 | 22 | 72 | 57 | 129 |
| Feed and Fodder technology |  |  |  |  |  |  |  |  |  |  |
| Production of quality animal products | 1 | 43 | 1 | 44 | 6 | 0 | 6 | 49 | 1 | 50 |
| Others (pl.specify) Sheep rearing | 1 | 43 | 18 | 61 | 22 | 19 | 41 | 65 | 37 | 102 |
| **Home Science/Women empowerment** | - | - | - | - | - | - | - | - | - | - |
| Household food security by kitchen gardening and nutrition gardening | - | - | - | - | - | - | - | - | - | - |
| Design and development of low/minimum cost diet | - | - | - | - | - | - | - | - | - | - |
| Designing and development for high nutrient efficiency diet | - | - | - | - | - | - | - | - | - | - |
| Minimization of nutrient loss in processing | - | - | - | - | - | - | - | - | - | - |
| Processing and cooking | - | - | - | - | - | - | - | - | - | - |
| Gender mainstreaming through SHGs | - | - | - | - | - | - | - | - | - | - |
| Storage loss minimization techniques | - | - | - | - | - | - | - | - | - | - |
| Value addition | 1 | 8 | 14 | 22 | 0 | 0 | 0 | 8 | 14 | 22 |
| Women empowerment | 1 | 21 | 14 | 35 | 3 | 5 | 8 | 24 | 19 | 43 |
| Location specific drudgery production | - | - | - | - | - | - | - | - | - | - |
| Rural Crafts | - | - | - | - | - | - | - | - | - | - |
| Women and child care | 1 | 0 | 39 | 39 | 0 | 11 | 11 | 0 | 50 | 50 |
| Others (pl.specify) Importance of Health & Hygiene | 2 | 0 | 212 | 212 | 0 | 26 | 26 | 0 | 238 | 238 |
| **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 | 1 | 22 | 0 | 22 | 0 | 0 | 0 | 22 | 0 | 22 |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Plant Protection** | - | - | - | - | - | - | - | - | - | - |
| Integrated Pest Management | 2 | 44 | 16 | 60 | 5 | 7 | 10 | 49 | 23 | 74 |
| Integrated Disease Management | 1 | 8 | 3 | 11 | 3 | 1 | 4 | 11 | 4 | 15 |
| Bio-control of pests and diseases | 1 | 36 | 5 | 41 | 8 | 4 | 12 | 44 | 9 | 53 |
| Production of bio control agents and bio pesticides | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Fisheries** | - | - | - | - | - | - | - | - | - | - |
| Integrated fish farming | - | - | - | - | - | - | - | - | - | - |
| Carp breeding and hatchery management | - | - | - | - | - | - | - | - | - | - |
| Carp fry and fingerling rearing | - | - | - | - | - | - | - | - | - | - |
| Composite fish culture | - | - | - | - | - | - | - | - | - | - |
| Hatchery management and culture of freshwater prawn | - | - | - | - | - | - | - | - | - | - |
| Breeding and culture of ornamental fishes | - | - | - | - | - | - | - | - | - | - |
| Portable plastic carp hatchery | - | - | - | - | - | - | - | - | - | - |
| Pen culture of fish and prawn | - | - | - | - | - | - | - | - | - | - |
| Shrimp farming | - | - | - | - | - | - | - | - | - | - |
| Edible oyster farming | - | - | - | - | - | - | - | - | - | - |
| Pearl culture | - | - | - | - | - | - | - | - | - | - |
| Fish processing and value addition | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Production of Inputs at site** | - | - | - | - | - | - | - | - | - | - |
| Seed Production | - | - | - | - | - | - | - | - | - | - |
| Planting material production | - | - | - | - | - | - | - | - | - | - |
| Bio-agents production | - | - | - | - | - | - | - | - | - | - |
| Bio-pesticides production | - | - | - | - | - | - | - | - | - | - |
| Bio-fertilizer production | - | - | - | - | - | - | - | - | - | - |
| Vermi-compost production | - | - | - | - | - | - | - | - | - | - |
| Organic manures production | - | - | - | - | - | - | - | - | - | - |
| Production of fry and fingerlings | - | - | - | - | - | - | - | - | - | - |
| Production of Bee-colonies and wax sheets | - | - | - | - | - | - | - | - | - | - |
| Small tools and implements | - | - | - | - | - | - | - | - | - | - |
| Production of livestock feed and fodder | - | - | - | - | - | - | - | - | - | - |
| Production of Fish feed | - | - | - | - | - | - | - | - | - | - |
| Mushroom production | 3 | 14 | 30 | 44 | 1 | 1 | 2 | 15 | 31 | 46 |
| Apiculture | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Capacity Building and Group Dynamics** | - | - | - | - | - | - | - | - | - | - |
| Leadership development | - | - | - | - | - | - | - | - | - | - |
| Group dynamics | - | - | - | - | - | - | - | - | - | - |
| Formation and Management of SHGs | - | - | - | - | - | - | - | - | - | - |
| Mobilization of social capital | 3 | 14 | 30 | 44 | 0 | 3 | 3 | 14 | 33 | 47 |
| Entrepreneurial development of farmers/youths |  |  |  |  |  |  |  |  |  |  |
| Others (pl.specify) Importance of Sewa divas and Shramadhan | 1 | 15 | 5 | 20 | 2 | 2 | 4 | 17 | 7 | 24 |
| **Agro-forestry** | - | - | - | - | - | - | - | - | - | - |
| Production technologies | - | - | - | - | - | - | - | - | - | - |
| Nursery management | - | - | - | - | - | - | - | - | - | - |
| Integrated Farming Systems | - | - | - | - | - | - | - | - | - | - |
| Others (Pl. specify) | - | - | - | - | - | - | - | - | - | - |
| **TOTAL** | **31** | **480** | **532** | **1012** | **148** | **154** | **302** | **628** | **686** | **1314** |

**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 | 1 | 12 | 7 | 19 | 2 | 1 | 3 | 14 | 8 | 22 |
| Resource Conservation Technologies | 1 | 91 | 33 | 124 | 51 | 25 | 76 | 141 | 58 | 199 |
| Cropping Systems | 1 | 9 | 5 | 14 | 4 | 3 | 7 | 13 | 8 | 21 |
| Crop Diversification | 1 | 90 | 30 | 120 | 0 | 0 | 0 | 90 | 30 | 120 |
| Integrated Farming | 1 | 67 | 39 | 106 | 17 | 17 | 34 | 84 | 56 | 140 |
| Micro Irrigation/Irrigation | - | - | - | - | - | - | - | - | - | - |
| Seed production | - | - | - | - | - | - | - | - | - | - |
| Nursery management | - | - | - | - | - | - | - | - | - | - |
| Integrated Crop Management | 6 | 65 | 20 | 85 | 24 | 30 | 54 | 89 | 50 | 139 |
| Soil and Water Conservation | - | - | - | - | - | - | - | - | - | - |
| Integrated Nutrient Management | 1 | 19 | 2 | 21 | 5 | 0 | 5 | 24 | 2 | 26 |
| Production of organic inputs | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Horticulture** | - | - | - | - | - | - | - | - | - | - |
| **a) Vegetable Crops** | - | - | - | - | - | - | - | - | - | - |
| Production of low value and high volume crop | 1 | 15 | 2 | 17 | 3 | 0 | 3 | 18 | 2 | 20 |
| Off-season vegetables | - | - | - | - | - | - | - | - | - | - |
| Nursery raising | 1 | 17 | 9 | 26 | 14 | 5 | 19 | 31 | 14 | 35 |
| Exotic vegetables | - | - | - | - | - | - | - | - | - | - |
| Export potential vegetables | - | - | - | - | - | - | - | - | - | - |
| Grading and standardization | - | - | - | - | - | - | - | - | - | - |
| Protective cultivation | 1 | 14 | 5 | 19 | 2 | 2 | 4 | 16 | 7 | 23 |
| 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 | 2 | 27 | 13 | 40 | 8 | 3 | 11 | 35 | 16 | 51 |
| Processing and value addition | 1 | 19 | 11 | 30 | 11 | 5 | 16 | 30 | 16 | 46 |
| 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 | 22 | 5 | 27 | 19 | 2 | 21 | 41 | 7 | 48 |
| Integrated water management | - | - | - | - | - | - | - | - | - | - |
| Integrated nutrient management | 2 | 16 | 5 | 21 | 12 | 8 | 20 | 28 | 13 | 41 |
| Production and use of organic inputs | 1 | 19 | 5 | 24 | 4 | 2 | 6 | 23 | 7 | 30 |
| Management of Problematic soils | - | - | - | - | - | - | - | - | - | - |
| Micro nutrient deficiency in crops | 2 | 19 | 19 | 38 | 3 | 4 | 7 | 22 | 23 | 45 |
| Nutrient use efficiency | 1 | 15 | 5 | 20 | 4 | 1 | 5 | 19 | 6 | 25 |
| Balanced use of fertilizers | 1 | 11 | 15 | 26 | 3 | 8 | 11 | 14 | 23 | 37 |
| Soil and water testing | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Livestock Production and Management** | - | - | - | - | - | - | - | - | - | - |
| Dairy Management | 1 | 24 | 3 | 27 | 1 | 0 | 1 | 25 | 3 | 28 |
| Poultry Management | - | - | - | - | - | - | - | - | - | - |
| Piggery Management | - | - | - | - | - | - | - | - | - | - |
| Rabbit Management | - | - | - | - | - | - | - | - | - | - |
| Animal Nutrition Management | 1 | 8 | 10 | 18 | 1 | 4 | 5 | 9 | 14 | 23 |
| Animal Disease Management | 1 | 13 | 3 | 16 | 2 | 2 | 4 | 15 | 5 | 20 |
| Feed and Fodder technology | - | - | - | - | - | - | - | - | - | - |
| Production of quality animal products | - | - | - | - | - | - | - | - | - | - |
| Others (pl.specify) Fertility management | 1 | 7 | 9 | 16 | 2 | 4 | 6 | 9 | 13 | 22 |
| **Home Science/Women empowerment** |  |  |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening | 5 | 45 | 44 | 89 | 17 | 16 | 33 | 62 | 60 | 122 |
| Design and development of low/minimum cost diet | 1 | 16 | 0 | 16 | 5 | 0 | 5 | 21 | 0 | 21 |
| Designing and development for high nutrient efficiency diet | 1 | 1 | 30 | 31 | 0 | 13 | 13 | 1 | 43 | 44 |
| Minimization of nutrient loss in processing | 2 | 31 | 7 | 38 | 4 | 2 | 6 | 35 | 9 | 44 |
| Processing and cooking | 2 | 5 | 10 | 15 | 22 | 33 | 55 | 27 | 43 | 70 |
| Gender mainstreaming through SHGs | 2 | 29 | 27 | 56 | 7 | 17 | 24 | 36 | 44 | 80 |
| Storage loss minimization techniques | 1 | 8 | 6 | 14 | 4 | 3 | 7 | 12 | 9 | 21 |
| Value addition | 3 | 26 | 77 | 103 | 6 | 44 | 50 | 32 | 121 | 153 |
| Women empowerment | 1 | 2 | 14 | 16 | 0 | 13 | 13 | 2 | 27 | 29 |
| Location specific drudgery production | 1 | 0 | 43 | 43 | 0 | 12 | 12 | 0 | 55 | 55 |
| Rural Crafts | - | - | - | - | - | - | - | - | - | - |
| Women and child care | 1 | 21 | 4 | 25 | 3 | 2 | 5 | 24 | 6 | 30 |
| Others (pl.specify) Market linkages for value added Products | 5 | 50 | 28 | 78 | 28 | 26 | 54 | 78 | 54 | 132 |
| Importance of FSSAI License and Marketing Linkages for value added products | 3 | 24 | 24 | 48 | 14 | 13 | 27 | 38 | 37 | 75 |
| Group discussion meeting | 1 | 10 | 2 | 12 | 2 | 0 | 2 | 12 | 2 | 14 |
| **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 | 2 | 31 | 7 | 38 | 10 | 5 | 15 | 41 | 12 | 53 |
| Integrated Disease Management | 4 | 68 | 19 | 87 | 28 | 12 | 40 | 96 | 31 | 127 |
| Bio-control of pests and diseases | 2 | 44 | 10 | 54 | 14 | 10 | 24 | 58 | 20 | 78 |
| Production of bio control agents and bio pesticides | - | - | - | - | - | - | - | - | - | - |
| 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 | 1 | 31 | 4 | 35 | 9 | 6 | 15 | 40 | 10 | 50 |
| Planting material production | - | - | - | - | - | - | - | - | - | - |
| Bio-agents production | - | - | - | - | - | - | - | - | - | - |
| Bio-pesticides production | - | - | - | - | - | - | - | - | - | - |
| Bio-fertilizer production | - | - | - | - | - | - | - | - | - | - |
| Vermi-compost production | 1 | 11 | 4 | 15 | 0 | 0 | 0 | 11 | 4 | 15 |
| 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 | 7 | 28 | 67 | 95 | 0 | 0 | 0 | 28 | 67 | 95 |
| Apiculture | 1 | 8 | 3 | 11 | 7 | 2 | 9 | 15 | 5 | 20 |
| Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **Capacity Building and Group Dynamics** | - | - | - | - | - | - | - | - | - | - |
| Leadership development | 3 | 22 | 25 | 47 | 3 | 2 | 5 | 25 | 27 | 52 |
| Group dynamics | 3 | 38 | 13 | 51 | 4 | 7 | 11 | 42 | 20 | 62 |
| Formation and Management of SHGs | 1 | 4 | 6 | 10 | 2 | 2 | 4 | 6 | 12 | 18 |
| Mobilization of social capital | 1 | 2 | 0 | 2 | 11 | 22 | 33 | 13 | 22 | 35 |
| Entrepreneurial development of farmers/youths | 1 | 4 | 16 | 20 | 0 | 0 | 0 | 4 | 16 | 20 |
| Others (pl.specify) Innovative technologies in doubling farmers income | 1 | 32 | 9 | 41 | 10 | 3 | 13 | 42 | 12 | 54 |
| Cleanliness campaign and Importance of Health and Hygiene | 5 | 180 | 147 | 327 | 46 | 162 | 208 | 226 | 309 | 535 |
| **Agro-forestry** | - | - | - | - | - | - | - | - | - | - |
| Production technologies | - | - | - | - | - | - | - | - | - | - |
| Nursery management | - | - | - | - | - | - | - | - | - | - |
| Integrated Farming Systems | - | - | - | - | - | - | - | - | - | - |
| Others (Pl. specify) | - | - | - | - | - | - | - | - | - | - |
| **TOTAL** | **93** | **1370** | **901** | **2271** | **448** | **553** | **1001** | **1818** | **1454** | **3272** |

**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 | 1 | 7 | | 13 | | 20 | 2 | 2 | 4 | 9 | 15 | 24 |
| Planting material production | - | - | | - | | - | - | - | - | - | - | - |
| Vermi-culture | - | - | | - | | - | - | - | - | - | - | - |
| Mushroom Production | 1 | 10 | | 5 | | 15 | 2 | 1 | 3 | 12 | 6 | 18 |
| Bee-keeping | - | - | | - | | - | - | - | - | - | - | - |
| Sericulture | - | - | | - | | - | - | - | - | - | - | - |
| Repair and maintenance of farm machinery and implements | - | - | | - | | - | - | - | - | - | - | - |
| Value addition | 1 | 4 | | 17 | | 21 | 8 | 4 | 12 | 12 | 21 | 33 |
| Small scale processing | 2 | 28 | | 30 | | 58 | 3 | 5 | 8 | 31 | 35 | 66 |
| Post Harvest Technology |  |  | |  | |  |  |  |  |  |  |  |
| Tailoring and Stitching | 1 | 0 | | 16 | | 16 | 0 | 4 | 4 | 0 | 20 | 20 |
| Rural Crafts | - | - | | - | | - | - | - | - | - | - | - |
| Production of quality animal products | - | - | | - | | - | - | - | - | - | - | - |
| Dairying | - | - | | - | | - | - | - | - | - | - | - |
| 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** | **6** | **49** | | **81** | | **130** | **15** | **16** | **31** | **64** | **97** | **161** |

**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 | 1 | 7 | | 16 | | 23 | 2 | 4 | 6 | 9 | 20 | 29 |
| Training and pruning of orchards | - | - | | - | | - | - | - | - | - | - | - |
| Protected cultivation of vegetable crops | 1 | 16 | | 0 | | 16 | 4 | 0 | 4 | 20 | 0 | 20 |
| Commercial fruit production | 1 | 19 | | 23 | | 42 | 4 | 8 | 12 | 23 | 31 | 54 |
| Integrated farming | 1 | 13 | | 3 | | 16 | 1 | 1 | 2 | 14 | 4 | 18 |
| Seed production | - | - | | - | | - | - | - | - | - | - | - |
| Production of organic inputs | 2 | 34 | | 34 | | 68 | 15 | 8 | 23 | 49 | 42 | 91 |
| Planting material production | 1 | 9 | | 3 | | 12 | 2 | 0 | 2 | 11 | 3 | 14 |
| Vermi-culture | 1 | 12 | | 3 | | 15 | 3 | 3 | 6 | 15 | 6 | 21 |
| Mushroom Production | 3 | 3 | | 45 | | 48 | 0 | 31 | 31 | 3 | 76 | 79 |
| Bee-keeping | - | - | | - | | - | - | - | - | - | - | - |
| Sericulture | - | - | | - | | - | - | - | - | - | - | - |
| Repair and maintenance of farm machinery and implements | - | - | | - | | - | - | - | - | - | - | - |
| Value addition | 1 | 0 | | 12 | | 12 | 0 | 3 | 3 | 0 | 15 | 15 |
| Small scale processing | 2 | 6 | | 17 | | 23 | 2 | 2 | 4 | 8 | 19 | 27 |
| Post Harvest Technology | 1 | 0 | | 16 | | 16 | 0 | 5 | 5 | 0 | 21 | 21 |
| Tailoring and Stitching | - | - | | - | | - | - | - | - | - | - | - |
| Rural Crafts | - | - | | - | | - | - | - | - | - | - | - |
| Production of quality animal products | 1 | 8 | | 9 | | 17 | 2 | 2 | 4 | 10 | 11 | 21 |
| Dairying | 4 | 34 | | 23 | | 57 | 13 | 10 | 23 | 47 | 33 | 80 |
| Sheep and goat rearing | 1 | 20 | | 0 | | 20 | 0 | 0 | 0 | 20 | 0 | 20 |
| 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) Group dynamics | 3 | 19 | | 23 | | 42 | 3 | 2 | 5 | 22 | 25 | 47 |
| Management of CBAs | 3 | 22 | | 28 | | 50 | 2 | 3 | 5 | 24 | 31 | 55 |
| Biofuel production | 3 | 21 | | 28 | | 49 | 10 | 18 | 28 | 31 | 46 | 77 |
| **TOTAL** | **30** | **243** | | **283** | | **526** | **63** | **100** | **163** | **306** | **483** | **789** |

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

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | |
| **General** | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Productivity enhancement in field crops | 1 | 19 | | 21 | 40 | 8 | 12 | 20 | 27 | 33 | 60 |
| Integrated Pest Management | 1 | 21 | | 14 | 35 | 6 | 4 | 10 | 27 | 18 | 45 |
| Integrated Nutrient management | 1 | 17 | | 13 | 30 | 2 | 4 | 6 | 19 | 17 | 46 |
| Rejuvenation of old orchards | - | - | | - | - | - | - | - | - | - | - |
| Protected cultivation technology | 1 | 12 | | 6 | 20 | 4 | 3 | 7 | 16 | 9 | 25 |
| Production and use of organic inputs | - | - | | - | - | - | - | - | - | - | - |
| Care and maintenance of farm machinery and implements | - | - | | - | - | - | - | - | - | - | - |
| Gender mainstreaming through SHGs | 1 | 19 | |  |  |  |  |  |  |  |  |
| 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 | 2 | | 14 | 16 | 1 | 4 | 5 | 3 | 19 | 22 |
| Any other (pl.specify) Scientific Advisory Committee meeting | 1 | 28 | | 24 | 52 | 4 | 4 | 8 | 32 | 28 | 60 |
| **Total** | **7** | **118** | | **92** | **210** | **25** | **31** | **56** | **143** | **123** | **266** |

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Area of training** | **No. of**  **Courses** | **No. of Participants** | | | | | | | | | | |
| **General** | | | | | **SC/ST** | | | **Grand Total** | | |
| **Male** | **Female** | | **Total** | | **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| Productivity enhancement in field crops | 1 | 169 | | 122 | | 291 | 70 | 147 | 217 | 239 | 269 | 508 |
| Integrated Pest Management | 1 | 22 | | 8 | | 30 | 3 | 3 | 6 | 25 | 11 | 36 |
| Integrated Nutrient management | 1 | 15 | | 5 | | 20 | 5 | 2 | 7 | 20 | 7 | 27 |
| Rejuvenation of old orchards |  |  | |  | |  |  |  |  |  |  |  |
| Protected cultivation technology | 1 | 10 | | 1 | | 11 | 5 | 0 | 5 | 15 | 1 | 16 |
| Production and use of organic inputs | 1 | 13 | | 7 | | 20 | 5 | 3 | 8 | 18 | 10 | 28 |
| Care and maintenance of farm machinery and implements | - | - | | - | | - | - | - | - | - | - | - |
| Gender mainstreaming through SHGs | - | - | | - | | - | - | - | - | - | - | - |
| Formation and Management of SHGs | - | - | | - | | - | - | - | - | - | - | - |
| Women and Child care | 1 | 9 | | 7 | | 16 | 5 | 1 | 6 | 14 | 8 | 22 |
| 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 | 1 | 0 | | 0 | | 0 | 5 | 12 | 17 | 5 | 12 | 17 |
| Livestock feed and fodder production |  |  | |  | |  |  |  |  |  |  |  |
| Household food security | 1 | 0 | | 23 | | 23 | 0 | 12 | 12 | 0 | 35 | 35 |
| Any other (pl.specify) Awareness about Diabetes | 1 | 0 | | 35 | | 35 | 0 | 5 | 5 | 0 | 40 | 40 |
| **Total** | **9** | **238** | | **208** | | **446** | **98** | **185** | **283** | **336** | **393** | **729** |

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 | 10 | 5 | 15 | 7 | 3 | 10 | 17 | 8 | 25 |
| 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 | - | - | - | - | - | - | - | - | - | - |
| 4 | Production of Inputs at site | 3 | 28 | 14 | 42 | 18 | 17 | 35 | 46 | 31 | 77 |
| 5 | Methods of protective cultivation | - | - | - | - | - | - | - | - | - | - |
| 6 | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| 7 | Post harvest technology and value addition | - | - | - | - | - | - | - | - | - | - |
| 7.a. | Processing and value addition | 1 | 7 | 13 | 20 | 0 | 0 | 0 | 7 | 13 | 20 |
| 7.b. | Others (pl.specify) Mushroom cultivation | 1 | 0 | 14 | 14 | 0 | 6 | 6 | 0 | 20 | 20 |
| 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 | - | - | - | - | - | - | - | - | - | - |
| 10.b. | Animal Disease Management | - | - | - | - | - | - | - | - | - | - |
| 10.c | Fisheries Nutrition | - | - | - | - | - | - | - | - | - | - |
| 10.d | Fisheries Management | - | - | - | - | - | - | - | - | - | - |
| 10.e. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| 11. | Home Science | - | - | - | - | - | - | - | - | - | - |
| 11.a. | Household nutritional security | 1 | 5 | 9 | 14 | 0 | 0 | 0 | 5 | 9 | 14 |
| 11.b. | Economic empowerment of women | 1 | 0 | 1 | 1 | 3 | 20 | 23 | 3 | 21 | 24 |
| 11.c. | Drudgery reduction of women | - | - | - | - | - | - | - | - | - | - |
| 11.d. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| 12 | Agricultural Extension | - | - | - | - | - | - | - | - | - | - |
| 12.a. | Capacity Building and Group Dynamics | - | - | - | - | - | - | - | - | - | - |
| 12.b. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
|  | **Total** | **8** | **50** | **56** | **106** | **28** | **46** | **74** | **78** | **102** | **180** |

**Details of sponsoring agencies involved**

1.ATMA, Dept. Agriculture, Karnataka

2. Dept. of Food Science and Nutrition, UAS, GKVK, Bengaluru

3. Directorate of plant protection and quarantine (CIPMC)

**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 | 4 | 31 | 20 | 51 | 16 | 12 | 28 | 47 | 32 | 79 |
| 1.d. | Integrated crop management | 1 | 17 | 1 | 28 | 12 | 0 | 12 | 29 | 1 | 30 |
| 1.e. | Organic farming | 1 | 13 | 4 | 27 | 9 | 1 | 10 | 22 | 5 | 27 |
| 1.f. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **2** | **Post harvest technology and value addition** | - | - | - | - | - | - | - | - | - | - |
| 2.a. | Value addition | 8 | 26 | 83 | 109 | 12 | 36 | 48 | 38 | 119 | 157 |
| 2.b. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
| **3.** | **Livestock and fisheries** | - | - | - | - | - | - | - | - | - | - |
| 3.a. | Dairy farming | - | - | - | - | - | - | - | - | - | - |
| 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 | - | - | - | - | - | - | - | - | - | - |
| 4.e. | Seed production | - | - | - | - | - | - | - | - | - | - |
| 4.f. | Sericulture | - | - | - | - | - | - | - | - | - | - |
| 4.g. | Mushroom cultivation | 5 | 41 | 23 | 64 | 16 | 24 | 40 | 57 | 47 | 104 |
| 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 | 1 | 44 | 12 | 56 | 23 | 8 | 31 | 67 | 20 | 87 |
| 5.b. | Others (pl.specify) | - | - | - | - | - | - | - | - | - | - |
|  | **Grand Total** | **20** | **172** | **143** | **335** | **88** | **81** | **169** | **260** | **224** | **484** |

**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 | 11 | 270 | 135 | 405 | 116 | 68 | 184 | 1 | 0 | 1 |
| Kisan Mela | 10 | 1500807 | 600459 | 2101266 | 600375 | 300214 | 900589 | 450104 | 150052 | 600159 |
| Kisan Ghosthi | 0 | - | - | - | - | - | - | - | - | - |
| Exhibition | 17 | 470524 | 221819 | 692343 | 201653 | 109254 | 310907 | 130066 | 70036 | 200102 |
| Film Show | 3 | 285 | 139 | 424 | 151 | 77 | 228 | 21 | 18 | 39 |
| Method Demonstrations | 17 | 394 | 186 | 580 | 169 | 92 | 261 | 14 | 8 | 22 |
| Farmers Seminar | - | - | - | - | - | - | - | - | - | - |
| Workshop | 6 | 415 | 66 | 481 | 104 | 34 | 138 | 111 | 55 | 166 |
| Group meetings | 10 | 608 | 287 | 894 | 260 | 141 | 402 | 38 | 21 | 59 |
| Lectures delivered as resource persons | 51 | 2346 | 1050 | 3396 | 708 | 399 | 1107 | 606 | 298 | 904 |
| Newspaper coverage | 9 | - | - | - | - | - | - | - | - | - |
| Radio talks | 0 | - | - | - | - | - | - | - | - | - |
| TV talks | 0 | - | - | - | - | - | - | - | - | - |
| Popular articles | 2 | - | - | - | - | - | - | - | - | - |
| Extension Literature | 24 | - | - | - | - | - | - | - | - | - |
| Advisory Services | 12 | 342 | 161 | 504 | 147 | 79 | 226 | 65 | 35 | 100 |
| Scientific visit to farmers field | 31 | 227 | 107 | 333 | 97 | 53 | 150 | 20 | 11 | 31 |
| Farmers visit to KVK | 36 | 318 | 150 | 468 | 136 | 74 | 210 | 87 | 47 | 134 |
| Diagnostic visits | 12 | 136 | 64 | 199 | 58 | 31 | 90 | 17 | 9 | 26 |
| Exposure visits | 6 | 84 | 122 | 206 | 49 | 47 | 96 | 15 | 8 | 23 |
| Ex-trainees Sammelan | - |  |  |  |  |  |  |  |  |  |
| Soil health Camp | 3 | 64 | 30 | 94 | 27 | 15 | 42 | 5 | 2 | 7 |
| Animal Health Camp | 1 | 89 | 86 | 175 | 46 | 29 | 75 | 12 | 0 | 12 |
| Agri mobile clinic | 56 | 1696 | 799 | 2495 | 727 | 394 | 1121 | 423 | 228 | 650 |
| Farm Science Club Conveners meet | 0 | - | - | - | - | - | - | - | - | - |
| Self Help Group Conveners meetings | 0 | - | - | - | - | - | - | - | - | - |
| Mahila Mandals Conveners meetings | 0 | - | - | - | - | - | - | - | - | - |
| Celebration of important days (specify) | - | - | - | - | - | - | - | - | - | - |
| World Environment Day | 1 | 136 | 56 | 192 | 67 | 34 | 101 | 5 | 3 | 8 |
| World Honey bee Day | 1 | 24 | 25 | 49 | 3 | 2 | 5 | 0 | 0 | 0 |
| World Food Day | 2 | 3 | 63 | 69 | 2 | 24 | 26 | 2 | 1 | 3 |
| Mahila Kisan Divas | 1 | 7 | 41 | 48 | 0 | 11 | 11 | 0 | 0 | 0 |
| Women in Agriculture day | 1 | 169 | 122 | 291 | 70 | 147 | 217 | 24 | 11 | 35 |
| World soil health day | 1 | 8 | 4 | 12 | 2 | 1 | 3 | 0 | 0 | 0 |
| Farmers day | 1 | 12 | 46 | 58 | 8 | 9 | 17 | 4 | 1 | 5 |
| International Womens day | 1 | 35 | 28 | 63 | 15 | 5 | 20 | 3 | 2 | 5 |
| World water day | 1 | 32 | 22 | 54 | 13 | 8 | 21 | 2 | 1 | 3 |
| Any Other (Specify) | 0 | - | - | - | - | - | - | - | - | - |
| **Total** | **327** | **1979031** | **826067** | **2805099** | **805003** | **411242** | **1216247** | **581645** | **220847** | **802494** |

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

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Crop category | **Name of the crop** | **Name of the**  **Variety** | **Name of the Hybrid** | **Quantity of seed**  **(q)** | **Value**  **(Rs)** | **Number of farmers to whom provided** |
| Cereals (crop wise) | Finger millet | ML-365 | - | 43.22  6.94 | 140448 | Supplied to National Seed Project, Stock in hand |
| Oilseeds | - | - | - | - | - | - |
| Pulses | Red gram | BRG-5 | - | 2.0 | 13000 | Supplied to National Seed Project |
| Commercial crops | - | - | - | - | - | - |
| Vegetables | - | - | - | - | - | - |
| Flower crops | - | - | - | - | - | - |
| Spices | - | - | - | - | - | - |
| Fodder crop seeds | - | - | - | - | - | - |
| Fiber crops | - | - | - | - | - | - |
| Forest Species | - | - | - | - | - | - |
| Others (specify) | - | - | - | - | - | - |
| **Total** | **-** | **-** | **-** | **52.16** | **153448** | **-** |

# 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 | Drumstick | PKM-1 | - | 37 | 555 | 6 |
| Fruits | Mango | Mallika | - | 206 | 10600 | 15 |
|  | Mango | Badami | - | 72 | 3770 | 10 |
|  | Jamun | GKVK-1 | - | 31 | 1445 | 3 |
|  | Jamun | Root stock | - | 2 | 100 | 1 |
|  | Jackfruit | Root stock | - | 17 | 810 | 2 |
|  | Jackfruit | Tubagere Selection | - | 13 | 1650 | 4 |
|  | Guava | Allahabad safed | - | 122 | 8165 | 8 |
|  | Lime | Local | - | 303 | 15090 | 3 |
| Ornamental plants | - | - | - | - | - | - |
| Medicinal and Aromatic | - | - | - | - | - | - |
| Plantation | - | - | - | - | - | - |
| Spices | Tamarind | Local |  | 4 | 160 | 2 |
| Tuber | - | - | - | - | - | - |
| Fodder crop saplings | - | - | - | - | - | - |
| Forest Species | - | - | - | - | - | - |
| Others(specify) | - | - | - | - | - | - |
| **Total** |  |  |  | **807** | **42345** | **54** |

**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 | - | - | - | - |
| Bio-fungicide | - | - | - | - |
| Bio Agents | - | - | - | - |
| Others (specify) Mineral mixture | Vegetable Special | 111 | 16650 | 24 |
| **Total** |  | **111** | **16650** | **24** |

# 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 | HF and Jersey | 3 | - | - |
| Others (Pl. specify) Sheep | Bandur cross | 5 | 19200 | 5 |
| Goat | Jamunapuri cross | 2 | 15100 | 2 |
| **Poultry** | - | - | - | - |
| Broilers | - | - | - | - |
| Layers | - | - | - | - |
| Duals (broiler and layer) | Giriraja | 15 | 5300 | 8 |
| Japanese Quail | - | - | - | - |
| Turkey | - | - | - | - |
| Emu | - | - | - | - |
| Ducks | - | - | - | - |
| Others (Pl. specify) | - | - | - | - |
| **Piggery** | - | - | - | - |
| Piglet | Yorkshire | 40 | 100000 | 12 |
| Others (Pl.specify) | - | - | - | - |
| **Fisheries** | - | - | - | - |
| Fingerlings | - | - | - | - |
| Others (Pl. specify) | - | - | - | - |
| **Total** |  | **62** | **139600** | **27** |

**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.): April 2017, Quarterly, 1150 copies

* Krishi Manthana, April – June 2017
* Krishi Manthana, July – September 2017
* Krishi Manthana, – October - December 2017
* Krishi Manthana, – January - March 2018

(B) Literature developed/published

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Title** | **Authors name** | **Number** |
| Research papers | *In vitro* evaluation of botanicals, bio agents and fungicides against basal stem rot of coconut caused by *Ganodermalucidum*. | Sudarshan, G.K., Chandrashekara, G.S., Manjunath, B., Basavaraju, T.B. and Palanna, K.B. | 1 |
|  | Assessment on management of Late Blight in tomato Incited by *Phytophthorainfestans* | Manjunath, B., Manjula, C.P. Jahir Basha, Srinivasappa, K.N.and Manjunath Gowda | 1 |
|  | Assessment on management of late blight in potato incited by *Phytophthorainfestans*. | Manjunath, B., Devaraja, Srinivasappa, K.N., Vasanthi, B.G. and Manjunath Gowda | 1 |
|  | Survey and Documentation of Elite Jackfruit Seedling Progenies in Bangalore Rural District. | Srinivasappa, K.N., Manjunath, B., Vasanthi, B. G. and Savita, S.M. | 1 |
|  | Evaluation of bengalgram varieties in medium black soils of Devanahalli taluk, Bangalore Rural District | Vasanthi, B.G., Srinivasappa, K.N., Manjunath, B., Padmavathi, M. and Savita, S.M. | 1 |
|  | Effect of fertigation levels and schedules on growth, yield and economic returns of tomato (*Solanumlycopersicum* L.) | Vasanthi, B.G., Srinivasappa, K.N.,Manjunath B.and Padmavathi, M. | 1 |
|  | Entrepreneurship development through value added jackfruit products | Savita, S.M., Srinivasappa, K.N., Manjunath, B. and Vasanthi, B.G. | 1 |
| Abstracts | Micronutrient mixture as foliar spray for boosting yield and quality in grapes (variety Bangalore Blue) | Vasanthi, B. G., Srinivasappa, K. N.,Manjunath, B., Savitha, S.M. and Padmavathi, M. | 1 |
|  | Integrated management of downy mildew in cucumber caused by Psuedoperonosporacubensis | Manjunath, B., Devaraja, Srinivasappa, K.N., Vasanthi, B.G. and Shalini, M. | 1 |
|  | Development of integrated disease management module for late blight of potato | Manjunath, B., Devaraja, Srinivasappa, K.N., Vasanthi, B.G. and Shalini, M. | 1 |
| Technical reports | Action plan report, Annual report, SAC report, Monthly and quarterly reports to DE & ATARI, ZREP workshop report, Crop plan report, ARYA annual report and Biofuel annual report | Sr. Scientist and Head, All Scientists and other Technical staff | 9 |
| News letters | * Krishi Manthana, April – June 2017 * Krishi Manthana, July – September 2017 * Krishi Manthana, – October - December 2017 * Krishi Manthana, – January - March 2018 | Sr. Scientist and Head, All Scientists and other Technical staff | 1150 |
| Technical bulletins | Scientific cultivation in rose (Farmer Field School) | Manjunath, B., Srinivasappa, K.N., Vasanthi, B.G. and Padmavathi, M | 25 |
| Popular articles | Integrated crop management in capsicum | Vasanthi, B.G., Srinivasappa, K.N., Manjunath, B. and Padmavathi,M. | - |
|  | Integrated management of pests and diseases in mango | Manjunath, B., Srinivasappa, K.N., Padmavathi, M. and Savita, S.M. | - |
| Extension literature  Training mannuals | Enhancement of income through integrated agricultural and horticultural practices | Padmanabhan, M., Srinivasappa, K.N., Padmavathi, M., Vasanthi, B.G., Manjunath, B.,Savitha S Manganavar, Anand G Manegar and Manjula, B.V. | 30 |
|  | Nutritional garden in Schools- Establishment and management | Savita, S.M., Srinivasappa, K.N., Manjunath, B., Vasanthi, B.G., Padmavathi, M., Anand Manegar, Akhila and Manjula, B.V. | 20 |
|  | Minor millets- Production technologies and value addition | Savita, S.M., Srinivasappa, K.N., Padmanabhan, M., Vasanthi, B.G., Manjunath, B., Padmavathi, M., Akhila and Manjula, B.V. | 30 |
|  | Jack fruit production and value addition | Savita, S.M., Srinivasappa, K.N., Vasanthi, B.G., Manjunath, B.,Padmavathi, M., Anand Manegar, Padmanabhan, M. and Akhila | 30 |
|  | Importance of integrated pest management in agriculture | Manjunath, B., Srinivasappa, K.N., Vasanthi, B.G. and Padmavathi, M. | 55 |
|  | Integrated pest management in agriculture and Safe & Judicious use of pesticides | Manjunath, B., Srinivasappa, K.N., Vasanthi, B.G. and Padmavathi, M. | 55 |
| Extension folders | Integrated pest management in maize | Manjunath, B.,Srinivasappa, K.N., Padmanabhan, M., Padmavathi, M. and Vasanthi, B.G. | 25 |
|  | Integrated pest management in cabbage. | Manjunath, B., Srinivasappa, K.N., Padmavathi, M. and Vasanthi, B.G., | 25 |
|  | Organic fertilizers for Soil health | Vasanthi, B.G., Srinivasappa, K.N., Manjunath, B. and Jagadish, N., | 1000 |
|  | Preparation of balanced animal nutrition by using local resources | Anand, G., Srinivasappa, K.N., Padmavathi, M. and Manjunath, B. | 1000 |
|  | Soil health campaign to improve the soil health. | Vasanthi, B.G., Srinivasappa, K.N., Padmavathi, M. and Manjunath, B., | 1000 |
|  | Dhanadhanyalakshmi Krishi Seva Kendra | Srinivasappa, K.N., Savita, S.M., Anand, G.M., Vasanthi, B.G., Padmavathi, M., Manjunath, B. and Padmanabhan, M. | 1000 |
| Others (Pl. specify) Books | Activities of KVK | Srinivasappa, K.N., Savita, S.M,, Anand, G., Vasanthi, B.G., Padmavathi, M., Manjunath, B., Padmanabhan, M., Jagadish, N. and Manjula, B.V. | 500 |
| Scientific/Technical Reviews | Impact of KVK activities | Srinivasappa, K.N., Savita, S.M,, Anand, G., Vasanthi, B.G., Padmavathi, M., Manjunath, B., Padmanabhan, M., Jagadish, N. and Manjula, B.V. | 15 |
| **TOTAL** |  |  | **5979** |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Type of media (CD / VCD / DVD/ Audio-Cassette)** | **Title of the programme** | **Number** |
| 1 | DVD | Integrated farming system | 1 |

**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. The Broad outline for the case study may be

1. **Integrated management of major pests and diseases in Tomato**

Tomato is being grown in 751 ha in Bengaluru Rural District with a average yield of 64 t/ha as against potential yield of 75 t/ha. The major technological constraints faced by tomato growers were incidence of ToLCV, Fusarium wilt, Early blight and Leaf miner.

**Background**

The farmers of Vathakunte, Nelamangala taluk were growing hybrid tomato during *rabi* season under irrigated conditions. The KVK Scientists conducted a study on cultivation of tomato and its yield potential in the farmers’ field. The causes for lower yield were analyzed through participatory rural appraisal. The major causes were severe incidence of pests and diseases and non adoption of IPM practices. Five interested farmers of Vathakunte, Nelamangala taluk of Bengaluru Rural District were selected for Frontline demonstration regarding management of pests and diseases in tomato through integrated approach in an area of 1.0 ha.

**Intervention process**

Integrated approaches involved application of bio control agents such as *Trichoderma* and *Pseudomonas* along with FYM to the soil before transplantation, use of triple disease resistant hybrid, installation of Wota-T traps, Sticky traps, Prophylactic sprays and need based plant protection sprays were to avoid the pest and disease incidence. The farmers were updated with the scientific know-how of the technology to increase the yield and reduce the pest and disease severity.

**Intervention Technology**

The following treatments were taken up in the selected farmers field during 2017-18 i.e. soil application of *Trichoderma* and *Pseudomonas* through FYM (enrichment- 1kg/100kg for 15days), use of triple disease resistant hybrid Arka Rakshak ( Early blight, Bacterial wilt and Tomato leaf curl virus), installation of Wota-T traps, Sticky traps and Prophylactic spray – Mancozeb (0.2%), Metalaxyl+Mancozeb (0.2%), Fosetyl Al(0.2%) and Dimethomorph (0.1%)+ Mancozeb (0.2%). KVK scientists assisted the farmers on the production technology in different growth stages of the crop. Thus the crop was grown under close supervision of scientists-farmers association.

**Impact Horizontal spread**

A field day was conducted to showcase the results of FLD. The FLD participant farmers shared their experiences about the integrated management practices in boosting the yield. Apart from FLD farmers, other farmers from same village and neighboring villages were invited to attend the programme. They witnessed and were convinced that, the practices adopted in managing the pest and disease will reap better harvest and income.

**Economic gains:**

The farmers reaped a good harvest of tomato @ 62.85 t/ha. Famers realized a net income of Rs. 4,44,204/ha by investing Rs.1,84,336/ha. This boon in returns was because of empowering farmers in adopting integrated management practices for the management of pests and diseases.. The farmers were very much satisfied and happy about the returns realized by adopting these practices.

**Employment generation:**

Good harvest of tomato encouraged the farmers to employ more number of labour for different farm activities @ about 12 man/day/ha during crop season.

|  |  |  |
| --- | --- | --- |
| **E:\Action Plan Photos\Action Plan Photos 2016-17\FLD 2016-17\FLD Tomato\Biocontrol Method demo\IMG_1424.jpg** | **E:\Action Plan Photos\Action Plan Photos 2017-18\Rupa tomato n Maize\IMG_0196.jpg** | **E:\Action Plan Photos\Action Plan Photos 2016-17\FLD 2016-17\FLD Tomato\IMG_3023.JPG** |
| FYM enrichment with bioagents | Method demo - Installation of Wota-T traps | Discussion with farmers on use of need based pp chemicals |
| E:\Action Plan Photos\Action Plan Photos 2017-18\Rupa tomato n Maize\IMG_0211.jpg | E:\Action Plan Photos\Action Plan Photos 2016-17\FLD 2016-17\FLD Tomato\Installation of Sticky traps\IMG_2332.jpg | E:\POPS\Reports\Annual Report\2014-15\Annual Report photos 2014-15\FLD Tomato\Field observation.JPG |
| Method demo - Installation of sticky traps | Field observation | Disease observation |
| **E:\Action Plan Photos\Action Plan Photos 2013-14\Field Day Photos 2013\FLD Field day tomato\DSC05623.JPG** | **J:\IMG_2120.jpg** |  |
| Grading of tomato | Interaction with farmers |  |

1. **Integrated Crop Management in Bengalgram**

Bengalgram is being grown in 140 ha in Bengaluru Rural District with a average yield of 6.2 q/ha as against potential yield of 10 q/ha. The major technological constraints faced by bengalgram growers were non adoption of new production technologies *viz.,* selection of variety, integrated nutrient management, pest (pod borer) and disease(fusarium wilt & dry root rot) management.

**Background and Intervention**

During *Rabi* season, the farmers of Lakkondahalli, Kammasandra, Thimmasandra, Attibele and Rameshwara were growing wilt susceptible bengalgram variety JG-11 under rain fed condition. The KVK Scientists conducted a study on cultivation of bengalgram and its yield potentials in the farmers’ field. The causes for lower yield were analyzed through participatory rural appraisal. Fifty interested farmers of Kammasandra, Thimmasandra, Lakkondahalli village in Hosakote and Rameshwara village in Doddaballapur taluk of Bengaluru Rural District were selected and front line demonstrations on bengalgram variety JAKI 9218 variety was conducted an area of 20 hectares.

**Intervention process**

Integrated approaches involved were seed treatment with *Rhizobium,* installation of pheromone traps, spraying of pulse magic and need based plant protection chemicals. The farmers were updated with the scientific know-how of the technology to increase the yield and to reduce the disease and pest severity.

**Intervention Technology**

The following treatments were taken up in the selected farmers field during 2017-18 i.e. Sowing of wilt resistant bengalgram variety JAKI 9218, seed treatment with *rhizobium,* installation of pheromone traps 50 days after sowing, application of Pulse magic (10ml/lt) at 50% flowering stage and spraying of need based plant protection sprays like Neemazal (1ml/lt) and Rynaxypyr (0.3 ml/lt). KVK scientists assisted the farmers on the production technology in different growth stages of the crop. Thus the crop was grown under close supervision of scientists-farmers association.

**Impact Horizontal spread:**

A field day was organized to showcase the production potential of variety JAKI 9218 with IPM practices as against non IPM plots. Farmers expressed their views about the technologies involved in managing the Helicoverpa pest with least or no chemicals. Overall, the farmers felt that IPM in bengalgram was fruitful. Apart from managing the pests, the farmers observed reduction in pest population in next season. Farmers from Kammasanda, Thimmasandra, Lakkondahalli and Attibele and also neighbouring villages who attended were convinced for the adoption of IPM not only in bengalgram and also for other agriculture and horticulture crops infested with pests.The impact of the area under IPM has spread to more than 100 acres including other gram panchayats in Sulibele, Kasaba and Doddabelavangala hobli.

**Economic gains:**

The farmers reaped a good harvest of bengalgram @ 9.0 q/ha. Famers realized an average net income of Rs.45000/ha by investing Rs. 32000/ha. This boon in returns was because of empowering farmers in adopting integrated management practices for the management of wilt incidence & pod borer menace. The farmers were very much satisfied and happy about the returns got by adopting these practices.

**Employment generation:**

Practicing method demonstrations under IPM generated employment for the farm based community by creating their own biological control methods like preparation of NSKE, erecting perches, etc. which reduced the dependence on chemical control.

|  |  |  |
| --- | --- | --- |
| **H:\NFSM Bengalgram 28.03.2018\BENGALGRAM SEED TREATMENT RAMESHAWARA 9 11 2017\IMG_7672.JPG** | **H:\NFSM Bengalgram 28.03.2018\BENGALGRAM SOWING LONDAHALLI 10 11 2017\IMG_4927.JPG** | **H:\NFSM Bengalgram 28.03.2018\BENGALGRAM INNOVATIVE TECH 9 12 2017\IMG_20171209_120021.jpg** |
| Method demonstration on Seed treatment with Biocontrol agents | Sowing of JAKI 9218 (*Fusarium* wilt and dry root rot resistant variety) | Training Programme on Nipping technique in Bengalgram |
| H:\NFSM Bengalgram 28.03.2018\BENGALGRAM TRAPS FLD 11 1 2018\IMG_9835.JPG | H:\NFSM Bengalgram 28.03.2018\BENGALGRAM TRAPS FLD 11 1 2018\IMG_9967.JPG |  |
| Training programme on installation of pheromone traps for pod borer management | Training programme on use of need based plant protection chemicals for pod borer management (Rynaxypyr) |  |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Crop / Enterprise** | **ITK Practiced** | **Purpose of ITK** |
| 1. | Livestock Feed | Stacking of Feed material in layers and Slicing | To ensure the required ingredients in right proportion for healthier animals with decreased cost |

**INDIGENOUS TECHNOLOGY: Stacking of Feed material in layers and Slicing**

**METHODOLOGY**:

1. **The details of the problems addressed and solved :**

|  |  |  |
| --- | --- | --- |
| **Details** | **Farmers practice** | **Indigenous Technology practiced by Sri Jayaram** |
| **Feed given to cattle** | Supplied by Karnataka Milk Federation (KMF) | * Purchase of ingredients such as wheat cake, rice bran powder, Bengal gram powder, groundnut powder, maize powder, salt, mineral mixture, etc. in required quantity * Spreading all the materials in layers. * Daily collection of 5 kg material per animal vertically (slicing) from the feed material stack ensuring availability of all the ingredients. |
| **Health of the cattle** | Susceptible to diseases | Healthy and well grown cattle, increase in conception rate |
| **Milk yield** | 11-12 lt/day | 15-18 lt/day |
| **Milk quality** | SNF (3.5%) | SNF (4.7%) |
| **Cost of feed per animal per month** | Rs. 2,500 | Rs. 2,000 |

1. **The relative advantages of the technology in terms of** :

* Healthy cattle and less susceptible to diseases
* Increased milk yield
* Reduction in cost towards feed
* More awareness among farmers about ingredients of feed, their importance and care to be taken while preparing the feed

1. **Please provide the photographs / drawings and other visual details associated with the innovation / technique / methodology and the benefits obtained**

**** 

1. **Outcome: (The benefit brought out across the system over a period of time) :**

* Increase in milk yield by 4-6 lt/day/animal
* Reduction in feed cost @ Rs. 500/animal/month
* 25% increase in SNF
* Savings of feed cost – Rs.1.80 lakhs / annum
* Additional income obtained from milk - Rs.6.30 lakhs /annum

1. **Any other relevant details :** The farmer is maintaining 30 milch animals using this method

**Feed materials (quantity for 30 adult cows and sequence of materials in layers )**

|  |  |
| --- | --- |
| **300 kg Bengalgram cake** | **500 kg rice bran** |
| **10 kg mineral mixture (sedimen)** | **1000 kg Maize brokens** |
| **750 kg wheat bran** | **450 kg groundnut cake** |
| **250 kg Bengalgram husk powder** |  |

1. **The details of the farmers /rural youth or the local firm / organization who have designed the technology / methodology:** Shri Jayaram, Byradenahalli village, Devanahalli taluk, Bangalore Rural district, Mobile No. 09740963352

10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Crop / Enterprise** | **ITK Practiced** | **Purpose of ITK** |
| 1 | Dairy | Onion flowers were fed to the animals suffering from FMD. It will control ulcer lesions in mouth | To manage foot and mouth disease (FMD) |

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

- Identification of courses for farmers/farm women: PRA techniques

- Rural Youth: Group meetings, brain storm session

- Inservice personnel: Questionnaire

**10.G. Field activities**

i. Number of villages adopted: 16

ii. No. of farm families selected: 279

iii. No. of survey/PRA conducted: 4

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

Status of establishment of Lab : Functioning

1. Year of establishment : 2011

2. List of equipments purchased with amount :

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No | Name of the Equipment | Qty. | Cost |
| 1 | PH Meter FGL1615 | 2 Nos. | 12,692/- |
| 2 | 8” Pulverizor Machine (MS Box type), Starter – ST DOL & Wire & 15A Top | 1 Set | 17,520/- |
| 3 | ALC 2013 EPW Acculab Electronic B | 1 No. | 31,000/- |
| 4 | Spring Balance | 1 No. | 6,050/- |
| 5 | Electronic Top Loading Balance | 1 No. | 6,000/- |
| 6 | Micro processor controller based Vis. Spectrophotometer | 1 No. | 53,000/- |
| 7 | Reciprocatory Shaker | 1 No. | 24,000/- |
| 8 | Scientek Make Water Bath | 1 No. | 8,500/- |
| 9 | Digital Flame Photometer with Na, K filter and Compressor | 1 No. | 42,000/- |
| 10 | Fume Cub Board Completely Made out of FRP  Make: Scientek; Dimension: 2x2x4 ft; Bottom : 2x2x2.5 ft | 1 No. | 62,000/- |
| 11 | Single Distillation in Quartz along with Softener. Model Distil on 2 SQ; Cap: 21 ts/hr + AS-600 | 1 No. | 59,825/- |
| 12 | Micro controller pH/mv meter model : P(50), Make: chemlabs | 1 No. | 19,000/- |
| 13 | Bench top conductivity Meter Con-505 | 1 No. | 18,000/- |
| 14 | Hot plate-cast iron top 300x250mm 1 KW | 1 No. | 4,500/- |
| 15 | Auger Post type with 1 mtr. Pipe & T piece size:4”  Auger Screw type with 1 Mtr. Pipe & T piece size 4” | 2 Nos.  2 Nos. | 5,300/-  5,500/- |
| 16 | N. Analyser, Kjeldahltherm, Digestion unit model: TT625m, Gerhardt Micro Processor based distillation Unit – VAP 108 | 1 No. | 3,98,000/- |
| 17 | Refrigerator – 183 ltrs (kelvinator) | 1 No. | 7,700/- |
| 18 | Soil test kit | 1 No. | 80,000/- |
| 19 | Mrudu pariksha kit | 2 No. | 1,65,000 |
| Total | |  | **1025587** |

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 | 7565 | 6687 | 4277 | 298590 |
| Water Samples | 6282 | 5504 | 3792 | 351990 |
| Plant samples | - | - | - | - |
| Manure samples | - | - | - | - |
| Others (specify) | - | - | - | - |
| Total | 13847 | 12191 | 8069 | 650580 |

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 | 929 | 794 | 765 | 148910 |
| Water Samples | 766 | 699 | 699 | 96060 |
| Plant samples | - | - | - | - |
| Manure samples | - | - | - | - |
| Others (specify) | - | - | - | - |
| Total | 1695 | - | - | 244970 |

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 |
| 2017-18 | 794 | 929 | 929 | 765 | MLA, Doddaballapur Constituency | Members of ZP, TP. GP |

**10.I. Technology Week celebration during 2017-18 Yes/No, If Yes**

Period of observing Technology Week: From 04.12.2017 to 09.12.2017

Total number of farmers visited : 710

Total number of agencies involved : 15

Number of demonstrations visited by the farmers within KVK campus : 1

Other Details

| **Types of Activities** | **No. of**  **Activities** | **Number of**  **Farmers** | **Related crop/livestock technology** |
| --- | --- | --- | --- |
| Gosthies | - | - | - |
| Lectures organized | 1 | 53 | Integrated pest management |
| Exhibition | 1 | 508 | Soil health cards in managing the soil health by application of soil test based nutrients |
| Film show | 1 | 53 | Integrated pest management in fruit and vegetable crops |
| Fair | - | - | - |
| Farm Visit | - | - | - |
| Diagnostic Practicals | - | - | - |
| Supply of Literature (No.) | 2 | 508 | Soil sampling techniques and soil test based fertilizer application for horticulture crops |
| Supply of Seed (q) | - | - | - |
| Supply of Planting materials (No.) | - | - | - |
| Bio Product supply (Kg) | - | - | - |
| Bio Fertilizers (q) | - | - | - |
| Supply of fingerlings | - | - | - |
| Supply of Livestock specimen (No.) | - | - | - |
| Total number of farmers visited the technology week | 15 | 710 | On campus training programme -Integrated Pest and Disease Management Practices, Off campus Awareness programme - Linkage between ARYA project and Department of Small Scale Industries and Commerce, Celebration of Women in Agriculture Day, Celebration of World Soil Day - Integrated management practices of Rabi crops, Off campus training programme - IPM techniques in Poly house cultivation, Off campus Awareness programme - Linkage between ARYA project and Department of industries |

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

A. Introduction of alternate crops/varieties

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

B. Major area coverage under alternate crops/varieties - Nil

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

C. Farmers-scientists interaction on livestock management - Nil

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

D. Animal health camps organized

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

E. Seed distribution in drought hit states

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

F. Large scale adoption of resource conservation technologies

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

G. Awareness campaign

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

**PART XI. IMPACT**

**11.A. Impact of KVK activities (Not 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)** |
| Management of late blight in potato through integrated approach | 13 | 61.53 | 171296 | 251000 |
| Management of Diamond Back Moth in cabbage through integrated approach | 10 | 60.00 | 384912 | 562480 |

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

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

**Title : Reap the benefits using Vegetable special in Cucumber**

Vegetable special is micro nutrient mixture which enhances the tomato production, leading to more than 20% profit.

A new technology - Vegetable Special developed by Indian Institute of Horticultural Research (IIHR), Bengaluru contains micronutrients such as Zinc, Iron, Boron, Copper and Manganese which helps to overcome micronutrient deficiencies in Cucumber growing areas and inturn increases fruit set, size, color and luster with better market acceptability and price.

The soils of Bengaluru Rural District are deficient in Zinc, Boron and Iron, where cucumber is being grown over 100 ha. The farmers are using only major nutrients (Nitrogen, Phosphorus, and Potassium) and are unaware of role of micronutrients. Therefore, they are getting lesser profit due to reduced yield and harvesting dull fruits with less preference in the market. The IIHR, Bengaluru has come out with a technology to overcome deficiencies in micronutrients, by using Vegetable Special, as a foliar spray. This formulation contains all the deficient nutrients occurring in soils of Bengaluru Rural District and is used as foliar spray for better absorption of nutrients.

How to prepare spray solution:

* For every 15 liters of water, mix 75 g of Vegetable Special (Powder)
* add 2 fresh lemon juice to neutralize the spray solution
* add one shampoo sachet that acts as surfactant
* mix thoroughly to get a homogenous solution
* sprays as foliar nutrition at one and half month after transplanting, and the subsequent two sprays at 15 days interval.

Foliar spray of Vegetable Special enhances vegetative growth, increases fruit set and fruit size, reduces incidence of Pest & Disease by imparting resistance to plant system, inturn

helps in imparting shininess / luster with better market preference and more profit

Use of simple technology (Vegetable Special) enhances yield level by 15-20% with better fruit quality. Farmers can reap the benefits and realize 20% more profit (Rs. 50,000/- ha) by spending Rs.2500-4000/ha.

The product (Vegetable Special) can be obtained from IIHR, Hesaraghatta Lake Post, Bengaluru or Krishi Vigyan Kendra, Hadonahalli - 561205, Doddaballapur Taluk, Bengaluru Rural District

Adoption of Vegetable special as foliar nutrition by the farmers in vegetable growing area is about 37 ha in Bengaluru Rural District

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

**Addressing of Ragi Var. ML 365 to combat drought and blast** : Impact analysis on combating drought and blast in finger millet was conducted during the reporting period and found that 40% of the farmers are using this variety. The opinions and feedback have been collected and the same has been used a base material for planning further activities in this regard.

**Addressing of JAKI 9218 to combat drought and wilt** : Impact analysis on combating drought and wilt incidence in bengalgram was conducted during the reporting period and found that 32% of the farmers are using this variety. The opinions and feedback have been collected and the same has been used a base material for planning further activities in this regard.

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

**PART XII - LINKAGES**

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

|  |  |
| --- | --- |
| **Name of organization** | **Nature of linkage** |
| NFSM | Improved varieties like BRG 5 in redgram, JAKI 9218 in bengalgram and integrated crop management practices were demonstrated. |
| ATMA | Trainings on Integrated pest management, Mushroom cultivation, training of farmers through award winning farmers and resource persons in training programmes |
| UAS (B), KSDA, CIIPM, AH&VS, PPVFRA, IIHR | Training programmes under Village adoption, Organic Farming, diagnostic visits, Protection of Plant Varieties and Farmers Rights Act 2001, Kitchen garden in Schools, Pashubhagya scheme, Animal health Management, Krishi Abhiyana exhibitions were organized in collaboration with several government and non government organizations. |

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.)** |
| Establishment of ‘Information and Demonstration Centre on Biofuel’ | September 2012 (on going) | Karnataka State Biofuel Development Board, Government of Karnataka | 5,87,016/- |
| Employment and Livelihood Security for Rural Youth through Innovative Entrepreneurship Models (ARYA) | April 2015 (on going) | ICAR | 4,38,242/- |
| Village Adoption | April 2015 (on going) | VC Grants  UAS, Bengaluru | 2,00,000/- |
| Integrated Farming System | April 2012 (Ongoing) | ICAR | 50,000/- |

**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?

* The staff of the KVK were involved in preparation of SREP and serving as Coordinators of the Bengaluru Rural and Bengaluru Urban district
* Serving as resource person for training programme to the Extension Personnel of the line departments.

**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 | - | - | - | - |
| 02 | Research projects | - | - | - | - |
| - | - | - | - | - | - |
| 03 | Training programmes | Integrated pest and disease management, safe and judicious use of pesticides, integrated nutrient management, soil & water conservation practices | 05 | 03 | - |
| 04 | Demonstrations | Installation of pheromone traps, soil testing, preparation of Bordeaux mixture, panchagavya, jeevamrutha, beejamrutha | 02 | - | - |
| - | - | - | - | - | - |
| 05 | Extension Programmes | - | - | - | - |
|  | Kisan Mela | - | - | - | - |
|  | Technology Week | Integrated pest management | - | 01 | - |
|  | Exposure visit | Exposure visit to ICAR institutes and KVKs in Tamilnadu | 3 | - | - |
|  | Exhibition | - | - | - | - |
|  | Soil health camps | Soil health management | 1 | 1 | - |
|  | 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**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Funds received if any Rs.** | **Expenditure during the reporting period in Rs.** | **Constraints if any** |
| **-** | **-** | **-** | **-** | **-** | **-** |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Funds received if any Rs.** | **Expenditure during the reporting period in Rs.** | **Remarks** |
| **-** | **-** | **-** | **-** | **-** | **-** |

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** | **Funds received if any Rs.** | **Expenditure during the reporting period in Rs.** | **Remarks** |
| **-** | **-** | **-** | **-** | **-** | **-** |

**12. G Kisan Mobile Advisory Services**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Message type (Text/Voice)** | **SMS/voice calls sent (No.)** | | | | | | **Total SMS/Voice calls sent (No.)** | **Farmers (No.)** |
| **Crop** | **Livestock** | **Weather** | **Marketing** | **Awareness** | **Other enterprises** |
| April 2017 | Text | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3607 |
| May | Text | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3607 |
| June | Text | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 3607 |
| July | Text | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1575 |
| August | Text | 6 | 0 | 2 | 0 | 1 | 0 | 9 | 3205 |
| September | Text | 12 | 2 | 0 | 0 | 0 | 1 | 15 | 3607 |
| October | Text | 2 | 1 | 0 | 0 | 1 | 0 | 4 | 3616 |
| November | Text | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3616 |
| December | Text | 2 | 0 | 0 | 0 | 0 | 1 | 3 | 3616 |
| January 2018 | Text | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 3624 |
| February | Text | 3 | 0 | 0 | 0 | 1 | 0 | 4 | 3654 |
| March | Text | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3616 |
| **Total** |  | **58** | **3** | **2** | **0** | **3** | **2** | **68** | **40950** |

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

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

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Demo Unit** | **Year of**  **Establishment** | **Area** | **Details of production** | | | **Amount (Rs.)** | | **Remarks** |
| **Variety/breed** | **Produce** | **Qty.** | **Cost of inputs** | **Gross income** |
| 01 | Vermi compost | 2009-10 | 17.5 sq.m | - | 6000 kg | 6000 kg | 3000 | - | Used for KVK farm |
| 02 | Piggery unit | 2008-09 | 80.62 sq.m | Yorkshire | 47 | 40 | 59440 | 100000 | Sold to farmers (12) |
| 03 | Poultry unit | 2014-15 | 58 m2 | Giriraja | 15 | 15 | 3650 | 5300 | Sold to farmers (8) |
| 04 | Sheep unit | 2014-15 | 55 m2 | Bandur cross | 2 | 5 | 6500 | 19200 | Sold to farmers (5) |
|  | Goat | - | - | Jamunapuri cross | 2 | 2 | 6500 | 15100 | Sold to farmers (2) |
| 05 | Horticultural plant propagation | 2008-09 | 750 m2 | Horticultural plants | Grafts / seedlings | 807 | 31500 | 42345 | Sold to farmers (54) |
| 06 |  |  |  | - | - | - | - | - | - |
| 07 | Dairy unit | 2010-11 | 53 m2 | HF | - | 03 calves | 42420 | - | Maintaining at KVK farm |

**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 |  |  |  | |  | |  | |  | |  | |  | |  | |
| Finger millet | 20.07.2017 | 15.12.2017 | 3.4 | | ML-365 | | Seeds | | 50.16 qtl | | 69143 | | 140448 | | - | |
| Pulses |  |  |  | |  | |  | |  | |  | |  | |  | |
| Redgram | 19.06.2017 | 23.01.2018 | 3.5 | | BRG-5 | | Seeds | | 2.0 qtl | | 60871 | | 13000 | | Crop loss due to water logging | |
| Oilseeds | - | - | - | | - | | - | | - | | - | | - | | - | |
|  |  |  |  | |  | |  | |  | |  | |  | |  | |
| Fibers | - | - | - | | - | | - | | - | | - | | - | | - | |
|  |  |  |  | |  | |  | |  | |  | |  | |  | |
| Spices & Plantation crops | | | | | | | | | | | | | | | | |
|  |  |  |  | |  | |  | |  | |  | |  | |  | |
| 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 | Vegetable special | 111 kg | 10200 | 16650 | - |
| - | - | - | - | - | - |

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No** | **Name**  **of the animal / bird / aquatics** | **Details of production** | | | **Amount (Rs.)** | | **Remarks** |
| **Breed** | **Type of Produce** | **Qty.** | **Cost of inputs** | **Gross income** |
| - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - |

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

Accommodation available (No. of beds)

|  |  |  |  |
| --- | --- | --- | --- |
| **Months** | **No. of trainees stayed** | **Trainee days (days stayed)** | **Reason for short fall (if any)** |
| April 2017 | 0 | 0 | - |
| May | 0 | 0 | - |
| June | 0 | 0 | - |
| July | 30 | 1 | - |
| August | 1 | 2 | - |
| September | 25 | 1 | - |
| October | 0 | 0 | - |
| November | 89 | 1 | - |
| December | 21 | 1 | - |
| January 2018 | 32 | 1 | - |
| February | 49 | 1 | - |
| March | 30 | 3 | - |

**13.F. Database management - Nil**

|  |  |  |
| --- | --- | --- |
| **S. No** | **Database target** | **Database created** |
| **-** | **-** | **-** |

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

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Amount sanction (Rs.)** | **Expenditure (Rs.)** | **Details of infrastructure created / micro irrigation system etc.** | **Activities conducted** | | | | | **Quantity of water harvested in ‘000 litres** | **Area irrigated / utilization pattern** |
| **No. of Training programmes** | **No. of Demonstration s** | **No. of plant materials produced** | **Visit by farmers**  **(No.)** | **Visit by officials**  **(No.)** |
| **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |
| **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |

**PART XIV - FINANCIAL PERFORMANCE**

**14.A. Details of KVK Bank accounts**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Bank account** | **Name of the bank** | **Location** | **Branch code** | **Account Name** | **Account Number** | **MICR Number** | **IFSC Number** |
| With Host Institute | Canara Bank | Doddaballapura | 6641010 | Senior Scientist & Head | 0664101030275 | 560015143 | CNRB0000664 |
| With KVK | Canara Bank | Doddaballapura | 6641010 | Senior Scientist & Head | 0664101030276 | 560015143 | CNRB0000664 |

**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** | 88.20 | 78.45 | 87.30 |
| 2 | **Traveling allowances** | 1.00 | 1.20 | 1.20 |
| 3 | **Contingencies** | | | |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 3.00 | 3.00 | 2.86 |
| *B* | POL, repair of vehicles, tractor and equipments | 2.75 | 3.15 | 2.98 |
| *C* | Meals/refreshment for trainees (ceiling upto 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) | 0.50 | 0.50 | 0.49 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 3.00 | 3.00 | 2.96 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1.25 | 1.25 | 1.15 |
| *G* | Integrated Farming System (IFS) | 0.50 | 0.50 | 0.50 |
| *H* | Training of extension functionaries | 0.25 | 0.25 | 0.23 |
| *I* | Training of Extension Activities | 0.50 | 1.00 | 1.00 |
| *J* | Farmers Field School | 0.30 | 0.30 | 0.30 |
| *K* | EDP/Innovative Activities | 0.30 | 0.30 | 0.29 |
| *L* | Establishment of Soil, Plant & Water Testing Laboratory | 0.25 | 0.25 | 0.25 |
| *M* | Maintenance of buildings | 1.00 | 1.90 | 1.83 |
| *N* | Library | 0.05 | 0.05 | 0.04 |
| *O* | Farmers Conclave , KVK Conference | 0 | 0.85 | 0.85 |
| *P* | Video Production | 0 | 0.30 | 0.30 |
| **TOTAL (A)** | | **103.85** | **97.25** | **100.4** |
| **B. Non-Recurring Contingencies** | |  |  |  |
|  |  |  |
| 1 | **Works** | 0 | 0 | 0 |
| 2 | **Equipments including SWTL & Furniture** | 0 | 0 | 0 |
| 3 | **Vehicle** (Four wheeler/Two wheeler, please specify) | 0 | 0 | 0 |
| 4 | **Library** (Purchase of assets like books & journals) | 0.10 | 0 | 0 |
| **TOTAL (B)** | | 0.10 | 0 | 0 |
| **C. REVOLVING FUND** | | **0** | 0 | 0 |
| **GRAND TOTAL (A+B+C)** | | **103.95** | **97.25** | **105.53** |

**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 | 3.21 | 6.98 | 6.00 | 4.19 |
| April 2016 to March 2017 | 4.19 | 5.64 | 7.00 | 2.83 |
| April 2017 to March 2018 | 2.83 | 6.11 | 6.99 | 1.95 |

NOTE : Rs.1.00 lakh received from ICAR, New Delhi and Rs.2.00 lakh from UAS, Bengaluru and the figures given above for Rs.3.00 lakh

Rs. 1.00 Lakh paid back to ICAR, New Delhi and Rs 1.50 lakh paid back to UAS, Bengaluru

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the staff** | **Designation** | Title of the training programme | Institute where attended | Dates |
| Dr. B. Manjunath | Scientist (Plant Protection) | Skill training in agriculture and allied activities | Agriculture skill council of India and Directorate of Extension, UAS, GKVK, Bengaluru | 16-18, January 2018 |
| Dr. A.P. Mallikarjuna Gowda | Sr. Scientist and Head | One day orientation training programme | IIHR, Bengaluru | 09.02.2018 |
| Dr. B. Manjunath | Scientist (Plant Protection) | One day orientation training programme | National Bureau of Agriculture Insect Resources | 05.02.2018 |
| Dr. Venkate Gowda, J. | Scientist (Agronomy) | One day orientation training programme | National Bureau of Soil Science and Land Use planning | 06.02.2018 |
| Dr. Veeranagappa, P. | Scientist (Soil Science) | One day orientation training programme | National Bureau of Soil Science and Land Use planning | 06.02.2018 |
| Dr. A.P. Mallikarjuna Gowda | Sr. Scientist and Head | Interface meeting of KVK staff | Directorate of Extension | 05.03.2018 |
| Dr. Venkate Gowda, J. | Scientist (Agronomy) | Interface meeting | Directorate of Extension | 05.03.2018 |
| Dr. Veeranagappa, P. | Scientist (Soil Science) | Interface meeting | Directorate of Extension | 05.03.2018 |
| Dr. Veeranagappa, P. | Scientist (Soil Science) | Induction training programme for newly recruited teachers of UAS (B) | UAS, Bengaluru | 19-24 March 2018 |

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