### ICAR-KRISHI VIGYAN KENDRA, GONIKOPPAL, KODAGU

#### PROFORMA FOR ACTION PLAN OF KVKS IN ZONE XI FOR THE YEAR 2020-21

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

1.	Name and address of KVK with Phone, Fax and e- mail, Website	:	ICAR-KRISHI VIGYAN KENDRA (ICAR-Indian Institute of Horticultural Research) GONIKOPPAL - 571213, Virajpet Taluk KODAGU DISTRICT, KARNATAKA Phone: 08274 -247274, Fax: 08274-247274 E-mail: <u>iihrkvkgk@gmail.com</u> web : kvkkodagu.iihr.res.in
2.	Name and address of host organization	•	ICAR-INDIAN INSTITUTE OF HORTICULTURAL RESEARCH (ICAR-Indian Council of Agricultural Research ) Hessaraghatta Lake post, BENGALURU Phone: 080-28466420 / 21, 22, 23 Fax: 080-28466291 e-mail : director@iihr.res.in
3.	Year of sanction	:	1976
4.	Website address of KVK and date of last update	:	https://kvkkodagu.iihr.res.in

### 2. Details of staff as on date

SI. No.	Sanctioned post	Name of the incumbent	Discipline	Pay matrix	Date of joining	If temporary, pl. indicate the consolidated amount paid (Rs./month)
1.	Senior Scientist and Head	Dr. Saju George	Agril. Extension	1,57,600	04.05.2014	Permanent
2.	Subject Matter Specialist	K. A. Devaiah	Horticulture	1,19,300	30.11.1993	Permanent
3.	Subject Matter Specialist	B. Prabhakara	Horticulture	80,900	03.04.2007	Permanent
4.	Subject Matter Specialist	Veerendra Kumar K.V	Plant Protection	78,500	02.12.2009	Permanent
5	Subject Matter Specialist	Dr. Suresh S.C	Livestock	80,900	09.02.2011	Permanent
6	Subject Matter Specialist	Dr. Somashekhar	Plant Breeding	78,500	05.12.2009	Permanent
7	Subject Matter Specialist	Vacant	-	-	-	-
8	Programme Assistant (Lab Assistant)	Vacant	-	-	-	-
9	Programme Assistant (Computer Programmer)	Benecio Fernandes	-	30,100	26.05.2018	Permanent
10	Programme Assistant (Farm Manager)	Lakshmi R	-	30,100	12.09.2018	Permanent
11	Accountant/Superintendent	Mohan	-	62,200	22.11.1991	Permanent
12	Stenographer	Vacant	-		-	-
13	Driver 1	Prasad	-	49,600	11.04.2016	Permanent
14	Driver 2	Vacant	-		-	-
15	Supporting staff 1	B. N. Janaki	_	35,000	25.03.1985	Permanent
16	Supporting staff 2	Vacant	-	-	_	-

# 3. Details of SAC meeting conducted during 2020-21

Date	Major recommendations	Status of action taken in brief
	• Dr. M R Dinesh, Director, ICAR-IIHR, Bengaluru suggested to take up green manure crops in the wider spaced fruit crops for improving the soil fertility at farm. Demonstration of bee keeping in farm and one or two selected farmer field as entrepreneurship and study its effect in augmenting income of farmers and also effect on yield of coffee and other crops in the farming system may be studied.	Green manure crops like Mucuna is proposed under FLD for improving the soil fertility
	• Dr. Ankegowda, Head, IISR-Appangala stations suggested to take up demonstration of latest cardamom varieties released from IISR Appangala in view of the importance of the crop for the district especially in high elevation areas.	• FLD on Introduction of cardamom variety IISR Avinash was proposed for the demonstrations. The proposed demonstration will be taken up in Bhagamandala village for the year 2019-20.
	<ul> <li>Mr. K.N. Jagadeesh, SMS, KVK, Hirehalli suggested to introduce velvet bean as a green manure crop in flood affected areas for improvement of soil fertility and study its effect.</li> </ul>	• Velvet bean (Mucuna) is proposed under FLD for improving the soil fertility in flood affected areas. The demonstration will be taken up during June month.
	• 4. Dr. M J Chandregowda, Director, ICAR-ATARI, suggested for the documentation of important technologies with qualitative and quantitative data to for better presentation of impact of KVK.	<ul> <li>Documentation of important technologies of KVKs like use of AMC in Black Pepper and Duroc piggery is recorded and presented in upcoming SAC</li> </ul>
	• Subbaiah, KP farmer suggested to demonstrate poultry models at KVK farm.	• Poultry models unit will be taken up at KVK,Athur farm
	<ul> <li>Director also suggested to increase the Arka Coorg Excel Variety availability in KVK farm and document the success of the variety in farmers field. Director also suggested to take up Promotion of Malnad breed of cow, seeing the increasing attention Desi cows are getting.</li> </ul>	<ul> <li>At KVK Athur farm 25000 Black Pepper variety Arka Coorg Excel planting material production is already initiated.</li> </ul>
	• Dr. L.K. Bharathi, Head, CHES, Chettalli suggested to increase the demonstrations of Spine Gourd seeing the price it is fetching in the market and make available the seedling in the KVK nursery.	• FLD on Introduction of Spine Gourd is proposed and demonstration will be taken up during 2019-20.

4. Details of operational areas proposed during 2020-21 (Please refer to the implementation plan of DFI)

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.)*
Balale cluster (Devarapura)	<ul> <li>Coffee,Black Pepper, Coorg mandarin, Arecanut,Ginger and Paddy</li> <li>Piggery, Backyard poultry, Dairy</li> <li>Value addition</li> </ul>	<ul> <li>Non-descriptive butter fruits seedling origin with poor canopy architecture existing in the coffee estate fetches low yield and income.</li> <li>Alternate bearing and Low weight/lit. in Black Pepper</li> <li>Incidence of yellowing, Spike shedding and Mealy bug, Foot rot disease in black pepper</li> <li>Piglet mortality</li> <li>Ticks and lace problem in Dairy animals</li> </ul>	<ul> <li>1626 ha</li> <li>230 ha</li> <li>230 ha</li> <li>725 ha</li> <li>278 no.</li> </ul>	<ul> <li>Management of yellowing and spike shedding in Black Pepper (OFT)</li> <li>Assessment of Bamboo for Economical and Ecological benefits in paddy fallows in Kodagu</li> <li>Demonstration of Pepper var. Arka Coorg Excel for consistent yield and better quality (FLD)</li> <li>Enhancement of Income in Coffee based cropping system by Butter fruit planting (FLD)</li> <li>Wilt disease management in Black Pepper (FLD)</li> <li>Integrated Disease Management in Ginger (FLD)</li> <li>Integrated approaches to reduce Piglet mortality at the age of weaning (FLD)</li> <li>Trainings</li> <li>Field Days</li> <li>Method Demonstrations</li> <li>Animal Health Campaigns</li> <li>Field visits</li> </ul>

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.)*
Bhagamandala Cluster (Cherandatti)	<ul> <li>Paddy, Coffee,Black Pepper, Cardamom, Vegetables</li> <li>Piggery, Backyard poultry, Dairy</li> </ul>	<ul> <li>Alternate bearing and Low weight/lit. in Black Pepper</li> <li>Incidence of yellowing, Spike shedding and Mealy bug, Foot rot disease in black pepper</li> <li>Mortality of Cardamom plants due to Rhizome rot &amp; Katte disease</li> <li>Lack of awareness of cultivation and potential as a vegetable crop</li> <li>Low yield in the local variety and High demand for string less beans during summer months</li> <li>Piglet mortality</li> <li>Ticks and lace problem in Dairy animals</li> </ul>	<ul> <li>894 ha</li> <li>1189 ha</li> <li>89 ha</li> <li>894 ha</li> <li>894 ha</li> <li>193 no.</li> <li>32 no.</li> </ul>	<ul> <li>Management of yellowing and spike shedding in Black Pepper (OFT)</li> <li>Demonstration of Pepper var. Arka Coorg Excel for consistent yield and better quality (FLD)</li> <li>Demonstration of Cardamom var. IISR Avinash (FLD)</li> <li>Introduction of Spine gourd Arka Neelachal Shanti – For crop diversification (FLD)</li> <li>Wilt disease management in Black Pepper (FLD)</li> <li>Integrated approaches to reduce Piglet mortality at the age of weaning (FLD)</li> <li>Demonstration of ICM in Chilli hybrid Arka Kyathi</li> <li>Demonstration of ICM in Yard long bean var. Arka Mangala</li> <li>Trainings</li> <li>Field Days</li> <li>Method Demonstrations</li> <li>Animal Health Campaigns</li> <li>Field visits</li> </ul>

Clusters	Major crops & enterprises being practiced in cluster villages	ed in cluster crops/ enterprise that limit yield by the problem in		Proposed intervention (OFT, FLD, Training, extension activity etc.)*
Kushalnagar Cluster (Chikkaluvara)	<ul> <li>Vegetables,</li> <li>Piggery, Backyard poultry, Dairy</li> </ul>	<ul> <li>Lack of awareness of cultivation and potential as a vegetable crop</li> <li>Low yield in the local variety and High demand for string less beans during summer months</li> <li>Piglet mortality</li> <li>Ticks and lice problem in Dairy animals</li> <li>Rhizome rot and bacterial wilt disease in ginger</li> </ul>	<ul> <li>89 ha</li> <li>894 ha</li> <li>894 ha</li> <li>193 no.</li> <li>32 no.</li> </ul>	<ul> <li>Demonstration of Cardamom var. IISR Avinash (FLD)</li> <li>Introduction of Spine gourd Arka Neelachal Shanti – For crop diversification (FLD)</li> <li>Integrated approaches to reduce Piglet mortality at the age of weaning (FLD)</li> <li>Integrated Disease Management in Ginger (FLD)</li> <li>Demonstration of ICM in Chilli hybrid Arka Kyathi</li> <li>Demonstration of ICM in Yard long bean var. Arka Mangala</li> <li>Trainings</li> <li>Field Days</li> <li>Method Demonstrations</li> <li>Animal Health Campaigns</li> <li>Field visits</li> </ul>

#### 5. Technology assessment during 2020-21

Sl.No.	Crop/ enterprise	Prioritized problem	Title of intervention	Те	Source of technology	
5.1				<b>Technology Option -1</b> Farmers practice	• Panniyur-1	-
	Black Pepper	The reigning pepper hybrid Panniyur-1 does not yield to its	Assessment of Pepper varieties for higher yield potential in high altitude	Technology Option -2	• <b>IISR Thevam</b> (Suitable for high elevation and tolerant to foot rot disease)	IISR, Calicut
		potential in higher altitudes	region	Technology Option -3	• Vijaya (Suitable for high elevation and High oleoresin content)	KAU
				Technology Option -3	• Pepper var. Panniyur – 5	IISR, Calicut

# 1. Assessment of Pepper varieties for higher yield potential in high altitude region (Continued 2<sup>nd</sup> year)

Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
Pepper var. IISR Thevum	15 no.					• Devaiah K.A
<ul> <li>Pepper var. Vijaya</li> </ul>	15 no.	1200	05	6500	Plant height (cm)	• Prabhakara B
• Pepper var. P-5	15 no.	1300	05	0300	Survival (%)	• Veerendra Kumar K.V
• AMC	8 kg					<ul> <li>Saju George</li> </ul>

SI.No.	Crop/ enterprise	Prioritized problem	Title of intervention	Те	chnology options	Source of technology
				Technology Option -1	• Growing of Burma Bamboo	UAHS, Shivamoga and College of Forestry, Ponnampet
5.2		Increasing area under paddy fallows (6000 acres) due to un-economical (NR Rs. 8000-10000 per acre)	to Ecological benefits in permanent paddy fallows	Technology Option -2	<ul> <li>Growing of Seeme Bamboo</li> </ul>	UAHS, Shivamoga and College of Forestry, Ponnampet
	Bamboo			Technology Option -3	Growing of Tulda Bamboo	UAHS, Shivamoga and College of Forestry, Ponnampet
				Technology Option -3	<ul> <li>Growing of Sweet Bamboo</li> </ul>	UAHS, Shivamoga and College of Forestry, Ponnampet

# 2. Assessment of Bamboo for Economical and Ecological benefits in permanent paddy fallows in Kodagu (New)

Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
<ul> <li>Growing of Burma Bamboo</li> <li>Growing of Seeme Bamboo</li> <li>Growing of Tulda Bamboo</li> <li>Growing of Sweet Bamboo</li> </ul>	100 no. 100 no. 100 no. 100 no.	12000	05	60000	Plant height, girth of culms, No. of culms/clump, Length of pole (ft), Yield /acre, BCR	• Prabhakara B • Saju George

• 50% of the cost of planting material borne by farmer under NBM

# **3.Management of Yellowing and Spike shedding in Black Pepper ( Continued 2<sup>nd</sup> year)**

SI.No.	Crop/ enterprise	Prioritized problem	Title of intervention		Technology options	Source of technology
				<b>Technology Option -1</b> Farmers practice	<ul> <li>Spraying of Carbendazim 2 gm per lit</li> <li>Drenching of Carbosulfan 2 ml and COC 3 gm per lit. during June and sept.</li> </ul>	IISR, Calicut
5.3	Black Pepper	Spike shedding and yellowing	Management of Yellowing and Spike shedding in Black Pepper	Technology Option -2	<ul> <li>Spraying of Black Pepper special 5 gm per lit. during May and September</li> <li>Drenching of Arka Microbial Consortium 20 gm per lit. and</li> <li>Soil application of Pachonia chlamydosporia enriched with FYM</li> </ul>	IIHR,Bengaluru and IISR, Calicut
				Technology Option -3	<ul> <li>Soil application of AYAR 10 gm per vine</li> <li>Drenching of Arka Microbial Consortium 20 gm per lit.</li> </ul>	KAU and IIHR,Bengaluru

Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
<ul> <li>Black Pepper special</li> <li>Arka Microbial Consortium</li> <li>Pachonia chlamydosporia</li> <li>AYAR</li> </ul>	5 kg 20 kg 10 kg 5 kg	8000	05	40000	Yellowing (%), Spikes shedding (no.), Yield (q/ha) and BCR	<ul> <li>Veerendra Kumar K.V</li> <li>Devaiah K.A</li> <li>Prabhakara B</li> <li>Saju George</li> </ul>

# 4. Assessment of Different Compost cultures to decompose Farm waste (New)

SI.No.	Crop/ enterprise	Prioritized problem	Title of intervention		Technology options	Source of technology
		Improper disposal of		<b>Technology Option -1</b> Farmers practice	<ul> <li>Disposing of organic waster without proper Decomposing</li> </ul>	Farmers practices
		Organic Farm waste, High lignin content	Assessment of	Technology Option -2	<ul> <li>Composting Farm waste in a proper way by using compost culture @ 3 Kg/ton</li> </ul>	UAS, Dharwad
5.4 Co	Composting	Lack of <b>C</b> awareness on	Different Compost cultures to	Technology Option -3	<ul> <li>Composting the Farm waste in a proper way by using compost culture @ 100 ml/ton</li> </ul>	NCOF, New Delhi
5.4	composing	composting methods Non availability of suitable microbial consortium	decompose Farm waste	Technology Option -4	<ul> <li>Composting the Farm waste in a proper way by using Compost Culture 2 kg/ton</li> </ul>	UAHS, Shivamogga

Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
<ul> <li>UAS, Dharwad Compost culture.</li> <li>NCOF, New Delhi, Waste Decomposer.</li> <li>UAHS, Shivamogga Compost culture.</li> </ul>	3 kg	900	05	4500	Number of days to compost (No.), C:N ratio	• Somashekar • Saju George

### 5. Assessment of vegetative methods in Robusta Coffee for early yield and income (New)

SI.No.	Crop/ enterprise	Prioritized problem	Title of intervention		Technology options	Source of technology
		Heterogeneity of seedling progeny	Assessment of vegetative	<b>Technology Option -1</b> Farmers practice	Propagation by Seeds	Farmers practices
5.5	5.5 Coffee undesirable plants	0	methods in Robusta Coffee	Technology Option -2	<ul> <li>Propagation by Cuttings Superior and Uniform plants, Early, high and consistent yield</li> </ul>	CCRI, Balehonnur
		leading inconsistent and low yield	for early yield and income	Technology Option -3	<ul> <li>Top working followed by grafting</li> </ul>	CCRI, Balehonnur

	Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
•	Seedlings	200				% survival, canopy size,	• Prabhakara B
•	Cuttings	200	7300	03	21900	Pre bearing period,	
•	Secatures	01				Yield /acre, BCR	• Saju George

### 6. Assessment of effective test to detect Subclinical mastitis in Dairy Cows (New)

SI.No.	Crop/ enterprise	Prioritized problem	Title of intervention		Technology options	Source of technology
		High incidences of Subclinical mastitis	Assessment of	<b>Technology Option -1</b> Farmers practice	Udder swelling and hot on touch	Farmers practices
5.6	Dairy cows	cases leading to 10- 15% loss in Dairy farming due to non-	effective test to detect Subclinical	Technology Option -2	Caifornian Mastitis Test (CMT)	TANUUAS, Chennai
		detecting of the incidences in early stage of Mastitis	mastitis in Dairy Cows	Technology Option -3	• 3 % washing powder(surf) solution test (12g surf/Arial/Tide powder in 400ml of water)	Dept. of ILFC, vet. College, Shivamogga (KVAFSU, Bidar)

Name of critical input	Qty. per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
<ul> <li>800/kit X 25 No.</li> <li>(Washing powder -500g)</li> </ul>	25 25	900	25	22500	% of cases detected (success rate), Milk yield ,BCR	<ul><li>Suresh S.C</li><li>Saju George</li></ul>

### 6. Frontline demonstrations during 2020-21

SI. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Name of variety	Name of hybrid	Source of technology	Name of critical input	Qty per demo (q)	Cost per dem o (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members
		Cardamom	Mortality of plants due to Rhizome rot disease & Katte viral disease	Demonstration of Cardamom var. IISR Avinash • Cardamom variety IISR • Soil drenching of AMC • Spraying of Neem soap for management of thrips	IISR Avinash	-	IISR, Calicut	Suckers of Cardamom var. IISR Avinash AMC Neem soap	200 no 10 kg 2 kg	5000	05	25000	<ul> <li>Yield per Plant (kg)</li> <li>Disease incidence (%)</li> <li>BCR</li> </ul>	• Devaiah K.A • Prabhakara • Veerendra Kumar •Saju George
6.1	Horticultural crops	Black Pepper	Alternate bearing and Low weight/lit	Demonstration of Pepper var. Arka Coorg Excel for consistent yield and better quality • Pepper variety Arka Coorg Excel • Drenching of AMC • Spraying of <i>Pseudomonas</i> <i>florescence</i> • Spraying of Black Pepper special	Arka Coorg Excel	-	CHES, Chettalli (IIHR)	. Arka Coorg Excel AMC Pseudomonas fluorescens	30 no 10 kg 1 lit	1500	10	15000	<ul> <li>Yield per Plant (kg)</li> <li>litre weight (g)</li> <li>BCR</li> </ul>	• Devaiah K.A • Prabhakara • Veerendra Kumar Saju George
		Butter fruit	non- descriptive seedling origin butter fruits existing in the coffee estate fetches low yield and income.	Intensification of Butter Fruit Population In Coffee Based Cropping System For Higher Income • CHES A-1 (Budded Butter fruit variety	CHES A-1	-	CHES, Chettalli (IIHR	CHES A 1 Butter fruit budded plants	20 no.	2000	10	20000	<ul> <li>Fruit weight</li> <li>Pulp to seed ratio</li> <li>Yield</li> </ul>	<ul> <li>Prabhakara</li> <li>Veerendra Kumar</li> <li>Saju George</li> </ul>
		Chilli	Low yield	Demonstration of ICM in Chilli hybrid Arka	-	Arka Kyathi	IIHR Bengaluru	Arka Kyathi chilli seeds	200 gm	3250	10	32500	<ul> <li>Plant height</li> </ul>	<ul> <li>Prabhakara</li> <li>Veerendra</li> </ul>

				Kyathi Chilli hybrid - Arka Kyathi Foliar spray of Micronutrient mixture (Vegetable special (5g /lt.) Drenching of Arka Microbial Consortium				Vegetable special Yellow sticky traps AMC	5 kg 10 no. 8kg				<ul> <li>(cm)</li> <li>No. of fruits per plant</li> <li>Yield (q/ha)</li> <li>BCR</li> </ul>	Kumar • Saju George
		Yard long bean	Low income per unit area in multiple vegetable production	20 gm per lit. Demonstration of ICM in Yard long bean var. Arka Mangala	Arka Mangala	-	IIHR Bengaluru	Seeds Fruit fly trap Vegetable special	1.5 kg 10 no. 2kg	2000	10	20000	<ul> <li>No. of Harvests. Yield (q/ac) and BCR</li> </ul>	• Prabhakara • Veerendra Kumar • Saju George
		Spine gourd	Lack of awareness of cultivation and potential as a vegetable crop	Introduction of Spine gourd Arka Neelachal Shanti – For crop diversification Arka Neelachal Shanti	-	Arka Neelachal Shanti	IIHR Bengaluru	Rooted cuttings of Arka Neelachal Shanti AMC Fruit fly traps	100 no 10 kg 4 no.	2000	10	20000	<ul> <li>Yield (kg/pl)</li> <li>BCR</li> </ul>	• Somashekhar • Prabhakara • Saju George
		Arecanut	Mucuna can be cultivated as a mulching crop as well as medicinal crop which adds lot of Organic matter to soil.	Introduction of Mucuna for the enrichment soil Properties in Areca and young coffee Plantation in Kodagu	Mucuna	-	IIHR Bengaluru	Mucuna seeds	20 kg	2400	10	24000	<ul> <li>Yield (kg/pl)</li> <li>BCR</li> </ul>	• Somashekhar • Prabhakara • Saju George
6.2	Spices	Black Pepper	Foot rot disease and Slow wilt	Wilt diseases management in Black Pepper • Spraying of Potassium Phosphonate 3ml per lit.during June and September • Drenching of Microbial Consortium 20 gm per lit.( 5-6 lit per plant) during June and October • Soil application of Pachonia chlamydosporia		Panniyur-1	IISR Calicut and IIHR,Bengalur u	Arka Microbial Consortium Potassium Phosphonate Pachonia chlamydosporia	20 kg 5 lit. 5kg	4000	10	40000	<ul> <li>Foot rot Disease incidence (%)</li> <li>Yellowing (%)</li> <li>Yield (q/ha)</li> <li>BCR</li> </ul>	<ul> <li>Veerendra Kumar K.V</li> <li>Devaiah K.A</li> <li>Prabhakara</li> <li>Saju George</li> </ul>

[			enriched with FYM										
	Ginger	Rhizome rot, Bacterial wilt and leaf spot disease incidence	Integrated Disease Management in Ginger • Spraying of Pseudomonas florescence 5 ml per lit. • Drenching of Arka Microbial Consortium 20 gm per lit during June and August • Soil application of Trichoderma enriched with FYM • Drenching of Metalaxyl + Mancozeb 2 gm per lit	Himachal	-	lISR Calicut	Arka Microbial Consortium Pseudomonas florescence Trichoderma harzianum	20kg 4 lt. 5 kg	3500	10	35000	<ul> <li>Disease incidence (%), Yield (q/ha) and BCR</li> </ul>	<ul> <li>Veerendra Kumar K.V</li> <li>Devaiah K.A</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
6.3	Dairy Cows	Severe Tick and Lice infestation resulting anemia, low BCS and decreased Milk production by the animal	Management of Ectoparasites in Dairy Cows	Dairy Cows	-	KVAFSU, Bidar	<ul> <li>1% Flumethrin</li> <li>Fenbendazole</li> </ul>		3000	10	30000	•	<ul><li>Dr.Suresh S</li><li>Saju George</li></ul>
		Imbalanced Nutrition and Improper managementa I practices	Integrated approaches in Dairy calf management	Dairy calf		KVAFSU, Bidar	<ul> <li>10g Piperazine adipate</li> <li>Fenbendazole</li> <li>Mineral mixture</li> <li>Calcium syrup</li> </ul>		2000	10	20000	•	<ul><li>Dr.Suresh S</li><li>Saju George</li></ul>
6.4		Ascariasis and Anamia in pigs	Control of Ascariasis and Piglet Anaemia in pigs	Piglet	-	KVAFSU, Bidar	<ul> <li>Fenbendazole &amp; Piparazine adepate</li> <li>Syrup Ferrous sulphate</li> <li>Mineral mixture</li> <li>Calcium syrup</li> </ul>		7000	03	21000	•	<ul><li>Dr.Suresh S</li><li>Saju George</li></ul>

# 7. 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	Bamboo	FLD	Demonstration of High Density Planting of Bamboo variety Bheema	03	120	<ul><li>Prabhakara</li><li>Veerendra Kumar K.V</li><li>Saju George</li></ul>	
		Cardamom	FLD	Demonstration of Cardamom var. IISR Avinash	02	50	•Devaiah K.A •Veerendra Kumar •Saju George	
		Pepper	FLD	Demonstration of Pepper var. Arka Coorg Excel for consistent yield and better quality	02	35	<ul> <li>Devaiah K.A</li> <li>Prabhakara</li> <li>Veerendra Kumar</li> <li>Saju George</li> </ul>	
7.2	production		Butter fruit	FLD	Enhancement of Income in Coffee based cropping system by Butter fruit planting	03	40	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
		Chilli	FLD	Demonstration of ICM in Chilli hybrid Arka Sweta	02	50	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>	
		Spine gourd	FLD	Introduction of Spine gourd Arka Neelachal Shanti – For crop diversification	02	45	•Somashekhar •Prabhakara •Saju George	
		Arka Sukomal	FLD	High yielding, rust resistant pole type French bean variety Arka Sukomal	02	50	<ul><li>Prabhakara</li><li>Veerendra Kumar K.V</li><li>Saju George</li></ul>	

7.3		Dairy cows	FLD	Integrated approaches to enhance dairy production	02	50	<ul><li>Dr.Suresh S</li><li>Saju George</li></ul>
7.5	Livestock production	Piggery	FLD	Health management in pigs management to decrease neonatal piglet mortality	03	75	<ul><li>Dr. Suresh, S.C</li><li>Saju George</li></ul>
		Paddy	FLD	Integrated Pest and Disease management in Paddy	03	120	<ul> <li>Veerendra Kumar K.V</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
7 4		Black Pepper		Integrated Crop management in	02	100	<ul> <li>Veerendra Kumar K.V</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
7.4	7.4 Plant protection	Black Pepper	OFT	Management of yellowing and spike shedding in Black Pepper	02	120	<ul> <li>Veerendra Kumar K.V</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
		Black Pepper	OFT	Use of Bio control agents for management of plant diseases	02	60	<ul> <li>Veerendra Kumar K.V</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
7.5	Production of inputs	Organic Farming	FLD	Organic farming	02	80	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
	at site	Vermicomposting	FLD	Vermicomposting	02	60	<ul><li> Prabhakara</li><li> Saju George</li></ul>
7.6	Soil health and fertility	Arecanut	-	Nut splitting management in Arecanut	02	50	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
7.7	Farm mechanization	Paddy	FLD	Mechanization in paddy	01	50	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
7.8	Fisheries production technologies	Fishery	FLD	Composite fish culture in IFS plots to enhance farmers income	02	50	<ul><li>Dr. Suresh, S.C</li><li>Saju George</li></ul>
7.9	Mushroom production	Mushroom	EDP	Oyster Mushroom cultivation	03	150	<ul><li>Somashekhar</li><li>Saju George</li></ul>
7.10	Bee keeping	Bee Keeping	-	Scientific Bee Keeping	03	150	<ul><li>Veerendra Kumar K.V</li><li>Saju George</li></ul>

#### 8. Training for rural youth during 2020-21

SI.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	Bamboo	Skill development	High Density Planting of Bamboo variety Bheema	03	120	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
0.1		Paddy	Skill development	Mechanization in Paddy	02	80	<ul><li>Prabhakara</li><li>Veerendra Kumar K.V</li><li>Saju George</li></ul>
8.2	Uprtiguiture production	Black Pepper	Skill development	Scientific Black Pepper production technologies	02	80	<ul> <li>Prabhakara</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
8.2	Horticulture production	Black Pepper	Skill development	Nursery management	02	60	<ul> <li>Devaiah</li> <li>Veerendra Kumar K.V</li> <li>Saju George</li> </ul>
8.3		Dairy	Skill development	Scientific Dairy management	01	20	<ul><li>Dr. Suresh, S.C</li><li>Saju George</li></ul>
8.3	Livestock production	Piggery	Skill development	Scientific Piggery management	01	20	<ul><li>Dr. Suresh, S.C</li><li>Saju George</li></ul>
8.4	Plant protection	Paddy	Skill development	Integrated Pest Management in Paddy	01	10	<ul> <li>Veerendra Kumar K.V</li> <li>Prabhakara</li> <li>Saju George</li> </ul>
8.5	Production of inputs at site	Organic farming	Skill development	Vermicomposting	01	10	<ul><li>Prabhakara</li><li>Saju George</li></ul>
8.6	Soil health and fertility	Coffee	Skill development	Soil test based nutrient application in Coffee -	01	50	<ul><li>Prabhakara</li><li>Saju George</li></ul>
8.7	Fisheries production technologies	Fishery	Skill development	Composite fish culture in IFS plots to enhance farmers income	01	25	•
8.8	Mushroom production	Mushroom	EDP	Oyster Mushroom cultivation	03	150	<ul><li>Somashekhar</li><li>Saju George</li></ul>

#### 9. Training for extension personnel during 2020-21

SI.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	Integrated crop management in Paddy	02	35	<ul><li>Prabhakara</li><li>Veerendra Kumar</li></ul>
9.2	Horticulture	Spice production technology	01	50	<ul><li>Prabhakara</li><li>Veerendra Kumar</li></ul>
9.3	Livestock production and management	Advanced techniques in dairy farming	01	35	<ul><li>Dr. Suresh, S.C</li><li>Saju George</li></ul>
9.4	Plant protection	Integrated Pest and disease management in Horticultural crops	01	35	<ul><li>Veerendra Kumar</li><li>Prabhakara</li><li>Saju George</li></ul>

#### 10. Vocational trainings during 2020-21

SI.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	Horticulture	Planting material production	01	03	30	Dept. of Horticulture	<ul> <li>Prabhakara</li> <li>Veerendra Kumar</li> </ul>
10.2	Livestock production and	Scientific Dairy farming	01	03	25	Dept. of AH & VS	Dr. Suresh, S.C
manag	management	Scientific Piggery farming	01	03	25	SKDRDP	Dr. Suresh, S.C

#### 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	Horticulture	Recent Crop production technologies of Horticultural crops	03	03	150	Dept. of Horticulture	<ul> <li>Prabhakara</li> <li>Veerendra Kumar</li> </ul>
11 2	Livestock production and	Scientific Dairy farming	01	02	25	Dept. of AH & VS	Dr. Suresh, S.C
11.2	management	Scientific Piggery farming	01	02	25	Dept. of AH & VS	Dr. Suresh, S.C

#### 12. Extension activities during 2020-21

SI. No.	Extension activity	No. of activities	Targeted number of participants	Names of the team members involved
12.1	Advisory services	45	560	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.2	Diagnostic visits	25	60	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.3	Field days	10	22	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.4	Group discussions	05	250	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.5	Kisan gosthies	10	300	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.6	Film shows	06	500	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.7	Self -Help Groups (SHGs) meetings	15	2500	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.8	Kisan Melas	01	800	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.9	Exhibitions	05	2000	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.10	Scientists' visit to farmers fields	15	30	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.11	Plant/soil health/animal health camps	10	430	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.12	Farm science club meetings	20	120	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.13	Ex-trainees sammelans (Meetings)	-	-	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.14	Farmers' seminars/workshops	04	250	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.15	Method demonstrations	10	500	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.16	Celebration of important days	03	200	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.17	Special day celebrations	02	250	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.18	Exposure visits	02	70	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.19	Technology week celebration	01	500	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.20	Farmers Field School (FFS)	01	30	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.21	Farm innovators meet	01	500	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.22	Awareness programmes	05	150	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C
12.23	Pre-kharif campaign	01	800	• Saju George , Prabhakara , Veerendra Kumar, Devaiah, Somashekhar Dr. Suresh, S.C

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

#### 13.1 Technological knowledge

SI. No.	Category	Details of technologies	Area (ha)	Number	Names of the team members involved
13.1.1	Technology park/ crop cafeteria	Coffee, Pepper, Banana, Papaya, Coorg mandarin and Fruits crops	30	08	Devaiah.K.A, Saju George, Prabhakara.B, Veerendra Kumar
13.1.2	Demonstration units	Coffee based cropping system, Banana, Papaya, Coorg Mandarin Piggery and Goatary,	35.0	06	Devaiah.K.A, Saju George, Prabhakara.B, Veerendra Kumar
13.1.3	Lab analytical services	Soil testing	-	01	Saju George, Devaiah.K.A, Prabhakara.B, Veerendra Kumar
13.1.4	Technology week	Integrated Farming System	-	01	Saju George, Devaiah.K.A, Prabhakara.B, Veerendra Kumar

#### **13.2 Technological products**

SI. 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
12 2 1	Soods	_	French Bean	100 kg	-	Saju George, Devaiah.K.A, Lakshmi, R
13.2.1	Seeds	-	Yard Long Bean	50 kg	-	Saju George, Devaiah.K.A, Lakshmi, R
	<b></b>	-	Coffee	-	20000	Saju George, Devaiah.K.A, Lakshmi, R
13.2.2	.2 Planting	-	Arecanut	-	4000	Saju George, Devaiah.K.A, Lakshmi, R
	material	-	Pepper	-	15000	Saju George, Devaiah.K.A, Lakshmi, R
13.2.3	Bio- products	-	Arka Microbial Consortium	5.0 ton		Saju George, Veerendra Kumar
		-	Malabari goats	-	75	Dr. Suresh, S.C Lakshmi, R
13.2.4	Livestock strains	-	Hybrid Napier CO-3, CO-4, DHL-6, OFF-29	-	50000	Dr. Suresh, S.C Lakshmi, R
		-	Duroc Piglets & Yorkshire piglets	-	80	Dr. Suresh, S.C Lakshmi, R

#### 13.3 Technological information

Category	Technological capsules / Number	Names of the team members involved
Technology backstopping to line departments		
Agriculture	New varieties of Paddy	Prabhakara.B, Devaiah.K.A
Agriculture	IPDM practices	Veerendra Kumar, Saju George
Horticulture	ICM in Pepper	Prabhakara.B, Devaiah.K.A
nonticulture	Смі пі Рерреі	Veerendra Kumar, Saju George
Animal Husbandry	Duroc Piggery	Dr.S.C.Suresh, Devaiah.K.A
Literature/publication		
	AMC a potential bio control agent	Veerendra Kumar, Saju George
Folder	Serpentine method of pepper multiplication	Prabhakar, Saju George
	Kitchen gardening	Dr.S.C.Suresh
Electronic Media		
	Use of AMC in Pepper cultivation	Veerendra Kumar
	Vegetable cultivation	Devaiah.K.A
T) / Due energy and	Oyster mushroom cultivation	Prabhakar
TV Programme	Foot rot disease management in Black	
	pepper	Veerendra Kumar
	Dairy farming	Dr.S.C.Suresh
	IPDM in Paddy	Veerendra Kumar
	Summer vegetable cultivation	Devaiah.K.A
Radio Programme	IFS	Devaiah.K.A
	Quick wilt disease management in Pepper	Veerendra Kumar
	Koleroga Management in Arecanut	Veerendra Kumar
	Poultry farming	Dr.S.C.Suresh
Kisan Mobile Advisory Services	4100	Veerendra Kumar, Devaiah.K.A , Prabhakara.B, S.C. Suresh
Information on centre/state sector schemes and service providers in the district.	September 2016	Devaiah.K.A , Prabhakara.B Veerendra Kumar, S.C. Suresh

#### 14. Additional activities planned during 2020-21

SI. No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
01	Dept. of Horticulture	CHD	Horticulture related activities	3.08 lakh	Veerendra Kumar, Prabhakara and Saju George
02	Dept. of Horticulture	Plant Health Clinic	Diagnosis of plant diseases	2.5 lakh	Veerendra Kumar, Prabhakara and Saju George

#### 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 31.01.2020 (Rs. in Lakh)	Expected closing balance by 31.03.2020 (Including value of material in stock/ likely to be produced)
77.87	45.05	32.36	75.44	65.18

#### 15.2 Plan of activities under revolving fund

SI. No.	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
1	Planting material production	39500 no.	300000	Devaiah.K.A, Saju George, Veerendra Kumar
2	Seed production	60 kg	50000	Devaiah.K.A, Saju George, Prabhakara.B,
3	Livestock production	105 piglets 12 goat kids	200000	Suresh S.C, Devaiah.K.A
4	Spawn production	1000 kg	80000	Somashekhar
5	Arka Microbial Consortium production	10 ton	100000	Veerendra Kumar, Saju George and Prabhakara
6	Fodder root slips	25000	25000	Suresh S.C, Devaiah.K.A

#### 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	750	Saju George and Prabhakara
16.2	Soil test using mobile analysis kit	150	Saju George and Prabhakara
16.3	Water	-	-
16.4	Plant	-	-
16.5	Others, pl. specify	-	-

#### 17. E-linkage during 2020-21: Nil

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

#### 19. Farmers Field School (FFS) planned :Nil

#### 20. Integrated Farming System (IFS) planned

Description of model(s)	No. of models/units	Budget proposed in Rs.
Piggery+ Fishery and Fodder bank	02	50000

#### 21. Details of budget utilization upto 31<sup>st</sup> March 2020

				( <b>Rs.</b> )
SI.No.	Particulars	Sanctioned	Released	Expenditure
21.1	(A). REVENUE (Recurring Contingencies)			
21.1.1	Pay & Allowances	12575000	12575000	12535967
21.1.2	Traveling allowances	160000	160000	165625
21.1.3	Contingencies			
21.1.3. <i>a</i>	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter	230000	230000	230072
21.1.3.b	POL, repair of vehicles, tractor and equipments	235000	235000	225226
21.1.3. <i>c</i>	Food/refreshment for farmers/extension personnel @ Rs.150/person/day	80000	80000	73033
21.1.3. <i>d</i>	Training material (need based materials and equipments for conducting the training)	50000	50000	48408
21.1.3. <i>e</i>	Frontline demonstrations	270000	270000	269443
21.1.3 <i>.f</i>	On farm testing (OFTs)/Technology Assessment	45000	45000	44425
21.1.3.g	Integrated Farming System (IFS) (Min. 5 Units)	0	0	0

	GRAND TOTAL (A+B+C)	1,40,03,000	1,40,03,000	1,39,45,960
21.3	(C). REVOLVING FUND			
	Total Non-Recurring			
21.2.4	Library			
21.2.3 a	Four wheeler (replacement)			
21.2.3	Vehicle			
21.2.2	Works			
21.2.1	Equipment's & Furniture			
21.2	(B). CAPITAL (Non-Recurring Contingencies)			
	Total Recurring			
21.1.3.p	Library (Purchase of Journals, Periodicals, News Papers& Magazines)	5000	5000	4945
21.1.3. <i>o</i>	Nutri garden	25000	25000	24955
21.1.3.n	Farmers Conclave, KVK Conference	50000	50000	50000
21.1.3. <i>m</i>	Maintenance of building	100000	100000	93590
21.1.3./	Soil & water testing & issue of soil health cards	50000	50000	49717
21.1.3.k	EDP (2 Nos.) / Innovative activities	40000	40000	40000
21.1.3.j	Farmers' Field School	0	0	0
21.1.3. <i>i</i>	Extension activities/services	65000	65000	65000
21.1.3.h	Training of extension functionaries	28000	28000	25554

Sl.No.	Particulars	BE 2020-21 proposed (Rs.)
22.1	(A). REVENUE (Recurring Contingencies)	
21.1.1	Pay & Allowances	136.0
22.1.2	Traveling allowances	3.00
22.1.3	Contingencies	00
22.1.3.a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter	4.0
22.1.3.b	POL, repair of vehicles, tractor and equipments	2.0
22.1.3.c	Food/refreshment for farmers / extension personnel @ Rs.150/person/day	1.50
22.1.3.d	Training material (need based materials and equipments for conducting the training)	1.50
22.1.3.e	Frontline demonstrations	2.83
22.1.3.f	On farm testing (OFTs)/Technology Assessment	1.39
22.1.3.g	Integrated Farming System (IFS) (Min. 5 Units)	0.50
22.1.3.h	Training of extension functionaries	0.50
22.1.3.i	Extension activities/services	0.50
22.1.3.j	Farmers' Field School	0.0
22.1.3. <i>k</i>	EDP (2 Nos.) / innovative activities	0.50
22.1.3./	Soil & water testing & issue of soil health cards	0.50
22.1.3. <i>m</i>	Maintenance of building	2.0
22.1.3.n	Library (Purchase of Journals, Periodicals, News Papers& Magazines)	0.10
22.2	(B). CAPITAL (Non-Recurring Contingencies)	00
22.2.1	Equipment's & Furniture	3.0
22.2.2	Works	2.0
22.2.3	Vehicle	0.50
22.2.3.a	Four wheeler (replacement)	00
22.2.4	Library	00
	Total Non-Recurring (B)	5.50
	Grand Total (A + B)	162.32