ICAR-ATARI, ZONE–XI, HEBBAL, BENGALURU

ACTION PLAN 2020-21

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 (Home Science)	**Vacant**	Lab. Technician	9300-34800 PB-2	4200	--	**Vacant**

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	**Vacant**	Jeep	5200-20200 PB-1	2400	--	**Vacant**
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 2019-20

Recommendations of 17th SAC meeting held on 21-12-2019

Group-I : To be addressed at KVK level

- Bench mark information of each farmer selected from DFI villages should be considered for DFI works.
- Suggested to create awareness on soil analysis and to conduct soil health awareness programmes.
- Provide good quality green manure seeds like velvet beans and seedlings of Coconut, Drumstick to farmers from KVK.
- Try to practice and demonstrate dryland agriculture & horticulture farming technologies in the KVK Instructional Farm.
- Create awareness to reduce indiscriminate use of fertilizers.
- To create awareness among farmers for using residual moisture to cultivate Bengalgram.
- To give information on economics of crop cultivation/ enterprise in each training programme.
- Suggested to promote cultivation of multiple crops and avoid monocropping system.
- Give information to farmers about Bank Linkages and schemes available for farmers on various enterprises/crop cultivation and suggested to use Bank finance judicially.
- Suggested the KVK to organize a separate meeting (Brain Storming Session) for developing action plan in DFI villages.
- Encourage climate smart agriculture among farmers.

Group-II : To be addressed through action plan of KVK in the year 2020-21

- Encourage Mango, Cashew and other less water requiring crops in drylands.
- Recommend only crops that are suitable to that area and encourage alternate crops wherever necessary.
- Encourage soil fertility management through green manure crops cultivation.
- Encourage organic farming among farmers.
- Introduce New Variety of onion developed by IIHR (Lalima / Keertima).
- Suggested to popularize the Nutrigarden (Vertigarden) in rural areas.
- Livestock are suffering from nutritional imbalances and to create more awareness programmes on these issues.

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

- Suggested to organize Siridhanya Melas.
- Suggested to popularize cashew crop instead of Arecanut crop. Conduct Awareness Progrmmes on this regard.
- Encourage NRM works with farmers.
- To provide assistance to farmers for creating onion storage structures from Department of Horticulture.
- To use forest plants for farm boundaries from Department of Social forestry.
- Cultivate Mahogany Plant in boundaries as it works as mosquito repellent.
- Encourage Hydroponic fodder production among farmers during summer.
- Suggested to encourage farmers to construct farm ponds and to take help from Development Departments.
- Under cashew mission from Department of Horticulture use cashew seedlings (alternate to arecanut crop) and processing units can be established.
- Fisheries activity in farm ponds should be encouraged for additional income.
- Suggested to popularize medicinal plants cultivation among farmers. Give more awareness programmes in this regard.
- Suggested to organize workshop for sellers and buyers (interacting session) on Agriculture/Horticulture commodities.
- Millet processing units should be encouraged with the help of Department of Agriculture.

4. Details of operational areas proposed during 2020-21

AGASANAKATTE, DAVANAGERE TALUK

I General Information:

Sl. No	Particulars	Hectors / No.
1	Total Geographical area	360.87
2	Total Cultivated rainfed area	259.56
3	Male	500
4	Female	476
5	Total Population	858
5	Small Holdings	102
6	Marginal Holdings	55
7	Other Holdings	35
8	Total Holdings	195
9	No. of Dealers	0
10	Total Households	192

II Crops:

Crops	Area (ha)	Productivity (kg/ha)
Maize	195	4533
Finger millet	10	
Sorghum	10	
Tomato	22	
Chilli	2.5	
Arecanut	40.5	800
Coconut	7.5	

50 families have been selected and baseline survey information is collected.

III Details of Animals

Sl. No.	Animals	No.
1	Cows	108
2	Buffalo	30
3	Sheep & Goat	65

RAMESHWARA, NYAMATHI TALUK

I General Information:

Sl. No	Particulars	Hectors / No.
1	Total House Holds	341
2	Total Population	1591
	Male	806
	Female	785
3	Literacy Population	1166
	Male	646
	Female	500
4	Total Cropped area (ha)	800
5	Primary School	Up to 7th
6	Govt. Ayurvedic Hospital	Nil
7	Grama Panchayat	Yargnal
8	Library	Not active
9	PACS-1	Nil
10	Drinking Water	1
11	Borewell	03
13	Total number of Borewell (100 feet- 1000feet)	650 No.
14	Tractor	26

II Soil types:

Types of soils
Red soil
Black soil
Black Loamy Soils
Silt soils

III Crops:

Kharif crops	Hector (ha)	Productivity (kg/ha)		Rabi Crops	Hector (ha)	Productivity (kg/ha)
Onion	100	20.4 t/ha		Cabbage (Cauliflower)	20	
Maize	400			Sorghum	200	
Redgram	10			Wheat	15	
Tomato	20			Bengalgram	70	
Chilli	20			Arecanut	50	800
Beetroot	10					
Groundnut	150	1850				

IV Details of Animals

Sl. No.	Animals	No.
1	Cow HF	150-200 No.
2	Other Cow	100
3	Buffalo	150
4	Poultry	Backyard

V Pending works

Sl. No.	Particulars
1	Community Hall
2	Concrete Roads
3	Need to widen and clean the tank existing in the village
4	Community Hall

50 families have been selected and baseline survey information is collected.

VI Details of farmer groups

Sl. No.	Self Help Groups	Participants
1	SKDRDP Groups	30 No.s
2	Horticulture CIGs	06 No.s
3	Agriculture CIGs	04 No.s

VII Other Details

Nyamathi FPO	126 Members
Last year 250 borewell digged	50 % Failure , Rs. 2 crore investment

RAMATHEERTHA, HARIHARA TALUK

I General Information:

Sl. No	Particulars	Hectors / No.
1	Total Geographical area	342.40
2	Total Cultivated area	319.17
3	Small farmers	75
4	Marginal farmers	136
5	Big farmers	45
6	Borewell	34
7	Govt. fair shop	01
8	Veterinary Hospital	Nil
9	Government School	$1^{st} - 7^{th}$ Std.
10	No. Houses	180
11	Total voters	721
12	Anganawadi	01
13	Farm Implements	70
14	Tractor	09

II Crops:

Crops	Area (ha)	Productivity (kg/ha)
Paddy	25	
Maize	90	
Finger Millet	02	
Sorghum	08	
Arecanut	20	
Coconut	05	
Banana	08	
Betelvine	40	20.4 l/leaves/ha
Total	**198**	

III Details of Animals:

Sl. No.	Animals	No.s
1	Buffalo	120
2	Cows	250
3	Bullocks	8 sets
4	Sheep	150

KADARANAHALLI, CHANNAGIRI TALUK

I General Information:

Sl. No	Particulars	Ha / No.
1	Total Geographical area	228.4
2	Total Cultivated area	163
3	Irrigated area	117
4	Rainfed area	19
5	Horticulture Plantations	27
5	Male	375
6	Female	310
7	Total Population	685
8	Small Holdings	85
9	Marginal Holdings	50
10	Other Holdings	38
11	Total Holdings	173
12	No. of Dealers	02
13	Total Households	137

II Crops:

Crops	Area (ha)	Productivity (kg/ha)
Paddy	85	5625
Maize	10	
Sugarcane	08	
Arecanut	60	
Coconut	Intercrop	
Pepper	5	1718
Total	**168**	

III Details of Animals:

Sl. No.	Animals	No.s
1	Cows	150 (130 HF, 25 Local)
2	Milk	400 L/ Cow
3	Fodder Crops	Nil
4	Sheep	Household
5	Bullocks	4 Pairs
6	Poultry	Nil

MARIKUNTE, JAGALUR TALUK

I General Information:

Sl. No	Particulars	Ha / No.
1	Total Geographical area	624
2	Total Cultivated area	501.7
3	Small farmers	158
4	Marginal farmers	358
5	Big farmers	160
6	Borewell	40
7	PDS	02
8	Government School	01
9	Total House	470
12	Total Voters	1411
13	Anganwadi	02
14	Dealers	01
15	Farm Implements	115
16	Tractor	23
17	Library	01

II Crops:

Crops	Area (ha)	Productivity (kg/ha)
Maize	355.3	
Finger Millet	16.9	
Sorghum	3.26	
Arecanut	30.05	
Coconut	5.26	
Banana	3.22	
Pomegranate	1.66	
Cotton	26.47	2000
Tomato	15	35 t/ha
Onion	20	20.4 t/ha
Others	51.06	
Total	525.68	

III Details of Animals:

Sl. No.	Animals	No.s
1	Cows	76
2	Buffalo	48
3	Bullocks	20
4	Sheep	950
	Total	1094

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.)
Agasanakatte Davanagere taluk	Maize	• 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	**OFT-**Effect of Nano fertilizer (N and Zn) on growth and yield of Maize **FLD –**Integrated Crop Management in Maize • **Training** - Importance of seed treatment - Integrated Nutrient and pest management • **Method demonstrations** - Seed treatment with bio fertilizers - Installation of pheromone traps for FAW • **Extension activities**
	Fingermillet	• Imbalanced nutrient management • Stem borer	17 ha	**NFSM-CFLD – Nutricereals -** Integrated Crop Management in Fingermillet • **Training** - Integrated Crop Management in Fingermillet • **Method demonstrations** - Spraying of WSF • **Extension activities**
	Vegetable crops	• 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 Biofertilizer - Installation of pheromone traps • **Extension activities** • **Marketing & value addition**

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.)
	Tomato	• Imbalanced nutrient management • No IPDM practices	15 ha	**FLD –**Micronutrient management in Tomato • **Training** - Integrated Crop Management in Tomato • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Arecanut	• **Red mites** • Low yield • Hidimundige • Inflorescence caterpillar • Spindle Bug • Inflorescence die back • Anabe Roga • Nut Splitting and Dropping	40.5 ha	**FLD –**Integrated Pest and Disease Management in Arecanut • **Training** - Production technology of Arecanut - Integrated Pest and Disease Management in Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**
	Blackpepper	• Incidence of wilt • Spike shedding • Root rot • Improper filling	15 ha	**FLD –** Management of yellowing and spike shedding in Black pepper • **Training** - Production technology of Pepper - Integrated Pest and Disease Management in Pepper • **Method demonstrations** - Foliar spray of micronutrients **Extension activities**

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.)
	Dairying	• Low milk yield • Scarcity of good quality fodder • Delayed puberty	138 No.	**FLD –** Integrated Management of Crossbred dairy animals for better performance • **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrum 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.	**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**
	Fisheries	• Low yield	--	• **FLD – Polyculture of fresh water fishes in farm ponds with an emphasis on aeration**
Rameshwara, Nyamathi taluk	Maize	• Low yield • Sole crop • **Army worm and fall army worm** • Improper nutrient management (No potash application)	320 ha	**FLD –** Integrated Crop Management 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**

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.)
	Groundnut	• Imbalanced nutrient management • Collar rot • Use of TMV-2 variety	50 ha	**OFT- Assessment of performance of Groundnut for higher yield** • **Training** - Improved production technology for higher yield - Integrated Nutrient Management - Integrated Disease Management • **Method demonstrations** - Seed treatment with bio fertilizers - Use of stripper • **Extension activities**
	Redgram	• Low yielding varieties • No IPM measures • Poor nutrient management • Weed management • Sole cropping of Maize	10 ha	**NFSM –CFLD** **Integrated Crop Management in Redgram** • **Training** - ICM practices in Redgram - IPDM practices in Redgram • **Method demonstrations** - Seed treatment with bio fertilizers - Installation of pheromone traps - Preparation and Spraying of Nutrient sprays and chemicals **Extension activities**
	Bengalgram	• Low yield • Low yielding varieties • No IPM measures • Poor nutrient management • Weed management • Broadcasting method of sowing	90 ha	**NFSM –CFLD** **Integrated Crop Mangment in Bengal Gram** • **Training** - Integrated Crop Management in Bengalgram - IPDM practices in Bengalgram • **Method demonstrations** - Seed treatment with bio fertilizers - Installation of pheromone traps - Spraying of Chick pea magic • **Extension activities**

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.)
	Onion	• Lower yield • Incidence of sucking pests like Thrips • Purple Blotch • High cost on weeding • Splitting of bulbs at bulbing stage	90 ha	**FLD –** Integrated Crop Management in Onion • **Training** - Integrated Crop Management in Onion • **Method demonstrations** - Seed treatment with biofertilizers • **Extension activities**
	Tomato	• Blossom end rot • Improper nutrient management • Pod borer • Blight incidence	40 ha	**FFS–**IPM in Tomato FLD – Integrated Crop management in Tomato • **Training** - Production technology - IPDM practices • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Pulses	• Incidence of storage pests	75 ha	**FLD** Super grain bags to prevent storage pests.
	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/-)

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.)
	Dairying	• Low milk yield • Scarcity of good quality fodder • Delayed puberty	200 No.	**FLD–** Integrated Management of Dairy Animals for better performance • **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrum 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.	• **Training** - Effect of total deworming and balanced nutrition in small ruminants • **Method demonstrations** - Preparation of compounded feeds for sheep
	Capacity building	• Unorganised approach in production and marketing	--	• FPO strengthening
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**

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.)
	Maize	• Low yield • No intercrop with redgram • Stem borer and doweny mildew • Incidence of fall army worm	130 ha	• **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
	Arecanut	• Low yield • Hidimundige • Inflorescence caterpillar • Spindle Bug • Red mites • Inflorescence die back • Anabe Roga	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 –**Integrated Crop Management in Betelvine • **Training** - Recent trends in production technology of betelvine • **Method demonstrations** - Drenching of AMC - Lowering of vines • **Extension activities**
	Dairy	• Low milk yield • Scarcity of good quality fodder • Delayed puberty	250 nos	• **Training** - Use of Non-protein nitrogenous (NPN) substances in reducing the feeding cost in dairy animals - Importance of colostrum and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods & Azolla production • **Extension activities**

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.)
	Sheep & goat	• Lower body weight gain • Worm infestation	150	Training & Method demonstration
Kadaranahalli Channagiri taluk	Rice	• Improper Nutrient Management • BPH, Sheath blight and blast • Increased cost of production • Poor post harvest management practices	85 ha	**FLD -** Integrated Crop management in Rice • **Training** - IPM for the stem borer and BPH • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Arecanut	• Low yield • Hidimundige • Inflorescence caterpillar • Spindle Bug • Red mites • Inflorescence die back • Anabe Roga	60 ha	• **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:** Establishment Fodder cafeteria for reducing the feeding cost in dairy animals • **Training** - Use of leguminous & non-leguminous fodder cropsfor reducing the feeding cost in dairy animals - Importance of colostrum and milk feeding to crossbred female calves • **Method demonstrations** - Dry fodder enrichment & feeding along with grain mixture - Silage making methods - Azolla production • **Extension activities**

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.)
	Fisheries	• Low yield	--	• **OFT-** Assessment of growth performance of improved carps, pangasius and farmed tilapia in ponds
Marikunte Jagalur taluk	Maize	• No intercrop • Fall army worm • Imbalanced nutrient management • Moisture stress at critical stage of crop growth	310 ha	**FLD –**Integrated Crop Management 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**
	Onion	• Imbalanced nutrient management • Small bulb • Less pungency	20 ha	**OFT-** Role of sulphur in improving the productivity of onion
	Groundnut	• Imbalanced nutrient management • Collar rot • Use of TMV-2 variety	20 ha	• **Training** - Improved production technology for higher yield - Integrated Nutrient & Disease Management • **Method demonstrations** - Seed treatment with biofertilizers - Use of stripper • **Extension activities**

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.)
	Arecanut	• Low yield • Hidimundige • Inflorescence caterpillar • Spindle Bug • Red mites • Inflorescence die back • Anabe Roga	30 ha	• **Training** - Production technology of Arecanut • **Method demonstrations** - Method of placing fertilizers - Foliar spray of micronutrients • **Extension activities**
	Tomato	• Imbalanced nutrient management • No IPDM practices	25 ha	**FLD –**Micronutrient management in Tomato • **Training** - Integrated Crop Management in Tomato • **Method demonstrations** - Seed treatment with biofertilizers - Installation of pheromone traps • **Extension activities**
	Fingermillet	• Imbalanced nutrient management • Stem borer	17 ha	**NFSM-CFLD – Nutricereals -** Integrated Crop Management in Fingermillet • **Training** - Integrated Crop Management in Fingermillet • **Method demonstrations** - Spraying of WSF • **Extension activities**
	Drumstick	• Monocropping of Maize	--	**FLD –**Integrated Crop Management in Drumstick • **Training** - Advanced production technologies in Drumstick • **Method demonstrations** - Pinching to 3 feet height • **Extension activities** • **Market link for dried leaves**

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.)
	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**

5. Technology assessment during 2020-21

Sl.No.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology
5.1	Groundnut	• Use of local variety TMV-2 • Low yield • Lack of awareness on improved varieties.	**Assessment of performance of groundnut varieties for better higher yield.**	**T_1 :Farmers Practice:** TMV-2	-
				T2 : Recommended practice: GPBD-4	UAS(D)
				T3: :Recommended Practice: G2-52	UAS(B)

Name of critical input	Quantity per trial	Cost per trial	No. of trials	Total cost for the intervention (Rs.)	Parameters to be studied	Team members
T_1- Nil	-	-	03	-	-	-
T_2- Pods GPBD-4 Gypsum Trichoderma 19 all	60 kg 100 kg 4 kg 2 kg	4200-00 600-00 400-00 300-00	03	16,500-00	• Germination % • Plant height • No of pods/plant • Shelling % • Test weight • Pod yield • Haulm yield	Mallikarjuna B.O. Sannagouda H.M Raghuraja J
T_3- Pods - G252 Gypsum Trichoderma 19 all	60 kg 100 kg 4 kg 2 kg	4200-00 600-00 400-00 300-00	03	16,500-00		
TOTAL				**33,000-00**		

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	Maize	• Low yield	Effect of Nano fertilizer (N and Zn) on Growth and Yield in Hybrid Maize	**T_1 :FP:** Application of NP(100kg) fertilizers as a basal dose and top dressing with Nitrogenous(50 kg urea) and Potash fertilizers (30 kg MOP	Farmers practice	Soil analysis	-	200	05	1000	• Yield (q/ha) • Plant height (cm) • No of rows /cob (No.) • Cob weight (g) • Benefit cost ratio	**SMS (Agronomy**, Soil Science, AE)
				T_2 :RP: Soil Test Based Fertilizers application Nutrient Management (RDF; 100:50 :25 N , P2O5 and K2O kg/ha. 50 % N . 100 % P2O5 and 50 % K20 as a basal and 25 % N at 30 DAS and 25% N and 50 % K20 at Tasselling stage	UAHS, Shivamoga	Soil analysis	-	200	05	1000		
				T_3 :AP: Application of 25 % N (N: 25 kg/ha), 50% K20 and 100 % P2O5 as a basal dose . 25 % N at 25 – 30 DAS, 50 % K2O at tassselling stage . N and Zn Nano fertilizer spray at 30 DAS (4 ml/l of water) and second spray 50 DAS	IFFCO NBRC , Gujarath	Soil analysis N and Zn based Nano Fertilizers	1 litre 1litre	200 450 450	05	5500		
								1500		**7500**		

S. No.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology
7.3	Onion	Non availability of suitable varieties for Rabi season **Causes:** • Use of local varieties • Bulb to seed season	Assessment of Onion Varieties for Rabi Season	1. Nyamathi Local	FP
				2. Arka Nikethan	IIHR, Bengaluru
				3. Bhima Shakthi	DOGR, Pune
				4. NHRDF Red (Line-28)	NHRDF, Nasik

Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the intervention (Rs.)	Parameters to be studied	Team members
					Plant height (cm) Bulb diameter (cm) Bulb Yield (t/ha) No. of protective irrigations B: C ratio	SMS(Horticulture) SMS(Soil Science) SSH
Arka Nikethan	0.5 kg	1,500-00	5	7500-00		
Bhima Shakthi	0.5 kg	1,500-00	5	7500-00		
NHRDF Red (Line-28)	0.5 kg	1,500-00	5	7500-00		
Total		**4,500-00**		**22,500-00**		

5.4	Onion	• Low yield **Causes:** • Imbalanced nutrient management • Small bulb • Less pungency	Role of sulphur in improving the productivity of onion	T_1 –Application of 100:75:20 kg $N:P_2O_5:K_2O$/ha along with FYM + remaining ICM practices.	Farmers practices	T_1:	--	--	5	--	• Plant Height (cm) • Bulb diameter (cm) • Weight of bulb (g) • Yield (q/ha)	**SMS (Soil Science**, Horticulture)
				T_2 – RDF (125:50:125 Kg $N:P_2O_5:K_2O$/ha) along with FYM + remaining ICM practices.	UAHS, Shivamogga	T_2 : *Azospirillum* PSB Yellows ticky trap	0.5 kg 0.5 kg 8 no.	50 50 320	5	2,100		
				T3- RDF (125:50:125 Kg $N:P_2O_5:K_2O$/ha) along with FYM and 45kg sulphur through elemental sulphur through Gypsum remaining ICM practices.	DOGR, Pune	T_3 : *Azospirillum* PSB Gypsum Yellow sticky trap	0.5 kg 0.5 kg 200 kg 8 no.	50 50 550 320	5	4,850		
						Total				**6,950**		

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
5.5	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) improved the digestibility of dry roughages and supplied the crude protein & Energy (TDN) required by the animal.	Feeding Urea-treated paddy straw along with grain mixture (starch source) for better performance in dairy animals	**T1**- Feeding dairy animals with low quality dry roughages and non-leguminous green fodders along with cake and bran items.	--	--	--	--	05	13,700/-	• Milk yield (Liters) • Specific gravity of milk (CLR) • Cost of milk production (Rs./l)	**SMS (Animal Science)** & SMS (Agri. Extension) SSH
				T2- Feeding dairy animals with urea-treated dry roughages, green fodders and compounded animal feeds as per the NRC Specifications	KVA & FSU, Bidar	Chelated Mineral mixture Deworming bolus (80 mg) Vitamins-Minerals tonic	5 kg 2 No. 5 l	600/- 120/- 650/-				
				T3- 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 Mineral mixture Deworming bolus (80 mg) Vitamins-Minerals tonic	5 kg 2 No. 5 l	600/- 120/- 650/-				

Sl. No.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology
5.6	Fisheries	Low productivity with carps in tanks and ponds	**Assessment of growth performance of improved carps, pangasius and farmed tilapia in farm ponds**	**T1 FP: Indian major Common carps (**Catla, Rohu, Common carp) • Stocking density – 1200 • Culture duration – 12 months • Feeding – Rice bran & Groundnut oil cake 1:1 and floating feeds @ 4% of body weight	--
				T2: **Pangasius** • Stocking density – 1200 • Culture duration – 10 months • Feeding – Rice bran & Groundnut oil cake 1:1 and floating feeds @ 4% of body weight	KVAFSU, Bidar
				T3: All male Tilapia • Stocking density – 1200 • Culture duration – 8 months • Feeding – Rice bran & Groundnut oil cake 1:1 and floating feeds @ 4% of body weight	UAS (B)
				T4: Amur Common Carp • Stocking density – 1200 • Culture duration – 10 months • Feeding – Rice bran & Groundnut oil cake 1:1 and floating feeds @ 4% of body weight	FRIC, Hebbal, KVAFSU, Bidar
				T5: Jayanthi Rohu • Stocking density – 1200 • Culture duration – 12 months • Feeding – Rice bran & Groundnut oil cake 1:1 and floating feeds @ 4% of body weight	CIFA, Bengaluru

Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the intervention (Rs.)	Parameters to be studied	Team members
T1 : Carps	1200 No	Farmers share	03	43,200	• Yield (t/ha) • Body weight of fish (g) • Percent of survival (%) • FCR	**Senior Scientist and Head** & SMS (Extension)
T2: Pangasius	1200 No	3600/-				
T3 : All male Tilapi	1200 No	3600/-				
T4 : Amur Common Carp	1200 No	3600/-				
T5 : Jayanthi Rohu	1200 No	3600/-				
		14,400		**43,200**		

6. Frontline demonstrations during 2020-21

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.1	Cereals	Rice	• No seedling treatment with bio fertilizer • Improper nutrient management • Incidence of stem borer(white ear), Blast and BPH	**Integrated crop management in Rice** • Deep ploughing in summer and burning of stubles • Use of Green manuring crop Diancha 20 kg/acre • Seed treatment with carbendazim @4g/kg • Installation of Pheromone traps in the Nursery for stem borer management • Seed treatment with Azospirillum (1kg/acre) • Application of $ZnSO_4$ (8 kg) • Removing of weeds from bunds and fields • Maintain proper spacing and avoid excess plant population • Avoid excess N application	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
Trichoderma	500 g	50.00	20	37,200.00	• Yield (q/ha) • Plant height (cm) • Productive tillers (no.) • Percent incidence of stem borer • Test weight 1000 seeds (g)	**SMS (Agronomy)** SMS (Soil Science) SSH
Bio-fertilizers *Azosprillium*, PSB (1kg each)	2 kg	200.00				
Pheromone trap 6 and lures 12 No/acre	12 No.	700.00				
Sodium Acta Borate (Boron) @ 1 kg/acre	1 kg	350.00				
Zinc sulphate (8kg/acre)	80 g	560.00				
		1860.00				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.2	Cereals	Hybrid Maize	• Fall army worm incidence (60-100%) • Improper nutrient Management	**Integrated crop Management in Maize** ✓ Spacing of 60X30 cm for maize through seed cum fertilizer drill . ✓ Recommended dose of Fertilizers (100 : 50 : 25 NPK kg /ha) with FYM @ 7.5 t/ha ✓ Use of bio fertilizers *Asosprillium*, and PSB 1kg each/ha ✓ Management of stem borer - Chlorntraniliprole @ 150 ml/ha ✓ **FAW management : Deep ploughing in summer and bunds should be wed free** ✓ Installation of pheromone traps @ 12 no/ha (24 lures)- Fall Army worm (*Spodoptera frugiperde)*- 8 days after Sowing ✓ Spraying of Azadirachtin 1500 PPM 5ml/l ✓ Spraying of Chlorntraniliprole @ 150 ml / ha (0.3 ml/l of water) /Lamda cyhalothrin 9.5% 0.5 ml/l of water	-	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
Azosprillium and PSB 1kg each	1kg	190/-	10	22,400	• 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
Pheromone traps 5 Nos @ lures 10 nos.(FAW)	5 Nos	500/-				
Chlorntraniliprole @ 0.3 ml /l (60 ml)	0.3 ml	950/-				
Zinc Sulphate 4 kg/acre	4 kg	300/-				
13:00:45/19:19:19 @ 5g/l 2kg/acre	2kg	300/-				
		2,240/-				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.3	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
6.4	Horticultural crops	Tomato	• Improper nutrient management (70:100:40 kg $N:P_2O_5:K_2$/ha) • Boron and Zinc deficiency (20% yield loss) • Incidence of sucking pest (20-60% yield loss)	**Integrated Crop Management in Tomato** ✓ Weather based agronomic practices ✓ Soil test based nutrient application ✓ Application of Arka Microbial Consortium (20 g for seed treatment, 20g/l – drenching 10 DAT, 5kg- Main field along with vermicompost) ✓ Spray of vegetable special @ 5g/l ✓ Spray of calcium nitrate @5g/l ✓ Use of yellow and blue sticky traps @ 25/ha ✓ Use of pheromone traps @ 10/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	7 kg	1750	10	43,000/-	• 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 nitrate	2 kg	400				
Yellow sticky and blue sticky traps	20 No.s	800				
Pheromone traps 4 and lures 8	4 No.s	300				
Safety kit	1 No.s	250				
	Total	4,300.00				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.5	Horticultural crops	Drumstick	• Improper nutrient management • Flower dropping • No treatment after pruning	**Integrated Crop Management in Drumstick** • Integrated Nutrient Management • Intercropping with pulses/groundnut • Pruning at the height of 2.5 ' • Treatment with COC after pruning • Spraying of Potassium nitrate @ 5g/l • Spraying with NAA@ 0.4ml/l to prevent flower dropping • Spraying of micronutrient mixture @ 5ml/l • Need based plant protection measures • Marketing through FPO	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
Micronutrient Mixture	2 l	1000.00	05	11,000/-	• Yield (q/ha) • Number of pods/plant	SMS (Soil Science) SMS (Horticulture) SSH
NAA	200 ml	400.00				
Potassium Nitrate	4 kg	800.00				
	Total	**2200.00**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.6	Horticultural crops	Arecanut	• No drainage (28%) • Anabe roga(15%) • Incidence of Hidimundige (45%) • Lower fertility (28%) • Indiscriminate use of fertilizers (150:100:100/Plant) • Inflorescence dieback(33%) • Spindle bug(16 %) • Nut Splitting and dropping(45%)	**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(100:40:140g NPK/plant) based on soil test ✓ *Trichoderma* enriched organic manure ✓ Intercrop with velvet beans ✓ Spray Chlorpyriphos @ 2 ml/l ✓ Spray of Mancozeb @ 2g/l ✓ Drenching with Propiconozole @ 2 ml/l	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/-	20	30,000/-	• 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
6.7	Horticultural crops	Blackpepper	• Yellowing • Spike shedding • Wilt • Nematodes	**Management of yellowing and spike shedding in Blackpepper** ✓ Spraying of blackpepper special @ 5 g/l during May and September ✓ Drenching of Arka Microbial consortium 20 g/l ✓ Spraying Potassium Nitrate @ 5 g/l ✓ Soil application of *Pachonia chlamydosporia*	Paniyur-1	--	IIHR, Bengaluru & IISR, Calicut

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
Black Pepper Special	5 kg	450/-	05	16,250/-	• Yield (q/ha) • Spikes shedding (No.) • Yellowing (%)	**SMS (Horticulture)** SMS (Soil Science) SSH
Arka Microbial Consortium	10 kg	1500/-				
Pachonia chlamydosporia	10 kg	1000/-				
Potassium Nitrate	2 kg	300/-				
	Total	**3250/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.8	Horticultural crops	Betelvine	• Incidence of downey mildew (8%) • Sucking insect damage (15%) • Mealy bug for standard (32%) • Wilt(23%) • Imbalance nutrition (17:17:17 @ 100 g/vine)	**Integrated Pest and Disease Management in Betelvine** ✓ Recommended RDF (50:50:50 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
Verticilliumlecanae	1 l	450/-				
	Total	**950/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.9	Horticultural crops	Onion	• Use of Nyamathi local variety • Incidence of purple blotch (20%) • Incidence of thrips (15%) • High cost on weeding	**Integrated Crop Management in Onion** ✓ Use of Bhima Super variety (10 kg/ha) ✓ Application of gypsum (as source of sulphur) (2.5 q/ha) based on soil test report ✓ 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	37,000/-	• Yield (q/ha) • Germination of seed (%) • Weight of bulb (g)	**SMS (Horticulture)** SMS (Soil Science) SSH
Arka vegetable special	2 kg	800/-				
Arka Microbial Consortium	5 kg	750/-				
	Total	**1850/-**				

Result: 2019-20

	Yield q/ ha	% increase in yield	Gross Cost (Rs.)	Gross Returns (Rs)	Net Return (Rs./ha)	B:C ratio
Check	**137.05**	**28.85**	**136904**	**175560**	**38656**	**1.28**
Demo	**176.6**		**104678**	**388520**	**283842**	**3.71**

Horizontal Spread of Technology

- Reduction in the disease / pest incidence to the tune of 28 %
- Area under new variety increased to 370 acres by 180 farmers in 2 years.
- Participatory seed production with farmers: 605 kg
- Additional production of 60 q/ha and additional income of Rs.1,03,000 /ha.
- Within a few years of introduction, the variety occupied 20 per cent of onion area of 400 ha

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.10	Livestock	Dairy animals	• Weakness • Infertility problem (50-60% of the breedable population) • Low milk yield (4-5 /milk/day/animal)	**Integrated Management of Crossbred Dairy Animals 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
Deworming bolus (3 g)	1No.	60/-	10	28,900/-	• 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 Mineral Mixture	5 kg	600/-				
Enzymex powder @ 5 g/kg dry fodder	1 kg	180/-				
Brolaytone tonic @ 2 ml/kg fodder	500 ml	450/-				
Plastic Drums (250 l)	1 No.	800/-				
	Total	**2,090/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.11	Livestock	Small ruminants	• Lower body weight gain (18-20 kg at maturity) • Sudden mortality • Delayed puberty (Maturity @ 15-18 months)	**Balanced Feeding and Total Deworming in Small Ruminants 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	14,000	• 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	650				
Liver tonic (K-Live – 5 ml/day/animal)	5 l	650				
	Total	**1400**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.12	**Fodder**	Non-leguminous & leguminous fodders	Low and poor-quality milk yield due to non-availability of good quality fodder crops for feeding dairy animals	**Establishment of fodder cafeteria for profitable dairy farming** Production of HYV of Non-leguminous and leguminous fodder crops	CoFS-31, Lucerne and Sesbenia spp.	--	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
Multi-cut Fodder Sorghum (CoFS-31)	1 kg.	500	10	12,500	• Milk yield (l) • Milk fat &SNF • Cost of Feeding	**SMS (Animal Science)** SSH SMS (Agri. Extension)
Leguminous fodder seeds (Lucerne)	1 kg	700				
Tree type leguminous fodder (Sesbenia spp)	100 g	50				
Total		**1,250**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.13	Fisheries	Fish	• Low yield (8-10 q/ha)	**Composite culture of fresh water fishes in farm ponds with an emphasis on water quality parameters** ✓ Pond preparation and management ✓ Seed selection and stocking ✓ Feed and feeding management ✓ Health and water quality monitoring and harvesting ✓ Aeration for better growth	*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
pH meter and DO meter (1 No.)	50 kg	3000/-	2	16,000	• Yield (t/ha) • Average body weight (g) • FCR	**SSH** SMS (Agri. Extension)
Aerator	1 unit	5000/-				
	Total	**8,000/-**				

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.14	Post harvest technology	Pulses (Red gram & Bengal gram)	• Incidence of stored grain pests	✓ **Super grain bags to prevent stored grain pests**	-	-	PCI, 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
Super grain bags	05	500	40	20000	• Pest infestation % • Shelf life of stored grains	**SMS (AE**, SS&AC and Agron)
		500	40	20000		

NFSM- CLUSTER FRONTLINE DEMONSTRATION

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
6.15	Millets	Finger millet	• Improper nutrient management • Stem borer • Long duration variety	**Integrated Crop Management in Finger millet** • Short duration ML-365 variety. • Soil test based fertilizer application • Seed treatment with bio fertilizers *Azosprillium,* PSB, VAM @ 3 kg • Use of water soluble fertilizers 19:19:19 and 13:0:45 • Micronutrient Mixture @ 5ml/l • Spray chlorpyrifos, 20 EC @2ml/l for stem borer • Spray Carbendazim @ 1g/l for blast	Variety	ML-365	UAHS, Shivamogga

Name of critical input	Qty per Demo	Cost per Demo	No. of Demo	Total cost for the Demo (Rs.)	Parameters to be studied	Team members
ML-365seeds	5 kg	300.00	10	24000.00	• Plant height (cm) • Test weight (g) • Yield (q/ha) • Fodder yield (t/ha)	SMS (SS, Agr) SS &H
Bio fertilisers	3 kg	300.00				
19:19:19 water soluble fertilize	2 kg	300.00				
13:0:45 water soluble fertilizer	2kg	300.00				
Micronutrient Mixture	1l	500.00				
chlorpyrifos , 20 EC,	500ml	400.00				
Carbendazim	500g	300.00				
Total		**2400-00**				

NFSM- CLUSTER FRONTLINE DEMONSTRATION

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.16	**Pulses**	**Bengal gram**	➢ Low yield ➢ Improper nutrient management ➢ No IPM measures	**Variety**: JAKI 9218 **Technology with cost breakup per ha** ➢ Use of JAKI 9218 seeds 62.5 kg /ha **Seed treatment** ➢ Bio fertilisers- Rhizobium. 500g/ha ➢ Use of biofungicide trichoderma-2kg/ha ➢ Spray with Chick pea magic @ 5kg/ha (10g / l) **PP measures** ➢ Installation of 43utrient43 traps @ 10 No/ha (20 lures) ➢ Spray with profenophos @ 2ml /l – 1.25 l/ha ➢ Spray with Chlorntraniliprole @ 0.3 ml /l	JAKI 9218	-	UAS(B)

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
Seeds	20 kg	1200.00	50	1,80,000	Plant height (cm) No of pods/plant (No.) No of Branches /plant (No.) Test weight (g) Yield (q)	**SMS (Agronomy)** SMS (Soil Science) SSH
PSB and Rhizobium	1kg	200.00				
Pheromone traps	5 No.	500.00				
TrichodermaViridae	50 g	50.00				
Chick pea Magic	2kg	500.00				
Profenopous	500ml	600.00				
Chlorntraniliprole	30 ml	450.00				
Micro 43utrient spray	500ml	300.00				
		3600.00				

NFSM- CLUSTER FRONTLINE DEMONSTRATION

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology
6.17	**Pulses**	**Redgram**	➢ Low yield ➢ Improper nutrient management ➢ No IPM measures	**Variety:** BRG-5 **Technology with cost breakup per ha** ➢ Use of wilt tolerant medium duration variety BRG- 5 seeds:15.0 kg /ha **Seed treatment** ➢ Bio fertilisers- Rhizobium &, PSB @ 1kg each &Trichoderma @ 5.0 kg/ha ➢ Spray with pulse magic-5kg/ha **PP measures** ➢ Installation of pheromone traps @ 8no. / ha(16 lures) ➢ Spray with profenophos @ 2ml/l- Ovicidal- 1 l/ha ➢ Spray with neem based insecticide @3ml/l – 1l /ha ➢ Spray with indaxicarb@0.5ml/l -200 ml / ha	BRG-5	-	UAS(B)

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
Seeds	5kg	600.00	50	1,80,000	Plant height (cm) No of pods/plant (No.) No of Branches /plant (No.) Test weight (g) Yield (q)	**SMS (Agronomy)** SMS (Soil Science) SSH
PSB and Rhizobium	1kg	200.00				
Pheromone traps	4No.	400.00				
TrichodermaViridae	50 g	50.00				
Pulse Magic	2kg	500.00				
Profenopous	500ml	600.00				
Chlorntraniliprole	60 ml	900.00				
Micro 44utrient spray	250ml	200.00				
Safety Kit	1 set	150.00				
		3600.00				

1. Training for farmers/ farm women during 2020-21

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/FLD	Improved production technology for higher yield	02	60	SMS (Ag & SS)
		Groundnut	OFT/FLD	Integrated Nutrient management	02	100	SMS (Ag & SS)
		Rice	FLD	Land preparation and selection of varieties and Seed treatment	01	25	SMS (Ag & SS)
		Finger millet	FLD	Integrated crop management in Finger millet	1	20	SMS (SS, Ag & AE)
		Maize + Redgram	FLD	Importance of seed treatment for higher yield in intercropping system	01	25	SMS (Ag & SS)
		Redgram	FLD	1.Importance of seed treatment in pulses 2. Integrated nutrient management 3. Integrated pest management	03	100	SMS (Ag & SS)
		Bengal gram	FLD	1. Importance of seed treatment in pulses 2. Integrated nutrient management 3. Integrated pest management	03	100	SMS (Ag & SS)
		Cotton	FLD	Advanced production technologies of cotton	1	25	SMS (SS, Ag & AE)
7.2	Horticulture production	Tomato	FLD	Integrated crop management in Tomato	1	25	SMS (SS, Hort. & AE)
		Drumstick	FLD	Advanced production technologies in drumstick for higher productivity	1	10	SMS (SS, Hort. & AE)
		Arecanut	FLD	Production technology of Arecanut	02	40	SMS (Hort. & SS)
		Banana	FLD	Integrated Pest & Disease Management Banana	02	40	SMS (PP & Hort.)
		Betel vine	FLD	Recent trends in Production technology of Betelvine	01	25	SMS (Hort. & SS)
		Onion	FLD	Integrated crop Management in Onion	01	25	SMS (Hort. & SS)

		Black Pepper	OFT	Production technology of Pepper	01	25	SMS (Hort. & SS)
		Coconut	Others	Management of Rugose white fly in Coconut	1	30	SMS (AE & Horti.)
		Arecanut	Others	Management of Ambrosia beetal in Arecanut	1	30	SMS (AE & Horti.)
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)
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)
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)
		Maize + Redgram	FLD	Nipping of Redgram	01	25	SMS (Ag & SS)
7.11	Fisheries production technologies	Fish	FLD	Production technology	01	20	SSH
7.12	Mushroom production	Mushroom	--	Production and marketing of Mushroom	01	50	SMS (AE)
7.13	Agro forestry	Sandalwood & Other	--	Production technology of sandalwood	01	50	SMS (AE)

		forestry technologies					
7.14	Bee keeping	Honey bee	--	Production technology of Honey	01	25	SMS (AE)
7.15	Sericulture	--	--	--	--	--	--
				Total	**44**	**605**	**--**

8. Training for rural youth during 2020-21

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	Vermi compost	Skill	Improved Production technology of vermin compost	01	25	SMS (Ag and AE.)
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						
8.12	Mushroom production						
8.13	Agro forestry						
8.14	Bee keeping						
					05	**105**	

9. Training for extension personnel during 2020-21

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	Recent advances in agriculture and horticulture sector (For ATMA functionaries)	01	25	SMS (AE, Agron, Horti, SS&AC)
9.4	Horticulture	Nutrigarden	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	01	25	SMS (SS & AE)
9.11	Fisheries				
			06	**165**	

10. Vocational trainings during 2020-21

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	Vermicompost Producer	01	23	20	ASCI, New Delhi	SMS (AE, Agron, Horti, SS&AC, ASc & SSH)
		Organic Grower	01	23	20	ASCI, New Delhi	SMS (AE, Agron, Horti, SS&AC, ASc & SSH)
		Arecanut climbing using machine	02	03	60	-	SMS (AE, Horti,)
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						--
			04	**80**			**--**

11. Sponsored trainings during 2020-21

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	50	01	1500	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	400	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						
			55	**--**	**1950**		

12. Extension activities during 2020-21

Sl. No.	Extension activity	No. of activities	Targeted number of participants	Names of the team members involved
12.1	Advisory services	1900	2100	All Scientists involved
12.2	Diagnostic visits	15	140	
12.3	Field days	18	2500	
12.4	Group discussions	04	200	
12.5	Kisan gosthies	03	600	
12.6	Film shows	12	600	
12.7	Self -Help Groups (SHGs) meetings	--	--	
12.8	Kisan Melas	03		
12.9	Exhibitions	05		
12.10	Scientists' visit to farmers fields	250	2000	
12.11	Plant/soil health/animal health camps	03+03	300 samples + 400 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	15	250	
12.16	Celebration of important days	04	300	
12.17	Special day celebrations	10	2000	
12.18	Exposure visits	01	50	
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	-	-	
12.24	Pre-rabi/summer campaign	--	--	
12.25	Bimonthly Meetings	06	450	
12.26	Tri-monthly meetings	04	300	
12.27	Guest lecture	100	3000	
12.28	Popular article	12	--	
12.29	News paper coverage	70	--	
12.30	Swachha Bharath Campaigns	10	--	
12.31	Kisan Mobile Advisory Services	30	11505	
12.32	Radio Talk	10	--	
12.33	TV Talk	08	--	
		2529	**28310**	

13. Activities proposed as knowledge and resource centre during 2020-21

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	Live bearer	1 unit	10,000	Senior Scientist and Head
13.1.3	Lab analytical services	Soil test campaigns	3 villages	300	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	Hands on training for Students	Horticulture Nursery	--	50	SMS (Horticulture)
12.1.7	Science project for school children	--	--	05	All team members
12.1.8	Soil & water analysis training to degree students	--	--	08	SMS (Soil Science) & Programme Assistant (Lab. Technician)
12.1.9	DAESI diploma course	--	--	20	All Scientific staff
12.1.10	Kasa Rasa Training	--	--	100 People	SMS (Animal Science)
12.1.11	Kitchen garden training	--	--	100 People	SMS (Horticulture)
12.1.12	Kitchen waste Composting promotional activities	--	--	100 People	SMS (Animal Science)

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 2020-21 (q)	Number planned to be produced during 2020-21	Names of the team members involved
13.2.1	**Seeds**					
		--	Velvetbeans	10	--	Farm Manager
		--	Vegetable seed kits	1000 kits	--	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)
13.2.4	Livestock strains					
		--	Male calves	--	2-3 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 ATMA personnel)	SMS (Agricultural Extension)
		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** (ATMA Officials)	SSH
	e. Agricultural Engineering	--	--
	f. Sericulture	--	--
	g. Others, pl. specify	--	--
13.3.2	Literature/publication	06	All scientific staff
13.3.3	Electronic media	02	All staff
13.3.4	Kisan mobile advisory services	30	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)
13.3.6	**Whatsapp groups** • ICAR-Taralabalu KVK • Horticulture Solution Davanagere • Horti Solutions • Davanagere FPOs	04	All scientific staff

14. Additional activities planned during 2020-21

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	7,00,000-00	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	Awareness programmes-25 nos Production of biodiesel – 500 l	6,00,000-00	SMS (Agril. Extn.)
3	Paramparagat Krishi Vikas Yojana (PKVY)	Training and awareness programmes, Demonstrations on Organic farming units	Organic Farming	3,30,000-00	SMS(Horticulture)
4	Nutrigarden	Demonstration of vegetable garden	Demonstrations – 50 Training – 03	25,000-00	SMS(Horticulture)

15. Revolving fund

15.1 Financial status of revolving fund

Opening balance as on 01.04.2019 (Rs. in Lakh)	Expenditure incurred during 2019-20 (Rs. in Lakh)	Receipts during 2019-20 (Rs. in Lakh)	Closing balance as on 31.03.2020 (Rs. in Lakh)	Expected closing balance by 31.03.2020 (Including value of material in stock/ likely to be produced)
15.74	56.66	46.00	5.00	8.00

15.2. a) Plan of activities under revolving fund

Sl. No.	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
15.1	Velvetbeans	10000 kg	1,20,000/-	Farm Manager & SMS (Horticulture)
15.2	Arecanut Seedlings	15000 No.	4,50,000/-	SMS (Horticulture)
15.3	Coconut Seedlings	3000 No.	2,25,000/-	
15.4	Drumstick Seedlings	15000 No.	1,50,000/-	
15.5	Arecanut	10 q	2,00,000/-	SMS (Horticulture) & Farm Manager
15.6	Mango fruits	5 t	1,00,000/-	
15.7	Sapota fruits	1.5 t	30,000/-	
15.8	Coconut nuts	500 No.	5,000/-	
15.9	Jamoon	50 kg	5,000/-	
15.10	Tender Coconut	500 No.	10,000/-	
15.11	Drumstick pods	550 kg	11,000/-	
15.12	Tamarind	375 kg	15,000/-	
15.13	Guava fruits	100 kg	10,000/-	
15.14	Vermicompost	7-8 q	80,000/-	SMS (Animal Science)
15.15	Earthworms	0.2 q	6,000/-	
15.16	Milk	3000 l	1,00,000/-	

15.2 b). Cost Benefit Ratio of Animal Science / Horticulture Demo Units (2019-2020)

Sl. No.	Demo Unit	Gross Cost	Gross Income	Net Income	BCR
1	Crossbred Cow Dairy Unit	2,43,780	248,444	4664	1.02
2	Vermiculture and Vermicompost	66,400	75,000	8,600	1.13
3	Azolla Production	800	2,920	2,120	3.65
4	Horticulture Demonstration Units	4,64,962	5,69,028	1,04,066	1.22
5	Horticulture Nursery Activities	4,49,798	6,78,715	2,28,917	1.50
6	Banana Special Activities	1,37,494	2,77,640	1,40,146	2.01

16. Activities of soil, water and plant testing laboratory during 2020-21

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)
16.2	Soil test using mobile analysis kit	--	
16.3	Water	1000	
16.4	Plant	--	--
16.5	Others, pl. specify	--	--

Cumulative Soil & water samples analyzed since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	9306	7437	5175
Water Samples	7267	5568	4776
Total	**16573**	**13005**	**9951**

17. E-linkage during 2020-21

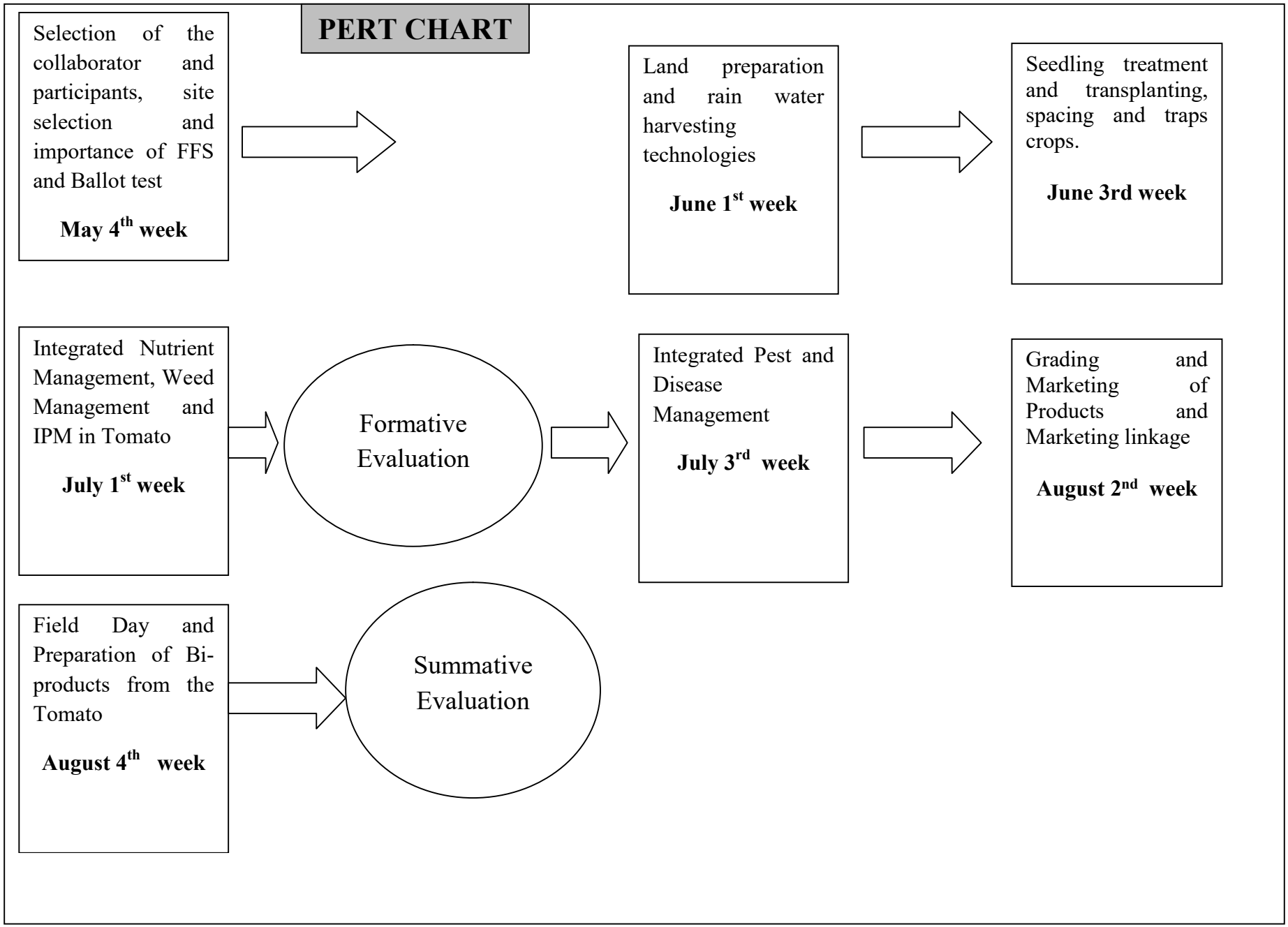
Sl. No	Nature of activities	Likely period of completion (please set the time frame)	Remarks if any
17.1	Title of the technology module to be prepared	--	--
17.2	Creation and maintenance of relevant database system for KVK	Farmer advisory service	--
17.3	Other extension activities	Month wise database maintained for all the extension activities	--
17.4	Plan of video production	1. IPM in Tomato 2. Nutrigarden for rural folks 3. Video production on successful farmers namely: a. Sri Dyamappa H.M., Haluverthy village. b. Sri Arunkumar, Bilchod Village. c. Sri Onkarappa, S. Mallapura Village 4. Silage making and its advantages. 5. Video on Drumstick Production.	--

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


PERT CHART
Selection of the collaborator and participants, site selection and importance of FFS and Ballot test
May 4th week
Land preparation and rain water harvesting technologies
June 1st week
Seedling treatment and transplanting, spacing and traps crops.
June 3rd week
Integrated Nutrient Management, Weed Management and IPM in Tomato
July 1st week
Formative Evaluation
Integrated Pest and Disease Management
July 3rd week
Grading and Marketing of Products and Marketing linkage
August 2nd week
Field Day and Preparation of Bi-products from the Tomato
August 4th week
Summative Evaluation

20. a) Entrepreneurship Development Programme- Nil

b) Innovative programme

Alternate marketing strategies for FPOs and Farmers

Introduction

Among the many problems that the farmers are facing, marketing remains the major one. The profit for farmers will be realized when the produce is converted to cash through marketing and mere high productivity and production may not fetch profitability. In the situation of nearly 80% of small and marginal holdings in India, marketing assumes greater importance. The surplus of agricultural produce from these categories of farmers (Even though small quantity) has to be sold at profitable prices to sustain their livelihood. Probably, the only producer who does not determine the prices is farmer and in other cases the producer determine the prices and also sure of their margin. The average farmers share in consumer price for agriculture produce ranges from 25-30 % and efforts needs to be directed towards increasing this share to 75-80 %. Another important problem the farmer facing in marketing is the long chain of middlemen, off course the middlemen in marketing can't be ruled out and effort needs to be done to reduce the chain of middlemen and use these middlemen for the farmers advantage. Importing marketing knowledge and educating farmers with market information would certainly help in addressing these problems up to some extent. The extension personnel concentrating more on production and marketing is left alone to farmers. Although marketing is a sensitive issue and the best that the extension system can do is to educate and guide the farmer for better marketing opportunities. The central Government programme of doubling farmers income by 2022 includes innovative marketing opportunities for farmers to realize higher profits.
One the major problem faced by the farmers in the lockdown period (due covid 19 incident) is marketing of agriculture produce. Many farmers and FPOs

developed innovative marketing strategies on their own and there is need to document and give publicity. In this background 2 **Alternate marketing**

strategies for FPOs and Farmers will be organized to address the following objectives.

Objectives

1. To document and give publicity to innovative marketing practices of farmers and FPOs.
2. To impart innovative marketing strategies to farmers through experts.

The details of the farmers meet

The 2 day **Alternate marketing strategies for FPOs and Farmers** will be organized in ICAR-TaralabaluKrishiVigyan Kendra premises 80 farmers and 20 FPO who are practicing innovative marketing strategies across Karnataka will be invited to participate and present their ideas. Marketing experts will be invited to present key note address. Special emphasis will be given to marketing opportunities of FPO members which are recently established in the state.

Budget requirement

Sl. No.	Particulars	Amount (Rs.)
1	Travelling expenses for farmers	30,000-00
2	Food expenses (@ Rs. 150 x 100 farmers x 2days)	30,000-00
3	Halting charges (@ Rs. 150 x 100 farmers)	15,000-00
4	Honorarium to experts and judges	15,000-00
5	Stage, banner and other logistics	5,000-00
6	Prizes for best innovative marketing practices	10,000-00
7	Book on Innovative Marketing Practices	50,000-00
	Total	**1,55,000-00**

Expected outcome of the farmers meet

The 2 days meet on **Alternate marketing strategies for FPOs and Farmers** is expected to help in sharing of marketing ideas among participant farmers.

The documented practices will be published for wider adoption.

c) Documentation of vegetables marketing practices of FPOs during lockdown period

ICAR-TaralabaluKrishiVigyan Kendra, Davanagare has initiated unique vegetables marketing practices of FPOs during lockdown period. The vegetables grown by the farmers were directly procured by respective FPOs and sold directly to the consumers every day. This initiative will be continued by including rural areas. The data on number of farmers benefitted and profit earned by the FPOs will be recorded.

d). Plan of Human Resource Development of KVK personnel during 2020-21

S. No	New Areas of Training	Institution proposed to attend	Justification
1	Climate Resilient Management techniques under dry land agriculture	ICRISAT, Hyderabad	KVK comes under central dry zone and NICRA activities are going on and required to upgrade knowledge.
2	Advanced level training in soil testing	Indian Agricultural Research Institute, New Delhi	To strengthen soil and water testing laboratory
3			
4	Strategies for Promoting Farmers producer Organization	National Academy of Agriculture Research Management (NAARM), Hyderabad	To get more knowledge on management strategies for newly formed FPO's of the district.
5	Changing Methodological Paradigm in Extension Research	ICAR under CAFT programmes	To conduct impact studies of KVK activities using appropriate statistical tools to draw meaningful conclusions.
6	Managerial skills for convergence in agricultural extension	MANAGE, Hyderabad	For better KVK management.
7	Alleviation of Reproductive Problems in Dairy Animals	NIANP, Bengaluru	This is a major problem with Dairy animals in the District.
8	Aquaponics	CIBA, Chennai	New trend in aquaculture. (For Fisheries Scientist)

20 e. Plan of Research article / success story / Impact of KVK activities during 2020-21

Sl. No.	Activities
1	Impact of ASCI sponsored Skill Trainings conducted by Krishi Vigyan Kendra.
2	Impact of micronutrients on drumstick production at Suragondanahalli village.
3	Impact analysis on 'Dry fodder enrichment and its use in NICRA village.
4	Impact of Farm pond on income of farmers
5	Impact of Bheema Super Onion Frontline Demonstration

21. Details of budget utilization (2019-20) up to 31st March 2020

(Rs.)

Sl.No.	Particulars	Sanctioned (RE 2019-20)	Released	Expenditure
21.1	**(A). REVENUE (Recurring Contingencies)**			
21.1.1	**Pay & Allowances**	**1,35,00000**	**1,32,78,643**	**1,30,72,356**
21.1.2	**Traveling allowances**	**1,00,000**	**1,00,000**	**1,00,000**
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*	3,00,000	3,00,000	2,99,749
21.1.3.*b*	*POL, repair of vehicles, tractor and equipments*	2,50,000	2,50,000	2,43,408
21.1.3.*c*	*Food/refreshment for farmers/extension personnel @ Rs.150/person/day*	75,000	75,000	74,150
21.1.3.*d*	*Training material (need based materials and equipments for conducting the training)*	75,000	75,000	74,937
21.1.3.*e*	*Frontline demonstrations*	3,15,000	2,77,550	2,40,088
21.1.3.*f*	*On farm testing (OFTs)/Technology Assessment*	52,000	26,000	25,900
21.1.3.*g*	*Integrated Farming System (IFS) (Min. 5 Units)*			
21.1.3.*h*	*Training of extension functionaries*	50,000	50,000	50,000
21.1.3.*i*	*Extension activities/services*	50,000	50,000	49,988
21.1.3.*j*	*Farmers' Field School*	25,000	25,000	24,700
21.1.3.*k*	*Nutrigardens*	25,000	25,000	24,980
21.1.3.*l*	*Soil & water testing & issue of soil health cards*	25,000	25,000	25,000
21.1.3.*m*	*Maintenance of building*	1,75,000	1,75,000	1,75,000
21.1.3.*n*	*Farmers Conclave, KVK Conference*			
21.1.3.*o*	*Video production*	25,000	25,000	25,000
21.1.3.*p*	*Library (Purchase of Journals, Periodicals, News Papers& Magazines)*	5,000	5,000	5,000
	Total Recurring	**1,50,47,000**	**1,47,62,193**	**1,45,10,256**
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)	**1,50,47,000**	**1,47,62,193**	**1,45,10,256**

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

Sl.No.	Particulars	BE 2020-21 proposed (Rs.)
22.1	**(A). REVENUE (Recurring Contingencies)**	
21.1.1	**Pay & Allowances**	**1,61,00,000**
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*	4,00,000
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*	4,33,525
22.1.3.*f*	*On farm testing (OFTs)/Technology Assessment*	2,09,900
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*	*Innovative activities*	1,55,000
22.1.3.*l*	*Soil & water testing & issue of soil health cards*	1,00,000
22.1.3.*m*	*Maintenance of building*	5,00,000
22.1.3.*n*	*Library (Purchase of Journals, Periodicals, News Papers& Magazines)*	10,000
22.1.3.o	*Others, pl. specify*	
	Total Recurring (A)	**27,88,425**
22.2	**(B). CAPITAL (Non-Recurring Contingencies)**	
22.2.1	**Equipments& Furniture**	20,00,000
22.2.2	**Works**	
22.2.3	**Vehicle**	
22.2.3.a	Four wheeler (replacement)	
22.2.4	**Library**	2,00,000
	Total Non Recurring (B)	**22,00,000**
	Grand Total (A + B)	**2,01,88,425**

Abstract of interventions for 2020-21

Interventions	Number of activities	Number of farmers	Amount (Rs.)
OFT	9	47	1,57,100
Frontline demonstrations	16	178	4,45,000
NFSM	3	110	3,84,000
Trainings			
Farmers/Farm women	44	605	
Rural Youth	05	105	
Extension personnel	06	165	
Vocational	06	140	
Sponsored	55	1950	
FFS	01	25	30,000
Innovative programme	01	100	1,55,000
Extension activities	2529	28310	