**ICAR-ATARI, ZONE –XI, BENGALURU**

###### PROFORMA FOR ACTION PLAN OF KVKs IN ATARI, ZONE XI FOR 2021-22

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

|  |  |  |  |
| --- | --- | --- | --- |
| 1.1 | Name and address of KVK with phone, fax and e-mail ID | : | ICAR-Krishi Vigyan Kendra,  Savalanga Road, Navile,  SHIVAMOGGA-577 204. Karnataka  Tel. : 08182-267017  E-mail : [kvk.shivamogga@icar.gov.in](mailto:kvk.shivamogga@icar.gov.in), [shimogakvk@gmail.com](mailto:shimogakvk@gmail.com)  Website : https://kvksh.uahs.edu.in/ |
| 1.2 | Name and address of host organization | : | University of Agricultural and Horticultural Sciences,  Savalanga Road, Shivamogga-577 204. Karnataka  Phone : 08182-267001  Fax : 08182-298008  E-mail : [vcuahss2014@gmail.com](mailto:vcuahss2014@gmail.com)  Website : www.uahs.in |
| 1.3 | Year of sanction | : | 1999 |
| 1.4 | Website address of KVK and date of last update | : | http:://kvksh.uahs.edu.in, 28-07-2021 |

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

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Sanctioned post** | **Name of the incumbent** | **Designation** | **M/F** | **Discipline** | **Highest Qualification**  **(for PC, SMS and Prog. Asstt.)** | **Pay**  **Scale** | **Basic pay** | **Date of joining KVK** | **Permanent**  **/Temporary** | **Category (SC/ST/**  **OBC/**  **Others)** |
| 1 | Head/Senior Scientist | Dr. B.C. Hanumanthaswamy | Senior Scientist and Head | M | Agril. Entomology | M.Sc.,(Agri. Entomology) Ph.D., PGDBA, PGDPP, PGDAEM | 144200-218200 | 153000 | 22.12.2011 | Permanent | OBC |
| 2 | Scientist/SMS | Mr. M. Basavaraja | Scientist (Agronomy) | M | Agronomy | M.Sc.(Agri.) (Agronomy) | 131400-217100 | 147900 | 01.04.2018 | Permanent | ST |
| 3 | Scientist/SMS | Dr. Jyoti M. Rathod | Scientist (Home Science) | F | Home Science | M.H.Sc. (Food and Nutrition), Ph.D, PGDAEM | 79800-211500 | 89800 | 18.05.2007 | Permanent | SC |
| 4 | Scientist/SMS | Dr. M. Ashok | Scientist (Animal Science) | M | Animal Science | M.VSc., Ph.D. PGDAEM | 79800-211500 | 89800 | 18.05.2007 | Permanent | OBC |
| 5 | Scientist/SMS | Dr. Sahana. S | Scientist (Agril. Extension) | F | Agril. Extension | M.Sc., (Agril. Extension), Ph.D., PGDAEM | 79800-211500 | 98200 | 01.04.2018 | Permanent | OBC |
| 6 | Scientist/SMS | Dr. Sarvajna B. Salimath | Scientist (Soil Science) | M | Soil Science | M.Sc., (Soil Science & Agriculturall. Chemistry), Ph.D., (Agriculture Physics), PGDAEM | 79800-211500 | 95300 | 01.04.2018 | Permanent | OBC |
| 7 | Scientist/SMS | Dr. Nagarajappa Adivappar | Scientist (Horticulture) | M | Horticulture | M.Sc.(Horticulture), Ph.D.(Horticulture), PGDIPR, PGDAEM | 79800-211500 | 95300 | 01.04.2018 | Permanent | OBC |
| 8 | Programme Assistant (Lab Tech.) (T5) | Dr. Nagaraja R. | Programme Assistant (Lab) | M | Programme Assistant (Lab) | M.Sc.(Agri.) in Agricultural Microbiology, Ph.D. PGDAEM | 9300-34800 | 14040 | 23.10.2010 | Permanent | OBC |
| 9 | Programme Assistant (Computer) (T5) | Mrs. B. S. Geetha | Programme Assistant (Computer) | F | Programme Assistant (Computer) | M.Com., PGDCA, PGDHR, PGDAEM | 9300-34800 | 13490 | 22.01.2011 | Permanent | OTR |
| 10 | Farm Manager (T5) | Dr. Niranjana, K. S. | Farm Manager | M | Farm Manager | M.Sc. (Agri), Ph.D., PGDNR, PGDRM, PGDHR, PGDAEM, | 9300-34800 | 14040 | 17.11.2011 | Permanent | OTR |
| 11 | Assistant | Mrs. Jyothi H. | Assistant | F | Accountant | B.A. | 30350 - 58250 | 30350 | 01.04.2018 | Permanent | SC |
| 12 | Jr. Stenographer | **VACANT** | | | | | | | | | |
| 13 | Driver – (Jeep) | Mr. N. Gopala | Lab Assistant | M | Driver (Jeep) | SSLC | 21400-42000 | 30350 | 16.08.2012 | Permanent | OBC |
| 14 | Driver – (Tractor) | Mr. K. H. Mohan | Driver (Tractor) | M | Driver (Tractor) | 7th Standard | 27650-52650 | 34300 | 20.10.2008 | Permanent | OBC |
| 15 | Supporting Staff-1 | **VACANT** | | | | | | | | | |
| 16 | Supporting Staff-2 | Mr. T. Chikkaiah | Assistant Cook cum caretaker | M | Cook cum caretaker | SSLC | 18600-32600 | 23500 | 22.11.2018 | Permanent | OBC |

**3. Details of SAC meeting conducted during 2020-21 : SAC meeting conducted on 17-12-2020**

| **Major recommendations** | **Status of action taken in brief** | **Reasons for no actions,**  **if any** |
| --- | --- | --- |
| Suggested to upload the progressive farmers’ success stories in KVK website. | 20 Progressive farmers success stories are prepared and will be uploaded in the website | - |
| Suggested to write the research papers about the KVK activities and publish in Scopus Index Journals | Published 01 FLD related paper in Indian Journal of Pure and Applied Bio science, NAAS rating is 4.7 | - |
| Informed to conduct the more number of trainings and demonstrations on Areca husk decomposition for value added compost in collaboration with department of Horticulture. | 10 Demonstrations were conducted on Areca husk decomposition at different farmer field. One training programme was conducted on 09.01.2021 and One radio talk was given on 25.03.2021 | Planned to conduct 20 Demonstrations on Areca husk decomposition during 2021-22 |
| Informed to publish more number of articles in local papers and agriculture related magazines. | Published 8 popular articles in NEWS NEXT Shivamogga local channel. | - |
| Conduct the training programmes and demonstrations on value addition of minor millets. | Training programme was conducted on value added products in Finger millet from 21-01-2021 to 23-01-2021. 14 members were participated. Another programme was conducted on 11-06-2021. 38 members were participated. | - |
| Suggested to conduct the more number of skill oriented training programmes on Bee Keeping. | * On campus training programme conducted on Bee Keeping from 18.01.2021 to 20.01.2021.Totally 22 participants were attended * World Honey bee day programme was conducted on 20.05.2021.Totally 38. participants were attended. * Virtual capacity development programme On Bee Keeping was conducted on 15.06.2021. Totally 32 participants were attended. | - |
| It is informed to conduct the training programmes on agriculture marketing system | Conducted 2 training programmes on 25.01.2021 and 01.01.2021. Totally 51 farmers were get benefitted | - |
| It is advised to give timely information to farmers on latest technologies and skill oriented activities in agriculture and allied aspects. | 3 Skill training programmes were conducted on sheep and goat rearing in stall feeding system from 19.11.2020 to 21.11.2020, 24.03.2021 to 26.03.2021 and ON 07.05.2021 | - |
| Informed to conduct the activities on marketing of value added products for women self help groups. | Two training programmes on marketing of value added products were conducted from 21-01-2021 to 23-01-2021 and on 11-06-2021. 52 members were participated | **-** |
| Conduct the skill oriented training programmes on processing of millets for women self help groups. | Training on Value added product preparation in finger millet was conducted from 21-01-2021 to 23-01-2021. 14 members were participated. On 11-06-2021 training was conducted and 38 members were participated | **-** |
| Suggested to conduct the awareness programmes and training programmes on management of Lumpy skin disease and also suggested to publish the leaflets on management of this disease. | Two technical seminars were conducted for veterinary doctors and their non technical staff on current issues in live stock (12-02-2021) and importance of live stock health in animal husbandry (03-03-2021).In both the seminars detail information was given on lumpy skin disease and provided compendium. | **-** |
| It is suggested to conduct the demonstrations on Nutrigarden in anganawadi Kendras. | Planned to conduct during 2021-22 | **-** |
| It is informed to all the scientists to give atleast 10 programmes for All India Radio for broadcasting in Negila Meditha Programme. | All the Scientists were given 10 programmes each for All India Radio | - |
| Suggested to prepare the list of progressive farmers and Krishi Pandith awardee farmers of the district. | Prepared the list of progressive farmers | - |
| Suggested to conduct the extension activities on artificial insemination of local cow breed Malenadu gidda. | Technical seminar was conducted on conservation of desi breeds on 12-02-2021 and 03-03-2021 at KVK and also given the information in all vocational trainings programmes conducted at KVK (22-06-2020 to 23-06-2020,19-11-2020 to 21-11-2020 and 19-11-20 to 21-11-2020) | - |
| Suggested to conduct the awareness programmes on New Agriculture Act through video conference and webinars. | Conducted 01 awareness programme on 01-01-2021. 29 farmers were get benefitted. | - |
| It is informed to prepare the list of progressive farmers and use them as resource persons during the training programmes. | Prepared the list of Progressive farmers and using their services as resource persons during different training programmes. | - |
| Suggested to record the data after implementation of frontline demonstrations and training programmes for impact studies. | Recording the data of different FLD and training programmes. | - |
| Conduct the awareness programmes and training programmes on importance of native cow breeds like Malenadu Gidda, Devani and Amrith Mahal. | Technical seminar was conducted on conservation of desi breeds on 12-02-2021 and 03-03-2021 at KVK and also given the information in all vocational trainings programmes conducted at KVK (22-06-2020 to 23-06-2020, 19-11-2020 to 21-11-2020 and 19-11-20 to 21-11-2020). | - |
| Suggested to conduct the training programmes on nutritional garden and management of nutrition in children for the workers of Anganawadi Kendras. | Planned to conduct during 2021-22 | - |
| Suggested to publish the articles on current issues of farmers in agriculture and their scientific remedies in daily news paper and magazines. | * Popular article on scientific Integrated farming system was published in negilamedita.1520 farmers were get benefitted * New best Ragi variety KMR 630 for district covered in Vijaya Karnataka on 23-11-2020. * Direct seeded paddy cultivation for higher income covered in Vijaya Karnataka on 10-11-2020. | - |
| Suggested to conduct the awareness and training programmes on social forestry | Awareness and training programmes will be conducted during 2021-22 | - |
| Suggested to conduct the training programmes on scientific fish farming in collaboration with the Department of Fisheries. | National fish farmers day was conducted on 10-07-2021 | - |
| Conduct the awareness programmes on artificial insemination of dairy animals | * Radio talk was given on 20-10-2020. * The topic was covered in technical seminar conducted on 03-03-2021 to para veterinary staff | - |
| Conduct the awareness programmes on conservation of the local cow breed Malenadu gidda | The topic on conservation of desi breeds was covered in technical seminar on 12-02-2021 to 03-03-2021 at KVK and in all vocational trainings programmes conducted at KVK (22-06-2020 to 23-06-2020,19-11-2020 to 21-11-2020 and 19-11-20 to 21-11-2020) | - |
| Conduct the awareness programmes on vaccinations to control the diseases in animals. | Radio talk was given on mastitis disease in sheep and goat and brooding management in poultry birds (20-10-2020) | Awareness programme to be conducted during 2021-22 |
| Conduct the awareness programmes on control of lumpy skin disease | Technical seminar was conducted on conservation of desi breeds on 12-02-2021 and 03-03-2021 at KVK and also given the information in all vocational trainings programmes conducted at KVK (22-06-2020 to 23-06-2020,19-11-2020 to 21-11-2020 and 19-11-20 to 21-11-2020). | - |
| Suggested to conduct the training programmes on biological control of pest and diseases in mulberry. | Planned to conduct during October 2021 | - |
| Suggested to conduct the training programmes on integrated farming system | Conducted 01 training programme on 07.07.2021 and 12 farmers were benefitted. More number of trainings to be conducted during 2021-22. | - |
| Suggested to plan for visit to progressive farmers’ field during the training programmes for the benefit of other farmers | Under ARYA programme, trainees were taken to Entrepreneur Shashi Kumar’s nursery unit Durgamba nursery at Shikaripura | - |
| Conduct the training programmes on nursery techniques in horticultural crops | * Conducted 03 Training programmes from 06.01.2021 to 08-01-2021, 27-03-2021 and 23-05-2021. 126 farmers were participated * Scientific advisories were given to 90 farmers | - |
| Suggested to conduct the programmes at the border villages of the district. | Planned to conduct during 2021-22 | - |
| Suggested to conduct the training programmes on value addition and marketing of millets. | Conducted the training programmes on Value added products in finger millet from 21-02-2021 to 23-01-2021. 14 members were participated. Another Capacity development programme was conducted on 11-06-2021.38 members were participated. | - |
| Suggested to give the information on new technologies in Agriculture through Akashavani (All India Radio) | Given the information through All India Radio. | - |

**4. Details of operational areas proposed during 2021-22**

| **Clusters** | **Major crops & enterprises being practiced in cluster villages** | **Prioritized problems in these crops/ enterprise that limit yield and income** | **Extent of area (ha/No.) affected by the problem in the village** | **Proposed intervention (OFT, FLD, Training, extension activity etc.)\*** |
| --- | --- | --- | --- | --- |
| **Cluster A**  Ripponpet, Hosanagar taluk | Paddy | * Low yield in existing varieties * Incidence of Blast * BLB | 575 ha | * OFT- Assessment of improved fine rice varieties, training, field visits, field day, advisories |
| Arecanut | * Fruit rot * Root Grub | 830 ha | * Training on Management of Fruit rot in arecanut, field visits, advisories * Trainings and method demonstrations on management of root grub |
| Black pepper | * Foot rot disease | 640 ha | * Training on Management of foot rot in pepper, field visits, advisories |
| Ginger | * No amendment application for acidic soil * Imbalanced fertilizer application * Rhizome rot disease | 260 ha | * Training on integrated crop management in ginger, field visits, advisories |
| Poultry | * Unscientific rearing of backyard poultry | 32 % | * Training on scientific poultry farming, farm visits, advisories |
| Dairy | * Infertility * Scarcity of green fodder | 28 % | * Infertility camps, FLD-Multicut fodder Sorghum variety CoFS-31, field visits, field day |
| **Cluster B**  Hosuru, Shikaripura taluk | Mango | * Low yield due to imbalanced nutrient Management * Flower and fruit drops * Incidence of hoppers, fruit flies and powdery mildew | 82 ha | * FLD- Demonstration on management of leafhoppers and powdery mildew in mango, training, field visits, field day, advisories |
| Maize | * No intercropping * Improper nutrient management * Fall armyworm & stem borer * Turcicum Leaf blight (TLB) * High cost of production * High dose of fertilizer application * Less fertilizer use efficiency * No knowledge on Nano fertilizers | 570 ha | * FLD- Demonstration on redgram ICM in maize, training, field visits, field day, advisories * OFT- Assessment of Nano fertilizers (N & Zn) on Growth and Yield of Maize, training, field visits, field day, advisories |
| Tomato | * No knowledge on liquid seaweed fertilizer & its importance in crop production * Excess use of chemical fertilizers * Less knowledge on fertigation * Lack of knowledge on micro nutrient application | 30 ha | * OFT- Assessment of liquid seaweed fertilizer on growth & yield of Tomato * FLD- Fertigation in Tomato for effective use of fertilizers, training, field visits, field day, advisories |
| Paddy | * Stem borer * Leaf roller * Blast * Sheath blight | 480 ha | * FLD- Integrated pest and disease management in Paddy, training, field visits, field day, advisories |
| Cowpea | * Non adoption of improved varieties of cowpea in paddy fallows | 45 ha | * FLD- Demonstration of Cowpea variety UAHS–28 in paddy follows, training, field visits, field day |
| Poultry, | * Diseases in backyard poultry | 38 % | * Training and Camps, farm visits, advisories |
| Dairy | * Subclinical mastitis * Lower milk yield * Quality deteroration of milk | 24 %  34 %  22 % | * FLD-Demonstration of California mastitis test to detect mastitis in cows, training, farm visits, advisories |
| Sheep & goat | * Unscientific rearing of sheep and goat | 36 % | * Training on scientific rearing of sheep and goat, farm visits, advisories |
| **Cluster C**  Holaluru, Shivamogga taluk | Paddy | * Stem borer, Blast, Nutrient deficiency | 360 ha | * Training on INM and IPM, field visits, advisories |
| Groundnut | * Low yield due to moisture stress * Tikka disease, Poor plant population / Sqm. (Improper spacing, 30 x 15 cm) and lower seed rate @ 35 kg/acre | 320 ha | * OFT- Assessment of Groundnut varieties, training, field visits, field day, advisories |
| Bhendi | * Shoot and fruit borer | 25 ha | * OFT- Assessment on management of shoot and fruit borer in bhendi |
| Arecanut | * Hidimundige * Inflorescence die back and caterpillar, Bud rot | 220 ha | * Training on plant protection in arecanut, advisories, field visits |
| Dairy | * Reduction of fat in milk, * Infertility in dairy animals | 26 %  24 % | * OFT-Assessment on use of neem coated urea as a source of non protein nitrogen (NPN) in the diet of heifers. * FLD-Molasses mineral block supplementation in lactating cows under rural management practices, Training, Farm Visits, Advisories |
| **Cluster D** Anaveri, Bhadravathi taluk | Arecanut | * Hidimundige * Inflorescence die back and caterpillar * Bud rot | 210 ha | * Training on plant protection in arecanut, advisories, field visits |
| Paddy | * Stem borer * Blast * Nutrient deficiency | 280 ha | * Training on INM and IPM, advisories, field visits |
| Finger millet | * Low yield in existing varieties | 60 ha | * Demonstration of Ragi variety KMR-630, field visits, field day, advisories |
| Dairy animals | * Infertility due to mineral deficiency * Hormonal imbalance * Parasitic infestation leads to decreased fertility * Milk production and less number of calves per animal in the life span (economic loss) | 28 % | * FLD- Integrated management of reproductive disorders in dairy animals. Training, farm visits, advisories |
| **Cluster E**  Mandagadde, Thirthahalli taluk | Arecanut | * Root grub * Fruit rot | 780 ha | * Training on Management of Root grub and Fruit rot in arecanut, field visits, advisories |
| * Huge quantity of areca waste is thrown on public places and is burnt and create pollution. * Very slow degradation because of high lignin content. | 620 ha | * FLD-Demonstration on decomposition of Areca husk for value added compost, trainings, field visits, advisories |
| Paddy | * Stem borer, Blast, Nutrient deficiency | 330 ha | * Training on INM and IPM, field visits, advisories |
| Mechanisation (Arecanut) | * Labour scarcity for climbing and harvesting of nuts * Less knowledge on safety devices for areca palm climbing | 300 ha | * OFT- Evaluation of devices for climbing of Areca palm, trainings, advisories |
| Poultry | * Lack of improved breeds in backyard poultry | 28 % | * OFT- Comparative study on growth Performance of Kadaknath and Giriraja chickens in Malnad region |
| Dairy | * Infertility in dairy * Fodder scarcity | 24 %  34 % | * Training, Camp, advisories, farm visits |
| **Cluster F**  Anandapura, Sagara taluk | Pineapple | * Heart rot disease | 215 ha | * FLD- Demonstration on management of heart rot disease in pineapple, training, field visits, field day, advisories |
|  | * Less knowledge on nutritional value, processing and value addition in pineapple | 100 Nos. | * EDP-Demonstration on pineapple candy preparation, * FLD-Demonstration on preparation of pineapple jam, * Training on pineapple candy and jam preparation, advisories, field visits |
| Arecanut | * Root Grub | 640 ha | * Training on Management of Root grub and Fruit rot in arecanut, advisories, field visits |
| Ginger | * No amendment application for acidic soil * Imbalanced fertilizer application * Rhizome rot disease | 270 ha | * FLD-ICM in ginger, Training on management of rhizome rot in ginger, advisories, field day, field visits |
| Dairy | * Infertility in dairy animals | 26% | * Training, Camps, advisories, Farm visits |
| **Cluster G** Harnahalli, Shivamogga taluk | Cabbage | * Low yield due to DBM incidence * Poor quality heads * Improper nutrient management | 31 ha | * FLD- ICM in Cabbage, training, field visits, field day, advisories |
| Ginger | * No amendment application for acidic soil * Imbalanced fertilizer application * Rhizome rot disease | 230 ha | * FLD- Integrated Crop Management in Ginger, training, field visits, field day, advisories |
| Bhendi | * YVMV * Shoot and fruit borer incidence * Inferior quality of fruits | 48 ha | * OFT- Assessment of Bhendi hybrids for adoptability, training, field visits, field day, advisories |
| Tomato | * Leaf minor incidence, * Fruit borer incidence, * Indiscriminate use of pesticides | 190 ha | * FLD- Management of Leaf minor and Fruit borer in Tomato, * OFT- Management of Blossom end rot and fruit cracking in tomato for yield enhancement, training, field visits, field day, advisories |
| Paddy | * High cost of cultivation, * Labour scarcity, * Incidence of stem borer and blast | 180 ha | * FLD- Demonstration on DSR method of Paddy Cultivation. Training on IPDM in paddy. Training, field visits, field day, advisories |
| Dairy | * Fodder seeds scarcity | 32 % | * FLD-Demonstration of high yielding fodder variety COFS-31, training, field visits, field day, advisories |
| **Cluster H** Jade, Soraba Taluk | Arecanut | * Hidimundige * Inflorescence die back and caterpillar * Bud rot | 120 ha | * Training on plant protection in arecanut, advisories, field visits |
| Paddy | * Stem borer * Leaf roller * BLB * Udbatta | 225 ha | * FLD-IPM in paddy * Training on integrated pest and disease management, advisories, field visits, field day |
| Ginger | * No amendment application for acidic soil * Imbalanced fertilizer application * Rhizome rot disease | 240 ha | * FLD-ICM in ginger * Training on integrated crop management in ginger, field day, field visits, advisories |
| Dairy | * Fodder seeds scarcity | 36 % | * Training, advisories, field visits |
| Poultry | * Unscientific rearing of backyard poultry | 40 % | * Training, advisories, Farm visits |

**5. Technology assessment during 2021-22**

| **Sl. No.** | **Crop/ enterprise** | **Prioritized problem** | **Title of intervention** | **Technology options** | **Source of technology** | **Name of critical input** | **Qty per trial (q)** | **Cost per trial (Rs.)** | **No. of trials** | **Total cost**  **(Rs.)** | **Parameters to be studied** | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5.1 | Paddy | Low yield in existing varieties, incidence of Blast, Stem borer, BPH | Assessment of improved fine rice varieties | **TO-1:**JGL-1798: Susceptible to Stem borer & Blast, Duration: 130-135 days, Yield: 40 q/ha | Farmers’ practice | - | - | - | **3** | - | 1. Grains/ panicle (Nos.) 2. Pest & Disease incidence (%) 3. Yield (q/ha) 4. B:C Ratio | Scientist (Agronomy),  Scientist (Soil Science) |
| **TO-2:** KMLT-4 : Duration :120-125 days, High tillering, tolerant to Stem borer & Blast;  Yield 55-60 q/ha | UAHS, Shivamogga | Seeds- KMLT-4 | 7 kg | 800 | 2400 |
| **Total** | | **800** | **2400** |
|  | | |  |
| **TO-3:**RNR-15048: Duration : 125 days,  Blast resistant, fine grain, Yield : 58-60 q/ha | ANGRAU, Hyderabad | RNR-15048 | 7 kg | 800 | 2400 |
| **Total** | | **800** | **2400** |
|  | | |  |
| **TO-4:** Gangavathi sona {05-01} Duration: 130-135 day; resistant to BPH, Sheath Blight, Blast ; Yield : 65-70 q/ha. | UAS, Raichur | Gangavathi sona | 7 kg | 800 | 2400 |
| Soil analysis charge | 1 + 4 | 750 | 2250 |
| **Total** | | **1550** | **4650** |
| **GRAND TOTAL** | | **3150** | **9450** |
|  | | | | | | | | | | | | |
| 5.2 | Groundnut | Low yield due to moisture stress, tikka disease, poor plant population / Sq m. (Improper spacing 30 x 15 cm) and lower seed rate @ 35 kg/acre | Assessment of Groundnut varieties  Under limited irrigation | **TO-1:**TMV-2 | Farmers’ Practice | - | - | - | **3** | - | 1. Plants / Sq.m (Nos.)  2. Pods / plant (Nos.)  3. 100 seed weight (gm)  4. Shelling %  5. Tikka disease incidence (%)  6. Fodder Yield (q/ha)  7. Yield (q/ha)  8. B:C Ratio | Scientist (Agronomy),  Scientist (Soil Science) |
| **TO-2:**GPBD-4 | UAS, Dharwad | Seeds (GPBD-4) | 45 kg | 2900 | 8700 |
| Gypsum | 100 kg | 800 | 2400 |
| Rhizobium & PSB | 2 kg | 200 | 600 |
| **Total** | | **3900** | **11700** |
| **TO-3:**G-2-52 | UAS, Dharwad | Seeds  (G-2-52) | 45 kg | 2900 | 8700 |
| Gypsum | 100 kg | 800 | 2400 |
| Rhizobium & PSB | 2 kg | 200 | 600 |
| **Total** | | **3900** | **11700** |
| **GRAND TOTAL** | | **7800** | **23400** |
|  | | | | | | | | | | | | |
| 5.3 | Maize | High cost of production, High dose of fertilizer application, Less fertilizer use efficiency, No knowledge on Nano fertilizers | Assessment of Nano fertilizers (N & Zn) on Growth and Yield of Maize | **TO-1:** Application of NP fertilizers as basal dose & top dressing with N fertilizer, non or less application of K fertilizer | Farmers' Practice | - | - | - | **3** | - | * Plant height (cm) * Cob weight (gm) * Yield (q/ha) * B:C Ratio | Scientist (Soil Science),  Scientist (Agronomy),  Senior Scientist and Head, |
| **TO-2:**Soil test based nutrient management (RDF: FYM 7.5 t/ha, Zinc Sulphate 10 kg/ha, 100:50:25 NPK kg/ha) 50 % N full P & K as basal, 50% N at 30 DAS | UAHS, Shivamogga | - | - | - | 0 |
| **TO-3:**Soil test based nutrient management: (RDF: FYM 7.5t/ha, Zinc Sulphate 5kg/ha, 50:50:25 NPK kg/ha) Application of 100 % N & 100% P & K as basal dose, N & Zn Nano fertilizers spray at 30DAS (4 ml/*l*) & second spray at 20 days after first spray | IFFCO-Nano Biotechnology Research Centre, Gujarath | N based nano fertilizer | 2 ltr. | 900 | 2700 |
| Zn based nano fertilizer | 2 ltr. | 900 | 2700 |
| Soil analysis | 1+3 | 600 | 1800 |
| **Total** | | **2400** | **7200** |
| **GRAND TOTAL** | | **2400** | **7200** |
|  |  |  |  |  |  |  | |  |  |  |  |  |
| 5.4 | Tomato | No knowledge on liquid seaweed fertilizer & its importance in crop production | Assessment of liquid seaweed fertilizer on growth & yield of Tomato | **TO-1:** Imbalanced fertilizer application  (NPK-120:80:50 kg/acre) | Farmers' Practice | - | - | - | **3** | - | * Yield (q/ha) * Plant height (cm) * No. of fruits / plant * B:C Ratio | Scientist (Soil Science), Scientist (Horticulture), Senior Scientist and Head, Scientist (Agronomy) |
| **TO-2:** Soil test based nutrient management  (RDF: FYM 38t/ha, 250:250:250 NPK kg/ha) + Vegetable special spray 5 gm/*l*  45 DAT and other 2 sprays at 15 days interval | UAHS, Shivamogga | Arka Vegetable Special | 3.0 kg | 1200 | 3600 |
| **Total** | | **1200** | **3600** |
|  | | |  |
| **TO-3:** Soil test based nutrient management RDF + Liquid seaweed fertilizer 5% foliar spray at 7 days before flowering and second spray at 7 days after flowering | Council of Scientific and Industrial Research, Central Salt & Marine Chemical Research Institute (CSIR-CSMCRI), Bhavnagar, Gujarat & Rajasthan College of Agriculture, Udaipur-2011 | Liquid seaweed fertilizer | 3.0 ltr | 900 | 2700 |
| Soil analysis | 1+3 | 600 | 1800 |
| **Total** | | **1500** | **4500** |
| **Grand total** | | **2700** | **8100** |
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| 5.5 | Bhendi | Low yield, YVMV, Shoot  and fruit borer incidence, inferior quality of fruits | Assessment of Bhendi hybrids for adoptability | **TO-1:** Local hybrid (Shakti) | Farmers' Practice | - | - | - | **3** | - | 1. Yield (q/ha) 2. YVMV incidence (%) 3. Shoot and fruit borer incidence (%) 4. B:C Ratio | Scientist (Horticulture),  Senior Scientist and Head |
| **TO-2:** Arka Nikitha | IIHR, Bengaluru | Arka Nikitha seeds | 700 gm | 2000 | 6000 |
| **Total** | | **2000** | **6000** |
| **TO-3:** COBH-4 | TNAU, Coimbatore | COBH-4 seeds | 700 gm | 2000 | 6000 |
| **Total** | | **2000** | **6000** |
| **GRAND TOTAL** | | **4000** | **12000** |
| 5.6 | Tomato | Blossom end rot and fruit cracking, Quantitative and qualitative yield loss | Assessment on Management of Blossom end rot and fruit cracking in tomato for yield enhancement | **TO-1** :No micro-nutrients sprays | Farmers' Practice | - | - | - | **3** | - | 1. Yield (q/ha) 2. Incidence of blossom end rot (%) 3. Fruit cracking incidence (%) 4. B:C Ratio | Scientist (Horticulture),  Scientist (Soil Science),  Senior Scientist and Head, |
| **TO-2** :Application of borax (10 kg/ha) + Lime (10 kg/ha) based on soil test | TNAU, Coimbatore | Borax | 4 kg | 500 | 1500 |
| **Total** | | **500** | **1500** |
| **TO-3:**Foliar application of Boric acid (3.5 g/*l*) + CaCl2 (5 g/*l*) @ fruit set stage | UHF, Nauni | Calcium Chloride | 500 gm | 150 | 450 |
| Boric acid | 350 gm | 400 | 1200 |
| **Total** | | **550** | **1650** |
| **TO-4**:Foliar application of Arka Vegetable special (5 g/*l*) : 3 sprays  1st Spray 25 to 30 DAT, subsequent sprays interval of 20-25 days after 1st spray | IIHR, Bangalore | Arka vegetable special | 1 kg | 200 | 600 |
| **Total** | | **200** | **600** |
| Soil sample  analysis 1+3 | | 600 | 1800 |
| **Total** | | **600** | **1800** |
| **GRAND TOTAL** | | **1850** | **5550** |
| 5.7 | Bhendi | Higher incidence of  shoot and fruit borer | Assessment on management of shoot and fruit borer in bhendi | **TO-1:** Indiscriminate use of insecticides | Farmers’ Practice | - | - | - | **5** | - | 1. Shoot and fruit borer incidence (%) 2. Yield (q/ha) 3. B:C Ratio | Senior Scientist and Head, Scientist (Horticulture) |
| **TO-2:** Spraying of  Quinolphos 25 EC @ 2 ml/*l* and Malathion 50 EC @ 2ml/*l* | UAHS, Shivamogga | Quinolphos | 1.5 *l* | 450 | 2250 |
| **Total** | | **450** | **2250** |
| **TO-3 :**1) Spraying of NSKE 4% @ 5 ml/*l*  (2) Emamectin Benzoate @ 0.5 g/*l*  (3) Spraying of B.t. @ 1 ml/*l* | IIVR, Varanasi | Emamectin Benzoate | 150 gm | 950 | 4750 |
| B.t. | 500 ml | 450 | 2250 |
| **Total** | | **1400** | **7000** |
| **GRAND TOTAL** | | **1850** | **9250** |
| 5.8 | Arecanut | * Labour scarcity for climbing and harvesting of nuts * Climbing of palm without any safety device may leads to accidents specially for the learners * Confidence level is less in manual climbing | Evaluation of devices for areca palm climbing | **TO-1:** Manual method of palm climbing | Farmers Practice | - | - | - | **10** | - | 1.Field Capacity  2. Efficiency  3. Income (Per Day) | Scientist (Agril. Extension), Senior Scientist and Head, Scientist (Agronomy) |
| **TO-2:** Mechanized device for Climbing of Areca palm | TNAU,  Coimbatore | Mechanized Areca palm climbing device (TNAU) | 1 | 8000 | 8000 |
| **TO-3:**Manual Climbing with safety device | UAHS, Shivamogga | Areca palm climbing safety device | 1 | 6000 | 6000 |
| **Total** | | **14000** | **14000** |
| **GRAND TOTAL** | | **14000** | **14000** |
| 5.9 | Poultry | Lower body weight, less no. of eggs per bird, lower market price and low income. | Comparative study on growth Performance of Kadaknath and Giriraja chickens in Malnad region | Local birds (Nati koli) | Local farmers | - | - | - | **4** | - | 1) Body weight (kg)  2) No. of eggs / bird | Scientist (Animal Science) |
| Giriraja | KVAFSU, Bidar | - | - | - | - |
| Kadaknath | Farmers of Madyapradesh | Kadaknath chicks, | 50 Nos. | 5000 | 20000 |
| Vaccine and medicine | - | 100 | 400 |
| **Total** | | **5100** |  | **20400** |
| **GRAND TOTAL** | | **5100** | **20400** |
| 5.10 | Dairy | Lower milk yield and fat content, increased inter calving period, higher feed cost (Protein source) | Assessment on use of neem coated urea as a source of non protein  nitrogen (NPN) in the diet of heifers | **TO-1:**18-22 kg Green fodder F+1kg Conc.feed + additional 1 kg con.feed per 2.5 ltr milk yield + 4 kgs straw feeding | Farmers' Practice | - | - | - | **5** | - | 1) Milk yield (ltr)  2) Fat content (%) | Scientist (Animal Science) |
| **TO-2:**18-22 kg Green fodder + 1kg conc.feed + additional 1 kg conc. feed per 2.5 ltr milk yield + 4 kgs of 2% neem coated urea treated straw feeding | UAS, Dharwad | Neem coated urea | 12 kg | 120 | 600 |
| **Total** | | **120** | **600** |
|  | |  |  |
| **TO-3:**18-22 kg Green fodder + 1kg Conc.feed + additional 1 kg con.feed per 2.5 ltr milk yield + 4 kgs. 2 % fat coated urea treated straw feeding | KVAFSU, Bidar | Fat coated urea | 12 kg | 400 | 2000 |
| Deworming + control of ectoparasites | 2 bolus + 20 ml | 500 | 2500 |
| **Total** | | **900** | **4500** |
| **GRAND TOTAL** | | **1020** | **5100** |

**6. Frontline demonstrations during 2021-22**

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6.1 | Cereals | Paddy | * High cost of cultivation * Labour scarcity | **Demonstration on DSR method of Paddy Cultivation under irrigated situation:**   * Seed cum fertilizer drill * Herbicides * Soil test based application of fertilizers, RDF (FYM 3 t/ acre, 20:15:16 NPK/ acre) | RNR-15048 and  Amman Sona | - | UAS, Raichur (2013) | Seed cum fertilizer drill | 1 No. | 1200 | **10** | 12000 | 1. Plant height (cm)  2.Tillers/ plant (Nos.)  3.Panicles/ plant (Nos.)  4. Pest and disease incidence (%)  5. Yield (q/ha)  4. B:C Ratio | Scientist (Agronomy), Scientist (Soil Science) |
| Pretilachlor 30 EC | 400 ml | 500 | 5000 |
| Bispyribac sodium | 100 ml | 500 | 5000 |
| Quinolphos 25 EC | 500 ml | 400 | 4000 |
| Malathion | 500 ml | 400 | 4000 |
| **TOTAL** | | **3000** | **30000** |
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| 6.1 | Cereals | Paddy | * Stem borer * Leaf roller * Blast * Sheath blight | **Demonstration on IPDM in Paddy :**   * IPM-Cultural and Mechanical methods * Release of *Trichograma @* 1.0 lakh/ acre * Spraying of Azadirachtin 10000 PPM  @ 2.0 ml/*l* * Spraying of Tricyclozole @ 0.6 gm/*l* * Application of Chlorantraniliprole  @ 4 kg / acre. * Spraying of Propiconazole 25 EC  @ 1 ml/*l* | JGL-1798 | - | UAHS, Shivamogga | Azadirachtin | 2 L | 800 | **8** | 6400 | 1. Pest incidence (%)   Disease incidence (%)   1. Yield (q/ha) 2. B:C Ratio | Senior Scientist and Head,  Scientist (Agronomy),  Scientist (Soil Science) |
| *Trichograma* | 1.0 lakh | 500 | 4000 |
| Tricyclozole | 250 gm | 750 | 6000 |
| Propiconazole | 500 ml | 750 | 6000 |
| Chlorantraniliprole | 4 kg | 1000 | 8000 |
| **TOTAL** | | **3800** | **30400** |
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| 6.1 | Cereals | Maize | Practicing mono-cropping, No amendments application for acidic soil, Zinc deficiency, Fall armyworm & Stem borer, TLB and low yield | * **Demonstration on integrated crop management in Maize :** * Intercropping with Red gram 4:2 (BRG-5) * Red gram seed treatment with Rhizobium + PSB (200 gm each/acre seeds) * Bio-fertilizer (*Azospirillum* and PSB) and *Trichoderma* enriched FYM application (1:20) @ 8 t/ha * Soil test based Lime application & RDF (Maize=100:50:25 kg. NPK / ha) (Red gram=30:50:30 kg. NPK / ha) * Zinc Sulphate @ 10 kg/ha * Chlorantraniliprole 18.5% SC @ 0.4 ml/*l* * Propiconazole 25 EC @ 1.0 ml/*l* | BRG-5 (Red gram) | Kaveri Gold (Maize) | UAHS, Shivamogga | Red gram seeds (BRG-5) | 3 kg | 400 | **5** | 2000 | 1. Pest and Disease incidence (%) 2. Yield (q/ha) 3. B:C Ratio | Scientist (Soil Science),  Scientist (Agronomy),  Senior Scientist and Head |
| Zinc sulphate | 4 kg | 480 | 2400 |
| Bio-fertilizers *(Azospirillum, Rhizobium* andPSB) | 3 kg | 300 | 1500 |
| Chlorantraniliprole 18.5 % SC | 80 ml | 1100 | 5500 |
| Soil analysis charge | 1 + 2 samples | 450 | 2250 |
| **TOTAL** | | **2730** | **13650** |
|  | | |  |
| 6.2 | Millets | Ragi | Low yield in existing varieties,  Less resistant to leaf blast and neck blast diseases | **Demonstration of Ragi variety KMR-630:**  Soil test based fertilizer: RDF (FYM 3 t/acre, 20:15:16 NPK/acre, *Azospirillum* 150 gm/acre seeds*)*  **Salient Features**   * Resistant to blast * High grain yield (15-20 q/ac) with better fodder quality * Suitable for Mechanical harvest | KMR-630 | - | UAS  Bangalore | Ragi seeds | 5 kg | 250 | **10** | 2500 | 1. Grain yield (q/ha)  2. Pro-ductive tillers (m2)  3. Leaf blast incidence (%)  4. Neck blast incidence (%) | Scientist (Agronomy),  Scientist (Soil Science) |
| Azospirillum | 150 gm | 50 | 500 |
| Zinc Sulphate | 5 kg | 750 | 7500 |
| **TOTAL** | | **1050** | **10500** |
|  | | |  |
| **6.3** | **Oilseeds** |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 6.4 | Pulses | Cowpea | Non adoption of improved Cowpea varieties in paddy fallows | **Demonstration of Cowpea variety UAHS–28 :**   * Demonstration of cowpea variety UAHS - 28 in paddy fallows * Seed treatment with PSB + Rhizobium 200 gm each per acre seeds   **Salient features of the Cowpea UAHS-28 variety:**   * Grown well in limited moisture conditions * Suitable for late *kharif* and summer season * Medium bold seeds * Yield : 12–13 q/ha. * Duration : 80–85 days | UAHS–28 | – | UAHS, Shivamogga | Seeds | 6 kg | 500 | **10** | 5000 | 1) Yield (q/ha)  2) Duration (Days)  3) Pods / plant (No.)  4) Pest and disease incidence (%)  5) B:C Ratio | Scientist (Agril. Extension),  Scientist (Agronomy),  Programme Assistant (Lab) |
| Biofertilizers (PSB + *Rhizobium*) | 200 g each | 100 | 1000 |
| Hexaconozole | 500 ml | 600 | 6000 |
| Soil analysis charge | 1 + 2 samples | 450 | 4500 |
| **TOTAL** | | **1650** | **16500** |
|  | | |  |
| 6.5 | Commercial crops |  |  |  |  |  |  |  |  |  |  |  |  |  |

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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| 6.6 | Horticultural crops | Tomato | 1. Imbalanced application of  chemical fertilizers 2. Lower efficiency of fertilizers due to improper scheduling | **Demonstration on fertigation in Tomato :**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Technology to be demonstrated  Recommended stages for fertigation and Fertilizer dosage  Fertigation Methodology : Drip Irrigation Venturi System | | | | | | | Sl. No. | Crop Stage (Days) | Ferti gation Numbers | Application of fertilizers (Kg/ha.) | | | | 19:19: 19 | Potassium Nitrate | Calcium Nitrate | | 1 | 0-20 | - | - | - | - | | 2 | 21-39 | 6 | 90 | - | - | | 3 | 40-60 | 7 | 40 | 10 | 2.5 | | 4 | 61-120 | 24 | 422.5 | 62.5 | 90 | | -- | JK-818 | IIHR, Bangalore | 19:19:19 | | FC | FC | **5** |  | 1. Yield (q/ha) 2. Pest & disease incidence (%) 3. Days to maturity 4. Weight of fruit (gram) 5. Plant height at harvest (cm) 6. B:C Ratio | Scientist (Agril. Extension),  Scientist (Horticulture)  Scientist (Agronomy) |
| Potassium Nitrate | | 30 kg | 3000 | 15000 |
| Calcium Nitrate | | 37 kg | 1500 | 7500 |
| Vegetable special | | 2 kg | 400 | 2000 |
| Soil analysis charge | | 1 + 2 samples | 450 | 2250 |
| **TOTAL** | | | **5350** | **26750** |
| 6.6 | Horticultural crops | Tomato | 1. Leaf minor and Fruit borer incidence 2. Indiscriminate use of pesticides | **Demonstration on Management of Leaf minor and Fruit borer in Tomato :**   * Spraying of HaNPV @ 100 LE/acre * Spraying of Azardiractin 10000 PPM @ 2.0 ml/*l*. * Spraying of Imidachloprid 17.8 SL @ 0.3 ml/*l*. | **-** | JK-818 | UAHS, Shivamogga | HaNPV | 100 LE | | 300 | **10** | 3000 | 1. Fruit borer incidence (%) 2. Leaf minor incidence (%) 3. Yield (t/ha) 4. B:C Ratio | Senior Scientist and Head,  Scientist (Horticulture) |
| Azardiractin 10000 PPM | 1 L | | 400 | 4000 |
| Imidachloprid | 250 ml | | 650 | 6500 |
| **TOTAL** | | | **1350** | **13500** |

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6.6 | Horticulture crops | Cabbage | * Low yield due to DBM incidence * Poor quality heads * Improper nutrient management | **Demonstration on ICM in Cabbage**:   * NPK application based on soil test  (RDF:150:100:125 kg/ha) * Foliar application of IIHR-Vegetable  special @ 0.1 % * Spraying of Bt @ 2 ml/*l* at 10 days  after planting * Indoxicarb @ 0.5 ml/*l* * Neem soap spray @ 10 g/*l* * Pongamia soap @ 10 g/*l* | **-** | Dhaval | IIHR, Bengaluru | Bt | 100 ml | 300 | **5** | 1500 | 1. Yield (q/ha)  2. DBM   incidence (%)    3. Economics | Senior Scientist and Head,  Scientist (Horticulture) |
| Indoxicarb | 100 ml | 600 | 3000 |
| Vegetable Special | 1 kg | 200 | 1000 |
| Pongamia soap | 0.25 kg | 300 | 1500 |
| Neem soap | 0.75 kg | 300 | 1500 |
| Soil Analysis Charge | 1 + 2 samples | 450 | 2250 |
| **TOTAL** | | **2150** | **10750** |
|  | | |  |

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6.6 | Horticultural crops | Ginger | 1. No amendments application for acidic soil 2. Imbalanced fertilizer application 3. Rhizome rot and low yield | **Demonstration on Integrated Crop Management in Ginger:**   * Soil test based Lime application & RDF (100:50:50 kg. NPK / ha) * Bio-agents *Trichoderma & Pseudomonas* enriched FYM application (1:100-150) @ 25 t/ha * Seed treatment with 0.4 % Mancozeb or 0.25% Metalaxyl +  0.05 % Streptocycline then 10 gm *Trichoderma*/kg seed * Ginger special (5 gm/*l*) Spray at 45 DAS and repeat every 45 days upto 6 months * COC (3 gm/*l*) + Streptocycline (0.5 gm/*l*) drenching for  Rhizome rot | Himachala | **-** | UAHS, Shivamogga and IISR, Calicut | Ginger special | 4 kg | 1400 | **5** | 7000 | | 1. Rhizome weight/plant (kg) 2. Rhizome rot incidence (%) 3. Yield (q/ha) 4. B:C Ratio | Scientist (Soil Science),  Scientist (Horticulture),  Senior Scientist and Head, |
| *Trichoderma* | 6 kg | 600 | 3000 | |
| *Pseudomonas* | 6 kg | 600 | 3000 | |
| Soil analysis charge | 1 + 2 samples | 450 | 2250 | |
| **Total** | | **3050** | **15250** | |
|  | | |  | |

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | **Team members** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6.6 | Horticulture | Mango | 1. Low yield due to imbalanced nutrient management 2. Flower and fruit drop 3. Incidence of hoppers 4. Incidence of powdery mildew | **Demonstration on Management of Leafhoppers and Powdery mildew in Mango :**   * Spraying of Arka Mango Special @ 5 g/*l* (First Spray: Jun-July, 2nd Spray: October-November, 3rd Spray: December-January, 4th Spray: Feb-March ) * Spraying of 20 ppm NAA at peanut size of fruits followed by 2% urea * Spraying of Hexaconazole (1 ml/*l*) – powdery mildew * To control leaf hoppers spraying of Imidacloprid  (0.30 ml/*l*) * Pruning of dry shoots and unwanted branches | Alphanso | - | IIHR, Bengaluru | IIHR-Arka Mango Special | 8 kg | 1250 | **7** | 8750 | * Fruit yield (q/ha) * Leaf hoppers and Powdery mildew incidence (%) * Economics | Senior Scientist and Head, Scientist (Horticulture) |
| NAA | 250 ml | 480 | 3360 |
| Soil Analysis Charge | 1 + 2 samples | 450 | 3150 |
| **TOTAL** | | **2180** | **15260** |
|  | | |  |

| **Sl. No.** | **Category** | **Crop/ enterprise** | **Prioritized problem** | **Technology to be demonstrated** | | **Name of variety** | **Name of hybrid** | **Source of technology** | **Name of critical input** | **Qty per demo (q)** | **Cost per demo (Rs.)** | **No. of demos** | **Total cost for the**  **demo (Rs.)** | **Parameters to be studied** | **Team members** |
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| 6.6 | Horticultural crops | Pineapple | Heart rot disease | **Demonstration on management of**  **Heart rot disease in pineapple :**  Soil application of Trichoderma enriched Neem cake @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%, Drenching with Metalaxyl Mz | | Queen | - | UAS, Dharwad | Neem cake | 100 kg. | 1700 | **5** | 8500 | * % disease incidence * Yield (t/ha) * Economics | Senior Scientist and Head,  Scientist (Horti-culture) |
| *Trichoderma* | 10 kg. | 1000 | 5000 |
| Metalaxyl Mz | 2 kg. | 3800 | 19000 |
| Soil analysis charge | 3 samples | 150 | 750 |
| **Total** | | **6650** | **33250** |
| 6.6 | Horticultural crops | Pineapple | Less knowledge on nutritional  value of Pineapple and its value addition | **Demonstration on preparation of**  **Pineapple Jam :** Method demonstration on preparation of Pineapple Jam | | Queen | - | Pineapple Research Station (KAU), Vazahakulam | Pineapple | 4 kg | 160 | **4** | 640 | * Feed Back * Acceptability | Scientist (Home Science),  Scientist (Horti-culture) |
| Sugar | 4 kg | 160 | 640 |
| Citric acid | 100 g | 90 | 360 |
| Pectin powder | 100 g | 110 | 440 |
| Lemon yellow colour | 20 g | 30 | 120 |
| Pineapple essence | 100 ml | 50 | 200 |
| Packing materials | 1 kg | 500 | 2000 |
| **Total** | | **1100** | **4400** |
| 6.7 | Livestock | Fodder Crop | Lower palatability, lack of high yielding multicut fodder varieties, and lower milk production | **Demonstration of high yielding fodder variety COFS-31 :**   * Demonstration of new variety COFS-31 * Scientific agronomic practices * Balanced ration practices | | C/B cows | HF and Jersy | TNAU, Coimbatore | COFS-31 seeds | 5 kg | 3200 | **5** | 16000 | 1. Fodder yield (t/ha)  2. Milk yield per day (liters)  3. B:C Ratio | Scientist (Animal Science) |
| Soil Analysis Charge | 3 samples | 450 | 2250 |
| **TOTAL** | | **3650** | **18250** |
|  | | |  |
| 6.7 | Livestock | Dairy | Urea molasses mineral block as source of Energy, Protein and minerals | **Urea Molasses mineral block (UMMB) supplementation**  **in lactating cows under rural management practices** | | C/B cows | HF Jersy | NDDM | UMMB blocks | 10 Nos. | 600 | **10** | 6000 | * Milk yield (L) * Fat (%) | Scientist (Animal Science) |
| Deworming | 500 ml | 800 | 8000 |
| **TOTAL** | | **1400** | **14000** |
|  | | |  |
| **Composition of UMMB** | |
| Ingredients | % |
| Molasses | 30-50 |
| Urea | 5-10 |
| Salt | 5-7 |
| Bran | 15-25 |
| Quick lime | 10 |
|  |  |  |  |  |  |  |  |  |  | | |  |  |  |  |
| 6.7 | Livestock | Dairy Animals | Infertility (28%) due to mineral deficiency, hormonal imbalance, parasitic infestation leads to decreased fertility, milk production and less number of calves per animal in the life span (economic loss) | **Integrated management of reproductive disorders in dairy animals:**   1. Deworming, control of ecto parasites and mineral mixture supplementation 15 days before synchronization 2. Feeding balanced ration 3. 1st day injecting GnRh hormone- 2.5 ml I/M per animal 4. 7th day injecting PGF2 hormone- 2.5 ml I/M per animal 5. 9th day injecting GnRh hormone- 2.5 ml I/M per animal 6. 10th day Artificial insemination 7. Scientific management practices | | C/B cows | HF Jersy | KVAFSU, Bidar.  NDRI, Bangalore | Chelated Mineral supplements | 5kg | 1200 | **10** | 12000 | 1. Conceive % 2. No. of AI / conceive 3. Fertility % | Scientist (Animal Science) |
| PGF2α | 2 ml-1 inj | 250 | 2500 |
| GnRH | 5 ml-2 inj | 550 | 5500 |
| Artificial insemination and balanced ration | 2-3 times | farmer | - |
| De-worming and control of ecto-parasites (Fenbendazole and dorometrin) | 3 bolus and  20 ml | 300 | 3000 |
| **TOTAL** | | **2300** | **23000** |
|  | | |  |
|  |  |  |  |  | |  |  |  |  | | |  |  |  |  |
| 6.7 | Livestock | Daily animals | Subclinical mastitis, lower milk yield, quality deterioration of milk and economic loss | **Demonstration of California mastitis test to detect mastitis in cows:**   1. Washing of udder before and after milking with kmno4 solution 2. Hygienic management of cattle shed 3. Early diagnosis of mastitis by California mastitis test and infusion of antibiotic to prevent mastitis | | C/B cows | HF Jersy | KVAFSU, BIDAR | CMT- kit and preventive measures | 02 No. | 1000 | **10** | 10000 | 1. Mastitis incidence (%) 2. Milk yield (liters) 3. Cost of treatment (Rs) | Scientist (Animal Science) |
| Intra mammary infusion | 04 No. | 500 | 5000 |
| **TOTAL** | | **1500** | **15000** |
|  | | |  |
| **6.8** | **Fisheries** |  |  |  | |  |  |  |  |  |  |  |  |  |  |
| 6.9 | Others:  Decomposition | Arecanut | 1. Huge quantity of areca husk is thrown on public places, it is burnt and creates pollution 2. Very slow degradation because of high lignin content | **Demonstration on decomposition of**  **Areca husk for value added compost:** Layer-wise filling of arecanut husk + decomposing culture (*Phanerochaete chrysosporium*) | | **-** | **-** | UAHS, Shivamogga | Decomposing culture (Microbial consortia) | 8 kg | 800 | **20** | 16000 | * Days for de-composition * Nutrient status * C:N Ratio | Programme Assistant (Lab),  Senior Scientist and Head,  Scientist (Agril. Extn) |
| Manure analysis charge  (C:N Ratio Analysis) | 4 Nos. | 600 | 12000 |
| **TOTAL** | | **1400** | **28000** |
|  | | |  |

**7. Training for farmers/ farm women during 2021-22**

| **Sl. No.** | **Thematic area and the crop/ enterprise** | **Crop / Enterprise** | **Related field intervention (OFT/FLD)** | **Training title** | **No. of courses** | **Expected No. of participants** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 7.1 | Crop production | Paddy | OFT | Production technology of fine rice varieties | 1 | 45 | Mr. M. Basavaraja |
|  |  | Paddy | FLD | 1. DSR method of paddy cultivation 2. ICM in Paddy | 1  1 | 30  30 | Mr. M. Basavaraja |
|  |  | Maize | FLD | 1. Improved production technology of maize 2. Management of Fall army worm in maize | 1  1 | 30  30 | Dr. Arun Kumar, B. R.,  Dr. B.C.Hanumanthaswamy |
|  |  | Ragi | FLD | ICM in Ragi | 2 | 60 | Mr. M. Basavaraja, |
|  |  | Cowpea | FLD | Integrated crop management in Cowpea variety UAHS-28 | 2 | 60 | Dr. Arunkumar P. |
|  |  | Green gram | CFLD | ICM in green gram | 3 | 90 | Dr. Arunkumar P. |
| 7.2 | Horticulture production | Tomato | FLD | 1. Importance and use of fertigation in tomato   2) ICM in tomato | 1  1 | 30  30 | Dr. Arunkumar P.  Miss G. B. Smitha |
|  |  | Tomato | OFT | 1. Organic cultivation of vegetable crops 2. Use of vegetable special in Vegetable crops to boost the yield | 1  1 | 30  30 | Dr. Arunkumar P. |
|  |  | Ginger | FLD | 1. Production technology of ginger 2. INM in ginger 3. Post harvest technology in ginger | 1  1  1 | 30  30  30 | Dr. Arun Kumar, B. R.,  Miss G. B. Smitha, |
|  |  | Cabbage | FLD | 1) ICM in cabbage  2) Foliar application of vegetable special to boost the yield | 1  1 | 30  30 | Miss G. B. Smitha |
|  |  | Mango | FLD | ICM in mango | 1 | 30 | Miss G. B. Smitha |
|  |  | Pineapple | FLD | Management of Heart rot in pineapple | 2 | 60 | Dr. B.C.Hanumanthaswamy |
|  |  | Pineapple | FLD | Preparation of pineapple jam | 2 | 60 | Dr. Jyoti M. Rathod |
| 7.3 | Livestock production | Fodder Crop | FLD | 1. Fodder production technology 2. Agronomic practices of forage crop production | 1  1 | 30  30 | Dr. Ashok, M. |
|  |  | Dairy | FLD | Commercial Dairy Farming | 1 | 30 | Dr. Ashok, M. |
|  |  | Poultry | OFT | New poultry breeds for rural poultry | 1 | 30 | Dr. Ashok, M. |
|  |  | Poultry | OFT | Small scale entrepreneurship in poultry | 1 | 30 | Dr. Ashok, M. |
|  |  | Poultry | OFT | Disease control measures in poultry | 1 | 30 | Dr. Ashok, M. |
|  |  | Poultry | OFT | Feeding management in backyard poultry | 1 | 30 | Dr. Ashok, M. |
|  |  | Dairy | FLD | Clean milk production | 1 | 30 | Dr. Ashok, M. |
|  |  | Dairy | FLD | Disease control measures in livestock | 1 | 30 | Dr. Ashok, M. |
| 7.4 | Home Science | Pineapple | FLD | Role of fruits and vegetables to increase the immunity | 1 | 30 | Dr. Jyoti M. Rathod |
|  |  | Pineapple | FLD | Importance of nutrition to maintain good health | 1 | 30 | Dr. Jyoti M. Rathod |
| 7.5 | Plant protection | Tomato | FLD | IPM in vegetable crops | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | Ginger | FLD | IPM in ginger | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | Paddy | FLD | IPM in Paddy | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | Bhendi | OFT | Management of short and fruit borer in Bhendi | 1 | 30 | Dr. Arunkumar P. |
| 7.6 | Production of inputs at site | Arecanut | OFT | Areca palm climbing through machine | 1 | 30 | Dr. Arunkumar P. |
| 7.7 | Soil health and fertility | Maize | FLD | Crop residue management | 1 | 30 | Dr. Arun Kumar, B. R. |
|  |  | Maize | FLD | Soil conservation | 1 | 30 | Dr. Arun Kumar, B. R. |
|  |  | Tomato | OFT | Soil Sampling & Soil health management | 1 | 30 | Dr. Arun Kumar, B. R. |
|  |  | Ginger | FLD | Acidic soil management | 1 | 30 | Dr. Arun Kumar, B. R. |
|  |  | Maize | OFT | Diagnosing & correcting Nutrient deficiencies in maize | 1 | 30 | Dr. Arun Kumar, B. R. |
| 7.8 | PHT and value addition | Pineapple | FLD | Importance of value addition to crops | 1 | 30 | Dr. Jyoti M. Rathod |
| 7.9 | Capacity building/  group dynamics | Green gram and Cowpea | FLD | Production technology of pulses | 1 | 30 | Dr. Arunkumar P. |
|  |  | Bhendi  Tomato | OFT | Production technology of vegetables | 1 | 30 | Miss G. B. Smitha |
| 7.10 | Farm mechanization | Arecanut | OFT | Mechanisation in arecanut | 1 | 30 | Dr. Arunkumar P. |
|  |  | Arecanut | OFT | Areca plam climbing through machine | 1 | 30 | Dr. Arunkumar P. |
| 7.11 | Fisheries production technologies |  |  | Composite fish culture |  |  |  |
| 7.12 | Mushroom production |  |  |  |  |  |  |
| 7.13 | Agro forestry |  |  |  |  |  |  |
| 7.14 | Bee keeping |  |  |  |  |  |  |
| 7.15 | Sericulture |  |  |  |  |  |  |
| 7.16 | Others, pl. specify | Arecanut | FLD | Areca husk decomposting for value added compost | 4 | 80 | Dr. Nagaraja R.,  Dr. B.C.Hanumanthaswamy, Dr. Arunkumar P. |

**8. Training for rural youth during 2021-22**

| **Sl. No.** | **Thematic area and the crop/ enterprise** | **Crop / Enterprise** | **Related field intervention (EDP/Skill development etc)** | **Training title** | **No. of courses** | **Expected No. of participants** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 8.1 | Crop production | Vermicompost | Skill development | Production technology of vermicompost | 1 | 35 | Mr. M. Basavaraja |
|  |  | Cereals and Pulses | Skill development | Seed treatment in cereals and pulses | 1 | 30 | Dr. Arunkumar P.,  Mr. M. Basavaraja |
| 8.2 | Horticulture production | Fruits and vegetables | Skill development | Nursery techniques in fruits and vegetable crops | 1 | 30 | Miss G. B. Smitha |
|  |  | Vegetables | Skill development | Organic cultivation of vegetable crops | 1 | 30 | Miss G. B. Smitha |
|  |  | Vegetables | Skill development | Use of vegetable special in Vegetable crops to boost the yield | 1 | 30 | Dr. Arun Kumar, B. R. |
|  |  | Vegetables | Skill development | Fortigation in vegetable crops | 1 | 30 | Dr. Arunkumar P. |
| 8.3 | Livestock production | Poultry | EDP | Entrepreneurship in backyard poultry | 1 | 30 | Dr. Ashok, M. |
|  |  | Sheep and goat farming | EDP | Stall feeding system of sheep and goat | 1 | 30 | Dr. Ashok, M. |
| 8.4 | Home Science | Fruits | EDP | Processing and value addition of fruits | 1 | 30 | Dr. Jyoti M. Rathod,  Miss G. B. Smitha,  Dr. Ashok, M. |
|  |  | Vegetable | EDP | Processing and value addition of vegetables | 2 | 60 | Dr. Jyoti M. Rathod,  Miss G. B. Smitha,  Dr. Ashok, M. |
|  |  | Milk value addition | EDP | Processing and value addition of milk | 2 | 60 | Dr. Jyoti M. Rathod,  Miss G. B. Smitha,  Dr. Ashok, M. |
|  |  | Pineapple | EDP | Value addition to pineapple | 2 | 60 | Dr. Jyoti M. Rathod,  Miss G. B. Smitha,  Dr. Ashok, M. |
| 8.5 | Plant protection | Coconut | Skill development | Management of Rugose whitefly in coconut | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | Arecanut | Skill development | Management of root grub in arecanut | 1 | 30 | Dr. B.C.Hanumanthaswamy |
| 8.6 | Production of inputs at site |  |  |  |  |  |  |
| 8.7 | Soil health and fertility | Composting | EDP/Skill development | Composting techniques | 1 | 30 | Dr. Arun Kumar, B. R. |
| 8.8 | PHT and value addition | Pineapple | EDP/Skill development | Value addition to pineapple | 1 | 30 | Dr. Jyoti M. Rathod, Dr. Ashok, M., Miss G. B. Smitha, |
| 8.9 | Capacity building/ group dynamics | Arecanut | Skill development | Areca husk composting | 1 | 30 | Dr. Nagaraja R. |
| 8.10 | Farm mechanization | Paddy | Skill development | Paddy mechanization | 1 | 30 | Dr. Arunkumar P. |
|  |  | Paddy | Skill development | Mechanized paddy cultivation | 1 | 30 | Mr. M. Basavaraja |
|  |  | Arecanut | Skill development | Areca palm climbing | 1 | 30 | Dr. Arunkumar P. |
|  |  | Coconut | Skill development | Coconut palm climbing | 1 | 30 | Dr. Arunkumar P. |
| 8.11 | Fisheries production technologies | Fishery | Skill development | Composite fish cultivation | 1 | 30 | Dr. Ashok, M. |
| 8.12 | Mushroom production | Mushroom | Skill development | Oyster mushroom production technology | 1 | 25 | Dr. NAgaraja R., Dr. B.C.Hanumanthaswamy,  Dr. Arunkumar P. |
| 8.13 | Agro forestry |  |  |  |  |  |  |
| 8.14 | Bee keeping | Apiculture | Skill development | Rearing techniques of honey bees | 1 | 30 | B.C.Hanumanthaswamy, |
| 8.15 | Sericulture | Moriculture | Skill development | Mulberry cultivation practices | 1 | 25 | Dr. Arunkumar P. |
| 8.16 | Others, pl. specify | ICT | Skill | Importance and use of ICT in agriculture | 1 | 30 | Dr. Arunkumar P.  Dr. Nagaraja R. |
|  |  | Arecanut | Skill development | Use of waste decomposition | 1 | 25 | Dr. Nagaraja R.,  Dr. Arunkumar P. |

### 9. Training for extension personnel during 2021-22

| **Sl. No.** | **Thematic area and the crop/ enterprise** | **Training title** | **No. of courses** | **Expected No. of participants** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- |
| 9.1 | Crop production | Waste decomposition methods | 1 | 30 | Mr. M. Basavaraja, Dr. Nagaraja R. |
|  |  | Use of biofertilizers in organic farming | 1 | 30 | Mr. M. Basavaraja |
| 9.2 | Home Science | Importance of nutrigarden in Anganawadi | 1 | 30 | Dr. Jyoti M. Rathod |
| 9.3 | Capacity building and group dynamics | Importance of ICT in agriculture | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R. |
|  |  | Role and importance of SHG and micro-finance | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R. |
| 9.4 | Horticulture | Protected cultivation of vegetable crops | 1 | 30 | Miss G. B. Smitha |
|  |  | ICM in vegetables | 1 | 30 | Miss G. B. Smitha |
|  |  | Commercial cultivation of major flower crops | 1 | 30 | Miss G. B. Smitha |
| 9.5 | Livestock production and management | Commercial poultry farming | 1 | 30 | Dr. Ashok, M. |
|  |  | Post mortem in large animals | 1 | 30 | Dr. Ashok, M. |
|  |  | Research developments in livestock treatment | 1 | 30 | Dr. Ashok, M. |
|  |  | Management of Kyasanur Forest Disease (KFD) | 1 | 30 | Dr. Ashok, M. |
|  |  | Emerging diseases of livestock | 1 | 30 | Dr. Ashok, M. |
| 9.6 | Plant protection | IPM in maize | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | IPM in paddy | 1 | 30 | Dr. B.C.Hanumanthaswamy |
|  |  | IPM in vegetable crops | 1 | 30 | Dr. B.C.Hanumanthaswamy |
| 9.7 | Farm mechanization | Areca and coconut palm climbing through machine | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R., Mr. M. Basavaraja |
|  |  | Mechanized paddy cultivation | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R., Mr. M. Basavaraja |
|  |  | Post harvest management in agriculture crops | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R., Mr. M. Basavaraja |
| 9.8 | PHT and value addition | Post harvest management in horticulture crops | 1 | 30 | Dr. Arunkumar P., Dr. B.C.Hanumanthaswamy,  Dr. Nagaraja R., Mr. M. Basavaraja |
| 9.9 | Production of inputs at site |  |  |  |  |
| 9.10 | Sericulture |  |  |  |  |
| 9.11 | Fisheries |  |  |  |  |
| 9.12 | Other, pl. specify | Soil analysis and recommendations | 2 | 40 | Dr. Arun Kumar, B. R. |

## 10. Vocational trainings during 2021-22

| **Sl. No.** | **Thematic area and the crop/ enterprise** | **Training title** | **No. of programmes** | **Duration (days)** | **Expected**  **No. of participants** | **Sponsoring agency, if any** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 10.1 | Crop production | Vermi composting | 1 | 7 | 20 | - | Mr. M. Basavaraja,  Dr. Nagaraja R. |
| 10.2 | Home Science | Value addition to pineapple | 1 | 6 | 30 | ARYA | Dr. Jyoti M. Rathod,  Dr. Ashok, M., Miss G. B. Smitha, Mr. Raghu, A. N. |
|  |  | Value addition to millets | 1 | 6 | 30 | ARYA | Dr. Jyoti M. Rathod,  Dr. Ashok, M., Miss G. B. Smitha, Mr. Raghu, A. N. |
| 10.3 | Capacity building and group Dynamics |  |  |  |  |  |  |
| 10.4 | Horticulture | Establishment and maintenance of terrace garden and kitchen garden | 1 | 6 | 30 | - | Miss G. B. Smitha |
|  |  | Preparation of eco-friendly value added products from areca leaf sheath | 1 | 6 | 30 | - | Miss G. B. Smitha |
|  |  | Asexual propagation methods in horticulture crops | 1 | 6 | 30 | - | Miss G. B. Smitha |
| 10.5 | Livestock production and management | Backyard Poultry management | 1 | 6 | 30 | - | Dr. Ashok, M. |
|  |  | Stall feeding rearing system of sheep | 1 | 6 | 30 | - | Dr. Ashok, M. |
| 10.6 | Plant protection | Production technology of Bio-pesticides | 1 | 6 | 30 | - | Dr. B.C.Hanumanthaswamy |
|  |  | Bee products and their importance | 1 | 6 | 30 | - | Dr. B.C.Hanumanthaswamy |
| 10.7 | Farm mechanization | Coconut palm climbing through machine | 1 | 6 | 30 | ARYA | Dr. Arunkumar P.,  Dr.B.C.Hanumanthaswamy, Dr. Nagaraja R.,  Mr. Raghu, A. N.,  Mr. M. Basavaraja, |
|  |  | Areca palm climbing through machine | 1 | 6 | 30 | - | Dr. Arunkumar P.,  Dr.B.C.Hanumanthaswamy,  Dr. Nagaraja R. |
| 10.8 | PHT and value addition | Post harvest management in agriculture and horticulture crops | 1 | 6 | 30 | - | Dr. Arunkumar P.,  Dr.B.C.Hanumanthaswamy, Dr. Nagaraja R. |
| 10.9 | Production of inputs at site |  |  |  |  |  |  |
| 10.10 | Sericulture |  |  |  |  |  |  |
| 10.11 | Fisheries |  |  |  |  |  |  |
| 10.12 | Other, pl. specify | Bee keeping | 1 | 6 | 30 | ARYA | Dr. B.C.Hanumanthaswamy,  Mr. Raghu, A. N. |

## 11. Sponsored trainings during 2021-22

| **Sl.No.** | **Thematic area and the crop/ enterprise** | **Training title** | **No. of programmes** | **Duration (days)** | **Expected number of participants** | **Sponsoring agency** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 11.1 | Crop production | Soil health management | 2 | 2 | 60 | ATMA | Dr. Arun Kumar, B. R. |
| 11.2 | Home Science | Value addition to finger millet | 2 | 6 | 20 | ARYA | Dr. Jyoti M. Rathod,  Mr. Raghu, A. N. |
| 11.3 | Capacity building and group Dynamics |  |  |  |  |  |  |
| 11.4 | Horticulture | Nursery techniques in horticulture crops | 2 | 6 | 20 | ARYA | Miss G. B. Smitha,  Mr. Raghu, A. N. |
| 11.5 | Livestock production and management | Stall feeding system for sheep and goat rearing | 2 | 3 | 60 | ATMA | Dr. Ashok, M. |
| 11.6 | Plant protection | IPM in paddy and maize | 2 | 2 | 60 | ATMA | Dr. B.C.Hanumanthaswamy |
| 11.7 | Farm mechanization | Coconut palm climbing through machine | 1 | 6 | 30 | ARYA | Dr. Arunkumar P.,  Dr. B.C.Hanumanthaswamy,  Dr. Jyoti M. Rathod,  Miss G. B. Smitha,  Mr. Raghu, A. N. |
| 11.8 | PHT and value addition |  |  |  |  |  |  |
| 11.9 | Production of inputs at site |  |  |  |  |  |  |
| 11.10 | Sericulture |  |  |  |  |  |  |
| 11.11 | Fisheries |  |  |  |  |  |  |
| 11.12 | Others, pl. specify | Bee keeping | 2 | 6 | 60 | ARYA | Dr. B.C.Hanumanthaswamy, Mr. Raghu, A. N. |

## 12. Extension activities during 2021-22

| **Sl. No.** | **Extension activity** | **No. of activities** | **Targeted number of participants** | **Names of the team members involved** |
| --- | --- | --- | --- | --- |
| 12.1 | Advisory services | 400 | 5500 | SS&H, Scientists, PAs and FM |
| 12.2 | Diagnostic visits | 8 | 50 | SS&H, Scientists and Line Dept. officials |
| 12.3 | Field days | 12 | 750 | SS&H, Scientists, PAs and FM, Line department officials |
| 12.4 | Group discussions | 20 | 450 | SS&H, Scientists, PAs and FM |
| 12.5 | Kisangosthies | 2 | 250 | SS&H and All Scientists, PAs and FM, Line department officials |
| 12.6 | Film shows | 10 | 1800 | SS&H and All Scientists |
| 12.7 | Self -Help Groups (SHGs) meetings | 3 | 300 | SS&H and All Scientists |
| 12.8 | KisanMelas | 5 | 1500 | SS&H, Scientists, PAs and FM, Line department officials |
| 12.9 | Exhibitions | 5 | 3000 | SS&H, Scientists, PAs and FM, Line department officials |
| 12.10 | Scientists' visit to farmers fields | 120 | 800 | SS&H and All Scientists |
| 12.11 | Plant/soil health/animal health camps | 12 | 550 | SS&H, Scientists, PA and FM |
| 12.12 | Farm science club meetings | - | - |  |
| 12.13 | Ex-trainees sammelans (Meetings) | 2 | 125 | SS&H and All Scientists |
| 12.14 | Farmers' seminars/workshops | 6 | 280 | SS&H, Scientists, PA and FM |
| 12.15 | Method demonstrations | 25 | 900 | SS&H, Scientists, PA and FM |
| 12.16 | Celebration of important days | 4 | 400 | SS&H, Scientists, PA and FM |
| 12.17 | Special day celebrations | 4 | 350 | SS&H and All Scientists |
| 12.18 | Exposure visits | 8 | 320 | SS&H, Scientists, PA |
| 12.19 | Technology week celebration | 1 | 500 | SS&H and All Scientists |
| 12.20 | Farmers Field School (FFS) | 2 | 60 | SS&H, Scientists and PA |
| 12.21 | Farm innovators meet | 2 | 220 | SS&H and All Scientists |
| 12.22 | Awareness programmes | 3 | 150 | SS&H and All Scientists |
| 12.23 | Pre-Kharif campaign | 1 | 150 | SS&H and All Scientists |
| 12.24 | Pre-Rabi/Summer campaign | 1 | 150 | SS&H and All Scientists |
| 12.25 | Others, pl. specify | - | - | - |

## 13. Activities proposed as knowledge and resource centre during 2021-22

**13.1 Technological knowledge**

| **Sl. No.** | **Category** | **Details of technologies** | **Area (ha)** | **Number** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- |
| 13.1.1 | Technology park/ crop cafeteria | Groundnut : G2-5-2 | 0.70 | 8 | Dr. B.C.Hanumanthaswamy,  Mr. M. Basavaraja,  Dr. Niranjana K. S. |
| Ragi : GPU-28 and KMR-630 | 0.30 |
| Cowpea : UAHS-28  Green gram : KKM-3  Field bean : HA-4  Redgram : BRG-5  Black gram : Rashmi | 0.80 |
| Fodder seeds :CoFS-29 & 31 | 0.20 |
| 13.1.2 | Demonstration units | Horticulture nursery  Poultry unit  Sheep unit  Vermicompost pit | 0.40 | 20000 plants  25 birds  1 unit  2 units | Dr. B.C.Hanumanthaswamy,  Mr. M. Basavaraja, Dr. Ashok, M.,  Miss G. B. Smitha, Dr. Niranjana K. S. |
| 13.1.3 | Lab analytical services | SWTL |  |  | Dr. Arun Kumar, B. R., Dr. Nagaraja R., |
| 13.1.4 | Technology week | * Soil and water conservation * Soil health management * Production technology of fruits and plantation crops * IPM in agriculture and horticulture crops * Value addition and post harvest technology * Livestock management * Marketing of agriculture and horticulture products | - | 7 | Senior Scientist and Head, all scientists, PAs and FM |
| 13.1.5 | Others, Pl. specify |  |  |  |  |

**13.2 Technological products**

| **Sl. No.** | **Category** | **Name of the production**  **partner agency, if any** | **Name of the product** | **Quantity planned to be produced during 2021-22 (q)** | **Number planned to be produced during 2021-22** | **Names of the team members involved** |
| --- | --- | --- | --- | --- | --- | --- |
| 13.2.1 | Seeds | Seed unit, UAHSS and KSSC | Groundnut G-2-52 | 15.0 q | - | Senior Scientist and Head, Farm Manager |
|  |  | Seed unit, UAHSS | Ragi GPU-28 | 3.0 q | - | Senior Scientist and Head, Farm Manager |
|  |  | Seed unit, UAHSS | Ragi KMR-630 | 3.0 q | - | Senior Scientist and Head, Farm Manager |
| 13.2.2 | Planting material | Seed unit, UAHS | Coconut (Arasikere tall) |  | 3000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Arecanut  (Maidan local) |  | 10000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Papaya (Taiwan Red lady) |  | 5000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Drumstick (PKM-1 and Bhagya) |  | 5000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Curry leaf (Suhasini) |  | 1000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Lime (Local) |  | 1000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Pepper (Panniyur-1) |  | 1000 | Senior Scientist and Head, Farm Manager |
|  |  |  | Cashew (V-4) |  | 500 | Senior Scientist and Head, Farm Manager |
|  |  |  | Vegetable seedlings |  | 5000 | Senior Scientist and Head, Farm Manager |
| 13.2.3 | Bio-products |  |  |  |  |  |
| 13.2.4 | Livestock strains | Vet. College, Shivamogga | Poultry birds | - | 100 | Scientist (Animal Science), Farm Manager |
| 13.2.5 | Fish fingerlings |  |  |  |  |  |
| 13.2.6 | Any other, pl specify |  |  |  |  |  |

**13.3 Technological information**

| **Sl. No** | **Category** | **Technological capsules/lectures/number** | **Names of the team members involved** |
| --- | --- | --- | --- |
| 13.3.1 | Technology backstopping to line departments |  |  |
|  | 1. Agriculture | Krishi Abhiyana -8, RSK visits – 30, ATMA meetings – 5  Special Days-6, bi-monthly meetings-6, lectures-12, diagnostic visit-6 | Dr. B.C.Hanumanthaswamy,  Dr. M. Basavaraja, Dr. Nagaraja R. |
|  | 1. Horticulture | Exhibition, Meetings, Field visits, Trainings | Miss G. B. Smitha |
|  | 1. Animal Husbandry | Trainings, Seminars, Meetings, Health camps | Dr. Ashok, M. |
|  | 1. Fisheries | Training, Meeting | Dr. Ashok, M. |
|  | 1. Agricultural Engineering |  |  |
|  | 1. Sericulture | Training, Meetings, field visits | Dr. B.C.Hanumanthaswamy |
|  | 1. Others, pl. specify |  |  |
| 13.3.2 | Literature/publication | 1. Areca husk decomposition – Folder 2. Ragi production technologies – Folder 3. Maize production technologies – Folder 4. Direct seeded rice – Folder 5. Banana cultivation – Bulletin 6. Ginger cultivation – Bulletin 7. Arecanut production technology – Bulletin 8. Management of Fall armyworm – Folder 9. Natural enemies of honey bees – Folder 10. Management of pest and diseases of Bhendi – Folder | 1. Dr. Nagaraja R. 2. Mr. M. Basavaraja 3. Mr. M. Basavaraja 4. Mr. M. Basavaraja 5. Miss G. B. Smitha 6. Scientist (Horticulture) 7. Scientist (Horticulture) 8. Dr. B.C.Hanumanthaswamy 9. Dr. B.C.Hanumanthaswamy 10. Dr. B.C.Hanumanthaswamy |
| 13.3.3 | Electronic media | Youtube, WhatsApp Group, website, Face book, E-mail, Radio, TV, CD/DVDs | Senior Scientist and Head, All scientists, PA’s and FM |
| 13.3.4 | Kissan mobile advisory services | - | - |
| 13.3.5 | Information on centre/state sector schemes and service providers in the district (Data may be collected from different agencies). | Information on schemes of line departments will be collected and documented | SS&H, All Scientists, Programme Assistant (Computer), Programme Assistant (Lab Technician) & Farm Manager |

## 14. Additional activities planned during 2021-22

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the agency / scheme** | **Name of activity** | **Technical programme with quantification** | **Financial outlay (Rs.)** | **Names of the team members involved** |
|  |  |  |  |  |  |

**15. Revolving fund**

**15.1 Financial status of revolving fund**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Opening balance as on 01.04.2020 (Rs. in Lakh)** | **Expenditure incurred during 2020-21**  **(Rs.in Lakh)** | **Receipts during**  **2020-21**  **(Rs.in Lakh)** | **Closing balance as on 31.01.2021**  **(Rs.in Lakh)** | **Expected closing balance by 31.03.2021(Including value of material in stock/ likely to be produced)** |
| **12.61** | **7.20** | **4.38** | **9.79** | **8.51** |

**15.2 Plan of activities under revolving fund**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Proposed activities** | **Expected output** | **Anticipated income (Rs.)** | **Names of the team members involved** |
| 1. | Vermi compost production unit | 5 tonn | 40000 | Mr. M. Basavaraja, Dr. Nagaraja R. |
| 2. | Trichoderma production | 2 q. | 20000 | Dr. Nagaraja R. Mr. M. Basavaraja, Dr. Niranjana K. S. |
| 3. | Preparation of different chutney powders | 30 kgs. | 22000 | Dr. Jyoti M. Rathod |
| 4. | Horticulture nursery | 25000 plants | 400000 | Dr. Niranjana K. S., Miss G. B. Smitha |
| 5. | Poultry | 50 birds | 10000 | Dr. Ashok, M., Dr. Niranjana K. S. |
| 6. | Sheep rearing | 20 Nos. | 25000 | Dr. Ashok, M., Dr. Niranjana K. S. |

## 16. Activities of soil, water and plant testing laboratory during 2021-22

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No.** | **Type of samples** | **No. of samples to be analyzed** | **Names of the team members involved** |
| 16.1 | Soil test using analytical lab | 2500 | Dr. Arun Kumar, B. R., Dr. Nagaraja R., |
| 16.2 | Soil test using mobile analysis kit | - |  |
| 16.3 | Water | 1200 | Dr. Arun Kumar, B. R., Dr. Nagaraja R., |
| 16.4 | Plant |  |  |
| 16.5 | Others, pl. specify |  |  |
|  | Manure | 50 | Dr. Arun Kumar, B. R., Dr. Nagaraja R., |

## 17. E-linkage during 2021-22

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Nature of activities** | **Likely period of completion**  **(please set the time frame)** | **Remarks if any** |
| 17.1 | Title of the technology module to be prepared | December, 2021 | - |
| 17.2 | Creation and maintenance of relevant database system for KVK | Periodically maintaining the database of KVK activities in MS-Excel and MS-Office | Required training on database management which should be user friendly |
| 17.3 | Any other (Please specify) |  |  |

**18. Activities planned under rainwater harvesting scheme (only to those KVKs which are already having scheme under rain water harvesting):NIL**

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

**19. Farmers Field School (FFS) planned**

|  |  |  |
| --- | --- | --- |
| **Thematic area** | **Title of the FFS** | **Budget proposed in Rs.** |
| Production and management | Fettering of sheep in stall feeding system | 25000 |
| Production technology | Production technology of French Bean | 25000 |

**20. Integrated Farming System (IFS) planned :**

|  |  |  |
| --- | --- | --- |
| **Description of model(s)** | **No. of models/units** | **Budget proposed in Rs.** |
| Field crops, horticulture crops, livestock, bee keeping, fodder production | 5 | 50,000 |

**21. Details of budget utilization (2020-21) upto 31 January 2021 (Rs.)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **-Sl**  **No** | **Particulars** | **Allotment** | **Expenditure** | **Balance** |
| 1. **REVENUE (RECURRING CONTINGENCIES)** | | | | |
| 1. | Pay and Allowance | 19179000.00 | 15631772.00 | -806455.00 |
| 2. | Travelling Allowance | 20000.00 | 19954.00 | 46.00 |
| **3. CONTINGENCIES** | | | | |
| a. | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance | 325000.00 | 324997.00 | 3.00 |
| b. | POL, repair of vehicles, tractor and equipments | 200000.00 | 199983.00 | 17.00 |
| c. | Food/refreshment for trainees | 90000.00 | 89924.00 | 76.00 |
| d. | Training material | 70000.00 | 69918.00 | 82.00 |
| e. | Frontline demonstration except oil seeds and pulses | 295000.00 | 294984.00 | 16.00 |
| f. | On farm testing | 106000.00 | 106000.00 | 0 |
| g. | Integrated Farming System | - |  |  |
| h. | Training of extension functionaries | 25000.00 | 24987.00 | 13.00 |
| i. | Extension Activities | 25000.00 | 24941.00 | 59.00 |
| j. | Farmers' Field School | - | - | - |
| k. | EDP / Innovative activities | 15000.00 | 14200.00 | 800.00 |
| l. | Soil & Water Testing & Issue of Soil Health Cards | 25000.00 | 24918.00 | 82.00 |
| m. | Maintenance of building | 50000.00 | 49964.00 | 36.00 |
| n. | Nutrigardens | 27000.00 | 26970.00 | 30.00 |
| o. | Library | 5000.00 | 4981.00 | 19.00 |
|  | **Total (A)** | **20457000.00** | **21262176.00** | **-807734.00** |
|  | **Capital (Non-Recurring Contingencies)** | | | |
| B. | **Equipments & Furniture** | 243000.00 | 243000.00 | 00.00 |
|  | **Total (B)** | **243000.00** | **243000.00** | **00.00** |
|  | **Total (A+B)** | **20700000.00** | **21505176.00** | **-807734.00** |

**22. Details of Budget Estimate based on proposed action plan (2021-22)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No.** | **PARTICULARS** | | **Amount** |
| **A. REVENUE (Recurring Contingencies)** | | | |
| 1 | Pay & Allowances | | 1,98,00,000.00 |
| 2 | Traveling allowances | | 1,00,000.00 |
| 3 | Contingencies | | **21,47,000.00** |
| a | Stationery, telephone, postage and other expenditure on office running, publication of Newsletter | 5,00,000.00 |  |
| b | POL, repair of vehicles, tractor and equipments | 3,50,000.00 |  |
| c | Food/refreshment for farmers / extension personnel @ Rs.150/person/day | 1,00,000.00 |  |
| d | Training material (need based materials and equipments for conducting the training) | 1,00,000.00 |  |
| e | Frontline demonstration | 3,17,000.00 |  |
| f | On farm testing (on need based, location specific and newly generated information in the major production systems of the area) | 1,20,000.00 |  |
| g | Integrated Farming System (IFS) (Min. 5 Units) | 50,000.00 |  |
| h | Training of extension functionaries | 25,000.00 |  |
| i | Extension Activities | 50,000.00 |  |
| j | Farmers' Field School | 50,000.00 |  |
| k | EDP (2 Nos.) / Innovative activities | 50,000.00 |  |
| l | Soil & Water Testing & Issue of Soil Health Cards | 1,00,000.00 |  |
| m | Maintenance of building (Repair & Renovation) | 3,00,000.00 |  |
| n | Nutrigardens - 30 demonstrations | 30,000.00 |  |
| o | Video Production |  |  |
| p | Library (Purchase of Journal, Periodicals, News Paper & Magazines) | 5,000.00 |  |
| **TOTAL (A)** | | | **2,20,47,000.00** |
| **B. CAPITAL (Non-Recurring Contingencies)** | |  |  |
| 1 | Equipments& Furniture | | 3.00 |
| 2 | Works | | 3.00 |
| 3 | Vehicle | |  |
|  | a) Four Wheeler (Replacement) |  |  |
| 4 | Library (Purchase of assets like books & journals back volume) | |  |
| **TOTAL (B)** | | | **6.0** |
| **GRAND TOTAL (A+B+C)** | | | **2,26,47,000.00** |

**-:O:-**