ICAR-ATARI, ZONE–XI, HEBBAL, BENGALURU

ACTION PLAN 2019-20

ICAR-TARALABALU KRISHI VIGYAN KENDRA, DAVANAGERE

1. General information about the Krishi Vigyan Kendra

1.1	Name and address of KVK with phone, fax and e-mail ID	:	**ICAR-Taralabalu Krishi Vigyan Kendra** Kadalivana, LIC Colony Layout, BIET College Road, DAVANAGERE-577004, Karnataka Phone : 08192-263462, 297142 E-Mail : dvgtkvk@yahoo.com, kvk.Davanagere@icar.gov.in
1.2	Name and address of host organization	:	Taralabalu Rural Development Foundation SIRIGRE-577541, Chitradurga District
1.3	Year of sanction	:	2004-05
1.4	Website address of KVK and date of last update		www.taralabalukvk.com

2. Details of staff as on date

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If permanent, please indicate		Date of joining	If temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current pay band	Current grade pay		
2.1	Senior Scientist & Head	Dr. Devaraja T.N.	Fishery	37400-67000 PB-4	10000	17-05-2005	Permanent
2.2	Subject Matter Specialist	Mr. Basavanagowda M.G.	Horticulture	15600-39100 PB-3	6600	21-11-2006	Permanent
2.3	Subject Matter Specialist	Mr. Mallikarjuna B.O.	Agronomy	15600-39100 PB-3	6600	09-01-2008	Permanent
2.4	Subject Matter Specialist	Dr. Jayadevappa G.K.	Animal Science	15600-39100 PB-3	6600	29-01-2008	Permanent
2.5	Subject Matter Specialist	Mr. Raghuraja J.	Agri. Extension	15600-39100 PB-3	6600	23-06-2008	Permanent
2.6	Subject Matter Specialist	**Vacant**	Plant Protection	15600-39100 PB-3	5400	--	**Vacant**
2.7	Subject Matter Specialist	Mr. H.M. Sannagoudra	Soil Science	15600-39100 PB-3	5400	01-07-2013	Permanent
2.8	Programme Assistant (Lab Assistant)	Mr. Revanasiddappa G.B.P.	Lab. Technician	9300-34800 PB-2	4200	11-04-2012	Permanent

2.9	Programme Assistant (Computer Programmer)	Mr. Santhosh B.	Computer	9300-34800 PB-2	4600	05-09-2008	Permanent
2.10	Programme Assistant (Farm Manager)	Mr. Vijayakumar S.B.	Farm Manager	9300-34800 PB-2	4200	23-06-2008	Permanent
2.11	Assistant	Mr. Mallikarjuna S. Gudihindala	Administration	9300-34800 PB-2	4600	01-06-2005	Permanent
2.12	Stenographer	Smt. Mamatha H. Melmalagi	Administration	5200-20200 PB-1	2800	27-06-2005	Permanent
2.13	Driver 1	Mr. Marulasiddaiah N.M.	Jeep	5200-20200 PB-1	2400	01-06-2005	Permanent
2.14	Driver 2	Mr. Shivakumar S.	Tractor	5200-20200 PB-1	2400	01-06-2005	Permanent
2.15	Supporting staff 1	Mr. Shivakumar B.	Office Attendant	5200-20200 PB-1	1900	01-06-2005	Permanent
2.16	Supporting staff 2	Mr. Shivakumar S.E.	Farm Attendant	5200-20200 PB-1	1900	01-06-2005	Permanent

3. Details of SAC meeting conducted during 2018-19

Recommendations of 16th SAC meeting held on 18-12-2018

Group-I : To be addressed at KVK level

1. To go for rapid multiplication method for production of quality planting material in Pepper.
2. To involve farmers in vegetable seed production and to study Krishi Vigyan Kendra Thrissur Women Groups in this regard.
3. To collect the demand and supply statistics for Onion before season.
4. To promote dry fodder enrichment before feeding to animals.
5. To use least cost seed formulation while preparing compounded feeds at house hold level.
6. To use media properly to give wide publicity for successful technologies.
7. To promote Arka Microbial Consortium (IIHR, Bengaluru) for wilt problems.

Group-II : To be addressed through action plan of KVK in the year 2018-19

1. Develop District Crop Plan and Strategy documents and appraise District Commissioner.
2. Need to minimize use of weedicides in Arecanut.
3. To promote fish seeds production through farmers entrepreneurship which helps to scale up fisheries activities in the distinct.
4. To promote small ruminants rearing among small and marginal farmers and use crop residue efficiently.

Group-III : To be addressed through convergence with Development Departments

1. Direct Dry Seeded Rice (DSR) method of Paddy cultivation should be promoted in the entire district.
2. Alternate crops in place of Maize should be promoted through farmers awareness programmes and Media should be used effectively for this purpose.
3. Establishment of small minor millet processing and packing units and Groundnut Oil extraction units in Jagalur tq.
4. To start model nursery for production and supply of Pepper Seedlings.
5. Onion seeds (Good Quality) should be made available to farmers.
6. To identify lacunae in PMFBY and inform the problems faced by farmers to authorities.
7. To promote ripening chambers in Mango through Horticulture Department.
8. To facilitate one or two stalls in APMC for FPOs.
9. To include fisheries components in IFS model by earmarking 15 % area in the farmers.
10. To organize training for bank AEO's on latest Agricultural Technologies. Important tips on Agricultural Technologies to be broadcasted through AIR.

4. Details of operational areas proposed during 2019-20

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.)
1	2	3	4	5
Agasanakatte Davanagere taluk	Maize + Redgram	• Low yield • No intercrop • Cob worm incidence • Army worm and fall army worm • Use of old varieties like Hy 3c, TTB-7 and long duration	175 ha	**FLD -** Intercropping of pulses with (Redgram BRG-5) in Maize • **Training** - Importance of seed treatment for higher yield in intercropping system - Integrated pest management in Maize + Redgram • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**

	Tomato	• Low yield • Poor water management • No IPDM practices • Improved hybrids are not cultivated	25 ha	• **Training** - Production technology - IPDM practices • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities** • **Marketing & value addition**
	Arecanut	• Low yield • Inflorescence die back • No intercrops in Arecanut	40.5 ha	**FLD -** Integrated Pest and Disease Management in Arecanut • **Training** - Production technology of Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**
	Dairying	• Low milk yield • Scarcity of good quality fodder • Dealyed puberty	138 No.	• **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrums and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production • **Extension activities**
	Sheep and goat	• Lower body weight gain • Under nutrition • Worm infestation	45 No.	• **Training** - Effect of total deworming and balanced nutrition in small ruminants • **Method demonstrations** - Preparation of compounded feeds for sheep • **Extension activities**
	IFS	• Mono cropping systems	--	**Dryland IFS system – 10,000/-**

1	2	3	4	5
Ramathirtha Harihara taluk	Rice	• Low yield • BPH, Sheath blight and blast • Tail enders	30 ha	• **Training** - IPM for the stem borer and BPH • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Maize	• Low yield • No intercrop with redgram • Stem borer and doweny mildew • Incidence of fall army worm	130 ha	**FLD -** Intercropping of pulses with (Redgram BRG-5) in Maize • **Training** - Importance of seed treatment for higher yield in intercropping system - Integrated pest management in Maize + Redgram • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Arecanut	• Red mites in small plants • Incidence of Hidimundige • Incidence of nut splitting	15 ha	• **Training** - Production technology of Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**
	Betelvine	• Foot rot • Downey mildew • Scales, root grub and leaf curl • Powdery mildew	30 ha	**FLD –** Wilt management in Betelvine • **Training** - Recent trends in production technology of betelvine • **Method demonstrations** - Drenching of AMC - Lowering of vines • **Extension activities**
	Dairying	• Low yield • Infertility & repeat breeding • Mastitis	197 No.	**FLD –** Feeding dairy animals based on Indian standards for better performance • **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals

				- Importance of colostrums and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production • **Extension activities**
	Sheep & goat rearing	• Lower body weight gain • Worm infestation	89 No.	• **Training** - Effect of total deworming and balanced nutrition in small ruminants • **Method demonstrations** - Preparation of compounded feeds for sheep • **Extension activities**
	Fodder	• Low yield • Palatability problems	2 ha	• **Training** - Hydroponic fodder production technology • **Method demonstrations** - Preparation of fodder using hydroponic • **Extension activities**
	Fisheries	• No fish culture	--	**FLD -** Integrated management of fish culture in ponds • **Training** - Principles of fish farming • **Method demonstrations** - Feed formulation • **Extension activities**
	IFS	• Mono cropping systems	--	**Irrigated IFS system – 10,000/-**

1	2	3	4	5
Kadaranahalli Channagiri taluk	Rice	• Water scarcity (Tail end village) • BPH, Sheath blight and blast • Improper nutrient management (Excess of nitrogen application) • Increased cost of production	85 ha	**FLD –** Demonstration on Direct Seeded Rice • **Training** - IPM for the stem borer and BPH • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Arecanut	• No intercrop • Water scarcity • Nut splitting, premature dropping of nuts • Yellowing of leaves • Disposal of Arecanut husk on road sides	60 ha	• **OFT -** Evaluation of performance of different compost cultures to decompose arecanut husk • **Training** - Production technology of Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**
	Dairy	• Scarcity of good quality of fodder • Under /malnutrition • Mastitis	150 No.	**FLD –** Feeding colostrums and milk to female calves during early stage • **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrums and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production • **Extension activities**
	Fisheries	• No fish culture	--	• Introduction of fish culture
	Natural resource management Borewell recharge	• Depleted ground water level	--	• Rain water harvest to recharge borewells **(10 No.)** in convergence mode – **Rs. 3,00,000/-**
	Farm ponds	• No protective irrigation during critical stages of crop growth	--	• Construction of farm pond **(10 No.)** in convergence mode – **Rs. 2,00,000/-**
	IFS	• Mono cropping systems	--	**Irrigated IFS system – Rs. 10,000/-**

1	2	3	4	5
Rameshwara Honnali taluk	Maize	• Low yield • Sole crop • Army worm and fall army worm • Improper nutrient management (No potash application)	320 ha	**FLD -** Intercropping of pulses with (Redgram BRG-5) in Maize • **Training** - Importance of seed treatment for higher yield in intercropping system - Integrated pest management in Maize + Redgram • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Onion	• Lower yield • Incidence of sucking pests • Splitting of bulbs at bulbing stage	90 ha	**FLD –** Micronutrient management in Onion • **Training** - Integrated Crop Management in Onion • **Method demonstrations** - Seed treatment with biofertilizers • **Extension activities**
	Bengalgram	• Low yield • Low yielding varieties • No IPM measures • Poor nutrient management • Weed management • Broadcasting method of sowing	70 ha	• **Training** - Integrated Crop Management in Bengalgram - IPDM practices in Bengalgram • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Tomato	• Blossom end rot • Improper nutrient management • Pod borer • Blight incidence	40 ha	**FFS–** IPM in Tomato • **Training** - Production technology - IPDM practices • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Dairying	• Low milk yield • Scarcity of good quality fodder • Delayed puberty	200 No.	**FLD–** Feeding dairy animals based on Indian standards for better performance • **Training**

				- Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrums and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production • **Extension activities**
	Sheep	• Lower body weight gain • Worm infestation	150 NO.	**FLD –** Controlling parasitic infestations and feeding small ruminants based on Indian standards for better performance • **Training** - Effect of total deworming and balanced nutrition in small ruminants • **Method demonstrations** - Preparation of compounded feeds for sheep • **Extension activities**
	IFS	• Mono cropping systems	--	**Dryland IFS system – 10,000/-**

1	2	3	4	5
Rameshwara Honnali taluk	Enterprise Onion storage structure	• Lack of storage structure	--	• 30 x 12 feet, centre roofing height 9 feet **(2 No.)** • Convergence mode with Dept. of Horticulture • Total Cost Rs. 1,75,000/- (Subsidy Rs. 87,500/-) • Implemented through FPO
	Vermicompost unit	• Deteriorated soil fertility • Burning of agriculture residues	--	• Construction **10 No.** of units • Training and method demonstration • Convergence mode with Dept. of Horticulture • Total cost Rs. 60,000/- (Subsidy Rs. 30,000/-)
	Natural resource management – cleaning of water ways	• Water stagnation in farmers field • Low yield of field crops	--	• Clearing of water way leading to village tank (widening and deepening) in convergence mode - **Rs. 2,00,000/-**
	Village tank	• Silt accumulation • Reduction in Storage capacity • Weed menace	--	• De-silting and deepening of village tank **(26 acre)** in convergence mode - **Rs. 5,00,000/-** • Application of tank silt to farm field
	Farm ponds	• No protective irrigation during critical stages of crop growth	--	• Construction of farm pond **(10 No.)** in convergence mode - **Rs. 2,00,000/-**
	Capacity building	• Unorganised approach in production and marketing	--	• FPO strengthening

1	2	3	4	5
Marikunte Jagalur taluk	Maize	• No intercrop • Fall army worm • Imbalanced nutrient management • Moisture stress at critical stage of crop growth	310 ha	**FLD –** Intercropping of pulses with (Redgram BRG-5) in Maize • **Training** - Importance of seed treatment for higher yield in intercropping system - Integrated pest management in Maize + Redgram • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities** - Farm pond construction with convergence mode
	Cotton	• Improper nutrient management • Sucking pest and pink boll worm • Square dropping and leaf reddening	27 ha	**FLD –** Integrated Crop Management in Cotton • **Training** - Advanced production technologies in Cotton • **Method demonstrations** - Installation of yellow sticky traps - Preparation of spraying solutions • **Extension activities**
	Groundnut	• Imbalanced nutrient management • Collar rot • Use of TMV-2 variety	20 ha	• **Training** - Improved production technology for higher yield - Integrated Nutrient Management - Integrated Disease Management • **Method demonstrations** - Seed treatment with biofertilizers - Use of stripper • **Extension activities**
	Arecanut	• Imbalanced nutrient management • Inflorescence die back • No intercropping	30 ha	• **Training** - Production technology of Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**

	Chilli	• Imbalanced nutrient management • No IPDM practices	13 ha	**FLD –** Micronutrient management in Chilli • **Training** - Integrated Crop Management in Chilli • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Fingermillet	• Imbalanced nutrient management • Stem borer	17 ha	• **Training** - Integrated Crop Management in Fingermillet • **Method demonstrations** - Spraying of WSF • **Extension activities**
	Drumstick	• Monocropping of Maize	--	**OFT –** Assessment of crop management strategies in drumstick for higher yield **FLD –** Demonstration on Drumstick variety KDM-1 (Bhagya) • **Training** - Advanced production technologies in Drumstick • **Method demonstrations** - Pinching to 3 feet height • **Extension activities**
	Dairying	• Low milk yield • Poor feeding due to shortage of fodder • Delayed puberty	124 No.	• **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrums and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production

	Sheep	• Lowe body weight gain • Under nutrition • Worm infestation	950 No.	**FLD –** Balanced feeding and Total deworming in small ruminants for better performance • **Training** - Effect of total deworming and balanced nutrition in small ruminants • **Method demonstrations** - Preparation of compounded feeds for sheep • **Extension activities**
	IFS	• Mono cropping systems	--	**Dryland IFS system – 10,000/-**

1	2	3	4	5
Marikunte Jagalur taluk	Natural resource management borewell recharge	• Depleted ground water level	--	• Rain water harvest to recharge borewells **(2 No.)** in convergence mode - **Rs. 60,000/-**
	Natural resource management	• Soil and water erosion	--	• Formation of trench cum bund **(20 ha)** in convergence mode - **Rs. 2,00,000/-**
	Farm ponds	• No protective irrigation during critical stages of crop growth	--	• Construction of farm pond **(10 No.)** in convergence mode - **Rs. 2,00,000/-**
	Village tank	• Insufficient water	--	• Filling of tank with river water (Tungabhadra – Convergence)
	Capacity building	• Unorganised approach in production and marketing	--	• FPO strengthening

5. Technology assessment during 2019-20

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	Black pepper	• Lack of knowledge on suitable intercrop • Less return in existing intercrops • Fluctuation in prices	Assessment of different varieties of Black pepper as intercrop in Arecanut gardens	T_1	No intercrop	--	--	--	03	30,000/-	• Plant height (cm) • No. of leaves (No.) • Incidence of pest and disease (%)	SMS (Horticulture) SMS (Soil Science) SSH
				T_2- Panniyur-4	KAU	Seedlings	200 No	3000/-				
				T_3- Coorg Excel	CHES, Chettalli	Seedlings	200 No	3000/-				
				T_4- IISR-Thevam	IISR Calicut	Seedlings	200 No	4000/-				

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
5.2	Drumstick	• Improper nutrient management • Flower and fruit dropping	Assessment of crop management strategies in drumstick for higher yield	**T_1** Soil application of 100 g 15:15:15/plant along with FYM + Remaining ICM practices	--	--	--	--	05	4000/-	• Yield (q/ha) • No. of pods/ plant (No.) • Pod length (cm)	SMS (Soil Science) SMS (Horticulture) SSH
				T_2- Soil test based application of 54:134:32 $N:P_2O_5:K_2O$ / plant along with FYM +Remaining ICM practices	UHS, Bagalkot	--	--	--			
				T_3- Soil test based fertilizer application of 45:15:30 g of $N:P_2O_5:K_2O$/plant along with FYM + 0.4% Micronutrient mixture + 20ppm NAA (2 spays at flower initiation and 10 days after first spray) +Remaining ICM practices	TNAU, Coimbatore	Micronutrient mixture NAA	500 ml 200 ml	400/- 400/-				

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
5.3	Compost culture	• Improper disposal of arecanut husk • High lignin content • Lack of awareness on composting methods • Non availability of suitable microbial consortium	Evaluation of performance of different compost cultures to decompose arecanut husk	**T1**- Dispose of arecanut husk in road sides	--	--	--	--	05	5000/-	• Numbers of days to compost (No.) • C:N Ratio	SMS (Agronomy) SMS (Horticulture) SMS (Soil Science) SSH
				T_2- Composting the arecanut husk in a proper way by using UAS, Dharwad compost culture @ 2kg/t	UAS, Dharwad	Compost culture	3 kg	300/-				
				T_3- Composting the arecanut husk in a proper way by using decomposer compost culture @ 100 ml/t	NCOF, Newdelhi	Waste decmoposer	200 ml	200/-				
				T_4- Composting the arecanut husk in a proper way by using UAHS, Shivamogga compost culture @ 2kg/t	UASH, Shivamogga	Compost culture	3 kg	300/-				

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
5.4	Dairy	Generally dairy animals are fed with poor quality dry roughages along with a few feed ingredients. These fodders when fed to high yielding dairy animals would not support production and health due to deficiency of Protein, energy & minerals. Poor quality dry roughages when enriched with urea and fed along with Grain mixture (starch) improving the digestibility of dry roughages and supplied the crude protein & Energy(TDN) required by the animal.	Effect of feeding urea-treated dry fodders along with grain mixture for better performance in dairy animals	**T1**- Feeding dairy with low quality dry roughages and non-leguminous green fodders along with cake and bran items.	--	--	--	--	05	12,200/-	• Milk yield (Liters) • Specific gravity of milk (CLR) • Cost of milk production (Rs./l)	SMS (Animal Science) SMS (Agri. Extension) SSH
				T_2- Feeding dairy animals with urea-treated dry roughages, green fodders and compounded animal feeds as per the NRC Specifications	KVA & FSU, Bidar	Chelated Agrimin forte Hitek bolus (80 mg) Ostovet forte	5 kg 2 No. 5 l	600/- 120/- 550/-				
				T_3- Feeding dairy animals with urea-treated dry roughages, green fodders and compounded animal feeds as per the NRC specifications. PLUS using 1-2 kg grain mixture at the time of feeding urea-treated dry roughages	NIANP, Bengaluru	Chelated Agrimin forte Hitek bolus (80 mg) Ostovet forte	5 kg 2 No. 5 l	600/- 120/- 550/-				

6. Frontline demonstrations during 2019-20

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.1.1	Cereals	Rice	• Non availability of water for timely operation • Tail enders • Higher cost of production (65,000 ha) • Poor soil health • Indiscriminate use of fertilizers (150:80:30 kg N:P_2O_5:K_2/ha)	**Demonstration on Direct Seeded Rice** **Land Preparation and Sowing** : ✓ Land should be leveled and brought to fine tilth ✓ Seed rate–25 kg/ha ✓ Seed treatment with Bio Fertilizers (*Azosprillium*, PSB and KSB) ✓ Application of $ZnSO_4$ @20kg/ha **Integrated Weed Management:** **Pre-Emergent:** (2-3 DAS)-Pendimethilin 30EC 1 l/ha -500 to liter of water (grasses***, broad leaf**, Sedges*) **Post emergent :** (15-20 DAS) Bispyribac Sodium 100 SC – (grasses***, broad leaf**, Sedges*) 250 ml + Metsulfuron 20 WP (Broad leaf) – 20 g/ha. ✓ **Cycle weeder –power operated and bullock drawn , Hand weeding** **Plant Protection Measures:** ✓ Installation of pheromone traps @ 12 no/ha (24 lures)-Army worm (*Mythimna seperata*) ✓ Use of tricho cards @ 20 /acre ✓ Spraying of Chemicals	RNR-1 (Private variety)	--	UAS (R)

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Bio fertilizer	1 kg	100/-	10	38,500/-	• Yield (q/ha) • No. of plants/Sqm • Plant height (cm) • No. of productive tillers (No.) • Test weight 1000 seeds (g)	SMS (Agronomy) SMS (Soil Science) SSH
Hiring charges of seed cum fertilizer drill	--	1500/-				
Installation of pheromone traps @ 4 No./acre (8 lures) – Army worm (*Mythimna seperata*) + Tricho cards (15 No)	--	300/-				
$ZnSO_4$	8 kg	250/-				
Pendimethilin 30 EC (Pre-emergent 2-3 DAS)	0.5 l	200/-				
Power weeder hiring charges	--	500/-				
Bispyribac Sodium 100 SC (Post Emergent) -Grasses and Sedges -15-20 DAS -100 ml + Metsulfuron 20 WP (Broad leaf) 15 -20 DAS- 8 g or cyhalofop-butyl+penoxulam 1 liter per acre grasses	--	500/-				
Use of thrasher for cutting of the paddy stubbles	--	500/-				
	Total	**3,850/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.1.2	Cereals	Maize + Redgram	• Army worm incidence and fall army worm (60-100%) • No intercropping with pulses (90%) • Yield loss with sole crop upto 80% • Affected area – 500 ha • Soil health deterioration due to monocropping	**Intercropping of pulses (Redgram BRG-5) in Maize** ✓ Sowing of Redgram as an intercrop in maize (8:1) ✓ Spacing of 60X30 cm for maize and 60x60 cm ✓ Management (Spray with Chloropyripous @ 2ml/l (Stem Borer) and Mancozeb-2.5 g/l (Downey mildew) for Maize ✓ BRG-5 medium duration wilt tolerant variety ✓ Use of biofertilizers *Rhizobium,* PSB and VAM 1 kg each/ha ✓ Spray Pulse magic (UAS, Raichur) 10 g/l @ 5 kg/ha ✓ Nipping after 70 days after sowing DAS **Pod borer management** ✓ Installation of pheromone traps @ 8no. / ha (16 lures)- pod borer ✓ Installation of pheromone traps @ 12 no/ha (24 lures)-Army worm (*Mythimna seperata)* **Fall army worm management** ✓ Spray with profenophos @ 2ml/l- Ovicidal- 1 l/ha ✓ Preparation of Poison bait (20 kg rice bran + 2 kg Jaggery+Chloro+Cyper (250 ml))	BRG-5	Private hybrid	UAHS (S)

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Redgram BRG-5	3 kg	300/-	25	37,500/-	• Yield (q/ha) [Maize + Redgram] • No. of rows/cob (No.) [Maize] • No. of pods/plant (No.) [Redgram] • Incidence of pod borer & wilt (%)	SMS (Agronomy) SMS (Soil Science) SSH
$ZnSO_4$	4 kg	200/-				
Pulse magic	2 kg	500/-				
Pheromone traps 4 No. @ lures 6 number (Pod borer)	4 No.	200/-				
Pheromone traps 3 No. @ lures 6 number (Army worm)	3 No.	300/-				
		1,500/-				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.5.1	Commercial crops	Cotton	• Improper spacing (2^1 row spacing) • Improper nutrient management (140:100:75 kg $N:P_2O_5:K_2$/ha) • Incidence of sucking pest (10-30% yield bales) • Leaf reddening (Mg deficiency) • Square drying (25% yield loss)	**Integrated Crop Management in Cotton** ✓ Maintaining proper spacing (4 x 4 feet) ✓ Soil test based fertilizer application ✓ Trap crop Bhendi/Marigold (25:1) ✓ Yellow sticky traps ✓ Spraying Acetamaprid 20 SP @ 0.2 g/l against sucking pest ✓ Spraying of Planofix @ 1ml/4.5 l ✓ Spraying of $MgSO_4$ 1% @ 75 & 90 DAS ✓ Spraying of KNO_3 @ 1% at 90 & 110 DAS	--	BG-II	UAHS (Shivamogga)

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Yellow sticky trap	8 No.	400/-	20	38,000/-	• Yield (q/ha) • Percent square dropping (%) • Leaf reddening (%) • No. of bolls/plant (No.)	SMS (Soil Science) SMS (Agronomy) SSH
Pheromone traps	5 No.	250/-				
$MgSO_4$	2 kg	400/-				
KNO_3	2 kg	400/-				
Planofix	100 ml	200/-				
Safety kit	1	250/-				
	Total	**1,900/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.1	Horticultural crops	Arecanut	• No drainage (28%) • Incidence of Hidimundige (45%) • Lower fertility (28%) • Indiscriminate use of fertilizers (150:100:100/Plant)	**Integrated Pest and Disease Management in Arecanut** ✓ For every two rows one row of 2.5-3 feet drainage ✓ Loosening of soil around plant ✓ Avoiding flood irrigation ✓ Application of RDF based on soil test ✓ *Trichoderma* enriched organic manure ✓ Intercrop with velvet beans	Channagiri local	--	AICRP Arecanut (Shivamogga)

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Trichoderma harzianum	2 l	600/-	10	15,000/-	• Yield (q/ha) • Percent incidence of Hidimundige • Percent of nut splitting and dropping	SMS (Horticulture) SMS (Soil Science) SSH
Mucuna	5 kg	900/-				
	Total	**1,500/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.2	Horticultural crops	Betelvine	• Incidence of downey mildew (8%) • Sucking insect damage (15%) • Mealy bug for standard (32%) • Imbalance nutrition (17:17:17 @ 100 g/vine)	**Wilt management in Betelvine** ✓ Recommended RDF (0:50:50 g NPK/Vine) ✓ Controlled irrigation ✓ Drenching Copper oxy chloride @ 3 g/l @ lowering of vine ✓ Drenching AMC @ 5 ml/l- Thrice ✓ Spraying *Verticillium lecanae* @ 5 ml /l	Nagaveni	--	IIHR, Bengaluru

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Arka Microbial Consortium	2 l	500/-	10	9,500/-	• Yield (q/ha) • Percent of Wilt incidence (%) • Incidence of sucking pest (%)	SMS (Horticulture) SMS (Soil Science) SSH
Verticillium lecanae	1 l	450/-				
	Total	**950/-**				

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Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.3	Horticultural crops	Onion	• Use of Nyamathi local variety • Incidence of purple blotch (20%) • Incidence of thrips (15%)	**Micronutrient management in Onion** ✓ Use of Bhima Super variety (10 kg/ha) ✓ Application of gypsum (as source of sulphur) @ 2.5 q/ha ✓ Seed treatment with *Trichoderma harzianum* @ 4 g/kg ✓ Use of post emergent herbicide (Oxyfluorfen 23.5% EC @ 300 g/acre) ✓ Foliar nutrition with Arka Vegetable Special & water soluble fertilizers (30 and 60 DAT) @ 5 g/l ✓ 2 rows of maize as barrier crop to manage adult thrips ✓ Spray with Fipronil @ 1 ml/l to control sucking pest ✓ Spray with Hexaconazole @ 1 ml/l to purple blotch	Bhima super	--	AICRP on Onion and Garlic, RC, Hiriyur

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Trichoderma harzianum	1 l	300/-	20	14,000/-	• Yield (q/ha) • Germination of seed (%) • Weight of bulb (g)	SMS (Horticulture) SMS (Soil Science) SSH
Arka vegetable special	2 kg	400/-				
	Total	**700/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.4	Horticultural crops	Chilli	• Improper nutrient management (70:100:40 kg $N:P_2O_5:K_2$/ha) • Calcium, Boron and Zinc deficiency (20% yield loss) • Incidence of sucking pest (20-60% yield loss)	**Micronutrient management in Chilli** ✓ Weather based agronomic practices ✓ Soil test based nutrient application ✓ Application of Arka Microbial Consortium (10 ml for seed treatment, 10ml/l – drenching 10 DAT, 3 ml- Main field along with vermicompost) ✓ Spray of vegetable special @ 5g/l ✓ Spray of calcium + boron (Calbor) @ 5ml/l ✓ Use of yellow and blue sticky traps @ 25/ha ✓ Need based plant protection measures	--	Private	IIHR, Bengaluru

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Arka Microbial Consortium	3 l	750/-	10	31,000/-	• Yield (q/ha) • No. of fruits/plant (No.) • Plant height (cm) • Incidence of leaf curl (%)	SMS (Soil Science) SMS (Horticulture) SSH
Vegetable special	4 kg	800/-				
Calcium + Boron	1 l	400/-				
Verticillium lecanii	1 l	400/-				
Yellow sticky and blue sticky traps	10 No.	500/-				
Safety kit	1 No.	250/-				
	Total	**3,100/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.5	Horticultural crops	Drumstick	• Reduced ground water level (800 feet) • Mono cropping of maize	**Demonstration on Drumstick variety KDM-1 (Bhagya)** ✓ Demonstration of KDM-1 (Bhagya) variety ✓ Soil test based fertilizer application ✓ Intercropping with pulses/groundnut ✓ Need based plant protection measures ✓ Market intervention	KDM-1 (Bhagya)	--	UAHS, Shivamogga

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Seedlings of KDM-1 (Bhagya)	600 No.	6000/-	3	18,000/-	• Yield (q/ha) • Number of pods/plant	SMS (Soil Science) SMS (Horticulture) SSH
	Total	**6,000/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6.6	Horticultural crops	Banana	• Higher incidence of sigatoka leaf spot	**Management of Sigatoka leaf spot disease in Banana** ✓ Removal of affected leaves and burning ✓ Planting of seedlings in recommended spacing (6 x 6). ✓ Adaptation of drainage system ✓ Spraying of fungicides with p ✓ Repeat the spray depending upon incidence ✓ Soil application of trichoderma	Grandnaine	--	UAHS, Shivamogga

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Propiconazole	500 l	700/-	5	12500/-	• Yield (t/ha) • % incidence of leaf spot	SMS (Plant Protection) SMS (Horticulture) SMS (Soil Science) SSH
Petroleum based mineral oil	2 l	1800/-				
	Total	**2,500/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.7.1	Livestock	Dairy animals	• Weakness • Infertility problem (50-60% of the breedable population) • Low milk yield (4-5 /milk/day/animal)	**Feeding dairy animals based on Indian Standards for better performance** ✓ Timely Deworming and vaccination ✓ Use of compounded feed, minerals and vitamins required for body maintenance & production as per Feeding standards ✓ Dry fodder enrichment ✓ Silage making, ✓ Azolla cultivation &Use	-	HFx	KVAFSU, Bidar

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Hitek bolus (3 g)	1No.	60/-	20	57,800/-	• Milk yield (l/lactation) • Milk quality (Specific gravity) • Cost of feeding (Rs/l) • No. of AI/AIs for conceiving	SMS (Animal Science) SSH SMS (Agri. Extension)
Chelated Agrimin forte	5 kg	600/-				
Enzymex powder @ 5 g/kg dry fodder	1 kg	180/-				
Brolaytine tonic @ 2 ml/kg fodder	500 ml	450/-				
Plastic Drums (250 l)	2 No.	1600/-				
	Total	**2,890/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.7.2	Livestock	Small ruminants	• Lower body weight gain (18-20 kg at maturity) • Sudden mortality • Delayed puberty (Maturity @ 15-18 months)	**Controlling parasitic infestations and feeding small ruminants based on Indian standards for better performance** ✓ Balanced feeding based on standards ✓ Timely Deworming & Vaccination ✓ Use of special mineral mixtures & liver tonic	-	Bellaryx	KVAFSU, Bidar

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Fenbendazole (150 mg)	20 No.	100/-	10	13,000/-	• Body weight gain (kg) • Mortality rate (%) • Cost of meat production (Rs./kg)	SMS (Animal Science) SSH SMS (Agri. Extension)
Mineral mixture for sheep & goat (5 g/day/animal)	5 kg	600/-				
Liver tonic (K-Live – 5 ml/day/animal)	5 l	600/-				
	Total	**1,300/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.7.3	Livestock	Cross bred female calves	• Weakness • Pot belly (120-130 kg @ 1 year) • Lower body weight gain & delayed puberty (Takes 3 years to come to puberty)	**Feeding colostrums and milk to female calves during early stage** ✓ Colostrums feeding methods ✓ Deworming and vaccination ✓ Use of Milk Replacer ✓ Calf starter essential minerals and vitamins required for growth.	-	--	KVAFSU, Bidar

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Fentos (600 mg)	2 No.	50/-	10	21,500/-	• Body weight gain (kg) • Cost of feeding (Rs/day) • Age at puberty (months)	SMS (Animal Science) SSH SMS (Agri. Extension)
Agrimin forte (@ 25-30 g/day)	5 kg	600/-				
Milk replacer	2 kg	300/-				
Calf starter (Compounded feed @ 300-500 g/day)	40 kg	1200/-				
	Total	**2,150/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.8.1	Fisheries	Fish	• Low yield (8-10 q/ha)	**Integrated management of fish culture in ponds** ✓ Pond preparation and management ✓ Seed selection and stocking ✓ Feed and feeding management ✓ Health and water quality monitoring and harvesting	*Catla, Rohu, Common carp, Silver carp, Pangassius*	--	KVAFSU, Bidar

Name of critical input	Qty per demo	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
Fish seeds	5000 No.	5000/-	5	27,500/-	• Yield (t/ha) • Average body weight (g)	SSH SMS (Agri. Extension)
Area Specific Mineral Mixture	5 kg	500/-				
	Total	**5,500/-**				

8. Training for farmers/ farm women during 2019-20

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	Groundnut	OFT	Improved production technology for higher yield	01	30	SMS (Ag & SS)
		Groundnut	OFT	Integrated Nutrient management	01	40	SMS (Ag & SS)
		Rice	FLD	Land preparation and selection of varieties, Seed treatment for DSR	01	25	SMS (Ag & SS)
		Maize + Redgram	FLD	Importance of seed treatment for higher yield in intercropping system	01	25	SMS (Ag & SS)
		Cotton	FLD	Advanced production technologies of cotton	1	25	SMS (SS, Ag & AE)
7.2	Horticulture production	Arecanut	FLD	Production technology of Arecanut	02	50	SMS (Hort. & SS)
		Banana	FLD	Integrated Pest & Disease Management Banana	02	50	SMS (PP & Hort.)
		Betel vine	FLD	Recent trends in Production technology of Betelvine	01	30	SMS (Hort. & SS)
		Onion	FLD	Integrated crop Management in Onion	01	30	SMS (Hort. & SS)
		Black Pepper	OFT	Production technology of Pepper	01	30	SMS (Hort. & SS)
		Drumstick	OFT & FLD	Advanced production technologies of Drumstick	1	25	SMS (SS, Hort. & AE)
		Chilli	FLD	Integrated crop management in Chilli	1	25	SMS (SS, Hort. & AE)
7.3	Livestock production	Dairy	FLD	Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals	2	60	SMS (ASc., AE & SSH)
		Dairy	FLD	Importance of colostrums and milk feeding to crossbred female calves	2	60	SMS (ASc., AE & SSH)
		Sheep & Goat	FLD	Effect of total deworming and balanced nutrition in small ruminants	2	50	SMS (ASc., AE & SSH)
		Dairy	FLD	Balancing the nutrition in cattle based on feeding standards	2	60	SMS (ASc., AE & SSH)

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
7.4	Home Science	--	--	--	--	--	--
7.5	Plant protection	Maize + Redgram	FLD	Integrated pest management in Maize +Redgram	01	25	SMS (Ag & SS)
		Rice	FLD	IPM for the Stem borer and BPH	01	25	SMS (Ag & SS)
7.6	Production of inputs at site	--	--	--	--	--	--
7.7	Soil health and fertility	--	--	Soil health management based on soil analysis report	05	125	SMS (SS & AE)
		Arecanut	OFT	Rapid composting of arecanut husk by using compost cultures	01	25	SMS (SS, Hort. & AE)
7.8	PHT and value addition	Groundnut	OFT	Grading and oil extraction	01	35	SMS (Ag & SS)
7.9	Capacity building/ group dynamics	--	--	--	--	--	--
7.10	Farm mechanization	Groundnut	0FT	Mechanized harvesting using stripper	01	30	SMS (Ag & SS)
		Rice	FLD	Weed management through Mechanized cycle weeder	01	25	SMS (Ag & SS)
		Maize + Redgram	FLD	Integrated pest management in Maize +Redgram	01	25	SMS (Ag & SS)
7.11	Fisheries production technologies	Fish	FLD	Principles of fish farming	01	10	Senior Scientist & Head
7.12	Mushroom production	Mushroom	--	Production and marketing of Mushroom	01	50	SMS (AE)
7.13	Agro forestry	Sandalwood & Other forestry technologies	--	Production technology of sandalwood	01	50	SMS (AE)
7.14	Bee keeping	Honey bee	--	Production technology of Honey	01	25	SMS (AE)
7.15	Sericulture	--	--	--	--	--	--
				Total	**36**	**1015**	**--**

8. Training for rural youth during 2019-20

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	EDP	Improved Production technology of vermicompost	01	25	SMS (Ag, SS & ASc.)
8.2	Horticulture production	Coconut	Skill Development	Friends of Coconut Tree	01	20	SMS (Hort. & SS)
8.3	Livestock production	Sheep & Goat	EDP	Profitable sheep farming (Stall feeding)	01	20	SMS (ASc., AE & SSH)
		Dairy	Skilled	Dairy entrepreneur	01	20	SMS (ASc., AE & SSH)
8.4	Home Science	--	--	--	--	--	--
8.5	Plant protection	--	--	--	--	--	--
8.6	Production of inputs at site	--	--	--	--	--	--
8.7	Soil health and fertility	--	--	Methods of soil testing and maintenance of soil and water testing laboratory	01	20	SMS (SS, Ag & AE)
8.8	PHT and value addition	--	--	--	--	--	--
8.9	Capacity building/ group dynamics	--	--	--	--	--	--
8.10	Farm mechanization	--	--	--	--	--	--
8.11	Fisheries production technologies	Fish	Skilled	Fish seeding in farm ponds	01	10	Senior Scientist & Head
8.12	Mushroom production	--	--	--	--	--	--
8.13	Agro forestry	--	--	--	--	--	--
8.14	Bee keeping	--	--	--	--	--	--
8.15	Sericulture	--	--	--	--	--	--
				Total	**06**	**115**	**--**

9. Training for extension personnel during 2019-20

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	Improved production technology in Direct Seeded Rice	01	20	SMS (Ag & SS)
9.2	Home Science	--	--	--	--
9.3	Capacity building and group dynamics	--	--	--	--
9.4	Horticulture	New technologies in Horticulture crop production	01	50	SMS (Hort. & SS)
9.5	Livestock production and management	New feed resources for animal feeding	01	25	SMS (ASc., AE) & SSH)
9.6	Plant protection	--	--	--	--
9.7	Farm mechanization	Complete mechanization in transplanted paddy for higher yield	01	20	SMS (Ag & SS)
9.8	PHT and value addition	--	--	--	--
9.9	Production of inputs at site	--	--	--	--
9.10	Sericulture	Nutrient management in mulberry cultivation	1	25	SMS (SS & AE)
9.11	Fisheries	Integrated Fish farming	01	40	Senior Scientist & Head
		Total	**06**	**180**	**--**

10. Vocational trainings during 2019-20

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	--	--	--	--	--	--
10.2	Home Science	--	--	--	--	--	--
10.3	Capacity building and group Dynamics	--	--	--	--	--	--
10.4	Horticulture	Horticulture nursery Management	01	05	20	Department of Horticulture	SMS (Hort. & SS)
10.5	Livestock production and management	Rearing local poultry birds in backyard	01	05	20	--	SMS (ASc., AE & SSH)
10.6	Plant protection	--	--	--	--	--	--
10.7	Farm mechanization	--	--	--	--	--	--
10.8	PHT and value addition	--	--	--	--	--	--
10.9	Production of inputs at site	--	--	--	--	--	--
10.10	Sericulture	--	--	--	--	--	--
10.11	Fisheries	--	--	--	--	--	--
		Total	**02**	**--**	**40**	**--**	**--**

11. Sponsored trainings during 2019-20

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	LRI- based soil and water conservation technologies	20	01	1000	ATARI and SUJALA III, Bangalore	SMS (Ag & SS)
11.2	Home Science	--	--	--	--	--	--
11.3	Capacity building and group Dynamics	--	--	--	--	--	--
11.4	Horticulture	Terrace and Kitchen gardening	02	01	300	Department of Horticulture	SMS (Hort.)
11.5	Livestock production and management	Scientific dairy farming	02	06	50	Zilla Panchayath, Davanagere	SMS (ASc., AE) & SSH)
11.6	Plant protection	--	--	--	--	--	--
11.7	Farm mechanization	--	--	--	--	--	--
11.8	PHT and value addition	--	--	--	--	--	--
11.9	Production of inputs at site	--	--	--	--	--	--
11.10	Sericulture	--	--	--	--	--	--
11.11	Fisheries	Advances in fish culture	01	01	20	Department of Fisheries	Senior Scientist & Head
		Total	**25**	**--**	**1370**	**--**	**--**

12. Extension activities during 2019-20

Sl. No.	Extension activity	No. of activities	Targeted number of participants	Names of the team members involved
12.1	Advisory services	2000	2200	All Scientists involved
12.2	Diagnostic visits	10	120	
12.3	Field days	20	2500	
12.4	Group discussions	05	250	
12.5	Kisan gosthies	05	500	
12.6	Film shows	10	500	
12.7	Self -Help Groups (SHGs) meetings	--	--	
12.8	Kisan Melas	03		
12.9	Exhibitions	02		
12.10	Scientists' visit to farmers fields	200	1500	
12.11	Plant/soil health/animal health camps	5 + 5	600 samples + 500 animals	
12.12	Farm science club meetings	01	--	
12.13	Ex-trainees sammelans (Meetings)	01	40	
12.14	Farmers' seminars/workshops	06	300	
12.15	Method demonstrations	20	300	
12.16	Celebration of important days	04	300	
12.17	Special day celebrations	10	2000	
12.18	Exposure visits	04	200	
12.19	Technology week celebration	01	1000	
12.20	Farmers Field School (FFS)	01	25	
12.21	Farm innovators meet	--	--	
12.22	Awareness programmes	04	250	
12.23	Pre-kharif campaign	01	1000	
12.24	Pre-rabi/summer campaign	01	1000	
12.25	Bimonthly Meetings	06	450	
12.26	Tri-monthly meetings	04	300	
12.27	Guest lecture	50	2000	
12.28	Popular article	10	--	
12.29	News paper coverage	60	--	
12.30	Swachha Bharath Campaigns	10	--	
12.31	Kisan Mobile Advisory Services	50	11505	
12.32	Radio Talk	10	--	
12.33	TV Talk	08	--	
12.34	Newspaper Coverage	60	--	

12.35	Best cyclist	05	--	
12.36	Best Farm Family	05	--	
12.37	Best Village Road	05	--	
12.38	Best Animal Care Taker	05	--	
12.39	Best Nutritional Kitchen Garden	05	--	
12.40	Best Entrepreneur	05	--	
12.41	Best Women SHG	05	--	
12.42	Best Men SHG	05	--	

13. Activities proposed as knowledge and resource centre during 2019-20

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	High density planting in Guava, Jack, Mango and Arecanut	02	--	Farm Manager & SMS (Horticulture)
13.1.2	Demonstration units	Gold fish production	1 unit	10,000	Senior Scientist and Head
13.1.3	Lab analytical services	Soil test campaigns	5 villages	1000	SMS (Soil Science), Programme Assistant (Lab. Technician)
13.1.4	Technology week	Frontline demonstrations Seminars Exhibition	--	1000	All team members
13.1.5	PUC students orientation	--	--	300	SMS (Horticulture)
12.1.6	FPO Capacity Building	--	--	05	SMS (Agri. Extension)
12.1.7	Science project for school children	--	--	05	All Scientific staff
12.1.8	Soil & water analysis training to degree students	--	--	10	SMS (Soil Science) & Programme Assistant (Lab. Technician)
12.1.9	DAESI diploma course	--	--	40	All Scientific staff
12.1.10	Kasa Rasa Training	--	--	100 People	SMS (Animal Science)
12.1.11	Kitchen garden training	--	--	100 People	SMS (Horticulture)

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 2019-20 (q)	Number planned to be produced during 2019-20	Names of the team members involved
13.2.1	**Seeds**					
		--	Sunhemp	06	--	Farm Manager Programme Assistant (Lab. Technician)
		--	Dhaiancha	08	--	Farm Manager Programme Assistant (Lab. Technician)
		--	Velvetbeans	03	--	Farm Manager SMS (Horticulture)
13.2.2	Planting material					
		--	Arecanut	--	20000	SMS (Horticulture)
		--	Coconut	--	5000	SMS (Horticulture)
		--	Drumstick	--	15000	SMS (Horticulture)
13.2.3	Bio-products					
		--	Banana Special	30	--	SMS (Horticulture)
		--	Vermicompost	150	--	SMS (Animal Science)
		--	Earthworms	0.4	--	SMS (Animal Science)
		--	Compost culture	06	--	SMS (Soil Science)
		--	*Trichoderma Harzianum*	200 l	--	SMS (Agronomy) & SMS (Soil Science)
		--	PSB	200 l	--	SMS (Agronomy) & SMS (Soil Science)
		--	Metarizium	100 l	--	SMS (Agronomy) & SMS (Soil Science)
13.2.4	Livestock strains					
		--	Male calves	--	5-6 No.	SMS (Animal Science)
13.2.5	Fish fingerlings					
		--	Fish fingerlings	--	15000 No.	Senior Scientist and Head
13.2.6	Any other	--	--	--	--	--

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		
	a. Agriculture	**01** (Training to agriculture officers and ATMA personnel)	SMS (Agronomy)
	b. Horticulture	**01** (Training to AHOs & Horticulture Assistants)	SMS (Horticulture)
	c. Animal Husbandry	**01** (New feed resources for animal feeding)	SMS (Animal Science)
	d. Fisheries	**01** (Advances in freshwater fish growing)	Senior Scientist and Head
	e. Agricultural Engineering	--	--
	f. Sericulture	--	--
	g. Others, pl. specify	--	--
13.3.2	Literature/publication	08	All scientific staff
13.3.3	Electronic media	02	All staff
13.3.4	Kisan mobile advisory services	70	All scientific staff
13.3.5	Information on centre/state sector schemes and service providers in the district (Data may be collected from different agencies).	01	SMS (Agri. Extension)
12.3.6	**Whatsapp groups** • ICAR-Taralabalu KVK • Horticulture Solution Davanagere • Horti Solutions • Davanagere FPOs	04	All scientific staff

14. Additional activities planned during 2019-20

Sl. No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
1	National Innovations on Climate Resilient Agriculture (NICRA)	Technology Demonstration Component (TDC)	Climate Resilient Technology Demonstration	15,00,000-00	SMS (Agronomy) SMS (Animal Science) SSH
2	Bio-Energy Information and Demonstration Centre	Training and awareness programmes on biofuel production. Bio Seed procurement and production	Production of biodiesel – 500 l	6,00,000-00	Programme Assistant (Lab. Technician)
3	Technical Handholding of FPOs	Exposure visit training and Demonstrations	Demonstrations – 09 Training – 09 Exposure visit - 03	9,29,250	All Scientific staff

15. Revolving fund

15.1 Financial status of revolving fund

Opening balance as on 01.04.2018 (Rs. in Lakh)	Expenditure incurred during 2018-19 (Rs. in Lakh)	Receipts during 2018-19 (Rs. in Lakh)	Closing balance as on 31.03.2019 (Rs. in Lakh)	Expected closing balance by 31.03.2019 (Including value of material in stock/ likely to be produced)
2.66	54.64	67.72	15.74	5.00

15.2 Plan of activities under revolving fund

Sl. No.	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
1	Sunhemp	600 kg	18,000/-	Farm Manager Programme Assistant (Lab. Technician)
2	Dhaiancha	800 kg	18,000/-	
3	Velvetbeans	300 kg	15,000/-	Farm Manager & SMS (Horticulture)
4	Arecanut Seedlings	20000 No.	5,00,000/-	SMS (Horticulture)
5	Coconut Seedlings	5000 No.	3,00,000/-	
6	Drumstick Seedlings	15000 No.	2,00,000/-	
7	Banana Special	30 q	5,00,000/-	
8	Vermicompost	150 q	1,50,000/-	SMS (Animal Science)
9	Earthworms	0.4 q	12,000/-	
10	Milk	8500 l	2,89,000/-	
11	Compost culture	06 q	24,000/-	SMS (Soil Science)
12	Trichoderma Harzianum	200 l	60,000/-	SMS (Agronomy) & SMS (Soil Science)
13	PSB	200 l	70,000/-	
14	Metarizium	100 l	40,000/-	
15	Fish fingerlings	5000 No.	20,000/-	Senior Scientist and Head
16	Farmers hostel	120 days	1,00,000/-	SMS (Agri. Extension)
17	Arecanut	16 q	2,00,000/-	SMS (Horticulture) & Farm Manager
18	Mango fruits	5 t	1,00,000/-	
19	Sapota fruits	1.5 t	30,000/-	
20	Coconut nuts	500 No.	5,000/-	
21	Jamoon	100 kg	8,000/-	
22	Tendor Coconut	500 No.	10,000/-	
23	Drumstick pods	550 kg	11,000/-	
24	Tamarind	375 kg	15,000/-	
25	Guava fruits	200 kg	10,000/-	

16. Activities of soil, water and plant testing laboratory during 2019-20

Sl.No.	Type of samples	No. of samples to be analyzed	Names of the team members involved
16.1	Soil test using analytical lab	2000	SMS (Soil Science) & Programme Assistant (Lab. Technician)
16.2	Soil test using mobile analysis kit	--	
16.3	Water	1000	

16.4	Plant	--	--
16.5	Others, pl. specify	--	--

17. E-linkage during 2019-20

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	--	--
17.2	Creation and maintenance of relevant database system for KVK	Farmer advisory service	--
17.3	Other extension activities	Month wise database maintained	

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

19. Farmers Field School (FFS) planned

Thematic area	Title of the FFS	Budget proposed in Rs.	Staff
Integrated Pest Management	Integrated Pest Management in hybrid Tomato	30,000/-	SMS (Agronomy, Horticulture, Soil Science & Agricultural Extension)

Thematic area	Budget proposed in Rs.	Budget (Rs.)
IPM in Tomato	**A. Critical inputs**	
	▪ Soil test and water test	150-00
	▪ Application of Arka Microbial Consortium (20 g for seed treatment, 20g/l – drenching 10 DAT, 7kg- Main field along with vermicompost)	1,750-00
	• Spray of vegetable special @ 5g/l (4kg)	1,000-00
	• Spray of calcium nitrate @5g/l (2kg)	400-00
	IPM measures :	
	• Use of yellow and blue sticky traps @ 25/ha	1,000-00
	• Use of Marigold as a trap crop (16:1)	500-00
	• Use of pheromone traps @ 10/ha	400-00
	▪ Plant protection chemicals need based	2,500-00
	B. Meals and Refreshment	5,000-00
	C. FFS training kit	8,300-00
	D. Field Day and report preparation	4,000-00
	E. Folder	**5,000-00**
		30,000-00

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1. **Selection of the collaborator and participants, site selection and importance of FFS and Ballot test**
2. **Land preparation and rain water harvesting technologies**
3. **Seed treatment and transplanting, Spacing and traps crops**
4. **Integrated Nutrient management and Weed management in Tomato**
5. **Integrated Pest and Disease Management**
6. **Grading and Marketing of products**
7. **Preparation of bi products from the tomato**

20. Entrepreneurship Development Programme

Honey production as subsidiary income for farm families

Honey production as subsidiary income generation activity helps in realizing additional income to rural family. In this regard 2 entrepreneurs in honey production and promoted to market honey bee colonies and honey. In addition the entrepreneurs will be provided with brood chamber, honey extractor and packing materials.

Budget requirement

Particulars	Quantity	Cost (Rs.)	Total cost (Rs.)	No. of entrepreneurs	Total Budget (Rs.)
Brood chamber	4	4,500/-	18,000/-	2	50,000/-
Honey extractor	1	5,000/-	5,000/-		
Packing	--	2,000/-	2,000/-		
	Total	**10,000/-**			

21. Details of budget utilization (2018-19) up to 31st March 2019

(Rs.)

Sl.No.	Particulars	Sanctioned (RE 2018-19)	Released	Expenditure
21.1	**(A). REVENUE (Recurring Contingencies)**			
21.1.1	**Pay & Allowances**	**1,28,00,000**	**1,27,88,922**	**1,25,78,643**
21.1.2	**Traveling allowances**	**75,000**	**49,500**	**39,152**
21.1.3	**Contingencies**	**10,75,000**	**10,47,926**	**10,47,398**
21.1.3.*a*	*Stationery, telephone, postage and other expenditure on office running, publication of Newsletter*	2,31,000	2,31,000	2,30,974
21.1.3.*b*	*POL, repair of vehicles, tractor and equipments*	1,80,000	1,80,000	1,79,999
21.1.3.*c*	*Food/refreshment for farmers/extension personnel @ Rs.150/person/day*	1,00,000	1,00,000	1,00,000
21.1.3.*d*	*Training material (need based materials and equipments for conducting the training)*	25,000	25,000	25,000
21.1.3.*e*	*Frontline demonstrations*	3,20,000	3,10,500	3,10,353
21.1.3.*f*	*On farm testing (OFTs)/Technology Assessment*	40,000	30,000	29,731
21.1.3.*g*	*Integrated Farming System (IFS) (Min. 5 Units)*			
21.1.3.*h*	*Training of extension functionaries*	14,000	14,000	14,000
21.1.3.*i*	*Extension activities/services*	50,000	50,000	50,000
21.1.3.*j*	*Farmers' Field School*	30,000	28,000	28,000
21.1.3.*k*	*EDP (2 Nos.) / Innovative activities*			
21.1.3.*l*	*Soil & water testing & issue of soil health cards*	30,000	24,426	24,415
21.1.3.*m*	*Maintenance of building*	50,000	50,000	49,926
21.1.3.*n*	*Farmers Conclave, KVK Conference*			
21.1.3.*o*	*Video production*			
21.1.3.*p*	*Library (Purchase of Journals, Periodicals, News Papers& Magazines)*	5,000	5,000	5,000
	Total Recurring	**1,39,50,000**	**1,38,86,348**	**1,36,65,193**
21.2	**(B). CAPITAL (Non-Recurring Contingencies)**			
21.2.1	**Equipments& Furniture**			
21.2.2	**Works**			
21.2.3	**Vehicle**			
21.2.3 a	Four wheeler (replacement)			
21.2.4	**Library**			
	TotalNon Recurring	**0**	**0**	**0**
21.3	**(C). REVOLVING FUND**	**0**	**0**	**0**
	GRAND TOTAL (A+B+C)	**1,39,50,000**	**1,38,86,348**	**1,36,65,193**

22. Details of Budget Estimate based on proposed action plan (2019-20)

Sl.No.	Particulars	BE 2019-20 proposed (Rs.)
22.1	**(A). REVENUE (Recurring Contingencies)**	
21.1.1	**Pay & Allowances**	1,39,00,000
22.1.2	**Traveling allowances**	2,00,000
22.1.3	**Contingencies**	
22.1.3.*a*	*Stationery, telephone, postage and other expenditure on office running, publication of Newsletter*	3,00,000
22.1.3.*b*	*POL, repair of vehicles, tractor and equipments*	3,00,000
22.1.3.*c*	*Food/refreshment for farmers / extension personnel @ Rs.150/person/day*	2,00,000
22.1.3.*d*	*Training material (need based materials and equipments for conducting the training)*	1,00,000
22.1.3.*e*	*Frontline demonstrations*	3,33,800
22.1.3.*f*	*On farm testing (OFTs)/Technology Assessment*	51,200
22.1.3.*g*	*Integrated Farming System (IFS) (Min. 5 Units)*	--
22.1.3.*h*	*Training of extension functionaries*	50,000
22.1.3.*i*	*Extension activities/services*	1,00,000
22.1.3.*j*	*Farmers' Field School*	30,000
22.1.3.*k*	*EDP (5 Nos.) / innovative activities*	50,000
22.1.3.*l*	*Soil & water testing & issue of soil health cards*	1,00,000
22.1.3.*m*	*Maintenance of building*	3,00,000
22.1.3.*n*	*Library (Purchase of Journals, Periodicals, News Papers& Magazines)*	10,000
22.1.3.o	*Others, pl. specify*	
	Total Recurring (A)	**1,60,25,000**
22.2	**(B). CAPITAL (Non-Recurring Contingencies)**	
22.2.1	**Equipments& Furniture**	1,04,00,000
22.2.2	**Works**	4,00,00,000
22.2.3	**Vehicle**	
22.2.3.a	Four wheeler (replacement)	
22.2.4	**Library**	1,00,000
	Total Non Recurring (B)	**5,05,00,000**
	Grand Total (A + B)	**6,65,25,000**

Abstract of interventions for 2019-20

Interventions	Number of activities	Number of farmers	Amount (Rs.)
OFT	04	18 trials	51,200/-
Frontline demonstrations	12	158	3,33,800/-
Trainings			
Farmers/Farm women	36	1015	--
Rural Youth	06	115	--
Extension personnel	06	180	--
Vocational	02	40	--
Sponsored	25	1370	--
FFS	01	25	30,000/-
EDP	01	02	50,000/-
NRM			
Bore well recharge	12	12	3,60,000/-
Farm ponds	30	30	6,00,000/-
Trench cum bunds	20 ha	--	2,00,000/-
Onion storage structure	02	--	1,75,000/-
Vermicompost unit	10	10	6,00,000/-
Canal cleaning	01	--	2,00,000/-
De-silting	01	--	5,00,000/-
			26,63,985/-