###### ICAR-ATARI – ZONE XI, BENGALURU

###### PROFORMA FOR ACTION PLAN OF KVKS IN ZONE XI FOR THE YEAR 2018-19

###### 1. General information about the Krishi Vigyan Kendra

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Name and address of KVK with Phone, Fax and e-mail, Website  | : | **ICAR - Krishi Vigyan Kendra,**Bapooji Sevak Samaj,Pethotty P.O, Santhanpara, Idukki (Dt.), Kerala, PIN-685619. Email: *kvksanthanpara@gmail.com*Web URL: *www.kvkidukki.org* |
| 2. | Name and address of host organization  | : | **Bapooji Sevak Samaj,**Kakkattu House, Meenadom P.O.,Pampady, Kottayam (Dt.), Pin-686 516, Kerala.Phone: 0481-2506271, Mob: 9656711554Email: *bkvkchairperson@gmail.com* |
| 3. | Year of sanction | : | 1994 |
| 4. | Name of agro-climatic zone | : | Zone-VII, Zone-XIII & High altitude zone-Vattavada & Kanthalloor |
| 5. | Major farming systems/enterprises | : | Plantation crop based multitier farming system |
| 6. | Soil type | : | Dry forest loam, Semi dry forest loam, Sub humid forest loam, Humid forest loam, Per humid forest loam & Wet forest loam. |
| 7. | Annual rainfall (mm) | : | 1800 mm |

**2. Details of staff as on date**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.****No.** | **Sanctioned post** | **Name of the incumbent** | **Discipline** | **Existing Pay band** | **Grade Pay** | **Date of joining** | **Permanent / Temporary** | **If vacant action plan for filling the post on permanent basis** |
| 1. | **Senior Scientist and Head** | **Vacant** | **-** | **-** | **-** | **-** | **-** | Received application sent to ATARI |
| 2. | Scientist | Dr. S. Jayababu | Animal Husbandry | 15600-39100 | 5400 | 19-06-1995 | Permanent |  |
| 3. | Scientist | Manju Jincy Varghese | Soil Science | 15600-39100 | 5400 | 10-01-2011 | Permanent |  |
| 4. | Scientist | Dr. Binu John Sam | Horticulture & Programme Coordinator i/c. | 15600-39100 | 5400 | 17-01-2011 | Permanent |  |
| 5. | Scientist | Sudhakar Soundarajan | Plant Protection | 15600-39100 | 5400 | 27-01-2011 | Permanent |  |
| 6. | **Scientist** | **Vacant** | **Agricultural Extension** | **-** | **-** | **-** | **-** | Received application sent to ATARI |
| 7. | **Scientist** | **Vacant** | **Agronomy** | **-** | **-** | **-** | **-** | Received application sent to ATARI |
| 8. | Programme Assistant | Jayisy Joseph | Home Science | 9300-34800 | 4200 | 20-06-1995 | Permanent |  |
| 9. | Computer Programmer | Biju Narayanan | Computer | 9300-34800 | 4200 | 01-10-2007 | Permanent |  |
| 10. | Programme Assistant | Rachel Skariakutty | Rural Craft | 9300-34800 | 4200 | 05-06-1995 | Permanent |  |
| 11. | Assistant | Shaji K. Kakkattu | - | 9300-34800 | 4200 | 05-06-1995 | Permanent |  |
| 12. | Stenographer | Daisy Daniel | - | 5200-20200 | 1900 | 05-06-1995 | Permanent |  |
| 13. | Driver | P. Nandagopal | - | 5200-20200 | 2000 | 05-06-1995 | Permanent |  |
| 14. | Peon/Messenger | K.T. Mathew | - | 5200-20200 | 1800 | 05-06-1995 | Permanent |  |
| 15. | Supporting staff 1 | K.O. Jose | - | 5200-20200 | 1800 | 05-06-1995 | Permanent |  |
| 16. | Supporting staff 2 | P. Sabu | - | 5200-20200 | 1800 | 05-06-1995 | Permanent |  |

**3. Details of SAC meeting conducted during 2018-19**

|  |  |
| --- | --- |
| **Sl.****No** | **Tentative date of SAC meeting proposed during 2018-19** |
| 01 | 08-01-2019 |

|  |  |  |
| --- | --- | --- |
| **Sl.****No** | **Major recommendations** | **Status of action taken in brief** |
| 3.1 | * More stress to promote organic farming.
* Micro-nutrient deficiency reported should be tackled through concerted efforts involving relevant line departments.
* Importance to be given for drought management
* Skill development programmes may be organized for unemployed and rural youth and educate them for producing good planting materials.
* Soil test based nutrient recommendations should be encouraged to reduce the indiscriminate use of chemical inputs.
* Mass campaigns in association with ATMA on the correct usage of fertilizers and PP chemicals.
* Underutilized production units have to be improved.
* Popularization of cool season vegetables for crop diversification.
 | * Training and other extension programmes for the next year are planned, giving more emphasis to reduction of chemical inputs and making aware of the various organic inputs that can go into the existing farming practices.
* Awareness on the different micro-nutrient deficiencies of major and minor crops of Idukki district and its prophylactic and curative measures are being taken up primarily with the help of field level extension functionaries of line departments.
* Interventions are being planned in this action plan for the same.
* Vocational training programme on good planting material production is being stressed and satellite units shall be promoted
* The need for soil test based nutrient management is being emphasized through various mass campaigns and training programmes. Its effects are being seen in the different tracts where such deficiencies were noted. Concerted efforts have been initiated for scaling up these activities in the other parts of Idukki district.
* Crop based nutrient management strategies are being undertaken to reduce the over usage of chemical fertilizers and PP chemicals. This, coupled with soil health management strategies have gone a long way in improving the crop and soil health of Idukki district. These efforts shall be given more momentum in the coming years too.
* Many production units of agriculture and allied sectors have been idled due to manifold reasons and which could have been rectified with an early intervention. KVK has started cohering efforts of line departments in strengthening these units on a scheduled basis so that they may get back to the mainstream production line within a couple of years.
* Crop diversification has been given timely importance among the farmers of Idukki district as the district is suitable for a wide range of cool season fruits and vegetables.
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**4. Capacity Building of KVK Staff**

 **A. Plan of Human Resource Development of KVK personnel during 2018-19**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Category** | **Area of training** | **Institution proposed to attend** | **Justification** | **Details of trainings attended during 2018-19** |
| 1. | Senior Scientist and Head |  |  |  |  |
| 2. | Scientist (Horticulture) | Mushroom Cultivation | Directorate of Mushroom Research, Solan | All updates on mushroom cultivation available under a single roof | Nil |
| Advances in Horticulture | IIHR, Bengaluru | Field level advances may be obtained | Nil |
| 3. | Scientist (Plant Protection)  | Organic Farming | ICAR-NBAIR | AESA based PHM in conjunction with Ecological Engineering (EE) for Pest Management (PM) | Nil |
| Organic Farming | ICAR-IIHR | Bio-Intensive pest management in vegetables | Nil |
| Organic Farming | ICAR-SBI | Bio-Intensive pest management in sugarcane | Nil |
| Organic Farming | ICAR-CTCRI | Bio-Intensive pest management in tuber crops | Nil |
| 4. | Scientist (Soil Science) | VAM production | KVK, Kottayam | Low cost production of VAM | Nil |
| Soil and water conservation | Tavanur, KCAET | Soil and water conservation techniques for high ranges | Nil |
| 5. | Scientist (Animal Husbandry)H | 1)Livestock production Management2)Poultry Production and Management | Madras Veterinary College, Chennai, Tamil Nadu | Recent emerging Sustainable Livestock & Poultry technologies for better animal health. | Nil |
| 6. | Scientist  |  |  |  |  |
| 7. | Programme Assistant  |  |  |  |  |
| 8. | Computer Programmer |  |  |  |  |
| 9. | Farm Manager |  |  |  |  |
| 10. | Administrative  |  |  |  |  |

 **B. Cross-learning across KVKs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Name of the KVK proposed**  | **Purpose**  | **Mode of learning**  |
| 1. | **Within ring –** KVK Thrissur & Ernakulam | Vegetable seed production | Exposure visit |
| 2. | **Within the zone –** KVK, Namakkal & Erode | New trends in livestock and fodder production | HRD training and Exposure visit |
| 3. | **Outside zone –** KVK Srinagar, Pondicherry, Goa & Guwahati | Temperate fruits, hi-tech horticulture, piggery production technologies | HRD training and Exposure visit |
| 4. | **Outside zone –** ICAR- Krishi Vigyan Kendra, Baramati | GAP-Strawberry cultivation  | Training  |

**5. Proposed cluster of KVKs (3 to 5 neighboring KVKs) to be formed for sharing knowledge/expertise,**

 **resources and activities**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Name of the KVK included in the cluster** | **Nature of sharing** |
| **Knowledge/expertise** | **Resources (facilities and products)** | **Activities** |
| 1. | KVK Calicut | Hybrid poultry varieties | Poultry Demo Unit | Production of hybrid poultry varieties |
| 2. | KVK Kannur | Hybrid goat breed | Goat farms Unit | Exposure visit |

**6. Plan of Work for 2018-19**

 A. Operational areas details proposed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Taluk/ block | Name of cluster villages | Major crops & enterprises being practiced | Major problems identified | Identified thrust areas based on problems | If existing from which year |
| Existing  | New  |
| 1. | Devikulam | Maryoor | - | Coconut | RSW is an invasive pest and cause direct damage by sucking sap, profuse honey dew excretion, which get deposited on upper leaf surface cause sooty mould which reduces the photosynthetic efficiency of plants | Bio-Intensive pest management | 2012 |
| 2. | Devikulam | Santhanpara | - | Small Cardamom | Indiscriminate use PPC chemical in cardamom plantation | Bio-Intensive pest management | 2014 |
| 3. | Udumbanchola | Rajakad & Rajakumary | - | Small Cardamom | Indiscriminate use PPC chemical in cardamom plantation | Bio-Intensive pest management | 2010 |
| 4. | Peermade | Kumily |  | Small Cardamom | Indiscriminate use PPC chemical in cardamom plantation | Bio-Intensive pest management | 2010 |
| 5. | Idukki | Idukki | - | Coconut | RSW is an invasive pest and cause direct damage by sucking sap, profuse honey dew excretion, which get deposited on upper leaf surface cause sooty mould which reduces the photosynthetic efficiency of plants | Bio-Intensive pest management | 2011 |
| 6. | Udumbanchola | Rajakad & Rajakumary | - | Cowpea | Indiscriminate use PPC chemical in cowpea | Bio-Intensive pest management | 2001 |
| 7. | Kattappana | Vandanmedu | - | Cucumber | Heavy infestation of root rot and root knot nematodes | Bio-Intensive pest management | 2005 |
| 8. | Udumbanchola | Nedumkandam,Rajakad & Rajakumary | - | Bitter gourd  | Heavy dosage of fungicides are applied for the control of downy mildew | Bio-Intensive pest management | 2001 |
| 9. | Devikulam | Marayoor | - | Sugarcane | Excessive use of termiticides is harmful for environment and the results are not sustainable | Bio-Intensive pest management | 2011 |
| 10. |  |  |  |  |  |  |  |
| 11. | Nedumkandam | Rajakumary | Senapathy | Elephant foot Yam and Tapioca | Indisriminate use of nutrients | Soil Health management | 2014 |
| 12. | Udumbanchola | Chemmannar | Chemmannar | Paddy | Iron toxicity | Soil health and nutrient management | 2016 |
| 13. | Nedumkandam | Pampadumpara | Valliathovala | Cowpea | Secondary and micronutrient deficiency | Soil health and nutrient management | 2016 |
| 14. | Nedumkandam | Rajakumary | Senapathy | Pepper | Unscientific nutrient management | INM | 2014 |
| 15. | Udumbanchola | Chemmannar | Chemmannar | Amorphophallus | Lack of Acrid free Variety | Crop improvement | 2016 |
| 16. | Udumbanchola | Rajakumary | Rajakad | Pepper | Low price of pepper, | Value addition of pepper | 2000 |
| 17. | Devikulam | Adimali, Pallivasal | Vellathooval | Vegetables | Inadequate intake of vegetables in diet and improper nutritional balance | Growing organic vegetable at home | 2016 |
| 18. | Udumbanchola | Kattappana | Valiya Thovala | Vegetables | Inadequate intake of vegetables in diet and improper nutritional balance | Growing organic vegetable at home | 2016 |
| 19. | Nedumkandam | Rajakumary | Chemmannar | Dairy cattle, goat , poultry & Mixed Fodder | 1) Poor growth performance2) Low body weight3) Unaware of new technologies4) Low milk, Egg & meat production | Scientific disease management of livestock  | 2013 |
| 20. | Udambanchola | Parathodu | Senapathy | Dairy cattle, goat , poultry  | 1) Poor growth performance2) Low body weight3) Unaware of new technologies4) Occurrence of Mastitis Disease5) Infertility Problem in dairy animals | Scientific Reproductive Management in Livestock Feed and Nutrient Management in livestock  | 2011 |
| 21. | Adimali | Adimali | Mangulam | Dairy cattle, goat , poultry & Mixed Fodder | 1) Poor growth performance2) Low body weight3) Unaware of new technologies4) Occurrence of Mastitis Disease | Scientific disease management of livestock  | 2009 |

 B. Prioritized problems and KVK interventions proposed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Crop/ enterprise  | Taluk/ block | Prioritized problems | Technological solution | Interventions proposed (please tick) |
| OFT | FLD | Training | Extensionprogrammes | Production of technology inputs  |
| Coconut | Devikulam &Idukki | RSW is an invasive pest and cause direct damage by sucking sap, profuse honey dew excretion, which get deposited on upper leaf surface cause sooty mould which reduces the photosynthetic efficiency of plants | Release of Parasitoids (Encarsia guadeloupae and E. dispersa) | - | √ | - | - | √ |
| Bitter gourd | Udumbanchola | Heavy dosage of fungicides are applied for the control of downy mildew | Spray extract of licorice *@* 20ml/L of water from 10-day intervals between each spray. And Spray Pseudomonas @ 20g/L of water from 10-day intervals between each spray. | √ | - | √ | - | √ |
| Cucumber | Kattappana | Heavy infestation of root rot and root knot nematodes | Treat with IIHR-organic plant growth enhancer and yield promoters @ 5 to 10g of formulation/kg of coco-peat. Drench Paecilomyces lilacinus at regular intervals of 45 days. Pseudomonas has to be spray on the plants at regular intervals of 30 days at a dosage of 5g/ lit | - | √ | √ | - | √ |
| Small Cardamom | Udumbanchola, Devikulam | Indiscriminate use PPC chemical in cardamom plantation | Bio-intensive Pest Management along with Foliar Spray of 1% PPFM. | - | √ | - | - | √ |
| Sugarcane | Devikulam | Excessive use of termiticides is harmful for environment and the results are not sustainable | Bio-Intensive pest management | √ | - | √ | - | √ |
| Cowpea | Udumbanchola | Indiscriminate use PPC chemical in cowpea | Bio-Intensive pest management | √ | - | √ | - | √ |
| Black Pepper | Peermade &Udumbanchola | Need for additional sustainable income | Cultivation of Bush Pepper for additional income | - | √ | √ | √ | √ |
| Mushroom | Nedumkandam | Low yield of Oyster Mushrooms during summer months and high demand during those seasons | Demonstration of Milky Mushroom var. Bheema | - | √ | √ | √ | √ |
| Elephant Foot Yam,Tapioca | Nedumkandam | Indiscriminate use of nutrients | Assessing the effect of customized fertilizer formulation | √ | - | √ | √ | - |
| Paddy | Udambanchola | Iron toxicity | Assessing the effect of silicate solubilizing biofertilizers in iron toxic soils in rice cultivation  | √ | - | √ | √ | - |
| Cowpea | Nedumkandam | Secondary and micronutrient deficiency | Assessing the effect of “Sampoorna” in cowpea cultivation in Idukki district | √ | - | √ | √ | - |
| Pepper | Nedumkandam | Unscientific nutrient management | INM in Pepper | - | √ | √ | √ | - |
| Amorphophallus | Udumbanchola | Lack of acrid free variety | Demonstration of acrid free variety Gajendra of Amorphophallus | - | √ | √ | √ | - |
| Pepper | Udumbanchola, Devikulam | Low price of pepper | Diversified Pepper products  | - | √ | √ | √ | - |
| Vegetables | Udumbanchola | Inadequate intake of vegetables in diet and improper nutritional balance | Introducing nutritional organic garden at households | - | √ | √ | √ | - |
| Dairy cattle | Nedumkandam | Non availability of quality layer chicks, low growth rate, poor laying performance and feather pecking | Assessment of Production performance of different breeds of poultry under homesteads in Idukki district | √ | - | √ | √ | - |
| Udumbanchola | Higher incidence of Milk fever in Milch cows, low milk yield, infertility and long inter calving interval | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows | - | √ | √ | √ | - |
| Udumbanchola | Lower milk yield, due to Mastitis disease, Lack of knowledge on proper diagnosis | Management of Sub Clinical Mastitis in dairy cows | - | √ | √ | √ | - |
| Adimali | Prolonged estrus and repeated failure to achieve conception | Popularization of GnRH treatment in prolonged estrus animals for improvement of fertilit**y** | - | √ | √ | √ | - |
| Adimali | Scarcity of quality fodder & Smaller land size | Demonstration of Hydroponics Method of Fodder production | - | √ | √ | √ | - |

**7. Details of technological interventions**

## Technology Assessment

 **7.A.1. Crops**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title | Thematic Area | Crop Category | Crop Name | Variety / Hybrid Name | Farming Situation | Problem Definition | Area (ha) | No. of Trials | Critical Inputs Provided & Total Amount (DBT) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  | 9 | 10 |
| 1. | Assessing the effect of Customized fertilizer formulation for Cassava and elephant foot yam intercropped in coconut garden | Nutrient management | Tubers | Elephant Foot Yam and Tapioca | Local | Irrigated | Indiscriminate use of nutrients | 0.02 | 5 | Customized Fertilizer-2 and 3, Fertilizers recommended.**Total = Rs.7,800/-** |
| 2. | Assessing the effect of Sampoorna in cowpea cultivation in Idukki district | Soil Health Management | Vegetable | Cowpea | Local | Irrigated | Secondary and Micronutrient deficiency,Unsufficient nutrient management | 0.06 | 5 | Recommended fertilizers,Micronutrient mixture**Total = Rs.4,500/-** |
| 3. | Assessing the effect of silicate solubilizing bacteria in iron toxic soils in rice cultivation | Soil Health Management | Cereals | Rice | Local | Irrigated | Soil Acidity and iron Toxicity | 0.2 | 3 | Lime, Fertilizers, Fine Silica, SSB**Total = Rs.15,768/-** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice (RP) | Source of Technology (RP)  |
| Others | SC/ST | Others  | SC/ST |
| 1 | 2 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 1. | Assessing the effect of Customized fertilizer formulation for Cassava and elephant foot yam intercropped in coconut garden | 5 | 0 | 0 | 0 | Indiscriminate use of fertilizers | POP Recommendations (NPK + FYM) | KAU |
| 2. | Assessing the effect of Sampoorna in cowpea cultivation in Idukki district | 5 | 0 | 0 | 0 | No use of micronutrients | POP recommendations | KAU |
| 3. | Assessing the effect of silicate solubilizing bacteria in iron toxic soils in rice cultivation | 3 | 0 | 0 | 0 | Lime application | Recommended Practices+ fine silica (100 kg/ha)+ lime (150 kg/ha)  | KAU |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Tech. Option1  | To1: Source of Technology  | Tech. Option2  | To2: Source of Technology  | Tech. Option3  | To3: Source of Technology  | Tech. Option4  | To4: Source of Technology  |
| 1 | 2 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 1. | Assessing the effect of Customized fertilizer formulation for Cassava and elephant foot yam intercropped in coconut garden | Customized Fertilizer-2 @625 kg/ha | CTCRI,TVPM | Customized Fertilizer-3 @625 kg/ha | CTCRI,TVPM | - | - | - | - |
| 2. | Assessing the effect of Sampoorna in cowpea cultivation in Idukki district | Soil test based nutrient management + foliar application of Sampoorna (@ 5gm/lit) 30, 45 & 60 DAS . | KAU | - | - | - | - | - | - |
| 3. | Assessing the effect of silicate solubilizing bacteria in iron toxic soils in rice cultivation | Recommended practice +SSB (3 kg/ha ) + Lime (600 kg/ha) | KAU,TNAU | - | - | - | - | - | - |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Primary Parameter(yield) | Primary Parameter Unit (Q/ha) | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 26 | 27 | 28 | 29 | 30 | 31 |
|  | Assessing the effect of Customized fertilizer formulation for Cassava and elephant foot yam intercropped in coconut garden | Yield | q/ha | - | - | - | - |
|  | Assessing the effect of Sampoorna in cowpea cultivation in Idukki district | Yield | q/ha | - | - | - | - |
|  | Assessing the effect of silicate solubilizing bacteria in iron toxic soils in rice cultivation | Yield | q/ha | - | - | - | - |

 **7.A.2. Livestock**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title | Thematic Area | Livestock Category | Livestock Name | Unit Size (Nos.) | Problem Definition | No. of Trials | Critical Inputs Provided & Total Amount (DBT) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. | Assessment of Production performance of different breeds of poultry under homesteads in Idukki district | Feeding and production management in layers | Poultry | Cross bred poultry | 10 | Non availability of quality layer chicks, low growth rate, poor laying performance and feather pecking | 10 | 45 days old Gramasree, BV 380 and Kalinga brown layer chicks, Concentrate feed, Mineral mixture, Medicines, Deworming, Antibiotic, Vitamins, Azolla.**Total = Rs.74,100/-** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice (RP) | Source of Technology (RP) |
| Others | SC/ST | Others  | SC/ST |
| 1 | 2 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1. | Assessment of Production performance of different breeds of poultry under homesteads in Idukki district  | 5 | 0 | 5 | 0 | Farmers practice: Rearing of chicks as scavengers without scientific background  | - | - |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Tech. Option1  | To1: Source of Technology  | Tech. Option2  | To2: Source of Technology  | Tech. Option3  | To3: Source of Technology  | Tech. Option4  | To4: Source of Technology  |
| 1 | 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 1. | Assessment of Production performance of different breeds of poultry under homesteads in Idukki district  | Rearing of Gramasree chicks as per recommended concentrate feed along with mineral mixture, vitamin supplements and Azolla @ 10 to 15 g per bird per day | KVASU | Rearing of B V 380 chicks as per recommended concentrate feed along with mineral mixture, vitamin supplements and Azolla @ 10 to 15 g per bird per day | PDP | Rearing of Kalinga brown cross chicks as per recommended concentrate feed along with mineral mixture, vitamin supplements and Azolla @ 10 to 15 g per bird per day | CPDO, Bhubaneswar | - | - |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Primary Parameter | Primary Parameter Unit  | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 25 | 26 | 27 | 28 | 29 | 30 |
| 1. | Assessment of Production performance of different breeds of poultry under homesteads in Idukki district | Age at sexual maturity | Days | Annual egg production | Nos. | - | - |

 **7.A.3. Enterprise: Nil.**

 **7.A.4. Farm Implement: Nil.**

 **7.B Frontline Demonstrations**

 **7.B.1. Crops**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Thematic Area | Crop Category | Crop Name | Variety / Hybrid Name | Farming Situation | No. of demos | Area (ha) | Season  | Previous Crop  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1. | Cultivation of Bush Pepper for additional income | Crop introduction | Perennial | Black Pepper | Panniyoor 1 | Homestead | 20 | 0.02 | Perennial | Nil |
| 2. | Demonstration of Milky Mushroom var. Bheema | Crop introduction | Seasonal | Milky Mushroom | Bheema | Homestead | 5 | 0.05 | Summer | Oyster Mushroom |
| 3. | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | Crop improvement | Tubers | Amorphophallus | local | Irrigated | 5 | 0.02 | Rabi | - |
| 4. | Integrated Nutrient Management in Black Pepper | Soil health management | Spices | Pepper | Local | irrigated | 5 | 0.2 | Perennial | Pepper |
| 5. | Maximizing income generation from Pepper through diversified products | Value addition | Spices | Pepper | Local | Perennial | 4 | 4 units | - | Pepper |
| 6. | Popularization of Nutritional garden in Idukki district  | Growing vegetable at home | Vegetables | Beans, Pumpkin,Chilly, Ladies finger, Beetroot,Carrot, Brinjal, Radish, Drumstick,Amaranthus, Cauliflower, Cabbage, Curry leaves, Salad cucumber, Mint, Coriander, Yam, Sweet potato, Bitter gourd, Snake gourd and tomato | - | Homestead Farming | 10 | 20 cents | - | Vegetables |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice  | Source of Technology Recommended Practice  |
| Others | SC/ST | Others  | SC/ST |
| 1 | 2 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1. | Cultivation of Bush Pepper for additional income | 10 |  | 10 |  | Growing Black Pepper in the normal way | Growing Black Pepper plants in big earthen pots using lateral shoots for additional income | KAU, IISR |
| 2. | Demonstration of Milky Mushroom var. Bheema | 5 |  |  |  | Cultivation of Oyster Mushroom | Cultivation of Milky Mushroom var. Bheema during summer months | KAU |
| 3. | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | 5 | 0 | 0 | 0 | Non availability of acrid free variety | Popularization of acrid free variety | CTCRI |
| 4. | Integrated Nutrient Management in Black Pepper | 5 | 0 | 0 | 0 | Unscientific nutrient management | Soil test based nutrient management | KAU |
| 5. | Maximizing income generation from Pepper through diversified products | 20 | 0 | 25 | 0 | Preparing black pepper | Diversified pepper products, green pepper in brine, pepper pickle, green pepper sauce, pepper powder, white pepper.  | Spices Board |
| 6. | Popularization of Nutritional garden in Idukki district  | 15 | 0 | 60 | 0 | Cash crops | Growing organic vegetables at home through nutritional garden | KAU |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Critical Inputs Provided & Total Amount (DBT) | Primary Parameter(Yield) | Primary Parameter Unit (Q/ha) | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 1. | Cultivation of Bush Pepper for additional income | Rooted cuttings – Rs. 50 x 10 plants x 20 demos = Rs. 10000Bioagents – Rs. 120 x 10 l x 20 demos = Rs. 24000**Total = Rs. 34,000/-** | Nil | Percentage survival rate | Number of laterals | Months to yield | Additional income generated | - |
| 2. | Demonstration of Milky Mushroom var. Bheema | Spawn – Rs. 50 x 20 pkts. x 5 demos = Rs 6250Casing materials – Rs. 20 x 50 kg x 5 demos = Rs. 5000PP covers – Rs. 250 x 1 kg x 5 demos = Rs. 1250**Total = Rs. 12,500/-**  | Yield per bed | Yield per unit area (kg) | Number of saleable fruiting bodies per bed | Average weight of one mushroom | Number of mushrooms per kg weight | - |
| 3. | Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges | Amorphophallus corms**Total = Rs.11,000/-** | Yield | q/ha | - | - | - | - |
| 4. | Integrated Nutrient Management in Black Pepper | Lime, Fertilizer, Micronutrients**Total = Rs.15,250/-** | Yield | q/ha | - | - | - | - |
| 5. | Maximizing income generation from Pepper through diversified products | Ingredients and PreservativesPackaging materials [Bottles, PP covers, Tray Packs]Labeling and marketing **Total = Rs.13,600/-** | Acceptability of the product  | Rating scale | Increase in shelf life of the product  | Days | - | - |
| 6. | Popularization of Nutritional garden in Idukki district  | Seeds/ seedlings of nutritive vegetables (Beans, Pumpkin, Chilly, Ladies finger. Beetroot, Carrot, Brinjal, Radish, Drumstick, Amaranthus, Cauliflower,Cabbage, curry leaves, Salad cucumber, Mint, Coriander, Yam, Sweet potato, Bitter gourd , Snake gourd tomato Bio fertilizers and Bio Pesticides**Total = Rs.33,000/-** | Income saving  | Amount | Quality products | Sensory evaluation | - | - |

 **7.B.2. Livestock**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Thematic Area | Livestock Category | Livestock Name | No. of units | No. of Demos |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | Management of Sub Clinical Mastitis in dairy cows | Disease management | Dairy cattle | Cross bred Jersey & HF | 20 | 20 |
| 2. | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows  | Nutrition Management | Dairy cattle | Cross bred Jersey & HF | 20 | 20 |
| 3. | Demonstration of Hydroponics Method of Fodder production  | Fodder production management | Dairy cattle | Cross bred Jersey & HF | 1 | 1 |
| 4. | Popularization of GnRH treatment in prolonged estrus animals for improvement of fertility | Reproductive Management | Dairy cattle | Cross bred Jersey & HF | 10 | 10 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice  | Source of Technology Recommended Practice  |
| **Others** | SC/ ST | Others  | SC/ ST |
| 1 | 2 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1. | Management of Sub Clinical Mastitis in dairy cows | 10 | 0 | 10 | 0 | Nil | Somatic cell Count- once in a week ; Antibiotic treatment + oral supplement of Trisodium citrate @ 30mg/kg body weight for 5 days in positive cases (NDRI**)**  | NDRI |
| 2. | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows  | 10 | 0 | 10 | 0 | Nil | Feeding Anionic mixture (30-50 g per animal per day) to prevent milk fever in dairy cattle  | TANUVAS |
| 3. | Demonstration of Hydroponics Method of Fodder production  | 1 | 0 | 0 | 0 | Nil | Production of fodder grass by Hydroponics method | NIANP |
| 4. | Popularization of GnRH treatment in prolonged estrus animals for improvement of fertility | 5 | 0 | 5 | 0 | Nil | Give Inj. GnRH and followed by first AI and subsequently 2nd AI at 24 hrs interval  | KVASU |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Critical Inputs Provided & Total Amount (DBT) | Primary Parameter | Primary Parameter Unit  | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 1. | Management of Sub Clinical Mastitis in dairy cows | Somatic cell countAntibiotics Trisodium citrate**Total = Rs.18,060/-**  | % Reduction of Mastitis disease  | % | - | - | - | - |
| 2. | Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows  | Magnesium SulphateAmmonium Chloride Calcium **Total = Rs.18,600/-**  | Disease Incidence | % | Production Performance | % | - | - |
| 3. | Demonstration of Hydroponics Method of Fodder production  | Fabrication-Nets, PVC/ Bamboo/ GI pipes, Sprinklers, Tank, Trays and other miscellaneous itemsSeeds**Total = Rs.45,000/-** | Fodder yield | kg | Milk yield | litres | - | - |
| 4. | Popularization of GnRH treatment in prolonged estrus animals for improvement of fertility | Intra uterine antibioticsGnRH hormoneFrozen semen,gloves,sheath etc. **Total = Rs.6,700/-** | Conception index | % | - | - | - | - |

 **7.B.3. Enterprise: Nil.**

 **7.B.4. Farm Implement: Nil.**

 **C. Trainings**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Training Category****(OFT/ FLD/ Oth)** | **Training Type** **(Regular/ Vocational/****Sponsored/ Rural Youth/ Extension)** | **Training location (On/Off)** | **Training For (General / Rural Youth/ Extension)** | **Duration (Days)** | **Title** | **Thematic Area** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **1.** | Others | Sponsored | Off | General Rural Youth | 2 | GAP in Small cardamom | ICM |
| **2.** | Others | Sponsored | Off | General Rural Youth | 1 | GAP in Black pepper | ICM |
| **3.** | Others | Sponsored | Off | General Rural Youth | 1 | GAP in Vegetables | ICM |
| **4.** | Others | Sponsored | Off | General Rural Youth | 1 | Relevance of Apiculture in small cardamom | ICM |
| **5.** | Others | Regular | Off | General Rural Youth | 1 | Scientific Mushroom Cultivation | Crop Management |
| **6.** | Others | Sponsored | Off | General Rural Youth | 1 | Nursery Techniques in Black Pepper | Crop Management |
| **7.** | OFT | Regular | On | General | 1 | Assessment of Sampoorna in cowpea | Soil Health Management |
| **8.** | OFT | Regular | On | General | 1 | Assessment of silicon nutrition in Rice | Soil Health Management |
| **9.** | FLD | Regular | Off | General | 1 | INM in black pepper | Soil Health Management |
| **10.** | FLD | Others | Off | General | 1 | INM in spices | Soil Health Management |
| **11.** | Others | Regular | On | General | 2 | Value addition of fruits | Processing and cooking |
| **12.** | Others | Regular | On | General | 2 | Value addition of fruits and vegetables | Processing and cooking |
| **13.** | Others | Sponsored | Off | General | 5  | Value addition of fruits and vegetables | Diversified banana Products |
| **14.** | Others | Sponsored | Off | General | 5  | Value addition of fruits and vegetables | DiversifiedJackProducts |
| **15.** | OFT | Regular | On and Off | General | 1 | Poultry Management | Production and disease management  |
| **16.** | FLD | Regular | On and Off | General | 2 | 1)Animal Nutrition Management2)Animal reproductive managerment3)Animal Disease Management | Animal Nutrition, Disease and Reproductivemanagement |
| **17.** | Others | Vocational/Sponsored | On and Off | General | 2 | Scientific dairy cattle Management | Livestock Production and Management |
| **18.** | Others | Rural youth | On | Rural youth | 3 | Scientific Goat and poultry Management | Livestock Production and Management |
| **19.** | Others | Vocational | Off | Rural youth | 6 | Flower making  | Income generation  |
| **20.** | Others | Vocational | Off | Rural youth | 5 | Flower arrangements | Entrepreneurship development |
| **21.** | Others | Vocational | On | General  | 5 | Home care products preparation | Income generation |
| **22.** | Others | Vocational | On | Rural youth | 12 | Interior Decoration Articles preparation  | Income generation  |
| **23.** | Others | Vocational | Off | Rural youth | 20 | Fabric designing | Entrepreneurship development |
| **24.** | Others | Vocational  | Off | Rural youth | 5 | Jewellery making  | Income generation |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Sub Thematic Area** | **Skill is to impart? (Y/N)** | **Source of Fund (if sponsored)** | **Agency Name** | **Amount (Rs)** | **Others Male** | **Others Female** | **SC/ST Male** | **SC/ST Female** |
| **1** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** |
| **1.** | IPDM | Yes | CHM | Department of Agriculture | 15000/- | 65 | 25 | 0 | 0 |
| **2.** | IPDM | Yes | - | Spices Board | 5000/- | 30 | 10 | 0 | 0 |
| **3.** | IPDM | Yes | CHM | Department of Agriculture | 6000/- | 20 | 10 | 0 | 0 |
| **4.** | IPM | Yes  | - | Forest Department | 10000/- | 0 | 0 | 50 | 20 |
| **5.** | Crop introduction | Yes | ICAR | ICAR | 10000/- | 20 | 0 | 0 | 0 |
| **6.** | Crop introduction | Yes | ICAR | ICAR | 5000/- | 5 | 0 | 0 | 0 |
| **7.** | Nutrient management | Y | ICAR | ICAR | 10000/- | 15 | 10 | 0 | 0 |
| **8.** | Nutrient management | Y | ICAR | ICAR | 50000/- | 20 | 15 | 0 | 0 |
| **9.** | INM | Y | ICAR | ICAR | 10000/- | 25 | 20 | 0 | 0 |
| **10.** | INM | Y | ICAR | ICAR | 5000/- | 30 | 25 | 0 | 0 |
| **11.** | Value added product preparation | Yes | Coffee board | Coffee Board, Adimali | 1000/- | 10 | 15 | 0 | 0 |
| **12.** | Value added product preparation | Yes | ICAR | KVK | 2000/- | 8 | 10 | 0 | 2 |
| **13.** | Product preparation | Yes | Dept of Agriculture | ATMA | 5000/- | 30 | 80 | 4 | 6 |
| **14.** | Product preparation | Yes | Dept of Agriculture | ATMA | 2000/- | 10 | 30 | 2 | 1 |
| **15.** | Poultry Management | Yes | - | ICAR | 10000/- | 25 | 20 | 10 | 8 |
| **16.** | Nutrition and Reproduction | Yes | - | ICAR | 20000/- | 100 | 60 | 25 | 18 |
| **17.** | Livestock Production and Management | Yes | Department & GVHSS | Department & GVHSS | 15000/- | 25 | 80 | 30 | 12 |
| **18.** | Goat and poultry | Yes | - | ICAR | 5000/- | 25 | 50 | 20 | 18 |
| **19.** | Rural craft | Y  | - | SHG | - | 0 | 30 | 0 | 40 |
| **20.** | Rural craft | Y | - | SHG | - | 0 | 30 | 0 | 40 |
| **21.** | Rural craft | Y | - | Kudumbasree | - | 0 | 20 | 0 | 30 |
| **22.** | Rural craft | Y | - | SHG | - | 0 | 20 | 0 | 20 |
| **23.** | Rural craft  | Y | - | SHG | - | 0 | 30 | 0 | 30 |
| **24.** | Rural craft | Y | - | SHG | - | 0 | 20 | 0 | 40 |

 **D. Extension programme**

| **Sl. No.** | **Extension programme** | **No. of Programme** | **No. of Farmers/ participants**  | **No. of Extension Officers**  |
| --- | --- | --- | --- | --- |
| 1. | Advisory over Phone | 600 | 730 | 150 |
| 2. | Bi-Monthly meeting  | 0 | 0 | 0 |
| 3. | Celebration of Day (World Soil Day, Wold Food Day & International Womens day) | 15 | 660 | 189 |
| 4. | Diagnostic visit  | 135 | 295 | 20 |
| 5. | Exhibition  | 8 | 8500 | 125 |
| 6. | Exposure Visit  | 7 | 110 | 12 |
| 7. | Ex-trainees Sammelan | 5 | 105 | 15 |
| 8. | Extension Literature  | 3 | 0 | 0 |
| 9. | Farmers Science conveners meeting  | 0 | 0 | 0 |
| 10. | Farmer /Extension personnel visit to KVK  | 94 | 136 | 9 |
| 11. | Farmers Seminar/ Workshop | 9 | 450 | 24 |
| 12. | Field day  | 11 | 345 | 31 |
| 13. | Film Show  | 35 | 1310 | 8 |
| 14. | Formation of SHGs | 11 | 312 | 4 |
| 15. | Group Meeting  | 6 | 145 | 8 |
| 16. | Kisan Ghosti | 0 | 0 | 0 |
| 17. | Kisan Mela  | 0 | 0 | 0 |
| 18. | Lecture delivered as resource person  | 6 | 240 | 8 |
| 19. | Method demonstration  | 15 | 350 | 5 |
| 20. | News paper coverage  | 19 | 0 | 0 |
| 21. | No. of animals treated  | 80 | 80 | 0  |
| 22. | Popular arterials  | 0 | 0 | 0 |
| 23. | Radio talk | 12 | **0** | **0** |
| 24. | Scientist visit to Farmers Field  | 37 | 270 | 4 |
| 25. | SHC campaign  | 10 | 250 | 20 |
| 26. | SHG meeting  | 36 | 126 | 16 |
| 27. | Technical Reports | 0 | 0 | 0 |
| 28. | TV Talk | 10 | 435 | 20 |
| 29. | Other- Specify | 0 | 0 | 0 |
| **Total** | **1164** | **14849** | **668** |

**8. Activities proposed**

1. **Mobile Advisory Services**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Message Type**  | **Crops**  | **Livestock** | **Weather**  | **Marketing**  | **Awareness**  | **Other enterprise**  | **Total**  |
| Text  | 24 | 12 | 0 | 0 | 12 | 0 | 48 |
| Voice  | 12 | 6 | 0 | 0 | 6 | 0 | 24 |
| **Total**  | **36** | **18** | **0** | **0** | **18** | **0** | **72** |

1. **Seed/ Quality Planting Material**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of the Crop** | **Quantity to be Produced**  | **Expected income (Rs)** | **Expected expenditure (Rs)** | **Net returns (Rs)** |
| Seed (kg) | Planting Material (Nos.) |
| Bitter gourd | 25 | 0 | 5000.00 | 2800.00 | 2200.00 |
| Snack gourd | 10 | 0 | 2100.00 | 1400.00 | 700.00 |
| Amaranths -Red  | 2.5 | 0 | 1350.00 | 500.00 | 850.00 |
| Cowpea | 2.5 | 0 | 3400.00 | 2100.00 | 1300.00 |
| Beans | 5 | 0 | 5000.00 | 2400.00 | 2600.00 |
| Chili | 1 | 0 | 1500.00 | 500.00 | 1000.00 |
| Black pepper rooted cuttings | - | 100000 | 100000.00 | 65000.00 | 35000.00 |

1. **Bio Products**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the Bio Product | Quantity to be Produced  | Expected income (Rs) | Expected expenditure (Rs) | Net returns (Rs) |
| Product (kg) | Others (Nos.) |
| Pseudomonas | 2500 kg | 0 | 300000.00 | 150000.00 | 150000.00 |
| Trichoderma | 2000 kg | 0 | 240000.00 | 120000.00 | 120000.00 |
| Beauveria | 1000 kg | 0 | 120000.00 | 60000.00 | 60000.00 |
| Metarhizium | 1000 kg | 0 | 120000.00 | 60000.00 | 60000.00 |
| Lecanicillum | 1000 kg | 0 | 120000.00 | 60000.00 | 60000.00 |
| EPN |  | 50000 | 50000.00 | 30000.00 | 30000.00 |
| VAM | 1000 kg | 0 | 100000.00 | 65000.00 | 35000.00 |
| Neem oil | 900 kg | 0 | 315000.00 | 150000.00 | 200000.00 |
| On farm Production-Trichoderma unit | - | 50 | 100000.00 | 250000.00 | 250000.00 |
| On farm Production-VAM unit | - | 25 | 500000.00 | 150000.00 | 150000.00 |
| Blue sticky trap | - | 3000 | 90000.00 | 30000.00 | 30000.00 |
| Yellow sticky trap | - | 2000 | 60000.00 | 20000.00 | 20000.00 |

1. **Home Care Production: Nil.**
2. **Livestock**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Livestock | To be Produced (Nos.) (Target) | Expected income (Rs) | Expected expenditure (Rs) | Net returns (Rs) |
| Poultry Hybrid birds (BV 380) | 300 | 90000/- | 60000/- | 30000/- |

1. **Farm Production: Nil.**
2. **Publication / Literature**

|  |  |  |  |
| --- | --- | --- | --- |
| Item Name  | Title  | Auther/s Name  | No. of circulation  |
| Booklet | KVK Official Booklet | Dr. Binu John Sam | 2000 |
| Handout | Organic Practices in Vegetables | Dr. Binu John Sam | 1000 |
| **Total**  | **3000** |

1. **Electronic Media: Nil.**

1. **SWTL Activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type | No. of samples to be analyzed | Names of the team members involved | Expected income (Rs) | Expected expenditure (Rs)  | Net returns (Rs)  |
| Soil  | 1000 | Manju Jincy Varghese, Subject Matter Specialist (SS), Mr. K.O. Jose, Skilled Supporting Staff. | 2,50,000 | 2,00,000 | 50,000 |
| Water  | **-** | **-** | **-** | **-** | **-** |
| Plant | **-** | **-** | **-** | **-** | **-** |
| Others  | **-** | **-** | **-** | **-** | **-** |

***No. of SHC to be distributed: 1000***

1. **News letter**

|  |  |  |  |
| --- | --- | --- | --- |
| Name  | To be issue | No. of Soft copies to be issue | No. of hard copies to be issue |
| KVK Newsletter | December, 2018 | 700 | 2500 |

1. **Technology Week**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Proposed Date  | No. of agencies to be linked  | Qty. Seeds supply  | Qty. Planting material supply  | Qty. bio products supply  |
| 09-01-2019 to 12-01-2019 | 20 | 0.5 q | 1500 nos. | 2000 L |

1. **Proposed Projects**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Project Name  | Role of KVK | Duration  | Project Outlay (Rs) | Additional Man Power to be planned  |
| Bio-pharmacy | Technical backstopping | continuous | 35 lakhs | Field staff – 4 nos. |

1. **Farmer’s Field School planned**

|  |  |  |  |
| --- | --- | --- | --- |
| Thematic area  | Title of the FFS | Budget proposed in Rs. | No. of farmers  |
| Integrated Crop Management | Good Agricultural Practices in Small Cardamom | 30000.00 | 25 |

1. **E-linkage : NIL.**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Nature of activities** |  |
| 1. | Is KVK has website (Y/N)  | Yes |
| 2. | If NO, date of website to be develop & host  |  |
| 3. | Name of the module assigned during Orientation Programme  |  |
| 4. | Plan, Progress and expected date of completion  |  |

1. **KVK instructional farm Activities**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Plot  | Season  | Area (ha) | Name of the crop  | Expected Yield (kg) | Expected Expenditure (Rs) | Expected income (Rs) | Net returns (Rs) |
| 1. | - | - | 2 | Small cardamom | 340 | 272000.00 | 122000.00 | 150000.00 |
| 2. | - | - | 1 | Black pepper | 150 | 54000.00 | 26000.00 | 28000.00 |
| 3. | - | - | 0.2 | Bitter gourd | 534  | 18690.00 | 8500.00 | 10190.00 |
| 4. | - | - | 0.2 | Snack gourd | 313  | 7825.00 | 3250.00 | 4575.00 |
| 5. | - | - | 1 | Tapioca  | 1500  | 30000.00 | 17000.00 | 12000.00 |

1. **Activities planned under Rainwater Harvesting Scheme (only to those KVKs which are already having scheme under Rain Water Harvesting)**

|  |  |  |
| --- | --- | --- |
| Sl. No. | Activities planned | Remarks if any |
| 1. | Low Cost Model Rain Water Harvesting Structure to be installed in KVK | Rs. 30000/- may be sanctioned  |

1. **Plan of other activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No. | Proposed activities | Expected expenditure (Rs) | Expected income (Rs)  | Net Returns (Rs)  | Name of the team members involved |
| 1. | Animal health campaign | 8000/- | 13000/- | 5000/- | Dr. S. Jayababu, SMS (AH)Mr. Sudhakar Soundarajan,SMS (PP)K. T. Mathew, SSS |
| 2. | Rabies Eradication programme | 7000/- | 10000/- | 3000/- | Dr. S. Jayababu ,SMS (AH)Mr. Sudhakar Soundarajan, SMS (PP)K. T. Mathew, SSS |

1. **Innovative Farmer’s Meet**

|  |  |
| --- | --- |
| Particulars | Details |
| Are you planning for conducing Farm Innovators meet in your district? | Yes |
| If Yes likely month of the meet | September, 2018 |
| Brief action plan in this regard | 1. Mapping the new innovations in the district
2. Evaluating the extent of practicality in the innovations
3. Improvement over the existing methodology
4. Present condition of earlier innovations
5. Exhibition of these innovations
6. Honouring the innovators
7. Documentation and Publicity
8. Scope of upscaling
 |

**10. Organic Farming**

## Technology Assessment related to organic farming

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title | Thematic Area | Crop Category | Crop Name | Variety / Hybrid Name | Farming Situation | Problem Definition | Area (ha) | No. of Trials | Critical Inputs Provided & Total Amount (DBT) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  | 9 | 10 |
| 1. | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits  | Bio-Intensive Disease Management | Horticulture | Bitter gourd  | Preethi | Irrigated  | Heavy dosage of fungicides are applied for the control of downy mildew | 1 | 5 | Licorice ExtractPseudomonasEffective Microorganisms **Total = Rs.23,000/-** |
| 2. | Assessment of different biological control agents and herbal based repellents for the management of termites in sugarcane crop | Bio-Intensive Pest Management | Field crop | Sugarcane  | Co-86032 | Irrigated & Rain fed | Excessive use of termiticides is harmful for environment and the results are not sustainable | 1 | 5 | NBAIR-Herbal Extract EPN Metarhizium anisopliae **Total = Rs.24,250/-** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice (RP) | Source of Technology (RP)  |
| Others | SC/ST | Others  | SC/ST |
| 1 | 2 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 1. | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits  | 3 | 0 | 2 | 0 | Spray Ridomil (1.5 g/litre of water) | Spray Mancozeb (0.2%) | Kerala Agricultural University |
| 2. | Assessment of different biological control agents and herbal based repellents for the management of termites in sugarcane crop | 5 | 0 | 0 | 0 | - | Dip the setts in imidacloprid 70WS 0.1% or chlopyriphos 20 EC 0.04% for 5min. | TNAU |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Tech. Option1  | To1: Source of Technology  | Tech. Option2  | To2: Source of Technology  | Tech. Option3  | To3: Source of Technology  | Tech. Option4  | To4: Source of Technology  |
| 1 | 2 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 1. | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits  | Spray extract of licorice @ 20ml/L of water from 10-day intervals between each spray | JKI, Institute of Biological Control, Darmstadt, Germany | Spray Pseudomonas @ 20g/L of water from 10-day intervals between each spray | Kerala Agricultural University  | Spray Effective Microorganisms @ 5ml/L of water from 10-day intervals between each spray | Plant Pathology Research Institute, Agricultural Research Centre, Giza,- 2016 | - | - |
| 2. | Assessment of different biological control agents and herbal based repellents for the management of termites in sugarcane crop | Spray & Drench (NBAIR-Herbal Extract )@ 25ml/L of water. (Three spray in 20-day intervals | I CAR-NBAIR-2016 | Spray & Drench EPN @ 5g/L of water. (Two spray in 20-day intervals) | Bharathidasan University - 201 | Spray and Drench *Metarhizium anisopliae* @ 30g/L of water. (Four spray in 20-day intervals) | KAU & TNAU-2011 | - | - |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Primary Parameter(Yield) | Primary Parameter Unit (Q/ha) | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 26 | 27 | 28 | 29 | 30 | 31 |
| 1. | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits  | Yield | - | Disease intensity | - | - | - |
| 2. | Assessment of different biological control agents and herbal based repellents for the management of termites in sugarcane crop | Yield | - | Per cent reduction over control | - | - | - |

 **B. Frontline Demonstrations related to organic farming**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Thematic Area | Crop Category | Crop Name | Variety / Hybrid Name | Farming Situation | No. of demos | Area (ha) | Season  | Previous Crop  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1. | Bio-intensive intervention of pest and drought management in small cardamom | Bio-intensive Pest Management | Spices  | Small Cardamom | Njallani green gold | Irrigated  | 10 | 3 | - | - |
| 2. | Bio-intensive Pest Management in cowpea | Bio-intensive Pest Management | Field | Cowpea | Lola  | Rain fed | 10 | 1 | - | - |
| 3. | Biological control of Rugose Spiralling Whitefly-RSW (*Aleurodicus rugioperculatus*) in Coconut plantation | Bio-intensive Pest Management | Plantation | Coconut | Chandra Kalpa & Kalpa Haritha | Rain fed | 50 | 25 | - | - |
| 4. | Bio-intensive root rot and root knot nematodes management of cucumber under poly house conditions | Bio-intensive Pest Management | Vegetable  | Cucumber | F1- Seven Star | Irrigated | 5 | 0.02 | - | - |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Male  |  | Female  | Farmers Practice  | Recommended Practice  | Source of Technology Recommended Practice  |
| Others | SC/ST | Others  | SC/ST |
| 1 | 2 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1. | Bio-intensive intervention of pest and drought management in small cardamom | 10 | 0 | 0 | 0 | Indiscriminate use PPC chemical in cardamom plantation | Bio-intensive Pest Management along with Foliar Spray of 1% PPFM | Indian Cardamom Research Institute & Kerala Agricultural University-Cardamom Research Station |
| 2. | Bio-intensive Pest Management in cowpea | 5 | 0 | 5 | 0 | Indiscriminate use PPC chemical  | Bio-intensive Pest Management | ICAR-NBAIR & Kerala Agricultural University |
| 3. | Biological control of Rugose Spiralling Whitefly-RSW (*Aleurodicus rugioperculatus*) in Coconut plantation | 10 | 15 | 10 | 15 | Indiscriminate use PPC chemical  | Bio-intensive Pest Management | ICAR-NBAIR |
| 4. | Bio-intensive root rot and root knot nematodes management of cucumber under poly house conditions | 5 | 0 | 0 | 0 | Indiscriminate use PPC chemical  | Bio-intensive Pest Management | ICAR-IIHR |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Title  | Critical Inputs Provided & Total Amount (DBT) | Primary Parameter (Yield) | Primary Parameter Unit (Q/ha) | Secondary Parameter1 | Secondary Parameter Unit1 | Secondary Parameter2 | Secondary Parameter Unit2 |
| 1 | 2 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 1. | Bio-intensive intervention of pest and drought management in small cardamom | *Bacillus thuringiensis* *Beauveria bassiana* *Apanteles sp* *Friona* sp Yellow sticky trapBlue sticky trapNeem oilEPNTrichodermaPseudomonasMethylobacterium **Total = Rs.36,000/-** | Yield  | - | % reduction of pest and disease | - | - | - |
| 2. | Bio-intensive Pest Management in cowpea | *Trichoderma harzianum* *Hanseniaspora uvarum**Lecanicillium saksenae**Beauveria bassiana*Blue sticky trapYellow sticky trap **Total = Rs.21,800/-** | Yield | - | % reduction of pest | - | - | - |
| 3. | Biological control of Rugose Spiralling Whitefly-RSW (*Aleurodicus rugioperculatus*) in Coconut plantation | *Encarsia guadeloupae and E. dispersa* **Total = Rs.42,500/-** | Yield | - | % reduction of RSW | - | - | - |
| 4. | Bio-intensive root rot and root knot nematodes management of cucumber under poly house conditions | IIHR-organic plant growth enhancer and yield promoters.Paecilomyces lilacinusPseudomonas **Total = Rs.4,150**/- | Yield | - | % reduction of pest | - | - | - |

**C. Trainings related to organic farming**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Training Category(OFT/ FLD/Oth) | Training Type (Regular/ Vocational/Sponsored/ Rural Youth/ Extension ) | Training Location (On/Off) | Training For (General Rural Youth/ Extension ) | Duration (Days) | Title | Thematic Area |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| 1. | OFT | Regular | Off | General Rural Youth | 1 | Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits  | Bio-intensive Pest Management |
| 2. | OFT | Regular | Off | General Rural Youth | 1 | Assessment of different biological control agents and herbal based repellents for the management of termites in sugarcane crop | Bio-intensive Pest Management |
| 3. | FLD | Regular | Off | General Rural Youth | 1 | Bio-intensive intervention of pest and drought management in small cardamom | Bio-intensive Pest Management |
| 4. | FLD | Regular | Off | General Rural Youth | 1 | Bio-intensive Pest Management in cowpea | Bio-intensive Pest Management |
| 5. | FLD | Regular | Off | General Rural Youth | 1 | Biological control of Rugose Spiralling Whitefly-RSW (*Aleurodicus rugioperculatus*) in Coconut plantation | Bio-intensive Pest Management |
| 6. | FLD | Regular | Off | General Rural Youth | 1 | Bio-intensive root rot and root knot nematodes management of cucumber under poly house conditions | Bio-intensive Pest Management |
| 7. | Others | Regular | Off | General Rural Youth | 5 | Farm beads low cost mass production techniques of bio-pesticides | Organic farming |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sl. No. | Sub Thematic Area | Skill is to impart? (Y/N) | Source of Fund(if sponsored) | Agency Name | Amount (Rs) | Others Male | Others Female | SC/ST Male | SC/ST Female |
| **1** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** |
| 1. | Organic farming | Yes | - | - | 0 | 5 | 0 | 0 | 0 |
| 2. | Organic farming | Yes | - | - | 0 | 5 | 0 | 0 | 0 |
| 3. | Organic farming | Yes | - | - | 0 | 10 | 0 | 0 | 0 |
| 4. | Organic farming | Yes | - | - | 0 | 5 | 0 | 5 | 0 |
| 5. | Organic farming | Yes | - | - | 0 | 10 | 15 | 10 | 15 |
| 6. | Organic farming | Yes | - | - | 0 | 5 | 0 | 0 | 0 |
| 7. | Organic farming | Yes | - | - | 0 | 25 | 8 | 10 | 5 |

**D. Extension programme related to organic farming**

| Sl. No. | **Extension programme** | **No. of Programme** | **No. of Farmers/ participants**  | **No. of Extension Officers**  |
| --- | --- | --- | --- | --- |
|  | Advisory over Phone | 50 | 50 | 20 |
|  | Bi-Monthly meeting  | 0 | 0 | 0 |
|  | Celebration of Day | 0 | 0 | 0 |
|  | Diagnostic visit  | 20 | 210 | 50 |
|  | Exhibition  | 10 | 325 | 150 |
|  | Exposure Visit  | 2 | 15 | 3 |
|  | Ex-trainees Samelan | 110 | 230 | 0 |
|  | Extension Literature  | 2 | 300 | 50 |
|  | Farmers Science conveners meeting  | 3 | 0 | 0 |
|  | Farmer /Extension personnel visit to KVK  | 0 | 0 | 0 |
|  | Farmers Seminar/ Workshop | 3 | 0 | 0 |
|  | Field day  | 0 | 0 | 0 |
|  | Film Show  | 0 | 0 | 0 |
|  | Formation of SHGs | 3 | 150 | 20 |
|  | Group Meeting  | 2 | 35 | 12 |
|  | Kisan Ghosti | 5 | 410 | 0 |
|  | Kisan Mela  | 5 | 250 | 0 |
|  | Lecture delivered as resource person  | 5 | 100 | 10 |
|  | Method demonstration  | 2 | 20 | 2 |
|  | News paper coverage  | 4 | 160 | 0 |
|  | No. of animals treated  | 0 | 0 | 0 |
|  | Popular arterials  | 0 | 0 | 0 |
|  | Radio talk | 2 | 100 | 25 |
|  | Scientist visit to Farmers Field  | 0 | 0 | 0 |
|  | SHC campaign  | 0 | 0 | 0 |
|  | SHG meeting  | 0 | 0 | 0 |
|  | Technical Reports | 0 | 0 | 0 |
|  | TV Talk | 0 | 0 | 0 |
|  | Other- Specify  | 0 | 0 | 0 |
| **Total** | **228** | **2355** | **342** |

**E. Organic Certification is planned? If Yes Details**

**F. Any other activity related to Organic farming. Pl specify.**

**11. Swachh Barat Abiyan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Activity**  | **Month**  | **Details**  | **No. of Participants/ Farmers**  |
| Cleaning of Office premises | Twice every month | Cleaning activity involving staff members and local people | 15 for every activity |

**12.Budget**

1. **Revolving Fund (Rs in Lakh)**

|  |  |  |  |
| --- | --- | --- | --- |
| Opening balance as on 01.04.2017  | Expenditure incurred during 2017-18 | Receipts during2017-18 | Closing balance as on 31.01.2018 |
| 1,22,203.00 | 17,41,459.00 | 13,16,462.00 | 5,47,200.00 |

 **B. Details of budget utilization (2017-18) up to 31 January 2018**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.****No.** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **A. Recurring Contingencies** |
| 1 | **Pay & Allowances** | 101.90 |  | 76.23366 |
| 2 | **Traveling allowances** | 1.50 |  | 0.20136 |
| 3 | **Contingencies** |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 3.00 |  | 2.52856 |
| *B* | POL, repair of vehicles, tractor and equipments | 1.50 |  | 0.71506 |
| *C* | Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained) | 1.00 |  | 0.76129 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 0.50 |  | 0.36669 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 1.80 |  | 0.93132 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 0.65 |  | 0.04172 |
| *G* | Extension Activities  | 0.50 |  | 0.50000 |
| *H* | Training of extension functionaries | 0.25 |  | 0.24615 |
| *I* | IFS  | 0.30 |  | 0.10000 |
| *J* | FFS | 0.00 |  | 0.00000 |
| *K* | EDP  | 0.32 |  | 0.00000 |
| *L* | Display Boards  | 0.00 |  | 0.00000 |
| *M* | Maintenance of buildings | 0.50 |  | 0.50000 |
| *N* | Establishment of Soil, Plant & Water Testing Laboratory  | 0.25 |  | 0.25000 |
| *O* | Library  | 0.05 |  | 0.01800 |
| **TOTAL (A)** | **114.02** |  | **83.39381** |
| **B. Non-Recurring Contingencies** |
| 1 | **Works** | 0.00 |  | 0.00000 |
| 2 | **Equipments including SWTL & Furniture** | 0.00 |  | 0.00000 |
| 3 | **Vehicle** (Four wheeler/Two wheeler, please specify) | 0.00 |  | 0.00000 |
| 4 | **Library**  | 0.10 |  | 0.10000 |
| **TOTAL (B)** | **0.10** |  | **0.10000** |
| **C. REVOLVING FUND** | 0.00 |  | 0.00000 |
| **GRAND TOTAL (A+B+C)** | **114.12** | **82.25012** | **83.49381** |
|  |  |  |  |

 **C. Details of Budget Estimate (2018-19) based on proposed action plan**

|  |  |  |
| --- | --- | --- |
| **S.****No.** | **Particulars** | **BE 2018-19 proposed**  |
| **A. Recurring Contingencies** |  |
| 1 | **Pay & Allowances** | 109.00 |
| 2 | **Traveling allowances** | 2.00 |
| 3 | **Contingencies** |  |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 4.00 |
| *B* | POL, repair of vehicles, tractor and equipments | 2.00 |
| *C* | Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained) | 1.50 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 1.25 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 3.122 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1.50 |
| *G* | Extension Activities  | 0.50 |
| *H* | Training of extension functionaries | 0.25 |
| *I* | IFS  | 1.00 |
| *J* | FFS | 0.30 |
| *K* | EDP | 0.50 |
| *L* | Display Boards  | 0.00 |
| *M* | Maintenance of buildings | 5.00 |
| *N* | Establishment of Soil, Plant & Water Testing Laboratory  | 0.75 |
| *O* | Library  | 0.20 |
| **TOTAL (A)** | **132.872** |
| **B. Non-Recurring Contingencies** |  |
| 1 | **Works** |  |
|  | a) Demonstration units (2 Nos.)  | 5.00  |
|  | b) Minor works (Vehicle and Farm machineries shed)  | 1.00  |
|  | c) Fencing of fruit orchard area  | 8.00  |
|  | d) Support for initiating Farm tourism  | 2.00  |
| 2 | **Equipments including SWTL & Furniture** |  |
|  | a) Farm tools and small machinery  | 2.00  |
|  | b) Furniture for training hall and soft furnishing  | 5.00  |
|  | c) Farmers Hostel  | 50.00  |
|  | d) Staff quarters  | 50.00  |
|  | e) Micro irrigation system in the fruit orchard area  | 10.00  |
| 3 | **Vehicle** (Four wheeler/Two wheeler, please specify) | 1.50 |
| 4 | **Library** (Purchase of assets like books & journals) | 0.50 |
| **TOTAL (B)** | **135.00** |
| **C. REVOLVING FUND** | **0.00** |
| **GRAND TOTAL (A+B+C)** | **267.872** |