



**UNIVERSITY OF HORTICULTURAL SCIENCES  
BAGALKOT**



**ACTION PLAN**  
**(APRIL 2020 TO MARCH 2021)**

**Submitted to:**  
**ICAR-Agricultural Technology Application Research Institute,**  
**Bengaluru**

**ICAR-KRISHI VIGYAN KENDRA**  
**KOLAR (KARNATAKA)**

## ICAR-ATARI, ZONE –XI, HEBBAL, BENGALURU

### PROFORMA FOR ACTION PLAN OF KVKs IN ZONE XI FOR 2020-21

#### 1. General information about the KrishiVigyan Kendra

1.1	Name and address of KVK with phone, fax and e-mail ID	:	ICAR- Krishi Vigyan Kendra, N.H-75, Tamaka, Kolar-563 103 Phone 08152-243099, 9480696395, Fax: 08152-243208 e-mail : <a href="mailto:kvk.Kolar@icar.gov.in">kvk.Kolar@icar.gov.in</a> , Web site: <a href="http://www.kvkkolar.in">www.kvkkolar.in</a>
1.2	Name and address of host organization	:	University of Horticultural Sciences, Udyanagiri, Navanagar, Bagalkot-587104
1.3	Year of sanction	:	2012
1.4	Website address of KVK and date of last update	:	<a href="http://www.kvkkolar.in">www.kvkkolar.in</a> & February,2020

#### 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	Mr. K.Thulasi Ram	Entomology	152300-217100	-	18.12.2012	Permanent
2.2	Subject Matter Specialist	Dr. Anilkumar, S	Soil Science	87200-205500	-	03.08.2019	Permanent
2.3	Subject Matter Specialist	Dr.Ambika, D.S	Plant Pathology	75200-182400	-	26.06.2019	Permanent
2.4	Subject Matter Specialist	Dr. Shashidhar K.R.	Sericulture	75200-182400	-	17.01.2014	Permanent
2.5	Subject Matter Specialist	Dr. Nagaraja K.S.	Horticulture	63000-182400	-	05.11.2015	Permanent
2.6	Subject Matter Specialist	Dr. Chikkanna,G,S	Home Science	63000-182400	-	22.06.2016	Permanent
2.7	Subject Matter Specialist	Vacant	-	-	-	-	-
2.8	Programme Assistant (Lab Assistant)	Vacant	-	-	-	-	-
2.9	Programme Assistant (Computer Programmer)	Mrs. C.S. Gnana Sudha	-	11940-38400	-	27.01.2014	Permanent
2.10	Programme Assistant (Farm Manager)	Mr. Umesh Naik	-	11940-38400	-	01.03.2014	Permanent
2.11	Accountant/Superintendent	Mr. Ravi Shankar	-	33450-58250	-	22.03.2013	Permanent
2.12	Stenographer	Mrs. Savitri G. Rudrapur	-	42000-70850	-	12.03.2014	Permanent
2.13	Driver 1	Mr. Pradeep T.M.	-	15,000	-	01.08.2014	15,000
2.14	Driver 2	Vacant	-	-	-	-	-
2.15	Supporting staff 1	Vacant	-	-	-	-	-
2.16	Supporting staff 2	Mr. Srinatha A.N	-	12,000	-	11.02.2016	12,000

### 3. Details of SAC meeting conducted during 2019-20 :Not conducted during 2019-20

Date	Major recommendations	Status of action taken in brief	Reasons for no actions, if any
	-	-	-

### 4. Details of operational areas proposed during 2020-21

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.)*
<b>Cluster A</b>				
Yadahalli, Kolar Tq	Ragi	Early or mid season drought, erratic rainfall , long duration varieties, blast and lack of awareness on use of micronutrients/biofertilizers	50 ha	FLD & Training
	Mulberry	Improper application of chemical fertilizers, non utilization of biofertilizers, green manures and micronutrients in soil	10 ha	FLD & Training
	Tomato	Severity of South American pin worm, Thrips, Red mites, Fruit borer, Early and Late blight, indiscriminate use of PP chemicals	15 ha	FLD & Training
	Potato	Indiscriminate use of plant protection chemicals for the management of potato late blight	20 ha	FLD & Training
	Marigold	Non-practice of pinching, pest and disease menace, low yield and less returns in marigold	25 ha	FLD & Training
	Nutritional Security	Less intake of fresh vegetables in daily diet	30 No	FLD & Training
	Fodder sorghum	Low yield, Lack of awareness of High yielding multicut sorghum variety and Lower milk yield	04 ha	FLD & Training
	Tomato	Indiscriminate use of Water Soluble Fertilizers and Lack of knowledge on recommended fertilizer schedule.	10 ha	FLD & Training
<b>Cluster B</b>				
Thimmasandra, BangarpetTq	Ragi	Early or mid season drought, erratic rainfall , blast and lack of awareness on use of micronutrients/biofertilizers	40 ha	FLD & Training
	Horse gram	Traditional varieties, Low yield and yellow mosaic menace	20 ha	FLD & Training
	Tomato	Severity of South American pin worm, Thrips, Red mites, Early and Late blight, indiscriminate use of PP chemicals	20 ha	FLD & Training
	Cauliflower	Heavy DBM incidence and high plant protection cost in cabbage/cauliflower	20 ha	Training & MD
	Tomato	Injudicious use of fertilizers, Uneven sized and discolored fruits, Blossom End Rot, Poor quality of fruits in tomato	25 ha	Training & MD
	Fodder sorghum	Low yield, Lack of awareness of High yielding multicut sorghum variety, Lower milk yield and milk quality	03 ha	FLD & Training

<b>Cluster C</b>				
Kadudevandahalli SrinivasapuraTq	Horse gram	Traditional varieties, Low yield and yellow mosaic menace	20 ha	FLD & Training
	Fodder sorghum	Low yield, Lack of awareness of High yielding multicut sorghum variety, Lower milk yield and milk quality	03 ha	FLD & Training
	Mango	Inadequate water conservation measures, no micro nutrient management, poor canopy management and fruit drop	20 ha	FLD & Training
	Mango	Post harvest losses , Damaged fruits through conventional method of harvesting, Lack of Knowledge on scientific ripening and packing.	30 ha	FLD & Training
	Tomato	Injudicious use of fertilizers, Uneven sized fruits, Discolored fruits, Blossom End Rot, Poor quality of fruits affecting marketability	20 ha	Training
	Sericulture	Lack of information on better utilization of silkworm bed waste, non availability of proper technology	20 ha	OFT & Training
	Mulberry	Lack of information on better utilization of in-between space with suitable intercrops during kharif season	20 ha	FLD & Training
	Silkworm rearing	Severe infestation of uzi fly during rainy and winter seasons, more defective cocoon leads to low cocoon price	40 No	OFT & Training
	Silkworm rearing	Adverse microclimatic condition in the silkworm rearing house leads to low cocoon yield & price	20 No	FLD & Training
	Mulberry	Lack of information on application of suitable eco friendly foliar nutrition to enhance quality and yield of mulberry	20 No	OFT & Training
	Silkworm rearing	Rearing of cross breed silkworm leads to low gradable silk and low cocoon price	30 No	FLD & Training
	Fodder sorghum	Low yield, Lack of awareness of High yielding multicut sorghum variety, Lower milk yield and milk quality	05 ha	FLD & Training
<b>Cluster D</b>				
Thippasandra Malur Taluk	Pole beans	Severe incidence of Yellow Mosaic Virus and Low yield	50 ha	FLD & Training
	Cauliflower	Whiptail , Brown rot, DBM incidnce and Low yield with poor quality curd	10 ha	Trainings & MD
	Ridge gourd	Heavy incidence of yellow vein mosaic disease resulting in yield losses	10 ha	OFT & Trainings
	Nutritional Security	Less intake of fresh vegetables in daily diet	30 No	FLD & Training
	Tomato	Injudicious use of fertilizers, Uneven sized fruits, Discolored fruits, Blossom End Rot, Poor quality of fruits affecting marketability	20 ha	FLD & Training
	Potato	Assessment of nutrient management in potato	20 ha	OFT & Training
	Beans	No K application and lack of awareness on Micronutrients application and Low yield and poor quality	10 ha	FLD & Training
	Fodder sorghum	Low yield, Lack of awareness of High yielding multicut sorghum variety, Lower milk yield and milk quality	05 ha	FLD & Training

## 5. Technology assessment during 2020-21

Sl.No	Crop/enterprise	Prioritized problem	Title of intervention	Technology options	Source of technology	Name of critical input	Qty per trial (q)	Cost per trial (Rs.)	No. of trials	Total cost (Rs.)	Parameters to be studied	Team members
5.1	Ridge gourd	Yellow mosaic menace	Assessment on management of yellow mosaic in Ridge gourd	Farmers practice	-	-	-	-	03 (1.2 ha)	25950	Golden yellow mosaic incidence Yield & BCR	Scientist-PP, SS&H, Hort.
				Alternate practice 1	UAS (B)	Spraying of Dimethoate 30 EC (0.2%) and						
						Imidacloprid-17.8 S L (0.05%) -						
				Alternate practice 2	IIHR, Bengaluru	Border cropping with Maize						
						soil application of carbofuran @1.5kg ai/ha,	250 g	650 (FC)				
						spraying with Acephate (0.15%), Imidachloprid (0.03%) Neem seed kernal extract (2%)						
				Alternate practice 3	IIVR, Varanasi	Seed treatment with Thiomethaxam 25 WG – 5g/kg seeds	FC	FC				
						Mulching with black silver mulch	FC	FC				
						Intercropping with two rows of border crops of maize	5 kg	250				
						Soil application of <i>Pseudomonas fluorescens</i> along with neem cake	5 kg 100 kg	1000 2500				

						Installation of yellow sticky trap @ 10no/acre,	10 no.	500				
						Spraying of neem soap (5g/L),	2 kg	500				
						seaweed extract (1.5ml/L)	500 ml	1500				
						<i>Beauveria bassiana</i> (2ml/L)	1 ltr	1100				
						Azadirachtin 10000ppm	1 ltr	1300				
						Thiamethoxam 25% WG (0.5 g/L)	100 gm	800FC				
						Imidacloprid 17.8 SL (0.5ml/L)	FC	FC				
						<b>Total</b>		<b>8650</b>				
5.2	Mulberry	Lack of information on better utilization of silkworm bed waste, non availability of proper technology	Assessment of different compost culture in composting of Seri farm residue	Farmers practice	-	Seri farm residue + cow dung slurry	-	-	03 (1.2 ha)	6960	Maturity indices (No. of days taken), Nutrient contents in raw materials and the compost, % recovery in weight basis & BCR	Scientist-Seri, SS&H & Horti
				Recommended practice	UAS, Bangalore	Seri farm residue + cow dung slurry + microbial culture	2.5 kg	500				
				Alternate practice	CSRTI Mysore	Seri farm residue + Rock phosphate + microbial culture	20 kg 2.5 kg	200 500				
				Alternate practice	NCOF, Ghaziabad	Seri farm residue + Waste decomposer (2kg Jaggery in 200 L water + waste decomposer)	2kg	100				
						Compost analysis		3 Nos.	1000			
						<b>Total</b>		<b>2320</b>				

5.3	Sericulture	Severe infestation of uzifly during rainy and winter, more defective cocoon leads to low cocoon price	Assessment of management of uzifly in silkworm rearing	Farmers practice	-	-	-	-	03 (600 dfls)	4590	No of uzifly trapped, No. of worms infested No. of uzi pierced cocoon Defective cocoon % Cocoon yield (Kg/100 dfls) BCR	Scientist-Seri, SS&H		
				Recommended practice	CSRTI, Mysore	Uzi trap	1 Sheet	250						
				Alternate practice 1	KSSRDI, Bangalore	Yellow sticky trap	8 No	480						
				Alternate practice 2	CSRTI Mysore	Sex Pheromone trap	8 No	800						
				<b>Total</b>			<b>1530</b>							
5.4		Lack of information on application of suitable eco friendly foliar nutrition to enhance quality and yield of mulberry	Assessment of foliar nutritional management in mulberry through eco friendly approach	Farmers' Practice	--	--	--	--	03 (1.2 ha)	4650	No of braches/plant No of leaves/plant Leaf Yield (kg/plant) Leaf yield (q/ha) Leaf analysis (%) Cocoon yield (kg/100 dfls) B:C ratio	Scientist-Seri, SS&H, &SS&AC		
				Recommended practice	CSRTI Mysore	Poshan	1 lit	300						
				Alternate practice 1	UAS, Bengaluru	Liquid Biofertilizer	3 lit	500						
				Alternate practice 2	NCOF, Ghaziabad	Waste Decomposer soilution	2 nos.	150						
				<b>Leaf sample analysis</b>			<b>1</b>						<b>600</b>	
				<b>Total</b>			<b>1550</b>							
5.5	Potato	Imbalanced fertilizers application Low yield Soft rot during storage and Decline in soil health	Demonstration of Assessment of various nutrient management practices in potato	Farmers practice					5 (1.2 ha)	9050	Soil fertility status , Plant height (cm) No of tubers /plant Tubers weight (g) Tuber Yield (t/ha) Soft rot incidence (%) B:C ratio	SS&AC Hort & SS&H		
				Recommended practice	UHS Bagalkot	---		---						
				Alternate practice 1	TNAU, Coimbatore	Magnesium sulphate <i>Azospirillum</i> <i>Phosphobacterium</i>	15 kg 2 kg 2 kg	500 180 180						
				Alternate practice 2	CPRI, Shimla	Calcium Chloride Ammonium Sulphate Soil analysis	5 kg 15 kg 2	150 200 600						
				<b>Total</b>			<b>1810</b>							
				<b>Grand Total</b>									<b>51,200</b>	

## 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	Name of critical input	Qty per demo (q)	Cost per demo (Rs.)	No. of demos	Total cost for the demo (Rs.)	Parameters to be studied	Team members	
6.1	Cereals	Finger Millet	Early or mid season drought, erratic rainfall, blast and lack of awareness on use of micronutrient s/biofertilizer	Introduction of new Ragi variety KMR 630 for higher yields and drought mitigation	KM R-630		UAS, Bengaluru	Seeds	10 kg	600	20 (8ha)	<b>18000</b>	No. of tillers, Plant height, No. of ear heads, %PDI Defoliators/pl, Yield, soil analysis BC Ratio	SS&A C PP, SS&H	
								<i>Azospirillum</i>	200g	50					
									<b>Total</b>	<b>900</b>					
6.2	Pulses	Horse gram	Traditional varieties, Low yield and yellow mosaic menace	Introduction of CRIDA-18 Horse gram for yield enhancement	CRIDA-18		CRIDA, Hyderabad	Seeds	10 Kg	1000	10 (2 ha)	<b>11000</b>	Plant height, No. of branches/plan No. of seeds/pod, % PDI, Pods/plant, Yield & BC ratio	SS&A C, SS&H & Seric.	
								Rhizobium PSB	500g 500 g	50 50					
									<b>Total</b>	<b>1100</b>					
6.2a		Red gram	Phytophthora wilt, sterility mosaic <i>Fusarium</i> wilt and insect pest incidence	Integrated crop management in Red gram (NFSM)	BRG-1		UAS,B	Seeds	5 kg	750	25 (10 ha)	<b>89250</b>	% PDI, % wilt incidence, leaf webber incidence, Pods/plant & yield	SS&H SS&A C and PP	
								<i>Rhizobium</i>	200 g	50					
									PSB	200 g	50				
									<i>Trichoderma</i>	50 g	20				
									Neemazal	400 ml	800				
									Pulse magic	4 kg	1000				
									Dicofol	500 ml	250 FC				
									Profenophos	1000 ml	550FC				
									DDVP	250 ml	200FC				
									Indoxacarb	200 ml	900				
									<b>Total</b>	<b>3570</b>					



6.3	Commercial crops																							
6.3a		Tomato	South American pin worm, Thrips, Red mites, Fruit borer, Early and Late blight menace, indiscriminate use of PP chemicals	Integrated insect pest and disease management in Tomato	-	Saharo/1030	IIHR, Bengaluru	AMC	2 ltr	600	10 (2 ha)	<b>61000</b>	Plant height, Pest incidence, Disease incidence, Yield, BCR	Scientist-PP, SS&H & Hort										
								Pheromone traps	10 no.	1000														
								Vegetable special	3 kg	500														
								Y/B sticky traps	20 each	1000														
								Neemazal	1 lit	1800														
								Mancozeb	2.0 kg	500 FC														
								Spinetoram	100 ml	1200														
								Fenamidone-mancozeb	0.6 kg	1800 (FC)														
								Flubendiamide	30 ml	1300 (FC)														
								Fostyl Al	1.0 kg	1350 (FC)														
<b>Total</b>								<b>6100</b>																
6.3 b		Pole beans	Low yield due to severe incidence of Yellow Mosaic Virus	Management of Yellow Mosaic Virus in Pole bean through Integrated Approach		Ashoka NZ	IIVR, Varanasi	<i>Pseudomonas fluorescens</i>	3 lt	2,085	05 (1 ha)	<b>34675</b>	Soil fertility status, Plant height (cm), No. of pods/plant, Pod length (cm), Disease incidence (%), Pod Yield, B:C ratio	Scientist-Hort, PP.& Seri										
								Yellow Sticky Traps	10	600														
								<i>Beauveria bassiana</i>	1 lt	1,250														
								Salicylic Acid	250 ml	500 (FC)														
								Neem soap	2 kg	530 (FC)														
								Imidacloprid	120 ml	600 (FC)														
								Seaweed extract	500ml	2200														
								Thiomethaxam	100 gm	800														
								<b>Total</b>								<b>6935</b>								

6.3 c		Mari gold	Local variety, non-practice of pinching, pest and disease menace, low yield and less return	Demonstration of marigold variety 'Arka Agni'	Arka Agni	-	IIHR (B) & UHSB	Cuttings of Arka Agni Blue & Yellow sticky traps Azadirachtin 1000 ppm Thiamethaxa Spinosad Propargite	2000 40 500 ml 30 g 75 ml 500 ml	<b>5000</b> <b>1000</b> <b>800</b> <b>600</b> <b>1550FC</b> <b>750FC</b>	3 (0.3)	<b>22200</b>	Soil fertility status (pre & post), Plant height, No. of branches/plant, No. of fruits/ plant, Average fruit weight(g), TSS, Firmness of the fruit, Keeping quality, Yield (t/ha) & B:C ratio.	Scientist- Horti, PP & Seri
										<b>Total</b>	<b>7400</b>			
6.3 d		Tomato	Indiscriminate use of Water Soluble Fertilizers and lack of awareness on recommended fertilizer dose	Demonstration of fertigation schedule in tomato for decreasing fertilizer cost and enhance quality yield		Sah o/A nsal	IIHR,B	Potassium Nitrate 19:19:19 Cal. Nitrate	25 kg 76 kg 33 kg	2800 FC FC	5 (1 ha)	<b>14000</b>	Soil fertility status , Plant height (cm), No of fruits /plant , Weight of the fruit (g) Yield & B:C ratio	Scientists- SS&A C, Horti, Seric
										<b>Total</b>	<b>2800</b>			
6.4e		Potato	Severe incidence of Late blight, and Excess haulm development at the cost of tuber	Management of late blight in potato through integrated approach	Kufri Jyothi	-	UHS, Bagalko UAS,B	<i>Trichoderma spp.</i> <i>Pseudomonas spp.</i> <i>Mepiquat chloride</i> (1000 ppm) Fenomidon+ Mancozeb	5 kg 5 kg 500 ml 600 g	1500 1500 500 1800	10 (1ha )	<b>53000</b>	Fresh and dry weight of plants, no. of tubers / plant, % PDI and yield	Scientist- PP, Hort SS&H
										<b>Total</b>	<b>5300</b>			

6.3f		Pole Beans	No K and micronutrient application	Integrated Nutrient management in Pole beans		-	UAS,B	PSB	1 kg	150	5 (1 ha)	<b>7750</b>	Soil fertility status , Plant height (cm) No of branches/plan No. of pods/plant Length and girth of pod Yield & B:C ratio	Scientists-SS&A C,Horticulture,PP	
								Veg.Special	2 kg	400					
								AMC	5 kg	1000					
								<b>Total</b>		<b>1350</b>					
6.4g		Mango	Inadequate water conservation measures, no micro nutrient management, poor canopy management, Improper management of pest and diseases, fruit drop, low yield and quality of fruits	Integrated Crop Management in Mango	Alphonso/Totapuri	-	UHS (B) & IIHR, Bengaluru	NAA	100 ml	200	5 (2 ha)	<b>24000</b>	Yield (t/ha), TSS (OB), B:C ratio, Hopper incidence, % PDI, and fruit fly catches	Scientist-Horticulture, SS&H & PP	
								Sunhemp	10 kg	2000					
								Fruitfly traps & Lures	4 No.+ 3 lures	900					
								Mango Special	6 kg	900					
								Pruning secateurs	1 No.	800					
								Imida	120 ml	540(FC)					
								Wettable sulphur	1000 g	200(FC)					
								Lambda							
								Cyhalothrin	200 ml	180(FC)					
								<b>Total</b>		<b>4800</b>					
6.5 h		Mango	Lack of post harvest management	Good Horticulture practices in post harvest Handling of Mango	Alphonso		IIHR	Ethylene gas	10 can	2600	1	<b>2600</b>	Colour,TSS, Sensory analysis, B:C ratio	Scientist (H.S) SS&H, Scientist (horticulture), PP	
								<b>Total</b>		<b>2600</b>					

6.4	Livestock	Fodder crops	Uninterrupted supply of green fodder for milch animals	Demonstration of high yielding multicut Sorghum variety	CoF S-31		TNAU	Seeds	1 kg	400	20 (4ha)	<b>8000</b>	Fodder yield, BC ratio	SS&H SS&A C & Seric.
								<b>Total</b>			<b>400</b>			
6.5	Others													
6.5a	Sericulture	Mulberry	Lack of information on better utilization of in-between space with suitable intercrops during kharif season	Intercropping of field bean under tree mulberry cropping system for additional income		V-1	CSRTI Mysore	Field bean seeds	3 kg	500	5 (1 ha)	<b>3500</b>	Main crop yield (q/ha) Intercrop yield (q/ha) Cocoon yield (kg/100 dfls) B:C ratio	Scientist-Seri, SS&H, Horti
								Rhizobium PSB	200 g 200 g	100 100				
<b>Total</b>									<b>700</b>					
6.5 b	Sericulture	Mulberry	Adverse microclimatic condition in the silkworm rearing house leads to low cocoon yield & price	Demonstration of fogging technology in silkworm rearing house for better cocoon productivity	-	V-1	CSRTI Mysore & NBAIR Bangalore	Fogging system	1	5000	5	<b>25000</b>	Disease incidence (%) Defective cocoon (%) Cocoon yield (kg/100dfls) B:C ratio	Scientist-Seri, SS&H, Home science
								<b>Total</b>						
6.6 c	Sericulture	Mulberry	Improper application of chemical fertilizers, non utilization of biofertilizers & green manures	Integrated nutrient management in mulberry for higher productivity	-	V-1	CSRTI Mysore	Sunhemp seed	8 kg	640	5 (2ha)	<b>9200</b>	Soil test (Pre & Post) No of braches/plant No of leaves /plant Leaf Yield(kg/plant) Leaf yield (kg/ha) Cocoon yield (kg/100 dfls) B:C ratio	Scientist-Seri, SS&H, SS&A C
								Microbial consortium	3 ltrs	900				
								Poshan	1 ltrs	300				
								NPK & FYM		5000 (FC)				
								<b>Total</b>						

6.7 d	Sericulture	Silkworm rearing	Rearing of cross breed silkworm leads to low gradable silk and low cocoon price	Introduction of bivoltine double hybrid Krishnaraja for quality cocoon production and crop stability	-	FC 2X FC 1	CSRTI Myosre	Seriswach Sanitech super Ankush Vijetha Hygrometer Chawki worms	100 gm 2.5 ltr 6 kg 1 100 dfls	150 400 360 500 2000 FC	15	<b>7050</b>	Disease incidence (%) Defective cocoon (%) Cocoon yield (kg/100dfls) B:C ratio	Scientist-Seri, SS&H, pp
									<b>Total</b>	<b>1410</b>				
6.7 e	Home Science	Fruits and Vegetables	Malnutrition among rural population, non accessibility of quality vegetables	Demonstration of nutrition Garden for nutritional security in DFI villages	-	-	UHS, Bagalkot	Seeds and planting materials  Biofertilizers	  100	800	40 farm families	<b>36000</b>	Yield and adequacy of Vegetables, Nutrition knowledge Anthropometric measures	Scientist (H.S), Scientist (Horticulture), PP
									<b>Total</b>	<b>900</b>				
Grand Total												Regular NFSM		
											<b>426225</b>			

### 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	Tomato	FLD	Improved production practices in Tomato	02	50	Scientist- Hort., PP and SS&H,
		Potato	FLD	Potato varieties and improved production practices	02	50	Scientist-Hort., SS&AC, PP
		Mango	FLD	Novel techniques in enhancing yield of Mango	02	80	Scientist-Hort., SS&H, PP
		Marigold	FLD	Improved marigold varieties and cultivation	02	50	Scientist-Hort., SS&H, PP
		Polebeans	OFT	Integrated management of YVMV in pole beans	02	50	Scientist- Hort., PP and SS&H,
7.3	Livestock production						
7.4	Home Science	Fruits and vegetables	FLD	Processing, preservation and marketing of fruits and vegetables	02	50	Scientist-HS, SS&H, Hort.
		Minor Millets	Other	Value addition and marketing techniques in minor millets	02	50	Scientist-HS, SS&H, Hort.
		Fruits and veg	FLD	Importance of Nutritional Garden in alleviation of anemia and malnutrition	02	60	Scientist-HS, SS&H, Hort.
7.5	Plant protection	Tomato	FLD	Integrated pest and disease management in and Tomato	02	50	Scientist-PP, SS&H, Hort.
		Ridge gourd	OFT	Integrated pest and disease management in Ridge gourd	01	25	Scientist-PP, SS&H, Hort.
		Potato	FLD	Integrated disease management in Potato	02	50	Scientist-PP, SS&H, Hort.
		Pole beans	OFT	Integrated management of yellow mosaic virus in pole beans	02	80	Scientist-Hort., SS&H, PP
		Mango	Other	Integrated pest and disease management in Mango	02	50	Scientist-PP, SS&H, Hort.
		Marigold	Other	Need based application of pesticides for mangt. of insect pests and diseases in potato	02	50	Scientist-PP, SS&H, Hort.
		Redgram	Other	Emerging pests and diseases of Redgram and their management	02	50	Scientist-PP, SS&H, SS&AC
		Ragi	Other	Importance of seed treatment in management blast disease in Ragi	02	50	Scientist-PP, SS&H, SS&AC
7.6	Production of inputs at site						
7.7	Soil health and fertility	Mango	OFT	Improved cultivation practices in Mango and pulses	1	10	SS&AC, Horti and & SS&H

		Ragi	FLD	Improved cultivation practices in Ragi and other minor millets	1	15	SS&AC, PP, SS& H
		Ground nut	FLD	Improved cultivation practices in groundnut	1	15	SS&AC, PP, SS&H
		Horsegram	FLD	Improved cultivation practices in horsegram	1	10	SS&AC, Seric& PP
		Soil fertility	Others	Importance of Organic matter, Soil health and soil testing	1	30	SS&AC, PP, Seri
		Vermicomposting	Others	Vermicomposting and utilization of agricultural wastes for compost preparation	1	25	SS&AC, PP, seri
		Water conservation	Others	Soil and water conservation and judicious use of irrigation water for higher yields	1	30	SS&AC, SS&H, PP
7.8	PHT and value addition	Mango	FLD	Post harvest technology of mango	02	50	Scientist-HS, SS&H, PP ,Hort.
		Fruits and Vegetables	FLD	Preparation of vitamin-C rich recipes	02	60	Scientist-HS, SS&H,PP, Hort.
		Tamarind	FLD	Value addition in Tamarind	01	25	Scientist-HS, SS&H, Seri.
7.9	Capacity building/ group dynamics	Agri and Horticultural crops	Other	Capacity building training for SHGs of women	05	125	Scientist-HS, SS&H, Hort.
7.10	Farm mechanization	Agri and Horticultural crops	Others	Use of specific machinery in horti. Crops like bed maker, reapers, harvesters etc.	02	60	Scientist- SS&H, PP, Hort.
7.11	Fisheries production technologies						
7.12	Mushroom production						
7.13	Agro forestry						
7.14	Bee keeping	Apiculture	Others	Hoenybee rearing as a subsidiary occupation for income generation	02	60	SS&H and PP
7.15	Sericulture	Mulberry	FLD	Suitable intercrops under tree mulberry based cropping system	02	50	Scientist-Seri, SS&H, Hort.
		Mulberry	FLD	Management of Uzifly, Exoristabombycisin silkworm rearing	02	50	Scientist-Seri, SS&H
		Silkworm rearing	FLD	Management of optimum microclimatic condition during bivoltine silkworm rearing	02	50	Scientist-Seri, SS&H
		Silkworm rearing	OFT	Composting and Vermicomposting through recycling of sericultural farm residue	01	30	Scientist-Seri, SS&H, SS&AC
		Silkworm rearing	OFT	Nutritional management in mulberry for quality leaf production	01	30	Scientist-Seri, SS&H , SS& AC
7.16	Others, pl. specify						

### 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						
		Fruit crops	Skill development	Canopy management in major fruit crops	1	35	Scientist-Hort., SS&H & PP
		Vegetable crops	Skill development	Grafting techniques in vegetables for seedling production	1	15	Scientist-Hort., PP & SS&AC
8.3	Livestock production	Sheep rearing	Skill development	Advanced sheep rearing	1	25	SS&H, SS&AC, Horti, VS
8.4	Home Science						
8.5	Plant protection	Horti	Skill development	Maintenance of sprayers	1	25	HS, PP, SS&H
8.6	Production of inputs at site						
		Nutrient management	Skill development	Deficiency symptoms and their management through INM	1	25	SS&AC, SS&H, Horti
8.7	Soil health and fertility	Soil fertility	Skill development	Importance of soil testing – sampling and interpretation of soil test values	1	30	SS&AC, PP, SS&H
		Organic farming	Skill development	Organic farming and nutrient management in organic farming	1	30	SS&AC, SS&H, Seri
8.8	PHT and value addition	Mango, Jack and Amla	Skill development	Value added products preparation for income generation	3	60	H.Sci, SS&H, Horti, PP
8.9	Capacity building/ group dynamics						
8.10	Farm mechanization	Vegetable crops	Related field intervention	Bund cum mulching in vegetable crops	2	40	Horti., HS, SS&H & SS & AC
8.11	Fisheries production technologies						
8.12	Mushroom production		Skill development	Mushroom production for income generation	2	40	SS& H and PP
8.13	Agro forestry	Fruit/Forest	Related field intervention	Cultivation of forestry trees species for wind break	1	25	Horti, SS & H, SS&AC
8.14	Bee keeping	Bee Keeping	Skill development	Bee keeping as a subsidiary occupation for income generation	2	50	SS& H and PP
8.15	Sericulture	Sericulture	Skill development	Composting and Vermicomposting through recycling of sericultural farm residue	01	30	Scientist-Seri, SS&H, SS&AC
		Sericulture	Skill development	Propagation techniques in mulberry	01	30	Scientist-Seri, SS&H, SS&AC
8.16	Others, pl. specify						



### 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				
9.2	Home Science	Hygienic practices in food preparation	5	250	Scientist-HS, SS&H, PP
		Preparation of iron rich foods to combat anemia	5	20	Scientist-HS, SS&H, Seri.
9.3	Capacity building and group dynamics				
9.4	Horticulture	HDP technique in Mango and Guava	01	30	Scientist-Hort., SS&H, PP
		Propagation techniques in fruit crops	01	30	Scientist-Hort., SS&H, PP
9.5	Livestock production and management				
9.6	Plant protection	Pest and disease management in major Fruit crops	01	25	Scientist-PP, SS&H, Hort.
		Pest and disease management in major Vegetable crops	01	25	Scientist-PP, SS&H, Hort.
		Pest and disease management in Field crops	01	25	Scientist-PP, SS&H, SS&AC
9.7	Farm mechanization	Fertigation techniques in major Horti. crops	01	25	SS &H, SS&AC, Hort.
9.8	PHT and value addition	Preparation of value added products from mango, guava, papaya	01	30	Scientist-HS, SS&H, Seri.
		Preparation of value added products from tomato and drumstick	01	30	Scientist-HS, SS&H, PP
9.9	Production of inputs at site				
9.10	Sericulture	Recent management strategies in pests of mulberry	01	25	Scientist-Seri, SS&H, PP
		Pest and disease management in silkworm rearing	01	25	Scientist-Seri, SS&H, PP
9.11	Fisheries				
	Soil science	Identification of nutrient deficiency symptoms and their mgt.in major horticultural crops	1	30	SS&AC, PP, Horti
		Significance of biofertilizers use for higher production	1	30	SS&AC, Seri, & PP

### 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	Nutrition security through minor millets diet	1	3	25	-	Scientist-HS, SS&H, Seri.
10.3	Capacity building and group Dynamics						
10.4	Horticulture	Hands on training on plant propagation techniques	2	3	30		Scientist-Hort, SS&H, PP
10.5	Livestock production and management						
10.6	Plant protection						
10.7	Farm mechanization						
10.8	PHT and value addition						
10.9	Production of inputs at site						
10.10	Sericulture	Preparation of bio crafts from waste cocoons	1	5	25		Scientist- Seri.& HS
10.11	Fisheries						
10.12	Other, pl. specify						

### 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						
11.2	Home Science						
11.3	Capacity building and group Dynamics						
11.4	Horticulture	Terrace Gardening in Urban Area	02	02	50	Dept. Horticulture, Kolar	Scientist-Hort. & SS&H
11.5	Livestock production and management						
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						
11.12	Others, pl. specify						

## 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	350	350	All KVK Scientists
12.2	Diagnostic visits	20	40	All KVK Scientists
12.3	Field days	12	300	All KVK Scientists
12.4	Group discussions	20	300	All KVK Scientists
12.5	Kisangosthies	05	100	All KVK Scientists
12.6	Film shows	20	800	All KVK Scientists
12.7	Self -Help Groups (SHGs) meetings	5	75	All KVK Scientists
12.8	Kisan Melas	2	2000	All KVK Scientists
12.9	Exhibitions	5	4000	All KVK Scientists
12.10	Scientists' visit to farmers fields	200	300	All KVK Scientists
12.11	Plant/soil health/animal health camps	06	400	All KVK Scientists
12.12	Farm science club meetings	04	200	All KVK Scientists
12.13	Ex-trainees sammelans (Meetings)	05	120	All KVK Scientists
12.14	Farmers' seminars/workshops	04	300	All KVK Scientists
12.15	Method demonstrations	20	450	All KVK Scientists
12.16	Celebration of important days	05	200	All KVK Scientists
12.17	Special day celebrations	02	400	All KVK Scientists
12.18	Exposure visits	05	150	All KVK Scientists
12.19	Technology week celebration	01	200	All KVK Scientists
12.20	Farmers Field School (FFS)	01	25	All KVK Scientists
12.21	Farm innovators meet	02	60	All KVK Scientists
12.22	Awareness programmes	06	200	All KVK Scientists
12.23	Pre-kharif campaign	01	500	All KVK Scientists
12.24	Pre-rabi/summer campaign	01	500	All KVK Scientists
12.25	Others, pl. specify			

### 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				
13.1.2	Demonstration units	Vermicompost units, Vermi wash units, Azolla units	-	2 each	SS&H and FM
13.1.3	Lab analytical services	Soil, water and plant analysis	-	1000 samples	SS&AC
13.1.4	Technology week	Improved production technologies in various field and Horti. Crops, post harvest mgt. of different fruits and vegetables, micronutrient application	-		All KVK staff
13.1.5	Others, Pl. specify	Model of borewel reshme unit	-	1	All KVV staff

#### 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		Sunhemp, COF3-31	250 kg		Farm Manager & SSH
13.2.2	Planting material					
	Drumstick Nursery		Drumstick seedlings	-	6000	Farm Manager & SSH
	Mulberry Nursery		Mulberry seedlings	-	20000	Farm manager & Scientist(Seri)
	Curry leaf seedlings		Curry leaf seedlings	-	1000	Farm manager & Scientist(Hort)
13.2.3	Bio-products					
13.2.4	Livestock strains					
13.2.5	Fish fingerlings					
13.2.6	Any other, pl specify					
	Micronutrient mixtur		Mango special	500 kg	--	SS&AC & FM
	Value added		Jack fruit	500 kg	--	Scientist (Home Sci.)
	products		Amla	250 kg		Scientist (Home Sci.)

### 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	20	Scientist-SS&AC, SS&H and PP
	b. Horticulture	35	Scientist-Horti, SS&H and PP
	c. Animal Husbandry	-	-
	d. Fisheries	-	-
	e. Agricultural Engineering	-	-
	f. Sericulture	20	Scientist-Seric.and PP
	g. Others, pl. specify (Home Science)	20	Scientist (H.Sci)
13.3.2	Literature/publication	15	All KVK Scientists
13.3.3	Electronic media	10	All KVK Scientists
13.3.4	Kisan mobile advisory services	120	All KVK Scientists
13.3.5	Information on centre/state sector schemes and service providers in the district (Data may be collected from different agencies).	-	SS&H and PP

### 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	District Agro-Met Unit	Weather based AAS and farmers awareness programmes	Sending SMSs on AAS through M-Kisan portal and other ICT based groups	100000	All KVK staff
2	Paramparagat krishi Vikas Yojane	Encouraging farmers to adopt organic cultivation practices	Demonstrations and facilitating farmers for marketing of organic produce	300000	All KVK Staff

### 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)
13,20,532	4,68,525	4,27,615	12,48,116	12,79,622

### 15.2 Plan of activities under revolving fund

Sl.No.	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
1	Mango special	500 kg	75,000	Scientist -SS&AC & SSH
2	Drumstick seedlings	6000 nos	60,000	Farm manager & SSH
3	Mulberry seedlings	20000 nos	80,000	Farm manager & Seri
4	Curryleaf seedlings	1000 nos	40,000	Farm manager & Horti
5	Soil sample analysis	500 nos	1,00,000	Scientist SS&AC
6	Water sample analysis	500 nos	1,00,000	Scientist SS&AC
7	<b>Others- Farm Production</b>			
	1. Leafy vegetables	200 kg	8000	Farm manager&SSH
	2. Field bean	300 kg	8000	Farm manager
	3. Redgram	400 kg	6000	Farm manager
	4. Curry leaf	100 kg	4000	Farm manager
	5. Chrysanthemum	800 kg	48000	Farm manager
	<b>TOTAL</b>		<b>76000</b>	

### 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	500	SS&AC
16.2	Soiltest using mobile analysis kit	50	SS&AC
16.3	Water	500	SS&AC
16.4	Plant		
16.5	Others, pl. specify		

### 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	By July, 2020 end	
17.3	Any other (Please specify)		

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

Sl. No	Activities planned	Remarks if any

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

Description of model(s)	No. of models/units	Budget proposed in Rs.

## 21.Details of budget utilization (2019-20)

(Rs. in lakhs)				
Sl.No.	Particulars	Sanctioned	Released	Expenditure
<b>21.1</b>	<b>(A). REVENUE (Recurring Contingencies)</b>			
21.1.1	<b>Pay &amp; Allowances</b>	<b>112.00</b>		112.00
21.1.2	<b>Traveling allowances</b>	1.10		1.20
21.1.3	<b>Contingencies</b>			
21.1.3.a	<i>Stationery, telephone, postage and other expenditure on office running, publication of Newsletter</i>	1.50		146566
21.1.3.b	<i>POL, repair of vehicles, tractor and equipments</i>	2.25		224755
21.1.3.c	<i>Food/refreshment for farmers/extension personnel @ Rs.150/person/day</i>	1.50		77492
21.1.3.d	<i>Training material (need based materials and equipments for conducting the training)</i>	0.75		74648
21.1.3.e	<i>Frontline demonstrations</i>	2.50		169720
21.1.3.f	<i>On farm testing (OFTs)/Technology Assessment</i>	0.80		50642
21.1.3.g	<i>Integrated Farming System (IFS) (Min. 5 Units)</i>	0.00		0.00
21.1.3.h	<i>Training of extension functionaries</i>	0.50		13645
21.1.3.i	<i>Extension activities/services</i>	0.75		48446
21.1.3.j	<i>Farmers' Field School</i>	0.00		0.00
21.1.3.k	<i>EDP (2 Nos.) / Innovative activities</i>	0.34		0.00
21.1.3.l	<i>Soil &amp; water testing &amp; issue of soil health cards</i>	0.50		49456
21.1.3.m	<i>Maintenance of building</i>	0.00		0.00
21.1.3.n	<i>Farmers Conclave, KVK Conference</i>	0.25		3000
21.1.3.o	<i>Nutrigardens</i>	0.25		12380
21.1.3.p	<i>Library (Purchase of Journals, Periodicals, News Papers &amp; Magazines)</i>	0.02		1400
	<b>Total Recurring</b>	125.01		
<b>21.2</b>	<b>(B). CAPITAL (Non-Recurring Contingencies)</b>			
21.2.1	<b>Equipments &amp; Furniture</b>	51.85		51.85
21.2.2	<b>Works</b>			
21.2.3	<b>Vehicle</b>			
21.2.3 a	Four wheeler (replacement)			
21.2.4	<b>Library</b>			
	<b>Total Non Recurring</b>	51.85		51.85
<b>21.3</b>	<b>(C). REVOLVING FUND</b>			
	<b>GRAND TOTAL (A+B+C)</b>	<b>176.86</b>	<b>1,58,05,279</b>	



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

Sl.No.	Particulars	BE 2020-21 proposed (Rs.)
<b>22.1</b>	<b>(A). REVENUE (Recurring Contingencies)</b>	
21.1.1	<b>Pay &amp; Allowances</b>	12548109
22.1.2	<b>Traveling allowances</b>	150000
22.1.3	<b>Contingencies</b>	
22.1.3.a	<i>Stationery, telephone, postage and other expenditure on office running, publication of Newsletter</i>	250000
22.1.3.b	<i>POL, repair of vehicles, tractor and equipments</i>	300000
22.1.3.c	<i>Food/refreshment for farmers / extension personnel @ Rs.150/person/day</i>	100000
22.1.3.d	<i>Training material (need based materials and equipments for conducting the training)</i>	75000
22.1.3.e	<i>Frontline demonstrations</i>	322975
22.1.3.f	<i>On farm testing (OFTs)/Technology Assessment</i>	51200
22.1.3.g	<i>Integrated Farming System (IFS) (Min. 5 Units)</i>	0.00
22.1.3.h	<i>Training of extension functionaries</i>	25000
22.1.3.i	<i>Extension activities/services</i>	75000
22.1.3.j	<i>Farmers' Field School</i>	0.00
22.1.3.k	<i>EDP (3 Nos.) / innovative activities</i>	0.00
22.1.3.l	<i>Soil &amp; water testing &amp; issue of soil health cards</i>	50000
22.1.3.m	<i>Maintenance of building</i>	0.00
22.1.3.n	<i>Library (Purchase of Journals, Periodicals, News Papers &amp; Magazines)</i>	5000
22.1.3.o	<i>Others, pl. specify Video Production</i>	75000
	<b>Total Recurring (A)</b>	<b>1435000</b>
<b>22.2</b>	<b>(B). CAPITAL (Non-Recurring Contingencies)</b>	
22.2.1	<b>Equipments &amp; Furniture</b>	500000
22.2.2	<b>Works</b>	10000000
22.2.3	<b>Vehicle</b>	
22.2.3.a	Four wheeler (replacement)	
22.2.4	<b>Library</b>	
	<b>Total Non Recurring (B)</b>	<b>10500000</b>
	<b>Grand Total (A + B)</b>	<b>24633109</b>