###### ZONAL PROJECT DIRECTORATE – ZONE VIII BANGALORE

###### ACTION PLAN OF BAPOOJI KVK IDUKKI IN ZONE VIII FOR THE YEAR 2012-13

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

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Name and address of KVK with Phone, Fax and e-mail, Website  | : | Bapooji Krishi Vigyan Kendra,Santhanpara P.O, Idukki (Dt.),Kerala, PIN-685619. Phone: 04868-247541, 247715.Fax: 04868-247673 Email: kvksanthanpara@gmail.comWeb: 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: +919446826019Email: chairmankvkidukki@rediffmail.com |
| 3. | Year of sanction | : | 1994. |
| 4. | Name of agro-climatic zone | : | Zone XIII – High ranges and Zone VII Malayoram. |
| 5. | Major farming systems/enterprises |  | Cardamom and Pepper based farming system in high ranges of the district. |
| 6. | Soil type | : | Red loam soil in Zone XIII and laterite soil without B-horizon in Zone VII. |
| 7. | Annual rainfall (mm) | : | 2800 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. | Programme Coordinator | Vacant | - | 15600-39100 | 8000 | - | - | To be advertised in March 2012 |
| 2. | Subject Matter Specialist  | Dr. S. Jayababu | S.M.S. (Animal Science) | 15600-39100 | 5400 | 19-06-1995 | Permanent | - |
| 3. | Subject Matter Specialist  | Manju Jincy Varghese | S.M.S. (Soil Science) | 15600-39100 | 5400 | 10-01-2011 | Permanent | - |
| 4. | Subject Matter Specialist  | Dr. Benjamin Mathew | S.M.S. (Agricultural Extension) | 15600-39100 | 5400 | 17-01-2011 | Permanent | - |
| 5. | Subject Matter Specialist  | Pramod Chacko | S.M.S. (Agronomy) | 15600-39100 | 5400 | 17-01-2011 | Permanent | - |
| 6. | Subject Matter Specialist  | Dr. Binu John Sam | S.M.S. (Horticulture) | 15600-39100 | 5400 | 17-01-2011 | Permanent | - |
| 7. | Subject Matter Specialist | Sudhakar Soundrajan | S.M.S. (Plant Protection) | 15600-39100 | 5400 | 27-01-2011 | Permanent | - |
| 8 | Programme Assistant | Jayisy Joseph | Programme Assistant (Home Science) | 9300-34800 | 4200 | 20-06-1995 | Permanent | - |
| 9 | Computer Programmer | Biju Narayanan | Programme Assistant (Computer) | 9300-34800 | 4200 | 01-10-2007 | Permanent | - |
| 10 | Farm Manager | Rachel Skaria | Programme Assistant (Rural Craft) | 9300-34800 | 4200 | 05-06-1995 | Permanent | - |
| 11 | Accountant/Superintendent | 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 | Auxiliary staff |  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 2011-12:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.****No** | **Date** | **Major recommendations** | **Status of action taken in brief** | **Tentative date of SAC meeting proposed during 2012-13** |
| 1 | Nil | 13th June 2012 |
| 2 | 12th December 2012 |

**4. Capacity Building of KVK Staff**

**A. Plan of Human Resource Development of KVK personnel during 2012-13**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **Category** | **Area of training** | **Institution proposed to attend** | **Justification** | **Details of trainings attended during 2011-12** |
| 1. | Programme Coordinator |  |  |  |  |
| 2. | SMS – Animal Science | Animal Husbandry | NIRD, Hyderabad | For new strategies in Livestock production in rural household | - |
| TANUVAS, Chennai | For value addition in milk & meat | - |
| Central Livestock for Research on Goats, UP. | For new strategies in Goat production | - |
| NDRI, Karnal | For sustainable Livestock production | - |
| Project Directorate on Poultry, Hyderabad | For new Poultry breeding technologies | - |
| TANUVAS, Chennai | Sustainable Livestock production in all aspects | ICAR Winter School on Novel ICT & its application for Livestock production, Animal Health management & Veterinary care from 07/09/2011 to 27/09/2011at TANUVAS, Chennai. |
| 3. | SMS - Horticulture | Mushrooms | IIHR, Bangalore | New varieties and species and their cultivation aspects | Button and oyster mushroom cultivation – HRS Ooty |
| Cool season fruits and vegetables | TNAU / IIHR | Advances in cultivation of cool season fruits and vegetables | - |
| Ornamental Horticulture  | TNAU / IIHR | Hi-Tech production of cut flowers | - |
| Protected cultivation of vegetables | TNAU / IIHR | Protected cultivation of vegetables | - |
| Capacity building | MANAGE - Hyderabad | Better extension work | Agricultural Project Formulation and Management – MANAGE, Hyderabad |
| New Technologies in Horticulture | IIHR, Bangalore | Updating scientific and farmer friendly knowledge | Advances in Horticultural Technologies – IIHR, Bangalore |
| 4. | SMS – Agricultural Extension | New technologies in Horticulture | IIHR, Bangalore | Updating the new and improved technologies in horticulture | Precision farming, Fertigation and Protected cultivation; KCAET, Tavanur (2 days) |
| Commercial flower seed production | Indo American Hybrid seed | Scientific seed production techniques | Agricultural Project Planning & Management; MANAGE, Hyderabad (6 Days) |
| Leadership trainings | MANAGE, Hyderabad | For better Administration & execution of mandatory activities of KVK | Mushroom cultivation technology for staffs of KVK; Directorate of Mushroom Research, Solan (HP) (7 days) |
| Commercial cut flower production | IARI, New Delhi | An exposure to commercial production techniques in floricultural crops | Protection and Management of IPR in Agriculture. **(Short Course);** IPR cell, KAU, Thrissur (Sponsored ICAR/NAIP) (10 Days) |
| 5. | SMS - Agronomy | Agriculture related Innovations | NIF, Ahmedabad | Technology transfer | Innovative techniques to facilitate organic cultivation of cardamom |
| Organic pepper cultivation | IISR, Calicut | Technology transfer | - |
| Leadership trainings | MANAGE, Hyderabad | For better Administration & execution of mandatory activities of KVK | - |
| Organic rice farming  | Rice Research Institute, Mancompu | To popularize organic rice cultivation | - |
| 6. | SMS – Plant Protection  | Recent trends in Integrated Pest & Disease Management in Cardamom  | ICRI, Myladumpara | Improved crop production techniques transfer to farmer | Biological control of Cardamom Pest & Disease Management, ICRI, Myladumpara from 18/10/2011 to 19/10/2011. |
| Integrated Pest & Disease Management in Spices | IISR, Calicut | New techniques transfer to farmer | Banana Pest & Disease Management at NRCB, Trichy from 07/11/2011 to 08/11/2011. |
| Integrated Pest & Disease Management in Vegetables | IIHR, Bangalore  | Improved crop production techniques transfer to farmer | Nil |
| Beekeeping | Central Bee Research Institute, Pune | To popularize beekeeping in Cardamom plantations | Nil |
| 7. | SMS – Soil Science | Soil testing | ICRI, Myladumpara | Soil testing based fertilizer recommendation | Soil testing at ICRI, Myladumpara on 19/10/2011. |
| Pesticide residue analysis | ICRI, Myladumpara | Analysis of pesticide in water samples | Nil |
| 8. | Lab Technician – Home Science | Value added banana products | NRCB, Trichy | Value addition in Banana | - |
| 9. | Computer Programmer | Advanced Training on SQL & .Net | G-tech, Cochin | Up to date creation & maintenance of in-house database pertaining to various KVK activities. | Training on SQL & .Net at UPASI KVK, Coonoor, Ooty 23/05/2011 to 28/05/2011. |
| 10. | Farm Manager | - | - | - | - |
| 11. | Administrative | - | - | - | - |

**B. Cross-learning across KVKs**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of the KVK proposed**  | **Purpose**  | **Mode of learning**  |
| 1 | KVK, Kottayam  | Mushroom technology, Innovative cocoa cultivation techniques. | Exposure visit |
| 2 | KVK, Thrissur | Seed technology. | Training & Visit |
| 3 | KVK, Kannur | Labour bank formation | Visit |
| 4 | KVK, Pathanamthitta | Value addition, Innovative post harvest techniques in paddy. | Training & Visit |
| 5 | KVK, Madurai | Honey bee | Training & Visit |
| 6 | KVK, Salem | Bio-agents | Training & Visit |
| 7 | KVK, Namakkal | Poultry technology | Training & Visit |

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

 **resources and activities**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Name of the KVK included in the cluster** | **Nature of sharing** |
| **Knowledge/expertise** | **Resources (facilities and products)** | **Activities** |
| 1 | KVK, Namakkal | Poultry technology | Incubator | Meat & egg production |
| 2 | KVK, Kottayam | Bio-control | Bio-control production unit | Commercial production of bio-agents |
| 3 | CARD KVK, Pathanamthitta | Value addition | Cocoa products | Value addition in Cocoa |
| Innovations | Innovation Database | Mutual sharing of innovations in the field of Agriculture to benefit farmers of both districts. |

**6. Plan of Work for 2012-13**

A. Operational areas details proposed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| S. 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 yearPlease state |
| Existing  | New  |
| 1 | Udumbanchola | Upputhodu, Senapathy, Kattappana, Vandanmedu, Anakkara, Chakkupallom, Rajakumari, Rajakad, Poopara | Anavilasam, Ayyappancoil, Kanthippara, Konnathady, Karunapuram, Parathodu & Vathikudy | Tapioca, Turmeric, Paddy, Nutmeg, Pepper, Cardamom, Vegetables, Azolla, Cocoa, Beekeeping, Banana BananaMushroomCool season vegetablesDairy cattle, Goat, Duck, Quail & Poultry  | 1) Labour scarcity in paddy farming.2) Lack of pepper processing facilities.3) Heavy infestation of root grub in cardamom4) Low productivity in banana. 5) Unscientific nutrient management.6) Unscientific crop management practices.7) Use of local varieties of crops with poor yield potential.8) Less exposure on agri-allied enterprises like mushroom and post harvest technology.9) Yield loss due to stem borer, Tea mosquito bug, thrips and white fly. 10) Incidence of capsule rot, clump rot/rhizome rot in cardamom. 11) Incidence of quick wilt, slow wilt disease in pepper.12) Use of higher dose of pesticides.13) Unawareness on apiculture. 14) Incidence ofleaf folder and stemborer (15- 20%).15) Nutrient deficiency & Unscientific nutrient management. 16) Low degree of value addition in banana17) Mushrooms are highly perishable.18) Value addition is lacking in cool season vegetables.19) Low productivity in poultry.  | 1) Mechanization in paddy farming.2) Mechanized pepper threshing.3) Varietal improvement.4) Crop improvement5) Scientific nutrient management. 6) Productivity improvement of major crops.7) Introduction of high yielding improved crop varieties8) Self-employment and Income generation of rural youth & women.9) IPDM techniques in pepper.10) Popularization of management technology against cardamom root grub.11) Identification & management ofclump rot and rhizome rotin cardamom 12) IntegratedManagement of Tea Mosquito Bug.13) Scientific beekeeping.14) Integrated pest management.15) Scientific Nutrient management.16) Value retrieved banana products.17) Enhancement of shelf life & marketability of mushrooms through product diversification & packaging aspects.18) Integrated approach for value addition in cool season vegetables.19) Introduction of high yielding improved varieties of Livestock & Poultry resulting in self employment and income generation of rural youth & women.  | 2010 onwards2011 onwards2008 onwards2008 onwards2008 onwards2012 onwards2012 onwards2010 onwards |
| 2 | Peermedu | Azhutha block, Kumily & Vandiperiyar | Elappara, Kokkayar, Peruvanthanam, Vagamon & Upputhara | Cardamom,Pepper Banana,Tea, Coffee, Paddy&Vegetables.Dairy cattle, Goat, Poultry & Piggery | 1) Labour scarcity in paddy farming.2) Lack of pepper processing facilities.3) Low yield and high incidence of disease.4) Unscientific crop management practices & use of local varieties of crops with poor yield potential.5) Unscientific Disease Management.6) Indiscriminate use of pesticides. 7) Yield loss due tocoffee berry borer. 8) Incidence ofleaf folder and stem borer (15- 20%).9) Lack of awareness on organic farming.10) Use of inferior quality seedlings.11) Unscientific nutrient management.12) Livestock production & poultry management | 1) Mechanization in paddy farming.2) Mechanized pepper threshing.3) Crop improvement.4) Productivity improvement of major crops.5) Crop protection. 6) Biological control vegetable production system.7) EPN against cardamom root grub. 8) Bio- intensive based IPM against paddy stem borer.9) IPDM techniques in pepper.10) Popularization of protray method.11) Scientific nutrient management.12) Scientific management of Livestock & Poultry. | 2010 onwards2011 onwards2011 onwards2010 onwards2010 onwards2012 onwards2010 onwards |
| 3 | Devikulam | Devikulam, Suryanelli, Chinnakkanal, Santhanpara, Kanthalloor, Marayur, Pallivasal, Vattavada, Vellathooval, Mankulam & Kunchithanny  | Anaveratty, Keezhanthoor, Kottakomboor & Mannamkandam | Cocoa, Tea,Cardamom,Pepper , Banana, Straw berry,Sugarcane,Vegetables &BeekeepingUnder exploited fruits.Dairy cattle, Goat, Poultry & Piggery | 1) Lack of pepper processing facilities.2) Heavy infestation of root grub in cardamom3) Low productivity in banana & Unscientific nutrient management.4) Unscientific crop management practices.5) Use of local varieties of crops with poor yield potential.6) Less exposure on agri-allied enterprises like mushroom and post harvest technology.7) Unscientific cultivation practice.8) Heavy usage of red label pesticides.9) Poor crop protection technologies.10) Poor pollination and low productivity.11) Use of inferior quality seedlings.12) Unscientific nutrient management in cardamom.13) Poor post harvest operations.14) Poor growth rate & body weight gain in dairy animals. | 1) Mechanized pepper threshing.2) Varietal improvement.3) Crop improvement4) Productivity improvement of major crops.5) Introduction of high yielding improved crop varieties6) Self-employment and Income generation of rural youth & women.7) Integrated pest and disease management.8) Seed treatment & IPM practices in vegetables.9) Integrated pest and disease management in pepper.10) Popularization of apiculture.11) Popularization of protray method.12) Site specific nutrient management in cardamom.13) Product diversification & extension of shelf life of under exploited fruits.14) Scientific management of livestock & poultry resulting in self employment and income generation of rural youth & women. | 2010 onwards2008 onwards2008 onwards2010 onwards2012 onwards2012 onwards2010 onwards |
| 4 | Thodupuzha | Elamdesam, Edavetty, Idukki, Kanjikkuzhy, Kodikkulam, Kumaramangalam, Thodupuzha, Udumbannoor & Velliyamattom | Alakkodu, Arakkulam, Elappally, Karikkodu, Karimannoor, Karimkunnam, Kudayathoor, Manakkad, Muttom, Neyyasserry, Purappuzha & Vannappuram | Nutmeg, Cocoa, Tapioca, Pepper, Pine apple, Vegetables & BeekeepingDairy cattle, Goat, Duck, Quail, Poultry & Turkey | 1) Lack of pepper processing facilities.2) Low productivity in banana. 3) Unscientific nutrient management.4) High incidence of disease.5) Unscientific crop management practices.6) Use of local varieties of crops with poor yield potential.7) Less exposure on agri-allied enterprises like mushroom & post harvest technology.8) Incidence of quick wilt, slow wilt disease in pepper.9) Heavy infestation of mealy bug in pineapple.10) Tapioca root rot is a major factor influencing crop stand and responsible for low yield. 11)Poor crop sanitary measures12) Unawareness on apiculture.13) Use of inferior seedlings in vegetables.14) Nutrient deficiency in tapioca.15) Low production in poultry. | 1) Mechanized pepper threshing.2) Crop improvement3) Crop improvement.4) Integrated disease management.5) Productivity improvement of major crops.6) Introduction of high yielding improved crop varieties7) Self-employment and Income generation of rural youth & women.8) IPDM techniques in pepper.9) IPM technologies.10) DiseaseManagement.11) Scientific crop sanitary measures12) Popularization of apiculture.13) Protray nursery method.14) Nutrient management in tapioca.15a) Scientific management of Livestock & Poultry.15b) Self employment and income generation of rural youth & women.15c) Introduction of high yielding improved varieties of Poultry. | 2011 onwards2008 onwards2011 onwards2010 onwards2010 onwards2012 onwards2010 onwards |

B. Prioritized problems and KVK interventions proposed

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Crop/ enterprise  | Taluk/ block | Prioritized problems | Technological solution | Interventions proposed (please tick) |
| TechnologyAssessment | TechnologyRefinement  | FLD | Training | Extensionprogrammes | Production of technology inputs  |
| Banana | Adimali | Low yield | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | - | - | √ | √ | √ | - |
| Vegetables | Adimali | Non-availability of quality vegetables  | Popularization of organic kitchen garden in homesteads for nutritional security | - | - | √ | √ | √ | - |
| Vegetables (Cowpea) | Adimali | Crop improvement | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | √ | - | - | √ | - | - |
| Vegetables (Cauliflower) | Adimali | High cost of private sector seeds | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | - | √ | - | √ | - | - |
| Banana | Adimali | Crop improvement | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | √ | - | - | - | √ | √ |
| Mushroom | Adimali | Crop improvement | Performance of different types of mushrooms for year round production in Idukki district | √ | - | - | √ | - | √ |
| Black Pepper | Adimali | High incidence of pest and diseases in living standards of Black Pepper  | Use of concrete poles as standards in Black Pepper | - | √ | - | - | √ | √ |
| Vegetables | Adimali | Indiscriminate use of chemical fertilizers | Use of microbial consortium for organic production of cowpea | - | - | √ | √ | - | - |
| Vegetables | Adimali | Low fruit set and yield | Foliar spray of Boron to increase the fruit set and size in bitter gourd | - | - | √ |  | √ | - |
| Paddy | Adimali | Labour scarcity | Mechanization in paddy farming. | - | - | √ | √ | √ | - |
| Cardamom | Adimali | Huge economic loss due to root grub attack | Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom | √ | - | - | √ | - | - |
| Vegetables | Adimali | Use of inferior seedlings for planting | Popularization of protray nursery method for the production of superior quality vegetable seedlings | - | - | √ | √ | √ | √ |
| Banana | Adimali | Unaware of organic farming practice from the farmer | Organic pest control management | - | - | - | √ | √ | - |
| Cardamom | Adimali | Poor pollination and low productivity | Popularization of honeybee colonies in cardamom plantation | - | - | √ | √ | √ | - |
| Mushroom | Adimali | Mushrooms are highly perishable | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushrooms | √ | - | - | √ | √ | - |
| Under exploited fruits | Adimali | Under exploited fruits are wasted | Product diversification & extension of shelf life of under exploited fruits | - | - | √ | √ | - | √ |
| Dairy cattle | Adimali | Unaware of mixed fodder system | Popularization of mixed fodder system | - | - | √ | √ | √ | √ |
| Poultry duck | Adimali | Low meat production | Performance Vigova Super M duck in backyard system | - | - | √ | √ | √ | √ |

**7. Details of technological interventions**

## A. Technology Assessment

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Crop/ enterprise** | **Prioritized problem** | **Title of intervention** | **Technological options** | **Source** | **No. of trials** | **Details of inputs** | **Total cost involved (Rs.)** | **Names of the team members involved** |
| 1 | Cardamom | The most popular cardamom variety ie. Njallani is highly susceptible to pests/diseases and the heavy usage of PPC for the control is disturbing the natural ecological system existing in the district. | Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom.(Ongoing) | **Tech 1:** – Njallani variety cardamom**Tech 2:** – Thiruthali Cardamom | Farmer developedFarmer developed – scientifically validated by ICAR, ICRI & IISR for its root grub resistance | 5 | Urea - 170 Kg @ 7 Rs/kgRajphos - 375 Kg @ 6 Rs/kgMOP - 250 Kg@ Rs 12/kg(In built recommended fertilizer package) | 1190.002250.003000.00 | Mr. Pramod Chacko (SMS-Agronomy) &Mr. Sudhakar Soundarajan (SMS-Plant Protection)  |
|  |  |  |  |  |  |  | **Total** | **6440.00** |  |
| 2 | Cardamom | Recurringoccurrence of Pest. Indiscriminate pesticide use | Management of cardamom root grub*, Basilepta fulvicorne* with Microbial Biopesticides | **Tech 1:** –Drenching Chlorpyriphos as recommended by local pesticide dealers.**Tech 2:** – *Metarhizium anisopliae @ 2*5g/plant + *Beauveria bassiana* @ 25g/plant with cow dung.**Tech 3:** – EPN (IJs) @ 4 cadavers/plant. | ICRIICRIICRI | 5 | *Metarhizium anisopliae* -10 kg*Beauveria bassiana*-10 kg EPN - 1600 cadaver  | 3000.003000.003200.00 | Mr. Sudhakar Soundarajan (SMS-Plant Protection) &Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **9,200.00** |  |
| 3 | Black Pepper | High incidence of pest and diseases in living standards of Black Pepper  | Use of concrete poles as standards in Black Pepper | **Tech 1: -** Farmers practice - Live standards of Glyricidia**Tech 2:-** Live standards of Erythrina.**Tech 3:-** Concrete Poles.  | -KAUIISR  | 3 | Materials for making concrete poles and its erection Cement @ Rs.350 x 5 sack x 3 trialsGI @ Rs.280 x 30 kg x 3 trialsMoulds @ Rs.500 x 3nos. Erection costs @ Rs.500 x 2 mandays x 3 trialsPlanting materials @ Rs. 6.00 x 10 nos x 3 trialsFertilizers, PP chemicals etc.(need based and lump sum) | 5250.0025200.001500.003000.001800.003000.00 | Dr. Binu John Sam (SMS-Horticulture) & Ms. Manju Jincy Varghese (SMS-Soil Science) |
|  |  |  |  |  |  |  | **Total** | **39,750.00** |  |
| 4 | Banana | Crop improvement | Different types of props and supports to mitigate lodging / breaking of banana pseudostem | **Tech 1: –** Farmers practice **(**Single propping by bamboo/ casuarina / eucalyptus props)**Tech 2: –** Double propping by bamboo/ casuarina/ eucalyptus props**Tech 3: –** Support by ¾ inch nylon / polythene tapes  | KAUTNAU | 4 | -Bamboo/ Casuarina / Eucalyptus props (Rs.110 x 2 props x 20 plants x 3 trial)Cost of tying material (Rs.10 x 20 plants x 3 trial)¾ inch nylon / polythene tapes (Rs.100 x 20 plants x 3 trial) | 0.0013200.00600.006000.00 | Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **19,800.00** |  |
| 5 | Vegetables | Non-availability of improved varietyPoor yield & Less profitabilityHigh disease incidence | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | **Tech 1:** – Lola**Tech 2:** – Vellayani Jyothika**Tech 3: –**Arka Mangala**Tech 4: –** C.B.2001  | KAUKAUIIHRFarmer var. | 5 | Seeds 500g eachBioagents | 3250.001000.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension) & Mr. Pramod Chacko (SMS-Agronomy) |
|  |  |  |  |  |  |  | **Total** | **4,250.00** |  |
| 6 | Cauliflower | High cost of private sector seeds | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District  | **Tech 1 :–** NS 60**Tech 2:** – Pusa Meghna & Pusa Shakthi  | KAUIARI | 5 | SeedsFertilizers | 2000.001000.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
|  |  |  |  |  |  |  | **Total** | **3,000.00** |  |
| 7 | Mushroom | Crop improvement | Performance of different types of mushrooms for year round production in Idukki district | **Tech 1: –** Oyster Mushroom**Tech 2: –** Milky Mushroom | KAU | 4 | Spawn-(Rs.35 x 50 nos. x 4 trial)Bed covers-(Rs.3 x 100 nos. x 4 trial)Spawn-(Rs.35 x 50 nos. x 4 trial)Bed covers-(Rs.3 x 100 nos. x 4 trial)Casing materials:-CaCO3(Rs.250 x 1kg x 4 trial)Vermicompost (Rs.30 x 6kg x 4 trial) | 7000.001200.007000.001200.001000.00720.00 | Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **18,120.00** |  |
| 8 | Mushroom | Mushrooms are highly perishable | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushrooms | **Tech 1:** – Farmers practice (Ordinary polythene covers).**Tech 2:** – Tray packs covered with cling film**Tech 3: –**Stand pack | -DMR, SolanDMR, Solan | 3 | -Tray pack-300 nos. @ Rs.8Cling film-6 rolls @ Rs.60Stand packs-100 nos. @ Rs.5 | 0.002400.00360.001500.00 | Ms. Jayisy Joseph (Programme Asst.-Home Science) & Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **4,260.00** |  |

## B. Technology Refinement: Nil.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Crop/ enterprise | Prioritized problem  | Title of intervention | Technological options  | Source  | No. of trials  | Details of inputs  | Total cost involved (Rs.) | Names of the team members involved  |
| 1 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**C. Frontline Demonstrations**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Category/Crop or enterprise | Prioritized problem  | Title of Technology | Source  | No. of Demo | Area (ha)/ Units | Details of critical inputs  | Total cost involved (Rs.) | Names of the team members involved  |
| **A** | **CEREALS & MILLETS** |  |  |  |  |  |  |  |  |
| 1 | Paddy | Uneconomic paddy farming due to labour shortage and labour cost | Mechanization in paddy farming | Successful implementation of FLD at Senapathy Paddy belt during 2011-12. | 10 | 5 | Plastic sheet-10 nos. @ Rs.200/sheetOperational expense | 2000.0012000.00 | Mr. Pramod Chacko (SMS-Agronomy) & Mr. Sudhakar Soundarajan (SMS-Plant Protection)  |
|  |  |  |  |  |  |  | **Total** | **14,000.00** |  |
| **B** | **OILSEEDS** |  |  |  |  |  |  |  |  |
| **C** | **PULSES** |  |  |  |  |  |  |  |  |
| **D** | **COTTON** |  |  |  |  |  |  |  |  |
| **E** | **OTHER COMMERICAL CROPS** |  |  |  |  |  |  |  |  |
| 1 | Cardamom | Lack of enough honey bee colonies in the field results in poor pollination and low productivity | Popularization of honeybee colonies in cardamom plantation | KAU | 5 | 2.5 ha | 1) Bee hives with colony 10 @ Rs.1100 | 11000.00 | Mr. Sudhakar Soundarajan (SMS-Plant Protection) & Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **11,000.00** |  |
| **F** | **HORTICULTURAL CROPS** |  |  |  |  |  |  |  |  |
| 1 | Vegetables | Indiscriminate use of chemical fertilizers | Use of microbial consortium for organic production of cowpea | KAU | 4 | 0.08 ha | Rhizobium-1 kg @ Rs.80 x 4 demoVAM-1 kg @ Rs.80 x 4 demoPanchagavyam-1 L @ Rs.200 x 4 demo | 320.00320.00800.00 | Dr. Binu John Sam (SMS-Horticulture), Mr. Pramod Chacko (SMS-Agronomy) & Ms. Manju Jincy Varghese (SMS-Soil Science) |
|  |  |  |  |  |  |  | **Total** | **1,440.00** |  |
| 2 | Vegetables | Low fruit set and yield | Foliar spray of Boron to increase the fruit set and size in bitter gourd | IIHR | 3 | 0.05 ha | Boric acid / Borax @ Rs.1650 x 3 demo | 4950.00 | Dr. Binu John Sam (SMS-Horticulture) & Ms. Manju Jincy Varghese (SMS-Soil Science) |
|  |  |  |  |  |  |  | **Total** | **4,950.00** |  |
| 3 | Vegetables | Non availability of quality vegetables | Popularization of organic kitchen garden in homesteads for nutritional security | - | 20 | 0.16 ha | Vegetable seedsBio agents | 1500.001000.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
|  |  |  |  |  |  |  | **Total** | **2,500.00** |  |
| 4 | Banana | Low productivity | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | IIHR & KAU | 10 | 2 ha | IIHR Banana SpecialK2SO4 | 6250.002500.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
|  |  |  |  |  |  |  | **Total** | **8,750.00** |  |
| 5 | Vegetables | Conventional method of vegetable seedling production involves high input cost | Popularization of protray nursery method for the production of superior quality vegetable seedlings | KAU | 5 | 5 units | 1) Protray-20 nos. @ Rs.25 / tray x 52) Cocopeat-10 kg @ Rs.25 x 53) Vermicompost-10 kg @ Rs.25 x 54) Pseudomonas-2 kg @ Rs.100 x 5 | 2500.001250.001250.001000.00 | Ms. Manju Jincy Varghese (SMS-Soil Science) & Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **6,000.00** |  |
| **G** | **LIVESTOCK/ FISHEIRES** |  |  |  |  |  |  |  |  |
| 1 | Poultry-Duck | Low meat production | Performance of Vigova Super M duck in backyard system | CPDO, Hessaraghatta | 10  | 100 birds | Vigova Super M duckling Feed, Medicine & Vitamin supplements | 13000.0010150.00 | Dr. S. Jayababu (SMS-Animal Husbandry) |
|  |  |  |  |  |  |  | **Total** | **23,150.00** |  |
| 2 | Dairy cattle | Unaware of Mixed fodder system | Popularization of Mixed fodder system | TANUVAS | 20 | 4 ha | 1) CO-4 (40000 sets)2) COFS-29 (5 kg)3) Desmanthus (10 kg)4) Agathi (24 kg)5) Subabul (20 kg) | 10000.001500.005100.004800.001880.00 | Dr. S. Jayababu (SMS-Animal Husbandry) |
|  |  |  |  |  |  |  | **Total** | **23,280.00** |  |
| **H** | **OTHER ENTERPRISES** |  |  |  |  |  |  |  |  |
| 1 | Under exploited fruit | Under exploited fruits are wasted in season.  | Product diversification & extension of shelf life of under exploited fruits | IIHR, Bangalore | 3 | 3 | 1) Class-I preservatives-3 nos. @ Rs.10002) Class-II preservatives-3 nos. @ Rs.3003) Packaging materials-3 nos. @ Rs.600 | 3000.00900.001800.00 | Ms. Jayisy Joseph (Programme Asst.-Home Science) & Dr. Binu John Sam (SMS-Horticulture) |
|  |  |  |  |  |  |  | **Total** | **5,700.00** |  |

**D. Trainings**

**i) Farmers/ Farm Women**

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| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Crop / Enterprise** | **Major problem** | **Linked field intervention (Assessment/****Refinement/FLD)\*** | **Training Course Title\*\*** | **No. of Courses** | **Names of the team members involved** |
| 1 | Vegetables | Indiscriminate use of chemicals | Popularization of organic kitchen garden in homesteads for nutritional security | Organic vegetable cultivation | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 2 | Vegetables | High cost of private sector seeds  | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Cool season vegetable cultivation | 3 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 3 | Banana | Unscientific nutrient application | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Scientific banana cultivation of Nendran banana in high ranges of Idukki | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 4 | Mushrooms | Unscientific and non-commercial cultivation practices of mushrooms | - | Scientific Oyster Mushroom cultivation | 4 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 5 | Mushrooms | Unscientific and non-commercial cultivation of mushrooms | Performance of different types of mushrooms for year round production in Idukki district | Scientific Mushroom cultivation | 5 | Dr. Binu John Sam (SMS-Horticulture) |
| 6 | Vegetables | Indiscriminate use of chemicals | Use of microbial consortium for organic production of cowpea | Organic farming in vegetables | 3 | Dr. Binu John Sam (SMS-Horticulture) |
| 7 | Vegetables | Indiscriminate use of chemicals | Popularization of organic kitchen garden in homesteads for nutritional security | Organic vegetable cultivation | 2 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 8 | Vegetables | High cost of private sector seeds  | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Cool season vegetable cultivation | 2 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 9 | Cardamom | Lack of knowledge in organic farming  | - | Organic cultivation techniques in cardamom | 3 | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
| 10 | Cardamom | Unscientific IPDM | - | Integrated pest and disease management in cardamom | 3 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese  |
| 11 | Cardamom | Excessive use of pp chemicals | - | Organic pest and disease management in cardamom | 3 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| 12 | Cardamom | Heavy usage of red and yellow label pesticides | Management of cardamom root grub, Basilepta fulvicorne with Microbial Biopesticides | Green label pesticides for the control of cardamom root grub management  | 3 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| 13 | Cardamom | Indiscriminate usage of plant protection chemicals for pest/disease management | Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom | Popularization of root grub resistant cardamom variety.  | 3 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan  |
| 14 | Cardamom | Unaware of organic pest management | - | EPN-Mass multiplication, formulation and field application  | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| 15 | Pepper  | Improper plant protection methodsExcessive application of fertilizers | - | Improved cultivation practice in pepper | 3 | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
| 16 | Pepper  | Severe incidence of pest and diseasePoor plant protection methods followed  | - | Integrated pest and disease management in pepper | 3 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 17 | Pepper | Lack of pepper processing facilities | - | Technology transfer on mechanized pepper threshing | 5 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan  |
| 18 | Cocoa  | Improper diagnosis of the diseaseby majority of the farmers.Inadequate control measures | - | Integrated pest and disease management in Cocoa | 3 | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
| 19 | Nutmeg | Unscientific crop management | - | Integrated pest and disease management in Nutmeg | 3 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 20 | Paddy | Lack of knowledge in identification of pest and disease | - | Bio-intensive based IPM against paddy stem borer | 3 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| 21 | Paddy | Lack of technical knowhow in organic rice cultivation | - | Organic rice cultivation techniques | 5 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| 22 | Tapioca | Unscientific crop management | - | Integrated pest and disease management in Tapioca | 3 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 23 | Vegetables | Poor IDMadopted | - | Vegetable crop diseases and their management | 3 | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
| 24 | Tapioca | Unscientific nutrient management | - | Nutrient Management in Tapioca | 2 | Ms. Manju Jincy Varghese &Dr. Binu John Sam |
| 25 | Pepper | Lack of value added products | - | Quality improvement of Pepper through value addition | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 26 | Jack fruit | Fruits are wasted in season | Product diversification & extension of shelf life of under exploited fruits | Value added jack products | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 27 | Fruits & vegetables | Price fluctuation of fruits, lack of preservation. | - | Value added products from fruits & vegetables | 3 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 28 | Mushroom | Mushrooms are highly perishable | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushrooms | Product preparation with mushrooms | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 29 | Dairy | 1) Low price for milk sold through processing centres.2) High cost of feeds.3) Poor growth rate.4) Infertility & diseases. | - | 1) Milk product preparation.2) Improved technology for reduction of feed cost in dairy. 3) Industry made calves rearing for beef production.4) Breeding problems and solutions in dairy cattle and technology management.  | 6223 | Dr. S. Jayababu (SMS – Animal Husbandry) |
| 30 | Poultry | 1) Unscientific management results in poor egg yield.2) Unawareness of new poultry breeds. | -  | 1) Introducing of new poultry breeds.2) Quail rearing for meat & egg production.3) Turkey rearing & its management.4) Disease management in desi birds.5) Rearing techniques of desi birds, quails and Turkey in rural areas.6) Scientific Duck management. | 16 | Dr. S. Jayababu (SMS – Animal Husbandry) |

**ii) Rural Youth**

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| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Crop / Enterprise** | **Major problem** | **Linked field intervention (Assessment/****Refinement/FLD)\*** | **Training Course Title\*\*** | **No. of Courses** | **Names of the team members involved** |
| 1 | Paddy | Lack of technical knowhow in farm mechanization | Mechanization in paddy farming | Mechanized paddy farming | 5 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| 2 | Vegetables | Indiscriminate use of chemicals | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Organic vegetable cultivation | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 3 | Vegetables | High cost of private sector seeds  | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Cool season vegetable cultivation | 3 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 4 | Banana | Unscientific nutrient application | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana special & Potassium Sulphate Spray | Scientific banana cultivation of Nendran banana in high ranges of Idukki | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 5 | Mushrooms | Unscientific and non-commercial cultivation practices of mushrooms | - | Scientific Oyster Mushroom cultivation | 4 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 6 | Mushrooms | Unscientific and non-commercial cultivation of mushrooms |  Performance of different types of mushrooms for year round production in Idukki district | Scientific Mushroom cultivation | 4 | Dr. Binu John Sam (SMS-Horticulture) |
| 7 | Vegetables | Indiscriminate use of chemicals | Use of microbial consortium for organic production of cowpea | Organic farming in vegetables | 3 | Dr. Binu John Sam (SMS-Horticulture) |
| 8 | Bio-agent | Unavailability of good quality products | - | Production of *Trichoderma* and *Pseudomonas* | 5 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 9 | Bio-agent | Unavailability of product | Management of cardamom root grub, *Basilepta fulvicorne* with Microbial Biopesticides | Production of EPN | 5 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 10 | Bio-pesticides | Unawareness of microbial pesticides  | - | Production of *Beauveria* and *Metarhizium* | 5 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 11 | Botanical pesticides | Unaware of organic crop management | - | Botanical pesticides in spice crops | 5 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 12 | Organic farming | Less use of organic inputs | - | Organic farming practices | 3 | Ms. Manju Jincy Varghese & Mr. Sudhakar Soundarajan |
| 13 | Cardamom | Price fluctuation in Cardamom | - | Pickling aspects & income generation | 1 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 14 | Pepper | Value addition is lacking in Pepper | - | Pepper value added products (Pepper pickle, White pepper, Pepper powder) | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 15 | Pepper | Unawareness on effective use of consortium bio fertilizers  | - | Effective use of consortium bio fertilizers in black pepper for improved productivity | 3 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| 16 | Fruits & vegetables | Fruit & vegetable processing to be promoted in SHGs | - | Post harvest techniques on fruits & vegetables | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 17 | Under exploited fruits | Plenty of fruits are wasted in season | Product diversification & extension of shelf life of under exploited fruits | Product diversification | 2 | Ms. Jayisy Joseph & Dr. Binu John Sam |
| 18 | Dairy cattle | 1) Value addition of farm produce.2) High cost of cattle feeds & unaware of fodder cultivation.3) Poor quality of milk. | -Popularization of mixed fodder system.- | 1) Preparation of milk products.1) Low cost of feed preparation.2) Importance of deworming. 3) Popularization of mixed fodder system.4) Value addition in milk & meat.1) Hygienic milk production.  | 583 | Dr. S. Jayababu (SMS – Animal Husbandry) |
| 19 | Goat | Poor growth performance | - | 1) Control of ecto & endo parasites in goats.2) Goat management. | 4 | Dr. S. Jayababu (SMS – Animal Husbandry) |

\* Title of intervention/title of technology, \*\* Training title should specify the major technology/skill to be transferred.

### iii) Extension Personnel

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| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Crop / Enterprise** | **Major problem** | **Linked field intervention (Assessment/****Refinement/FLD)\*** | **Training Course Title\*\*** | **No. of Courses** | **Names of the team members involved** |
| 1 | Paddy | Lack of technical knowhow in farm mechanization | Mechanization in paddy farming | Mechanized paddy farming | 2 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| 2 | Mushrooms | Non availability of good quality spawn | - | Spawn production techniques | 2 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 3 | Banana | Unscientific nutrient application | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Scientific banana cultivation of Nendran banana in high ranges of Idukki | 1 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 4 | Vegetables | Non availability of good quality seeds | - | Vegetable seed production | 1 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 5 | Vegetables | Low productivity | Use of microbial consortium for organic production of cowpea | Preparation and use of microbial consortium to increase yield of vegetable crops | 1 | Dr. Binu John Sam (SMS-Horticulture) |
| 6 | Mushroom | Mushroom | Performance of different types of mushrooms for year round production in Idukki district | Year round production of different type of mushrooms | 1 | Dr. Binu John Sam (SMS-Horticulture) |
| 7 | Spices  | Without knowledge of recent techniques | - | Improved cultivation practice of spices | 1 | Mr. Sudhakar Soundarajan &Mr. Pramod Chacko |
| 8 | Beekeeping | Lack of apiary knowledge | Popularization of honeybee colonies in cardamom plantation | Beekeeping in spices  | 2 | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| 9 | Soil testing | Unscientific fertilizer use | - | Importance of soil testing in balanced fertilization | 1 | Ms. Manju Jincy Varghese |
| 10 | Value addition | Inadequate knowledge on value addition | - | Value added product preparation | 1 | Ms. Jayisy Joseph |
| 11 | Vegetable paper models | Wealth through waste materials for work experience | - | Practical training on model preparation with vegetables & fruits | 1 | Ms. Jayisy Joseph |
| 12 | Value addition | Inadequate knowledge on value addition | Product diversification & extension of shelf life of under exploited fruits | Post harvest techniques & product preparation  | 1 | Ms. Jayisy Joseph |
| 13 | Dairy cattle | Poor growth performance & low milk yield. | -  | 1) Importance of mineral supplementation in cattle feeds.2) To reduce feed wastage in cattle ration. | 2 | Dr. S. Jayababu (SMS – Animal Husbandry) |

## iv) Vocational trainings

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| --- | --- | --- | --- | --- |
| **Crop / Enterprise** | **Training title\*** | **No. of programmes and Duration (days)** | **Type of Clientele****(SHGs, NYKs, School students, Women, Youth etc.)** | **Names of the team members involved** |
| Paddy | Mechanization in paddy farming | 2 (2) | SHGs, Farm Women, Youth & School Students | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| Pepper | Mechanized pepper threshing | 2 (2) | SHGs, Farm Women & Youth | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| Mushrooms | Commercial spawn Production  | 2 (2) | SHGs, NYKs, Farm Women, Rural Youth | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Horticulture | Horticulture nursery techniques | 2 (2) | SHGs, NYKs, Farm Women, Rural Youth | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Mushrooms | Commercial Production of Mushrooms | 3 (2) | SHGs, NYKs, Farm Women, Rural Youth | Dr. Binu John Sam (SMS-Horticulture)  |
| Beekeeping | Bees Best for Cardamom  | 5 (3) | SHGs and School students | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
| Bio-agent | Mass production of *Trichoderma* and *Pseudomonas* | 5 (2) | SHGs and School students | Mr. Sudhakar Soundarajan &Mr. Pramod Chacko |
| Plant protection | Improved plant protection techniques in spices | 5 (5) | SHGs and School students | Mr. Sudhakar Soundarajan &Mr. Pramod Chacko |
| Organic farming | Importance & role of bio fertilizers | 2 (2) | School students & Youth | Ms. Manju Jincy Varghese (SMS-Soil Science) & Dr. Binu John Sam (SMS-Horticulture) |
| Value addition | Fruit & vegetable preservation recipes and demonstration | 3 (4) | SHGs, School students & Youth | Ms. Jayisy Joseph |
| Under exploited fruits & vegetables | Value added product preparation with fruits & vegetables | 2 (5) | SHGs & Youth | Ms. Jayisy Joseph |
| Locally available fruits & vegetables | Pickling aspects & Wine making | 2 (4) | SHGs & Youth | Ms. Jayisy Joseph |
| Dairy cattle | 1) Development and improvement of technology for value addition, shelf life enhancement at quality assurance of livestock & poultry products.2) Improvement in reproduce efficiency.3) Hygienic milk production.  | 2 (5)4 (2)1 (4) | SHGs, Youth & School StudentsRural youthRural youth & SHGs | Dr. S. Jayababu (SMS – Animal Husbandry) |
| Goat | Scientific goat management | 1 (3) | Rural youth & SHGs | Dr. S. Jayababu (SMS – Animal Husbandry) |

\* Training title should specify the major technology/skill to be transferred.

## v) Sponsored trainings

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| --- | --- | --- | --- | --- |
| **Crop/ Enterprise** | **Sponsoring Organization** | **Training course title\*** | **No. of****Courses** | **Names of the team members involved** |
| Mushrooms | NGO’s in Idukki distt. | Scientific Cultivation of Mushrooms | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Vegetables | Lead Banks | Popularization of nutritional gardens in homesteads. | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Banana | Dept. of Agriculture, Govt. of Kerala | Scientific banana cultivation | 10 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Vegetables | Dept. of Agriculture, Govt. of Kerala, Lead bank etc. | Cool season vegetable cultivation | 5 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Mushrooms | Dept. of Agriculture, Govt. of Kerala | Scientific Cultivation of Mushrooms | 8 | Dr. Binu John Sam (SMS-Horticulture)  |
| Vegetables | Lead Banks | Organic practices in vegetables | 2 | Dr. Binu John Sam (SMS-Horticulture)  |
| Banana | Dept. of Agriculture, Govt. of Kerala | Scientific banana cultivation | 2 | Dr. Binu John Sam (SMS-Horticulture)  |
| Cardamom | Department of Agriculture | Organic production techniques in cardamom | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Cardamom | Block Panchayath | Organic production techniques in cardamom | 2 | Mr. Sudhakar Soundarajan & Ms. Manju Jincy Varghese |
| Cardamom | Department of Agriculture | Organic production techniques in cardamom | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Cardamom | Department of Agriculture | Innovations to facilitate organic cardamom cultivation | 2 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan  |
| Spices | NGO’s in Idukki distt. | Organic certification aspects | 2 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan |
| Pepper | Block Panchayath | Improved cultivation practice in pepper | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| pepper | Department of Agriculture | Improved cultivation practice in pepper | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Pepper | UNINET | Improved cultivation practice in pepper | 2 | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Pepper | Block Panchayath | Farmer developed pest/disease resistant varieties | 2 | Mr. Pramod Chacko & Mr. Sudhakar Soundarajan  |
| Cocoa | Block Panchayath | Improved cultivation practice in Cocoa | 2 | Mr. Sudhakar Soundarajan & Ms. Manju Jincy Varghese |
| Nutmeg | Department of Agriculture | Improved cultivation practice in Nutmeg | 2 | Mr. Sudhakar Soundarajan & Ms. Manju Jincy Varghese |
| Vegetables | Department of Agriculture | Organic production techniques in vegetables | 2 | Mr. Sudhakar Soundarajan & Dr. Binu John Sam |
| Organic farming | UBI (Training Wing) | Importance of Bio fertilizers & vermicomposting | 2 | Ms. Manju Jincy Varghese (SMS-Soil Science) & Dr. Binu John Sam (SMS-Horticulture) |
| Vegetables & fruits | Coffee Board | Post harvest techniques & product preparation | 2 | Ms. Jayisy Joseph |
| Value addition | UBI (Training Wing) | Value added products of banana, pickling aspects | 1 | Ms. Jayisy Joseph |
| Vegetables & fruits | Agricultural Office | Post harvest handling & preservation | 2 | Ms. Jayisy Joseph |
| Dairy cattle | 1) Block Panchayath2) UBI (Training Wing)3) SBT Rajakumari | 1) EDP & Value addition of milk.2) Milk product preparation.3) Scientific dairy cattle management. | 142 | Dr. S. Jayababu (SMS – Animal Husbandry) |
| Goat | Block Panchayath | Scientific goat management. | 3 | Dr. S. Jayababu (SMS – Animal Husbandry) |
| Rabbit | Block Panchayath | Rabbit rearing | 2 | Dr. S. Jayababu (SMS – Animal Husbandry) |
| Poultry | 1) HRDS2) Block Panchayath | 1) Poultry farming -desi bird & broiler chicken.2) Poultry management. | 33 | Dr. S. Jayababu (SMS – Animal Husbandry) |

**E. Extension programmes**

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| --- | --- | --- | --- | --- |
| **Month** | **Extension programme\*** | **Linked field intervention\*\*** | **Expected category of participants** | **Names of the team members involved** |
| **April** |  |  |  |  |
|  | Field Visits, Training & Method demonstration | Performance of different types of mushrooms for year round production in Idukki district | Farmers, Farm Women | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
|  | Field visits - Monitoring | Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom | Farmers | Mr.Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Group meetings – Follow up activities | Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom | Farmers |
|  | Group meeting, training ,field visits, demonstration | Popularization of honeybee colonies in cardamom plantation | Farmers/farmwomen& vocational trainings | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Training  | Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers/farmwomen | Ms. Manju Jincy Varghese |
|  | Demonstration – Popularization of protray method in vegetables  | Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | Group meetings | Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushrooms | Rural Youth | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
| **May** |  |  |  |  |
|  | Field Visits | Use of microbial consortium in cowpea | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits, method demonstration | Foliar spray of Boron to increase the fruit set and size in bitter gourd |
|  | Field Visits, Campaign , Trainings etc. | Popularization of organic kitchen garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
|  | Radio talk | Mechanization in paddy farming |  - | Mr.Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Campaigns | Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Farmers convention & beneficiary selection | Mechanization in paddy farming | Farmers, Farm women & Rural youth |
|  | Training | EPN-Mass multiplication, formulation and field application | Farmers & Farmwomen | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
|  | Field Visit | Product diversification & extension of shelf life of under exploited fruits | Farmers & Farmwomen | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Field visit, Group meeting, Seminars & Radio talk | FLD - Performance of Vigova Super M duck in backyard system | Farmers, Farmwomen & Rural Youth | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **June** |  |  |  |  |
|  | Field Visits, campaigns | Use of microbial consortium for organic production of cowpea | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
|  | Training & distribution of critical inputs | Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr.Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Brochure distribution on mechanization in paddy | Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Method demonstration – Mat nursery preparation | Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Technical training session on paddy transplanter | Mechanization in paddy farming | Farmers, Farm women & Rural youth |
|  | Training | Use of concrete poles as standards in Black Pepper | Farmers & Farmwomen | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
|  | Demonstration – media preparation of protrays | Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | FAS, Demonstration | Product diversification & extension of shelf life of under exploited fruits | SHGs & Kudumbasree units | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Farmers convention, Seminar, Field visit & Method demonstration  | FLD - Performance of Vigova Super M duck in backyard system, Popularization of mixed fodder system & Training | Farmers, Farmwomen & Rural Youth | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **July** |  |  |  |  |
|  | Training | Organic farming | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits | Foliar spray of Boron to increase the fruit set and size in cucurbits | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
|  | Field visit | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings | Mechanization in paddy farming | SHGs, Farm Women, Youth & School Students |
| Technical training session on conoweeder  | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Field visits & distribution of critical inputs | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom | Farmers |
|  | Training | Popularization of honeybee colonies in cardamom plantation | Vocational trainings | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
|  | Field visit | FLD - Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | Demonstration, FAS | Product diversification & extension of shelf life of under exploited fruits | Farmwomen, Kudumbasree units | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Farmers convention, Seminar, Field visit, Method demonstration & Radio talk | FLD - Popularization of mixed fodder system & Performance of Vigova Super M duck in backyard system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **August** |  |  |  |  |
|  | Field Visits | Use of microbial consortium for organic production of cowpea | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits, campaign | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of organic kitchen garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits &Training | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Farmers &Farm Women |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Monitoring & distribution of critical inputs | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings | Organic certification aspects | Farmers, Farm women & Rural youth |
| Field visits & monitoring | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Field visit, group meeting  | OFT- Management of cardamom root grub, Basilepta fulvicorne with Microbial Biopesticides | Farmers & Farmwomen | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Training | Production of *Beauveria* and *Metarhizium* | Rural Youth& Vocational trainings | Mr. Sudhakar Soundarajan &Ms. Manju Jincy Varghese |
|  | Demonstration & Field visit | FLD- Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | Farmers convention, Seminar, Field visit, Method demonstration & Radio talk | FLD - Popularization of mixed fodder system & Performance of Vigova Super M duck in backyard system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **September** |  |  |  |  |
|  | Field Visits & Method demonstration | Use of microbial consortium for organic production of cowpea | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Field visits & monitoring | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings | Farmer developed pest/disease resistant varieties of spices | Farmers, Farm women & Rural youth |
| Monitoring & distribution of critical inputs | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
|  | Training, field visit, demonstration, field day | FLD- Popularization of honeybee colonies in cardamom plantation | Farmers & Farmwomen | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
| Training | Integrated pest and disease management in Cocoa | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
|  | Field day – production of superior quality seedlings through protray nursery method | FLD - Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | Group meeting & demonstration | FLD - Assessment of different types of packaging materials for enhancement of shelf life and marketability in mushrooms | Rural youth, Farmwomen | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Field visit, Field day & Farmers convention | FLD - Popularization of mixed fodder system & Performance of Vigova Super M duck in backyard system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **October** |  |  |  |  |
|  | Training | Organic farming | Farmers & Farmwomen | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits, campaign | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Farmers & Farm Women |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Technical training session on paddy reaper | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Technical training session on paddy thresher | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Field visit, monitoring, harvest festival & evaluation | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Field visits & distribution of critical inputs | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Field visit | FLD- Popularization of honeybee colonies in cardamom plantation | Farmers & Farmwomen | Mr. Sudhakar Soundarajan & Mr. Pramod Chacko |
|  | Group meeting | FLD - Popularization of protray nursery method for the production of superior quality vegetable seedlings | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
|  | Seminar | World Food Day | Rural youth , School students | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Field day, Farmers convention & Radio talk | FLD - Popularization of mixed fodder system & Performance of Vigova Super M duck in backyard system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **November** |  |  |  |  |
|  | Field Visits | Use of microbial consortium for organic production of cowpea | Farmers & Farm Women | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits, Campaign | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment of suitable cultivars of Cauliflower for High Ranges of Idukki District | Farmers & Farm Women |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Farmers feed back | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Radio talk | Mechanized pepper threshing | - |
| Campaigns | Mechanized pepper threshing | Farmers, Farm women & Rural youth |
| Field visits & data collection | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Soil test campaign | General | Farmers & Farmwomen | Ms. Manju Jincy Varghese (SMS – Soil Science) |
| Group discussion | FLD - Popularization of protray nursery method for the production of superior quality vegetable seedlings |
| **December** |  |  |  |  |
|  | Training | Organic farming | Farmers & Farm Women | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits | Use of microbial consortium for organic production of cowpea | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Monitoring & data collection | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings |  Mechanized pepper threshing | SHGs, Farm Women & Youth |
| Technology transfer on machineries in paddy farming | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Facilitation of available machineries in paddy farming | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
|  | FAS, Demonstration | Value added product preparation | Farmwomen, Extension functionaries | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Group meeting, Seminar, Field visit & Campaign | FLD - Performance of Vigova Super M duck in backyard system, Popularization of mixed fodder system & Health Camp | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **January** |  |  |  |  |
|  | Training | Organic farming | Farmers & Farm Women | Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits, *method demonstration* | Foliar spray of Boron to increase the fruit set and size in bitter gourd | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Trainings | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Distribution of leaflets on pepper thresher | Mechanized pepper threshing | Farmers, Farm women & Rural youth |
| Technical training session on pepper thresher | Mechanized pepper threshing | Farmers, Farm women & Rural youth |
| Monitoring & data collection | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Field visit | FLD- Popularization of honeybee colonies in cardamom plantation | Farmers & Farmwomen | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
|  | Field visit, Method demonstration | Value addition | Rural youth, SHGs & Farmwomen | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Group meeting, Seminar, Field visit, Campaign & Method demonstration | FLD - Performance of Vigova Super M duck in backyard system, Popularization of mixed fodder system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **February** |  |  |  |  |
|  | Training | Organic farming | Farmers & Farm Women |  Dr. Binu John Sam (SMS-Horticulture)  |
| Field Visits | Use of microbial consortium for organic production of cowpea | Dr. Binu John Sam (SMS-Horticulture)  |
|  | Field Visits, Campaign , Trainings etc. | Popularization of Organic Kitchen Garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
| Field Visits & Training | Assessment on performance of cowpea varieties Vellayani Jyothika Arka Mangala & C.B.2001 against Lola in Idukki district | Farmers, Farm Women & Rural youth |
|  | Technical training session on pepper thresher & data collection | Mechanized pepper threshing | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth |
| Monitoring & data collection | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Demonstration, FAS | By-product utilization | Farmwomen, Rural youth | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Field day, Group meeting, Field visit & Exhibition | FLD - Performance of Vigova Super M duck in backyard system, Popularization of mixed fodder system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |
| **March** |  |  |  |  |
|  | Field Visits | Use of microbial consortium for organic production of cowpea | Farmers & Farm Women | Dr. Binu John Sam (SMS-Horticulture)  |
| Training | Organic farming |
| Field Visits | Foliar spray of Boron to increase the fruit set and size in bitter gourd |
|  | Field Visits, Campaign , Trainings etc. | Popularization of organic kitchen garden in homesteads for nutritional security | Farmers & Farm Women | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Field Visits, Method demonstration, Field days etc. | Integrated Nutrient Management of Nendran Banana under the agro climatic conditions of High Ranges of Idukki along with IIHR Banana Special & Potassium Sulphate Spray | Farmers, Farm Women & Rural youth |
|  | Trainings | FLD – Mechanization in paddy farming | Farmers, Farm women & Rural youth | Mr. Pramod Chacko (SMS – Agronomy) & Mr. Sudhakar Soundarajan |
| Trainings | Effective use of consortium bio fertilizers in black pepper for improved productivity | Farmers, Farm women & Rural youth |
| Field visits & data collection | Mechanized pepper threshing | Farmers, Farm women & Rural youth |
| Monitoring  | OFT - Varietal trial of locally adapted farmer developed pest/disease resistant variety of cardamom. | Farmers |
|  | Field visit, training | FLD- Popularization of honeybee colonies in cardamom plantation | Farmers/farmwomen | Mr. Sudhakar Soundarajan &Dr. Binu John Sam |
|  | Field visits, Demonstration | Income generation unit | Farmwomen, Farmers, SHGs | Ms. Jayisy Joseph (Programme Assistant – Home Science) |
|  | Field day, Group meeting, Field visit & Exhibition | FLD - Performance of Vigova Super M duck in backyard system, Popularization of mixed fodder system | Farmers & Farmwomen | Dr. S. Jayababu (SMS – Animal Husbandry) |

*\* Field day, farmers conventions, group meetings, seminars, Krishi Mela, farmers tours, field visits, method demonstrations, exhibitions, campaign, others (please specify). Seminars on capacity building of farmers on issues related to WTO, Agricultural Marketing, Agri-business Management shall be emphasized.*

*\*\* Specify the FLD/Technology Assessment/Refinement/training programmes / important occasions, under which the extension activity is to be conducted.*

**8. Activities proposed as Knowledge and Resource Centre**

**A. Technological knowledge**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **Details of technologies** | **Area (ha)/****Number** | **Names of the team members involved** |
| Technology Park/ Crop cafeteria | Medicinal plant | 0.05 ha | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Ms. Manju Jincy Varghese (SMS – Soil Science) & Ms. Rachel Skaria (Farm Manager) |
| Anthurium | 0.02 ha |
| Rose | 0.012 ha |
| Seed production in annual ornamental plant | 0.02 ha |
| Fodder crops | 1 ha |
| Demonstration Units  | Mushroom | 1 unit | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy), Dr. S. Jayababu (SMS-Animal Husbandry), Ms. Manju Jincy Varghese (SMS – Soil Science) Ms. Jayisy Joseph (Programme Assistant – Home Science) & Ms. Rachel Skaria (Farm Manager)  |
| Terrace garden | 0.03 ha |
| HDP in banana | 0.20 ha |
| Beekeeping | 1 ha |
| Poultry | 0.004 ha |
| Kitchen garden | 0.02 ha |
| Bio-control lab | 1 unit |
| Cardamom | 0.40 ha |
| Pepper | 0.2 ha |
| Processing unit | 1 unit |
| Duck cum fish culture unit | 1 unit |
| Rabbit unit | 1 unit |
| Vermicompost unit | 1 unit |
| Azolla unit | 1 unit |
| Vermiwash unit  | 1 unit |
| EPN | 1 unit |
| Mushroom spawn production unit | 1 unit |
| Lab Analytical services  | Soil  | 1 unit | Ms. Manju Jincy Varghese (SMS – Soil Science) |
| Water | 1 unit |
| Manure | 1 unit |
| Technology Week  | Livestock & production management | 1 unit | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy), Dr. S. Jayababu (SMS-Animal Husbandry), Ms. Manju Jincy Varghese (SMS – Soil Science) & Ms. Jayisy Joseph (Programme Assistant – Home Science) |
| Mushroom production & value addition | 1 unit |
| Organic farming technologies | 1 unit |
| Post harvest handling & processing of under exploited fruits | 1 unit |
| IPDM in Cardamom & Pepper | 1 unit |

**B. Technological Products**

|  |  |  |  |
| --- | --- | --- | --- |
| **Category**  | **Name of the product**  | **Quantity (Qtl.)/****Number** | **Names of the team members involved** |
| Seeds  | Vegetable seeds  | 75 kg  | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture) & Ms. Rachel Skaria (Farm Manager)  |
| Flower seeds | 10 kg |
| Planting materials  | Pepper rooted cuttings | 50000 nos. | Mr. Pramod Chacko (SMS-Agronomy) & Ms. Rachel Skaria (Farm Manager) |
| Cardamom tillers | 1000 nos. |
| Vegetable seedlings | 3000 nos. |
| Ornamental seedlings | 5000 nos. |
| Spices & condiments | 500 nos. |
| Medicinal plants | 500 nos. |
| Forest species | 2500 nos. |
| Bio-products  | Pseudomonas | 4000 l. | Mr. Sudhakar Soundarajan (SMS-Plant Protection), Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture) & Mr. Pramod Chacko (SMS-Agronomy) |
| EPN | 8000 nos. |
| Trichoderma | 2000 l. |
| Mushroom spawn | 10000 pkt. |
| Edible mushroom | 1000 kg |
| Vermicompost | 2000 kg |
| Azolla | 500 kg |
| Livestock strains | Quail eggs | 2500 nos. | Dr. S. Jayababu (SMS-Animal Husbandry) |
| Poultry eggs | 1500 nos. |
| Duck eggs | 500 nos. |
| Poultry birds | 1000 nos. |
| Rabbit | 500 nos. |
| Fish fingerlings | - | - | - |

**C. Technological Information**

|  |  |  |
| --- | --- | --- |
| **Category** | **Technological capsules / Number** | **Names of the team members involved** |
| Technology backstopping to line departments |  |  |
| Agriculture | Crop improvement in vegetables through new variety | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy), Ms. Manju Jincy Varghese (SMS-Soil Science) & Ms. Jayisy Joseph (Programme Assistant-Home Science)  |
| Improved cultivation practice in cardamom |
| New trends in processing & value addition of fruits & vegetables |
| Product diversification in black pepper & cardamom |
| Realities of organic farming |
| Soil test based nutrient application in crops |
| Awareness creation & mitigation of micronutrient deficiency in major crops |
| Bees best in cardamom |
| Mechanization in paddy farming |
| Nutritional garden for family nutrition security |
| Product diversification in jackfruit |
| Product diversification & by-product utilization in banana |
| Horticulture  | Scientific nutrient management in banana by IIHR Banana special | Dr. Binu John Sam (SMS-Horticulture) & Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| Animal Husbandry  | Production & improvement in livestock & poultry through new breed & variety  | Dr. S. Jayababu (SMS-Animal Husbandry) |
| Fisheries  | - |  |
| Agricultural Engineering | - |  |
| Sericulture  | - |  |
| Literature/publication  | 30 | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy) & Ms. Manju Jincy Varghese (SMS-Soil Science) |
| Electronic Media | 6 | Dr. Binu John Sam (SMS-Horticulture), Ms. Manju Jincy Varghese (SMS- Soil Science), Mr. Sudhakar Soundarajan (SMS-Plant Protection) |
| Kisan Mobile Advisory Services  | 1000 | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy) & Ms. Manju Jincy Varghese (SMS-Soil Science) |
| Information on centre/state sector schemes and service providers in the district.  |  |  |

**9. ADDITIONAL ACTIVITIES PLANNED**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Name of the agency / scheme** | **Name of activity** | **Technical programme with quantification** | **Financial outlay (Rs.)** | **Names of the team members involved** |
| 1 | Fertilizer Association of India, Chennai  | Soil health enhancement programme | Fertilizer recommendation based on soil testing | 40,000.00 | Ms. Manju Jincy Varghese (SMS-Soil Science), Mr. Sudhakar Soundarajan (SMS-Plant Protection) & Mr. Pramod Chacko (SMS – Agronomy) |
| Soil campaign | Fertilizer recommendation based on soil testing | 30,000.00 | Ms. Manju Jincy Varghese (SMS-Soil Science) |
| Specialty fertilizer for balanced nutrition  | Awareness on fertilizer application | 32,695.00 | Ms. Manju Jincy Varghese (SMS-Soil Science) |
| 2 | NABARD | Training proposal on“scientific mushroom cultivation” | Training | 35,800.00 | Dr. Binu John Sam (SMS-Horticulture) |
| Training proposal on“horticultural nursery management” | Training | 35,000.00 |
| Project proposal“training on scientific banana cultivation in high range” | Training | 18,000.00 |
| Project proposal“training on cool season vegetable production” | Training | 18,000.00 |
| 3 | NABARD | Training proposal on“relevance of apiculture in cardamom” | Training | 20,000.00 | Mr. Sudhakar Soundarajan (SMS – Plant Protection) |
| Training proposal “bio-pesticides for insect pest management in spices” | Training | 20,000.00 |
| 4 | NABARD | Training proposal on“organic farming” | Training | 44,050.00 | Ms. Manju Jincy Varghese (SMS – Soil Science) |
| 5 | NABARD | Training proposal on “farmer developed varieties to facilitate organic agriculture” | Training | 40,700.00 | Mr. Pramod Chacko (SMS – Agronomy) |
| 6 | NABARD | Training proposal on“preservation of fruits and vegetables” | Training | 41,500.00 | Ms. Jayisy Joseph (Programme Assistant-Home Science) |
|  | NABARD | Training proposal on“post harvest management and value addition in banana” | Training | 39,000.00 |
| 7 | NABARD | Training proposal for “improving rural livelihood through backyard poultry in Idukki district” | Training | 55,300.00 | Dr. S. Jayababu (SMS-Animal Husbandry) |
| 8 | NABARD | Training proposal on “scientific dairy farming” | Training | 15,750.00 |
| 9 | NABARD | Jackfruit workshop | Seminar | 1,80,000.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension) |
| 10 | State Plan Project | Paddy Task Force | OFT & FLD | 5,17,000.00 | Mr. Pramod Chacko (SMS – Agronomy) |

**10. Revolving Fund**

**A. Financial status**

|  |  |  |  |
| --- | --- | --- | --- |
| **Opening balance as on 01.04.2011****(Rs. in Lakh)** | **Expenditure incurred during 2011-12****(Rs. in Lakh)** | **Receipts during****2011-12****(Rs. in Lakh)** | **Closing balance as on 31.01.2012****(Rs. in Lakh)** |
| 2,89,561.27 | 6,44,117.50 | 5,65,391.00 | 67,259.00  |

**B. Plan of activities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Proposed activities** | **Expected output** | **Anticipated income (Rs.)** | **Names of the team members involved** |
| 1 | Vegetable seeds | 75 kg | 100000.00 | Dr. Benjamin Mathew (SMS-Agrl. Extension), Dr. Binu John Sam (SMS-Horticulture), Mr. Sudhakar Soundarajan (SMS-Plant Protection), Mr. Pramod Chacko (SMS-Agronomy) & Ms. Rachel Skaria (Farm Manager) |
| 2 | Flower seeds | 10 kg | 3750.00 |
| 3 | Vegetable seedlings | 3000 nos. | 12000.00 |
| 4 | Pepper rooted cuttings | 50000 nos. | 200000.00 |
| 5 | Cardamom tillers | 1000 nos. | 30000.00 |
| 6 | Spices | 500 nos. | 5000.00 |
| 7 | Forest species | 2500 nos. | 5000.00 |
| 8 | Medicinal plants | 500 nos. | 5000.00 |
| 9 | Pseudomonas | 4000 l. | 32000.00 |
| 10 | Trichoderma | 2000 l. | 16000.00 |
| 11 | EPN | 8000 cadavers | 9600.00 |
| 12 | Mushroom Spawn | 10000 pkts. | 300000.00 |
| 13 | Edible mushroom | 1000 kg | 200000.00 |
| 14 | Vermicompost | 2000 kg | 10000.00 |
| 15 | Azolla | 500 kg | 4000.00 |

**11. Activities of soil, water and plant testing laboratory**

|  |  |  |
| --- | --- | --- |
| **Type** | **No. of samples to be analyzed** | **Names of the team members involved** |
| Soil  | 1000 | Ms. Manju Jincy Varghese (SMS – Soil Science) |
| Water  | 500 | Ms. Manju Jincy Varghese (SMS – Soil Science) |
| Plant | - | - |
| Others (Manures) | 50 | Ms. Manju Jincy Varghese (SMS – Soil Science) |

**12. E-linkage:** Nil.

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No** | **Nature of activities** | **Likely period of completion (please set the time frame)** | **Remarks if any** |
| 1 | Creation of web-site  | Updation & maintenance (October 2012) | Minimum amount of Rs.50,000/- required |
| 2 | Title of the technology module to be prepared  |  |  |
| 3 | Creation and maintenance of relevant database system for KVK |  |  |
| 4 | Any other (Please specify) |  |  |

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

|  |  |  |
| --- | --- | --- |
| **S. No** | **Activities planned** | **Remarks if any** |
|  |  |  |
|  |  |  |

**14. 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 | November 2012 |
| Brief action plan in this regard | An Innovators meet is being planned for honoring the innovative farmers in the district and for the effective diffusion of the technologies. On this regard innovative farmers who had contributed in the agriculture and allied sector will be selected and a meet is planned with the presence of Agriculture Minister, Zonal Project Director & officials from Department of Agriculture, Govt. of Kerala. Publicity through all possible media is planned for the effective conduct of the meet and for the effective diffusion of scientifically validated innovations. |

**15. Farmer’s Field School planned**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Thematic area**  | **Title of the FFS** | **Budget proposed in Rs.** |
| 1 | ICM | Integrated Crop Management in Black Pepper | 25,000.00 |

**16. Budget**

**A. Details of budget utilization (2011-12) up to 31 January 2012**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.****No.** | **Particulars** | **Sanctioned** | **Released** | **Expenditure** |
| **A. Recurring Contingencies** |
| 1 | **Pay & Allowances** | 59.00 | 47.25 | 41,82,722.00 |
| 2 | **Traveling allowances** | 1.25 | 1,04,000.00 |
| 3 | **Contingencies** |  |  |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance  | 1.70 | 1,55,000.00 |
| *B* | POL, repair of vehicles, tractor and equipments | 0.75 | 1,08,000.00 |
| *C* | Meals/refreshment for trainees  | 0.75 | 65,000.00 |
| *D* | Training material  | 0.35 | 30,000.00 |
| *E* | Frontline demonstration except oilseeds and pulses  | 2.50 | 2,08,000.00 |
| *F* | On farm testing  | 1.35 | 1,12,500.00 |
| *G* | Training of extension functionaries | 0.10 | 20,800.00 |
| *H* | Maintenance of buildings | 0.10 | 20,000.00 |
| *I* | Extension activities |  0.10 | 21,000.00 |
| *J* | Farmers Field School | 0.25 | 20,500.00 |
| *K* | Library  | 0.05 | 4,200.00 |
| **TOTAL (A)** | **68.25** | **47.25** | **50,51,722.00** |
| **B. Non-Recurring Contingencies** |
| 1 | **Works** | - | - | - |
| 2 | **Equipments including SWTL & Furniture**1. Sprayer
2. Furniture & Furnishing
3. EPABX System
4. Generator
 | - | - | - |
| 3 | **Vehicle** (Four wheeler) | 6.00 | - | - |
| 4 | **Library**  | - | - | - |
| **TOTAL (B)** | **6.00** | - | - |
| **C. REVOLVING FUND** | - | - | - |
| **GRAND TOTAL (A+B+C)** | **74.25** | **47.25** | **50,51,722.00** |

**B. Details of Budget Estimate (2012-13) based on proposed action plan**

|  |  |  |
| --- | --- | --- |
| **S.****No.** | **Particulars** | **BE 2012-13 proposed**  |
| **A. Recurring Contingencies** |  |
| 1 | **Pay & Allowances** | 83.19 |
| 2 | **Traveling allowances** | 3.25 |
| 3 | **Contingencies** |  |
| *A* | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines) | 4.50 |
| *B* | POL, repair of vehicles, tractor and equipments | 3.00 |
| *C* | Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained) | 3.00 |
| *D* | Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training) | 2.25 |
| *E* | Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year) | 1.01 |
| *F* | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1.05 |
| *G* | Training of extension functionaries | 1.50 |
| *H* | Maintenance of buildings | 1.00 |
| *I* | Establishment of Soil, Plant & Water Testing Laboratory  | 0.75 |
| *J* | Library  | 0.50 |
| *K* | Farmers Field School | 0.25 |
| **TOTAL (A)** | **105.25** |
| **B. Non-Recurring Contingencies** |  |
| 1 | **Works**1. Farmers Hostel
2. Bore well
3. Fencing cum boundary wall
4. Vehicle & Implement shed
 | 52.40 |
| 2 | **Equipments including SWTL & Furniture** | 23.21 |
| 3 | **Vehicle** (Four wheeler) | 0.50 |
| 4 | **Library** (Purchase of assets like books & journals) | 0.50 |
| **TOTAL (B)** | **76.61** |
| **C. REVOLVING FUND** | **-** |
| **GRAND TOTAL (A+B+C)** | **181.86** |