# ICAR- TARALABALU KRISHI VIGYAN KENDRA, DAVANAGERE <u>ACTION PLAN OF KVK, DAVANAGERE FOR 2017-18</u>

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

1.1	Name and address of KVK with Phone,	:	ICAR- Krishi Vigyan Kendra		
	Fax and e-mail		Kadalivana, LIC Colony Layout, BIET College Road,		
		DAVANAGERE-577004, Karnataka			
		Phone: 08192-263462, Fax: 08192-260969			
			E-Mail: dvgtkvk@yahoo.com		
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		Website: taralabalukvk.com		

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

				If Permanent, Please	indicate		If Temporary,
Sl. No.	Sanctioned post	Name of the incumbent	Discipline	Current Pay Band	Current Grade Pay	Date of joining	pl. indicate the consolidated amount paid (Rs./month)
2.1	Senior Scientist-Cum-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	5400	09-01-2008	Permanent
2.4	Subject Matter Specialist	Dr.Jayadevappa G K	Animal Science	15600-39100 PB-3	5400	29-01-2008	Permanent
2.5	Subject Matter Specialist	Mr.Raghuraja J	Agri. Extn.	15600-39100 PB-3	5400	23-06-2008	Permanent
2.6	Subject Matter Specialist	Mr.Prasannakumar N	Plant Protection	15600-39100 PB-3	5400	24-06-2008	Permanent
2.7	Subject Matter Specialist	Mr.HM Sannagoudra	Soil Science	15600-39100 PB-3	5400	01-07-2013	Permanent
2.8	Programme Assistant	Mr.Revanasiddappa G B P	Lab.Technician	9300-34800 PB-2	4200	11-04-2012	Permanent
2.9	Computer Programmer	Mr.Santhosh B	Computer	9300-34800 PB-2	4200	05-09-2008	Permanent
2.10	Farm Manager	Mr.Vijayakumar S B	Farm Manager	9300-34800 PB-2	4200	23-06-2008	Permanent
2.11	Accountant/Superintendent	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	2400	27-06-2005	Permanent
2.13	Driver 1	Mr.Marulasiddaiah NM	Jeep	5200-20200 PB-1	2000	01-06-2005	Permanent
2.14	Driver 2	Mr.Shivakumar S	Tractor	5200-20200 PB-1	2400	01-06-2005	Permanent
2.15	Supporting staff 1	Mr.Shivakumar B	Office Attendant	5200-20200 PB-1	1900	01-06-2005	Permanent
2.16	Supporting staff 2	Mr.Shivakumar S E	Farm Attendant	5200-20200 PB-1	1900	01-06-2005	Permanent

## 3. Details of SAC meeting conducted during 2016-17

Sl. No	Date	Major recommendations	Status of action taken in brief	Tentative date of SAC meeting proposed during 2017
1	2	3	4	5
3.1	28-12-2016	ı		22-12-2017
		Promote apiculture as subsidiary Agriculture activity.		
		Develop suitable marketing avenues for baby corn.		
		Develop fertigation schedule for major horticulture crops.		
		Cost of cultivation for major Horticulture and Agriculture crops to be prepared for		
		finalization of term sheet.		
		Promote marketing linkage for minor millets.		
		Establish demonstration fish pond of 1000 sq feet at KVK.		
		Attract rural youth towards agriculture through ARYA programme.		
		Create awareness about afforestation		
		Give suitable technology for late sown Kharif crops.	On going	
		Establish processing unit for millets at KVK	0 11 g 0 11 1 g	
		More seed production of cereals and pulses in the KVK demonstration plots.		
		Give more importance for seed production of Rashmi Blackgram and KKP-3		
		Green gram.		
		Group-II: To be addressed through action plan of KVK for the year 2017-18		
		Popularize foliar application of micronutrients in agriculture crops.		
		Propose varieties for Abiotic stress tolerance		
		Propose demonstrations of inter discipline subjects.		
		Promote pepper as intercrop in Arecanut garden.		
		Propose pulses as intercrops in Maize in future demonstration.		
		Take up more demonstration on pulses and legumes.		

1	2	3	4	5
		Group-III: To be addressed through convergence with line Departments in Davanagare district		
		Utilize the resource of KVK in preparing the potential linked plan to be prepared by lead bank at district level.		
		KVK Scientists should be used as resource persons in Agriculture Extension Programmes conducted by all the banks in the district.		
		Promote stevia, a medicinal plant in all horticulture farms as well as KVK.  Conduct an awareness programme on importance of medicinal plants at KVK in		
		collaboration with department of horticulture.	On going	
		Capacity building of polyhouse growers in collaboration with horticulture department.		
		By utilizing schemes in horticulture department, establish a tomato processing unit for one of FPO's in Davanagere district.		
		Better and optimum utilization of AIR in dissemination of technologies.		
		Submit the proceedings of SAC meeting to Government for further action.		

#### 4. Capacity Building of KVK Staff

# 4.1. Plan of Human Resource Development of KVK personnel during 2017-18

S. No	New Areas of Training	Institution proposed to attend	Justification
4.1.1	Aquaponics	Rajeev Gandhi Institute of Coastal	Emerging area of Aquaculture Integrated with
		Aquaculture, Chennai	Horticulture.
4.1.2	Bio agent production	National Bureau of Agriculturally	To acquire knowledge about different
		important insect and pest,	production methods of bio agents.
		Bengaluru & UAS, Bengaluru.	
4.1.3	Advanced level training in soil testing	Indian Agricultural Research	To strengthen soil and water testing laboratory
		Institute, New Delhi	
4.1.4	National Consultation on promotion of Agri	MANAGE, Hyderabad	To study the different modes of developing
	Entrepreneurship under Extension Reforms		rural youths in taking up entrepreneurship
			activities in the field of Agriculture
4.1.5	Entrepreneurship Development in Rural Areas	CAFT-Programmes in ICAR	To develop entrepreneurs in Rural Areas there
		Institutes	by promoting secondary agriculture
4.1.6	Dryland Agriculture and Watershed	ICRISAT and CRIDA, Hyderabad	To acquire knowledge about different water
	Management		harvesting structures and water calculation.

#### 4.2. Cross-learning across KVKs during 2017-18

S. No	Name of the KVK proposed		Specific learning areas	
4.2.1	Within ring Krishi Vigyan Kendra, Ramanagara		Animal science activities, Soil Science	
	Krishi Vigyan Kendra, Kodagu		Documentation, Horticulture activities, Animal science	
			activities	
		Krishi Vigyan Kendra, Shimoga, Chitradurga	Protected cultivation of vegetables	
4.2.2	Within the zone	Krishi Vigyan Kendra, Idukki, Tamil Nadu	Secondary Agriculture and Animal Science activities	
	Krishi Vigyan Kendra, Erode, & Krishi Vigyan		SHG activities, Precision farming	
		Kendra, Pondicherry		
4.2.3	Outside zone	Krishi Vigyan Kendra, West Godavari	NICRA Activities	

#### 5. Proposed cluster of KVKs (3 to 5 neighboring KVKs) to be formed for sharing knowledge/expertise, resources and activities during 2017-18

S.No.	Name of the KVKs included in the cluster	What do you intend to share with Cluster KVKs	What do you expect from Cluster KVKs
5.1	KVK Shivamogga	Fish seeds, Fodder slips	Seeds, Seedlings, Farm Machinery and
			secondary agriculture
5.2	KVK Tumkur	NICRA activities	Seeds / NICRA activities, NRM
5.3	KVK Chikkaballapura	Banana special, Animal science	Pulses technologies, Soil Science activities
		expertise	

#### 6. Operational areas details proposed during 2017-18

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	2	3	4	5	6
6.1	Paddy	<ul> <li>Low yield</li> <li>Increased cost of production</li> <li>No mechanization in transplanting</li> <li>Weed management</li> </ul>	15,000 ha	Banuvalli Cluster Banuvalli	<ul> <li>FFS</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method demonstration</li> </ul>
6.2	Maize+ Redgram	<ul> <li>Low yield</li> <li>No intercropping of Redgram</li> <li>Use of local variety of Redgram (50%)</li> <li>No INM</li> <li>Erratic rainfall.</li> </ul>	25,000 ha	Hallikere/Bilichod Cluster Hallikere Sattur Kanchikere Katenahalli  Doddabbigere Cluster Siddanamatha	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method Demonstration</li> </ul>

1	2	3	4	5	6
6.3	Finger millet (Ragi)	<ul> <li>Low yield</li> <li>Non- availability of HYV for late Kharif</li> <li>No seed treatment with biofertilizers</li> <li>Improper nutrient management</li> </ul>	6,000 ha	Hallikere Cluster Hallikere Sattur Kanchikere	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method Demonstration</li> </ul>
6.4	Foxtail millet (Navane)	<ul> <li>Low yield</li> <li>Non- availability of HYV</li> <li>No seed treatment with biofertilizers</li> </ul>	500 ha	Chigateri Cluster Hunsehalli Sasvehalli	<ul> <li>OFT</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method Demonstration</li> </ul>
6.5	Bengal gram	<ul> <li>Low yield</li> <li>No seed treatment with bio fertilizers</li> <li>Non-availability of HYV</li> <li>Improper nutrient management</li> <li>Pod borer, Wilt</li> </ul>	8000 ha	Chigateri Cluster Myduru  Rameshwara cluster Rameshwara	<ul> <li>FLD/OFT</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method demonstration</li> </ul>
6.6	Sunflower	<ul> <li>Low yield</li> <li>Improper nutrient management</li> <li>Improper pest and disease management</li> </ul>	500 ha	Chigateri Cluster Myduru  Rameshwara cluster Rameshwara	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method demonstration</li> </ul>

1	2	3	4	5	6
6.7	Paddy	Low yield	25000	Belludi Cluster	• FLD
		No seed treatment		Bhanuvally	• Group
		<ul> <li>Incidence of blast, stem borer,</li> </ul>		Bannikodu	discussion
		sheath blight and brown plant			• Training
		hopper			• Field visit
					<ul> <li>Method</li> </ul>
					Demonstration
					<ul> <li>Field day</li> </ul>
6.8	Redgram	Low yield	2500	Parashurampura Cluster	• FLD
		No seed treatment with		Annapura	• Group
		biofertilizers			discussion
		Use of local varieties			Training
		Incidence of pod borer & wilt			<ul> <li>Field visit</li> </ul>
					<ul> <li>Method</li> </ul>
					Demonstration
					Field day
6.9	Cotton	Improper nutrient management	6500 ha	Bilchodu cluster:	• FLD
		Square dropping		Katenahalli	Training
		Leaf reddening			<ul> <li>Diagnostic</li> </ul>
		Improper spacing			• Group
		Sucking pests and Pink boll worm			discussion
					• Field visit
5.10			45501		• Field day
6.10	Tomato	• Incidence of fruit borer, leaf minor,	1750 ha	Parashurampura & Rameshwara	• FLD
		blight, powdery mildew and blight		Cluster	• Training
				Annapura and Belagutti	<ul> <li>Diagnostic</li> </ul>
					• Group
					discussion
					• Field visit
					<ul> <li>Field day</li> </ul>

1	2	3	4	5	6
6.11	Sorghum	Imbalanced nutrient management	2000ha	Rameshwara:	• FLD
		Soil moisture stress		Nyamathi	<ul> <li>Training</li> </ul>
		Rust and Stem borer			• Group
					discussion
					<ul> <li>Field visit</li> </ul>
					• Field day
6.12	Black gram	Improper Nutrient Management	300 ha	Rameshwara:	• FLD
		Single crop per year in paddy		Govinakovi	<ul> <li>Training</li> </ul>
		growing areas			• Group
		Mono cropping			discussion
		Micronutrient deficiency			<ul> <li>Field visit</li> </ul>
					Field day
6.13	Wheat	Imbalanced nutrient management	300ha	Rameshwara:	• FLD
		Soil moisture stress		Nyamathi	<ul><li>Training</li></ul>
		Rust and Stem borer			• Group
		Use of local varieties susceptible			discussion
		for rust and lodging.			<ul> <li>Field visit</li> </ul>
					Field day
6.14	French Bean	No income in early stage of	530 ha	Parashuramapura:	• FLD
		arecanut		Parashuramapura	<ul> <li>Training</li> </ul>
		Poor soil health			• Group
					discussion
					<ul> <li>Field visit</li> </ul>
					Field day
6.15	Mango	Flower dropping	295 ha.	Doddabbigere cluster	• EDP
		Low yield		Doddaabbigere	• Training
		Uneconomical trees			• Field visit
		Age old orchards			<ul> <li>Group meeting</li> </ul>

6.16	Arecanut	<ul> <li>Hidimundige syndrome</li> <li>Improper nutrient management</li> <li>Button shedding and nut drop</li> <li>No proper drainage</li> <li>No intercrop</li> <li>Excess application of tank silt</li> <li>Higher incidence of bacterial leaf stripe</li> </ul>	10000 ha	Rameshwara Cluster: Rameshwara Arundi  Parusharampura Cluster Anaberu Mayakonda  Doddabbigere cluster Santhebennur Medikere	<ul> <li>FLD</li> <li>Training</li> <li>Method     Demonstration</li> <li>Field visit</li> <li>Field day</li> </ul>
6.17	Coconut	<ul> <li>Coconut Black Headed Caterpillar and Mites</li> <li>Poor utilization of interspace</li> <li>Dropping of immature nuts</li> </ul>	1763 ha	Parusharampura Cluster Anaberu Kandgal Bhanuvalli Cluster Belludi Bhanuvalli	<ul> <li>FLD</li> <li>Training</li> <li>Awareness campaign</li> <li>Vocational training on palm climbing.</li> </ul>
6.18	Onion	<ul><li>Low yield</li><li>Improper nutrient management</li></ul>	5340 ha	Malligenahalli Cluster: Belagutti Rameshwara Hallikere Cluster: Hallikere Bilichod Cluster Katenahalli	<ul> <li>FLD</li> <li>OFT</li> <li>Training</li> <li>Method     Demonstration</li> <li>Field day</li> </ul>
6.19	Banana	Low yield	425	Parusharampura Cluster Anaberu Kandgal	<ul><li>Training</li><li>Method     Demonstration</li><li>Field visit</li></ul>

1	2	3	4	5	6
6.20	Terrace gardening	Nutritional insecurity	3000 families	Davanagere Urban	<ul> <li>FLD</li> <li>Training</li> <li>Method     Demonstration</li> <li>Field visit</li> <li>Field day</li> </ul>
6.21	Rearing Crossbred Cattle and Buffaloes.	<ul> <li>Infertility/Repeat breeding &amp; weakness in Crossbred cattle.</li> <li>Clean and Quality milk production.</li> </ul>	>60,000 animals	<b>Belludi</b> Belludi,Bannikodu,Shamshipura & Banuvalli.	<ul><li>FLD</li><li>Training</li><li>Field visit</li><li>Field day</li></ul>
6.22	Use of Rice straw as a major source of energy for livestock &Cultivation of Napier x fodder varieties	Fodder scarcity, Low nutrients yield, Palatability is less at maturity stage leading to rejection of fodder, high content of Silica &oxalic acid.	>500 hactares	Belludi Belludi,Bannikodu,Shamshipura & Banuvalli. Halliere	<ul><li>FLD</li><li>Training</li><li>Field visit</li><li>Field day</li></ul>
6.23	Rearing of Small Ruminants like Sheep & Goats.	• Lack of grazing lands, Lower body weight gain and parasitic infestation. Infectious diseases (foot rot) in small ruminants.	>3,00,000 animals	Belludi Belludi,Bannikodu,Shamshipura & Banuvalli.	<ul><li>FLD</li><li>Training</li><li>Field visit</li><li>Field day</li></ul>
6.24	Rearing of local poultry birds.	• Lower body gain & Less numbers of eggs in Poultry birds	>1,50,000 / birds	<b>Belludi</b> (Belludi,Bannikodu,Shamshipura &Banuvalli	Training programme
6.25	Fisheries	Low yield and Income	-	Davanagere	<ul><li>FLD</li><li>Field visit</li><li>Field day</li></ul>
6.26	Pomegranate	<ul><li>Low yield</li><li>Incidence of pest and diseases</li></ul>	100 ha	Davanagere	Workshop
6.27	Betelvine	<ul> <li>Incidence of wilt</li> </ul>	200 ha	Belludi	Seminar

#### 7. Technology Assessment during 2017-18

S.	Crop/	Prioritized problem	Title of intervention	Technology options	Source of Technology
No.	enterprise				
7.1	Foxtail millet	<ul> <li>Low yield</li> <li>Causes:</li> <li>No seed treatment with biofertilizers</li> <li>Susceptible to stress condition</li> <li>Susceptible to pest and diseases</li> </ul>	Assessment of foxtail millet varieties for higher yield under rainfed	T1: HMT-100-1  → HYV  → Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each  → Spraying of WSF (KNO <sub>3</sub> )  T2: SiA-2644 (Sri Laxmi)  → HYV  → Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each  → Spraying of WSF (KNO <sub>3</sub> )	UAS, Dharwad  UAS, Raichur  UAHS, Shivamogga
				T3: DhFT-109-3  > seeds -3kg /trial > Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each > Spraying of WSF (KNO <sub>3</sub> )	UAS, Dharwad

Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the intervention	Parameters to be studied	Team members
	per triai	triai		(Rs.)		
T <sub>1</sub> : HMT-100-1	3.0kg	150-00	03	1,350-00	<ul><li> Germination %</li><li> Plant height (cm)</li></ul>	SMS (Agronomy, Plant Protection, Soil Science,) &
Bio-fertilizers- Azospirillum, PSP and VAM 500g coch	1.5 kg	150-00			<ul><li>Panicle length (cm)</li><li>Yield q/ha</li></ul>	SS&H
PSB and VAM 500g each ➤ KNO <sub>3</sub>	1.0kg	150-00				
T2: SiA-2644  ➤ seeds  ➤ Bio-fertilizers-  Azospirillum,	3.0kg	150-00	03	1,350-00		
PSB and VAM @ 500g each	1.5 kg	150-00				
➤ KNO <sub>3</sub>	1kg	150-00				
T3: DHFt-109-3  → seeds → Bio-fertilizers-	3.0kg	150-00	03	1,350-00		
Azospirillum,	1.5 kg	150-00				
PSB and VAM @ 500g each  KNO <sub>3</sub>	1.5 kg 1.0kg	150-00				
		1,250-00		4,050-00		

No. of Farmers: 3, No. of Trials -3, Area: 1.8 ha

S.	Crop/	Prioritized problem	Title of intervention	Technology options	Source of	
No.	enterprise				Technology	
7.2	Bengal	Low yield	Assessment of	$T_1$ : JG – 11 variety (Breakdown	UAS(D)	
	Gram	Causes:	Bengalgram varieties for	of wilt – 20%) -	UAS(D)	
		<ul> <li>No seed treatment with bio-</li> </ul>	higher yield.	T <sub>2</sub> : JAKI – 9218 variety	JNKVV &	
		fertilizers		(Resistant to wilt & drought),	ICRISAT, 2009	
		• Wilt		T <sub>3</sub> : GBM-2 variety (Resistant to	UAS(R)	
				wilt & drought),		
				T <sub>4</sub> : NBeG-3 (ANGRAU)	UAS (R)	

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
T <sub>1</sub> JG – 11  • Rhizobium and PSB  • Trichoderma  • Traps and Lure  • Pulse magic	1.0 kg 0.25 kg 3 No. 1 kg	100-00 50-00 200-00 250-00	03	1,800-00	<ul> <li>No. of pod/plant</li> <li>100 seeds weight (Test weight)</li> <li>% wilt incidence</li> <li>Yield q/ha</li> </ul>	SMS (Agronomy, Plant Protection, Soil Science,) and SS&H
T <sub>2</sub> : JAKI – 9218  • Seeds  • Rhizobium and PSB  • Trichoderma  • Traps and Lures  • Pulse magic	13.0 kg 1.0 kg 0.25 kg 3 No. 1 kg	910-00 100-00 50-00 200-00 250-00	03	4,530-00		
T <sub>3</sub> : GBM-2  • Seeds  • Rhizobium and PSB  • Trichoderma  • Traps and Lure  • Pulse Magic	13.0 kg 1.0 kg 0.25 kg 3 No. 1 kg	910-00 100-00 50-00 200-00 250-00	03	4,530-00		
T <sub>4</sub> : NBeG (ANGRAU)  • Seeds  • Rhizobium and PSB  • Trichoderma  • Traps and Lure  • Pulse Magic  Total	13.0 kg 1.0 kg 0.25 kg 3 No. 1 kg	910-00 100-00 50-00 200-00 250-00	03	4,530-00 15,390-00		

S. No.	Crop/ enterprise	Prioritized problem	2		Source of Technology
7.3	Onion	<ul><li>Low yield</li><li>Causes:</li><li>Imbalanced nutrient</li></ul>	Role of sulphur in improving the productivity of onion	T <sub>1</sub> -Application of 100:75:20 kg N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O/ha along with FYM + remaining ICM practices.	Farmers practices
		<ul><li>management</li><li>Small bulb</li><li>Less pungency</li></ul>		T <sub>2</sub> - RDF (125:50:125 Kg N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O/ha) along with FYM + remaining ICM practices.	UAS (B)
				T3- RDF (125:50:125 Kg N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O/ha) along with FYM and 45kg sulphur through elemental sulphur (Bentonite) + remaining ICM practices.	DOGR, Pune

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
T <sub>1</sub> : Azospirillum	0.5 kg	50-00	5	2,100-00	Plant Height	SMS (Soil Science,
PSB	0.5 kg	50-00			• Bulb diameter (cm)	Horticulture)
Yellow sticky trap	8 no.	320-00			• Weight of bulb (g)	
$T_2: Azospirillum$	0.5 kg	50-00	5	2,100-00	• Yield (q/ha)	
PSB	0.5 kg	50-00			(4)	
Yellow sticky trap	8 no.	320-00				
T <sub>3</sub> : Azospirillum	0.5 kg	50-00	5	4,850-00		
PSB	0.5 kg	50-00				
Elemental sulphur	10 kg	550-00				
Yellow sticky trap	8 no.	320-00				
Total		1,810-00		9,050-00		

No. of farmers-05, No. of trial - 05, Area- 3 ha.

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

Name of critical	Qty	Cost per	No. of	Total cost for	Parameters to be studied	Team members
input	per trial	trial	trials	the		
				intervention		
				( <b>Rs.</b> )		
					Plant height (cm)	SMS(Horticulture)
Arka Nikethan	0.5 kg	1,500-00	4	6000-00	Bulb diameter (cm)	SMS(Soil Science)
Bhima Shakthi	0.5 kg	1,500-00	4	6000-00	Bulb Yield (t/ha)	SMS(Plant
NHRDF Red	0.5 kg	1,500-00	4	6000-00	No. of protective irrigations	protection)
(Line-28)	_				B: C ratio	SSH
Tota	Total			18,000-00		

- 8. Technology Refinement during 2017-18 Nil
- 9. Frontline Demonstrations during 2017-18

## 9.1 Cereal:

S. No.	Categor	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid	Name of the Hybrid	Source of Technolog
110.	y	enter prise	problem		or	or Variety	v
					Variety		J
1	Cereals	Maize+Red	Low yield	Integrated Crop Management in Maize + Redgram	Variety	BRG-5	UAHS,
		gram	Causes:	• Management (Spray with Chlorpyrifos @ 2ml/l			Shivamogga
			• Use of local	(Stem Borer) and Mancozeb-2.5g/l (Downey mildew)		(Redgram)	
			varieties	for Maize			
			(Redgram)	Medium duration, wilt tolerant and red seeds BRG-5			
			• No seed	variety.			
			treatment with	• Seed treatment with bio fertilizers <i>Azosprillium</i> , PSB,			
			biofertilizers	VAM @ 3 kg			
			• Non	• Spray with Pulse magic (UAS, Raichur) 10g/l @			
			availability of	5kg/ha			
			wilt tolerant	• Installation of Pheromone traps @ 8no. / ha (16 lures)			
			variety.	• Spray with Profenofos @ 2ml/l- Ovicidal- 1 l/ha			
				• Spray with Neem based insecticide @3ml/l – 1 l/ha			
				Spray with Indaxicarb @0.5ml/l -200 ml / ha			

Name of critical input	Qty per	Cost per	No. of	Total cost for the	Parameters to be studied	Team members
	Demo	Demo	Demo	Demo (Rs.)		
Redgram seeds BRG-5	3kg	300-00	30	9,000-00	• Plant height (cm)	SMS (Agronomy, PP)
Rhizobium and PSB	1kg	100-00		3,000-00	(Maize+Redgram)	SS &H
	_	250.00		,	No of rows/cob (Maize)	
Pulse Magic	1kg	250-00		7,500-00	• No. of pods/plant	
Pheromone traps and	3 No. and	100-00		3,000-00	(Redgram)	
lures	6 No.				• Incidence of pod borer	
					& wilt (Redgram)	
Chlorpyrifos	500 ml	300-00		9,000-00	% incidence of Downey	
Profenofos	500 ml	250-00		7,500-00	mildew (Maize)	
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• Yield (q/ha)(Maize +	
					Redgram)	
		1,300-00		39,000-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid	Name of the	Source of Technology
		•			or	Hybrid	3.
					Variety	or	
						Variety	
2	Cereals	Rice	<ul> <li>Low Yield</li> </ul>	Integrated pest and disease management in paddy	Variety	JGL1798	UAS,
				Soil test based nutrient application			Bengaluru
			Causes:	• Seed treatment with Carbendizim @ 4g/kg of seed			
				• Spraying with neem oil @ 3ml/l in nursery			
			<ul> <li>Incidence</li> </ul>	Clipping of seedlings during transplanting			
			of pest and	• Leaving one row of gap for every 3-4 m of transplanting.			
			diseases	Removal of weeds around bunds			
				• Soil application of <i>Pseudomonas fluorescence</i> @5kg/ha at 30 DAT			
				• Installation of funnel traps @ 10/ha			
				• Drain out excess water immediately after notice of pests.			
				• Mix 500 ml of DDVP with 5 kg sand and apply			
				Next day spray with Acephate @ 1 g and Chlorpyrifos @			
				2.5 ml/l			
				Need based spray with Tricyclazole, Hexaconazole and			
				Buprofezin			

Name of critical input	Qty per	Cost per	No. of	Total cost for	Parameters to be studied	Team members
	Demo	Demo	Demo	the		
				Demo (Rs.)		
Carbendazim	0.1 kg	50-00	25	13,750-00	<ul> <li>Soil test before and after</li> </ul>	SMS (Plant
Pseudomonas fluoroscence	2.0 kg	200-00			•% incidence of blast,	Protection,
Funnel traps+ Scirfo lures	4  nos. + 8  nos.	300-00			sheath blight .	Agronomy,
					•% incidence of BPH &	Agricultural
					stem borer incidence	Extension,
					• Yield (q/ha)	Soil Science) &
					``	SS&H
		550-00		13,750-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
3	Cereal	Wheat	<ul> <li>Low yield</li> <li>Causes:         <ul> <li>Imbalanced nutrient management</li> </ul> </li> <li>Soil moisture stress</li> <li>Rust</li> <li>Stem borer</li> <li>Use of local varieties</li> </ul>	Integrated crop management in wheat (UAS-347).  Introduction of variety UAS-347  Seed treatment with Azotobactor, PSB @ 500g/ha  Spraying of 19:19:19 @ 5g/l and micronutrient solution @ 3-4 ml/l at 30DAS  Spraying of Chlorpyrifos 20EC- @ 2ml/l to manage stem borer  Spraying of Hexaconazole @ 1ml/l to manage rust  Weed and water management	Variety	UAS-347	UAS, Dharwad

Name of critical input	Qty per	Cost per	No. of Demo	Total cost for	Parameters to be	Team members
	Demo	Demo		the	studied	
				Demo (Rs.)		
UAS-347	25 kg	1,000-00	20	20,000-00	• No of fertilizers/hill	SMS (Soil Science,
Biofertilizers	3 kg	300-00		6,000-00	• Test weight (g/1000	Agronomy, Plant
19:19:19 (Water soluble)	2 kg	300-00		6,000-00	seeds)	Protection,)
Micronutrient solution	500ml	300-00		6,000-00	• Yield q/ha	
					<ul><li>Plant height</li></ul>	
Total		1,900-00		38,000-00		

## 9.2 Millets:

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
1	Millets	Finger Millet	<ul> <li>Low yield</li> <li>Causes:</li> <li>Use of local variety.</li> <li>No seed treatment</li> <li>Improper nutrient management</li> </ul>	Integrated Crop Management in Finger Millet (ML-365)  Variety ML-365 (105-110 days).  Soil test based nutrient application  Seed treatment with bio fertilizers Azosprillium, PSB, VAM @ 3 kg/ha  Spraying of Micronutrient – (3-4 ml/l) ZnSO <sub>4</sub> Use of water soluble fertilizers (tillering stage) 13:00:45 (5g/l)	Variety	ML-365	UAS, Bengaluru

Name of critical input	Qty	Cost per	No. of Demo	Total cost for	Parameters to be	Team members
	per	Demo		the	studied	
	Demo			Demo (Rs.)		
Seed	5.0 kg	300-00	30	9,000-00	• Plant height (cm)	SMS (Agronomy,
Bio-fertilizers:					• No. tillers / hill	Plant Protection, Soil
Azosprillum, PSB	1.0 kg	100-00		3,000-00	• No. of fingers / ear	Science and Animal
Micronutrient (ZnSO <sub>4</sub> and	0.51	250-00		7,500-00	• Test weight(g)	Science)
Ferrous Sulphate)	1 kg	150-00		4,500-00	• Yield (q/ha)	SS &H
KNO <sub>3</sub> (13:00:45)					• Fodder yield (t/ha)	
					Todder yield (vila)	
		800-00		24,000-00		

Sl. No.	Categor	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
2	Millets	Sorghum	<ul> <li>Low yield</li> <li>Causes:</li> <li>Imbalanced nutrient management</li> <li>Rust</li> <li>Stem borer</li> <li>Use of local variety</li> </ul>	Integrated crop management in sorghum (SPV-2217).  Variety SPV-2217  Seed treatment with calcium chloride to induce drought tolerance (overnight soaking)  Seed treatment with Azotobactor, PSB @ 500g/ha  Spraying of 19:19:19 @ 5g/l and micronutrient solution @ 3-4 ml/l at 30 DAS  Spraying of Chlorpyrifos 20EC- @ 2ml/l to manage stem borer  Spraying of Hexaconazole @ 1ml/l to manage rust  Weed and water management	Variety	SPV-2217	UAS, Dharwad

Name of critical input	Qty per	Cost per	No. of Demo	Total cost for the	Parameters to be	Team members
	Demo	Demo		Demo (Rs.)	studied	
Seeds SPV-2217	3 kg	150-00	25	3,750-00	Plant Height.	SMS (Soil Science,
Calcium chloride	100g	200-00		5,000-00	• Size of the head (cm)	Plant Protection,
Biofertilizers	3 kg	300-00		7,500-00	• Test weight (g)	Agronomy and
19:19:19 (Water soluble)	2 kg	300-00		7,500-00	• Yield (g/ha)	Agricultural Extension)
Micronutrient solution	500ml	300-00		7,500-00	Tiera (q/na)	
		1,250-00		31,250-00		

9.3 Oilseeds: Nil 9.4 Pulses: NII

## 9.5 Commercial Crops:

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
1	Commercial Crops	Cotton	• Low yield Causes:	<ul> <li>Integrated crop management in cotton</li> <li>Maintaining proper spacing (4 x 4 feet)</li> </ul>	Hybrid	Bt	UAS Bengaluru
			<ul> <li>Incidence of sucking pest and pink boll worm</li> <li>Leaf reddening</li> <li>Improper spacing</li> <li>Square dropping</li> </ul>	rotation			

Name of critical	Qty per	Cost per Demo	No. of	Total cost	Parameters to be studied	Team members
input	Demo		Demo	for the		
				Demo (Rs.)		
Yellow sticky trap	10 noo.	250-00	25	38,750-00	• Incidence of sucking pests	SMS
$MgSO_4$	2 kg	200-00			• Incidence of pink boll worm	(Plant Protection,
KNO <sub>3</sub>	2 kg	300-00			• Yield (q/ha)	Agronomy, Agricultural
Pheromone trap	10 nos	500-00			```	Extension,
						Soil Science) & SSH
		1,250-00		38,750-00		

# 9.6 Horticultural Crops:

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
1	Horticulture	Tomato	<ul> <li>Low yield</li> <li>Causes:</li> <li>Incidence of fruit borer and leaf minor</li> <li>Incidence of powdery mildew, blight and TLCV</li> </ul>	<ul> <li>Integrated Crop Management in tomato</li> <li>Use of Marigold as a trap crop (16:1)</li> <li>Application of Trichoderma harzianum @ 5kg /ha through FYM</li> <li>Application of Neem cake @ 250kg /ha after 20-25 DAT</li> <li>Use of yellow and blue sticky traps @ 25/ha</li> <li>Use of Pheromone traps @ 10/ha</li> <li>Need based plant protection measures</li> <li>Spray with Hexaconozol @1ml/l (Powdery mildew), Imidacloprid @ 0.4 ml/l (Leaf minor) and Dimethomorph @ 1g/l (Blight)</li> </ul>	Hybrid	Private hybrid	IIHR(Bangalore)

Name of critical input	Qty	Cost per	No. of	Total cost for	Parameters to be	Team members
	per	Demo	Demo	the	studied	
	Demo			Demo (Rs.)		
Trichoderma harziannum	2kg	250-00	15	38,250-00	% Incidence of fruit	SMS (Plant
Yellow sticky and blue sticky traps	20nos.	800-00			borer, blight, leaf curl	Protection,
Pheromone traps & lures	04 &08	300-00			and powdery mildew	Horticulture,
Arka Samrat	40 g	1200-00			• No. of fruits/plant	Agricultural
					• Yield (q/ha)	Extension, Soil
					(1	Science) & SSH
		2550-00		38,250-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
2	Horticulture	Onion	<ul> <li>Low yield</li> <li>Causes:</li> <li>Non     availability of     suitable     varieties</li> <li>Decrease in     marketable     yield</li> <li>Incidence of     purple blotch     and thrips</li> </ul>	<ul> <li>Demonstration of yield &amp; income potential of Onion, Bhima Super</li> <li>Introduction of Bhima Super variety</li> <li>Application of gypsum @ 2.5 q/ha</li> <li>Seed treatment with <i>Trichooderma harziannum</i></li> <li>Use of post emergent herbicides</li> <li>Foliar nutrition with water soluble fertilizers</li> <li>Plant 2 rows of maize or outer row of maize surrounding onion crop (250sq.m) at least 30 days prior to transplanting to block adult thrips</li> </ul>	Variety	Bhima Super	AICRP on onion and Garlic, RC, Babbur

Name of critical	Qty per	Cost per	No. of Demo	Total cost for	Parameters to be	Team members
input	Demo	Demo		the	studied	
				Demo (Rs.)		
Bhima Super seeds	2 kg	4,000-00	05	20,000-00	<ul> <li>Yield (t/ha)</li> <li>Seed germination (%)</li> <li>Weight of bulb (g)</li> <li>Economics</li> </ul>	SMS (Horticulture, Soil Science) & SSH
		4,000-00		20,000-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
3	Horticulture	French bean	<ul> <li>No income in early stage of arecanut</li> <li>Poor soil health</li> <li>Causes:</li> <li>Low organic carbon in soil</li> <li>Poor soil aeration</li> <li>Improper nutrient management</li> <li>Non utilization of interspace</li> </ul>	<ul> <li>bean in young arecanut garden</li> <li>Introduction of variety arka sharath</li> <li>Seed treatment with <i>Rhizobium</i>, PSB and VAM @ 200g/acre</li> <li>Spraying pulse magic</li> </ul>	Variety	Arka sharath	IIHR, Bengaluru

Name of critical input	Qty	Cost per	No. of Demo	Total cost for	Parameters to be	Team members
	per	Demo		the	studied	
	Demo			Demo (Rs.)		
Seeds Arka sharath	5 kg	1,750-00	10	20,200-00	Organic carbon	SMS (Soil Science,
Biofertilizers	1.5 kg	320-00			content in soil	Horticulture, PP)
Micronutrient	250 ml	150-00			• No. pods per plant	
Solution					• Yield (q/ha)	
Total		2,020-00		20,200-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
4	Horticulture	Coconut	<ul> <li>Low yield         Causes:         <ul> <li>Low productivity of existing palms</li> <li>Nut dropping</li> <li>Incidence of mites and CBHC</li> <li>Poor quality nut</li> <li>No green manuring</li> </ul> </li> </ul>	<ul> <li>ICM in Coconut</li> <li>Based on soil test result recommended dose of fertilizers (170:120:400 g N:P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O/plant/year-Kharif and 330:200:800 g N:P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O/plant/year-Rabi )</li> <li>Use of <i>Trichoderma harzianum</i> @ 50 g /palm</li> <li>Borax application based on soil test result (50 g/palm)</li> <li>Soil fertility enrichment of soil with cover crop Sunhemp @ 40 kg / ha</li> <li>MgSO<sub>4</sub> @ 500 g/palm</li> <li>Release of <i>Goniozus nephantidis</i> @ 12 / palm</li> <li>Application of Neem cake @ 5 kg/ palm</li> <li>Root feeding with Econeem plus @ 10 ml / palm</li> </ul>	Variety	Arsik ere tall	UHS, Bagalkot

Name of critical	Qty per	Cost per	No. of Demo	Total cost for	Parameters to be	Team members
input	Demo	Demo		the	studied	
				Demo (Rs.)		
Borax	2 kg	200-00	20	4,000-00	Nuts/palm	SMS (Horticulture,
Trichoderma	2kg	240-00		4,800-00	• Mites(%)	Soil Science) &
Sunhemp	15 kg	600-00		12,000-00	• CBHC (%)	SSH
Econeem Plus	500 ml	250-00		5,000-00		
		1,290-00		25,800-00		

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
5	Horticulture	Arecanut	<ul> <li>Low yield Causes:</li> <li>Nut dropping</li> <li>Hidimundige Syndrome</li> <li>No green manuring</li> <li>Button shedding</li> </ul>	<ul> <li>ICM in Arecanut</li> <li>Based on soil test result recommended dose of fertilizers (100:40:140 g N:P<sub>2</sub>O<sub>5</sub>:K<sub>2</sub>O /plant/year)</li> <li>Use of Trichoderma harzianum</li> <li>Borax application based on soil test result (20 g/affected plant)</li> <li>Soil fertility enrichment with Sunhemp</li> <li>Spraying with dimethoate (2 ml/l) and Copper Oxychloride (3 g/l)</li> </ul>	Variety	Channagiri Local	UHS, Bagalkot

Name of critical	Qty per	Cost per	No. of Demo	Total cost	Parameters to be studied	Team members
input	Demo	Demo		for the		
				Demo (Rs.)		
Borax	0.4 kg	60-00	20	1,200-00	• Yield (t/ha)	SMS (Horticulture,
Trichoderma	5 kg	600-00		12,000-00	• No. of Inflorescence/palm	Soil Science, Plant
Sunhemp	15 kg	600-00		12,000-00	• Button shedding(%)	protection) & SSH
Copper oxy chloride	500 g	450-00		9,000-00		
		1,710-00		34,200-00		

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	Horticulture	Terrace Gardening	<ul> <li>Nutritional Insecurity</li> <li>Causes:</li> <li>High cost of vegetables</li> <li>Malnourishment in Children</li> <li>Non availability of land in Urban area</li> <li>Scarcity of water</li> <li>Nutritional deficiency</li> </ul>	vegetables  Seeds of 5 different leafy vegetables	-	-	UAS Bangalore

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
Seeds of 4 different varieties Seedlings of three other vegetables Seeds of 5 different leafy vegetables Garden implement	100 g each 5seedlings each 100g each One set	350-00 100-00 100-00 1,000-00	10	15,500-00	<ul> <li>Amount saved on vegetables</li> <li>Quantity of fresh vegetable availability</li> <li>Amount spent on medicine</li> </ul>	SMS (Horticulture, Plant protection) & SSH
		1,550-00		15,500-00		

#### 9.7 Livestock:

## **Integrated Management of Dairy Animals:**

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or	Name of the Hybrid	Source of Technolog y
					Variety	or Variety	
1	Livestock	Dairy	<ul> <li>Infertility/Repeat breeding/ Low milk production</li> <li>Causes:         <ul> <li>Lack of micro nutrients and vitamins to feeding.</li> <li>Poor availability of micronutrients from the feed.</li> <li>Uterine infections like endometritis and mitritis.</li> </ul> </li> </ul>	<ul> <li>Integrated management in dairy animals</li> <li>Feeding dairy animals based on NRC standards.</li> <li>Feeding methodologies (TMR concept)</li> </ul>	Crossbred dairy animals	-	KVAFSU (Bidar)

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
<ul> <li>Dewormer</li> <li>Area Specific Mineral Mixture</li> <li>Uterine tonic</li> <li>Vitamin Tonic</li> </ul>	3g x 2 5 g x1 500 ml x1 5 1 x1	120-00 650-00 350-00 500-00	15	24,300-00	<ul> <li>Lactation yield (l)</li> <li>Heat symptoms and conception rate (%)</li> <li>Incidence of mastitis (%)</li> </ul>	SMS(ASc), SMS(AE) and SS&H
		1,620-00		24,300-00		

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
2	Livestock	Sheep and goats	<ul> <li>Lower bodyweight gain in semi-free range / free range (nomadic) conditions.</li> <li>Causes:</li> <li>Incidences of diseases are more ( Varied Agro climatic conditions)</li> <li>Lack of land for growing food grains for humans</li> <li>Lack of essential nutrients in the feeding stuffs available.</li> </ul>	Total deworming and balanced nutrition in small ruminants for better performance.	Bellry local x	-	KVAFSU (Bidar)

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
Dewormer Liver tonic Special mineral mixture	150 mg x 20 nos 1lt x3 nos 5 kg x1 no	100-00 540-00 500-00	15	1,500-00 8,100-00 7,500-00	1 '	SMS(ASc), SMS(AE) and SS&H
Total		1,140-00		17,100-00		

Sl.	Category	Crop/	Prioritized problem	Technology to be	Specify	Name of	Source of
No.		enterprise		demonstrated	Hybrid or Variety	the Hybrid or	Technology
					variety	Variety	
3	Livestock	Dairying	Low lactation yield,	Care and Management			
			Dystokia, Retention of placenta,	<u> </u>	•		
			Uterine infections and lower body		animals	-	KVAFSU
			weight gain at puberty.	(Advanced pregnancy)			(Bidar)
			Causes:	and scientific			
			Parasitic infestation	management in rasing			
			Reduced drymatter intake	crossbred calves.			
			Lack of exercise during pregnancy				
			• Lack of feeding compounded				
			feeds, essential vitamins and				
			minerals during dry periods				
			Reduced immunity due to delayed/				
			insufficient colostrums feeding.				
			• Lack of essential nutrients due to				
			under nutrition (less milk feeding)				

Name of critical input	Qty per Demo	Cost per Demo	No. of Demo	Total cost for the	Parameters to be studied	Team members
				Demo (Rs.)		
Dewormer	3g x2	120-00	15	32,550-00	Birth weight of Calf,	SMS(ASc),
	600 mg x 2	50-00			Lactation yield,	SMS(AE) and
ASMM	1kg x10=10 kg	1,200-00			Incidences of ROP	SS&H
Uterine tonic	500 ml x1	300-00				
VM Tonic	51	500-00				
	Total	2170-00		32,550-00		

S.	Category	Crop/	Prioritized problem	Technology to be	Specify	Name of	Source of
No.		enterprise		demonstrated	Hybrid or Variety	the Hybrid or Variety	Technology
4	Fodder	Hydroponic fodder	<ul> <li>Low milk yield         Causes:         <ul> <li>Scarcity of water during summer for fodder cultivation</li> <li>Lack of land for growing fodders</li> <li>Scarcity of good quality fodders during summer periods, poor digestibility of dry fodders.</li> </ul> </li> </ul>	Hydroponic fodder production to alleviate fodder scarcity	ATM		NIANP(B)

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
Hydroponic Trays	60 cm x 90 cm (4 Nos)	2,000-00	10	20,000-00	Milk yield, milk quality, voluntary Intake of fodder & Fodder yield	SMS(ASc), SMS (Agron) & SS&H
	Total	2,000-00		20,000-00		

## 9.8 Fisheries:

S.	Category	Crop/	Prioritized	Technology to be demonstrated	Specify	Name of the Hybrid	Source of
No		enterprise	problem		Hybrid	or Variety	Technology
•					or		
					Variety		
1	Fisheries	Fish	<ul> <li>Low yield</li> </ul>	Integrated Management of	Variety	Catla catla,	KVAFSU,
			Causes:	composit Fish culture in ponds		Labeo rohita,	Bidar
			<ul> <li>Improper</li> </ul>	<ul> <li>Pond preparation &amp; management</li> </ul>		Amur Cyprinus	
			stocking and	Seed selection and stocking		carpio, Pangassius	
			feeding	Feed and feeding management		sp.,	
			<ul> <li>Unsuitable</li> </ul>	• Health and water quality		Ctenopharyngodon	
			species	monitoring		idella	
			• Poor pond	Harvesting			
			management				

Name of critical	Name of critical  Qty per		No. of Demo	Total cost for the	Parameters to be studied	Team
input	Demo	Demo		Demo (Rs.)		members
Fish seeds	2000	2,000-00	10	20,000-00	• Average body weight (g)	SSH, SMS
Vitamin mineral	5 kg	500-00	(each demo =	5,000-00	• Yield (t/ha)	(Animal
mixture			1acre)		, ,	Science)
Plankton net	1	550-00		5500-00		
		3,050-00		30,500-00		

#### **9.9 Others:**

## 9.9.1 Oilseeds: (NMOOP)

S.	Category	Crop/	Prioritized	Technology to be demonstrated	Specify	Name of the	Source of
No.		enterprise	problem		Hybrid or	Hybrid or	Technology
					Variety	Variety	
1	Oilseeds	Sunflower	Low yield	ICM in Sunflower	Hybrid	Private	UAS,
				➤ Use of KBSH-53/MFSH-17 @ 5			Bangalore
				kg/ha.			and UAHS,
				Application of ZnSO <sub>4</sub> 10kg/ha			Shivamogga
				Spraying with Boron 0.1% at the			
				time of flowering (1.0 kg/ha)			
				➤ Spraying with KNO <sub>3</sub> @ 2kg/ha at			
				35 DAS			
				PP measures			
				Spray with Imidacloprid @0.3ml			
				/1 at 45 and 60 DAS against bud			
				necrosis- 200ml/ha			
				Spray with Indaxicarb @ 0.3ml/l			
				against head borer- 200ml/ha			
				Spraying with Mancozeb @ 1g/l of			
				water			

Name of critical	Qty per	Cost per	No. of Demo	Total cost for the	Parameters to be studied	Team
input	Demo	Demo		Demo (Rs.)		members
➤ KBSH-	2 kg	800-00	25	20,000-00	• Plant Height (cm)	SMS
53/MFSH 17	4.0 kg	200-00		5,000-00	Head Size	(Agronomy,
➤ ZnSO <sub>4</sub>	0.4 kg	120-00		3,000-00	•Test weight	Plant
Boron	0.8  kg	120-00		3,000-00	•Yield (q/ha)	Protection,
➤ KNO <sub>3</sub>	80 mL	200-00		5,000-00	Trefte (q, ma)	Soil Science)
Imidacloprid	80 mL	240-00		6,000-00		SS&H
Indaxicarb	200 g	160-00		4,000-00		
Mancozeb						
		1,840-00		46,000-00		

## **9.9.2 Pulses:** (NFSM)

S. No.	Category	Crop/ enterprise	Prioritiz ed problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
1	Pulses (NFSM)	Bengalgram	• Low yield	<ul> <li>Integrated Crop Management in Bengalgram</li> <li>Use of HYV JAKI-9218 @ 62.5 kg/ha</li> <li>Seed treatment with <i>Trichoderma harziannum</i> @4gm/kg of seed</li> <li>Seed treatment and soil application of <i>Rhizobium</i>, PSB and VAM @ 2.0 kg each /ha</li> <li>Pulse magic @ 5kg/ha (50% each at flowering and pod formation)</li> <li>Use of trap crop @ 5kg/ha</li> <li>Use of bird perches</li> <li>Use of pheromone traps @10/ha 1st spray with ovicidal insecticides Profenophos @ 2 ml / 1</li> </ul>	Variety	JAKI 9218	JNKVV & ICRISAT

Name of critical input	Qty per	Cost per	No. of	Total cost for	Parameters to be studied	Team members
	Demo	Demo	Demo	the		
		(Rs)		Demo (Rs.)		
➤ Jaki 9218	25.0 kg	1,420-00	25	67,500-00	No. of pods/plant	SMS (Agronomy,
Rhizobium, PSB	1.0 kg	80-00			• % incidence of wilt and	Plant Protection, Soil
> Trichoderma	0.8kg	80-00			pod borer	Science and (SS&H)
Pulse magic	2.0 kg	600-00			•Test weight (g)	
pheromone trap	4.0 nos.	240-00			• Yield (q/ha)	
Profenophos	0.5 L	280-00			(4)	
Total		2,700-00		67,500-00		

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology
2	Pulses (NFSM)	Redgram	• Low Yield	<ul> <li>Integrated crop management in redgram</li> <li>Use of BRG-5 medium duration wilt resistant variety</li> <li>Use of <i>Rhizobium</i>, PSB 2.5 kg/ha and <i>Trichoderma harziannum</i> @ 5kg/ha</li> <li>Spray with Pulse magic (UAS, Raichur) 10g/l @ 5kg/ha</li> <li>Installation of Pheromone traps @ 8no. / ha(16 lures)</li> <li>Spray with Profenophos @ 2ml/lovicidal- 1 l/ha</li> <li>Spray with Neem based insecticide @3ml/l - 11 /ha</li> <li>Spray with Indaxicarb @0.5ml/l - 200 ml / ha</li> </ul>	Variety	BRG-5	UAS, Bengaluru

Name of critical input	Qty per Demo	Cost per	No. of	Total cost for the	Parameters to be	Team members
		Demo	Demo	Demo (Rs.)	studied	
BRG-5 Seeds Rhizobium PSB	6 kg 0.4 kg 0.4 kg	960-00 40-00 40-00	25	67,500-00	<ul><li>Germination (%)</li><li>Plant height (cm)</li></ul>	SMS (Plant Protection, Agronomy, Agricultural Extension,
Trichoderma <i>harziannum</i> Pulse magic	2 kg Trap 3 nos & lures 6 nos.	250-00 600-00 200-00			<ul><li>No. of branches/plant</li><li>No. of pods/plant</li><li>Incidence of pod borer</li></ul>	Soil Science) & SSH
Pheromone traps & lures Profenophos Neem oil	0.41 0.081	120-00 250-00			and wilt (%) • Yield (q/ha)	
Indaxicarb		2,700-00		67,500-00		

Sl. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or	Name of the Hybrid or Variety	Source of Technology
					Variety		
3	Pulses (NFSM)	Black gram	<ul> <li>Improper         Nutrient         Management</li> <li>Single crop         per year</li> <li>Mono         cropping</li> <li>Micronutrient         deficiency</li> </ul>	<ul> <li>Integrated crop management in blackgram</li> <li>Use of DBGV-5 seeds: 25 kg/ha</li> <li>Seed treatment with Calcium chloride @ 2%</li> <li>Application of biofertilizers</li> <li>Spray with Pulse Magic @ 5 kg/ha (10 g/l)</li> <li>Spray with Imidachloprid @ 0.3 ml/l -200 ml / ha.</li> <li>Spray with Hexaconazole @ 1 ml/l-500 ml/ha</li> </ul>	Variety	DBGV-5	UAS, Dharwad

Name of critical input	Qty per Demo	Cost per Demo	No. of Demo	Total cost for the	Parameters to be studied	Team members
				Demo (Rs.)		
Seeds DBGV-5 Calcium chloride Rhizobium, PSB & VAM Pulse magic Imidachloprid Hexaconazole	10 kg 250 kg 3 kg 2 kg 100 ml 500 ml	1,200-00 300-00 240-00 500-00 200-00 260-00	25	67,500-00	<ul><li>No. of pods per plant</li><li>Test weight (g)</li><li>Yield (q/ha)</li></ul>	SMS (Soil Science, Agronomy, Plant Protection)
		2,700-00		67,500-00		

## 10 Training for Farmers/ Farm Women during 2017-18

Sl. No	Thematic area	Crop / Enterprise	Major problem	Related field intervention (OFT/FLD)*	Training Course Title**	No. of Cours es	Expected No. of participant s	Names of the team members involved
1	2	3	4	5	6	7	8	9
10. 1	Crop Produc	tion						
	ICM	Foxtail millet	Low yield, No seed treatment with Bio fertilizers	OFT	Improved production technology for higher yield in Foxtail millet	01	25	SMS (Agronomy)
	ICM	Maize+ Redgram	Low yield No intercropping Poor soil fertility	FLD	Improved production technology in Maize +redgram intercropping	01	25	SMS (Agronomy)
	ICM	Ragi	Low yield, No seed treatment with Bio fertilizers	FLD	Seed treatment with bio fertilizers to improve the production	01	25	SMS (Agronomy)
					Importance of foliar nutrition in increasing the yield under moisture stress	01	25	
	ICM	Groundnut	Low yield Non availability of quality seed for sowing No seed treatment Root rot, tikka leaf disease Poor fodder quality	Others	Improved production technology in groundnut to increase the productivity	01	30	SMS (Agronomy)

	ICM	Bengal Gram	<ul> <li>Low yield</li> <li>No seed treatment with Bio fertilizers</li> <li>Non-availability of HY varieties.</li> <li>Improper nutrient management</li> <li>Pod borer, Wilt</li> </ul>	FLD/OFT	Integrated Nutrient management     Monitoring of pod borer through pheromone traps	01	25	SMS (Agronomy) SMS(Plant protection)
10.2	ICM	Sunflower	<ul> <li>Low yield</li> <li>No seed treatment with Bio fertilizers</li> <li>Improper nutrient management</li> <li>No IPM</li> </ul>	FLD	ICM in Sunflower IPDM in Sunflower	01 01	40 40	SMS (Agronomy) SMS(Plant protection
10.2	Horticulture	1	1 '1155	ELD	TCM: A	01	30	SMS
	Plantation Crops  Production and	Arecanut	<ul><li>Low yield FLD</li><li>Button shedding</li><li>Hidimundige</li></ul>	FLD	ICM in Arecanut	01	30	(Horticulture, Plant Protection and Soil Science)
	Management Technology	Coconut	<ul> <li>Non use of interspace in younger periods</li> <li>Low income in existing intercrops</li> </ul>	FLD	ICM in Coconut	01	30	SMS (Horticulture, Plant Protection and Soil Science)
	Fruit Crops Cultivation of fruit	Banana	<ul> <li>Micronutrient deficiency</li> <li>Low bunch weight</li> <li>Low productivity per unit area</li> </ul>	1	ICM in Banana	01	30	SMS (Horticulture , Plant Protection and Soil Science)

	Vegetable Crops Off season vegetables	Onion	<ul> <li>Low productivity of existing varieties</li> <li>Incidence of purple blotch and thrips</li> </ul>	FLD and OFT	ICM in Onion	01	30	SMS (Horticulture, Plant Protection and Soil Science)
		Terrace gardening	Nutritional insecurity	FLD	Terrace Gardening	01	30	SMS (Horticulture, Plant Protection and Soil Science)
10.3	Livestock Pr	oduction						,
		Dairying	Repeat breeding / Infertility problems & Lower production.	FLD and OFT	Balanced nutrition in dairy cattle	01	25	SMS (ASc)
			Low quality and unhygienic milk production, Mastitis problems		Clean and quality milk production	01	25	SMS (ASc)
10.4	Home Science	ee						
10.5	Plant Protec							
	IPDM	Paddy	<ul> <li>Stem borer, BPH, Blast and Sheath blight problem</li> <li>No seed treatment with chemicals</li> </ul>	FLD	• Integrated management of stem borer, BPH and blast in paddy	01	20	SMS (Plant Protection Agronomy, and Soil Science)
	IPDM	Redgram	Pod borer and wilt	FLD	ICM in redgram	01	20	SMS (Plant Protection Agronomy, and Agri. Extension

	IPM	Cotton	Incidence of sucking and pink boll worm	FLD	Integrated management of sucking pest in cotton	01	20	SMS (Plant Protection Agronomy, and Agri. Extension
	IPDM	Tomato	Incidence of fruit borer, powdery mildew, blight and TLCV	FLD	• IPDM in tomato	01	15	SMS (Plant Protection Horticulture, and Agri. Extension
10.6		Inputs at Site						
10.7	Soil Health ar							
	INM	Wheat	• Improper nutrient management	FLD	• INM in Wheat	01	25	SMS (Soil Science)
	INM	Sorghum	• Improper nutrient management, Moisture stress	FLD	INM in Sorghum	01	25	SMS (Soil Science)
	INM	Paddy	Low soil fertility	Others	• Soil fertility management paddy soils	01	25	SMS (Soil Science and Agronomy)
	INM	Black gram	• Improper nutrient management	FLD	INM in black gram	01	25	SMS (Soil Science)
	INM	Arecanut	Low soil fertility and soil aeration	FLD	• Importance of intercropping in improving soil aeration	01	25	SMS (Soil Science and Horticulture)
	INM	French bean	Improper nutrient management	FLD	INM in French bean	01	25	SMS (Soil Science and agronomy)
	INM	Onion	Improper nutrient management	OFT	INM in onion	01	20	SMS (Soil Science and Horticulture)
10.8	PHT and value		-					
10.9		ling Group Dyna	mics					
10.10	Farm Mechani	ization						

10.11	Fisheries	Fish	Low yield	FLD	Improved production	2	20	SS&H
	Production				of fish in ponds			
	Technologies				-			
10.12	Mushroom pr	oduction						
10.13	Agro forestry							
10.14	Bee Keeping							
10.15	Sericulture							
			T	otal		27	675	

## 11. Training for Rural Youth during 2017-18

S.No	Thematic area	Crop / Enterprise	Major problem	Related field intervention (OFT/FLD)*	Training Course Title**	No. of Course s	Expected No. of participa nts	Names of the team members involved
1	2	3	4	5	6	7	8	9
11.1	<b>Crop Production</b>	on						
	ICM	Maize+ Redgram	<ul><li>Low yield</li><li>Nutrient Management</li></ul>	FLD	<ol> <li>Importance of seed treatment with Bio fertilizers</li> <li>Pod borer management through IPM measures</li> </ol>	01	20	SMS (Agonomy, Soil Science and Plant Protection)
11.2	Horticulture P	roduction						
	Nursery management of Horticulture crops	Vegetable crops	• Lack of availability of good quality seedlings		Nursery techniques in vegetable crops	01	20	SMS (Horticulture, Plant Protection and Soil Science)

1	2	3	4	5	6	7	8	9
11.3	Livestock Prod	uction						
	Dairying		<ul> <li>Lower production,</li> <li>Repeat breeding &amp; Infertility problems,         Low quality and unhygienic milk production,         Mastitis problems</li> </ul>	FLD	Scientific management of dairy animals for better performance	01	25	SMS(ASc)
			• Lower body weight gain & reproductive problems in small ruminants		Advantages of stall feeding methods in sheep rearing.	01	25	
11.4	<b>Home Science</b>		Tallillants					
11.5	Plant Protectio	n						
11.6	<b>Production of I</b>	nputs at Site						
11.7	Soil Health and							
	IFS	Integrated farming system	No use of organic manure		• Integrated farming system for sustainable agriculture	01	25	SMS (Soil Science, Agronomy)
11.8	PHT and value							
11.9	<b>Capacity Build</b>		amics					
11.10	Farm Mechani	zation						

11.11	Fisheries Production Technologies			
11.12	Mushroom production			
11.13	Agro forestry			
11.14	Bee Keeping			
11.15	Sericulture			
	Total	6	135	

# 12 Training for Extension Personnel during 2017-18

S.No.	Thematic area	Training Course Title**	No. of Courses	Expected No. of participants	Names of the team members involved	
12.1	Crop Production					
	ICM	Production technology in Oilseeds crops(sunflower and Groundnut)	01	15 (AO's AAO)	SMS (Agronomy)	
		Improved Production technology in Minor Millets	01	30 Field Facilitators)	SMS (Agronomy)	
12.2	Home Science					
12.3	<b>Capacity Building and Gro</b>	up Dynamics				
12.4	Horticulture					
	Business model in • Importance of FPO's and their operation		01	30	SMS (Horticulture	
	Agriculture					
12.5	Livestock Production & Ma	anagement				
		• Silage and Hay making methods and It's advantages	01	25	SMS( ASc) and SMS (AE)	
12.6	Plant Protection					
	IPDM	IPDM in Pulses and Oilseeds	01	25 (Ao,AAO and field staff of Department of Agriculture)	SMS(Pant Protection)	
12.7	Farm Mechanization					
	ICM	Mechanization in rice production System	01	40 (AO ,AAO and FF)	SMS (Agronomy)	
12.8	PHT and value addition					
12.9	Production of Inputs at Site					
12.10	Sericulture					
12.11	Fisheries					
		Total	6	165		

## 13 Vocational trainings during 2017-18

Sl. No.	Thematic area and the Crop/Enterprise	Training title*	No. of programmes and Duration (days)	Type of Clientele (SHGs, NYKs, School students, Women, Youth etc.)	Expected No. of participants	Sponsoring agency	Names of the team members involved
13.1	Crop Production						
13.2	Home Science						
13.3	Capacity Building and	Group Dynamics					
13.4	Horticulture		T		1	T	
	Terrace Gardening	Terrace Garden for Urban Nutritional Security	01(35 Days)	Youths	30	ASCI, New Dehli	SMS(Horticulture, Plant protection)
13.5	<b>Livestock Production</b>	& Management					
		Dairy Farmer - Entrepreneur	01 (30 days)	SHGs and DDFA members	30	ASCI, New dehli	SMS( ASc), SMS (CP) and SMS (AE)
13.6	Plant Protection						
13.7	Farm Mechanization	n					
13.8	PHT and value addi	tion					
13.9	Production of Input	s at Site					
13.10	Sericulture						
13.11	Fisheries						
	Total		2		60		

# 14. Sponsored trainings during 2016-17

Sl. No.	Thematic area and the Crop/Enterprise	Training title*	No. of programmes and Duration (days)	Type of Participants (SHGs, NYKs, School students, Women, Youth etc.)	Expected number of participants	Sponsoring agency	Names of the team members involved
14.1	Crop Production						
	ICM (Maize and paddy)	Integrated crop management in maize and paddy(Seed treatment with bio fertilizers)	01 (1day)	SHG farmers	30	Department of Agriculture	SMS (Agronomy)
14.2	Home Science						
14.3	Capacity Building a	and Group Dynamics					
14.4	Horticulture						
	Protected cultivation	Protected cultivation	01 (02 days)	FIG's	50	KWDP-II Sujala-III Dept. of Horticulture	SMS (Horticulture & Plant Protection)
14.5	Livestock Production	n & Management					
		Integrated dairy farming and vermiculture/vermicomp ost production for livelihood security.	02 (6 days)	SHGs and selected rural youths.	50	ZP, Davanagere and NGOs	SMS(ASc),SMS(CP) and SMS (AE)
14.6	Plant Protection		<del>,</del>			<del>,</del>	
	IPDM	• IPDM in vegetables	01 (01day)	Farmers	25	Bayer crop science	SMS (Plant Protection)

14.7	Farm Mechanization			
14.8	PHT and value addition			
14.9	Production of Inputs at Site			
14.10	Sericulture			
14.11	Fisheries			
	Total	5	155	

# \*\*\*\*\*\*\* PAID TRAININGS \*\*\*\*\*\*\*

Sl. No.	Title	Scientist	Duration	No. of participants
1.	Maintenance of borewell machinery	SMS (Agricultural Extension) & SS&H	2 days	30
2	Integrated pest management in paddy, maize.	SMS (Plant Protection)	2 days	25
3	Judicious use of inorganic fertilizers to enhance fertilizers use efficiency	SMS (Soil Science)	2 days	20
4	Orientation for Farm Science courses	SMS (Horticulture)	3 days	150
5	Integrated crop management in Maize, Redgram	SMS (Agronomy)	2 days	40
6	Mechanization in paddy production system	SMS (Agronomy)	2 days	20
		Total	6 Nos	

### 15. Extension programmes during 2017-18

Sl. No.	Extension Programme/ Activity*	No. of programmes or activities	Expected number of participants	Names of the team members involved
15.1	Advisory Services	1500	1600	
15.2	Diagnostic Visits	15	75	
15.3	Field Day	27	2500	
15.4	Group Discussions	5	200	
15.5	Kisan Gosthi	1	30	
15.6	Film Show	10	400	
15.7	Self -Help Groups	3	60	
15.8	Kisan Mela	2	50,000	
15.9	Exhibition	3	25,000	
15.10	Scientists' Visit to Farmers Field	25	600	
15.11	Plant/Soil Health/Animal Health Camps	4	250 Samples + 200	
	•	4	animals	
15.12	Farm Science Club	1	25	1
15.13	Ex-Trainees Sammelan	1	55	1
15.14	Farmers' Seminar/Workshop	6	300	All SMS &
15.15	Method Demonstrations	9	80	SSH
15.16	Celebration of Important Days	3	110	1
15.17	Special Day Celebration	4	250	
15.18		3	100	
15.19	Technology Week,	1	1000	
15.20	Farmers Field School (FFS)	1	25	
15.21	Farm Innovators Meet	1	60	1
15.22	Awareness Programs	2	200	
	Others, pl. specify		-	
	1 Kisan Mobile Advisory Services	70	8000	]
	2 Radio talk	6	-	1
	3 TV talk	6	-	]
	4 Popular articles	10	-	
	5 News paper coverage	50	-	1
	6 Plant Health Clinic services	300	300 samples	1

### 16. Activities proposed as Knowledge and Resource Centre during 2017-18

## 16.1 Technological knowledge

Sl. No.	Category	Details of technologies	Area (ha)/ Number	Names of the team members involved
1	2	3	4	5
16.1.1	Technology Park/ Crop cafeteria			
	Vegetable crop cafeteria	Crop cafeteria of varieties developed by IIHR Bengaluru for Davangere district	0.2 ha	SMS (Horticulture) & SSH
	Fruit orchard	Drumstick Block (KDM-1) + Coconut germ plasm	0.2 ha	SMS (Horticulture) & SSH
16.1.2	<b>Demonstration Units</b>			
	Demonstration Units (INSIMP)	Millets processing and Powdering	1 unit	SMS (Agronomy)
	Trichoderma production unit	Trichoderma harziannum production	1 unit	SMS (Plant protection)
	Animal Husbandry	Crossbred Cow Dairy unit	5-Cow unit	
		2. Milking Machine (single bucket)	01	
		3. Fodder cutting Machine(5 HP)	01	
		4. Rubber mats for cattle shed	4 ft x 6 ft-10 nos	
		5. Azolla production unit	4 ft x8 ft x1 ft-5 nos	SMS (Animal
		6. Vermiculture & Vermicompost	20 ft x4 ft x2.5 ft- 10	Science)
		units	Nos	
		7. Biogas production unit	01	
		8. Gober gas production unit	01	
		9. Varietal fodder plots	1acre	
		10. Hydroponic fodder production	2 ft x1.5 ft x 0.25 ft-8 trays	
	Fisheries	1. Ornamental Fish unit	20 No's	
		2. Common Carp hatchery	-	SS&H
		3. Fish cum paddy unit	150 sq m	

16.1.3	Lab Analytical services			
	PHC Lab	Plant Analysis	1 unit	SMS (Plant protection)
	Soil & Water testing Lab	Soil and water analysis	3 students project	SMS (Soil Science) &
				Programme Assistant (Lab
				Technician)
16.1.4	Technology Week	Frontline Demonstration and on	1 (5 days)	All team members
		farm trials, demonstration units in		
		the KVK instructional farm will be		
		exhibited. An agricultural		
		exhibition will be organized in		
		collaboration with Development		
		Department, Agri input agencies,		
		Krishika Samaj, NGO's. Seminars		
		and Ghosties will be organized on		
		the occasion. High school students		
		will be mobilized to participate in		
		the programme		

## **16.2 Technological Products**

Sl.No.	Category	Name of the Production Partner Agency, if any	Name of the product	Quantity (q)/ Number planned to be produced during 2016-17	Names of the team members involved
16.2.1	Seeds	UHS , Bagalkot	Drumstick seeds	50 kg	SMS (Horticulture)
16.2.2	Planting materials	-	1.Fodder root slips 2.Azolla culture	10-15 thousands 250-300 kg	SMS (ASc)
		-	Coconut seedlings (Arsikere Tall)	2500 Numbers	SMS (Horticulture)
		-	Arecanut seedlings (Channagiri Local)	10000 Numbers	SMS (Horticulture)
		-	Drumstick seedlings(KDM-1)	15000 Numbers	SMS (Horticulture)

16.2.3	<b>Bio-products</b>	-	Trichoderma harziannum	7.0 q	SMS (Plant Protection)
			1.Vermicompost	15-20 tonnes	
		-	2.Earthworms	30-40 kgs	SMS (ASc)
			3.Biogas production	10 cu ft gas/dsy	
			Banana Special	15 q	SMS (Horticulture)
16.2.4	Livestock strains	-	Good pedigree calves	2-3 nos	SMS (ASc)
16.2.5	Fish fingerlings		Spawn and fry	10 lakhs	SS&H

### 16.3 Technological Information

Sl.No.	Category	Technological capsules / Number	Names of the team members involved
16.3.1	Technology backstopping to line departments		
	Agriculture	02	SMS(Agronomy)
	Horticulture	01	SMS(Horticulture)
	Plant Protection	03	SMS (Plant Protection)
	Animal Husbandry	Dry fodder enrichment, production of leguminous fodders and Azolla cultivation should be encouraged.	SMS (A Sc) & SMS (AE)
	Fisheries		
	Agricultural Engineering		
	Sericulture		
	Others, pl. specify		
16.3.2	Literature/publication	02	SMS(Agronomy)
		01	SMS (Plant Protection)
	Leaf lets	02	SMS (Soil science)
		02	SMS (Horticulture)
		01	SMS (Plant Protection)
	Folder	Folders: 2 types (2000)	SMS (A Sc) & SMS (AE)
	roluci	01	SMS (Soil science)
		02	SMS (Horticulture)
	Book	01	SMS(Agronomy)

# ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere

16.3.3	Electronic Media	02	SMS(Agronomy)
		02	SMS (Plant Protection)
	Television	01	SMS (Animal Science)
	Television	01	SMS (Soil science)
		02	SMS (Horticulture)
		02	SMS (Plant Protection)
	Radio	02	SMS (Soil science)
	Kaulo	02	SMS (Horticulture)
		02	SMS(Agronomy)
16.3.4	Kisan Mobile Advisory Services	40	All team members
16.3.5	Information on centre/state sector schemes	Book on 'Service providers of the	SMS (Agricultural Extension)
	and service providers in the district.	district and centre/state sector	
		schemes' will be revised	

### 17. Additional Activities Planned during 2017-18

Sl. No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.) (for 5 entrepreneurs):		eurs):	Names of the team members involved	
17.1	EDP	Entrepreneur ship Development	❖ Problem:  Mango is grown in 4376 ha in  Davanagere district with production of	Particulars	No.	Appro, Cost/unit (Rs.)	Amount (Rs.)	SMS (AE, Horti.)&
		for Mango Produce	35279 mt and productivity being 8.06 t/ha. The major problem in mango is	Mango Harvesters	05	500-00	2,500-00	SS&H
			marketing. Where in producer share	Plastic crates	25	400-00	10,000-00	
			in consumer price is less compared to other agricultural crops. The growers are not showing interest in marketing of	Shade Umbrella (Big) at sale point	05	1000-00	5000-00	
			mango, instead they lease out gardens for 1 or 2 year. There is need to motivate farmers to involve in marketing to get	Curtoon box (2 dozen capacity)	1000	6-00	6000-00	
			better share in consumers price.	Lables/Stickers	1000	2-00	2000-00	
				Publicity banner at sale point	5	600-00	3000-00	
					Total	28,500-00		
			<ul> <li>Objectives:         <ul> <li>To produce high quality Mango produce through Integrated Crop Management technologies.</li> <li>To imbibe EDP skills in production and marketing for farmers cultivating mango.</li> <li>To enhance returns from mango cultivation.</li> <li>To expand marketing network for mango produce.</li> </ul> </li> </ul>					

			<b>❖</b> Activities:		
			<ul> <li>Identify 5 farmers cultivating mango.</li> </ul>		
			• Train them on high quality mango		
			production and EDP skills in		
			marketing.		
			• Facilitating sale of quality mango		
			fruits by KVK through:		
			1. Setting up road side stalls by		
			entrepreneurs.		
			2. Networking with retail chain		
			agencies.		
			3. Linking growers with Mango		
			board, Saffal, Reliance and Other		
			Agencies.		
			4. Linkage with APEDA and other		
			agencies for export standards.		
			<b>Expected output and Outcome:</b>		
			• Enhanced marketing skills of mango		
			grower.		
			<ul> <li>Enhanced marketing awareness.</li> </ul>		
			• Enhanced returns from sale of mango		
			produce.		
			• Increased consumer contact for mango		
			producers.		
			• Enhanced demand for quality produce.		
17.2	NICRA	Crop	Dryland Agriculture, IFS, Water and soil	-	SS and
		technology	conservation, Animal Husbandry		Head
		demonstration	technologies		SMS
					(Agrono
					my and
					Animal
					Science)

17.3	INSIMP	Millet .	Grading and cleaning	-	SMS
		processing	Powdering		(Agrono
		and			my)
		powdering			
17.4	( )	Farm Trials	Conducting the Farm trials for varietal	-	SMS
	/ UAHS	of different	evaluation and Demonstration of different		(Agrono
	(S) /	crops	varieties for higher yield		my)
	CIMMYT	(Maize,			
	, Hyderabad	Paddy and			
	Tryucrabau	Finger			
		Millet)			
17.5	Plant	Plant	Diagnosis of affected plant samples (200	-	SMS
	Health	diagnosis	No.s)		(Plant
	Clinic				Protection)
17.6	CHD,	Training	2 Trainings for the 100 Banana farmers on	50,000/-	SMS
	Dept. Of		value addition		(Horticult
	Horticult				ure)
	ure,				
	Davanag				
	ere				
17.7	Davanag	Artificial	Providing AI service with good quality	1.0 lakh	SMS
	ere	Insemination	semen of different breeds at farmers		(Asc)&
	Dairy	service under	doorstep (150-200 per month)		DDFA
	Farmers	DDFA			members
	Associat				
	ion®,				
	Davanag				
	ere				
17.8	IFS	Workshop on	2 day workshop on IFS will be organized	25,000/-	SMS
		IFS	in KVK. Experts in IFS and successful	(A proposal in this regard will be submitted to KSCT,	(Agricult
			IFS farmers will be called to address the	Bengaluru)	ural
			gathering of about 60 farmers		Extension)

17.9	TRDF	Krishi Mela	1. 5 day Krishimela from 20-24 <sup>th</sup> September 2017.	SMS (Agricult
			2. 9 day Krishimela in February 2018	ural
			alongwith Development Department,	Extension
			NGOs, Input Dealers.	)
17.10	TKVK	Conversion	➤ Swatcha Bharath Abhiyana – our Compost culture @ Rs. 300/-/person	30,000-
	(Kasa	of kitchen	contribution! 100 House holds	00
	Rasa	wet waste to	➤ Kitchen waste –Segregated at	
	Abhiyana)	compost	source	
	Innovative Programme	-	<ul> <li>Wet waste converted to useful compost at household level</li> </ul>	
	Trogramme		<ul> <li>Probable remedy for reducing menace of stray animals especially in urban areas</li> </ul>	
			Generated compost- Kitchen	
			garden, Terrace garden, Organic	
			farming	
			Tanama G	

# 18. Revolving Fund

### **18.1 Financial status**

Opening balance as on	Expenditure	Receipts during	Closing balance	Expected closing balance by
01.04.2016	incurred during	2016-17	as on	<b>31.03.2017</b> (Including value of
(Rs.in Lakh)	2016-17	(Rs.in Lakh)	31.01.2017	material in stock/ likely to be
	(Rs.in Lakh)		(Rs.in Lakh)	produced)
				(Rs. in Lakh)
07.905	35.188	32.018	04.735	10.000

### 18.2 Plan of activities under Revolving Fund

S. No.	Proposed activities	<b>Expected output</b>	Anticipated income (Rs.)	Names of the team members involved
18.2.1	Sunhemp seed production	3 q	15,000-00	Farm Manager and SMS (Agronomy)
18.2.2				
18.2.3	Dhaiancha seed production	3 q	15,000-00	
18.2.4	Finger Millets seed	3q	16,000-00	
	production			
18.2.5	Minor millets seed	4 q	16,000-00	
	production			
18.2.6	Redgram seed production	3 q	24,000-00	
18.2.7	French Bean seed	1 q	15,000-00	
	production			
18.2.8	Balckgram seed production	3 q	18,000-00	Farm Manager, SMS (Soil Science)
18.2.9	INSIMP (Millet processing	_	5,000-00	SMS (Agronomy)
	Cleaning and powdering)			
18.2.10	Bioagent production	700 kg	30,000-00	SMS (Plant Protection)
	(Trichoderma harziannum)			
18.2.11	Horticulture nursery	13000 Seedlings	3,00,000-00	SMS (Horticulture)
18.2.12	Banana Special	2000 kg	3,50,000-00	SMS (Horticulture) & Programme Assistant
				(Lab Technician)
18.2.13	Crossbred cow dairy unit	700-7501	2,50,000-00	SMS (A Sc)
18.2.14	Vermicompost	15 tonnes	1,00,000-00	SMS (A Sc)
18.2.15	Earthworms production	25-30 kgs	7,500-00	SMS (A Sc)
18.2.16	Azolla production	250 kgs	5,000-00	SMS (A Sc)
18.2.17	Ornamental Fish	5,000 no's	30,000-00	SS&H

### 19. Activities of soil, water and plant testing laboratory during 2017-18

Sl. No.	Type	No. of samples to be analyzed	Names of the team members involved
19.1	Soil	1200	SMS (Soil Science & Programme Assistant (Lab
19.2	Water	800	Technician)
19.3	Plant	-	
19.4	Others	-	

#### 20 E-linkage during 2017-18

S. No	Nature of activities	Likely period of completion (please set the time frame)	Remarks if any
20.1	Title of the technology module to be prepared		
20.2	Creation and maintenance of relevant database system for KVK	October - 2017	Gaps will be completed
20.3	Any other (Data base)		Data base on soil, water test, Radio talk, TV talk, Farmers Advisory Service and Guest lecture, training, FLD, OFT are completed and same will be maintained

## 21. Activities planned under Rainwater Harvesting Scheme - Nil

#### 22. Innovator Farmer's Meet

Sl.No.	Particulars	Details
22.1	Are you planning for conducing Farm Innovators meet in your	Yes
	district?	
22.2	If Yes likely month of the meet	December 2017
22.3	Brief action plan in this regard	Innovative farmers in farm mechanization in the district (About
		60) will be invited to meet, Details of their innovations will be
		presented in the meet and farmers name, contact address and
		innovations will be recorded.

## 23. Farmers Field School (FFS) planned

Sl.	Them	Title of the FFS	Quanti	Budget	Names of the team
No	atic		ty/Nu	proposed in	members involved
	area		mber	Rs.	
23.1	ICM	Mechanization in paddy production System			SMS(Agronomy,
		A. Critical Inputs			Soil Science,
		• Seeds –Bpt 5204	10.0  kg	500-00	Plant Protection,
		Micro nutrient spray	500 ml	250-00	Animal Science
		• Seed treatment with Bio fertilizers (Azosprillium, PSB)	02.0  kg	100-00	and SS & H)
		• Pre and post Emergent weedicide (Butacholor and 2,4-D sodium salt)	2.0  kg	500-00	
		Hiring Charges of Transplanter and Conoweeder (Power Operated)		4,000-00	
		Plant protection chemicals (BPH, Stem borer, Blast)	-	2,500-00	
		B. Meals and Refreshment during the classes	_	4,000-00	
		C. FFS training kit	_	9,000-00	
		D. Field Day and Report preparation	_	4,000-00	
		E. Preparation of Folder	_	5,000-00	
			TOTAL	29,850-00	

## 24. Budget - Details of budget utilization (2016-17) up to 31 January 2017 (Rs.)

S. No.	Particulars	Sanctioned	Released	Expenditure
24.1	Recurring Contingencies			
24.1.1	Pay & Allowances	109.50	101.23	96.42
24.1.2	Traveling allowances	1.50	1.39	0.48
24.1.3	Contingencies	11.70	10.82	8.23
24.1.4.	Stationery, telephone, postage and other expenditure on office running,	2.75	2.54	1 61
A	publication of Newsletter and library maintenance	2.73	2.34	1.61
В	POL, repair of vehicles, tractor and equipments	1.80	1.66	1.69
C	Meals/refreshment for trainees	0.75	0.70	0.38
D	Training material	0.50	0.46	0.30
E	Frontline demonstration except oilseeds and pulses	2.62	2.42	2.37
F	On Farm Testing - OFT	0.48	0.44	0.21
G	Integrated Farming System - IFS	0.30	0.28	0.00
Н	Training Of Extension Functionaries	0.25	0.23	0.10
I	Extension Activities	0.25	0.23	0.24
J	Farmers' Field School - FFS	0.30	0.28	0.13
K	Soil & Water Testing & Issue of Soil Health Cards	0.50	0.48	0.06
L	Display Boards	0.10	0.09	0.08
M	Maintenance of buildings	1.00	0.92	1.00
N	Library Mtc.	0.10	0.09	0.06
24.1	Total Recurring	122.70	113.44	105.13
24.2	Non-Recurring Contingencies			
24.2.1	Works			
24.2.2	Equipments including SWTL & Furniture	4.00	0.00	0.00
24.2.3	Vehicle (Four wheeler/Two wheeler, please specify)	8.00	0.00	0.00
24.2.4	Library			
24.2	Total Non Recurring	12.00	0.00	0.00
24.3	REVOLVING FUND			
24.4	GRAND TOTAL (A+B+C)	134.70	113.44	105.13

25. Details of Budget Estimate (2017-18) based on proposed action plan

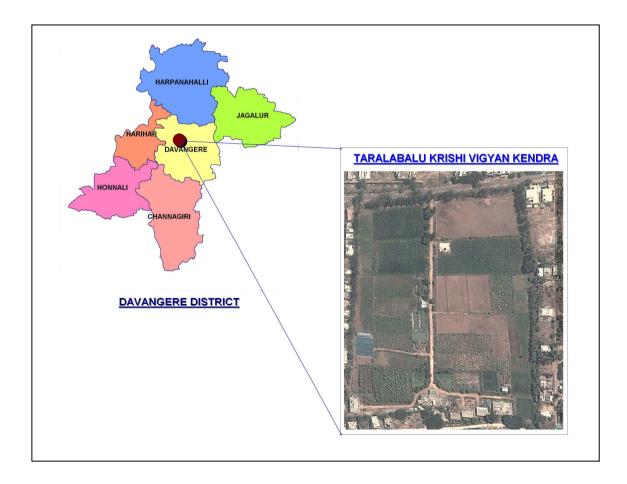
S. No.	Particulars	BE 2017-18 proposed (Rs.in Lakhs)
25.1	Recurring Contingencies	
25.1.1	Pay & Allowances	136.40
25.1.2	Traveling allowances	2.00
25.1.3	Contingencies	23.43
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	3.50
В	POL, repair of vehicles, tractor and equipments	2.50
С	Meals/refreshment for trainees	1.00
D	Training material	2.00
E	Frontline demonstration except oilseeds and pulses – FLD	4.68
F	On Farm Testing - OFT	0.46
G	Integrated Farming System - IFS	0.60
Н	Training Of Extension Functionaries	0.50
I	Extension Activities	1.00
J	Farmers' Field School - FFS	0.30
K	Soil & Water Testing Lab. Mtc. & Issue of Soil Health Cards	1.00
L	Display Boards	0.20
М	Maintenance of buildings	5.00
N	Library Mtc.	0.10
0	Entrepreneurship Development Programme - EDP	0.29
P	Innovative Programmes - IP	0.30
25.1	TOTAL Recurring Contingencies	161.83
25.2	Non-Recurring Contingencies	
25.2.1	Works	402.40
25.2.2	Equipments including SWTL & Furniture	99.74
25.2.3	Vehicle (Four wheeler/Two wheeler, please specify) [Rs.13 Lakhs for Jeep and Rs.2.10 Lakhs for Two Wheelers]	
25.2.4	Library (Purchase of assets like books & journals)	1.00
25.2	TOTAL Non-Recurring Contingencies	503.14
25.3	REVOLVING FUND	0.00
25.4	GRAND TOTAL	664.97

## **Action Plan 2017-18 – Summary of Technical Activities**

#### Krishi Vigyan Kendra: ICAR-TARALABALU KRISHI VIGYAN KENDRA, DAVANAGERE

1. Address of KVK with Phone, Fax and e-mail, Website (Give district map and indicate the location of the KVK)

Name and address of KVK with Phone,	: ICAR- Krishi Vigyan Kendra
Fax and e-mail	Kadalivana, LIC Colony Layout, BIET College Road,
	DAVANAGERE-577004, Karnataka
	Phone: 08192-263462, Fax: 08192-260969
	E-Mail: <u>dvgtkvk@yahoo.com</u>
Website address of KVK date of last update	Website : taralabalukvk.com



#### 2. Operational area / Cluster villages details

Taluk/ Block	Name of cluster villages	Major crops & enterprises	Major problems identified in each crop / enterprise	Proposed type of interventions
Harihara	Bhanuvalli	Paddy	Low yield	• FFS
			<ul> <li>Increased cost of production</li> </ul>	• Group
			<ul> <li>No mechanization in transplanting</li> </ul>	discussion
			Weed management	<ul> <li>Training</li> </ul>
				<ul> <li>Field visit</li> </ul>
				<ul> <li>Field day</li> </ul>
				<ul> <li>Method</li> </ul>
				demonstration
Harapanahalli	Hallikere	Maize+ Redgram	Low yield	• FLD
	Sattur		<ul> <li>No intercropping of Redgram</li> </ul>	• Group
	Kanchikere		• Use of local variety of Redgram (50%)	discussion
			No INM	<ul> <li>Training</li> </ul>
Jagaluru	Bilichod		• Erratic rainfall	<ul> <li>Field visit</li> </ul>
	Katenahalli			<ul> <li>Field day</li> </ul>
<b>C1</b>	D 11111			<ul> <li>Method</li> </ul>
Channagiri	Doddabbigere Siddanamatha			Demonstration
Harapanahalli	Hallikere	Finger millet (Ragi)	• Low yield	• FLD
	Sattur		• Non- availability of HYV for late Kharif	• Group
	Kanchikere		<ul> <li>No seed treatment with bio- fertilizers</li> </ul>	discussion
			• Improper nutrient management	<ul> <li>Training</li> </ul>
				<ul> <li>Field visit</li> </ul>
				<ul> <li>Field day</li> </ul>
				<ul> <li>Method</li> </ul>
				Demonstration

Harapanahalli	Chigateri Hunsehalli Sasvehalli	Foxtail millet (Navane)	<ul> <li>Low yield</li> <li>Non- availability of HYV</li> <li>No seed treatment with bio- fertilizers</li> </ul>	<ul> <li>OFT</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method Demonstration</li> </ul>
Harapanahalli Honnali	Chigateri Myduru Rameshwara	Bengal gram	<ul> <li>Low yield</li> <li>No seed treatment with bio fertilizers</li> <li>Non-availability of HYV</li> <li>Improper nutrient management</li> <li>Pod borer, Wilt</li> </ul>	<ul> <li>FLD/OFT</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method demonstration</li> </ul>
Harapanahalli Honnali	Chigateri Myduru Rameshwara	Sunflower	<ul> <li>Low yield</li> <li>Improper nutrient management</li> <li>Improper pest and disease management</li> </ul>	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Field day</li> <li>Method demonstration</li> </ul>
Harihara	Belludi Bhanuvally Bannikodu	Paddy	<ul> <li>Low yield</li> <li>No seed treatment</li> <li>Incidence of blast, stem borer, sheath blight and brown plant hopper</li> </ul>	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Method Demonstration</li> <li>Field day</li> </ul>

Davanagere	Parashurampura Annapura	Redgram	<ul> <li>Low yield</li> <li>No seed treatment with biofertilizers</li> <li>Use of local varieties</li> <li>Incidence of pod borer &amp; wilt</li> </ul>	<ul> <li>FLD</li> <li>Group discussion</li> <li>Training</li> <li>Field visit</li> <li>Method Demonstration</li> <li>Field day</li> </ul>
Jagaluru	Bilchodu Katenahalli	Cotton	<ul> <li>Improper nutrient management</li> <li>Square dropping</li> <li>Leaf reddening</li> <li>Improper spacing</li> <li>Sucking pests and Pink boll worm</li> </ul>	<ul> <li>FLD</li> <li>Training</li> <li>Diagnostic</li> <li>Group discussion</li> <li>Field visit</li> <li>Field day</li> </ul>
Davanagere Honnali	Parashurampura  Rameshwara  Annapura and  Belagutti	Tomato	Incidence of fruit borer, leaf minor, blight, powdery mildew and blight	<ul> <li>FLD</li> <li>Training</li> <li>Diagnostic</li> <li>Group discussion</li> <li>Field visit</li> <li>Field day</li> </ul>
Honnali	Rameshwara Nyamathi	Sorghum	<ul> <li>Imbalanced nutrient management</li> <li>Soil moisture stress</li> <li>Rust and Stem borer</li> </ul>	<ul> <li>FLD</li> <li>Training</li> <li>Group discussion</li> <li>Field visit</li> <li>Field day</li> </ul>

Honnali	Rameshwara Govinakovi	Black gram	<ul> <li>Improper Nutrient Management</li> <li>Single crop per year in paddy growing areas</li> <li>Mono cropping</li> <li>Micronutrient deficiency</li> </ul>	<ul><li>FLD</li><li>Training</li><li>Group discussion</li><li>Field visit</li><li>Field day</li></ul>
Honnali	Rameshwara Nyamathi	Wheat	<ul> <li>Imbalanced nutrient management</li> <li>Soil moisture stress</li> <li>Rust and Stem borer</li> <li>Use of local varieties susceptible for rust and lodging.</li> </ul>	<ul><li>FLD</li><li>Training</li><li>Group discussion</li><li>Field visit</li><li>Field day</li></ul>
Davanagere	Parashuramapura	French Bean	<ul> <li>No income in early stage of arecanut</li> <li>Poor soil health</li> </ul>	<ul><li>FLD</li><li>Training</li><li>Group discussion</li><li>Field visit</li><li>Field day</li></ul>
Cannagiri	Doddaabbigere	Mango	<ul><li>Flower dropping</li><li>Low yield</li><li>Uneconomical trees</li><li>Age old orchards</li></ul>	<ul><li>EDP</li><li>Training</li><li>Field visit</li><li>Group meeting</li></ul>
Honnli	Rameshwara Arundi	Arecanut	<ul> <li>Hidimundige syndrome</li> <li>Improper nutrient management</li> <li>Button shedding and nut drop</li> <li>No proper drainage</li> </ul>	<ul><li>FLD</li><li>Training</li><li>Method</li><li>Demonstration</li></ul>
Davanagere	Parusharampura Anaberu Mayakonda Doddabbigere		<ul><li>No intercrop</li><li>Excess application of tank silt</li><li>Higher incidence of bacterial leaf</li></ul>	<ul><li>Field visit</li><li>Field day</li></ul>
Channagiri	Santhebennur Medikere		stripe	

Davanagere  Harihara	Parusharampura Anaberu Kandgal Belludi Bhanuvalli	Coconut	<ul> <li>Coconut Black Headed Caterpillar and Mites</li> <li>Poor utilization of interspace</li> <li>Dropping of immature nuts</li> </ul>	<ul> <li>FLD</li> <li>Training</li> <li>Awareness campaign</li> <li>Vocational training on palm climbing.</li> </ul>
Honnali Harapanahalli Jagaluru	Malligenahalli Belagutti Rameshwara Hallikere Bilichod Katenahalli	Onion	<ul><li>Low yield</li><li>Improper nutrient management</li></ul>	<ul> <li>FLD</li> <li>OFT</li> <li>Training</li> <li>Method     Demonstratio     n</li> <li>Field day</li> </ul>
Davanagere	Parusharampura Anaberu Kandgal	Banana	Low yield	<ul><li>Training</li><li>Method     Demonstration</li><li>Field visit</li></ul>
Davanagere	Davanagere Urban	Terrace gardening	Nutritional insecurity	<ul> <li>FLD</li> <li>Training</li> <li>Method     Demonstration</li> <li>Field visit</li> <li>Field day</li> </ul>
Harihar	Belludi, Bannikodu Shamshipura Banuvalli.	Rearing Crossbred Cattle and Buffaloes.	<ul> <li>Infertility/Repeat breeding &amp; weakness in Crossbred cattle.</li> <li>Clean and Quality milk production.</li> </ul>	<ul><li>FLD</li><li>Training</li></ul>

Harihara	Belludi, Bannikodu, Shamshipura Banuvalli.	Use of Rice straw as a major source of energy for livestock &Cultivation of Napier x fodder	• Fodder scarcity, Low nutrients yield, Palatability is less at maturity stage leading to rejection of fodder, high content of Silica &oxalic acid.	<ul><li>FLD</li><li>Training</li><li>Field visit</li><li>Field day</li></ul>
Harapanahalli	Halliere	varieties		
Hariahra	Belludi Bannikodu Shamshipura Banuvalli	Rearing of Small Ruminants like Sheep & Goats.	• Lack of grazing lands, Lower body weight gain and parasitic infestation. Infectious diseases (foot rot) in small ruminants.	<ul><li>FLD</li><li>Training</li><li>Field visit</li><li>Field day</li></ul>
Hariahra	Belludi Bannikodu Shamshipura Banuvalli	Rearing of local poultry birds.	• Lower body gain & Less numbers of eggs in Poultry birds	Training programme
Davanagere	Davanagere	Fisheries	Low yield and Income	<ul><li>FLD</li><li>Field visit</li><li>Field day</li></ul>
Davanagere	Siddanuru Mayakonda Tumbigere	Pomegranate	<ul><li>Low yield</li><li>Incidence of pest and diseases</li></ul>	Workshop
Harihara	Belludi	Betelvine	<ul> <li>Incidence of wilt</li> </ul>	• Seminar

### 3. Details of technological interventions

3.1 Technology Assessment

Sl. No.	Crop/ enterprise	Title of intervention	Technological options	No. of trials	Total cost involv ed (Rs.)	Team members involved
1	Foxtail Millet	Assessment of foxtail millet varieties for higher yield under rainfed	T1: HMT-100-1  HYV  Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each  Spraying of WSF (KNO <sub>3</sub> )  T2: SiA-2644 (Sri Laxmi)  HYV  Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each  Spraying of WSF (KNO <sub>3</sub> )  T3: DhFT-109-3  seeds -3kg /trial  Bio-fertilizers- Azospirillum, PSB and VAM @ 500g each  Spraying of WSF (KNO <sub>3</sub> )	03	4,050-00	SMS (Agronomy, Plant Protection, Soil Science) & SS&H
2	Bengalgram	Assessment of Bengalgram varieties for higher yield.	T <sub>1</sub> : JG – 11 variety (Breakdown of wilt – 20%) -  T <sub>2</sub> : JAKI – 9218 variety (Resistant to wilt & drought),  T <sub>3</sub> : GBM-2 variety (Resistant to wilt & drought),  T <sub>4</sub> : NBeG-3 (ANGRAU)	04	15,390-00	SMS (Agronomy, Plant Protection, Soil Science,) and SS&H

3	Onion	Role of sulphur in improving	T <sub>1</sub> –Application of 100:75:20 kg	05	9,050-00	SMS (Soil
		the productivity of onion	N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O/ha along with FYM +			Science,
			remaining ICM practices.			Horticulture)
			$T_2 - RDF (125:50:125 \text{ Kg N:P}_2O_5:K_2O/ha)$			
			along with FYM + remaining ICM			
			practices.			
			T3- RDF (125:50:125 Kg N:P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O/ha)			
			along with FYM and 45kg sulphur through			
			elemental sulphur (Bentonite) + remaining			
			ICM practices.			
4	Onion	Assessment of Onion	Nyamathi Local	04	18,000-00	SMS
		Varieties for Rabi Season	2. Arka Nikethan			(Horticulture)
			3. Bhima Shakthi			SMS(Soil
			4. NHRDF Red (Line-28)			Science)
						SMS(Plant
						protection)
						SSH

#### **3.2 Frontline Demonstrations**

Category/ Crop or enterprise	Prioritized problem	Technologies Demonstrated	No. of Demo			Team members involved
Maize+Redgram	Low yield	Integrated Crop Management in Maize + Redgram	n 30 12 39,000-00		SMS (Agronomy Plant Protection) SS&H	
Paddy	Low Yield	Integrated pest and disease management in paddy	management in paddy A E		SMS (Plant Protection, Agronomy, Agricultural Extension, Soil Science) & SS&H	
Wheat	Low Yield	Integrated crop management in wheat (UAS-347).	20	08	38,000-00	SMS (Soil Science, Agronomy, Plant Protection,)
Finger Millet	Low Yield	Integrated Crop Management in Finger Millet (ML-365)	30	12	24,000-00	SMS (Agronomy, Plant Protection, Soil Science and Animal Science) SS &H
Sorghum	Low Yield	Integrated crop management in sorghum (SPV-2217).	25	10	31,250-00	SMS (Soil Science, Plant Protection, Agronomy and Agricultural Extension)
Cotton	Low Yield	Integrated crop management in cotton	25	10	38,750-00	SMS (Plant Protection, Agronomy, Agricultural Extension, Soil Science) & SSH
Tomato	Low Yield	Integrated Crop Management in tomato	15	06	38,250-00	SMS (Plant Protection, Horticulture, Agricultural Extension, Soil Science) & SSH

Onion	Low Yield	Demonstration of yield & income potential of Onion, Bhima Super	05	02	20,000-00	SMS (Horticulture, Soil Science) & SSH
French bean	<ul><li>No income in early stage of arecanut</li><li>Poor soil health</li></ul>	Income generation through french bean in young arecanut garden	10	04	20,200-00	SMS (Soil Science, Horticulture, PP)
Coconut	Low yield	Integrated Crop Management in Coconut	20	08	25,800-00	SMS (Horticulture, Soil Science) & SSH
Arecanut	Low yield	Integrated Crop Management in Arecanut	20	08	34,200-00	SMS (Horticulture, Soil Science, Plant protection) & SSH
Terrace Gardening	Nutritional Insecurity	Demonstration of Terrace garden in Davanagere city	10	10	15,500-00	SMS (Horticulture, Plant protection) & SSH
Dairy	Infertility/Repeat breeding/ Low milk production	Integrated management in dairy animals	15	15	24,300-00	SMS(Animal Science, Agricultural Extn.), and SS&H
Sheep and goats	• Lower bodyweight gain in semi-free range / free range (nomadic) conditions	Total deworming and balanced nutrition in small ruminants for better performance	15	15	17,100-00	SMS(Animal Science, Agricultural Extn.), and SS&H
Dairy	<ul> <li>Low lactation yield,</li> <li>Dystokia, Retention of placenta, Uterine infections and lower body weight gain at puberty.</li> </ul>	Care and Management of Pregnant cows during dry period (Advanced pregnancy) and scientific management in rasing crossbred calves.	15	15	32,550-00	SMS(Animal Science, Agricultural Extn.), and SS&H
Hydroponic fodder	Low milk yield	Hydroponic fodder production to alleviate fodder scarcity	10	10	20,000-00	SMS(Animal Science, Agronomy), & SS&H
Fisheries	• Low yield	Integrated Management of composite Fish culture in ponds	10	10	30,500-00	SS&H, SMS (Animal Science)

### 4. Target for mandated activities for the year 2017-18

S.	Activities	Target (2017-18)
1.	On- farm trials (No. of technologies)	04
2.	Frontline Demonstrations (No.)	17
3.	Training of Farmers (Participants) Nos.	33 (810 Participants)
4.	Training of Extension Personnel (Participants in Nos.)	06 (165 Participants)
5.	Participants in Extension activities (in lakh)	1.58
6.	Production of Seed (in quintal)	3.5
7.	Planting material (Nos.)	27500
8.	Live-stock strains/ fingerlings (Nos)	10,00,000
9.	Kisan Mobile Advisory (KMA) (lakh farmers)	0.08
10.	Soil and Water Testing (samples in Nos)	2000

### 5. Special Activities (NMOOP, NFSM, Skill Development, FFS, IFS, EDP etc.)

Activity or Programme	Physical details (no. of programmes, participants,	Financial outlay (Rs.lakh)	Team members involved
	area etc.)	(KS.iaKii)	
NMOOP	01 ( 10 ha)	67,500-00	SMS (Agronomy, Plant Protection, Soil Science) SS&H
NFSM	03 (30 ha.)	2,02,500-00	SMS (Agronomy, Plant Protection, Soil Science, Agricultural Extn.) SS&H
Skill Development Training	60 Participants	-	SMS (Horticulture, Animal Science, Agronomy,. Agricultural Extn.) SS&H
FFS	25	29,850-00	SMS (Agronomy, Plant Protection, Soil Science, Animal Science) SS&H
IFS	06	60,000-00	SMS (Agronomy, Plant Protection, Soil Science, Animal Science, Horticulture, Agricultural Extn) SS&H
EDP	05	28,500-00	SMS (Agricultural Extn, Horticulture) SS&H
Innovative Programme	100	30,000-00	SMS (Animal Science, Horticulture) and SS&H SS&H

#### 6. Externally funded Activities (continuing / expected during 2017-18):

Activity or Programme	Program duration	Funding agency	Physical details (no. of programmes, participants, area etc.)	Financial outlay (Rs.lakh)	Team members involved
NICRA	On going since 2010-11	CRIDA, Hyderabad	208 families	15	SSH, SMS (ASc, Agronomy)
Bio Fuel Information and Demonstration Centre	On going since 2011-12	Govt. of Karanataka	12 trainings 10 awareness programmes	7.6	Programme Assistant (Lab Techncian) SS&H

7. SAC meeting month: December 2017.