**Annual Action Plan 2020**

**(01.01.2020 to 31.12.2020)**



**Submitted to**

**Director**

**ICAR-ATARI, Pune**

**Submitted by**

**Senior Scientist & Head**

**Krishi Vigyan Kendra,**

**AMRAVATI - 1**

**ICAR-ATARI, PUNE**

**DETAILS OF ACTION PLAN OF KVKs DURING 2020**

**(1st January 2020 to 31st December 2020)**

1. GENERAL INFORMATION ABOUT THE KVK

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

|  |  |  |  |
| --- | --- | --- | --- |
| Address | Telephone | | E mail |
| Office | FAX |
| Programme Co-ordinator  KrishiVigyan Kendra, Ghatkhed  “Chirantan”, Madhuban Colony, Camp,  Amravati – 444 602 | 0721-2950342 | 0721-2661199 | kvkgamravati@rediffmail.com |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Address | Telephone | | E mail |
| Office | FAX |
| Shramsafalya Foundation, Amravati | 0721-2662696 | 0721-2661199 | kvkgamravati@rediffmail.com |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Telephone / Contact | | |
| Residence | Mobile | Email |
| Dr. A. P. Kalaskar | 0721-2660303 | 9890069568 | kvkgamravati@rediffmail.com |

1.4. Year of sanction: 1995

**1.5. Staff Position (as on December 31, 2019)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Sanctioned post** | **Name of the incumbent** | **Discipline** | **If Permanent, Please indicate** | | **Date of joining** | **If Temporary, pl. indicate the consolidated amount paid (Rs./month)** |
| **Current**  **Pay Band** | **Current Grade Pay** |
|  | Senior Scientist and Head | Dr. A.P. Kalaskar | Extension Education | Rs.37400-67000 | Rs9000 | 18/06/2004 |  |
|  | Subject Matter Specialist | Dr. A.P. Phuse | Horticulture | Rs.15600-39100 | Rs5400 | 20/06/1996 |  |
|  | Subject Matter Specialist | MrA.M.Tayade | Extension Education | Rs.15600-39100 | Rs 5400 | 17/04/2003 |  |
|  | Subject Matter Specialist | Dr. P. J. Kadu (Kakade) | Home  Science | Rs.15600-39100 | Rs 5400 | 11/07/2008 |  |
|  | Subject Matter Specialist | DrS.P.Kathale | Animal  Science | Rs.15600-39100 | Rs 5400 | 22/07/2008 |  |
|  | Subject Matter Specialist | Mr.P.N. Mendhe | Agronomy | Rs.15600-39100 | Rs 5400 | 01/04/2011 |  |
|  | Subject Matter Specialist | Mr S.A. Pachkawade | Plant  Pathology | Rs.9300-34800 | Rs 4200 | 01/01/1997 |  |
|  | Programme Assistant | Mr R.S. Rathod | Agriculture Engineering | Rs.9300-34800 | Rs 4200 | 02/04/1999 |  |
|  | Computer Programmer | Mr P.P. Ghogare | Computer Science | Rs.9300-34800 | Rs 4200 | 01/06/2004 |  |
|  | Farm Manager | Mr J.P. Korate | Agriculture Economics | Rs.9300-34800 | Rs 4200 | 18/06/1996 |  |
|  | Accountant/Superintendent | Mr R.G. Thakare | Commerce | Rs.9300-34800 | Rs4200 | 10/07/1996 |  |
|  | Stenographer | Mr V.V. Bhatkar | Art | Rs.5200-20200 | Rs2400 | 01/06/1996 |  |
|  | Driver 1 | Mr S.N. Bonde |  | Rs.5200-20200 | Rs2000 | 01/05/1999 |  |
|  | Driver 2 | Mr V.P. Patil |  | Rs.5200-20200 | Rs2000 | 01/07/1999 |  |
|  | Supporting staff 1 | Mr. S.W. Bhuskade |  | Rs.5200-20200 | Rs1800 | 01/06/1996 |  |
|  | Supporting staff 2 | Mr P.R. Raurale |  | Rs.5200-20200 | Rs1800 | 01/01/1997 |  |

**1.6. Total land with KVK (in ha): 23.60 ha**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Item** | **Area (ha)** |
| 1 | Under Buildings | 00.11 |
| 2. | Under Demonstration Units | 00.12 |
| 3. | Under Crops | 08.79 |
| 4. | Horticulture | 13.20 |
| 5. | Pond |  |
| 6. | Others -Road | 01.38 |

**1.7. Infrastructural Development:**

**A. Buildings**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.**  **No.** | **Name of building** | **Source of**  **funding** | **Stage** | | | | | |
| **Complete** | | | **Incomplete** | | |
| **Completion**  **Year** | **Plinth area (Sq.m)** | **Expenditure (Rs.)** | **Starting year** | **Plinth area**  **(Sq.m)** | **Status of construction** |
| 1. | Administrative  Building |  | 01.03.1999  30.03.2000 | 411.44 | 2703213.00  1993329.00 |  |  |  |
| 2. | Farmers Hostel |  | 307.00 |  |  |  |
| 3. | Staff Quarters (6) |  | 31.03.2006 | 398.00 | 3061961.00 |  |  |  |
| 4. | Demonstration Units (2) |  | 31.03.1998 | 140.45 | 80962.00 |  |  |  |
| 5 | Demonstration Units(1) |  | 31.03.2008 | 80.00 | 437000.00 |  |  |  |
|  | Fencing |  | 12.12.1997 | 3.02 Km | 618078.00 |  |  |  |
| 6 | Rain Water harvesting system |  | -- | -- | -- |  |  |  |
| 7 | Threshing floor |  | -- | -- | -- |  |  |  |
| 8 | Farm godown |  | -- | -- | -- |  |  |  |
| 9 | ICT lab |  | -- | -- | -- |  |  |  |
| 10 | Other-Internal Road |  | 16.1.1998 | 2.0km | 221131.00 |  |  |  |
|  |  |  |  |  |  |  |  |  |

**B. Vehicles**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of vehicle** | **Year of purchase** | **Cost (Rs.)** | **Total kms. Run** | **Present status** |
| Kawasaki Bajaj | 1996-97 | 41230.00 | -- | Needs replacement |
| Tractor New  (Mahindra 575) | 2010-11 | 555000.00 | 1373 | Good |
| Tractor (Massi Fergusson) | 2012-13 | 510000.00 | 1108 | Good |
| Mahendra Bolero (Jeep) | 2015-16 | 755000.00 | 92713 | Good |

**C. Equipments& AV aids**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of the equipment / Implements** | **Year of purchase** | **Cost (Rs.)** | **Present status** |
| **Equipments** |  |  |  |
| **Office Equipment & A V Aids** |  |  |  |
| Photocopier | 2005-06 | 53339.00 | Needs replacement |
| Fax machine | 2006-07 | 6800.00 | Needs replacement |
| Genset | 2004-05 | 51000.00 | Needs replacement |
| Inverter | 2004.05 | 21500.00 | Needs replacement |
| Camera Kodak | 1996-97 | 1600.00 | Good |
| V C P | 1996-97 | 10690.00 | Good |
| Television | 1996-97 | 13500.00 | Good |
| Slide Projector | 1996-97 | 14125.00 | Good |
| Over head projector | 1996-97 | 6611.00 | Good |
| Spring type board | 1996-97 | 1582.00 | Good |
| Magnetic Board | 1996-97 | 3134.00 | Good |
| Felt Cover Notice Board | 1996-97 | 1468.00 | Good |
| LCD Projector | 2005-06 | 79000.00 | Good |
| Split Ac (3 Nos) | 2016-17 | 118920.00 | Good |
| Book Case (2 Nos) | 2016-17 | 11000.00 | Good |
| RO Water Purifier | 2016-17 | 38500.00 | Good |
| Canon Camera and tripod | 2016-17 | 39000.00 | Good |
| Display material- Boards | 2016-17 | 51758.00 | Good |
| LED TV | 2016-17 | 51000.00 | Good |
| LCD Projector (2 Nos) | 2016-17 | 83800.00 | Good |
| Display material | 2016-17 | 187230.00 | Good |
| Laptop | 2016-17 | 29500.00 | Good |
| Desktop | 2016-17 | 30300.00 | Good |
| Printer | 2016-17 | 9700.00 | Good |
| **Soil Testing lab Equipment** |  |  |  |
| Spectrophotometer | 2004-05 | 169352.00 | Good |
| Flame photometer | 2004-05 | 64790.00 | Good |
| Conductivity bridge | 2004-05 | 16016.00 | Good |
| PF meter | 2004-05 | 15070.00 | Good |
| Chemical Balance | 2004-05 | 77000.00 | Good |
| Distilled Water Assembly | 2004-05 | 40700.00 | Good |
| Kjeldhal digestion and Destillation unit | 2004-05 | 36300.00 | Good |
| Shaker Jindal | 2004-05 | 45045.00 | Good |
| Oven Jindal | 2004-05 | 43100.00 | Good |
| Hot Plate Jindal | 2004-05 | 3300.00 | Good |
| Screw Auger ASEW | 2004-05 | 1760.00 | Good |
| Plate Grinder Jindal | 2004-05 | 22000.00 | Good |
| Atomic Absorption Spectrophotometer | 2008-09 | 894884.00 | Good |
| Air Conditioner | 2008-09 | 41100.00 | Good |
| Nitrogen Gas Cylender with regulator | 2008-09 | 15242.00 | Good |
| Nitrous Oxide gas Cylender | 2008-09 | 18512.00 | Good |
| Cmputer, UPS, USb to paraller port converter | 2008-09 | 30262.00 | Good |
| Soil Testing Kit | 2015-16 | 75000.00 | Good |
| Panji | 2018-19 | 28000.00 | Good |
| Bullock drawn CRIDA Planter | 2018-19 | 19500.00 | Good |
| Alluminium Ladder | 2018-19 | 8260.00 | Good |
| Battery (12 V 75 AH) for Massy Fergusan Tractor | 2018-19 | 5250.00 | Good |
| Battery 12 V 90 AH 18+18 Month for Mahindra Tractor | 2018-19 | 5600.00 | Good |
| Ridger | 2018-19 | 27500.00 | Good |
| Spiral Separator | 2018-19 | 10000.00 | Good |
| AC, Water Cooler, Visicooler | 2018-19 | 129000.00 | Good |
| Wireless Conference System | 2018-19 | 173853.00 | Good |
| Desktop Computer, UPS | 2018-19 | 121050.00 | Good |
| CCTV | 2018-19 | 67270.00 | Good |
| Networking | 2018-19 | 16120.00 | Good |
| Printer | 2018-19 | 61800.00 | Good |
| Chair | 2018-19 | 156800.00 | Good |
| Battery for Inverter | 2018-19 | 22000.00 | Good |
| Comsolve Internet Facility | 2018-19 | 16520.00 | Good |
| Genset Purchase | 2018-19 | 231000.00 | Good |

**1.8. Details of SAC meetings to be conducted in the year**

|  |  |
| --- | --- |
| **Sl.No.** | **Date** |
| 1. Scientific Advisory Committee | Not Conducted |

**2. DETAILS OF DISTRICT**

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

|  |  |
| --- | --- |
| S. No | Farming system/enterprise |
| 1 | |  |  | | --- | --- | | Shallow to medium Black soils – Rain fed | Cotton – fallow  Soybean – Gram  Jowar - sunflower – fallow s | |
| 2 | |  |  | | --- | --- | | Shallow to medium Black soil – Irrigated | Citrus – vegetable (Intercrop)  Cotton – fallow  Red gram – fellow  Soybean – Bengal gram | |
| 3 | |  |  | | --- | --- | | Medium to deep black cotton soils – Rain fed | Soybean – Vegetable  Green gram – Bengal gram  Cotton – fallow  Soybean – Bengal gram  Fallow-safflower | |
| 4 | |  |  | | --- | --- | | Medium to deep black cotton soils Irrigated – Control Irrigation | Citrus – Vegetable (Intercrop)  Cotton – Fallow  Soybean-Floriculture  Jawar – Vegetable | |
| 5 | |  |  | | --- | --- | | Deep black with salty soil Rain fed | Cotton – fallow  Green gram – safflower  Black gram – Safflower  Black gram – Bengal gram  Soybean – Bengal gram  Jowar – fallow | |

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

**a) Soil type & Topography**

|  |  |  |
| --- | --- | --- |
| Sl. No. | Agro-climatic Zone | Characteristics |
| 1 | Assured rainfall zone | * The whole district except tehasilWarud and eastern part of tehasilTiwasa and Chandur railway fall within this zone about 81% area is under this zone. * The annual precipitation varies from 800 to 900mm; however it exceeds often in hilly Melghat tract of this zone. * More than 75% rainfall, in this zone is received in kharif season and hence, the kharif cropping system predominates in the zone. * The climate is usually hot and dry. Dharani, Chikhaldara, Daryapur, Anjangaonsurji, Bhatkuli, Amravati, Nanadgaonkh.,Achalpur, Chandur bazar, a little part of Morshi and western part of Tiwasa and Chandurrailytehasil are included in this zone. * The area wise characters of soil and the prevalent cropping pattern is furnished below. * An area of tehasilDharani and Chikhaldara in this zone is hilly and occupied mountain Satpura, popularly known as “Melghat range”. Land is extremely sloppy. Soils are very shallow to shallow. Forest occupies substantial area in these tehasils. Kharif sorghum, soybean, minor millets or and rice in same patches are the important crops of this region. The area is inhibited by tribal farmers. This tract gives good scope for development of dry land horticulture and forage crops. * The soils in tehasilAchalpur,Chandur bazar, Morshi, Amravati and Nandgaonkhandeshwar are moderate to deep and predominantly vertisols and with situation of ill drainage and crop suffering from more of wet condition, during the year of relatively higher rains. Irrigation management in these soils posses some problems. Cotton predominates over sorghum. Other crops grown are soybean, red gram, green gram, black gram, etc in kharif season and wheat and Bengal gram are the rabi crops, wherever irrigation water is available. * The soils in Bhatkuli, Daryapur, Southern part of Anjangaonsurjitehasil are vertisoil, deep and saline to saline alkali in reaction. Open well in tract have saline water, as result of which, the same cannot be utilized for irrigation purposes. Cotton, Soybean, Sorghum, , red gram, green gram & black gram are the major crops of the tract together with rain fed Wheat, Bengal gram and Sunflower during rabi season. Poor drainage during rainy season is rampant. Fields respectively plain. * The soils is western part of Tiwasa and Chandur railway tehasil are predominantly shallow to moderately deep with equal proportion of vertisols, entisols and inceptisols. Land is rolling and slop. In this area also cotton predominates sorghum. Soybean is making its place in the cropping system. Pulses and groundnut are the mportant crops of the region. |
| 2 | Moderate to moderately high rainfall zone : | Total Warudtehasil, part of Morshi and eastern part of Tiwasa and Chandur railway tehasil are included in this zone.   * The average rainfall received in this tract usually exceeds 900mm. * The climate is hot and dry.18.93% area of the district falls under this zone.   The soils in this area are moderate to deep having orange dominating cropping system, either on command or dug well irrigation with seasonal vegetables and also field crops like cotton, sorghum, soybean, red gram in kharif and mostly irrigated wheat in Rabi season. |

2.3 Soil Types

|  |  |  |  |
| --- | --- | --- | --- |
| S. No | Soil type | Characteristics | Area in ha |
| 1 | Medium black | - | 4.58 lakh ha. |
| 2 | Course shallow | - | 1.84 lakh ha. |
| 3 | Deep black | - | 1.21 lakh ha. |
| 4 | Saline | - | 31,170 ha. |
|  | Alkaline | - | 27,077 ha. |

**2.4. Area, Production and Productivity of major crops cultivated in the district (2019-20)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. No | Crop | Area (ha) | Production (MT.) | Productivity (Qt./ha) |
| 1 | Cereals |  |  |  |
|  | Wheat | 28749 | 55141 | 19.18 |
|  | Kharif jowar | 19742 | 18084 | 9.16 |
|  | Paddy | 4646 | 2114 | 4.55 |
| 2 | Pulses |  |  |  |
|  | Bengal gram | 88062 | 114902 | 13.05 |
|  | Green gram | 22277 | 3653 | 1.64 |
|  | Black gram | 9069 | 1169.9 | 1.29 |
|  | Red gram | 113815 | 116319 | 10.22 |
| 3 | Oilseeds |  |  |  |
|  | Soybean | 291745 | 250025 | 8.57 |
| 4 | Cash Crops |  |  |  |
|  | Cotton | 204233 | 62700 lint | 3.07 lint |
|  | Nagpur Mandarin | 71507 | 589000 | 82.36 |
|  | Sweet Orange | 2174 | 14300 | 65.77 |
|  | Lime | 725 | 5770 | 79.58 |
|  | Banana | 955 | 23700 | 248.17 |
|  | Mango | 676 | 2500 | 36.98 |
|  | Pomogranate | 143 | 291 | 20.35 |
| 05 | Vegetable Crop | 4308 | 108436 | 251.71 |
| 06 | Spices and Condiments | 449 | 6085 | 135.52 |
| 07 | Onion | 3149 | 97585 | 309.89 |
| 08 | Chilli | 208 | 1058 | 50.86 |
| 09 | Medicinal and Aromatic | 166 | 3.0 | 0.185 |
| 10 | Floriculture crop | 91 | 492 | 54.06 |

Source: District agriculture department.

**2.5. Weather data (2019-20)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Month | Rainfall (mm) | Temperature 0 C | | Relative Humidity (%) | |
| Maximum | Minimum | Maximum | Minimum |
| June 2019 | 93.55 | 36.76 | 24.43 | 81.33 | 79.66 |
| July 2019 | 299.50 | 30.34 | 24.19 | 102.62 | 77.57 |
| Aug 2019 | 221.55 | 27.42 | 22.33 | 70.19 | 69.16 |
| Sept 2019 | 198.36 | 27.86 | 24.20 | 74.43 | 73.7 |
| Oct 2019 | 58.52 | 30.96 | 18.76 | 70.27 | 69.59 |
| Nov 2019 | 11.30 | 32.38 | 15.4 | 64.16 | 62.23 |
| Total | 882.78 |  |  |  |  |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Population** | **Production** | **Productivity** |
| **Cattle** | | | |
| Crossbred | 28286 | 184.99 | 6.755 |
| Indigenous | 499782 | 289.58 | 0.937 |
| **Buffalo** | 119881 | 505.77 | 3.078 |
| **Sheep** | 24663 | 11686 | -- |
| **Goats** | 284381 | 54.07 | 0.143 |
| **Pigs** |  |  |  |
| Crossbred | 84 | - | - |
| Indigenous | 9647 | - | - |
| **Rabbits** | 95 | - | - |
| **Poultry** | | | |
| Hens | 201815 | 759.85 | 31.60 |
| Desi | 116268 | 141.52 | **--** |
| **Category** |  | Production (Q.) | Productivity |
| Fish (Reservoir) |  |  |  |

**2.7. Details of Operational area / Villages**

| **Taluka** | **Name of the block** | **Name of the village** | **Major crops & enterprises** | **Major problem identified** | **Identified Thrust Areas** |
| --- | --- | --- | --- | --- | --- |
| Achalpur Chandur (R) | Achalpur & Chandur (B) | Krushnapur Besakheda , | Black gram | Low yield of Black gram due to use of old variety. | Use of Old Variety  No use of Biofertiliser  No se of Recommended INM and IPM |
|  | Manjarkhed | Green gram | Low Yield of Green gram due to use of old variety | Use of Old Variety  No use of Biofertiliser  No se of Recommended INM and IPM |
| Chandur (B) | Chandur (B) | Besakheda | Red gram | Wilt  Low yield of Red gram | Use of bio – fertilizers  Use of New Variety  Use of proper fertiliser management |
|  | Besakheda | Soybean | Use of old varieties  No use of Bio- fertilizers  No use of proper weedicide | Use of New Variety  Use of Biofertiliser  Proper use of weedicide |
| Chandur (B) Dharni and Dhamangaon | Besakheda, Dhamnagaon and Kesharpur | Bengal gram | No use of new variety | Use of High Yielding variety |
| Chikhaldara | Chikhaldara | Kesharpur | Sorghum | Low yield due to use of old variety | Use of new variety |
| Chikhaldara | Chikhaldara | Kesharpur | Wheat | Low yield due to use of old variety | Use of New Variety |
| Chandur bazar | Chandur Bazar | Jasapur | Mandarin Orange,BananaTurmeric,Onion | Low yield and Poor quality | Improvement of production & quality in mandarin orange  Utilization of organic manure in horticultural crops |
|  | Beskheda | Mandarin Orange,Onion | Low yield and Poor quality | Improvement of production & quality in mandarin orange  Utilization of organic manure in horticultural crops |
| Dhamangaon railway | Dhamangaon railway | Anjanvati | Mandarin Orange, Turmeric,Onion,Brinjal | Imbalance use of nutrient management | Promotion of proper nutrient management in vegetable crop |
|  | Sonegaon | Turmeric,Onion,Brinjal | Imbalance use of nutrient management | Promotion of proper nutrient management in vegetable crop |
| Chandur railway | Chandur railway | Amla | Mandarin Orange, Turmeric,Onion,Brinjal,Tomato | Low yield and Poor quality  Imbalance use of nutrient management | Improvement of production & quality in mandarin orange  Utilization of organic manure in horticultural crops |
|  | Basalapur | Mandarin Orange,Onion | Low yield and Poor quality | Promotion of proper nutrient management in vegetable crop |
| Dharni | Dharni | Chitri | Onion,Brinjal,Tomato | Unavailability of new variety  Low yield and Poor quality | Promotion on variety proper nutrient management in vegetable crop |
|  | Kesharpur | Spinash,Fenugreeeeek | Low yield and Poor quality | Promotion of proper nutrient management in vegetable crop |
| Tiosa | Tiosa | Marda | Mandarin Orange, Turmeric,Onion,Brinjal,Tomato | Low yield and Poor quality  Imbalance use of nutrient management | Improvement of production & quality in mandarin orange  Utilization of organic manure in horticultural crops |
|  | Mirchapur | Mandarin Orange,Onion | Low yield and Poor quality | Promotion of proper nutrient management in vegetable crop |
| Tiwasa | Tiwasa | Marada | Soybean ,Cotton ,Pigeon pea, Bengal gram ,Wheat ,Nagpur mandarin,Onion | Low yield due to pests and diseases ,Higher cost on plant protection, Lack of knowledge about the critical stages of pesst and diseases, Lack of knowledge about selection of pesticides | Improving the yield by promotion of IPM&IDM approach.,  Awareness about the critical stages of pests through FFS ,training ,demo. and Field visits |
| Chandur bazar | Chandur bazar | Beskheda | Soybean ,Cotton ,Pigeon pea, Bengal gram ,Wheat ,Nagpur mandarin,Onion | Low yield due to pests and diseases, Higher cost on plant protection, Lack of knowledge about the critical stages of pest and diseases, Lack of knowledge about selection of pesticides, Indiscriminate use of pesticide. | Improving the yield by promotion of IPM&IDM approach.,  Awareness about the critical stages of pests through FFS, training ,demo and Field visits |
| Chandur Rly | Chandur Rly | Dhanodi | Soybean ,Cotton ,Pigeon pea, Bengal gram ,Wheat ,Nagpur mandarin | Low yield due to pests and diseases, Higher cost on plant protection, Lack of knowledge about the critical stages of pest and diseases, Lack of knowledge about selection of pesticides, Indiscriminate use of pesticide. | Improving the yield by promotion of IPM&IDM approach.,  Awareness about the critical stages of pests through FFS, training ,demo and Field visits |
| Dharani | Dharani | Chitri | Soybean,Pigeonpea,Bengalgram,wheat,vegetables like Brinjal,Spinach,Methi,Tomato,  Chilli | Lack of Knowledge about the pest and diseases, Lack of knowledge about the pesticides and other safer methods of pest management | Improving the knowledge of the farmers about the pest and diseases, management practices through training, FFS, demo and Field visits. |
| Chikhaldara | Chikhaldara | Kesharpur | Soybean, Pigeon pea, Bengal gram, Paddy | Lack of Knowledge about the pest and diseases, Lack of knowledge about the pesticides and other safer methods of pest management | Improving the knowledge of the farmers about the pest and diseases, management practices through training, FFS, demo and Field visits |
| Dharni | Harisal | Kara | Soybean  Bengal gram  Wheat | Group Formation at Village level  Marketing Techniques  Trichoderma & its use  No use enriched compost  Use of local varieties under field crops | Skill training of farmers.  Poor environment in development of scientific leadership  Marketing techniques  Group formation & management  Create awareness about use of improved and high yielding varieties of field crop ( Soybean, Red gram Bengal gram, Jowar, Maize) Wheat |
|  | Nanduri | Soybean  Bengal gram  Wheat | Group Formation at Village level  Marketing Techniques  Trichoderma & its use  No use enriched compost  Use of local varieties under field crops |  |
|  | Kota  Jambhu  Chitri | Soybean  Bengal gram  Paddy | Group Formation at Village level  Marketing Techniques  Trichoderma & its use  No use enriched compost  Use of local varieties under field crops |  |
| Chikhaldara | Chikhali | Tarubanda | Soybean  Jowar | Group Formation at Village level  Marketing Techniques  Trichoderma & its use  No use enriched compost  Use of local varieties under field crops | Group formation & management  Create awareness about use of improved and high yielding varieties of field crop |
| Chandur Bazar | Chandur Bazar | Beskheda | Soybean  Bengal gram  Red gram | Group Formation at Village level  Marketing Techniques  Trichoderma & its use | Skill training of farmers  Create awareness about use of improved and high yielding varieties of field crop |
|  | Jasapur | Soybean  Bengal gram  Red gram  Citrus | Group Formation at Village level  Marketing Techniques  Trichoderma & its use | Group formation & management  Soil test based fertilizer management |
| Dharni | Harisal | Kara,Chitri | **Soybean,Gram**  CRIDA Planter for sowing | High drudgery & more time required for sowing.  Plant to Plant spacing could not maintained due to traditional practice.More seed required. | Introduction& Imparting skill on CRIDA Planter ( BD)for sowing |
|  | Chitri | **Maize**  Bullock operated three Tyne weeder for interculture operations | Time consuming work of interculture operations | Introduction & Imparting knowledge on bullock operated three Tyne weeder |
|  | Chitri | **Maize**  (Hand operated Rotary maize sheller for shelling) | High drudgery & more time required for shelling of maize cobs .  The chances of injury to fingers are more. Very low output | Introduction & Imparting knowledge on Hand operated Rotary maize sheller for shelling |
| Chikhaldhara | Chikhali | Kesharpur & Tarubandha | **Paddy**  Paddy winnower for winnowing of paddy | Paddy winnowing is a time consuming process and it requires more women workers. Farmers are done the operation by manual winnowing in open air at the threshing yard | Imparting skill on paddy winnower(Powar operated) for timeliness operation, for saving cost of operation ,labour & drudgery of farm women after threshing of paddy |
|  | Kesharpur & Tarubandha | **Paddy**  Mini Rice mill for milling of rice | Not received good quality of Rice & get loss after selling in local market. Farmers have no advanced facilities for milling process at village level. | Imparting skill on Mobile Rice mill for timeliness operation, Reducing lossess & get more profit & for easily available at farmers level. |
|  | Kesharpur | **Paddy**  Portable Paddy Thresher for threshing of rice | High drudgery & more time required for threshing of Paddy. High shattering losses occurred & could not maintained straw. | Imparting knowledge through training on Portable Paddy thresher for timeliness operation, Reducing lossess & drudgery |
|  | Kesharpur | **Soybean,Gram**  CRIDA Planter for sowing | High drudgery & more time required for sowing.  Plant to Plant spacing could not maintained due to traditional practice.More seed required. | Introduction& Imparting skill on CRIDA Planter ( BD)for sowing |
|  | Kesharpur | **Jowar,Pigeon pea & maize**  Bullock drawn stubble collector for Collections of stubbles, weed residue & crop residues | Required more time,labours & high cost of operation for Collections of stubbles, weed residue & crop residues in ploughed fields | Imparting knowledge through training on bullock drawn stubble collector for Collections of stubbles, weed residue & crop residues |
|  | Kesharpur | **Jowar,Soyabean**  Bullock operated three Tyne Ferti weeder for interculture operations | Time consuming work of interculture operations | Introduction & Imparting knowledge on bullock operated three Tyne weeder |
|  | Kesharpur | Bengal gram  Bullock operated solar sprayer for spraying | Required more time with high cost of operation and high drudgery for Spraying of insecticides | Introduction & Imparting knowledge on bullock operated solar sprayer |
| Chandur Bz. | Chandur Bz. | Beskheda | Tractor operated subsoiler | Soil compaction,poor drainage,low infiltration rate & low productivity | Introduction & Imparting knowledge on use of tractor operated sub soiler |
| Chikhaldara | Chikhali | Kesherpur | Cattle and Buffalo | Delay or Failure of estrus  Reducing breeding  Infertility, Economic losses  Lower conception rate | Training & Assessment on Estrus synchronization through ovsynch protocol in cow and buffalo, To improve knowledge about estrus synchronization and dry period management |
| Chikhali | Kesherpur | calf | Low weight gain  Lower growth rate  Calf mortality | Training & Assessment on Balance diet for calf  To improve Manage mental practices to avoid calf mortality |
| Chikhali | Tarubanda | Poultry and Quail | High cost of rearing in poultry  Affect profitability | Training & Assessment on Comparative economic of production of chicken and Quail |
| Dharni | Harisal | Chitri | Poultry | Use of local breeds  Low weight gain  Low quality and imbalanced  Feed for poultry  Low eggs production | Training & FLD on  Introduction of new breeds with high eggs and meat production, To improve knowledge about Dual purpose backyard poultry breed and Managemental practices |
| Chandur Bazar | Chandur Bazar | Basekheda | Cattle and Buffalo | Non availability of green fodder  Low milk yield  Low resistant power | Training and FLD on cultivation of Fodder crop,  To improve knowledge about fodder cultivation |
| Chandur Bazar | Chandur Bazar | Basekheda | Goat kid | Low growth rate in kid  Low growth rate in kid  High mortality in kid | Training and FLD on Use of probiotic supplementation in goat kid, To improve Managemental practices to avoid kid mortality |
| Dharni | Dharni | Chitri | Cattle and Buffalo | Low milk yield  Major health problem  Reduce breeding efficiency  Intermittent diarrhea | To improve Managemental practices to avoid parasitic infestation |
| Dharni | Harisal | Naduri | Bio fortified Rice | Nutritional and health problem in Women, Infants & School going children in tribal area | Malnourishment of Adolescent Girl |
|  | Kara,Kotha, Nanduri | Bamboo Solar Drier | Drying of food in unhygienic condition &  Unable to maintain the quality. | Secure place for drying the food items |
|  | Sonegaon,Tq.Chandur Rly,Marda,Tq.Dhamangaon Rly | Soybean Mitten | Heavy Drudgery work of farm women while harvesting painful Work for farm women. | Heavy Drudgery of farm women while harvesting Soybean |
|  | Kara,Nanduri | Pest control | Pest infestation damage & fluctuation in moisture content due to temperature change. | Pest infestation damage & fluctuation in regular practices of grain storage |
|  | Kara, Kotha, ,Nanduri | Milk product | Less profit in milk marketing due to lack of proper device. | Less profit in milk production due to lack of proper device |
|  | Keshrpur,Kara | Ouster Mushroom | Agrowaste of Ricehusk,microdefficiency in daily diet. | Major Deficiency of micronutrient |
|  | Nanduri,Keshrpur | Child care | 1 Protein Energy Malnutrition among children in tribal area | Creating awareness about protein Energy malnutrition among children. |

**2.8. Discipline-wise Priority thrust areas:**

**1. Agronomy :**

* 1. Low yield in soybean due to high intensity of weed & use of old variety
  2. Use of old variety
  3. Imbalance fertilizer application
  4. No use of bio fertilizers
  5. Improper management practices in crop production

**2. Plant Protection:**

1. Improving the productivity by promoting IPM & IDM approach and other safer methods of pest and disease management in all crops.

2. Improving the productivity by using recommended plant protection measures

3. Improving the knowledge of the farmers about the important crucial stages of pest and about diseases, proper time of management of pest,importance of seed treatment by organizing farmer’s field school, trainings ,demonstrations ,Group discussion and field visits.

4. Improving the knowledge of farmers about the safe use and handling of pesticides.

**3. Agriculture Engineering:**

1) Introduction & Imparting knowledge on CRIDA Planter (BD) for timeliness operation, Efficient application of Inputs & reducing losses & drudgery in sowing in Kharif & Rabi

2) Introduction & Imparting knowledge on paddy winnower(Powar operated) for timeliness operation, for saving cost of operation & labour & drudgery of farm women after threshing of paddy

3) Imparting knowledge on Mini Rice mill for timeliness operation, Reducing lossess & drudgery

4) Introduction & Imparting knowledge on bullock operated three Tyne weeder

5) Introduction & Imparting knowledge on use of tractor operated subsoiler

6) Imparting knowledge through training on bullock drawn stubble collector

7) Introduction & Imparting knowledge on bullock operated solar sprayer

8) Introduction & Imparting knowledge on hand operated Rotary maize sheller for reducing lossess & drudgery in shelling of Maize cobs

9) Introduction through training on Portable Paddy thresher for timeliness operation, Reducing lossess & drudgery

**4. Horticulture:**

|  |  |
| --- | --- |
| **Fruit crop**  Mandarin orange, Sweet orange, Kagzi lime, Mango, Guava, Aonla and Dry land fruit crop | 1. Integrated nutrient Management 2. Integrated crop Management 3. Technology dissemination for quality seed & seedling production 4. Rejuvenation of old orchards 5. Improvement in mandarin orange grown on unsuitable soil 6. To encourage the farmers for dry land fruit crop plantation 7. Post harvest technology |
| **Vegetable crop**  Brinjal, Tomato, Chilli, Pumkin, Bottle gourd ,Bitter gourd | 1. Evaluation of new varieties 2. Integrated nutrient management 3. Integrated crop management 4. Increasing the area and production of vegetable crop 5. Diversification about organic vegetable production 6. Motivate farmers to grow the vegetable under control condition 7. Quality seed and seedling production in Vegetables 8. Post harvest technology |
| **Spices Crop**  Onion, Garlic, Ginger, Turmeric, Fennel, Ajawain | 1. Production and management technology 2. Quality seed and seedling production 3. Evaluation of new varieties 4. Integrated nutrient management 5. Integrated crop management 6. Post harvest technology |
| **Floriculture crop**  Gaillardia, Rose, Chrysanthemum, Tuberose, Gerbera, | 1. Quality seed and seedling production 2. Enhancement of area and production 3. Cultivation under control condition 4. Integrated nutrient management 5. Integrated crop management 6. Post harvest technology |

**5. Animal Science :**

|  |  |
| --- | --- |
| Crop/Enterprise | Thrust area |
| Cattle and Buffalo | Production and Management |
| Cow calf | Nutrient Management |
| Poultry and Quail | Small Scale income generating enterprises |
| Cattle and Buffalo | Diseases Management |
| Goat kid | Nutrient Management |
| Cattle and Buffalo | Fodder Management |
| Poultry | Poultry Management |

**6. Home Science:**

1. Creating awareness about Iron Deficiency among Adolescents girl.
2. Secure place for drying the food items
3. Creating awareness about protein Energy malnutrition among children.
4. Heavy Drudgery of farm women while harvesting Soybean.
5. Pest infestation damage & fluctuation in regular practices of grain storage.
6. Major deficiency of micronutrient in daily diet & no used of Agro waste
7. Less profit in milk production due to lack of proper device
8. **Agriculture Extension :**

|  |  |
| --- | --- |
| **Crop/Enterprise** | **Thrust area** |
| Group Formation at Village level | Skill training of farmers.  Poor environment in development of scientific leadership |
| Use of local varieties under field crops | Create awareness about use of improved and high yielding varieties of field crop ( Soybean, Red gram Bengal gram, Jowar, Maize) Wheat, |
|  | Processing of Agriculture produce & Marketing through group formation\* |

**Other Problems related to Aspects**

|  |  |  |
| --- | --- | --- |
| **Aspects** | **I Rank** | **II Rank** |
| Crop Production | Seed treatment | High Yielding Variety |
| Animal Production | Balance ration in milch animals | Knowledge about animal diseases |
| Horticulture | Recommended varieties of vegetables | Plant protection measures |
| Water conservation | Contour farming | In situ soil & water conservation |
| Small farm Mechanization | Sowing implements | Drudgery reducing implements |
| PHT | Primary processing | Mini dal mil |
| Women empowerment | Malnutrition among children in tribal area | Value addition in food |
| Agriculture occupation | Backyard poultry | Goat |

**List of location specific training needs**

|  |  |  |
| --- | --- | --- |
| **Farmers & farm women** | **Rural Youth** | **Extension Functionaries** |
| Community organized farming | Subsidiary occupations | Communication Skills |
| Market intelligence | Value addition | Training methods |
| Contract farming and corporate farming | ICT in agriculture | PRA techniques |
| Subsidiary occupations | Farm mechanization | Public private partnership |
| Value addition | Custom hiring | Contract farming and corporate farming |
| Soil and water conservation |  | IT use in agriculture |
| Rain Water Harvesting |  |  |
| Water Scaling |  |  |
| Integrated Nutrient Management |  |  |

**3. TECHNICAL PROGRAMME**

**3.1. A. Details of targeted mandatory activities by KVK**

|  |  |  |  |
| --- | --- | --- | --- |
| **OFT** | | **FLD** | |
| **(1)** | | **(2)** | |
| Number of OFTs | Number of Farmers | Area (ha) | Number of Farmers |
| 17 | 189 | 187.4 (9ha & 60qt) | 696 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Training** | | **Extension Activities** | |
| **(3)** | | **(4)** | |
| Number of Courses | Number of Participants | Number of activities | Number of participants |
| 139 | 3517 | 185 | 5572 |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Seed Production (Qtl.)** | **Planting material (Nos.)** | **Fish seed prod. (No’s)** | **Soil Samples tested** |
| **(5)** | **(6)** | **(7)** | **(8)** |
| 00 | 16000 | 00 | 5600 |

**3.1. B. Operational areas details proposed during 2020**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr. No | Major crops & enterprises being practiced in cluster villages | Prioritized problems in these crops/ enterprise | Extent of area (Ha/No.) affected by the problem in the district | Names of Cluster Villages identified for intervention | Proposed Intervention (OFT, FLD, Training, extension activity etc.)\* |
| 01 | Green gram | Low yield of Green gram due to use of old variety and traditional practices of crop production | 500 | Manjarkhed | FLD , training programme and Extension activities |
| 02 | Black gram | Low yield of Black gram due to use of old variety and traditional practices of crop production | 650 | Asadpur , Yelaki and Sawlapur | FLD , training programme and Extension activities |
| 03 | Red gram | Low yield of Red gram due to wilt and use of old variety with use of traditional practices | 50000 | Besakheda, | FLD , training programme and Extension activities |
| 04 | Soybean | Low yield of Soybean  Low yield of Soybean due to Moisture stress | 50000  20000 | Besakheda, Marda and Sonegaon | FLD , training programme and Extension activities |
| 05 | Cotton | Low yield of cotton due reddening | 500 | Asegaon | FLD , training programme and Extension activities |
| 06 | Wheat | Low yield of wheat | 15000 | Kesharpur and Bhiroja | OFT and training |
| 07 | Bengal gram | Low yield due to use of old variety | 100 | Asegaon and Jasapur | FLD , training programme and Extension activities |
| 08 | Mandarin Orange | Low yield ,poor quality, Nutrient deficiencies | 40000 ha | Marda | Improving the quality production in Mandarin orange by utilizing balance fertilizer management, OFT,FLD, Training |
| 09 | Mandarin Orange | Poor quality | 45000ha | Jasapur, | Foliar Nutrition of Mandarin for higher quality Yield, training |
| 10 | Banana | Low yield with Poor quality | 65 | Jasapur | Application of Foliar Nutrient for the quality Improvement in Banana OFT, FLD ,training |
| 11 | Turmeric | Low yield with Poor quality | 70 | Dhanodi,Jasapur | Assessment on red colour varieties of onion, Training |
| 12 | Onion | Poor quality and less storage capacity | 209 ha | Baslapur | Effect of Sulphur in  a enhancement of  Onion yield, Training |
| 13 | Onion | Poor quality and less storage capacity | 150 | Marda  Basalapur | Assessment on red  color variety of  Onion, Training ,Extension activity |
| 14 | Annual Chrysanthemum | Low yield with Poor quality | 15 | Anjanvati | Increasing the quality production in Chrysanthemum Training |
| 15 | Gaillardia | Low yield with Poor quality | 60 | Anjanvati, Baslapur,Jasapur | Improving the Quality and yield in Gaillardia |
| 16 | cotton | Pink bollworm infestation | 40% area i.e.82982 ha area in the district was affected.  (In 2018-19.Pink bollworm infestations is in the month of Oct.5%,Nov.8-10%,& 25-35%Dec, ) | BeskhedaTqChandur Bazar | OFT,Training,Field visits, Group discussion |
| 17 | Pigeon pea | Pod borer complex | 60 % area i.e.67373 ha area in the district was affected  (Pod borer infestation was 20-25% in the month of Non.) | DhanodiTq.Chandur Rly | OFT,Training,Field visits, Group discussion |
| 18 | Bengal gram | Pod borer | 64 % area i.e.72213 ha area in the district was affected  (in the month of Nov ,Dec the pod borer infestation was above ETL i.e3.5 larvae/MRL) | MaradaTq.Dharani | OFT,Training,Field visits, Group discussion |
| 19 | Soybean | Stem fly, Girdle beetle, | 52 % area i.e.149277 ha area in the district was affected  (Stem fly infestation was 15-18% in the month of August and Girdle beetle Infestation was 15-20% in the month of September.) | MaradaTq.Tiwasa | FLD, Training,Field visits, Group discussion |
| 20 | Mandarin | Citrus psylla | 65 % area i.e.45882 ha area in the district was affected  (Heavy loss in yiled of mandarin due to citrus psylla was observed in 2018-19 and the infestation of pest was 20-25 nymphs/10cm .shoot was observed.) | BeskhedaTqChandur Bazar | FLD, Training,Field visits, Group discussion |
| 21 | Soybean | Defoliators ,spodoptera | 45 % area i.e.129182 ha area in the district was affected  Obesrved the infestation of semiloopers larvae 5/MRL and spodoptera larvae 4/MRL at flowering stage of Soybean crop. | KesharpurTq.Chikhaldara | FLD, Training,Field visits, Group discussion |
| 22 | Pigeon pea | Wilt disease | About 60% area in the area was affected due to wilt disease affected the yield of pigeon pea. | DhanodiTq.Chandur Rly | FLD, Training,Field visits, Group discussion |
| 23 | Soybean | Use of Bio fertilizers  Lack of knowledge about recommended varieties  Decrease in underground water level | 291642 ha in District (875 ha in selected area) | Kesharpur, Tarubanda Tq. Chikhaldara | Training & Method demonstration of Bio fertilizers  Programme on Moisture management at critical stages of the crops  Group discussions on insect & pest Soybean)  Field day on Soybean |
| 24 | Bengal am | Poor soil fertility  Decrease in underground water level  Wilt problem  Lack of seed of high yielding varieties | 88065 ha in District (650 ha in selected villages) | Beskheda Tq. Chandur azaar  Kesharpur Tq. Chikhaldara  Jambhu Tq. Dharni | Training on Soil test based fertilizer application  Group discussion on Improved varieties of Bengal gram  Group discussion on Introduction of pulse based cropping system  Programme on Moisture management at critical stages of the crops  Film show on Pest & Diseases on Bengal gram |
| 25 | Paddy | Weed problem  Lack of knowledge about improved variety | 8893 ha area in District  (2225 ha) | Kara  Nanduri | Awareness programme on Summer ploughing  Kisan goshti on Pre/post emergence weed management |
| 26 | Crop-Bengal gram  Practiced of spraying by hand operated knapsack sprayer | Required more time with high cost of operation and high drudgery for Spraying of insecticides | 30ha in selected cluster villages | Kesharpur. Chikhaldhara | OFT & training on Bullock drawn solar sprayer |
| 27 | Crop-Soybean,cotton,Tur  Primary Tillage operations by tractor drawn implements viz. V-Pass, Cultivator & Rotavator | Soil compaction,poor drainage,low infiltration rate & low productivity in saline tract area. | 50ha in selected cluster villages | Beskeda Tq. Chandur Bz. | OFT & training on Tractor operated Sub soiler(Single row) |
| 28 | Majoir Crop-Soyabean,Jowar,Maize & Bengalgram  Practiced of Sowing - three row bullock drawn seed drill(Tifan) & by country plough. | Required more time, labour & cost of operation for sowing operation.  Non uniform seed spacing  High seedrate required  Lower crop Yield | 70ha in selected cluster villages | Kara,ChitriTq.Dharni Kesharpur Tq. Chikhaldhara | FLD & training on Three row CRIDA Planter( B D) |
| 29 | Crop Soybean,Jowar Maize,  Practiced of Intercultural operations-Hoeing on a single yoke with 2 or 3 labours | Required more time, labour & cost of operation for Intercultural operations. | 120 ha in selected cluster villages | Chitri, Tq.Dharni & KesharpurTq. Chikhaldhara | FLD & training on bullock operated three Tyne weeder |
| 30 | Crop-Paddy.  Practiced of processing- manually in open air | It is time consuming process &required more time with less output with high drudgery | 70ha in selected cluster villages | Kesharpur,Tarubandha Tq. Chikhaldhara | FLD & training on Paddy winnower (power operated) |
| 31 | Crop-Maize  Practiced of shelling- Manually(Hand operated Rotary maize sheller for shelling) | High drudgery & more time required for shelling of maize cobs  The chances of injury to fingers are more. Very low output | 30ha in selected cluster villages | Chtri Tq. Dharni | FLD & training on Hand operated Rotary maize sheller |
| 32 | Crop-Paddy  Practiced of threshing- Animal foot trampling | It is time consuming process &required more time with less output with high drudgery | 70ha in selected cluster villages | Kesharpur Tq. Chikhaldhara | Training |
| 33 | Crop- Joiwar,Pigeon pea  Practiced of collection of stubbles/crop residues -Manually | It is time consuming process &required more time with less output with high drudgery | 90ha in selected cluster villages | Kesharpur Tq. Chikhaldhara | Training |
| 34 | Cattle  and  Buffalo | Delay or Failure of estrus  Reducing breeding  Infertility, Economic losses  Lower conception rate | 47450 No. | Tarubanda  Kesherpur  Chitri  Basekheda | Training & Assessment on Estrus synchronization through ovsynch protocol in cow and buffalo  Group Discussion on Estrus synchronization |
| 35 | Poultry and Quail | High cost of rearing in poultry  Affect profitability | ---------- | Tarubanda  Kesherpur  Chitri  Basekheda | Training & Assessment on Comparative economic of production of chicken and quail  Group Discussion on economic on Poultry and quail farming |
| 36 | cow  calf | Low weight gain  Lower growth rate  Calf mortality | 51200 No. | Tarubanda  Kesherpur  Chitri | Training & Assessment on Balance diet for calf  Method Demonstration on preparation of balance diet |
| 37 | Cattle  and  Buffalo | Low milk yield  Major health problem  Reduce breeding efficiency  Intermittent diarrhea | 60750 No. | Tarubanda  Kesherpur  Basekheda Chitri | Training and FLD on  Control on endo / ecto parasitic infection. Use of parasitic dial drugs and spraying in shed  Film show on different types of parasites and demonstration |
| 38 | Goat | Low growth rate in kid  Low growth rate in kid  High mortality in kid | 124500 | Tarubanda  Kesherpur  Basekheda Chitri | Training and FLD on Use of probiotic supplementation in goat kid  Field day on Goat farming |
| 39 | Cattle  and  Buffalo | Non availability of green fodder  Low milk yield  Low resistant power | 20875 ha | Tarubanda  Kesherpur  Basekheda Chitri | Training and FLD on cultivation of Fodder crop, Group discussion on feed and fodder |
| 40 | Poultry | Use of local breeds  Low weight gain  Low quality and imbalanced  Feed for poultry | 75675 | Tarubanda  Kesherpur  Basekheda Chitri | Training & FLD on  Introduction of new breeds with high eggs and meat production  Field day on Poultry farming |
| 41 | Adolescent girl care | 1 Anemia among Adolescent girl in tribal area | - | Keshrpur,Tq.Chikhaldara | OFT, Training |
| 42 | Bamboo Solar Drier | Drying of food in unhygienic condition &  Unable to maintain the quality. | - | Kara, Nanduri | OFT, Training |
| 43 | Soybean Mitten | Heavy Drudgery work of farm women while harvesting painful Work for farm women. | - | Songaon ,Tq,Chandur Rly,Marda,Tq.Dhamangaon Rly | FLD, Training |
| 44 | Pest control | Pest infestation damage & fluctuation in moisture content due to temperature change. | - | Kara, Keshrpur Tq. Dharni | FLD, Training |
| 45 | Milk product | Less profit in milk production due toto lack of proper device. | - | Kara, Kotha,Nanduri Tq. Dharni, | FLD, Training |
| 46 | Child care | 1 Protein Energy Malnutrition among children in tribal area | - | Keshrpur,Tq.Chikhaldara  ,Naduri,Tq. Dharni | FLD, Training |
| 47 | Soybean Mitten | No Popularization of drudgery reduction by using farm tools. | - | Pimpalkhuta,Tq. Dhamangaon Rly | FLD,Method Demonstration |
| 48 | Women &Child care | Improvement in Livelihood of rural Women and children through education, health, & hygiene | - | Keshrpur,Tq.Chikhaldara  ,Naduri,Tq. Dharni | Extension Activity |

**3.1 c Problem cause diagram of Major Problem**

1. **PROBLEM CAUSE DIAGRAM FOR LOW YIELD IN SOYBEAN**

**Socio Economic Causes** **Bio Physical Causes**

Lack of awareness

Less Plant population

Low seed rate

Use of local seed

Poor germination

Less soil fertility

More spacing

No seed treatment

Lack of irrigation facility

No use of weedicides

No testing of soil samples

Incidence of pest & diseases

Lack of water conservation practices

Low credit facility

Poor status

Use of Old Variety

Less availability of manures

Shortage of labour at peak period

Lack of knowledge about pest & diseases

Less use of fertilizer

Micronutrient deficiency

Imbalance fertilizer application

Less use of manures

High weed intensity

Moisture stress at pod filling stage

Low yield in soybean

1. **PROBLEM CAUSE DIAGRAM FOR LOW PRODUCTIVITY IN PIGEONPEA**

**Socio Economic Causes**  **Bio Physical Causes**

Wilt

Seed treatment

Thirum

Paucity of capital

Delay in Sowing

Bio fertilizer

Moisture stress

Less no. of pods

Use of old variety

Small size of grains

Illiteracy

Low application of fertilizer

Low fertility

Indiscriminate use of chemical pesticides

Heliothis incidence

Micronutrient deficiency

Non adoption of water conservation practices

Inadequate nutrient supply

Low productivity in Pigeonpea

Unawareness

1. **PROBLEM CAUSE DIAGRAM FOR LOW PRODUCTIVITY IN CHICKPEA**

## Socio Economic Causes Bio Physical Causes

Wilt

Seed treatment

Paucity of capital

Thiram

Low seed rate

Delay in Sowing

Bio fertilizer

Moisture stress

Small size of grains

Low application of fertilizer

Unawareness

Illiteracy

Low fertility

Indiscriminate use of chemical pesticides

Use of old variety

Heliothis incidence

Less no. of pods

Micronutrient deficiency

Non adoption of water conservation practices

Inadequate nutrient supply

Low productivity in Chickpea

1. **PROBLEM CAUSE DIAGRAM FOR LOW YIELD IN WHEAT**

## Socio Economic Causes Bio Physical Causes

Low Yielding and Old varieties Varieties

Paucity of capital

Weed Menance

Limited Irrigation

Unseasonal Rain

Inadequate nutrient supply

Late Sowing

Inadequate use of chemical fertiliser

Delayed Harvesting of Soybean

Discoloration of Grains

Lack of Technical knowledge

Illiteracy

Lodging

Low productivity in Wheat

Rodents and Termites

Non Adoption of PP Measures fertilizer

Use of traditional practices

Poor extension contact

Lack of awareness

**5. Problem cause Diagram: Production system of Banana**

Poor mother plants

Poor quality seedlings

**Personal Socio economic cause**

Lack of knowledge about Tissue Culture techaniques

Lack of Knowledge

Low credit facility

Incidence of diseases

Unsuitable Soil

High rate of inputs

**Low yield with poor quality in Banana**

Lack of awareness about soil testing

Imbalanced use of fertilizer \*

No use of biofertilizers

No use of insecticide

Incidence of pest

Small size of Bunch and finger \*

No use of growth harmones

Poor condition

No proper work on insitu water conservation & rain water harvesting

Water scarcity

Low credit facility

Poor Water management

No use of drip irrigation

Low Water Table

Lack of awareness about group marketing facility

\*\* Intervention

Poor marketing & processing facility

**Bio physical causes**

Poor processing facility

Unavailability of quality seed

High cost of seed

Use of local seed \*

**6. Problem cause Diagram: Production system of Turmeric**

Lack of knowledge

Lack of awareness about soil testing

**Personal Socio economic cause**

Imbalanced use of fertilizer

**Low yield with poor quality in Turmeric**

Less availability of Manures

Less use of manures

Low storage capacity

No use of Harmones

Poor condition

Low credit facility

No use of drip irrigation

\*\*Improper Water management

Low Water Table

Lack of awareness about group marketing facility

Poor marketing & processing facility

\*\* Intervention

Poor processing facility

**Bio physical causes**

Use of traditional practices

Poor extension contact

Lack of awareness

**7. Problem cause Diagram: Production system of mandarin orange**

Poor mother plants

Poor quality seedlings

**Personal Socio economic cause**

lack of knowledge about new variety

Lack of Knowledge

Low credit facility

Incidence of diseases

Unsuitable Soil

High rate of inputs

**Low yield with poor quality in mandarin orange**

Lack of awareness about soil testing

Imbalanced use of fertilizer \*

No use of biofertilizers

No use of insecticide

Incidence of pest

No use of growth harmones

Higher fruit drop \*\*

Poor condition

No proper work on insitu water conservation & rain water harvesting

Water scarcity

Low credit facility

Poor Water management

No use of drip irrigation

Low Water Table

Lack of awareness about group marketing facility

**Bio physical causes**

Poor processing facility

\*\* Intervention

Poor marketing & processing facility

Unavailability of quality seed

High cost of seed

Use of local seed

**8. Problem cause Diagram: Production system of Onion**

Lack of knowledge

Lack of awareness about soil testing

**Personal Socio economic cause**

Imbalanced use of fertilizer

**Low yield with poor quality in Onion**

Less availability of Manures

Less use of manures

Low storage capacity

No use of Harmones

Poor condition

Low credit facility

No use of drip irrigation

\*\*Improper Water management

Low Water Table

Lack of awareness about group marketing facility

Poor marketing & processing facility

\*\* Intervention

Poor processing facility

**Bio physical causes**

**9. Problems cause diagram**

**LOW PRODUCTIVITY IN SOYBEAN**

**Lack of knowledge about fert.management**

**Im-**

**balance nutrient mgt**

**Less market prices**

**No use of Biofertilizers./Not followed seed treatment**

**High pest incidence like girdle beetle, stem fly & defoliators**

**Indiscriminateuse of Chemical pesticides/lack of knowledge about pest & Diseases**

**Low yield ofSOYBEAN**

**Poor linkages with Extension agencies**

**No use of botanical &Boi- pesticides, No seed treatment**

**Not used IPM practices and no use of recommended plant protection measures**

**Poor soil condition**

**Less or no use of O.M./Not followed soil testing**

**Less technical Knowledge**

**Socio- economic factor Bio physical factor**

**10. Problems cause diagram**

**LOW PRODUCTIVITY IN PIGEONPEA**

**Lack of knowledge about fertilizer management**

**Im-**

**balance nutrient mgt**

**Less market prices**

**No use of Biofertilizers./Not followed seed treatment**

**Indiscriminateuse of Chemical pesticides**

**Low yield of pigeon pea**

**High pest incidence like pod borers and disease like wilt**

**No use of botanical &Boi- pesticides,**

**Unknown about IPM practices and no use of recommended plant protection measures**

**Poor linkages with Extension agencies**

**Poor soil condition**

**Less technical Knowledge**

**Less or no use of O.M.**

**Socio-economic factor Bio physical factor**

**11. Problems cause diagram**

**LOW PRODUCTIVITY IN BENGALGRAM**

**Lack of knowledge about nutrient management**

**Im-**

**balance nutrient mgt**

**Fewer market prices**

**No use of Biofertilizers/No seed treatment**

**Low yield of Bengal gram**

**Indiscriminate use of pesticides/Not use recommended measures**

**No use of botanical &**

**Boi- pesticides**

**Pest incidence of pod borers and disease like wilt**

**Poor linkages with Extension agencies**

**Unknown about IPM concept/Lack of knowledge about crucial stages of pest and diseases**

**Poor soil condition**

**Less or no use of O.M.**

**Less technical Knowledge**

**Socio- economic factor Bio physical factor**

**12. Problems cause diagram**

**LOW PRODUCTIVITY IN BT.COTTON**

**Lack of knowledge about fert.management**

**Im-**

**balance nutrient mgt**

**Less market prices**

**No use of Biofertilizers./Not followed seed treatment**

**Poor linkages with Extension agencies**

**Indiscriminate use Chemical ofpesticides for sucking pest mgt.& poor management for Pink bollworm**

**Incidence of sucking pest and Pink Bollworm**

**No use of botanical &Biopesticides**

**Boi- pesticides**

**Low yield Of Bt. Cotton**

**Less technical Knowledge**

**Unknown about IPM concept/Lack of knowledge about crucial stages of pest**

**Less or no use of O.M.**

**Poor soil condition**

**Socio- economic factor Bio physical factor**

**13. Problems cause diagram**

**LOW PRODUCTIVITY IN Nagpur Mandarin**

**Lack of knowledge about nutrient management, less knowledge about micronutrient**

**Im-**

**balance nutrient mgt**

**Less market prices**

**No use of Biofertilizers /Not followed seed treatment**

**Poor linkages with Extension agencies**

**Heavy Incidence of pest like Citrus psylla and diseases likePhytophthora**

**Indiscriminate use of Chemical of pesticides/ use mixtures of pesticides**

**No use of botanical &Bio pesticides**

**Low yield Of Bt. Cotton**

**Less technical Knowledge**

**Lack of knowledge about pest and diseasespest ,crucial stages of pests**

**Less or no use of organic matter, improper irrigation method, No soil testing followed**

**Poor soil condition**

**Socio- economic factor Bio physical factor**

3.2.Technologies to be assessed

A.1. Abstract on the number of technologies to be assessed in respect of **crops**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cereals** | **Oilseeds** | **Pulses** | **Commercial Crops** | **Vegetables** | **Fruits** | **Flower** | **Plantation crops** | **Tuber Crops** | **TOTAL** |
| Varietal Evaluation | 02 | 00 | 00 | 00 | 02 | 00 | 00 | 00 | 00 | 04 |
| Weed Management | 00 | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 |
| Integrated Crop Management | 00 | 00 | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 01 |
| Integrated Nutrient Management |  |  |  |  |  | 01 |  |  |  | 01 |
| **Integrated Pest Management** | **00** | **00** | **02** | **01** | **00** | **00** | **00** | **00** | **00** | **03** |
| Farm machineries | 00 | 01 | 01 | 00 | 00 | 00 | 00 | 00 | 00 | 02 |
| **TOTAL** | **02** | **02** | **04** | **01** | **02** | **01** | **00** | **00** | **00** | **12** |

**A.2. Abstract on the number of technologies to be assessed in respect of livestock / enterprises**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Thematic areas** | **Cattle** | **Poultry** | **Sheep** | **Goat** | **Piggery** | **Wormi culture** | **Fisheries** | **TOTAL** |
| Evaluation of Breeds | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Nutrition Management | 1 | 00 | 00 | 00 | 00 | 00 | 00 | 1 |
| Disease of Management | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Value Addition | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Production and Management | 1 | 00 | 00 | 00 | 00 | 00 | 00 | 1 |
| Feed and Fodder | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Small Scale income generating enterprises | 00 | 1 | 00 | 00 | 00 | 00 | 00 | 1 |
| **TOTAL** | **02** | **01** | **00** | **00** | **00** | **00** | **00** | **3** |

**A.3. Abstract on the number of technologies to be assessed in respect of livestock / enterprises**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Thematic areas** | **Children** | **Tribal Women** | **Adolescent Girl** | **TOTAL** |
| Women & child care |  | 01 | 01 | 02 |
| **TOTAL** |  | **01** | **01** | **02** |

**B. Details of On Farm Trial / Technology Assessment during 2020**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Crop/ enterprise & Season** | **Prioritized problem** | **Title of intervention** | **Technology options** | **Source of Technology** | **Name of critical input** | **Qty per trial** | **Cost per trial** | **No. of trials** | **Total cost for the**  **Intervention (Rs.)** | **Parameters to be studied** | **Team members** |
| 1 | Sorghum  Kharif | Use of old variety | Assesment of New variety of Sorghum PDKV-Kalyani | T1: Farmer Practices (CSH-9)  T2 : Sowing of Sorghum PDKV, Kalyani  T3: Sowing of Sorghum CSV-34 | Dr. P. D. K.V, Akola | Seed- | 4- kg | 600 | 07 | 10000.00 | Germination %  Height of plant , Grain size and quality of grain, Yield/ha  Cost of cultivation , Net return , C: B ratio | P. N. Mendhe, Shri. R. S. Rathod, Shri S. A. Pachakawade |
| 2 | Red gram  Kharif | Imbalance nutrient management | Aapplication of 25 kg N and 50 kg P2O5 along with 30 kg K20 and 20 kg S per hectare in Red gram | T1: Farmer practices (RDF + No use of Sulphur )  T2:RDF + Sulphur 20 kg /ha | Dr. P. D. K.V, Akola | Sulphur | 20 kg/ha | 400 | 13 | 5000.00 | Plant height  No of Pods/plant  Test wt  Yield q/ha  Cost of Cultivation  Gross Monetary Returns  Net Monetary Returns  B.C. Ratio | P. N. Mendhe, Shri. R. S. Rathod, Shri S. A. Pachakawade |
| 3 | Soybean  Kahrif | Low yield of Soybean due to high intensity of weed | Application of Post emergence application of Imazethapyr + Imazamox 70 WG @ 0.070 kg a.i./ha PoE 15 DAS for controlling the  weed flora in soybean | T1: Farmers practices (use of Imazethapyr in Soybean)  T2: Application of Post emergence application of Imazethapyr + Imazamox 70 WG @ 0.070 kg a.i./ha PoE 15 DAS | Dr. P. D. K. V, Akola | Weedicide Imazethapyr + Imazamox 70 WG @ 0.070 kg a.i./ha | 40 gm | 200 | 13 | 2600.00 | Plant height  Weed Count  Yield q/ha  Cost of Cultivation Gross Monetary Returns  Net Monetary Returns  B.C. Ratio | Shri p. N. Mendhe |
| 4 | Wheat  Rabi | Low Yield of Wheat due to use of old variety | Assessment of New released variety of Wheat PDKV Sardar | T1: Farmer Practices(Sowing by LoK-1)  T2: Sowing of Wheat by New variety PDKV-Sardar | Dr. P. D. K. V, Akola | Seed | 40 kg | 1000 | 13 | 13000.00 | Height of plant  No. Of tiller/plant  Yield, GMR, Net return | Shri P. N. Mendhe |
| 5 | Turmeric  Kharif Season | Low yield with Poor quality | Varietal performance of Turmeric on a Quality production | T1-Farmers practice- Selam Selam | Dr.PDKV  Akola | Seed |  |  |  | Provided  by the Farmers | Height of the Plant in Cm  No of Side finger  Length of fingers Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T2-Technology Assessed-  IISR Pragati IISR Pragati | IISR, Calicut | Seed | 100kg | 3000 | 07 | 21000 | Height of the Plant in Cm  No of Side finger  Length of fingers Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T3-Technology Assessed- PDKV waigaon | Dr.PDKV  Akola | Seed | 100kg | 3500 | 07 | 26000 | Height of the Plant in Cm  No of Side finger  Length of fingers Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
| 6 | Onion  Rabi season | Low yield and less storage capacity | Assessment on Red color varieties of onion for Improvement of Yield and quality | T1-Farmers practice- Agrifound light red | - | Seed | - | - | 07 | Provided  by the Farmers | Height of the Plant in Cm  Size of the bulb  Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T2-Technology Assessed-Arka Bheem | **IIHR, banglore** | Seed | 01kg | 3000 | 07 | 21000 | Height of the Plant in Cm  Size of the bulb  Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T3-Technology Assessed  Bhima Shakati | **DOGR,**  **Pune** | Seed | 01kg | 3000 | 07 | 21000 | Height of the Plant in Cm  Size of the bulb  Yield q /ha.  B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
| 7 | Banan  A  Kharif | Low yield and Poor quality | Application of Foliar Nutrient for the Quality improvement in Banana | T1-Farmers practice-  Use the Microla(RCF) Containing Zn 3.0%, Fe 2.5%,Bo 0.5%,Cu 1.0% ,Mo 0.1%,Mn 1.0% Micro nutrient liquid at 0.2% spray | - | Microla(RCF) | 02kg | 500 | 07 | 3500 | Wt.of bunch,No. of hands /bunch,  No of Fingers/hands,Fruit size,Yield/ha, B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T2-Technology Assessed- 1500PPM Potassium Bi-Orthophosphate+1.2% Urea spray after 55 days from flower initiation | Dr.PDKV,  Akola | Potasium Bi Orthophosphate  2kg | 02kg | 500 | 07 | 3500 | Wt.of bunch,No. of hands /bunch,  No of Fingers/hands,Fruit size,Yield/ha, B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
|  |  |  |  | T3-Technology Assessed- 75gm banana special Containing (Zn 4.3%, Bo 2.7, Manganse0.6%, Iron1.5%, Co 0.7%, and Mo 0.1%) in 15 lit of water thoroughly before spraying. on plants was 5th month onwards and once in 30 days and continued up to 10th month stage. | **IIHR, banglore** | Banana Special | 02kg | 600 | 07 | 4200 | Wt.of bunch,No. of hands /bunch,  No of Fingers/hands,Fruit size,Yield/ha, B:C ratio | Dr.A.P.Phuse  S.A.Pachkawade |
| 8 | **Cotton**  **(Kharif 2020)** | PBW has developed resistance to Bt cotton. Reduction in yield due to Incidence of PBW | **Integrated Management of Pink bollworm (*Pectinophoragossypiella*) in Bt cotton** | 1 **T1 (Farmers Practice)** - 1 or 2 chemical pesticide sprays comprising of Chlorpyriphos 20 EC 30ml, Triazophos 40 EC 30 ml per 10 lit water | --- | --- | --- | --- | --- | -- | 1. Per cent Green boll damage  2. Per cent loculi damage at harvest  3. Average Yield (kg/ha)  4. B: C Ratio | SMS  (Agronomy),  SMS (Agril. .Extn)  SMS(Plant Protection |
|  |  |  |  | 2. **T2-** 1st Spray profenophos 50 EC @ 20 ml per 10 lit water at 60 DAS  2nd Spray Emamectin benzoate 5 SG @ 4.4 g per 10 lit water at 80 DAS and  3rd spray Lambda cyhalothrin 5 EC @ 10 ml per 10 lit water at 100 DAS | **MPKV, Rahuri, Joint Agresco- 2018** | Profenophos 50 EC  Emamectin Benzoate 5 SG  Lambda cyhalothrin 5 EC | 500 ml  100 g  250 ml | 284  220  197 | 13 | 3692  2860  2561 | 1. Per cent Green boll damage  2. Per cent loculi damage at harvest  3. Average Yield (kg/ha)  4. B: C Ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant Protection |
|  |  |  |  | 3**T3-** Installation of Pheromone Traps @2/acre for monitoring at square formation,  Spray Azadirachtin 300 ppm @ 50ml/10 lit at flower initiation,  6 to 7 Inundative releases of *Trichogrammabactreae* 60,000 per acre,  Plucking of rosette flowers,  ETL based application of Thiodicarb 75 WP 20 g per 10 lit water at boll formation followed by Deltamethrin 2.8 EC 10 ml per 10 lit water | **IPM package for Cotton 2014, DPPQ&S, Faridabad** | Pheromone traps  Pectinolures  Azadirachtin 300 ppm  Trichocard  Thiodicarb 75WP  Deltamethrin 2.8 EC | 2  4  500 ml  18  500g  250 ml | 25  15  237  900  1200  135 | 13 | 650  780  3,081  11,700  15,600  1755  33,566 | 1. Per cent Green boll damage  2. Per cent loculi damage at harvest  3. Average Yield (kg/ha)  4. B: C Ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant Protection |
| 9 | **Pigeon pea**  **(Kharif 2020)** | Reduction in yield due to incidence of pod borer complex | **Management of pigeon pea pod borer complex** | **T1- Farmers practice**  3 to 4 chemical pesticide sprays comprising of Quinalphos 25 EC40 ml, Chlorpyriphos +cypermethrin 50 ml , Flubendiamide 20 WG 2 g or ,Trizoophos+Deltamethrin 50 ml in 15 litres of water | --- | --- | --- | --- | --- | -- | 1. % pod damage  2. Average yield (kg/ha)  3. B:C Ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant Protection |
|  |  |  |  | **T2**- 1st spray - Clorantraniliprole 18.5 SC @3 ml per 10 lit water at 50 per cent flowering  2nd spray- Flubendiamide 39.35 SC @2 ml per 10 lit water at pod filling stage | **Dr. VNMKV, Joint Agresco- 2018** | Clorantraniliprole 18.5 SC  Flubendiamide 39.35 SC | 60 ml  40 ml | 720  450 | 13 | 9360  5850  ---------------------  **15,210** | 1. % pod damage  2. Average yield (kg/ha)  3. B:C Ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant Protection |
|  |  |  |  | **T-3-**  1st spray Azadirachtin 300 ppm 50 ml /10 lit water 50% flowering  2nd Spray Emamectin Benzoate 5 SG 4.4 g/10 lit water based on ETL  3rd spray Lamdacyhalothrin 5 EC 10 ml/10 lit water based on ETL | **Major uses of Pesticides, CIBRC publication 2018** | Azadirachtin 300 ppm  Emamectin benzoate 5 SG  Lambda cyhalothrin | 500 ml  100 g  250 ml | 237  220  197 | 13 | 3081  2860  2561  ---------------  **8502** | 1. % pod damage  2. Average yield (kg/ha)  3. B:C Ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant Protection |
| 10 | **Chickpea**  **(Rabi2020)** | Reduction in yield due to incidence of chickpea pod borer | **Integrated management of chickpea pod borer (*Helicoverpaarmigera*)** | **T1- Farmers practice**  2 to 3 chemical pesticide sprays consisting of, Profenophos +cyperemethrin 40 ml or Flubendiamide 3ml;or Chlorpyriphops +Cypermethrin 50 ml in 15 liters of water | --- | --- | --- | --- | --- | -- | 1)No. of Larvae/MRL  2)Per cent pod damage at harvest  3) Yield  4) B:C ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant **Protection** |
|  |  |  |  | **T2 -** ETL based spray of Lambda cyhalothrin 5% EC 1.25 ml/lit of water followed by Ethion 50 EC 2 ml/10 lit of water 15 days after first spraying | **Dr. PDKV, Akola, Joint Agresco 2015** | Lambda cyhalothrin 5 EC  Ethion 50 EC | 250 ml  500 ml | 197  250 | 13 | 2561  3250  ----------------  **5811** | 1)No. of Larvae/MRL  2)Per cent pod damage at harvest  3) Yield  4) B:C ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant **Protection** |
|  |  |  |  | **T3 -**Clean cultivation and deep summer ploughing  Mixing 100 g Jowar seeds at the time of sowing  Sowing two rows of coriander and mustard around the crop  Installation of bird perches @50/ha  Installation of pheromone traps 5/ha  Spraying NSE 5% at 50% flowering  spraying *He ar* NPV 500 LE/ha at the time of pod formation  Spray Emamectin benzoate 5SG @ 4g/10 lit water at pod filling stage | **Dr. VNMKV, Joint Agresco- 2017** | Funnel trap  Helilures  NSE 5%  Hear NPV  Emamectin benzoate 5 SG | 2  4  10kg  200 ml  100g | 25  10  250  250  220 | 13 | 650  520  3250  3250  2860  --------------------  **10,530** | 1)No. of Larvae/MRL  2)Per cent pod damage at harvest  3) Yield  4) B:C ratio | SMS  (Agronomy),  SMS (Agril.Extn)  SMS(Plant **Protection** |
| 11 | Any Kharif crops | Soil compaction,  poor drainage,  low infiltration rate & low productivity  in saline tract area | Assessment of Tractor operated  Sub soilerfor removing the hard pan & increasing in situ moisture conservation | T1-(Farmers practice)  Primary Tillage operations by tractor drawn implements viz. V-Pass, Cultivator & Rotavator | Local available | - | - | - | 5 | - | Field capacity(ha/hr)  Moisture content %  Cost of operation Rs/ha  Yield increase% | . |
|  |  |  |  | T2- (Assessed practice)  Tractor operated sub soiler for opening of hard pan at 1.5 mt .upto 30cm | MPKV Rahuri | Tractor operated sub soiler  (To be purchase) | One for all | 6000 | 5 | 30,000 | Field capacity(ha/hr)  Moisture content %  Cost of operation Rs/ha  Yield (qt/ha) | SMS KVK |
| 12 | Bengal gram | Required more time with high cost of operation and high drudgery for Spraying of insecticides | Assessment of Bullock drawn solar sprayer for spraying | T1-(Farmers practice)  Spraying by hand operated knapsack sprayer | Local available | - | - | - | 5 | - | Field capacity(ha/hr)  Labour req.(manhr/ha)  Time required(hr/ha  Cost of operation ( Rs/ha) | - |
|  |  |  |  | T2- (Assessed practice)  Spraying by Bullock drawn solar sprayer | VNMKV,  Parbhani | Bullock drawn solar sprayer  (Available) | One for all | 1500 | 5 | 7500 | Field capacity(ha/hr)  Labour req.(manhr/ha)  Time required(hr/ha  Cost of operation ( Rs/ha) | SMS KVK |
| 13 | Cattle and Buffalo | Delay or Failure of estrus  Reducing breeding  Infertility, Economic losses  Lower conception rate | Estrus synchronization through ovsynch protocol in cow and buffalo | **T-1** Deworming and Pow. Mineral Mixture  **T-2** Tab Fantas +  Mineral Mixture+Inj Vit A + Inj Phosporus +Inj GnRH+  Inj PGF2+  Inj GnRH Timed AI | Dept. of Animal Reproduction PGIVAS Akola  MAFSU  Nagpur | Tab Fantas +  Mineral Mixture+Inj Vit A + Inj Phosporus +Inj GnRH+  Inj PGF2+  Inj GnRH Timed AI | 1  500 gm  1 ml  2 ml  1 ml  1 straw | 1100 | 13 | 13000 | Time require for onset of estrus after treatment  Conception rate | 3 |
| 14 | Poultry and Quail |  | Comparative economic of production of chicken and Quail | T-1 Local bird  T-2 Supply of Kaveri breed  T-3 Supply of Quail bird | Central poultry Development Organization  Mumbai | Supply of Kaveri breed  Supply of Quail bird | 10  50 | 1950  1650 | 7 | 13650  11550 | Monthly net income  Mortality  C : B ratio | 2 |
| 15 | Calf | Low weight gain  Lower growth rate  Calf mortality | Balance diet for calf | **T-1** Whole milk only  **T-2** Whole milk + Calf Starter | Dept. of Animal Nutrition PGIVAS Akola | Calf Starter  (Home made) | 25 kg | 1153 | 13 | 15000 | Av Weight gain in calf  Mortality rate | 2 |
| 16 | Solar Drier | Non availability of secured place | Assessing low cost drying of food technology for secured nutrition and quality of food in Tribal area through Solar dryer | 1Bamboo Solar Drier | ARTI, Pune,. | Solar Drier | Single | 3500 Rs. | 10 | 15000 Rs, | Time for Drying, Quality of Drying product |  |
|  |  |  |  | 2 Mini Solar Tunnel Drier | P.D.K.V., Akola |  |  | 13500 Rs. | 10 | 9600 | Time for Drying, Quality of Drying product |  |
| 17 | Biofortified Rice | undernourishment of women & Adolescent girl in rural area due to lack of iron | Assess of Red Rice in daily consumption to overcome the Anemia for the Adolescent girls | Biofortified Rice | P.D.K.V., Akola | Biofortified Rice | Single | 300 | 10 | 6000 | Hb Level & Weight | 02 |
|  |  |  |  | Biofortified Rice (GNR,Ankur) | Agri Univercity,Navsari | Biofortified Rice | 50gm | 300 | 10 | 6000 | Hb Level & Weight | 02 |

**3.3. Frontline Demonstrations**

A. Details of FLDs to be organized -

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Crop** | **Variety** | **Thematic area** | **Technology for demonstration** | **Critical inputs with cost (Rs.)** | **Season and year** | **Area (ha)** | **No. of farmers/**  **demon.** | **Name of the**  **village** | **Parameters identified** |
| 1 | Soybean | JS-2029 and MAUS-158 | Integrated crop management | Varietal Demonstration on cv. JS-2029 and MAUS-158 | Seed 75 kg , Rhizobium 325 ml , PSB -325 ml and 325gm Tricoderma /ha Cost of Rs. 7500/ha | Kharif -2020 | 30 | 75 | Besakheda | Germination, Height, 50 % Flowering days, No of Pods /plant , No of grain per pod, Yield q/ha , Dry matter /ha , Economics of demonstration |
| 2 | Green gram | BM-2003-2 | Integrated crop management | Varietal Demonstration on cv. BM2003-2 | Seed-15 Kg, Rhizobium-75 ml, PSB-75 ml, Tricoderma 75 gm , Phorate 10 kg/ha , Nimboli Powder 12.50 Kg, Monocrotophos 625 ml , Sulphur (80 %) 1250 gm, Zn (EDTA -12 % ) 625 gm ,Ferrous (EDTA 6 % ) 1.25 gm./ha  Total cost : Rs.5000/ha | Kharif -2019 | 30 | 75 | Manjarkhed | Germination, Height, 50 % Flowering days, No of Pods /plant , No of grain per pod, Yield q/ha , Dry matter /ha , Economics of demonstration |
| 3 | Black gram | Black gold | Integrated crop management | Varietal Demonstration on cv. Black gold (AKU10-1) | Seed-15 Kg, Rhizobium-75 ml, PSB-75 ml, Tricoderma 75 gm , Phorate 10 kg/ha , Nimboli Powder 12.50 Kg, Monocrotophos 625 ml , Sulphur (80 %) 1250 gm, Zn (EDTA -12 % ) 625 gm ,Ferrous (EDTA 6 % ) 1.25 gm./ha  Total cost : Rs.5000/ha | Kharif -2020 | 20 | 50 | Krushnapur | Germination, Height, 50 % Flowering days, No of Pods /plant , No of grain per pod, Yield q/ha , Dry matter /ha , Economics of demonstration |
| 4 | Red gram | PKV-TARA and RVG-2002 | Integrated crop management | Varietal Demonstration on cv. PKV-TARA and BDN 716 | Seed -6 Kg, Rhizobium 30 ml , PSB-30 ml . Tricoderma 30 gm to each farmer , Azaderectin 300 ppm 500 ml , Lambda Cylothrine 250 ml , Emamectin Benzoate 5 % 100 gm, Zn EDTA- 250 gm , FE EDTA 500 gm-100 per farmer  Total Cost Rs. 5000/ha | Kharif -2020 | 30 | 75 | Besakheda | Germination, Height, 50 % Flowering days, No of Pods /plant , No of grain per pod, Yield q/ha , Dry matter /ha , Economics of demonstration |
| 5 | Bengal gram | RVG-202 | Varietal Evaluation | Varietal Demonstration on JSC- 55(RVG-2002 ) | Seed -30 kg, Rhizobium 30 ml , PSB-30 ml . Tricoderma 30 gm to each farmer | Rabi 2019 | 30 | 75 | Besakheda | Germination, Height, 50 % Flowering days, No of Pods /plant , No of grain per pod, Yield q/ha , Dry matter /ha , Economics of demonstration |
| 6 | Mandarin Orange | Nagpuri | Integrated Nutrient Management | Improving the quality production in Mandarin orange by utilizing balance fertilizer management | Mychoriza,PSB,Azosprilium,Trychoderma Harzanium  60000/- | Rabi 2020 | 04ha | 15 | Beskheda  Tq: Chandur Bazar | No .of fruits /tree  Average weight of fruit ,Yield / ha  B:C ratio |
| 7 | Annual Chrysanthemum | PDKV Bijli Super | Varietal Evaluation | Increasing the quality production in Chrysanthemum | Seed  30000/- | Rabi2020 | 2.00 | 15 | Anjanvati  Tq: Dhamangaon rly | Height of the plant  Yield/ha  B:C ratio |
| 8 | Mandarin Orange | Nagpuri | Integrated Nutrient Management | Foliar Nutrition of Mandarin for higher quality yield | Citrus Special  15000/- | Kharif 2020 | 04ha | 15 | Marda Tq: Tiosa | No of fruit /Plant  Yield/ ha  B:C ratio |
| 9 | Gaillardia | Grandiflora | Integrated Crop Management | Improving the Quality production in Gaillardia | Cycocel  5000/- | Kharif2020 | 04ha | 15 | Anjanvati  Tq: Dhamangaon rly | Height of the Plant  No of flower /kg Yield/ha,B:c ratio |
| 10 | Soybean | JS-335 | IPM | Integrated management of soybean leaf defoliators-  1.Installation of Pheromone Traps @2/acre for monitoring of spodoptera moths  2.First spray of 5% NSE or 300 ppm Azadiractin at 20-25 days  3.Second ETL based spray of Profenophos 20ml per 10 litres of water  4. Third ETL based spray of Chlorantraniliprole 18.5 EC 3 ml in 10 litres of water an ETL of 3-5 girdle beetles per MRL before flowering . | Pheromone traps 2/acre, Spodolures 4/acre, 5% NSE, Profenophos 50 EC and Clorantraniliprole 18.5 SC  Total Cost-Rs. 16,952/- | Kharif-2020 | 5.20 ha | 13 | KesharpurTq.Chikhaldara | 1. No. of defoliator   larvae/MRL  2) Yield (kg/ha)  3) B:C Ratio |
| 11 | Soybean | JS-335 | IPM | Management of stem fly and girdle beetle in soybean-  Seed treatment with Thiamethoxam 30 FS @ 10 ml/kg seed followed by spray of Triazophos 40 EC 12.5 ml/10 lit water at 20-25 DAS followed by ETL based spray of Lambda cyhalothrin 5 EC @ 10 ml/10 lit water. | Thiamethoxam 30 FS, Triazophos 40 EC, Lambda cyhalothrin 5 EC  Total Cost-Rs. 17160/- | Kharif-2020 | 5.20ha | 13 | MaradaTq.Tiwasa | 1)Per cent stem fly incidence  2)Girdle beetle incidence per MRL  3)yield (kg/ha)  4)B:C Ratio |
| 12 | Mandarin | Nagpur mandarin | IPM | Management of citrus psylla in Nagpur Mandarin-  Spraying of Thiomethoxam 25WG@ 1g per 10 litres of water and after 15 days interval spraying of Neem Oil @ 100 ml +10g of detergent per 10 litres i of water on new flush of Nagpur mandarin | Thiomethoxam 25WG,Neem oil  Total Cost-Rs. 13000/- | Rabi-2020 | 4ha | 20 | BeskhedaTq.Chandur Bazar. | Incidence of Citrus psylla Population/10cm shoot, Yield (q/ha),C: B Ratio |
| 13 | Pigeon pea | BSMR736/PKV TARA | IDM | Management of Wilt disease in Pigeon pea-  Seed treatment with combined product of fungicide Carboxin (37.5 %) + Thiram (37.5 %) @ 3g/kg  fallowed by *Trichodermaviride*[*@*10](mailto:@10g)g/kg of seed | Carboxin (37.5 %) + Thiram (37.5 %),*Trichodermaviride.*  Total Cost-Rs. 3500/- | Kharif-2020 | 8ha | 20 | Dhanodi Tq.Chandur Rly | % Disease incidence  Emergence count  Yield (q/ha)  C: B Ratio |

**Sponsored Demonstration**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Season** | **Crop** | **Technology** | **Area (ha)** | **Name of the village** | **No. of farmers** |
|  |  |  |  |  |  |

**B. Extension and Training activities under FLDs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Activity** | **No. of activities** | **Month** | **Number of participants** |
| 1 | Field days | 16 | August 2020, September 2020, October 2020, November 2020, December 2020 | 632 |
| 2 | Farmers Training | 23 | August 2020, September 2020, October 2020, November 2020 | 965 |
| 3 | Media coverage | 10 | August 2020, September 2020, October 2020, November 2020 | 20 |
| 4 | Training for extension functionaries | 03 | May 2020, June 2020, October 2020, September 2020 | 71 |
| 5 | Other activities | 14 | May 2020, June 2020, August 2020, September 2020, October 2020, November 2020, December 2020 | 400 |

**C. Details of FLD on Enterprises**

**a. Farm Implements**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name of the implement** | **Crop** | **Season and year** | **No. of farmers** | **Area (ha)** | **Critical inputs** | **Performance parameters /**  **indicators** |
|
| Three row CRIDA planter( BD) | Bengal gram | Rabi 2020 | 10 | 5 | CRIDA planter( BD) | Field capacity (ha/hr)  Labour required (man hr/ ha)  Time req. (hr/ha).  Cost of operation (Rs/ ha)  Average .plant population No./m  Seed rate kg/ha  Yield (qt/ha)  Yield increases% |
| Bullock operated three Tyne weeder | Jowar, Paddy | Kharif 2020 | 10 | 4 | bullock operated three Tyne weeder | Blade width(cm)  Depth of operation(cm)  Field capacity (ha/hr)  Labour required (man hr/ ha)  Cost of operation (Rs/ha) |
| Hand operated Rotary maize sheller | Maize | Kharif 2020 | 10 | 10qt | Hand operated Rotary maize sheller | Output capacity(qt/hr)  Time req. (hr/qt) |
| Powar operated Paddy winnower | Paddy | Rabi 2020 | 10 | 50q | Paddy winnower | Output capacity(qt/hr)  Time req. (hr/qt).  Labour required (man hr/ qt)  Cost of operation (Rs/ qt)  Cleaning efficiency % |

**b. Livestock Enterprises**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Enterprise** | **Breed** | **No. of farmers** | **No. of animals, poultry birds etc.** | **Critical inputs** | **Performance parameters /**  **indicators** |
|
| Cattle | Non descript | 20 | 20 | Liq. Cypermethrin + Tab Antihelmentic | Av .Milk yield  Health Status  C : B Ratio |
| Poultry | Kaveri / Giriraj | 20 | 500 | 25 grower bird  +Medicine and Vaccine | Av Eggs Production  Mortality |
| Cattle | Non descript | 20 | 20 | Supply of Sampurna fodder Slits | Av. Milk Yield  Green fodder yield  C : B Ratio |
| Goat kid | Non descript | 20 | 40 | Pow . Probiotic  +Liq Antihelmantic | Av. Weight Gain  Mortality,Health Status  C : B Ratio |

**C. Home Science**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of the technology** | **Crop** | **Season and year** | **Village** | **No. of Farmer** | **No. of units/Area** | **Critical inputs** | **Performance parameters /**  **indicators** |
| Soybean Mitten | Brinjal & Soybean Mitten | Rabbi 2020 | Rajna, Chandur Rly | 20 | 20 | Brinjal & Soybean Mitten | Time required, overall Discomfort |
| Insect control Trap. | Insect control Trap. | Kharip 2020 | Keshrpur | 20 | 20 | Insect control Trap. | Damage %, No. of Insect |
| Paneer Press Machine. | Paneer Press Machine. | Rabbi 2020 | Kara, Kotha, Naduri | 05 | 05 | Paneer Press Machine. | Time, Quality |
| Oyster Mushroom | Oyster Mushroom | Rabbi 2020 | Kara, Nanduri, Keshrpur | 25 | 25 | Spawns of Oyster Mushroom | Yield/ BAG  Harvesting Period |
| Soya nut | Soya nut | Rabbi 2020 | Naduri, Keshrpur | 30 | 30 | Soya nut | Pre & Post Weight, Head circumference, |

**3.4.Training (Including the sponsored and FLD training programmes):**

**A. ON Campus**

| **Thematic Area** | **No. of Courses** | **No. of Participants** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Others** | | | **SC/ST** | | | **Grand Total** |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **(A) Farmers & Farm Women** | | | | | | | | |
| **I Crop Production** | | | | | | | | |
| Integrated Crop Management | 02 | 50 | 00 | 50 | 10 | 00 | 10 | 60 |
| Fodder production | 01 | 20 | 00 | 20 | 05 | 00 | 05 | 25 |
| Protective cultivation (Green Houses, Shade Net etc.) | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **II Horticulture** | | | | | | | | |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |
| Nursery raising | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Plant propagation techniques | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **b) Fruits** |  |  |  |  |  |  |  |  |
| Cultivation of Fruit | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Plant propagation techniques | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |
| Nursery Management | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **III Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |
| Integrated Nutrient Management | 01 | 25 | 00 | 25 | 10 | 02 | 12 | 37 |
| Soil and Water Testing | 01 | 10 | 02 | 12 | 03 | 00 | 03 | 15 |
| **IV Livestock Production and Management** | | | | | | | | |
| Dairy Management | 1 | 20 | 5 | 25 | 2 | 3 | 5 | 25 |
| Poultry Management | 1 | 20 | 5 | 25 | 2 | 2 | 4 | 25 |
| Feed management | 1 | 25 | 2 | 27 | 3 | 2 | 5 | 32 |
| Fodder production | 1 | 15 | 5 | 20 | 4 | 2 | 6 | 26 |
| Disease Management |  |  |  |  |  |  |  |  |
| Feed management |  |  |  |  |  |  |  |  |
| Production of quality animal products |  |  |  |  |  |  |  |  |
| **V Home Science/Women empowerment** | | | | | | | | |
| Value addition | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
| Income generation activities for empowerment of rural Women | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
| Location specific drudgery reduction technologies | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
| **VI Agril. Engineering** |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements | 1 | 12 | 0 | 12 | 3 | 0 | 3 | 15 |
| Small scale processing and value addition | 1 | 10 | 2 | 12 | 3 | 0 | 3 | 15 |
| **VII Plant Protection** |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 02 | 28 | 06 | 34 | 12 | 04 | 16 | 50 |
| Integrated Disease Management | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Bio-control of pests and diseases | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Production of bio control agents and bio pesticides | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| **X Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |
| Group dynamics | 01 | 09 | 0 | 09 | 01 | 0 | 01 | 10 |
| Leadership Development | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Entrepreneurial development of farmers | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| **XII Others (Pl. Specify)** |  |  |  |  |  |  |  |  |
| **TOTAL** |  |  |  |  |  |  |  |  |
| **(B) RURAL YOUTH** |  |  |  |  |  |  |  |  |
| Seed production | 01 | 15 | 00 | 15 | 10 | 00 | 10 | 25 |
| Vermi-culture | 01 | 15 | 02 | 17 | 05 | 03 | 08 | 25 |
| Production of organic inputs | 01 | 15 | 02 | 17 | 5 | 3 | 8 | 25 |
| Seed Production & Bagging | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Organic farming | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Vermi-culture | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Repair and maintenance of farm machinery and implements | 1 | 10 | 0 | 10 | 10 | 0 | 10 | 20 |
| Value addition |  |  |  |  |  |  |  |  |
| Small scale processing | 1 | 10 | 0 | 10 | 5 | 0 | 5 | 15 |
| Quail farming | 1 | 16 | 2 | 18 | 4 | 2 | 6 | 24 |
| Piggery |  |  |  |  |  |  |  |  |
| Rabbit farming |  |  |  |  |  |  |  |  |
| Poultry production | 1 | 20 | 4 | 24 | 5 | 2 | 6 | 30 |
| **TOTAL** |  |  |  |  |  |  |  |  |
| **(C) Extension Personnel** |  |  |  |  |  |  |  |  |
| Integrated Nutrient management | 01 | 15 | 00 | 15 | 05 | 00 | 05 | 20 |
| Integrated Nutrient management | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Integrated Pest Management | 02 | 28 | 6 | 34 | 12 | 4 | 16 | 50 |
| Group Dynamics and farmers organization | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Farm Field School Methodology | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Capacity building for ICT application | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Any other (Pl. Specify) Farm mechanasation | 1 | 12 | 2 | 14 | 3 | 3 | 6 | 20 |
| Any other (Pl. Specify) Quail farming | 1 | 15 | 05 | 20 | 4 | 2 | 6 | 20 |
| Commom disease and its control | 1 | 20 | 05 | 25 | 6 | 0 | 6 | 25 |
| **TOTAL** |  |  |  |  |  |  |  |  |
| **G. Total** |  |  |  |  |  |  |  |  |

**B. OFF Campus**

| **Thematic Area** | **No. of Courses** | | | **No. of Participants** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Others** | | | | | | **SC/ST** | | | | | | | | | | **Grand Total** | |
| **Male** | **Female** | | | **Total** | **Male** | | **Female** | | | **Total** | | | | |  | |
| **(A) Farmers & Farm Women** | | | | | | | | | | | | | | | | | | | | | |
| **I Crop Production** | | | | | | | | | | | | | | | | | | | | | |
| Weed Management | 01 | | | 20 | 02 | | | 22 | 06 | | 0 | | | 6 | | | | | 28 | |
| Water management | 01 | | | 20 | 05 | | | 25 | 05 | | 00 | | | 05 | | | | | 30 | |
| Integrated Crop Management | 08 | | | 271 | 33 | | | 304 | 70 | | 21 | | | 91 | | | | | 395 | |
| Fodder production | 1 | | | 20 | 5 | | | 25 | 3 | | 1 | | | 4 | | | | | 29 | |
| Production of organic inputs |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| **II Horticulture** | | | | | | | | | | | | | | | | | | | | | |
| **a) Vegetable Crops** |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Off-season vegetables | 01 | | | 15 | 05 | | | 20 | 03 | | 02 | | | 05 | | | | | 25 | |
| **b) Fruits** |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Training and Pruning | 01 | | | 15 | 05 | | | 20 | 03 | | 02 | | | 05 | | | | | 25 | |
| Layout and Management of Orchards |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Cultivation of Fruit | 01 | | | 15 | 05 | | | 20 | 03 | | 02 | | | 05 | | | | | 25 | |
| Management of young plants/orchards | 01 | | | 15 | 05 | | | 20 | 03 | | 02 | | | 05 | | | | | 25 | |
| **f) Spices** |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Production and Management technology | 01 | | | 15 | 05 | | | 20 | 03 | | 02 | | | 05 | | | | | 25 | |
| Processing and value addition |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| **III Soil Health and Fertility Management** |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Soil fertility management | 01 | | | 20 | 00 | | | 20 | 06 | | 00 | | | 06 | | | | | 26 | |
| Integrated Nutrient Management | 01 | | | 20 | 02 | | | 22 | 03 | | 00 | | | 03 | | | | | 25 | |
| Soil and Water Testing | 02 | | | 50 | 10 | | | 60 | 25 | | 05 | | | 30 | | | | | 90 | |
| **IV Livestock Production and Management** | | | | | | | | | | | | | | | | | | | | | |
| Dairy Management | 3 | | | 60 | 15 | | | 75 | 4 | | 6 | | | 10 | | | | | 85 | |
| Poultry Management | 2 | | | 36 | 9 | | | 45 | 6 | | 3 | | | 9 | | | | | 54 | |
| Piggery Management |  | | |  |  | | |  |  | |  | | |  | | | | |  | |
| Rabbit Management /goat | 1 | | | 15 | 5 | | | 20 | 2 | | 1 | | | 3 | | | | | 23 | |
| Disease Management | 1 | | | 20 | 05 | | | 25 | 2 | | 2 | | | 4 | | | | | 29 | |
| Sheep and goat rearing | 2 | | | 38 | 6 | | | 44 | 8 | | 2 | | | 10 | | | | | 54 | |
| Production of quality animal products | 1 | | | 23 | 02 | | | 25 | 3 | | 1 | | | 4 | | | | | 29 | |
| **V Home Science/Women empowerment** | | | | | | | | | | | | | | | | | | | | | |
| Household food security by kitchen gardening and nutrition gardening | | 01 | 00 | | 05 | 05 | | | 05 | | | 15 | | | 20 | | 25 | | | |
| Design and development of low/minimum cost diet | | 01 | 00 | | 00 | 00 | | | 05 | | | 15 | | | 20 | | 20 | | | |
| Designing and development for high nutrient efficiency diet | | 01 | 00 | | 00 | 00 | | | 05 | | | 15 | | | 20 | | 20 | | | |
| Minimization of nutrient loss in processing | | 01 | 00 | | 00 | 00 | | | 05 | | | 15 | | | 20 | | 20 | | | |
| Gender mainstreaming through SHGs | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Storage loss minimization techniques | | 03 | 00 | | 05 | 05 | | | 05 | | | 30 | | | 35 | | 40 | | | |
| Value addition | | 01 | 00 | | 05 | 05 | | | 05 | | | 15 | | | 20 | | 25 | | | |
| Income generation activities for empowerment of rural Women | | 02 | 10 | | 10 | 20 | | | 00 | | | 05 | | | 05 | | 25 | | | |
| Location specific drudgery reduction technologies | | 03 | 00 | | 00 | 00 | | | 05 | | | 30 | | | 35 | | 35 | | | |
| Rural Crafts | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Women and child care | | 04 | 00 | | 00 | 00 | | | 20 | | | 60 | | | 80 | | 80 | | | |
| Income generation activities | | 02 | 25 | | 05 | 30 | | | 00 | | | 00 | | | 00 | | 30 | | | |
| **VI Agril. Engineering** | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Installation and maintenance of micro irrigation systems | | 1 | 12 | | 0 | 12 | | | 3 | | | 0 | | | 3 | | 15 | | | |
| Use of Plastics in farming practices | | 1 | 2 | | 0 | 2 | | | 18 | | | 0 | | | 18 | | 20 | | | |
| Repair and maintenance of farm machinery and implements | | 5 | 13 | | 0 | 13 | | | 72 | | | 5 | | | 77 | | 90 | | | |
| Small scale processing and value addition | | 5 | 20 | | 7 | 27 | | | 48 | | | 25 | | | 73 | | 100 | | | |
| Post Harvest Technology | | 1 | 5 | | 0 | 5 | | | 10 | | | 0 | | | 10 | | 15 | | | |
| Post Harvest Technology | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| **VII Plant Protection** | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Integrated Pest Management | | 11 | 154 | | 33 | 187 | | | 66 | | | 22 | | | 88 | | 275 | | | |
| Integrated Disease Management | | 02 | 28 | | 06 | 34 | | | 12 | | | 04 | | | 16 | | 50 | | | |
| Bio-control of pests and diseases | | 00 | 00 | | 00 | 00 | | | 00 | | | 00 | | | 00 | | 0 | | | |
| Production of bio control agents and bio pesticides | | 01 | 14 | | 03 | 17 | | | 06 | | | 02 | | | 08 | | 25 | | | |
| **X Capacity Building and Group Dynamics** | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Leadership development | | 02 | 10 | | 04 | 14 | | | 40 | | | 02 | | | 42 | | 56 | | | |
| Group dynamics | | 02 | 10 | | 05 | 15 | | | 40 | | | 0 | | | 40 | | 55 | | | |
| Mobilization of social capital | | 01 | 10 | | 01 | 11 | | | 10 | | | 01 | | | 11 | | 22 | | | |
| Entrepreneurial development of farmers/youths | | 01 | 05 | | 01 | 06 | | | 15 | | | 01 | | | 16 | | 21 | | | |
| Bio-agents production | | 01 | 05 | | 00 | 05 | | | 15 | | | 01 | | | 16 | | 21 | | | |
| Marketing | | 02 | 10 | | 00 | 10 | | | 30 | | | 00 | | | 30 | | 40 | | | |
| **XI Agro-forestry** | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Production technologies | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Nursery management | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| Integrated Farming Systems (Agro) | |  |  | |  |  | | |  | | |  | | |  | |  | | | |
| **XII Others (Organic farming )** | | 01 | 20 | | 10 | 30 | | | 05 | | | 00 | | | 05 | | 35 | | | |
| **TOTAL** | |  |  | |  | |  | | |  | | |  | | |  | |  | | | |

**C. Consolidated table (ON and OFF Campus)**

| **Thematic Area** | **No. of Courses** | **No. of Participants** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Others** | | | **SC/ST** | | | **Grand Total** |
| **Male** | **Female** | **Total** | **Male** | **Female** | **Total** |
| **(A) Farmers & Farm Women** | | | | | | | | |
| **I Crop Production** | | | | | | | | |
| Weed Management | 01 | 20 | 02 | 22 | 06 | 0 | 6 | 28 |
| Water management | 01 | 20 | 05 | 25 | 05 | 00 | 05 | 30 |
| Integrated Crop Management | 10 | 321 | 33 | 354 | 80 | 21 | 101 | 455 |
| Fodder production | 01 | 20 | 00 | 20 | 05 | 00 | 05 | 25 |
| Fodder production | 2 | 35 | 10 | 45 | 7 | 3 | 10 | 55 |
| Production of organic inputs |  |  |  |  |  |  |  |  |
| **II Horticulture** | | | | | | | | |
| **a) Vegetable Crops** |  |  |  |  |  |  |  |  |
| Nursery raising | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Protective cultivation (Green Houses, Shade Net etc.) | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **b) Fruits** |  |  |  |  |  |  |  |  |
| Cultivation of Fruit | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Plant propagation techniques | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **c) Ornamental Plants** |  |  |  |  |  |  |  |  |
| Nursery Management | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **III Soil Health and Fertility Management** |  |  |  |  |  |  |  |  |
| Soil fertility management | 01 | 20 | 00 | 20 | 06 | 00 | 06 | 26 |
| Integrated Nutrient Management | 02 | 45 | 2 | 47 | 13 | 2 | 15 | 62 |
| Soil and Water Testing | 03 | 60 | 12 | 72 | 28 | 5 | 33 | 105 |
| Others (Organic farming) | 01 | 20 | 10 | 30 | 05 | 00 | 05 | 35 |
| **IV Livestock Production and Management** |  |  |  |  |  |  |  |  |
| Dairy Management | 02 | 40 | 10 | 50 | 3 | 5 | 8 | 53 |
| Poultry Management | 02 | 40 | 10 | 50 | 4 | 4 | 8 | 54 |
| Piggery Management |  |  |  |  |  |  |  |  |
| Rabbit Management/goat | 01 | 15 | 5 | 20 | 2 | 1 | 3 | 23 |
| Disease Management | 01 | 20 | 05 | 25 | 2 | 2 | 4 | 29 |
| Feed management | 01 | 25 | 2 | 27 | 3 | 2 | 5 | 32 |
| Production of quality animal products | 01 | 23 | 02 | 25 | 3 | 1 | 4 | 29 |
| **V Home Science/Women empowerment** |  |  |  |  |  |  |  |  |
| Household food security by kitchen gardening and nutrition gardening | 01 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| Design and development of low/minimum cost diet | 01 | 00 | 00 | 00 | 05 | 15 | 20 | 20 |
| Designing and development for high nutrient efficiency diet | 01 | 00 | 00 | 00 | 05 | 15 | 20 | 20 |
| Minimization of nutrient loss in processing | 01 | 00 | 00 | 00 | 05 | 15 | 20 | 20 |
| Gender mainstreaming through SHGs |  |  |  |  |  |  |  |  |
| Storage loss minimization techniques | 03 | 00 | 05 | 05 | 05 | 30 | 35 | 40 |
| Value addition | 02 | 05 | 20 | 25 | 05 | 20 | 25 | 50 |
| Income generation activities for empowerment of rural Women | 03 | 15 | 25 | 40 | 00 | 10 | 10 | 50 |
| Location specific drudgery reduction technologies | 04 | 05 | 15 | 20 | 05 | 35 | 40 | 60 |
| Rural Crafts |  |  |  |  |  |  |  |  |
| Women and child care | 04 | 00 | 00 | 00 | 20 | 60 | 80 | 80 |
| **VI Agril. Engineering** |  |  |  |  |  |  |  |  |
| Installation and maintenance of micro irrigation systems | 1 | 12 | 0 | 12 | 3 | 0 | 3 | 15 |
| Use of Plastics in farming practices | 1 | 2 | 0 | 2 | 18 | 0 | 18 | 20 |
| Production of small tools and implements |  |  |  |  |  |  |  |  |
| Repair and maintenance of farm machinery and implements | 6 | 25 | 0 | 25 | 75 | 5 | 80 | 105 |
| Small scale processing and value addition | 6 | 30 | 9 | 39 | 51 | 25 | 76 | 115 |
| Post Harvest Technology | 1 | 5 | 0 | 5 | 10 | 0 | 10 | 15 |
| **VII Plant Protection** |  |  |  |  |  |  |  |  |
| Integrated Pest Management | 13 | 182 | 39 | 221 | 78 | 26 | 104 | 325 |
| Integrated Disease Management | 02 | 28 | 06 | 34 | 12 | 04 | 16 | 50 |
| Bio-control of pests and diseases | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| Production of bio control agents and bio pesticides | 02 | 28 | 06 | 34 | 12 | 04 | 16 | 50 |
| **X Capacity Building and Group Dynamics** |  |  |  |  |  |  |  |  |
| Group dynamics | 03 | 30 | 10 | 40 | 45 | 01 | 46 | 86 |
| Leadership Development | 03 | 30 | 9 | 39 | 45 | 03 | 48 | 87 |
| Entrepreneurial development of farmers/youths | 02 | 25 | 06 | 31 | 20 | 02 | 22 | 52 |
| Mobilization of social capital | 01 | 10 | 01 | 11 | 10 | 01 | 11 | 22 |
| Bio-agents production | 01 | 05 | 00 | 05 | 15 | 01 | 16 | 21 |
| Marketing | 02 | 10 | 00 | 10 | 30 | 00 | 30 | 40 |
| **TOTAL** |  |  |  |  |  |  |  |  |
| **(B) RURAL YOUTH** |  |  |  |  |  |  |  |  |
| Seed production | 01 | 15 | 00 | 15 | 10 | 00 | 10 | 25 |
| Planting material production | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Protected cultivation of vegetable crops | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Commercial fruit production | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Repair and maintenance of farm machinery and implements |  |  |  |  |  |  |  |  |
| Nursery Management of Horticulture crops | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Production of organic inputs | 01 | 15 | 02 | 17 | 5 | 3 | 8 | 25 |
| Vermi-culture | 01 | 15 | 02 | 17 | 05 | 03 | 08 | 25 |
| Seed Production & Bagging | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Organic farming | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Vermi-culture | 01 | 20 | 05 | 25 | 05 | 01 | 06 | 31 |
| Repair and maintenance of farm machinery and implements | 1 | 10 | 0 | 10 | 10 | 0 | 10 | 20 |
| Income generation activities | 02 | 25 | 05 | 30 | 00 | 00 | 00 | 30 |
| Small scale processing | 1 | 10 | 0 | 10 | 5 | 0 | 5 | 15 |
| Dairying | 2 | 40 | 10 | 50 | 3 | 4 | 7 | 57 |
| Sheep and goat rearing | 3 | 54 | 8 | 62 | 12 | 4 | 16 | 78 |
| Poultry production | 2 | 36 | 8 | 44 | 9 | 3 | 11 | 55 |
| **TOTAL** |  |  |  |  |  |  |  |  |
| **(C) Extension Personnel** |  |  |  |  |  |  |  |  |
| Integrated Nutrient management | 01 | 15 | 00 | 15 | 05 | 00 | 05 | 20 |
| Integrated Nutrient management | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Protected cultivation technology | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Integrated Pest Management | 02 | 28 | 6 | 34 | 12 | 4 | 16 | 50 |
| Group Dynamics and farmers organization | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Farm Field School Methodology | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Capacity building for ICT application | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| Farm mechanasation | 1 | 12 | 2 | 14 | 3 | 3 | 6 | 20 |
| Any other (Pl. Specify) Quail Farming | 1 | 15 | 05 | 20 | 4 | 2 | 6 | 20 |
| Common disease and its control | 1 | 20 | 05 | 25 | 6 | 0 | 6 | 25 |
| Household food security | 01 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |
| Women and Child care | 01 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |
| Low cost and nutrient efficient diet designing | 01 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |
| Production and use of organic inputs | 01 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |
| **Total** |  |  |  |  |  |  |  |  |
| **G. TOTAL** |  |  |  |  |  |  |  |  |

## Details of training programmes attached in Annexure -I

**3.5. A Extension Activities (including activities of FLD programmes)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Nature of Extension**  **Activity** | **Date(s)** | **Title of the programme** | **Name of**  **the**  **village** | **Expected number of participants** | | | **Anticipated**  **Expenditure (Rs.)** | **Proposed**  **Expert / Guest** |
| **Male** | **Female** | **Total** |
| I | Field Day |  |  |  |  |  |  |  |  |
|  |  | 26.8.2020 | Field day on Green gram | Manjarkhed | 10 | 05 | 15 | 6000 | TAO, Chandur ® |
|  |  | 12.9.2020 | Field day on Black gram | Krushnapur | 14 | 05 | 19 | 80000 | TAO, Chandur (B) |
|  |  | 04.10.2020 | Field day on Soybean | Besakheda | 10 | 05 | 15 | 5000 | SAO, Amravati |
|  |  | 12.1.2020 | Field day on Red gram | Besakheda | 58 | 00 | 58 | 10000 | TAO, Chandur (B) , SDAO, Chanur (B) |
|  |  | 28.2.2020 | Field day on Bengal gram | Besakheda | 38 | 00 | 38 | 70000 | District Manager (Mahabeej) , TAO, Chandur (B) , SDAO, CHandur (B) |
|  |  | 25.03.2020 | Field day on Wheat | Kesharpur | 20 | 05 | 25 | 4000 | TAO,?SAO, Amravati |
|  |  | Aug 20 | Field Day on importance of Insect prob trap | Nanduri | 10 | 20 | 30 | 4500 | TAO |
|  |  | Sept 20 | Field Day on importance of Panner Press Machine | Kara | 10 | 20 | 30 | 4500 | TAO |
|  |  | Dec 20 | Field Day on awareness of agro waste convert into mushroom production | Beskheda | 25 | 10 | 35 | 5000 | TAO |
|  |  | Nov 20 | Field Day on importance of Soya nut for healthy life. | Keshrpur | 10 | 20 | 30 | 4500 | CDPO,MO |
|  |  | Oct 20 | Field Day on importance of Soya mitten for safety harvesting | Sonegaon,Marda | 15 | 15 | 30 | 4500 | TAO |
|  |  | 05/12/2020 | Citrus Production technology | Marda | 30 | 10 | 40 | 8000 | SDAO/TAO |
|  |  | 10/12/2020 | Management practices for Onion | Baslapur | 30 | 10 | 40 | 8000 | SDAO/TAO |
|  |  | 26.08 2020 | FLD on Management of stem fly and girdle beetle in soybean | MaradaTq,Tiwasa | 40 | 10 | 50 | 2000 | TAO, Entomologist Regional Research Centre ,Dr .PDKV , Amravati |
|  |  | 28.08.20 | FLD on Integrated management of soybean defoliators | Kesharpurtq.Chikhaldara | 40 | 10 | 50 | 2000 |  |
|  |  | 22.9.20 | FLD on management of wilt disease in pigeon pea | DhanodiTq,chandur Rly | 40 | 10 | 50 | 2000 |  |
|  |  | 11.12. 2020 | Management of Citrus psylla in Nagpur Mandarin | BeskhedaTq.Chandur Bazar | 40 | 10 | 50 | 2000 | TAOChandur Bazar, Entomologist Regional Research Centre ,Dr .PDKV ,Amravati |
|  |  | 11/8/2020 | Control on endo / ecto parasitic infection in large animal | chitri | 25 | 5 | 30 | 2500 | LDO Ext |
|  |  | 21/9/2020 | Backyard Poultry | Tarubanda | 25 | 5 | 30 | 2500 | LDO Ext |
| II | Kisan Mela | 30.04.2020 | Farmers Scientist interaction about improved technology & its impact | Bori Tq. Dharni | 150 | 50 | 200 | 10000 | SAO Amravati, TAO Dharni,  H.H. Dikey, Asst. Professor, RRC, Amravati Dr.PDKV, Akola |
| III | Kisan Ghosthi | 25.7.2019 | Kisan goshti on Cotton | Besakheda | 25 | 05 | 30 | 5000 | TAO, Chanur (B) |
|  |  | 22.7.2020 | Adoption of IPM technology in various crops | MaradaTq,Tiwasa | 30 | 10 | 40 | 800 | TAO, Entomologist Regional Research Centre ,Dr .PDKV ,Amravati |
|  |  | 20.8. 2020 | Other safer methods of pest management | DhanodiTq.Chandur Rly | 30 | 10 | 40 | 800 | TAO, Entomologist Regional Research Centre ,Dr .PDKV ,Amravati |
|  |  | 15.9.2020 | Importance and use of bio-pesticides and botanicals for pest and disease management | KesharpurTq.Chikhaldara | 30 | 10 | 40 | 800 | TAO, Entomologist Regional Research Centre ,Dr .PDKV ,Amravati |
|  |  | 5.10.2020 | How surveillance/ monitoring of pest and Diseases is important for effective management. | BeskhedaTq.Chandur Bazar | 30 | 10 | 40 | 800 | TAO, Entomologist Regional Research Centre ,Dr .PDKV ,Amravati |
|  |  | 10.11.2020 | Composting of agricultural waste for improvement of soil. | ChitriTq,Dharani | 30 | 10 | 40 | 800 | TAO,SMS (Agronomy),SMS (Horticulture) |
|  |  | 4/7/2020 | Bahar management | Jasapur | 25 | 05 | 30 | 7000 | TAO |
|  |  | 12.06.2020 | Seed production of Soybean | Beskheda Tq. Chandur bazar | 30 | 05 | 35 | 2000.00 | Mr. Chimurkar, Regional Manager, NSC |
|  |  | 19.06.2020 | Improved varieties of Soybean | Kesharpur Tq. Chikhaldara | 30 | 05 | 35 | 2000.00 | KVK Scientist |
|  |  | 25.09.2020 | Seed production of Bengal gram | Beskheda Tq. Chandur bazar | 25 | 05 | 30 | 2000.00 | Mr. Chimurkar, Regional Manager, NSC |
|  |  | 13 may  15 June, 6July 7Aug, 25 sept 15oct. | Farm implements/ machinery for custom hiring.PKV mini dal mill-an enterprise,Mini Rice mill-an enterprise  Planting machinery,In situe soil & water conservation, | Kesharpur,Chitri,Kara, Tarubandha,Beskheda& On campus | 135 | 25 | 160 | 9000 | TAO,ATMA BTM,Sarpanch, Police patil of concerned villages |
|  |  | 30/3/20 | Fodder cultivation | Basekheda | 8 | 2 | 10 | 1000 | LDO Ext |
|  |  | 7/04/20 | Common disease in goat | Basekheda | 10 | 05 | 15 | 1000 | LDO Ext |
|  |  | 11/05/20 | Summer management in poultry. | Chitri | 10 | 05 | 15 | 1000 | LDO Ext |
|  |  | 2/06/20 | Imp. of vaccination in goat and cattle. | Tarubanda | 10 | 2 | 12 | 1000 | LDO Ext |
|  |  | 4/07/20 | Balance feed in goat kid. | Kesherpur | 13 | 02 | 15 | 1000 | LDO Ext |
|  |  | 7/08/20 | Types of worm and its control measures | Basekheda | 10 | 02 | 12 | 1000 | LDO Ext |
|  |  | June 20 | Drudgery reduction technologies for farm, household & small scale processing | Dhamangaon Rly | 15 | 25 | 40 | 4500 | TAO BDO,EO |
| IV | Exhibition | Oct 20 | Women Entrepreneurship Mela through Agro base product | Amravati | 10 | 40 | 50 | 2500 | VC, S.G.B.A. Univercity, Amravati |
|  |  | 27.12.2020 to 29.12.2020 | Innovative technology | Dr.PDKV Akola  (Participation in Exhibition) | 700 | 400 | 1200 | 10000 | Dr.PDKV, Scientists |
| V | Film Show | 10/5/2020 | Fruit drop in Oranges | Beskheda | 15 | 05 | 20 | 4000 | TAO |
|  |  | 15.7..2020 | Different methods of composting of agricultural waste | KesharpurTq.Chikhaldara&  ChitriTq,Dharani | 100 | 20 | 120 | 2400 | SMS (Agronomy),SMS (Horticulture) |
|  |  | 20.7. 2020 | Pest and diseases of soybean | Marada Tq, Tiwasa | 50 | 10 | 60 | 1200 | SMS (Agronomy),SMS (Agril.Extension) |
|  |  | 17.8.2020 | IPM in Bt .Cotton | BeskhedaTq.ChandurBaza | 50 | 10 | 60 | 1200 | SMS (Agronomy),SMS (Agril.Extension) |
|  |  | 10.9.2020 | Importance and use of *trichoderma* spp. for management of seed and soil borne diseases. | Dhanodi Tq.Chandur Rly | 50 | 10 | 60 | 1200 | SMS (Agronomy),SMS (Horticulture), SMS (Agril.Extension) |
|  |  | 12.10.2020 | Important pest and diseases of Mandarin | BeskhedaTq.ChandurBaza | 50 | 10 | 60 | 1200 | SMS (Horticulture), SMS (Agril.Extension) |
|  |  | 19.06.2020 | Pest & Diseases of Soybean | Kesharpur Tq. Chikhaldara | 35 | 05 | 40 | 2000.00 | KVK Scientist |
|  |  | 25/8/20 | Scientific dairy Management. | Chitri | 13 | 7 | 20 | 1000 | LDO Ext |
|  |  | 15/9/20 | Back yard poultry keeping. | Kesherpur | 14 | 8 | 22 | 1000 | LDO Ext |
|  |  | 4/10/20 | Scientific goat Management | Tarubanda | 13 | 7 | 20 | 1000 | LDO Ext |
|  |  | 5/10/20 | Fodder cultivation | Basekheda | 14 | 8 | 22 | 1000 | LDO Ext |
| VI | Farmers Seminar |  |  |  |  |  |  |  |  |
| VII | Workshop |  |  |  |  |  |  |  |  |
| VIII | Group meetings | 25.5.2020 | Soil and water conservation | Kesharpur | 30 | 05 | 35 | 4000.00 | TAO, Dharni |
|  |  | 2.07.2020 | Use of Bio fertilizers | Kesharpur Tq. Chikhaldara | 25 | 05 | 30 | 2000.00 | KVK Scientist |
| IX | Group meetings | 20 April,15 may,20 june,20 July,20 Aug.,16 oct,15 nov. | Use of Stubble collector,CRIDA planter,3 tyne weeder,Mini dalmiil-an enterprise,millets processing machinery,Micro irrigation methods | Kesharpur,Chitri,Kara, Tarubandha,Beskheda& On campus | 100 | 30 | 130 | 7000 | Agril. Assistant TAO,ATMA BTM,Sarpanch, Police patil of concerned villages |
|  |  | 15/04/20 | Quail farming | Tarubanda | 12 | 3 | 15 | 1000 | LDO Ext |
|  |  | 18/05/20 | Dairy Farming | Chitri | 13 | 4 | 17 | 1000 | LDO Ext |
|  |  | 16/06/20 | Goat farming | Basekheda | 12 | 4 | 16 | 1000 | LDO Ext |
| X | Lectures delivered as  resource persons | 10 April,25 may30 june, Aug.,26 14 sept. | Farm Mechanisation,Custom hiring,Sowing by BBF Planter,In situe water conservation | RAMETI,Horti.college,TAO office | 85 | 65 | 150 | 500 | PA Engg. |
|  |  | 18.09.2020 | Marketing of Soybean | Beskheda Tq. Chandur bazar | 25 | 05 | 30 | 2000.00 | Mr. Chimurkar, Regional Manager, NSC & KVK Scientist |
|  |  | 28.05.2020 | Training on Cultivation of Kharif crop organized by TAO Chandur ® | Chandur ® | 25 | 10 | 35 |  |  |
|  |  | 26.8.2020 | Training on Soil testing orgnise by KVK, Durgapur | KVK Durgapur | 20 | 10 | 30 |  |  |
|  |  | 30.8.2020 | Training on Soil health management to be organized by KVK, Durgapur | KVK Durgapur | 15 | 10 | 25 |  |  |
|  |  | As per schedule of SAD | Mandarin,Onion,Spices | Chandur rly,Chandur Bazar | 150 | 50 | 200 | 10000 | SDAO/TAO |
|  |  | Date as per requirement of State Agriculture Department | -- | -- | 150 | 20 | 170 | -- | --- |
|  |  | 13-July | Summer management in poultry and goat | -- | 32 | 7 | 39 | 500 | SMS |
|  |  | 28 Aug | Common diseases in cattle and its prophylaxis | -- | 33 | 7 | 40 | 500 | SMS |
|  |  | 22 Sept | Feeding management in cattle | -- | 34 | 7 | 41 | 500 | SMS |
| XI | Newspaper coverage | As per event | Importance of synchronization.  Balance feed to calf  Importance of deworming.  Use of probiotic in goat kid.  Backyard poultry  Fodder cultivation around the year. |  |  |  |  |  |  |
|  |  |  | Field day and Article on cultivation of Khrif and Rabi crop |  |  |  |  |  |  |
|  |  |  | Importance of seed treatment of bio-fungicides and bio fertilizers. |  |  |  |  |  |  |
|  |  |  | Importance of trap crops in pest management |  |  |  |  |  |  |
|  |  |  | *Trichoderma* a bio fungicide use for management of seed and soil borne diseases. |  |  |  |  |  |  |
|  |  |  | Management of major pest and diseases of soybean. |  |  |  |  |  |  |
|  |  |  | Management Strategy for pink bollworm management in Bt cotton. |  |  |  |  |  |  |
|  |  |  | Use of Yellow sticky traps for management of white fly. |  |  |  |  |  |  |
|  |  |  | Management of major pest and diseases in BT. cotton |  |  |  |  |  |  |
|  |  |  | Management of pest of Pigeon pea ,Bengal gram ,Soybean |  |  |  |  |  |  |
|  |  |  | Safe use and handling of pesticides. |  |  |  |  |  |  |
|  |  |  | CRIDA Planter for sowing, Stubble collector for collection of stubbles,Use of Paddy winnower, Precautions for diesel conservation in Tractor & moonset pumps |  |  |  |  |  |  |
| XII | Radio talks | to be added in other extension activities | | |  |  |  |  |  |
| XIII | TV talks | to be added in other extension activities | | |  |  |  |  |  |
| XIV | Popular articles | to be added in other extension activities | | |  |  |  |  |  |
| XV | Extension Literature | to be added in other extension activities | | |  |  |  |  |  |
| XVI | Advisory Services | Monthly | - | - | 200 | 25 | 225 |  |  |
|  |  | Monthly | In situe water conservation by BBF, Use of micro irrigation system | Adopted villages | 350 | 50 | 400 | - | PA Engg. |
| XVII | Scientific visit to farmers field | Monthly | - | - | 200 | 50 | 250 |  |  |
|  |  | Monthly | Fruit drop,Quality improvement | Chandur rly,Chandur Bazar | 30 | 10 | 40 | 10000 | TAO |
|  |  | 19.06.2020 | Soybean | Kesharpur Tq. Chikhaldara | 05 | 01 | 06 | 1000.00 | KVK Scientist |
|  |  | 21.07.2020 | Soybean | Beskheda  Tq Chandur bazar | 25 | 05 | 30 | 1000.00 | KVK Scientist |
|  |  | 25.10.2020 | Bengal gram | Beskheda  Tq Chandur bazar | 25 | 05 | 30 | 1000.00 | KVK Scientist |
|  |  | 15 April,27 may28 june, 15 oct,10 Nov.& as per crop condition | In the FLD plots,Mini Dal mill, Maintainance of drip system | Kesharpur,Chitri,Kara, Tarubandha,Beskheda,Sonegaon | 135 | 25 | 160 | 4000 | Sarpanch, Police patil of concerned villages & SMS KVK |
|  |  | 30/3,13/4,27/5,4/5,19/5,29/5,8/6,22/6,13/7,27/7,10/8,7/9,  21/9,5/10,26/10,2/11,18/11,28/11 | Animal health problem | Basekheda,Chitri,Kesherpur,Tarubanda | 54 | 06 | 60 | 2000 | SMS |
| XVIII | Farmers visit to KVK | 03 | - | - | 100 | 25 | 125 |  |  |
|  |  | Monthly | Package of practices | Iosa, Dhamangaon rly | 25 | 05 | 30 | - |  |
|  |  | 25March,5 April,,9may20 june, 10 sept,20 oct,10 Nov.& as per crop condition | Pulse &Millet processing machinaries  Improved implement for Custom hiring purpose & Maintainance of drip system | KVK instructional farm | 275 | 55 | 330 | 1000 | Group leaders of FPO/farmers group,SMS KVK |
|  |  | March to December - 20 | 0 | 0 | 85 | 35 | 120 | 0 | 0 |
| XIX | Diagnostic visits | 7 may,15 sept | Bullock drawn farm implements & millet processing machinaries. | Kesharpur & Badnapur | 60 | 20 | 80 | 3500 | University scientist & SMS KVk, Farmers group leader |
|  |  | 05 | - | - | 50 | 10 | 60 |  |  |
|  |  | As per schedule of SAD | Fruit drop | Chandur rly,Chandur Bazar | 30 | 10 | 40 | 10000 | TAO |
| XX | Exposure visits | 25.12.2020 | -- | -- | 30 | 0 | 30 | 36000 | KVK Scientist |
|  |  | 12.10.2020 | 0 | 0 | 15 | 7 | 22 | 10000 | SMS |
| XXI | Ex-trainees Sammelan |  |  |  |  |  |  |  |  |
| XXII | Soil health Camp | 05 | - | - | 150 | 10 | 160 |  |  |
| XXIII | Animal Health Camp | Sept to Nov-20 | Animal health problem | Chitri,Kesherpur,Tarubanda | 110 | 35 | 145 | 40000 | LDO Ext  SMS |
| XXIV | Celebration of important days (specify) | 20.1.2020 | Important Constitutional Amendments & their Significance | Malkapur Tq..Chikhaldara | 55 | 15 | 70 | 5000.00 | Mr. Srivas, principal, Law College. Paratwada Dist Amravati |
|  |  | 24.02.2020 | Constitution & citizen duties, land legislations and reforms | Karla Tq  Chandur rly. | 35 | 05 | 40 | 4000.00 | Miss Prof Hutke, Professor, Department of law, Amravati University |
|  |  | 16.03.2020 | Programme on creating awareness about the Constitutions of India amongst school children | Pimpalkhuta | 40 | 30 | 70 | 4000.00 | KVK Scientist |
|  |  | 8.04.2020 | Quiz/ Poster /flyer competition amongst staff members of Institute | On Campus | 16 | 01 | 17 | 1000.00 | KVK Scientist |
|  |  | 19.05.2020 | Quiz/ Poster /flyer competition amongst school children on the Constitution of India | Pimpalkhuta | 40 | 30 | 70 | 4000.00 | Head Master, Dhnydeo School, Pimpalkhuta & KVK Scientist |
|  |  | 26.06.2020 | Awareness campaign about fundamental duties among the villagers of adopted villages under the KVK | Kesharpur tq. Chikhaldara | 25 | 05 | 30 | 4000.00 | KVK Scientists |
|  |  | 23.07.2020 | Programme on Legislation on Agricultural marketing and organizing plantation at appropriate locations | Beskheda  Tq. Chandur bazar | 35 | 20 | 45 | 5000.00 | KVK Scientists |
|  |  | 27.08.2020 | Organize talk by eminent personalities on the Constitutions of India & national struggle for freedom | Bodna | 50 | 30 | 80 | 4000.00 | Mr. Gawande, Law College, Amravati, Amravati |
|  |  | 15.09.2020 | Programme on Fundamental rights & duties | Tarubanda  Tq. Chikhadara | 25 | 20 | 45 | 4000.00 | KVK Scientists |
|  |  | 16.10.2020 | Awareness campaign on Fundamental rights | Chitri tq. Dharni | 25 | 20 | 45 | 4000.00 | KVK Scientists |
|  |  | 26.11.2020 | Celebration of 70th Anniversary of adoption of Constitutions of India | On Campus | 70 | 40 | 110 | 10000.00 | Mr. Srivas, principal, Law College. Paratwada Dist Amravati,  Miss Prof Hutke, Professor, Department of law, Amravati University |
| XXV | Celebration of important days (World soil health day) | 5.12.2020 | Importance of Soil testing | Kesharpur | 50 | 20 | 70 | 5000.00 | KVK Scientist & TAO Dharni |
|  | Celebration of important days (specify) | Sept. | Importance of water management | Beskheda | 40 | 15 | 55 | 2000 | Sarpanch, Police patil of concerned village & SMS KVK |
|  | Krishi Mohostva |  |  |  |  |  |  |  |  |
|  | Krishi Rath |  |  |  |  |  |  |  |  |
|  | Pre Kharif workshop |  |  |  |  |  |  |  |  |
|  | Pre Rabi workshop |  |  |  |  |  |  |  |  |
|  | PPVFRA workshop |  |  |  |  |  |  |  |  |
| XXVI | Any Other (Specify) |  |  |  |  |  |  |  |  |
|  | Soil test campaigns | 02 | - | - | 50 | 10 | 60 |  |  |
|  | **Total** |  |  |  |  |  |  |  |  |

**3.5. B Action Plan for Other Extension Activities. (New Table addition)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Particulars** | **Topic** | **Discipline** | **Name of the Scientist** | **Number** |
| **01** | Radio Talk |  |  |  |  |
|  | Mandarin | Bahar management | Horticulture | Dr.A.P.Phuse |  |
|  | Onion | Package of practices for Onion | Horticulture | Dr.A.P.Phuse |  |
|  |  | Importance of vaccination and deworming in animal | Animal Science | Dr S P Kathale | 01 |
| **02** | T. V. Shows | Production techaniques in Citrus | Horticulture | Dr.A.P.Phuse |  |
|  | News Articles | Importance of soil and water testing  Importance of Pulses  New technology of cultivation of Bengal gram | Agronomy | P. N. Mendhe | 03 |
|  |  | Oraganic vegetable Production | Horticulture | Dr.A.P.Phuse | 2000 |
|  |  | Training & demonstration News | Agril Extension | A.M. Tayade | 15 |
|  | Extension literature | Cultivation of Green gram , Black gram , Red gram , Soybean and Bengal gram | Agronomy | P. N. Mendhe | 2500 |
|  |  | Major pest and diseases of Nagpur Mandarin and its management. | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Use of *Trichoderma* a bio fungicidefor management of seed and soil borne diseases. | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Management strategy for pink bollworm management in Bt cotton. | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Management of sucking pest in Bt.cotton | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Integrated pest management in Bengal gram | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Major pest & diseases of Soybean & their management | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Major pest & diseases of Pigeon pea & their management | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Safe use and handling of pesticides. | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Important pest and diseases of Onion | Plant Protection | S.A. Pachkawade | 1000 |
|  |  | Production techaniques in Citrus | Horticulture | Dr.A.P.Phuse | 1000 |
|  |  | **Utilisation of Animal energy,Rice mechanisation** | Agril. Engg. | R.S.Rathod | 1000 |
|  |  | Importance of synchronization.  Balance feed to calf  Importance of deworming.  Use of probiotic in goat kid.  Backyard poultry  Fodder cultivation around the year. | Animal Science | Dr S P Kathale | 3000 |
|  | Impact Study | Impact of Training Programme on farmers Knowledge and Adoption about Wheat Production Technology in tribal area | Agril Extension | A.M. Tayade | 01 |
|  |  | Impact of front line demonstrations on yield enhancement and economics of Mandarin Orange in Amravati District | Agril Extension | A.M. Tayade | 01 |
|  | Documentation | Documentation of Success story | Agril Extension | A.M. Tayade | 04 |
|  | Use of ICT Applications |  |  |  |  |
|  | Research paper each scientist | Mandarin and Spices crop | Horticulture | Dr.A.P.Phuse | 02 |
|  |  | Impact of FLD on Bengal gram | Agril Extension | A.M. Tayade | 01 |
|  | Technical reports |  |  |  |  |
|  | News letters |  |  |  |  |
|  | Training manual all discipline | Small Poultry farming | Animal Science | Dr S P Kathale | 1 |
|  | Popular article | Fruit drop reason and its Control | Horticulture | Dr.A.P.Phuse | 2000 |
|  |  | Importance and use of *Trichoderma spp*. | Plant Protection | S.A. Pachkawade |  |
|  |  | Other safer methods of pest and disease control | Plant Protection | S.A. Pachkawade |  |
|  |  | Use of *Trichodermaspp* for composting of agricultural waste. | Plant Protection | S.A. Pachkawade |  |
|  |  | Preparation of Bordo- paste and mixture and its use in disease management | Plant Protection | S.A. Pachkawade |  |
|  |  | Importance of bio fertilizers and its use | Plant Protection | S.A. Pachkawade |  |
|  |  | Importance of seed treatment | Plant Protection | S.A. Pachkawade |  |
|  |  | Group formation | Agril Extension | A.M. Tayade | 01 |
|  |  | Seed Production | Agril Extension | A.M. Tayade | 01 |
|  |  | Recommendations of Agril. universities | Agril Extension | A.M. Tayade | 01 |
|  |  | Bullock drawn Improved implements, Precautions for diesel conservation in Tractor & moonset pumps | Agril. Engg. | R.S.Rathod | 2 |

**3.6. Target for Production and supply of Technological products**

**SEED MATERIALS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Crop** | **Variety** | **Quantity (qtl.)** |
|
| **CEREALS** |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **OILSEEDS** | Soybean | JS-2029 | 10 |
|  | Soybean | JS-9560 | 10 |
|  |  |  |  |
| **PULSES** | Pigeon Pea | BDN-716 | 04 |
|  | Bengal gram | JAKI-9218 | 10 |
|  | Bengal gram | RVG-202 | 08 |
|  |  |  |  |
| **VEGETABLES** |  |  |  |
| **OTHERS (Specify)** | Turmeric | Selum | 10 |
|  | Turmeric | Waygaon | 05 |
|  |  |  |  |
|  |  |  |  |

**PLANTING MATERIALS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Crop** | **Variety** | **Quantity (Nos.)** |
| **FRUITS** | Mandarin orange | Nagpuri | 5000 |
|  | Lime | Kagzi | 3000 |
|  | Mango | Keshar,Dasheri | 2000 |
|  | Guava | L-49 | 1000 |
| **SPICES** |  |  |  |
|  |  |  |  |
| **VEGETABLES** | Tomato | Arka rakshak | 1000 |
|  |  | Arka Samrat | 1000 |
|  |  |  |  |
|  |  |  |  |
| **FOREST SPECIES** |  |  |  |
|  |  |  |  |
| **ORNAMENTAL CROPS** | Gaillardia | Grandiflora | 2000 |
|  | Merigold | Raja | 1000 |
|  |  |  |  |

**Bio-products**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Product Name** | **Species** | **Quantity** | |
| **No** | **(kg)** |
| **BIO PESTICIDES** |  |  |  |  |
| 1Trichoderma | Tricho-V | *Trichodermaviride* | 00 | 3000 kg |
| 2Trichoderma | Tricho -H | *Trichodermaharzianum* | 00 | 3000 kg |
| **BIO fertilizer** |  |  | 00 |  |
| 1. PSB | PSB | *Phosphate solubilizing bacteria* | 00 | 100 lit |
| 2. Rhizobium | Rhizo | *Rhizobium japonicum* | 00 | 100 lit |
| 3.Azotobactor | Azo | *Azotobactorcrococum* | 00 | 100 lit |

**LIVESTOCK**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Type** | **Breed** | **Quantity** | |
| **(Nos)** | **Unit** |
| Cattle | cattle | Cross breed | 2 | 0 |
|  | Buffalo | Murrha | 1 | 0 |
| GOAT | Goat(Kid) | Osmanabadi | 20 | 4 |
| SHEEP |  |  |  |  |
| POULTRY | Chicks | Giriraj / Kaveri | 250 | 4 |
| Pig farming |  |  |  |  |
| Quail | Chicks | Japonica | 500 | 10 |
| FISHERIES |  |  |  |  |
|  |  |  |  |

**4. Literature to be Developed/Published**

**A. KVK News Letter**

Date of start :

Number of copies to be published :

**B. Details of Electronic Media to be produced**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Type of media (CD / VCD / DVD / Audio-Cassette) and video clippings** | **Title of the programme** | **Number** |
| 1 | Video Clipping | Cultivation of Red gram | 01 |
|  | Video Clipping | Cultivation of Bengal gram | 01 |
|  | Video clippings | Tomato production under shednet | 02 |
|  | Video clippings | Impact of soil test base fertilizer in Mandarin | 01 |
|  | CD | Preparation of spraying solution | 01 |
|  | **video clippings** | Method demonstration of CRIDA planter,Mini Rice mill | 2 |
|  | Video Clipping | Backyard Poultry Farming | 1 |
|  | Video Clipping | Quail Farming | 1 |

**C. Success stories/Case studies identified for development as a case. -**

1. Mr. Dilip Laxman Chauvan, Poultry Entrepreneur village Chichkheda Tq. Chikhaldara

**Intervention:** Skill development training programme (240 hrs)

2. Mr. Ramesh Ganpat Khadke, Poultry Entrepreneur village Tembhursonda Tq. Chikhaldara

**Intervention:** Skill development training programme (240 hrs)

3. Mr. Anup Jagdeorao Dharmale, Pulses Processing unit (Dal Mill) village Beskheda, Tq. Chandur bazaar

**Intervention:** Training on processing & Demonstrations on Pulses

4. Success story on Oyster mushroom cultivation by the tribal farmer

**Intervention:** Demonstration onOyster mushroom for income generation & to minimize the malnutrition

**A. Practicing Farmers & Rural Youth**

For Practicing farmers, rural youth and in service personal firstdeveloped an understanding of the farmers & rural youths there farming systems, resources and established rapport with them. Gathered information on cropping system, present level of use of inputs and productivity of major crops, identified the problem and its causes of the area by **group discussion, meeting with opinion leaders, individual contact, visiting villages and farms.**

A meeting of interested farmers was also organized to spell out the problem.

The activities of the KVK were planned and chalked out keeping in view the thrust areas identified. The technological solutions available at hand were compared with the resources available. The solutions for the gaps related to technological, extension and research were identified and were prioritized according to severity and assessed needs of the farmers in question. The villagers in the KVK operational area in selected villages were made aware about functions of farmers group. The interested farmers were trained for identification of problems in agriculture production and allied activities.

**C. In-service personnel**

a) For in service personal prepare the calendar of training programme and submit to Superintendent Agriculture Officer as well as line department.

b) Discussed with offers of line department about the technological problem and identified the training needs

**5.2. Indicate the methodology for identifying OFTs/FLDs**

**For OFT & FLD** the activities of the KVK were planned and chalked out keeping in view the thrust areas identified. The techniques are Transects, informal mapping, diagramming, and innovation assessments (scoring & ranking different actions). The resource mapping also used for to get an impression of the social & physical layout of the village & understand the social structure of the village & to get an impression of the natural environment. The technological solutions available at hand were compared with the resources available. The solutions for the gaps related to technological, extension and research were identified and were prioritized according to severity and assessed needs of the farmers in question.

The secondary data was also collected and analyzed. The outcomes from the discussions held with University Scientists and Extension functionaries were also taken into account.

**Fallowing steps to be fallowed for identifying OFTs/FLDs**

1. Selection of village on the basis of farming system approach
2. Conducted the transact walk of the village and cultivated area of the village for field level Observations
3. Conducted the Problem identified Matrix Ranking as per the main crop grown in that village as per enterprise
4. Farmers group discussion to be fallowed as per land holding of the farmers
5. Also, Secondary data to be collected from other line departments
6. Then, lastly identified the need based OFT for selected village and conducted on selected farmers field
7. Selected farmers /Beneficiaries field to be approachable, road touch
8. After concluding the OFT , The same technology converted in to FLD for Vertical and Horizontal spread

**6. LINKAGES**

**6.1. Functional linkage with different organizations**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **Name of organization** | **Nature of Linkage** |
| 1. | ATMA Amravati | joint diagnostic survey, joint implementation,participation in meeting,conducting training programmes and demonstration, Exposure visits |
| 2. | Dr. PDKV Akola University | Technical guideline, joint implementation,participation in meeting,conducting training programmes and demonstration |
| 3. | Agriculture department | joint implementation,participation in meeting,conducting training programmes and demonstration,contribution received for infrastructural development |
| 4. | Collector office | contribution received for infrastructural development, participation in meeting |
| 5. | Agriculture college, Amravati | joint implementation,participation in meeting,conducting training programmes, Exposure visit |
| 6. | Food Technology College, Pada, Badnera | joint implementation,participation in meeting,conducting training programmes, Exposure visit |
| 7. | MAVIM | As resource person |
| 8. | Sarita Foundation | Combine Training Programme |
| 9. | RAMETI | Training to Extension officers & workers. |
| 10. | Department of women & Child in ZP | F or conducting Health regarding Training programme |
| 11. | Sant Gadgebaba Amravati University, Amravati | Guidance about pogramme/Training,/Libray |
| 12. | DRDA | For SJGSY Training |
| 13. | Dept of Pashusawardhan | Veterinary camp and Technical advice |
| 14. | PGIVAS Akola | Technical advice |
| 15. | Dept of Dairy Science, DR PDKV, Akola | Technical guidance |
| 16. | Rajya Mahila Aayog , Mumbai | Conduct the State/ District level Workshop |
|  | Agriculture Skill Council Of India | Training Partner |
|  | Nice system Approach Manage, Hyderabad | Content Creator/Manager |
|  | CCRI,Nagpur | Technical Support |
|  | CIAE,Bhopal | Technical guidance |
|  | VNMKV, Parbhani | Supply of bullock drawn implements for demonstration in tribal area |
|  | Dept of Animal Science | Joint implementation,participation in meeting,conducting training programmes and demonstration,contribution received for infrastructural development |
|  | PGIVAS Akola | Technical guideline, joint implementation,participation in meeting,conducting training programmes and demonstration |
|  | Dept of Dairy Science, DR PDKV, Akola | Technical guidance |

6.2. Details of linkage with ATMA

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

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Programme** | **Nature of linkage** |
| 1 | Sponsored Training | joint implementation |
| 2 | Demonstrations | joint implementation |
| 3 | Diagnostic visit | joint diagnostic survey |
| 4 | Field Day | Financial Assistance |
| 5 | Farm School | Financial Assistance |
| 6 | Established District level training Center | Funded 1 Lac /Year since 2015 & Financial Assistance |

## 6.3. Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL/NARI/DAESI/DAMU/DFI, etc.) / schemes during 2020, if involved.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Name of the agency / scheme** | **Name of activity** | **Technical programme with quantification** | **Financial outlay (Rs.)** | **Names of the team members involved** |
| 01 | DAESI | Class room course work design by MANAGE | Class room course work  Practical, Demonstration | -- | KVK |
| 02 | DBT , New Delhi | Training and Demonstration | 240 Group (5 member in each group)  24 Training Programme  24 awareness programme  24 Group discussion  24 Method demonstration | 1746232=00 | Dr A.P.Kalaskar  Dr S.P. Kathale  Shri A.M. Tayade |

**7.0 Convergence with other agencies and departments:**

**8. Innovator Farmer’s Meet 2020**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **Particulars** | **Details** |
|  | Are you planning for conducing Farm Innovators meet in your district? | Yes/ No |
|  | If Yes likely month of the meet | September 2020 |
|  | Brief action plan in this regard |  |

**Duration- 1 DAY Venue- On campus**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **Title** | **Resource persons** | **Venue** |
| 10.30-11.00 | Registration |  | On Campus |
| 11.00-12.00 | Inauguration | Chairperson KVK & Project Director ATMA |
| 12.00-12.30 | Tea break |  |
| 12.30-1.30 | Use & importance of Bio-pesticidesin Citrus | Shri Sanjay Pachkawade PA Plant Protection KVK Ghatkhed Amravati |
| 1.30-2.30 | Lunch break |  |
| 2.30 -3.30 | Nutrient Management in Citrus Management | Dr.A.P. Phuse |
| 3.30-5.00 | Experiences sharing of farmers about technology used and impact | Innovative farmers |
| 5.00-5.30 | Concluding Session | Dr. A,P. Kalaskar Senior Scientist & Head KVK |

**9. Farmers Field School (FFS) planned 2020**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Thematic area** | **Title of the FFS** | **Budget proposed in Rs.** |
| 01 | Organic Farming | Crop Production through organic input | 50000.00 |
| 02 | Drudgery reduction | Use of Drudgery Reducing tools/equipments & protective cloths in Agricultural activity in Farm | 25000 |

**10. Utilization of hostel facilities**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Programme** | **No. of days** |
| **1** | Nursery management for fruit crop | 02 |
| **2** | Package of practices for Vegetable crop | 03 |
| **3** | Rising of nursery for Ornamental crop | 03 |
| **4** | **Training under ASCI Title- Tractor operator** | **25** |
| **5** | **Training programme on Scientific Goat farming** | **04** |
| **6** | **Training programme on Scientific Quail farming** | **04** |
| **7** | **Training programme on Scientific Poultry farming** | **07** |
|  | **Total** | **48** |

**11. A Action Plan for management of crops at KVK farm. (New Table Addition)**

Total area of the KVK farm: 23.60 (ha)

Total cropped area : Kharif: 5.00 (ha) + Rabi: 2.00 (ha.)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No | Particulars | Kharif 20 | | | | | | Rabi 20-21 | | |
| 1. | Name of the crop | Cotton | Soybean | Soybean | Soybean | Pigeon pea | Turmeric | Bengal gram  **(Seed Prod.)** | Bengal gram  **(Seed Prod.)** | Seas mum |
| 2. | Area(ha) | 1.40 | 0.80 | 0.80 | 1.00 | 0.40 | 0.60 | 0.60 | 0.80 | 0.60 |
| 3. | Variety | NHH-44/ Dr.PDKV-hy-2 | JS-2029 | JS-95-60 | JS-95-60 | BDN-716 | Selum/  Waygaon | RVG-202 | JAKY-9218 | PKV-NT-11 |
| 4. | Date of Sowing | II week of June 20 | II week of June 20 | II week of June 20 | II week of June 20 | II week of June 20 | II week of June 20 | Oct. 20 | Oct. 20 | II week of Oct. 20 |
| 5. | Purpose/technology demonstrated | BT variety Demo. By Dr PDKV, Akola | Seed Production | Seed Production | Demo. of early variety | Demo. of new variety for Seed Production | Varietal Trial | Seed production of new variety | Wilt resistant variety | Introduction of new crop |
| 6. | Total cost of Inputs (Rs.) | 30000 | 12000 | 12500 | 14000 | 7800 | 55000 | 11000 | 14500 | 6000 |
| 7. | Cost of cultivation other than inputs | 25000 | 13000 | 12000 | 15500 | 8700 | 70000 | 12600 | 12600 | 8500 |
| 8. | Total cost of cultivation (Rs.) | 55000 | 25000 | 24500 | 29500 | 16500 | 125000 | 23600 | 27100 | 14500 |
| 9. | Expected date of harvest | Oct. 20 onwards | Oct. 20 | Oct. 20 | Oct.20 | Dec.20 | March.21 | Feb 21 | Feb 21 | Feb. 21 |
| 10a. | Grain/Main product yield (q/ha) | 15 | 10 | 10 | 12 | 04 | 25 | 08 | 10 | 04 |
| 10b. | Straw/ by-product yield (q/ha) | -- | 1.5Tr. | 1.5Tr. | 2 Tr. | 0.5 Tr. | -- | 0.5 Tr. | 01 Tr. | -- |
| 11a. | Selling price of grain/main product (Rs/q) | 5200 | 3000 | 3000 | 2800 | 5500 | 6000 | 4000 | 4000 | 6000 |
| 11b. | Selling price of  Straw/ by-product (Rs/q) | -- | 3000 | 3000 | 3000 | 4000 | -- | 4000 | 4000 | -- |
| 12. | Gross Income (Rs.) | 78000 | 34500 | 31500 | 39600 | 24000 | 150000 | 34000 | 44000 | 24000 |
| 13. | Net Income (Rs.) | 36000 | 9400 | 8900 | 10100 | 7500 | 25000 | 10400 | 16900 | 9500 |

**11. B Action Plan for management of plantation at KVK farm**

Total area of the KVK farm: 23.60 (ha) Total cropped area : 8.21 (ha)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sr. No. | Perticulers | 2020 | | | | | | | | | |
| 1. | Name of the crop | Mandarin Orange | Kagzi Lemon | Mango | Mango | Guava | Avola | Rangpur & Jambheri | Pomogranate | Mandarin Orange | Date Palm |
| 2. | Area(ha) | 2.38 | 0.36 | 0.40 | 0.40 | 0.30 | 1.00 | 0.37 | 0.80 | 1.60 | 0.60 |
| 3. | Variety | Nagpuri | Kagzi | Keshar & Dashahari | Keshar & Dashahari | L-49 | Krishna, Banarasi | Rough lemon seedlings | Bhagwa | Nagpuri |  |
| 4. | Date of Sowing | 2001-03 | 2001 | 2001 | 2014 | 2003 | 2003 – 05 | 2009 | 2009-14 | 2020 | 2020 |
| 5. | Purpose/technology demonstrated | a) Fruit drop control  b) Delay the harvesting time  c) Care & Management | a) Care & Management of Hasta Bahar with green manuaring | Bahar management | Care & management | Care & management for nursery purpose | Control of Bark eating cater pillar | Care & management for nursery purpose | Care & management | New plantation for commercial production | Plantation for New crop introduction |
| 6. | Total cost of Inputs (Rs.) | 102000 | 9300 | 5790 | 8000 | 3990 | 3040 | 2525 | 20950 | 75000 | 125000 |
| 7. | Cost of cultivation other than inputs | 93000 | 6400 | 7450 | 8750 | 4450 | 4000 | 4375 | 12800 | 206200 | 10000 |
| 8. | Total cost of cultivation (Rs.) | 195000 | 15700 | 13240 | 16750 | 8440 | 7040 | 6900 | 33750 | 281200 | 225000 |
| 9. | Expected date of harvest | Onward Nov20 | June 20  March 21 | April 20 | April 20 | -- | Nov 20  onward | -- | Nov 20 onward | -- | -- |
| 10a. | Grain/Main product yield (q/ha) | 200 | 30 | 02 | 15 | -- | 15 | -- | --10 | -- | -- |
| 10b. | Straw/ by-product yield (q/ha) | -- | -- | 2000 Sticks | -- | -- | -- | -- | 3000 Sticks | -- | -- |
| 11a. | Selling price of grain/main product (Rs/q) | 1500 | 1200 | 2000 | 2000 | -- | 500 | -- | 2000 | -- | -- |
| 11b. | Selling price of  Straw/ by-product (Rs/q) | -- | -- | Rs 6/Sticks | -- | -- | -- | -- | Rs 5/Sticks | -- | -- |
| 12. | Gross Income (Rs.) | 300000 | 36000 | 16000 | 30000 | -- | 7500 | -- | 35000 | -- | -- |
| 13. | Net Income (Rs.) | 105000 | 20300 | 2760 | 13250 | -- | 460 | -- | 1250 | -- | -- |

**12. Action Plan for Management of Demonstration Units at KVK (New Table Addition)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Particulars** | **Goatry Unit** | **Soil & water testing unit** | **Nursery** | **Production of Bio-pesticide** |
| 1. | Names of Breed/Unit | Osmanabadi | Soil and Water testing Unit | Mandarin Orange,Lime.Mango,Gaillardia etc | Trichodermaviride/ |
| 2. | Number available | 40 | 02 | 16000 |  |
| 3. | Cost of inputs(Rs) | 9000 | 200000.00 | 45000 | 200000 |
| 4. | Cost of production other than inputs (Rs) | 25000 | 300000.00 | 70000 | 40000 |
| 5. | Total cost of production (Rs) | 34000 | 500000.00 | 115000 | 240000 |
| 6. | Yield per animal/unit | 4300 | 50000 | 12000 | 6000kg |
| 7. | Gross income(Rs.) | 86000 | 800000.00 | 250000 | 600000 |
| 8. | Net income(Rs.) | 52000 | 300000.00 | 135000 | 360000 |
| 9. | Number of beneficiaries | 10 | 5500.00 | 40 |  |

**13. Action Plan of Soil and Water testing Laboratory (New Table Addition)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Month** | **No. of soil samples to be analysed** | **No. of water samples to be analysed** | **No. of plant samples to be analysed** |
| January | 08 | 02 | 00 |
| February | 02 | 02 | 00 |
| March | 240 | 04 | 00 |
| April | 700 | 20 | 00 |
| May | 1500 | 20 | 00 |
| June | 1500 | 20 | 00 |
| July | 1000 | 12 | 00 |
| August | 100 | 05 | 00 |
| September | 50 | 05 | 00 |
| October | 150 | 00 | 00 |
| November | 150 | 00 | 00 |
| December | 100 | 10 | 00 |
| **Total** | **5500** | **100** | **00** |

## Annexure - I

***Training Programme***

**i) Farmers & Farm women (On Campus)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Clientele** | **Title of the training programme** | **Duration in days** | **Number of participants** | | | **Number of SC/ST** | | | **G. Total** |
| **M** | **F** | **T** | **M** | **F** | **T** |
| **Crop Production** | | | | | | | | | | |
|  | PF | Production technology of Soybean | 01 | 25 | 00 | 25 | 05 | 06 | 05 | 30 |
|  | PF | Production technology of Bengal gram | 01 | 25 | 08 | 25 | 05 | 04 | 05 | 30 |
|  | PF | Fodder production | 01 | 20 | 04 | 20 | 05 | 04 | 05 | 25 |
|  | PF |  |  |  |  |  |  |  |  |  |
| **Horticulture** |  |  |  |  |  |  |  |  |  |  |
| 10.5.2020 | PF | Improved package of practices for Mandarin Orange | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 25.7.2020 | PF | Importance of Bio-fertilizers in vegetable production | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 15.10.2020 | PF | Improved package of practice for onion | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 4.7.2020 | PF | Nursery management | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 2.8.2020 | PF | Protective Cultivation for Vegetable under shednet | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Livestock prod.** | | | | | | | | | | |
| 30/3/20 | PF/FW | Management of cow, Buffalo and goat in summer season | 1 | 20 | 5 | 25 | 2 | 3 | 5 | 25 |
| 13/4/20 | PF | Management of chicks, grower, and Layer | 1 | 20 | 5 | 25 | 2 | 2 | 4 | 25 |
| 27/4/20 | PF/FW | Cultivation of feed and fodder | 1 | 15 | 5 | 20 | 4 | 2 | 6 | 26 |
|  |  |  |  |  |  |  |  |  |  |  |
| **Agril. Engg.** | | | | | | | | | | |
| 10/4/2020 | PF | PKV Mini dal mill- a simple processing unit for pulses | 1 | 10 | 2 | 12 | 3 | 0 | 3 | 15 |
| 15/10/2020 | PF | Improved Farm implements/machinaries for increasing the crop productivity | 1 | 12 | 0 | 12 | 3 | 0 | 3 | 15 |
|  | PF |  |  |  |  |  |  |  |  |  |
| **Home Sc.** | | | | | | | | | | |
| May 20 | PF | Introduction and use of women friendly implements for farm women | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
| June 20 | PF | Recycling Kitchen waste through Vermin culture bio technology | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
| Nov 20 | PF | Technique of vegetable drying | 01 | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
|  | PF |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plan prot.** | | | | | | | | | | |
| July 2020 | PF | Use and importance of Trichoderma and its low cost production techniques at village level | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| August 2020 | PF | Strategy for management of pink bollworm in Bt cotton | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| October 2020 | PF | Management of important pest and diseases of Nagpur mandarin | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| **Fisheries** | | | | | | | | | | |
|  | PF |  |  |  |  |  |  |  |  |  |
|  | PF |  |  |  |  |  |  |  |  |  |
|  | PF |  |  |  |  |  |  |  |  |  |
|  | PF |  |  |  |  |  |  |  |  |  |
|  | PF |  |  |  |  |  |  |  |  |  |
| **Soil Health** | | | | | | | | | | |
|  | PF | Integrated Nutrient Management | 01 | 25 | 00 | 25 | 10 | 02 | 12 | 37 |
|  | PF | Soil and Water Testing | 01 | 10 | 02 | 12 | 03 | 00 | 03 | 15 |
| **Agril Extension** | | | | | | | | | | |
| 16.01.2020 | PF | Motivation of farmers about Group formation for Organic farming | 01 | 09 | - | 09 | 01 | - | 01 | 10 |
| 14.06.19 | PF | Entrepreneurship development through vermicompost production | 01 | 20 | 05 | 25 | 05 | 02 | 07 | 32 |
| 22.09.19 | PF | Leadership development for marketing of agriculture produce | 01 | 20 | 05 | 25 | 05 | 00 | 05 | 30 |

**i) Farmers & Farm women (Off Campus)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Clientele** | | | **Title of the training programme** | **Venue** | **Duration in days** | **No. of participants** | | | **Number of SC/ST** | | | **G. Total** |
| **M** | **F** | **T** | **M** | **F** | **T** |
| **Crop Production** | | | | | | | | | | | | | |
| 27.06. 20 | PF | Weed Management in Kharif crop | | | Besakheda | 01 | 20 | 05 | 25 | 05 | 00 | 05 | 30 |
| 01.10.20 | PF | Water Management in Different crop of Rabi Season | | | Kesharpur | 01 | 20 | 05 | 25 | 05 | 00 | 05 | 30 |
| 04.07. 20 | PF | Production Technology of Green gram | | | Manjarkhed | 01 | 33 | 05 | 38 | 12 | 02 | 14 | 52 |
| 08.07.20 | PF | Production Technology Of Black gram | | | Krushnapur | 01 | 34 | 08 | 42 | 10 | 04 | 14 | 56 |
| 19.07. 20 | PF | Production technology of Red gram | | | Besakheda | 01 | 39 | 04 | 43 | 08 | 07 | 15 | 58 |
| 26.7.20 | PF | Production Technology of Sorghum | | | Kesharpur | 01 | 27 | 02 | 29 | 14 | 00 | 14 | 43 |
| 10.10.20 | PF | Production technology of wheat | | | Kesharpur | 01 | 29 | 06 | 35 | 13 | 06 | 19 | 54 |
| 07.07.20 | PF | New technology for cultivation of Soybean | | | Besakheda | 01 | 36 | 04 | 40 | 07 | 00 | 07 | 47 |
| 22.10.2020 | PF | Cultivation of Bengal gram | | | Besakheda | 01 | 42 | 00 | 42 | 00 | 00 | 00 | 42 |
| 14.07.20 | PF | Production Technology of Cotton | | | Asegaon | 01 | 31 | 04 | 35 | 06 | 02 | 08 | 43 |
| **Horticulture** | | | | | | | | | | | | | |
| 25.4.2020 | PF | Cultivation of Fruits crop | | | Anjanvati | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 18.6.2020 | PF | Integrated Nutrient management | | | Jasapur | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 20.9.2020 | PF | Spices and condiments | | | Beskheda | 01 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 21.12.2020 | PF | Cultivation of Fruits crop | | | Marda | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 08.10.2020 | PF | Water management | | | Chitri | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| **Live Stock Production**. | | | | | | | | | | | | | |
| 19/5/2020 | PF | | Management of repeat breeding problems in cattle | | Kesharpur | 1 | 23 | 02 | 25 | 3 | 1 | 4 | 29 |
| 29/5/2020 | PF | | Prevention of infant / newborn calf mortality in cattle and buffalo and goat | | Kesharpur | 1 | 15 | 5 | 20 | 2 | 1 | 3 | 23 |
| 8/6/2020 | PF | | Preventive measure for parasitic infestation in animals | | Chitri | 1 | 20 | 05 | 25 | 2 | 2 | 4 | 29 |
| 22/6/2020 | PF | | Probable causes of anoestrus and its control measures | | Kesharpur | 1 | 20 | 5 | 25 | 1 | 2 | 3 | 28 |
| 13/7/2020 | PF | | Round the year of green fodder production | | Beskheda | 1 | 20 | 5 | 25 | 3 | 1 | 4 | 29 |
| 27/7/2020 | PF | | Disease management in backyard poultry | | Tarubanda | 1 | 20 | 05 | 25 | 2 | 2 | 4 | 29 |
| 10/8/2020 | RY | | Importance of probiotic in goat kids for weight gain | | Beskheda | 1 | 18 | 2 | 20 | 5 | 1 | 6 | 26 |
| 24/8/2020 | RY | | Importance of deworming and vaccination in large animals | | Kesharpur | 1 | 20 | 05 | 25 | 2 | 2 | 4 | 29 |
| 7/9/2020 | RY | | Involvement of women in integrated livestock farming | | Chitri | 1 | 16 | 4 | 20 | 4 | 1 | 5 | 25 |
| 21/9/2020 | EF | | Methods of general examination and common diseases and its control measure | | Tarubanda | 1 | 20 | 2 | 22 | 3 | 1 | 4 | 26 |
| 5/10/2020 | RY | | Scientific quail farming | | Chitri | 1 | 20 | 5 | 25 | 1 | 2 | 3 | 28 |
| 19/10/2020 | RY | | Economical goat keeping | | Basekheda | 1 | 20 | 4 | 24 | 3 | 1 | 4 | 28 |
| **Agril. Engg.** | | | | | | | | | | | | | |
| 14/1/2020 | PF | | | Use of Drip & sprinkler irrigation method for increasing the water resource use efficiency | Beskheda | 1 | 12 | 0 | 12 | 3 | 0 | 3 | 15 |
| 15/1/2020 | PF | | | Power operated winnower for winnowing of paddy | Tarubandha | 1 | 5 | 0 | 5 | 5 | 10 | 15 | 20 |
| 16/1/2020 | PF | | | Mini Rice mill- a simple milling machine | Kesharpur | 1 | 5 | 0 | 5 | 10 | 5 | 15 | 20 |
| 20/1/2020 | PF | | | Introduction & use of millets processing machinery & its value addition | Malkapur | 1 | 5 | 5 | 10 | 5 | 5 | 10 | 20 |
| 3/3/2020 | PF | | | Power operated winnower for winnowing of paddy | Kesharpur | 1 | 3 | 2 | 5 | 10 | 5 | 15 | 20 |
| 17/5/2020 | PF | | | Collection of stubbles/crop residues by stubble collector(BD) | Kesharpur | 1 | 2 | 0 | 2 | 18 | 0 | 18 | 20 |
| 11/6/2020 | PF | | | Sowing by BBF /CRIDA Planter | Kesharpur | 1 | 2 | 0 | 2 | 18 | 0 | 18 | 20 |
| 14/7/2020 | PF | | | Interculturing operations by the use of three tyne weeder | Kesharpur | 1 | 2 | 0 | 2 | 13 | 0 | 13 | 15 |
| 5/8/2020 | PF | | | Operation of Bullock drawn sugarcane Earthing up Implement | Kara | 1 | 2 | 0 | 2 | 13 | 0 | 13 | 15 |
| 7/8/2020 | PF | | | Water managment | Beskheda | 1 | 2 | 0 | 2 | 18 | 0 | 18 | 20 |
| 8/9/2020 | PF | | | Promotion of millet processing machineries- An Income generation activity for farmers group | Malkapur | 1 | 2 | 0 | 2 | 18 | 0 | 18 | 20 |
| 15/11/2020 | PF | | | Portable paddy thresher for threshing of Rice | Kesharpur | 1 | 5 | 0 | 5 | 10 | 0 | 10 | 15 |
| 12/12/2020 | PF | | | Precautions for diesel conservation in Tractor & moonset pumps | Chtri | 1 | 5 | 0 | 5 | 10 | 5 | 15 | 20 |
| **Home Sc.** | | | | | | | | | | | | | |
| May 20 | PF | | | Introduction and use of women friendly implements for farm women |  | 02 | 00 | 05 | 05 | 05 | 10 | 15 | 20 |
| Aug 20 | PF | | | Low cost techniques of processing on value added product for tribal women |  | 02 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| July 20 | PF | | | Nutritional supplement for family and income generation through management of Kitchen garden |  | 01 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| June 20 | PF | | | Training on hygiene ,sanitation & food poisoning |  | 01 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| Oct 20 | PF | | | Use of Soybean mitten for harvesting period |  | 01 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| June 20 | PF | | | Technique of scientific storage of food grains |  | 01 | 00 | 05 | 05 | 05 | 15 | 20 | 25 |
| July20 | PF | | | Technique of scientific storage of food grains |  | 02 | 00 | 00 | 00 | 00 | 15 | 15 | 15 |
| **Plant Protection** | | | | | | | | | | | | | |
| 14.04.2020 | PF | | | Strategy for management of Phytophthora disease in Nagpur mandarin. |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 20.05.2020 | PF | | | Importance of use of Trichoderma for management of diseases in different crops and for composting of agricultural waste. |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 18.06.2020 | PF | | | Importance of seed treatment for management of pest and diseases of different crops. |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 24.06.2020 | PF | | | Strategy for management of major pest and diseases of Soybean |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 08.07.2020 | PF | | | Management of Sucking pest in Bt. cotton |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 22.07.2020 | PF | | | Management of Stem fly and Girdle beetle in Soybean |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 05.08. 2020 | PF | | | Integrated management of pink bollworm in Bt.cotton. |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 18.08. 2020 | PF | | | Management of important pest and diseases of Nagpur mandarin |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 09.092020 | PF | | | Management of pod borer complex in pigeon pea |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 24.09.2020 | PF | | | Management. of major pest and diseases of Okra and Brinjal |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 10.10. 2020 | PF | | | Safe handling and safe use of pesticides |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 17.11. 2020 | PF | | | Integrated pest management in Bengal gram |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
|  | PF | | | Management of major pest and diseases of onion |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 16.10.2020 | PF | | | Low cost technique of production of bio fertilizer and biopesticides at village level |  | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| **Fisheries** | | | | | | | | | | | | | |
|  | PF | | |  |  |  |  |  |  |  |  |  |  |
|  | PF | | |  |  |  |  |  |  |  |  |  |  |
| **Soil health** | | | | | | | | | | | | | |
| 31.05. 20 | PF | | | Soil fertility management | Besakheda | 01 | 20 | 00 | 20 | 06 | 00 | 06 | 26 |
| 06.06.20 | PF | | | INM for different crop | Manjarkhed | 01 | 30 | 0 | 30 | 6 | 2 | 8 | 38 |
| 12.05.20 | PF | | | Soil and Water testing | Kesharpu | 01 | 25 | 05 | 30 | 15 | 02 | 17 | 47 |
| 31.05. 20 | PF | | | Soil and water testing | Tarubanda | 01 | 25 | 05 | 30 | 10 | 03 | 13 | 43 |
| **Agril extension** | | | | | | | | | | | | | |
| 4.01.2020 | PF | | | Group formation for organic farming | Kalapani Tq. Dharni | 01 | 0 | 01 | 01 | 17 | 05 | 22 | 22 |
| 10.01.20 | PF | | | Group formation for organic farming | Domanbalda Tq. Dharni | 01 | 11 | 02 | 13 | 06 | 0 | 06 | 19 |
| 20.01.20 | PF | | | Importance of group formation for processing of millets | Malkapur Tq. Dharni | 01 | 0 | 02 | 02 | 31 | 00 | 31 | 33 |
| 4.02.2020 | PF | | | Entrepreneurship development of farmers through quail farming | Domanbalda Tq. Dharni | 01 | 05 | 02 | 07 | 23 | 00 | 23 | 30 |
| 17.02.2020 | PF | | | Entrepreneurship development of farmers through quail farming | Baglinga Tq. Dharni | 01 | 05 | 02 | 07 | 24 | 00 | 24 | 31 |
| 18.06.2020 | PF | | | Motivation of farmers about seed production | Beskheda Tq. Chandur bazar | 01 | 10 | 0 | 10 | 06 | 00 | 06 | 16 |
| 12.10.2020 | PF | | | Group formation of farmers for Bengal gram seed production | Beskheda Tq. Chandur bazar | 01 | 10 | 01 | 11 | 09 | 00 | 09 | 20 |
| 12.11.2020 | PF | | | Entrepreneurship development through marketing of agriculture produce | Kesharpur Tq.Chikhaldara | 01 | 04 | 01 | 05 | 14 | 00 | 14 | 19 |
| 12.02.19 | PF | | | Marketing of Agriculture produce | Kesharpur Tq.Chikhaldara | 01 | 05 | 0 | 05 | 20 | 0 | 20 | 25 |

## ii) Vocational training programmes for Rural Youth

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Thematic area** | **Training title\*** | **Venue** | **Duration (days)** | **No. of Participants** | | | **SC/ST participants** | | | **G. Total** |
| **M** | **F** | **T** | **M** | **F** | **T** |
| 07.07.2020 | Production input at site | Seed production of different Kharif crop | Besakheda | 02 | 15 | 00 | 15 | 10 | 00 | 10 | 25 |
| June20 | Nursery management of Horticultural crop | Nursery management for fruit crop | KVK | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Nov20 | Protected Cultivation Of Vegetable Crop | Package of  practices for Vegetable crop | KVK | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| Dec20 | Planting Material Production | Rising of nursery for Ornamental crop | KVK | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 14.09.2020 | Production of bio-control agents and bio-pesticides | Low cost technique of production of bio fertilizers& Bio pesticides–*Trichoderma spp*.at village level | KVK | 15 | 20 | 05 | 25 | 05 | 03 | 08 | 25 |
| 20.10.2020 | Production of organic inputs | Vermicompost production | KVK | 10 | 20 | 05 | 25 | 05 | 03 | 08 | 25 |
| 15.10.2020 | Marketing | Marketing of Agriculture produce | KVK | 01 | 20 | 05 | 25 | 05 | 01 | 05 | 30 |
| 05.08.2020 | Organic farming | Role of rural youth in Vermiculture production at village level | KVK | 01 | 20 | 05 | 25 | 05 | 01 | 05 | 30 |
| 15.11.2020 | Seed production | Role of Rural youth in processing & marketing of seed | KVK | 02 | 20 | 05 | 25 | 05 | 01 | 05 | 30 |
| 20.04.2020 | Small scale processing & value addition | Promotion of PKV Mini dalmill | KVK | 3 | 10 | 0 | 10 | 5 | 0 | 5 | 15 |
| 10.09.2020 | Promotion of improved goat breed  For heard improvement  Nutritive Management | Goat business management | KVK | 07 | 10 | 02 | 12 | 6 | 2 | 8 | 20 |
| 10.10.2020 | Popularizing newly evolved quail breed | Quail business management | KVK | 07 | 10 | 04 | 14 | 05 | 02 | 07 | 21 |
| 02.11.2020 | Feed Management  Creating awareness on regular deworming, vaccination, and general management | Dairy business management | KVK | 07 | 12 | 03 | 15 | 3 | 2 | 5 | 20 |
| 22.11.2020 | Promotion of improved poultry breeds for rural poultry farming | Poultry business management | KVK | 07 | 10 | 04 | 14 | 4 | 2 | 6 | 20 |
| July 20 | Income generation activity | Mushroom Production | Dhamangaon | 06 | 00 | 15 | 15 | 00 | 00 | 00 | 15 |
| April 20 | Income generation activity | Processing & value Added Product of Roots & Tuber | KVK | 06 | 00 | 15 | 15 | 00 | 00 | 000 | 15 |

**iii) Training programme for extension functionaries**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | | **Thematic area** | **Title of the training programme** | **Venue** | **Duration in days** | **No. of participants** | | | **Number of SC/ST** | | | **G. Total** |
| **M** | **F** | **T** | **M** | **F** | **T** |
|  |  | | | | | | | | | | | |
| 22.6.2020 | | Soil fertility management | Integrated Nutrient management |  | 01 | 15 | 00 | 15 | 05 | 00 | 05 | 20 |
| 15.6.2020 | | INM | Integrated nutrient management of fruit crop | KVK | 03 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 14.7.2020 | | Protected Cultivation Of Vegetable Crop | Vegetable production under Control Condition | KVK | 02 | 15 | 05 | 20 | 03 | 02 | 05 | 25 |
| 24.08.2020 | | Integrated pest management | Management of pink bollworm in Bt.cotton. | KVK | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 30.09. 2020 | | Integrated pest management | Integrated pest management concept for management of pest and diseases in major crops | KVK | 01 | 14 | 03 | 17 | 06 | 02 | 08 | 25 |
| 17.05.19 | | EF | Group dynamics activities and Importance of farmers Organization | KVK | 01 | 18 | 02 | 20 | 05 | 00 | 05 | 25 |
| 12.12.19 | | EF | Farm Field School Methodology | KVK | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| 15.01.19 | | EF | Use of ICT in Agriculture | KVK | 01 | 18 | 02 | 20 | 05 | 0 | 05 | 25 |
| 20/4/19 | | SHG group leader | Farm Mechanisation | KVK | 1 | 12 | 2 | 14 | 3 | 3 | 6 | 20 |
| 27 Oct 2020 | | Quail Production | Quail farming as a new business | KVK | 1 | 15 | 05 | 20 | 4 | 2 | 6 | 20 |
| 02 Nov2020 | | Dairy Management | Common diseases and its control | KVK | 1 | 20 | 05 | 25 | 6 | 0 | 6 | 25 |
| April 20 | | Women & child care | Training on Balance Nutritional Thali for Different Age group | KVK | 02 | 00 | 15 | 15 | 00 | 10 | 10 | 25 |
| Dec 20 | | Low cost and nutrient efficient diet designing | Preparation of infant instant( Supplementary Weaning food | KVK | 03 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |
| July 20 | | Household food security | Planning & Management of Nutrition garden through organic methods. | KVK | 02 | 00 | 15 | 15 | 00 | 10 | 10 | 25 |
| Aug 20 | | Production & Use of Organic input | Production & management of Mushroom through Agro waste | KVK | 02 | 00 | 20 | 20 | 00 | 05 | 05 | 25 |

**iv) Sponsored programmes**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Discipline** | **Sponsoring agency & Amount** | **Clientele** | **Title of the training programme** | **Venue** | **No. of participants** | | | **Number of SC/ST** | | | **G. Total** |
| **M** | **F** | **T** | **M** | **F** | **T** |
| 1. **Sponsored training programme** | | | | | | | | | | | |
| Agronomy | ATMA | PF | Organic farming | KVK | 30 | 05 | 35 | 05 | 02 | 07 | 35 |
| Agri Extension | ATMA | RY | Farmer Scientist Interaction Programme on Poultry | KVK | 05 | 0 | 05 | 20 | 0 | 20 | 25 |
| Agri Extension | ATMA | PF | Improved Package of Practices for Wheat | KVK | 05 | 0 | 05 | 20 | 0 | 20 | 25 |
| Agril Engg | ATMA | PF | Mechanization in bullock drawn Implements | KVK | 0 | 0 | 0 | 15 | 05 | 20 | 20 |
| Animal Science | ATMA | RY | Scientific goat farming | KVK | 05 | 0 | 05 | 20 | 0 | 20 | 25 |
| Animal Science | ATMA | PF | Scientific quail farming | KVK | 05 | 0 | 05 | 20 | 0 | 20 | 25 |
| Home science | ASCI | Krushi sakhi | Production & Management of Oyster Mushroom. | KVK | 05 | 15 | 20 | 00 | 05 | 05 | 25 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 1. **Any special programmes-** | | | | | | | | | | | |
| Agril.Engg. | ASCI | RY | **Tractor operator** | **1** | **10** | **0** | **10** | **10** | **0** | **10** | **20** |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

**Action Plan for Farmer Scientist Interaction Programme & Training in collaboration with ATMA**

|  |  |  |  |
| --- | --- | --- | --- |
| **Particular** | **Total farmer** | **Total days** | **Total expenditure** |
| Farmer Scientist Interaction Programme | 25 | 02 | 20000.00 |
| Trainings ( within District) | 50 | 02 | 15000.00 |
| Exposure Visit | 30 | 03 | 36000.00 |

**Impact of Training Programme on farmers Knowledge and Adoption about Wheat Production Technology in tribal area**

**Introduction:**

Krishi Vigyan Kendra imparted training and demonstration programmes at Tribal area of Amravati district under TSP, therefore a study will be conducted to ascertain the level of knowledge and adoption of farmers with respect to Wheat production technologies due to training imparted by Krishi Vigyan Kendra, Ghatkhed, Amravati

**Objectives**

1. To ascertain the level of knowledge and adoption of the farmers with respect to wheat production technologies due to training imparted by Krishi Vigyan Kendra

**Methodology:**

* For the present studyFarmers will be selected from KVK adopted villages. To measure the impact of the training programme, the farmers will be grouped as ‘trainees’ and ‘non-trainees ’and a random sample of 25 farmers from each group will be drawn from KVK adopted villages for testing their level of knowledge and extent of adoption by means of a well structured scheduled.
* The data will be collected by using an interview schedule.
* The various practices of wheat Production technologies will be prepared and the knowledge and adoption of farmers about wheat production technology will be measured as yes & no continuum with the score of 1 & 0 respectively
* Respondents will be categories into low, medium and high knowledge and adoption categories on the basis of mean & standard deviation.

**Tabulation of data**

**Table 1 Distribution of respondents of Soybean crop according to the extent of knowledge**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Statements | Trainees | | Non-Trainees | |
| Yes | No | Yes | No |
| Do you know high yielding varieties of wheat |  |  |  |  |
| Do you follow seed treatment? |  |  |  |  |
| Do you know high yielding variety of wheat according to their sowing time? |  |  |  |  |
| Do you know the seed rate according to scientific recommendation? |  |  |  |  |
| Do you know the right time of sowing? |  |  |  |  |
| Do you know the sowing depth of wheat? |  |  |  |  |
| Do you know bio-fertilizers for wheat? |  |  |  |  |
| Do you know use of organic manure for wheat? |  |  |  |  |
| Do you know the recommended dose chemical fertilizer for wheat? |  |  |  |  |
| Do you know the time of irrigation? |  |  |  |  |
| Do you know weeds in wheat crops? |  |  |  |  |
| Do you know insect Pest and diseases in wheat crop? |  |  |  |  |
| Do you know the moisture content percentage at the time of harvesting? |  |  |  |  |

**Table 2 Distribution of respondents according to knowledge level of respondents of Bengal gram crop**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Trainee** | | **Non Trainees** | |
| f | % | f | % |
| Low |  |  |  |  |
| Medium |  |  |  |  |
| High |  |  |  |  |

**Table 3 Distribution of respondents of Bengal gram crop according to the extent of adoption**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Statements | Trainees | | Non-Trainees | |
| Yes | No | Yes | No |
| Did you grow high yielding varieties of wheat crop? |  |  |  |  |
| Did you follow seed treatment? |  |  |  |  |
| Do you grow high yielding variety of wheat according to their sowing time? |  |  |  |  |
| Do you follow the seed rate according to scientific recommendation? |  |  |  |  |
| Do you follow the right time of sowing? |  |  |  |  |
| Do you follow the sowing depth of wheat? |  |  |  |  |
| Have you used the following bio-fertilizers |  |  |  |  |
| Have you used the organic manure? |  |  |  |  |
| Did you use the following chemical fertilizer as per recommendation? N P K |  |  |  |  |
| Did you follow the time of irrigation? |  |  |  |  |
| Did you control weeds in wheat crops? |  |  |  |  |
| Did you follow plant protection measures for control of pest & diseases? |  |  |  |  |
| Did you follow up the moisture content percentage at the time of harvesting? |  |  |  |  |

**Table 4 Distribution of respondents according to adoption level of respondents of Bengal gram**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **Trainee** | | **Non Trainees** | |
|  | f | % | f | % |
| Low |  |  |  |  |
| Medium |  |  |  |  |
| High |  |  |  |  |

**Analysis of data**

**1. Mean: Mean will be calculated by summing all the scores and dividing it by number of respondents. The formula as under**

∑X

X = --------------

n

**Where** X = Mean

∑X= Sum of respondents

N= Number of respondents

1. **Standard deviation**= Standard deviation is calculated by following formula

√∑(XI-X)2

S.D. = **------------------**

**n**

Where S.D. = Standard Deviation

XI= Score of each respondent

X= Mean

n= Number of respondents

Obtained score

**3. Knowledge Index** = -------------------------------------- x 100

Maximum obtainable score

Obtained score

4. **Adoption Index** = -------------------------------------- x 100

Maximum obtainable score

**Impact of front line demonstrations on yield enhancement and economics of Mandarin Orange in Amravati District**

**Introduction:** Mandarin Orange is the major fruit crop growing in Amravati district having 71507 ha area and the average productivity is 82.36 qt/ha. One of the major reason for decreasing the productivity and quality of Mandarin orange is due to unbalanced fertilizer management and lack of adoption of improved cultivation practices.

Keeping in view KVK implemented the front line demonstration programme on balanced fertilizer management in Mandarin Orange.

**Hence, present study will be undertaken with the following specific objective.**

**Objectives:**

1. To study the impact of Front line demonstration on yield enhancement and economics of Mandarin orange

**Methodology:**

* The research will be conducted in KVK adopted villages in Amravati district
* 25 FLD farmers from KVK adopted villages will be selected by random sampling technique and the yield data as for demonstrations and farmers practices will be collected on the equal area.
* Relevant information will be collected by personal interview schedule

**Table 1: Yield and Gap analysis of FLD on Mandarin Orange**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Area (ha) | Potential Yield (Kg/ha) | Demo yield (Kg/ha) | Farmers Potential (FP kg/ha) | Yield increases over FP (%) | Ext. Gap | Tech Gap (Kg/ha) | Tech index (%) |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Overall Average |  |  |  |  |  |  |  |  |

**Table 2: Economic analysis of FLD on Mandarin Orange**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Cost of cultivation | | Gross Return | | Net Return | | Additional Return | BRC | |
| Demo | FP |
|  | Demo | FP | Demo | FP | Demo | FP | Demo | FP |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Overall Average |  |  |  |  |  |  |  |  |  |

**Analysis of Data**

The following formula will be used for analysis of data

1. Technology gap = Potential yield – Demonstration yield
2. Extension Gap = Demonstration yield – yield under existing practice
3. Technology Index = Potential yield – Demonstration yield

-------------------------------------------------- x 100

Potential yield

1. Additional Return = Demonstration return – farmers Potential return
2. Net return = Total ( Gross ) Returns – Total Cost of production

## Annexure - II

**Budget - Details of budget utilization (April 2019 to up till date)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **24.1** | **Recurring Contingencies** |  |  |  |
| 24.1.1 | **Pay & Allowances** |  |  | 11683398 |
| 24.1.2 | **Traveling allowances** |  |  | 135317 |
| 24.1.3 | **Contingencies** |  |  |  |
| *24.1.4.1* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance |  |  | 519001 |
| *B* | POL, repair of vehicles, tractor and equipments |  |  | 146797 |
| *C* | Meals/refreshment for trainees |  |  | 64439 |
| *D* | Training material |  |  | 54225 |
| *E* | Frontline demonstration except oilseeds and pulses |  |  | 191084 |
| *F* | On farm testing |  |  | 73395 |
| *G* | Training of extension functionaries |  |  |  |
| *H* | Maintenance of buildings |  |  |  |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory |  |  |  |
| *J* | Library |  |  |  |
| **24.1** | **Total Recurring** |  |  |  |
| **24.2** | **Non-Recurring Contingencies** |  |  |  |
| 24.2.1 | **Works** |  |  |  |
| 24.2.2 | **Equipments including SWTL & Furniture** |  |  |  |
| 24.2.3 | **Vehicle** (Four wheeler/Two wheeler, please specify) |  |  |  |
| 24.2.4 | **Library** |  |  |  |
| **24.2** | **TotalNon Recurring** |  |  |  |
| **24.3** | **REVOLVING FUND** |  |  |  |
| **24.4** | **GRAND TOTAL (A+B+C)** |  |  |  |

**Details of Budget Estimate (2020-21) based on proposed action plan**

|  |  |  |
| --- | --- | --- |
| **S.**  **No.** | **Particulars** | **BE 2020-21 proposed (Rs.)** |
| **25.1** | **Recurring Contingencies** |  |
| 25.1.1 | **Pay & Allowances** |  |
| 25.1.2 | **Traveling allowances** |  |
| 25.1.3 | **Contingencies** |  |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) |  |
| *B* | POL, repair of vehicles, tractor and equipments |  |
| *C* | Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained) |  |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) |  |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) |  |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) |  |
| *G* | Training of extension functionaries |  |
| *H* | Maintenance of buildings |  |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory |  |
| *J* | Library |  |
| *25.1* | **TOTAL Recurring Contingencies** |  |
| **25.2** | **Non-Recurring Contingencies** |  |
| 25.2.1 | **Works** |  |
| 25.2.2 | **Equipments including SWTL & Furniture** |  |
| 25.2.3 | **Vehicle** (Four wheeler/Two wheeler, please specify) |  |
| 25.2.4 | **Library** (Purchase of assets like books & journals) |  |
| **25.2** | **TOTAL Non-Recurring Contingencies** |  |
| **25.3** | **REVOLVING FUND** |  |
| **25.4** | **GRAND TOTAL** |  |