## KRISHI VIGYAN KENDRA, UDUPI DISTRICT

## ANNUAL REPORT -2017-18

(FOR THE PERIOD FROM 01 APRIL 2017 TO 31 MARCH 2018)

#### PART I - GENERALINFORMATION ABOUT THE KVK

#### 1.1. Name and address of KVK with phone, fax and e-mail

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
Krishi Vigyan Kendra	Office:	Fax: 0820-	email- <u>kvk.Udupi@icar.gov.in</u>	www.kvkudupi.in
Zonal Agricultural & Horticultural	0820-	2561011	kvkudupi@gmail.com	
Research Station	2563923		<u>udupikvk@gmail.com</u>	
Brahmavar				

#### 1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail	Web Address
	Office	Fax		
University of Agricultural and	Ph:	08182298008	vcuahss2014@gmail.com	http://www.uahs.in
Horticultural Sciences	08182267001			

#### 1.3. Name of the Programme Coordinator with phone & mobile No

Name	-	Telephone	/ Contact
	Residence	Mobile	Email
Dr. Dhananjaya B	9448950250	9480838202	kvkudupi@gmail.com udupikvk@gmail.com

#### 1.4. Year of sanction: 2001

#### 1.5. Staff position as on 31 March 2018

SI. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/ OBC/
						and Prog. Asstt.)					Others)
1	Head/Senior Scientist	Dr. Dhananjaya B.	Senior Scientist & Head	М	Agril. Extn.	Ph.D	37400- 67000	56490	09.07.15	Permanent	ST
2	Scientist/SMS	Mr. Chaitanya H.S.	Scientist	М	Horticulture	M. Sc	15600- 39100	25050	01.10.12	Permanent	General
3	Scientist/SMS	Dr. R. Jayaprakash	Scientist	М	Soil Science	Ph.D	15600- 39100	27240	03.10.12	Permanent	SC
4	Scientist/SMS	Dr. N.E. Naveen	Scientist	М	Agronomy	Ph. D	15600- 39100	27570	01.10.13	Permanent	III B
5	Scientist/SMS	Mr Srinivas H. Hulkoti	Scientist	М	Animal Science	MF. Sc	15600- 39100	24320	23.11.13	Permanent	ST
6	Scientist/SMS	Mr Kumara B.B.	Scientist	М	Plant Protection	M.Sc	15600- 39100	30000/- Consolida ted	08.06.17	Contract	IIIB
7	Scientist/SMS	Sidharodh Padeppagol	Scientist	М	Home Science	M.Sc	15600- 39100	30000/- Consolida ted	02.09.17	Contract	IIA
8	Programme Assistant (Lab Tech.)										
9	Programme Assistant (Computer)	Mrs Shailaja	Programme Assistant (Computer)	F		MBA	9300- 34800	17550	24.01.11	Permanent	III B
10	Programme Assistant/ Farm Manager	Mrs S.M. Vidyashree	Farm Manager	F		M.Tech (Agril. Engineering)	9300- 34800	17030	09.07.11	Permanent	SC
11	Assistant	Ms. Deepa	Assistant	F				14000/- consolidat ed	04.08.17	Contract	ΙA
12	Jr. Stenographer	Mrs. Ashalatha G.	Typist cum computer operator	F				12730/- consolidat ed	24.07.17	Contract	II A
13	Driver - 1	Santhosh Acharya	Driver (Jeep)	М				10150/- consolidated	02.11.17	Contract	

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
14	Driver - 2	Mr.Veeresh	Driver	М			14550- 26700	18100	19.11.08	Permanent	IIA
15	SS-1	Mr. Razak Hazarath Saheb Walikar	Assistant Cook- cum-caretaker	М			10400- 16400	12250	23.10.08	Permanent	II A
16	SS-2	Mr. Rithesh	Messenger	М				10000 consolidat ed	24.07.17	Contract	SC

## 1.6. Total land with KVK (in ha): 20 ha

S.	Item	Area (ha)
No.		
1	Under Buildings	0.4
2.	Under Demonstration Units	4.0
3.	Under Crops	13.0
4.	Orchard/Agro-forestry	-
5.	Others	2.6

## 1.7. Infrastructural Development:

#### A) Buildings

		Source of	Stage						
S.	Name of building	funding		Complete		Incomplete			
No.	Ivalle of building		Completion	Plinth area	Expanditura (Ba)	Starting Data	Plinth area	Status of	
			Date	(Sq.m)	Experiance (Ks.)	Starting Date	(Sq.m)	construction	
1.	Administrative	ICAR	10.10.2012	550	8500000				
	Building								
2.	Farmers Hostel	ICAR	17.04.2002	720	4653768				
3.	Staff Quarters				Not yet sanctioned				
	1								
	2								
	3								

		Source of			Stage	2			
S.	S. Name of building	funding		Complete			Incomplete		
No.	Name of building		Completion	Plinth area	Expanditura (Ba)	Starting Data	Plinth area	Status of	
			Date	(Sq.m)	Experiance (Ks.)	Starting Date	(Sq.m)	construction	
	4								
	5								
	6								
4.	Demonstration Units								
	1. Demonstration of different	UAHS	-	7 acres	3.5 lakhs	February	7 acres	Land preparation	
	high yielding varieties of					2018		and opening of pits	
	cashew								
	2								
	3								
	4								
5	Fencing								
6	Rain Water harvesting system				Nil				
7	Threshing floor				Nil				
8	Farm godown				Nil				

## B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Honda Activa	04.06.2009	49915	45515	Medium condition
TVS victor	22.09.2004	-	43207	Poor condition
Mahindra Bolero (SLE 2WD)	09.06.2017	665564	21808	Good condition
Tractor	18.03.2002	268250	4187.6	Poor condition

## C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Mahindra Bolero (SLE 2WD) 7 seater AC	26.08.2017	665564	Good condition
Epson EB-X41, Projector	08.03.2018	43520	Good condition
Cannon Lid 120 scanner	08.03.2018	4956	Good condition
Handicam	19.03.2018	39930	Good condition
Epson L405 ink tank printer	19.03.2018	14868	Good condition

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants			any
14.12.2017	36	Paddy and groundnut varieties grown outside the	G2-52 Groundnut variety was introduced and large	-
		district could be brought and evaluated in farmers	scale demonstration was conducted at Halageri,	
		field – find alternative variety for MO-4 for coastal	Kundapur taluk	
		zone	Planned to take up MO-13 & MO-22 paddy variety	
			during Rabi 2018	
		Short term research programme may be conducted	Our KVK, Scientists are having two Student	
		in the district	Research Project (SRP) and this year also	
			proposing two more SRP	
		Organized training programme related to increasing	Off campus and On campus training programmes	
		productivity of blackgram in a scientific way	will be conducted during 2018-19	
		Soil Scientist is suppose to visit farmers field and	Visited some of the farmers field and farmers are	
		suggested to give reclamation measures to	advised to apply fertilizers and lime based on the	
		problematic fields	deficiency symptoms noticed	
		Demonstrating vermi compost production in farmers	Yearly 2-3 On/Off campus training programmes	
		field and popularize among the farmers specially	were conducted in association with the farmers,	
		rural youth. In this regard organize 5 days training	many of them have already practicing and such	
		related to vermi compost production	demo units are already getting popularized. In	
			future 5 days training programme related to vermi	
			compost will be conducted	
		KVK seeds Should be labeled and packed in small	KVK has produced 65 kg of bhendi seeds and was	
		quantity and sale the seeds	sold in the exhibitions by labeling and packing in	

1.8. Details of SAC meeting conducted during 2017-18

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants			any
			small packets	
		KVK Should organize vermi compost training	Two off campus training programmes on vermi	
		programme for SKDRDP beneficiaries for	composting was organized to the beneficiaries of	
		establishment of vermicompost units	SKDRDP	
		Introducing field bean production technology to	Since from 2014 to 2017 continuously field bean	
		farmers through training programme	demonstration cum training programme were	
			conducted in farmers field. In upcoming training	
			programmes the field bean crop will be highlighted	
		KVK should demonstrate of different varieties of	Eight varieties of tissue culture banana has been	
		banana in KVK farm	planted at KVK demonstration unit	
		Proper guidance should be provided to the	Training programme will be conducted in	
		groundnut growing farmers regarding the soil	groundnut growing areas of Udupi to know the	
		fertility of groundnut growing soils of Udupi	fertility status of groundnut growing soils	
		District		
		Soil Scientist should analyse 3000 samples per year	On Campus training on importance of soil testing	
		and soil test should be done in pre and post	has been done to create awareness about soil	
		implementation of FLD and OFT	testing and soil health camps will be conducted in	
			the up coming year and all the soil samples were	
			tested as pre and post implementation of FLD and	
			OFT	
		Give the cost benefit ratio of fingerling production	We have planned to implement the fingerling	
		brought from outside and produced from KVK	production from the KVK and analyze the cost	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants		hange the the heaven the trans and side and another	any
			benefit ratio brought from out side and produced	
			from KVK	
		Give results of solar pepper drying technique on	Method demonstration on solar pepper drying	
		before and after drying quality and expenditure	technique will be planned in 2018-19	
		details		
		In which season nutrition garden and terrace garden	Two FLDs were planned in 2018-19 on Terrace	
		results were high. Based on that season training	garden and nutritional garden	
		programme will be conducted		
		Organize training programmes for extension	We have planned to organize training programmes	
		workers in collaboration with KSDA	for extension workers of KSDA from Kharif -2018	
			on wards	
		Spread of agriculture information with the help of	We have produced video and literature on	
		mass media. Literatures related to agriculture	Hydroponics for green fodder production and	
		/horticulture should be given to the needy farmers	Groundnut G2-52 production technology for the	
			benefit of the needy farmers	
		While sending mobile message service to farmers	We have planned to introduce the voice messages	
		the house suggested to send 2-3 seconds video clip	during Kharif 2018	
		to farmers based on the season		
		In existing rabi paddy varietal evaluation study try	Will be included in 2018-19 OFT programmes	
		to include MO-13 & MO-22 Uma in coming season		
		Suitable herbicides for weed management in paddy	Herbicide management practices in paddy will be	
			thought during regular training programmes	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants			any
		Commercial groundnut production techniques in	Already G2-52 and ICGV-91114 varieties were	
		small area and introduction of new groundnut	popularized through FLDs in the district. Hence	
		variety for Bhoo Samrudhi Yojana	these varieties can be recommended for Bhoo	
			Samrudhi Yojana Programme	
		Need based training programme for farmers which	Will be conducted during regular training	
		helps in direct sale of their produce	programmes	
		Field bean and horse gram varieties to be introduced	Since from 2014 to 2017 continuously field bean	
		in the district	demonstration cum training programme were	
			conducted in farmers field. In upcoming training	
			programmes the field bean crop will be highlighted	
		Find out the solution for yellow green algae and	Research experiments were in pipe line	
		salvenia weed management in paddy fields		
		Introduce two row paddy transplanter and small	Two row paddy transplanter were already	
		scale harvester	demonstrated by ZAHRS, Brahmavar in a large	
			scale around 20 acres during 2016-17. Farmers	
			opinion that this mission also needs high drudgery,	
			labour involvement is high. Hence 4 row	
			transplanter is ideal	
		Give wider publicity to the watermelon growing	During 2017-18 Rabi season, FFS on ICM in	
		farmers about the Mulch laying machine which is	watermelon was conducted at Nagur village,	
		available at agriculture department custom hiring	Kundapur taluk. During the FFS programme,	
		centre, Byndoor	availability of mulching laying sheet at custom	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants		biring control was highlightened. In other off	any
			ming centre was inginginened. In other on	
			campus training programme the availability of the	
			machine was discussed	
		Soil Scientist should analyse 3000 samples per year	On Campus training on importance of soil testing	
			has been done to create awareness about soil	
			testing and soil health camps will be conducted in	
			the up coming year	
		Soil scientist is suggested to visit the soil salinity	Since ZAHRS Soil Scientist is exclusively working	
		effected areas which are adjacent and near by to	on soil salinity reclamation in salt effected soils of	
		sea.	coastal districts under the collaboration with	
			Swaminathan Research Foundation, Chennai	
		White backed plant hopper was noticed in paddy	Four field visits were organized in collaboration	
		especially near Kavadi and Ajekar villages.	with KSDA Extension workers to the problematic	
		Therefore, this needs to be educated through	plots. Aciphate chemical was recommended for	
		training the KSDA Extension workers. Further,	control of the same. We have organized two	
		termite problem was noticed in groundnut suitable	training programmes on groundnut in collaboration	
		control measures need to be educated.	with KSDA and suitable control measures for	
			suggested.	
		Poultry hatchery should be initiated at the KVK	We have approached the DD, Animal husbandry	
		with the capacity of 2000 birds. DD, Animal	we have told that this financial year budget	
		Husbandry has agreed to give the funds for the	provision was not made therefore, it will be	
		same.	implemented during the year 2018	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants			any
		Conduct the awareness training programme on	On and Off campus training programme were	
		agriculture to the member of Shree shakthi groups	planned in 2018-19	
		and conduct the training on nutrition garden in		
		Anganavadi centres, women hostel and ladies hostel		
		Introduce two row paddy transplanter and small	Two row paddy transplanter were already	
		scale harvester	demonstrated by ZAHRS, Brahmavar in a large	
			scale around 20 acres during 2016-17. Farmers	
			opinion that this mission also needs high drudgery,	
			labour involvement is high. Hence 4 row	
			transplanter is ideal	
		Training programme on cultivation of tomato in	2017-18 total 5 training prgrammes were	
		terrace garden and nutritional garden	conducted on terrace gardening in Udupi District	
			on cultivation of vegetables viz. tomato, bottle	
			gourd, green leafy vegetables, bhendi, brinjal and	
			chilli. Organic cultivation was emphasized.	
			In the year 2018-19 frontline demonstration ridge	
		Introduction of vegetable varieties suitable for	gourd variety Arka Prasan will be introduced to the	
		coastal region.	farmers of Udupi District. Earlier yard long bean	
			variety Arka Mangala, Bhendi variety Arka	
			Anamika, Papaya variety Arka Prabhath were	
			introduced as front line demonstration	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants		Derive 2017 10 Deli second and hating of	any
		Availability of Amaranthus seeds at KVK,	During 2017-18 Rabi season seed production of	
		Brahmavar	Amaranthus seeds Arka Arunima has been taken up	
			at KVK demonstration unit	
		Demonstration of application of Pseudomonas and	In the year 2017-18 large scale demonstration on	
		microbial consortia to black pepper for control of	pepper wilt management was carried out at 4	
		wilt disease	villages of Udupi taluk for total 100 farmers.	
			During the training programme method	
			demonstration on application of IIHR microbial	
			consortium was conducted at 4 villages	
			viz.Shirlalu, Santhekatte, Shivapura and Mandarthi	
			village.	
			On Farm testing on assessment of pruning	
			techniques has been conducted during 2016-17 and	
		Techniques to improve the Udupi Jasmine flower	2017-18. It has found that pruning during	
		production during off season	November and supplementing micronutrients has	
			increase the production during off season. During	
			training programmes the technology will be	
			disseminated to the jasmine growers	
		Suggested to increase the quality of the Negila	We have brought to the notice of the farmers and	
		Midita Agriculture Magazine by incorporating	give the opinions and suggestions of the farmers.	
		opinions and suggestions of the farmers	In this regard two farmers opinion and suggestions	
			was sent to the magazine for publication.	

Date	Number of	Salient Recommendations	Action taken	Remarks, if
	Participants			any
		Conducting training programmes on production and	During the year 2018-19 training programmes on	
		processing of coco	coco production will be conducted	
		Demonstration on ultra high density cashew	During the year 2018-19 Kharif season ultra high	1
		plantation and introduction of varieties such as	density planting of cashew grafts will be carried	
		Vengurla – 7,9 VRI-3	out at KVK demonstration unit. On campus	
			training programme on improved cultivation	
			practices in cashew was conducted at KVK,	
			Brahmavar on 22.03.2018. During the training	
			programme cultivation of varieties and their	
			availability was sensitized to the farmers	

## PART II - DETAILS OF DISTRICT

2.1	Major farming systems/enterprises (based on the analysis made by the KVK)
S. No	Farming system/enterprise
1.	Agriculture
2.	Horticulture
3.	Fisheries and Dairy Farming

#### 2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	Coastal zone-10	Laterite soil, heavy rainfall of 4000 mm/annum, both hilly and plain land area

S. No	Agro ecological situation	Characteristics		
1.	Coastal zone	Heavy rainfall, hot humid climatic condition		
2.3 Soi	l type/s			
S. No	Soil type	Characteristics	Area in ha	
1.	Laterite soil	Strongly acidic, light textured, low water holding soils with medium	3 lakh ha.	
		available nitrogen, high phosphorus and low potassium status		

S. No	Сгор	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1.	Paddy	49543	224290	3918
2.	Cashew	19496	38999	2000
3.	Coconut	17815	26.72 Lakh nuts	15000 (nuts/ha)
4.	Arecanut	7847	13732	1750
5.	Blackgram	3524	1676	475
6.	Groundnut	2050	4265	2256
7.	Vegetable crops	1210	22304	18433
8.	Black pepper	421	168.40	400
9.	Sesamum	268	625	212

2.4. Area, Production and Productivity of major crops cultivated in the district

\* Please provide latest data from authorized sources. Please quote the source

## 2.5. Weather data

Month	Rainfall (mm)	Temperat	ture <sup>0</sup> C	Relative Humidity (%)	
		Maximum	Minimum	RH-I	RH-II
January	0	33.30	13.12	86.45	60.74
February	0	33.75	16.50	88.63	61.36
March	0	34.05	18.02	83.52	67.77
April	0	34.46	20.46	82.30	69.77
May	158.4	33.81	19.69	84.81	71.23
June	1348.2	30.13	17.72	94.37	86.50
July	880.8	29.89	19.87	92.55	88.61
August	950	29.73	19.33	93.65	89.42
September	403.8	30.56	19.67	90.90	83.90
October	235.4	31.85	19.10	90.35	73.81
November	11.2	33.48	19.48	90.67	61.93
December	6.6	33.13	18.90	91.48	55.77
Total/Mean	3994.4	32.34	18.49	89.14	72.57

\* Please provide latest data from authorized sources. Please quote the source

2.6.Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
Crossbred	77344		
Indigenous	238393		
Buffalo	26610		
Sheep			
Crossbred			
Indigenous	59		
Goats	2732		
Pigs			
Crossbred	314		
Indigenous	776		
Rabbits	186		
Poultry	589412		
Hens			
Desi			
Improved			
Ducks	-		
Turkey and others	-		

Category	Area	Production	Productivity
Fish			
Marine		98550	-
Inland		1831	-
Prawn			
Scampi		-	-
Shrimp		1831	4-5 tons

\* Please provide latest data from authorized sources. Please quote the source

2.7 District profile has been **Updated** for 2017-18 Yes / No: Yes

## 2.8 Details of Operational area / Villages

Sl.No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Karkala	Karkala	Nadumane	2 years	Red Kernel Rice	Non availability of Suitable Red Rice variety for Rabi season, Locals Preference for Parboiled Red Kernel Rice, Available Varieties are old	Varietal Evaluation
2.	Udupi	Udupi	Mattu	4 months	Brinjal	Imbalanced use of fertilizers leads to low productivity and low income and crop susceptible to pest and diseases	Integrated Nutrient Management
3.	Udupi	Udupi	Moodubettu	1 year	Udupi Jasmine	Low yield during off season and high incidence of pests and diseases	Integrated crop management
4.	Karkala	Karkala	Shirlalu	1 year	Beekeeping	Bee colonies gets weaken, susceptible to pests and disease, no honey production and absconding	Small scale income generating enterprises
5.	Udupi	Udupi	Perdoor, Kukkehalli	1 Year	Fish	Low growth and low market demand of locally available fresh water fish species cultured in farm ponds	Production and management
6.	Karkala	Karkala	Kanajaru	2 years	Paddy	Soil acidity and iron toxicity (Reduced root	Integrated crop management

	1						· · · · · · · · · · · · · · · · · · ·
						growth, low fertilizer use	
						capacity and low yield)	
						Low yield due to Case	
						worm. Stem borer & leaf	
7.	Udupi	Udupi	Cherkady	1 year	Paddy	roller pests and	Integrated crop management
	1	1	5	5	5	blast/Sheath blight	
						diseases incidence	
						Low yield due to local	
						varieties, nutrient	
8	IIduni	Uduni	Paduarama	3 vears	Seconum	management, pest	Variety introduction
0.	Odupi	Odupi	1 adugrama	5 years	Sesaman	incidence selection of	variety introduction
						suitable varieties in paddy	
						fallows	
0	TT 1 ·	TT 1 ·	N	2	Ground	Nutrient management,	X7 · . · . 1 .·
9.	Udupi	Udupi	Mattu	3 years	nut	alternate variety, terminal	Variety introduction
						drought, pest and diseases	
						Low yield due to local	
10	Kundanur	Kundanur	Heranialu	3 vears	Field	Nutrient management	Integrated crop management
10.	Rundapur	Kundapur	Tieranjara	5 years	bean	alternate crop, season, pest	integrated crop management
						and diseases	
11	Vorkolo	Vorkala	Chirlely Chira	2 110015	Eronah haan	I ow world	Integrated area management
11.	Narkala	Narkala	Shiriaiu, Shirva	2 years	French bean	Low yield	Integrated crop management
	··· · ·	<b></b>	~1 · 1 1			High incidence of Foot rot/	Integrated pest and disease
12.	Karkala	Karkala	Shırlalu	2 years	Black Pepper	Quick wilt. Die back of	management
						pepper vines	
13.	Kundapur	Kundapur	Molahalli	1 year	Papaya	Low yield	Variety introduction
						Low yield due to old	
						management practices,	Integrated past and disassa
14.	Udupi	Udupi	Cherkady	1 year	Amaranthus	sucking pests	management
						management, Leaf eating	management
						caterpillar, leaf spot/rust	

15.	Karkala	Karkala	Karkala, Kukkehalli	1 year	Fish	Lack of knowledge on Mixed Carp Seed rearing in pens	Production and management
16.	Udupi	Udupi	Kukkehalli Perdoor	1 year	Fish	Lack of knowledge	Production and management
17.	Udupi	Udupi	Mandarthi	2 years	Cashew	Poor canopy growth due to lack of nutrition	Integrated Nutrient Management
18.	Udupi	Udupi	Mandarthi	1 year	Cashew	Non utilization of space and other natural resources effectively. Improper management of pests	Integrated crop management
19.	Udupi	Udupi	Averse, Saiberkatte, Hanumanthanagar, Kavadi, Kalliyanpur	1 year	Nutrition garden	Malnourishment & nutrition deficiency among School Children	Nutritional security
20.	Udupi	Udupi	Agrahara, Udupi, Manipal	1 year	Terrace Garden	Nutritional deficiency symptoms in the families. Less consumption of vegetables in daily diet	Integrated Nutrient management

## 2.9 Priority thrust areas

S. No	Thrust area
1.	Salvenia (Antargange) weed management in low lying paddy areas
2.	Spiraling white fly menace in coconut
3.	Acidic soils
4.	Root grub in Arecanut
5.	Labour scarcity
6.	Imbalanced nutrient management and leaching loss of nutrients
7.	Pest and disease problems
8.	Alternate Paddy variety for MO-4 (Kharif Season)
9.	Alternate Red Rice variety for Rabi season
10.	Short duration Red Rice variety for Kharif season for contingent crop plan
11.	Paddy variety suitable for DSR method of paddy sowing
12.	Paddy diamond white backed hopper menace in rabi paddy
13.	Flood and salt tolerant paddy variety
14.	Red palm weevil menace in coconut and Arecanut (not able to control by the use of pheromone traps)
15.	Effective management practices for managing quick wilt in black pepper
16.	Yellow green algae in paddy
17.	Wild animal menace

## PART III - TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities

	0	FT	•		FI	J <b>D</b>				
		1		2						
Num	ber of OFTs	Numb	er of farmers	Num	ber of FLDs	Number of farmers				
Targets	Targets Achievement Targets Achievement			Targets	Achievement	Targets	Achievement			
5 5		24	24	15	15	137	123			

	Tra	ining			Extension F	Programmes				
		3		4						
Numb	er of Courses	Number	r of Participants	Number	of Programmes	Number of participants				
Targets	Achievement Targets Achievement			Targets	Achievement	Targets	Achievement			
59	67	1970	3333	6	1	180	14			

Seed Pro	duction (Q)	Planting mat	terials (Nos.)
	5		5
Target	Achievement	Target	Achievement
0.6	0.563	26000	19302

Livestock, poultry strai	ns and fingerlings (No.)	Bio-prod	ucts (Kg)
	7		3
Target	Achievement	Target	Achievement
4000	3605	Nil	Nil

#### 3.B1. Abstract of interventions undertaken

							Int	ervention	8					
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Numb er of Traini ng (farme rs)	Numb er of Traini ng (Yout hs)	Number of Traini ng (extens ion person nel)	Extens ion activiti es (No.)	Supply of seeds (Qtl.)	Supply of planti ng mater ials (No.)	Suppl y of livesto ck (No.)	Supp bi prod	ly of o lucts
1.	Varietal Evaluation	Red Kernel Rice	Non availability of Suitable Red Rice variety for Rabi season, Locals Preference for Parboiled Red Kernel Rice, Available Varieties are old and out of seed chain	Assessment of Red Kernel Rice Variety PRATYASA (MO-21) for Rabi Season	-	1	-	-	1	MO- 21- 50kg, Jyothi – 50 kg	-	-	No.	Kg
2.	Integrated Nutrient Managem ent	Brinjal	Imbalanced use of fertilizers leads to low productivity and low income and crop susceptible to pest and diseases	Assessment of Nutritional requirement in Brinjal (Mattigulla) for Coastal Karnataka	-	1	-	-	-	Urea- 90 kg, Rock phosph ate-80 kg,MO P-60 kgs	-	-	-	-
3.	Integrated crop managem ent	Udupi Jasmine	Low yield during off season and high incidence of pests and diseases	Assessment of Pruning time in Udupi Jasmine	-	1	-	-	15	-	-	-	-	-
4.	Small scale income generating enterprises	Beekeeping	Bee colonies gets weaken, susceptible to pests and disease, no honey production and absconding	Fall(OffSeason)ManagementinBeeKeeping	-					Sugar and honey				

							Int	ervention	<b>S</b>					
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Numb er of Traini ng (farme rs)	Numb er of Traini ng (Yout hs)	Number of Traini ng (extens ion person nel)	Extens ion activiti es (No.)	Supply of seeds (Qtl.)	Supply of planti ng mater ials (No.)	Suppl y of livesto ck (No.)	Supp bi prod	ly of o ucts
5.	Production and managem ent	Fish	Low growth and low market demand of locally available fresh water fish species cultured in farm ponds	Evaluate the growth performance of all male Tilapia in Coastal farm ponds	-	1	-	-	8	-	-	10000 seeds	Gro undn ut oil cake 60 kgs	-
6.	Integrated crop managem ent	Paddy	Soil acidity and iron toxicity (Reduced root growth, low fertilizer use efficiency less tillering capacity and low yield)		Soil Acidity Management in Paddy	2	-	-	2	Lime 250 kg/farm er	-	-	-	-
7.	Integrated crop managem ent	Paddy	Low yield due to Case worm, Stem borer & leaf roller pests and blast/Sheath blight diseases incidence		ICM in paddy	2	2	2	6	-	-	-	-	-
8.	Variety introducti on	Sesamum	Low yield due to local varieties, nutrient management, pest incidence selection of suitable varieties in paddy		Introduction of high yielding DS-5 white seeded Sesamum variety in paddy fallows	1	-	-	1	GT-1- 25 kg	-	-	-	-

							Int	ervention	<b>s</b>					
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Numb er of Traini ng (farme rs)	Numb er of Traini ng (Yout hs)	Number of Traini ng (extens ion person nel)	Extens ion activiti es (No.)	Supply of seeds (Qtl.)	Supply of planti ng mater ials (No.)	Suppl y of livesto ck (No.)	Supp bi prod	ly of o ucts
			fallows											
9.	Variety introducti on	Ground nut	Improper nutrient management, alternate variety to TMV-2, terminal drought, pest and disease incidence to the existing variety		Farmers participatory mode of seed production activity in Groundnut variety G2-52	2	-	-	2	$\begin{array}{c} \text{G2-52-}\\ \text{450 kg}\\ \text{Alachlo}\\ \text{r-10}\\ \text{ltrs.}\\ \text{Rogar 7}\\ \text{ltrs,}\\ \text{Bevesti}\\ \text{n-2.5}\\ \text{kg} \end{array}$	-	-	-	-
10.	Integrated crop managem ent	Field bean	Low yield due to local varieties, Local vegetables, Nutrient management, alternate crop, season, pest and diseases		Integrated Crop Management in HA-4 Field bean variety	2	-	-	2	HA-4 seeds- 55kg.1 3045- 10kg, planofi x-1 ltrs, neem oil-2.5 ltr	-	-	-	-
11.	Integrated crop managem ent	French bean	Low yield		Demonstration of French Bean variety Arka Sharath for high yield	1	-	-	8	French bean seeds 20 kgs	-	-	-	-

				Interventions										
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Numb er of Traini ng (farme rs)	Numb er of Traini ng (Yout hs)	Number of Traini ng (extens ion person nel)	Extens ion activiti es (No.)	Supply of seeds (Qtl.)	Supply of planti ng mater ials (No.)	Suppl y of livesto ck (No.)	Supp bi prod	ly of o ucts
12.	Integrated pest and disease managem ent	Black Pepper	High incidence of Foot rot/ Quick wilt. Die back of pepper vines		Quick Wilt management in Black Pepper by using grafts	1	-	-	12	-	500	-	-	-
13.	Variety introducti on	Papaya	Low yield		Introduction of high yielding Papaya variety - Arka Prabhath	1	-	-	9	-	875			
14.	Integrated pest and disease managem ent	Amaranthus	Low yield due to old management practices, sucking pests management, Leaf eating caterpillar, leaf spot/rust		IPDM in Amaranthus Cultivation	1	1	-	5	-	-	-	-	-
15.	Productio n and managem ent	Fish	Lack of knowledge on Mixed Carp Seed rearing in pens		Mixed Carp Seed rearing in Pens	1	-	-	10	-	-	400000 spawn	8.5 shad enet role	
16.	Productio n and managem ent	Fish	Lack of knowledge		Management of Aquatic weeds through fish culture	1	-	-	7	-	-	15000 seeds	60 kg GOC	
17.	Integrated Nutrient Managem ent	Cashew	Poor canopy growth due to lack of nutrition		Nutrient management and moisture conservation in Cashew for	2	-	-	2	Urea- 40 kg, Rock phosph ate-40,	-	-	-	-

				Interventions										
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Numb er of Traini ng (farme rs)	Numb er of Traini ng (Yout hs)	Number of Traini ng (extens ion person nel)	Extens ion activiti es (No.)	Supply of seeds (Qtl.)	Supply of planti ng mater ials (No.)	Suppl y of livesto ck (No.)	Supp bi prod	ly of o lucts
					higher yields.					MOP- 10 kgs				
18.	Integrated crop managem ent	Cashew	Non utilization of space and other natural resources effectively. Improper management of pests		ICM in Cashew	1	-	-	14	-	720	-	-	-
19.	Nutrition al security	Nutrition garden	Malnourishment & nutrition deficiency among School Children		Demonstration of Nutritional Garden for Nutrition Security among School Children	5	-	-	9	Seeds 50 grams Nutritio n garden kit - 1	-	-	-	-
20.	Integrated Nutrient managem ent	Terrace Garden	Nutritional deficiency symptoms in the families. Less consumption of vegetables in daily diet		Demonstration of Terrace Gardening for Nutrition Security	5	-	-	8	Seeds 50 grams Terrace garden kit - 1	-	-	-	-

S No	Title of Technology	Source of technology	Cuonlantounuisa	terprise No.of programmes conducted			
5.110	The of Technology	Source of technology	Crop/enterprise	OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment of Red Kernel	UAHS, Shivamogga	Red Kernal Rice	1		2	Field visit, Group
	Rice Variety	KAU, Thrissur					discussion meetings,
	PRATYASA (MO-21) for						Method
	Rabi Season						demonstration,
							Training programmes
2.	Assessment of Nutritional	UAHS, Shivamogga	Brinjal	1		1	Field visit, Group
	requirement in Brinjal	KAU, Kerala					discussion meetings,
	(Mattigulla) for Coastal						Training programmes
	Karnataka						
3.	Assessment of Pruning	TNAU, Coimbatore,	Udupi Jasmine	1		1	Field visit, Group
	time in Udupi Jasmine	IIHR, Blore					discussion meetings,
		UHS, Bhagalkot					Training programmes
4.	Fall (Off Season)	UAHS, Shivamogga	Beekeeping	1		1	Field visit, Group
	Management in Bee	TNAU, Coimbatore					discussion meetings,
	Keeping						Training programmes
5.	Evaluate the growth	CIFA, Bhuvaneshwara	Fish	1		1	Field day, Field visit,
	performance of all male	UAHS, Shivamogga					Group discussion
	Tilapia in Coastal farm						meetings, Training
	ponds						programmes
6.	Soil Acidity Management	UAHS, Shivamogga	Paddy		1	1	Field day, Field visit,
	in Paddy						Group discussion
							meetings, Training
							programmes
7.	ICM in paddy	UAHS, Shivamogga	Paddy		1	1	Field day, Field visit,
							Group discussion
							meetings, Training
							programmes

3.B2. Details of technology used during reporting period

S No	Title of Technology	Source of technology	Cronfontornuiso	ernrise No.of programmes conducted			conducted
5.110	The of Technology	Source of technology	Crop/enterprise	OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
8.	Introduction of high yielding DS-5 white seeded Sesamum variety in paddy fallows	UAS(D)-2013	Sesamum		1	1	Field visit, Group discussion meetings, Method demonstration Training programmes
9.	Farmers participatory mode of seed production activity in Groundnut variety G2-52	ICRISAT-2012	Groundnut		1	2	Field day, Field visit, Group discussion meetings, Method demonstration, Training programmes
10.	Integrated Crop Management in HA-4 Field bean variety	UAHS, Shivamogga-2009	Field bean		1	2	Field visit, Group discussion meetings, Method demonstration, Training programmes
11.	Demonstration of French Bean variety <i>Arka Sharath</i> <i>for high yield</i>	IIHR, Bengaluru	French bean		1	1	Field visit, Group discussion meetings, Training programmes
12.	Quick Wilt management in Black Pepper by using grafts	IISR, Calicut	Black pepper		1	1	Field day, Field visit, Group discussion meetings, Training programmes
13.	Introduction of high yielding Papaya variety - Arka Prabhath	IIHR, Bangalore	Рарауа		1	1	Field visit, Group discussion meetings, Training programmes
14.	IPDM in Amaranthus Cultivation	UHS, Bhagalkot	Amaranthus		1	1	Field visit, Group discussion meetings, Training programmes
15.	Mixed Carp Seed rearing in Pens	UAHS, Shivamogga	Fish		1	1	Field day, Field visit, Group discussion meetings, Training programmes

S No Title of Technology Source of technology Cron/onterprise				No.of programmes conducted			
5.110	The of Technology	Source of technology	Crop/enterprise	OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
16.	Management of Aquatic weeds through fish culture	UAHS, Shivamogga	Fish		1	1	Field visit, Group discussion meetings, Training programmes
17.	Nutrient management and moisture conservation in Cashew for higher yields	UAHS, Shivamogga	Cashew		1	1	Field visit, Group discussion meetings, Training programmes
18.	ICM in Cashew	UAHS, Shivamogga	Cashew		1	1	Field visit, Group discussion meetings, Training programmes
19.	Demonstration of Nutritional Garden for Nutrition Security among School Children	UAHS, Shivamogga	Nutrition garden		1	1	Field visit, Group discussion meetings, Training programmes
20.	Demonstration of Terrace Gardening for Nutrition Security	UAHS, Shivamogga	Terrace garden		1	1	Field visit, Group discussion meetings, Training programmes

#### 3.B2 contd..

	No. of farmers covered														
OFT				FLD					Trai	ining			Others (	Specify)	
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F
14	6	3	1	97	7	11	8	1897	1202	187	61	-	-	-	-

## <u> PART IV - On Farm Trial</u>

## 4.A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient				<b>^</b>	1			<b>^</b>	<u> </u>	1
Management										
Varietal Evaluation	1									1
Integrated Pest										
Management										
Integrated Crop							1			1
Management										
Integrated Disease										
Management										
Small Scale Income				1						1
Generation										
Enterprises										
Weed Management										
Resource										
Conservation										
Technology										
Farm Machineries										
Integrated Farming										
System										
Seed / Plant										
production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom										
cultivation										
Total	1			1	1		1			4

## 4.A2. Abstract on the number of technologies refined in respect of crops - Nil-

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient										
Management										
Varietal Evaluation										
Integrated Pest										
Management										
Integrated Crop										
Management										
Integrated Disease										
Management										
Small Scale Income										
Generation Enterprises										
Weed Management										
Resource Conservation										
Technology										
Farm Machineries										
Integrated Farming										
System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

## 4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management					1	1
Feed and Fodder						
Small Scale income generating						
enterprises						
TOTAL					1	1

## 4.A4. Abstract on the number of technologies refined in respect of livestock enterprises - Nil-

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating						
enterprises						
TOTAL						

# 4.B. Achievements on technologies Assessed and Refined 4.B.1. Technologies Assessed under various Crops

Thematic areas	Сгор	Name of the technology assessed	No. of trials	Numb er of farme rs	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient	Brinjal	Assessment of Nutritional requirement in Brinjal (Mattigulla) for	5	5	0.6
Management		Coastal Karnataka			
Varietal Evaluation	Paddy	Assessment of Red Kernel Rice Variety PRATYASA (MO-21) for Rabi Season	5	5	2
Integrated Pest Management					
Integrated Crop Management	Udupi Jasmine	Assessment of pruning time in Udupi Jasmine	5	5	0.2
Integrated Disease Management					
Small Scale Income Generation Enterprises	Beekeeping	Fall (Off Season) Management in Bee Keeping	6	6	2.4
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			21	21	5.2

## 4.B.2. Technologies Refined under various Crops -Nil-

Thematic areas	Сгор	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

## 4.B.3. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management	Fish	Evaluate the growth performance of All Male Tilapia in coastal farm ponds	3	3

Feed and fodder			
Small scale income generating enterprises			
Total		3	3

## 4.B.4. Technologies Refined under Livestock and other enterprises –Nil-

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

## 4.C1.Results of Technologies Assessed

#### **Results of On Farm Trial**

Crop/ enterpr ise	Farmi ng situati on	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Red Kernel Rice	Rice fallow	Non availability of Suitable Red Rice variety for Rabi	Assessment of Red Kernel Rice Variety PRATYASA	5	T.O.1: Use of Local varieties 1- Kaje Jaya, etc,	(Farmer practice)	3503	Kg/ha	-	38064	2.33	-
		season, Locals Preference for Parboiled Red	(MO-21) for Rabi Season		T.O.2: Use of recommended varieties for	UAHS, Shivamogga	3708	Kg/ha	-	41959	2.47	-

Kernel Availab	Rice, le	Rabi Season Jyothi							
Varietie old and seed cha	es are out of ain	T.O.3: Use of variety PRATYASA (MO-21) for rabi season (red Kernel rice) duration 110-120 days	KAU, Thrissur	3912	Kg/ha	-	45835	2.60	-

## 4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1	Title of Technology Assessed	:	Assessment of Red Kernel Rice Variety PRATYASA (MO-21) for Rabi
			Season
2	Performance of the Technology on specific indicators	:	Number of tillers, panicles and dry matter production
3	Specific Feedback from farmers	:	Less chaffygrains and high number of tillers with good quality straw
4	Specific Feedback from Extension personnel and other stakeholders	:	Very good replacement for Jyothi with respect to yield
5	Feedback to Research System based on results and feedback	:	Still dwarf character variety is required
	received		

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observ ations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Brinjal	Rainfed	Imbalanced	Assessment	5	T.O.1: Applen. Of	Farmers'						
		use of	of		FYM 2 tonnes,	Practice						
		fertilizers	Nutritional		DAP:150 kg. ,Urea							
		leads to low	requirement		100 kg /ha							
		productivity	in Brinjal		T.O.2: Rec. N:	UAHS,						
		and low	(Mattigulla)		$P_2O_5:K_2O$	Shivamog						
		income and	for Coastal		@ 150:50:75 kg/ha	ga						
		crop	Karnataka		+FYM @ 25				On g	going		
		susceptible			tonnes/ha							
		to pest and			T.O.3: Rec. N:	KAU,						
		diseases			$P_2O_5:K_2O$	Kerala						
					@ 75:40: 25 kg/ha							
					@ N in 3 splits N &							
					K + 25 tonnes of							
					FYM							

#### **Results of On Farm Trial - On going**

## 4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1	Title of Technology Assessed	:	Assessment of Nutritional requirement in Brinjal
			(Mattigulla) for Coastal Karnataka
2	Performance of the Technology on specific indicators	:	-
3	Specific Feedback from farmers	:	-
4	Specific Feedback from Extension personnel and other	:	-
	stakeholders		
5	Feedback to Research System based on results and	:	-
	feedback received		
## **Results of On Farm Trial**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	100 flower weight (g)	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Udupi Jasmine	Homestead	Low yield during off season and high incidence of pests	Assessment of Pruning time in Udupi Jasmine	5	T.O.1: Pruning of dead and diseased branches only INM: use of ground nut cake and FYM 10 to 20 kg per plant.	Farmers' practice	0.229	t/ha	5.152	190573	3.76	-
		and diseases			T.O.2: Time of Pruning November at a height of 50 cm from ground level INM : (FYM 10 kg/ plant) RDF 120:240:240 g/plant in two splits Foliar spray of micro nutrient ZnSO <sub>4</sub> 0.25% + MgSO <sub>4</sub> 0.5% + FeSO <sub>4</sub> 0.5%	TNAU, Coimbatore	0.3204	t/ha	6.486	277028	4.64	-
					T.O.3: Time of Pruning: Mid December, at a height of 90 cm from ground level INM : (FYM 10 kg/plant) RDF 100:150:100 N: $P_2O_5:K_2O$	IIHR, Blore	0.3078	t/ha	6.304	264920	4.35	-

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	100 flower weight (g)	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
					g/plant in 3 split doses							
					T.O.4: Time of	UHS,						
					Pruning : January, at a height of 60 cm from ground level INM : (FYM 20 kg/ plant) RDF 120:240:240 N: P <sub>2</sub> O <sub>5</sub> :K <sub>2</sub> O g/plant in six splits	Bhagalkot	0.2992	t/ha	6.106	255082	4.28	-

## 4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1	Title of Technology Assessed	:	Assessment of Pruning time in Udupi Jasmine
2	Performance of the Technology on specific indicators	:	Pruning during November, at a height of 50 cm from ground level with RDF and micronutrients found to be superior
3	Specific Feedback from farmers	:	November pruning at a height of 50 cm from the ground level has increase the jasmne production during off season
4	Specific Feedback from Extension personnel and other stakeholders	:	-
5	Feedback to Research System based on results and feedback received	:	-

<b>Results of O</b>	n Farm T	rial										
Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Beekeep ing	-	Bee colonies gets	Fall (Off Season) Management	6	T.O.1: Unscientific methods	Farmers' Practice	5.5	kg	Bees were more arrogant	3500	1:3.5	-
		weaken, susceptible to pests and disease, no honey	in Bee Keeping		T.O.2: Providing sugar/honey solution in1:1 proportion	UAHS, Shivamogga	9.6	Kg	No arrogance	4550	1:5.13	-
		production and absconding			T.O.3: Providing sugar/honey solution in1:2 proportion	TNAU, Coimbatore	8.3	Kg	No arrogance	4220	1:6.4	-

# 4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1	Title of Technology Assessed	:	Fall (Off Season) Management in Bee Keeping
2	Performance of the Technology on specific indicators	:	TO-2 option was performed better with respect to
			arrogance during handling
3	Specific Feedback from farmers	:	TO-2 No arrogance during handling
4	Specific Feedback from Extension personnel and other	:	It is better to give 1:1 sugar and honey proportion. In order
	stakeholders		to have better settlement of colonies and to reduce the
			arrogance
5	Feedback to Research System based on results and	:	Thaisac brood was observed almost all the treatments this
	feedback received		needs to be given due attention

Results of	f On Farm	Trial										
Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Fish	-	Low growth and low market demand	Evaluate the growth performance of all male Tilapia in	3	T.O.1: Culture of Common Carp in Monoculture system	Farmers' Practice	3.90	t/ha	Lower growth rate observed in common carp	93600	1.43	-
		of locally available fresh water fish species cultured	Coastal farm ponds		T.O.2: Rearing of all male Tilapia in Monoculture system	CIFA, Bhuvaneshwara	17.55	Kg/ ha	Best growth rate observed in Tilapia. Average weight observed 600 g	742500	1.73	-
		in farm ponds			T.O.3: : Rearing of all male Tilapia in Polyculture system along with Grass carp and Common carp	UAHS, Shivamogga	17.16	Kg/ ha	In addition to Tilapia grass carp and common carp grown as service species	715500	1.72	_

## 4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1	Title of Technology Assessed	:	Evaluate the growth performance of all male Tilapia in Coastal farm ponds
2	Performance of the Technology on specific indicators	:	TO-2 was performed better with respect to higher stocking density
3	Specific Feedback from farmers	:	TO-2 Observed the best growth, average weight more than 600 g has very good
			demand in market
4	Specific Feedback from Extension personnel and other	:	In poly culture system grass carp and common carp can be cultured as service
	stakeholders		species
5	Feedback to Research System based on results and feedback	:	All male Tilapia is performing better in monoculture system and adjustable to
	received		floating feed and get acclimatize to climatic condition

#### 4.D1. Results of Technologies Refined --Nil-

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Refined	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
					T.O.1 (Farmerpractice)							
					T.O.2							
					Т.О.3							

### 4.D.2. Details of Technologies refined:

- 1. Title of Technology Refined
- 2. Performance of the Technology on specific indicators
- 3. Specific Feedback from farmers
- 4. Specific Feedback from Extension personnel and other stakeholders
- 5. Feedback to Research System based on results/feedback received

## PART V - FRONTLINE DEMONSTRATIONS

## 5.A. Summary of FLDs implemented

<b>C</b> 1		E			Variaty/	I Izzha	Thematic	Tashralasy	Area	a (ha)	Fa:	rmers No.)	Farmers	(No.)
No.	Category	Situation	Season	Crop	breed	id	area	Demonstrated	Propos ed	Actual	SC / ST	Others	Small/ Margin al	Oth ers
1.	Oilsee ds	Rice fallow	Rabi	Ground nut	G2-52	-	Variety introduct ion	Farmers participatory mode of seed production activity in Groundnut variety G2- 52	4	4	-	12	12	-
		Rice Fallow	Rabi	Sesam um	DS-5	-	Variety introduct ion	Introduction of high yielding DS-5 white seeded Sesamum variety in paddy fallows	4	4	3	7	10	-
2.	Pulses	Rice Fallow	Rabi	Field bean	HA-4	-	ICM	Integrated Crop Management in HA-4 Field bean variety	4	4	-	10	10	-
3.	Cereals	Rain fed	Kharif	Paddy	MO-4	-	ICM	Soil acidity management in paddy	4	4	1	9	10	-

<b>C</b> 1		E			Variaty/	I Izzha	Thematic	Tashralasy	Area	ı (ha)	Far (1	rmers No.)	Farmers	(No.)
51. No.	Category	Situation	Season	Crop	breed	id	area	Demonstrated	Propos ed	Actual	SC / ST	Others	Small/ Margin al	Oth ers
		Rain fed	Kharif	Paddy	MO-4	-	ICM	ICM in paddy	2	2	-	5	5	-
	Millets													
4.	Vegetabl es	Irrigat ed	Rabi	French bean	Arka Sharath	-	ICM	Demonstrati on of French bean variety Arka Sharath for high yield	2	2	2	18	11	9
		Irrigat ed	Rabi	Amara nthus	-	-	IPDM	IPDM in Amaranthus Cultivation	2	2	-	5	5	-
		Irrigat ed	Rabi	Nutriti on garden	Bhendi, Amarant hus Field bean,Chi lli, Tomato, Brinjal, bottlego urd	-	Nutritional security	Demonstrati on of Nutritional Garden for Nutrition Security among School Children	-	-	1	4	-	-
		Irrigat ed	Rabi	Terrace garden	Palak, Amarant hus, Cowpea Bhendi, Chilli, Brinjal, Bottlego urd,	-	INM	Demonstrati on of Terrace Gardening for Nutrition Security	-	-	-	5	-	-

S1		Familya			Variaty/	Uyhr	Thomatia	Tashnalagu	Area	a (ha)	Fa:	rmers No.)	Farmers	(No.)
No.	Category	Situation	Season	Crop	breed	id	area	Demonstrated	Propos ed	Actual	SC / ST	Others	Small/ Margin al	Oth ers
					ridgegou rd, bittergou rd,									
5.	Flowers													
6.	Ornamen tal													
7.	Fruit	Irrigat ed	Kharif	Рарауа	Arka Prabhath	-	Variety introduct ion	Demonstrati on of high yielding papaya variety Arka Prabhath	1	1	-	5	2	3
8.	Spices and condimen ts	Irrigat ed	Kharif	Black pepper	Panniyur -1	-	IPDM	Quick wilt management in black pepper by using grats	50 graft ed pepp er plants	50 grafte d peppe r plants	1	9	3	7
9.	Commerc ial													
10.	Medicinal													
	and													
	aromatic													
11.	Fodder													
12.	Plantation	Rain fed	Rabi	Cashew	Ullal-1	-	INM	Nutrient management	2	2	-	10	10	-

<b>C</b> 1		E			Variaty/	IIvika	Thematic	Tashralasy	Area	a (ha)	Fa (1	rmers No.)	Farmers	(No.)
No.	Category	Situation	Season	Crop	breed	id	area	Demonstrated	Propos ed	Actual	SC / ST	Others	Small/ Margin al	Oth ers
								and moisture conservation in Cashew for higher yields						
		Home stead	Kharif	Cashew	Ullal-1	-	ICM	Integrated Crop Management in Cashew	2.5	2.5	-	10	4	6
13.	Fibre													
14.	Dairy													
15.	Poultry													
16.	Rabbitry													
17.	Piggery													
18.	Sheep and goat													
19.	Duckery													
20.	Common carps													
21.	Mussels													
22.	Ornamen													
	tal fishes													
23.	Oyster mushroom													
24.	Button mushroom													

<b>S</b> 1		E			Variaty/	I Izzha	Thematic	Tashnalagy	Area	a (ha)	Fa:	rmers No.)	Farmers	(No.)
51. No.	Category	Situation	Season	Crop	breed	id	area	Demonstrated	Propos ed	Actual	SC / ST	Others	Small/ Margin al	Oth ers
25.	Vermico													
	mpost													
26.	Sericulture													
27.	Apiculture													
28.	Impleme													
	nts													
29.	Others	-	-	Fish	Catla,	-	Producti	Mixed carp	3	3	1	2	3	-
	(specify)				Rohu,		on and	seed rearing	Nos	Nos				
					Common		manage	in pens						
					carp		ment	_						
		-	-	Fish	Grass	-	Producti	Management	3	3	-	3	3	-
					carp		on and	of Aquatic	Nos	Nos				
					_		manage	weeds						
							ment	through fish						
								culture						

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hyb rid	Thematic area	Technology Demonstrated	Season and	Sta	atus of	soil	Previous crop grown
									year	Ν	Р	Κ	
1.	Oilsee ds	Rice fallow	Rabi	Groundnut	G2-52	-	Variety introducti on	Farmers participato ry mode of seed production activity in Groundnut variety G2-52	Rabi	М	M	L	Paddy
		Rice Fallow	Rabi	Sesamum	DS-5	-	Variety introducti on	Introduction of high yielding DS-5 white seeded Sesamum variety in paddy fallows	Rabi	L	М	L	Black gram
2.	Pulses	Rice Fallow	Rabi	Fieldbean	HA-4	-	ICM	Integrated Crop Manageme nt in HA-4 Field bean variety	Rabi	М	М	L	Paddy
3.	Cereals	Rainfed	Kharif	Paddy	MO-4	-	ICM	Soil acidity manageme nt in paddy	Kha rif	М	М	L	Paddy

# 5.A. 1. Soil fertility status of FLDs plots, if analysed

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hyb rid	Thematic area	Technology Demonstrated	Season and year	Sta	tus of P	soil K	Previous crop grown
		Rainfed	Kharif	Paddy	MO-4	-	ICM	ICM in paddy	Kha rif	L	L	L	Paddy
4.	Millets												
5.	Vegetabl es	Irrigated	Rabi	Frenchbean	Arka Sharath	-	ICM	Demonstra tion of French bean variety Arka Sharath for high yield	Rabi	М	М	L	Paddy
		Irrigated	Rabi	Amaranth us	-	-	IPDM	IPDM in Amaranthus Cultivation	Rabi	М	М	L	-
		Irrigated	Rabi	Nutrition garden	Bhendi Amara nthus Field bean,C hilli Tomato Brinjal bottlego urd	-	Nutrition al security	Demonstra tion of Nutritional Garden for Nutrition Security among School Children	Rabi	L	L	М	_
		Irrigated	Rabi	Terrace garden	Palak, Amarant hus, Cowpea, Bhendi Chilli, Brinjal Bottlego urd	-	INM	Demonstra tion of Terrace Gardening for Nutrition Security	Rabi	L	L	M	_

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hyb rid	Thematic area	Technology Demonstrated	Season and	Sta	itus of	soil	Previous crop grown
									year	Ν	Р	Κ	0
					ridgegou rd bittergo urd								
6.	Flowers												
7.	Ornament al												
8.	Fruit	Irrigated	Kharif	Рарауа	Arka Prabha th	-	Variety introducti on	Demonstra tion of high yielding papaya variety Arka Prabhath	Kha rif	L	М	L	_
9.	Spices and condime nts	Irrigated	Kharif	Black pepper	Panniy ur-1	-	IPDM	Quick wilt manageme nt in black pepper by using grats	Kha rif	L	М	L	Pepper
10.	Comme rcial												
11.	Medicin al and aromatic												
12.	Fodder												
13.	Plantati on	Rainfed	Rabi	Cashew	Ullal-1	-	INM	Nutrient management and moisture conservation	Rabi	L	L	L	Cashew

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hyb rid	Thematic area	Technology Demonstrated	Season and year	Sta	itus of	soil	Previous crop grown
								in Cashew for higher vields		N	P	K	
		Homest ead	Kharif	Cashew	Ullal-1	-	ICM	Integrated Crop Management in Cashew	Kha rif	L	L	L	Cashew
14.	Fibre												
15.	Fishery	-	-	Fish	-	-	Production and managem ent	Mixed carp seed rearing in pens	-	-	-	-	-
		-	-	Fish	-	-	Production and managem ent	Management of Aquatic weeds through fish culture	-	-	-	-	-

#### 5.B. Results of FLDs

5.B.1. Crops

Cron	Name of the	Variaty	Hyb	Farming situation	No. of	Area		Yield	(q/ha)		%	*Econor	nics of dem	onstration	(Rs./ha)	:	*Economic (Rs.	s of check /ha)	
Crop	demonstrated	variety	rid		De mo.	(ha)		Demo		Check	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net	** BCR
							Н	L	А			0000	Iterain	rtoturn	Ben	0000	10000111	Iteruin	Ben
Oilseeds	Farmers participatory mode of seed production activity in Groundnut variety G2-52	G2-52	-	Rice fallow	12	4	29.50	26.50	27.75	24.50	13.26	25180	122100	96920	4.84	25180	107800	82620	4.28
	Introduction of high yielding DS-5 white seeded Sesamum variety in paddy fallows	DS-5	-	Rice Fallow	10	4	4.50	4.10	4.30	4.10	4.87	18000	38700	20700	1.86	18000	24600	6600	1.33
Pulses	Integrated Crop Management in HA-4 Field bean variety	HA-4	-	Rice Fallow	10	4	13.20	11.80	12.25	11.50	6.52	16860	38490	21630	2.28	15720	35108	19388	2.23
Cereals	Soil acidity management in paddy	MO-4	-	Rainfed	10	4	63.12	57.21	60.70	50.75	12.72	30370	67780	37410	2.23	29590	56183	26593	1.8
	ICM in paddy	MO-4	-	Rainfed	5	2	43	42	42.5	38	16.15	18000	70975	52975	3.94	21000	63460	42460	3.02
Millets																			
Vegetables	Demonstration of French bean variety Arka Sharath for high yield	Arka Sharath	-	Irrigat ed	20	2	162.10	137.8	146.4	122.1	19.90	83320	204946	121626	2.45	72978	146484	73506	2.007
	IPDM in Amaranthus Cultivation	-	-	Irrigat ed	5	2	170	127	148.5	113.5	30.83	24800	74250	49450	2.99	22000	56750	34750	2.58
	Demonstration of Nutritional Garden for Nutrition Security among School Children	Bhendi, Amara nthus Field bean,C hilli, Tomato ,Brinjal ,bottleg ourd	-	Irrigat ed	5	-	-	-	127 kg	-	-	900	3185	2285	3.53	-	-	-	-

6	Name of the	<b>X</b> 7	Hyb	Farming situation	No. of	Area		Yield	(q/ha)		%	*Econor	nics of dem	onstration	(Rs./ha)		*Economic (Rs./	s of check 'ha)	
Crop	demonstrated	variety	rid		De	(ha)		Demo		Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	** DCD
					mo.		Н	L	А			Cost	Return	Return	BCK	Cost	Return	Return	BCK
	Demonstration of Terrace Gardening for Nutrition Security	Palak, Amara nthus, Cowpea, Bhendi, Chilli, Brinjal, Bottleg ourd, ridgego urd, bittergo urd,	-	Irrigat ed	5	-	-	-	85 kg	-	-	1193	2550	1357	2.13	-	-	-	-
Flowers		, , , , , , , , , , , , , , , , , , , ,																	
Ornamental																			
Fruit	Demonstration of high yielding papaya variety Arka Prabhath	Arka Prabhat h	-	Irrigated	5	1	721.4	573.1	663.2	523.8	26.61	197684	610162	412478	3.08	187109	481878	294769	2.57
Spices and condiments	Quick wilt management in black pepper by using grafts	Panniy ur-1	-	Irrigated	10	50 graft ed pepp er plants							On going						
Commerci																			
al																			
Fibre crops																			
like cotton																			
Medicinal																			
and																			
aromatic																			
Fodder																			
Plantation	Nutrient management and moisture conservation in Cashew for higher yields	Ullal-1	-	Rain fed	10	2	15.10	10.23	13.26	10.32	28.48	50124	198837	148713	3.96	46174	132619	86445	2.87
	Management in Cashew	Ullal-1	-	fed	10	1	14.18	10.99	12.68	10.53	19.56	54363	188947	134584	3.47	49083	152729	103646	3.11

Cror	Name of the	Variaty	Hyb	Farming situation	No. of	Area		Yield	l (q/ha)		%	*Econor	nics of dem	onstration	Rs./ha)	:	*Economic: (Rs./	s of check 'ha)	
Сгор	demonstrated	variety	rid		De mo.	(ha)		Demo H L A		Check	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							Н	L	А										
Fibre																			
Others (pl.specify)	Method demonstration				5		-	-	100 kg	-	-	1050	4000	2950	3.80	-	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone. \*\* BCR= GROSS RETURN/GROSS COST

H – Highest Yield, L – Lowest Yield A – Average Yield

### Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/diseases etc.)

	Data on other parameters in relation	n to technology demonstrated
Parameter with unit	Demo	Check

#### 5.B.2. Livestock and related enterprises -Nil-

	Name of the			Na	v	Gald	(lra/	animal)		*Eco	nomics of	f demonstr	ation	*	Economic	es of chec	k
Type of livestock	technology	Brood	No. of	NO.	I	leiu	(kg/	ammai)	%		Rs./	unit)			(Rs./	/unit)	
Type of fivestock	demonstrated	Dieeu	Demo	01 Unite	т	Jom	0	Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
	uemonstrateu			Onits	1	Jem	0	if any		Cost	Return	Return	BCR	Cost	Return	Return	BCR
					Η	L	Α										
Dairy																	
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others																	
(pl.specify)																	

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)

	Data on other parameters in relation	n to technology demonstrated
Parameter with unit	Demo	Check if any

#### 5.B.3. Fisheries

Turno of	Name of the		No. of	Units/		Yield	(q/ha)		0/	*Econon	nics of demon (Rs./r	stration Rs./un2)	init) or		*Economics Rs./unit) or	of check (Rs./m2)	
Breed	technology demonstrated	Breed	Demo	Area (m <sup>2</sup> )		Demo		Chec k if any	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					Н	L	Α										
Common																	
carps																	
Mussels																	
Ornamental																	
fishes																	
Others																	
(pl.specify)																	
Fisheries	Mixed carp seed rearing in pens		3	3	2.51	2.18	2.34	0.90	160	58675	468000	409325	7.98	62650	180000	117350	2.87
	Management of Aquatic weeds through fish culture		3	3	On going												

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

### Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.)

	Data on other parameters in relat	ion to technology demonstrated
Parameter with unit	Demo	Check if any

#### 5.B.4. Other enterprises – Nil-

Entermine	Name of the	Variety/	No. of	Units/			Yiel	d	%	*Eco (	nomics of Rs./unit) c	demonstra or (Rs./m2)	ation	*I (F	Economic Rs./unit) c	s of chector (Rs./m2	k 2)
Enterprise	demonstrated	species	Demo	${\rm Area} {\rm m^2}$	г	)em	0	Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
	aomonstratoa			(	-		°	if any		Cost	Return	Return	BCR	Cost	Return	Return	BCR
					Η	L	Α										
Oyster																	
mushroom																	

Button									
mushroom									
Vermicompost									
Sericulture									
Apiculture									
Others									
(pl.specify)									

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.)

	Data on other parameters in relation	n to technology demonstrated
Parameter with unit	Demo	Local

### 5.B.5. Farm implements and machinery –Nil-

Name of the	Cost of the implement	Name of the technology demonstrated	No. of	Area covered under	Lab require Man	oour ment in idays	%	Savings in labour	*Ecoi	nomics of (Rs.	demonstr /ha)	ation	;	*Economi (Rs	cs of che s./ha)	ck
implement	in Rs.		Denio	demo	Domo	Chask	save	(Rs./ha)	Gross	Gross	Net	**	Gross	Gross	Net	**
				in ha	Demo	Check			cost	Return	Return	BCR	Cost	Return	Return	BCR

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than laboursaved (viz., reduction in drudgery, time etc.)

	Data on other parameters in relation	n to technology demonstrated
Parameter with unit	Demo	Local

#### 5.B.6.Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	8	480	-
2	Farmers Training	67	3317	-
3	Media coverage	44	-	-
4	Training for extension functionaries	1	14	-
5	Others (Please specify)	-	-	-

### PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids -Nil-

	Name of the	Name				Yie	1d (c	ı/ha)		*Ecor	nomics of	demonstr	ation	*I	Economic	s of chec	k
Type of Breed	technology	of the	No. of	Area				[)	%		(Rs.	/ha)			(Rs.	/ha)	
Type of Breed	demonstrated	hybrid	Demo	(ha)	г	)em	0	Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
	demonstrated	nyona			-		0	CHEEK		Cost	Return	Return	BCR	Cost	Return	Return	BCR
					Η	L	Α										
Cereals																	
Bajra																	
Maize																	
Paddy																	
Sorghum																	
Wheat																	
Others																	
(pl.specify)																	
Total																	
Oilseeds																	
Castor																	
Mustard																	
Safflower																	
Sesame																	
Sunflower																	
Groundnut																	
Soybean																	
Others																	
(pl.specify)																	
Total																	
Pulses																	
Greengram																	
Blackgram																	
Bengalgram																	
Redgram																	
Others																	
(pl.specify)																	

Total									
Vegetable									
crops									
Bottle gourd									
Capsicum									
Others									
(pl.specify)									
Total									
Cucumber									
Tomato									
Brinjal									
Okra									
Onion									
Potato									
Field bean									
Others									
(pl.specify)									
Total									
Commercial									
crops									
Sugarcane									
Coconut									
Others									
(pl.specify)									
Total									
Fodder crops									
Maize									
(Fodder)									
Sorghum									
(Fodder)						 			
Total									

H-High L-Low, A-Average

\*Please ensure that the name of the hybrid is correct pertaining to the crop specified

## <u>PART VII. TRAINING</u> 7.A.. Training of Farmers and Farm Women including sponsored training programmes (On campus)

	No. of				No	o. of Particip	oants			
Area of training	Courses		General			SC/ST			<b>Grand Tota</b>	1
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies	1	24	7	31	-	-	-	24	7	31
Cropping Systems	2	42	25	67	-	-	-	42	25	67
Crop Diversification										
Integrated Farming	1	8	6	14	-	-	-	8	6	14
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs	2	19	45	64	-	-	-	19	45	64
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	1	0	20	20	-	-	-	0	20	20
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1	59	8	67	-	-	-	59	8	67
Others (pl.specify)										

	No. of				No	o. of Particip	oants			
Area of training	Courses		General			SC/ST			Grand Tota	al
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology	1	39	2	41	2	2	4	41	4	45
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology	1	109	11	120	-	-	-	109	11	120

	No. of				No	o. of Particip	oants			
Area of training	Courses		General			SC/ST			Grand Tota	ıl
	courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management	2	167	72	239	-	-	-	167	72	239
Integrated water management										
Integrated nutrient management	2	20	60	80	-	-	-	20	60	80
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management	1	0	53	53	0	15	15	0	68	68
Poultry Management	2	103	23	126	19	4	23	122	27	149
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										

	No. of				No	o. of Particip	oants			
Area of training	Courses		General			SC/ST			Grand Tota	ıl
	courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	14	16	30				14	16	30
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance	1	16	4	20	2	2	4	18	6	24
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition	1	24	6	30				24	6	30
Post Harvest Technology										

	No of				No	. of Particip	oants			
Area of training	Courses		General			SC/ST			Grand Tota	ıl
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
Plant Protection										
Integrated Pest Management	1	81	26	107				81	26	107
Integrated Disease Management	1	0	29	29				0	29	29
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming	1	12	6	18	7	2	9	19	8	27
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture	2	74	5	79	40	-	40	114	5	119
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn	1	88	16	104	34	8	42	122	24	146
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)Awareness of responsible fishing and importance of fishing ban among indigenous fisher folk of Udupi District	1	19	0	19				19	0	19
Production of Inputs at site										
Seed Production										
Planting material production										

	No of	No. of Participants										
Area of training	LNO. OI Courses		General			SC/ST			Grand Tota	al		
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Bio-agents production												
Bio-pesticides production												
Bio-fertilizer production												
Vermi-compost production												
Organic manures production												
Production of fry and fingerlings												
Production of Bee-colonies and wax sheets												
Small tools and implements												
Production of livestock feed and fodder												
Production of Fish feed												
Mushroom production												
Apiculture												
Others (pl.specify)												
CapacityBuilding and Group Dynamics												
Leadership development												
Group dynamics												
Formation and Management of SHGs												
Mobilization of social capital												
Entrepreneurial development of farmers/youths												
Others (pl.specify)												
Agro-forestry												
Production technologies												
Nursery management												
Integrated Farming Systems		1										
Others (Pl. specify)		1										
TOTAL	27	918	440	1358	104	33	137	1022	473	1495		

### 7.B Training of Farmers and Farm Women including sponsored training programmes (Off campus)

	No. of				No	o. of Particip	oants			
Area of training	Courses		General			SC/ST			Grand Tota	l
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	6	50	76	126				50	76	126
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	35	85	120				35	85	120
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	4	52	99	151	15	4	19	67	103	170
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1	65	55	120				65	55	120
Others (pl.specify)										

	No. of	No. of No. of Participants									
Area of training	Courses		General			SC/ST			Grand Tota	al	
	e our ses	Male	Female	Total	Male	Female	Total	Male	Female	Total	
b) Fruits											
Training and Pruning											
Layout and Management of Orchards											
Cultivation of Fruit	1	19	5	24				19	5	24	
Management of young plants/orchards											
Rejuvenation of old orchards											
Export potential fruits											
Micro irrigation systems of orchards											
Plant propagation techniques											
Others (pl.specify)											
c) Ornamental Plants											
Nursery Management											
Management of potted plants											
Export potential of ornamental plants											
Propagation techniques of Ornamental Plants											
Others (pl.specify)											
d) Plantation crops											
Production and Management technology	2	59	22	81				59	22	81	
Processing and value addition											
Others (pl.specify)											
e) Tuber crops											
Production and Management technology											
Processing and value addition											
Others (pl.specify)											
f) Spices											
Production and Management technology	1	15	-	15				15	-	15	

	No of				N	o. of Partici	pants			
Area of training	Courses		General			SC/ST			Grand Tota	al
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management	2	130	70	200				130	70	200
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										

	No. of				No	o. of Particij	pants			
Area of training	Courses		General			SC/ST			Grand Tota	al
	eourses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	34	82	116	0	8	8	34	90	124
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	30	23	53				30	23	53
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)Capacity building training programme for EWR of Panchayat Raj System	1	0	36	36				0	36	36
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										

Area of training	No. of	No. of Participants											
Area of training	Courses		General			SC/ST			Grand Tota	ıl			
	courses	Male	Female	Total	Male	Female	Total	Male	Female	Total			
Post Harvest Technology													
Others (pl.specify)													
Plant Protection													
Integrated Pest Management	2	34	17	51	1	0	1	35	17	52			
Integrated Disease Management	2	102	55	157				102	55	157			
Bio-control of pests and diseases													
Production of bio control agents and bio pesticides													
Others (pl.specify)Beekeeping	1	29	8	37				29	8	37			
Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture	1	25	6	31	18	3	21	43	9	52			
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others (pl.specify) Biological control of aquatic weeds by culture of grass carp	1	16	11	27	7	6	13	23	17	40			
Production of Inputs at site													
Seed Production													
Planting material production													

	No of	No. of Participants									
Area of training			General			SC/ST			Grand Tota	al	
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Bio-agents production											
Bio-pesticides production											
Bio-fertilizer production											
Vermi-compost production											
Organic manures production											
Production of fry and fingerlings											
Production of Bee-colonies and wax sheets											
Small tools and implements											
Production of livestock feed and fodder											
Production of Fish feed											
Mushroom production											
Apiculture											
Others (pl.specify)											
CapacityBuilding and Group Dynamics											
Leadership development											
Group dynamics											
Formation and Management of SHGs											
Mobilization of social capital											
Entrepreneurial development of farmers/youths											
Others (pl.specify)											
Agro-forestry											
Production technologies											
Nursery management											
Integrated Farming Systems											
Others (Pl. specify)											
TOTAL	31	695	650	1345	41	21	62	736	671	1407	

7.	C.Trai	ining	for	Rura	Yo	uths	incl	luding	z si	ponsored	trainin	g	prog	grammes	(on	cam	pus)	-1	Nil-
									<b>-</b>				~ ~ ~ 7		· · · · ·				

	No. of				No.	of Particip	ants			
Area of training	Courses		General			SC/ST		(	Grand Tota	ıl
	courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										

Area of training	No. of	No. of Participants									
Area of training	Courses		General			SC/ST			Grand Tota	ıl	
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Poultry production											
Ornamental fisheries											
Composite fish culture											
Freshwater prawn culture											
Shrimp farming											
Pearl culture											
Cold water fisheries											
Fish harvest and processing technology											
Fry and fingerling rearing											
Any other (pl.specify)											
TOTAL											

# 7.D. Training for Rural Youths including sponsored training programmes (off campus)- Nil-

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										

Area of training	No. of Courses	No. of Participants									
		General			SC/ST			Grand Total			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Bee-keeping											
Sericulture											
Repair and maintenance of farm machinery and implements											
Value addition											
Small scale processing											
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts											
Production of quality animal products											
Dairying											
Sheep and goat rearing											
Quail farming											
Piggery											
Rabbit farming											
Poultry production											
Ornamental fisheries											
Composite fish culture											
Freshwater prawn culture											
Shrimp farming											
Pearl culture											
Cold water fisheries											
Fish harvest and processing technology											
Fry and fingerling rearing											
Any other (pl.specify)											
TOTAL											
7.E.Training programmes for Extension Personnel including sponsored training programmes (on campus)

	No of	No. of No. of Participants									
Area of training	Courses	(	General			SC/ST			Grand Tota	al	
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Productivity enhancement in field crops											
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
Protected cultivation technology											
Production and use of organic inputs											
Care and maintenance of farm machinery and implements											
Gender mainstreaming through SHGs											
Formation and Management of SHGs											
Women and Child care											
Low cost and nutrient efficient diet designing											
Group Dynamics and farmers organization											
Information networking among farmers											
Capacity building for ICT application											
Management in farm animals											
Livestock feed and fodder production											
Household food security											
Any other (pl.specify) Farmers field school and Integrated farming systems	1	12	2	14				12	2	14	
Total	1	12	2	14				12	2	14	

#### 7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus)-Nil-

		No. of Participants									
Area of training	Courses	General			SC/ST			Grand Total			
	courses	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Productivity enhancement in field crops											
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
Protected cultivation technology											
Production and use of organic inputs											
Care and maintenance of farm machinery and implements											
Gender mainstreaming through SHGs											
Formation and Management of SHGs											
Women and Child care											
Low cost and nutrient efficient diet designing											
Group Dynamics and farmers organization											
Information networking among farmers											
Capacity building for ICT application											
Management in farm animals											
Livestock feed and fodder production											
Household food security											
Any other (pl.specify)											
Total											

#### 7.G. Sponsored training programmes conducted

		No. of				No.	of Participa	ants			
S.No.	Area of training	Courses		General			SC/ST			<b>Grand Total</b>	
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops	3	87	14	101	9	4	13	96	18	114
1.b.	Commercial production of vegetables										
2	Production and value addition										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	Soil health and fertility management	1	80	20	100				80	20	100
4	Production of Inputs at site										
5	Methods of protective cultivation										
6	Others (pl.specify)										
7	Post harvest technology and value addition										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	Farm machinery										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c	Fisheries Nutrition										
10.d	Fisheries Management	1	54	0	54	15	0	15	69	0	69
10.e.	Others (pl.specify)										
11.	Home Science										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	Agricultural Extension										
12.a.	CapacityBuilding and Group Dynamics	2	25	42	67	18	3	21	43	45	88
12.b.	Others (pl.specify)										
	Total	7	246	76	322	42	7	49	288	83	371

		No of	No. of Participants								
S.No.	Area of training	TNU. 01 Courses		General			SC/ST			Grand Tota	I
		Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	Post harvest technology and value addition										
2.a.	Value addition	1	2	28	30				2	28	30
2.b.	Others (pl.specify)										
3.	Livestock and fisheries										
3.a.	Dairy farming										
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl.specify)										
4.	Income generation activities										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides,										
	bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery										
	and implements										
4.d.	Rural Crafts										
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (pl.specify)										
5	Agricultural Extension										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl.specify) Beekeeping	1	24	6	30				24	6	30
	Grand Total	2	26	34	60				26	34	60

## 7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth

## PART VIII – EXTENSION ACTIVITIES

## Extension Programmes (including extension activities undertaken in FLD programmes)

Nature of Extension	No. of Programmes	No. of	Participants (C	General)	No	o. of Participa SC / ST	ints	No.of	extension per	sonnel
Programme		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	8	352	57	409	31	30	61			
Kisan Mela/Kisan Ghosthi	4	3800	700	4500	59	50	109			
Exhibition	12	49800	6900	56700	40	9	49			
Film Show	10									
Method Demonstrations	12	543	104	647						
Farmers Seminar										
Workshop	4	48	7	55						
Group meetings	39	979	120	1099	3	0	3			
Lectures delivered as resource	85	4300	1300	5600	39	4	43			
persons										
Newspaper coverage	24									
Radio talks	8									
TV talks	2									
Popular articles	6									
Extension Literature	5									
Advisory Services	945	920	50	970	69	6	75			
Scientific visit to farmers field	114	497	17	514	5	3	8			
Farmers visit to KVK	1903	1487	28	1515	300	88	388			
Diagnostic visits	14	97	23	120	2	2	4			
Exposure visits	2	50	27	77						
Ex-trainees Sammelan	-			-						
Soil health Camp	-			-						
Animal Health Camp	-			-						
Agri mobile clinic	-			-						
Soil test campaigns	-			-						
Farm Science Club Conveners	-			-						
meet										
Self Help Group Conveners	-			-						
meetings										
Mahila Mandals Conveners	-			-						

Nature of Extension	No. of Programmes	No. of	No. of Participants (General) No. of Participants SC / ST		No.of	No.of extension personnel				
Programme		Male	Female	Total	Male	Female	Total	Male	Female	Total
meetings										
Celebration of important days (specify)	9	872	4	876	50	36	86			
Research paper published in scientific journals	5									
Farm trials	3									
Seminars	1	97	4	101						
Bi monthly	4							128	42	170
Tri monthly	4							200	8	208
Any Other (Specify)										
Krishimela (participated / exhibited)	1	38200	12800	51000	11000	27	11027	1700	1300	3000
Farmers - Scientist interaction	20	597	273	870						
SMS Messages	29	2962	21	2983	70	30	100			
Total	3273	105501	22435	127936	11668	285	11953	2028	1350	3378

# PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS 9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Name of the Variety	Name of the Hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Bulk paddy	MO-21	-	18.793	30069.92	1
Oilseeds						
Pulses						
Commercial crops						
Vegetables	Lady's finger	White velvet (Halu bhendi)	-	0.563	67560	76
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (specify)						
Total				19.356	97629.92	77

# 9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	Cashew	Ullal-1		500	12500	15
Vegetable seedlings						
Fruits	Papaya	-	Thaiwan red lady	5653	84795	226
	Papaya	Arka Prabhath	-	1129	16935	11
	Sapota	Cricket ball	-	30	1500	3
Ornamental plants						
Medicinal and Aromatic						
Plantation						
	Coconut	WCT		1621	97260	85
	Arecanut	Mohit nagar		2418	48360	238
Spices						
	Black pepper	Panniyur1		6082	60820	166
	Black pepper	Panniyur5		156	1560	28
	Black pepper	Panniyur7		29	290	3
	Black pepper	IISR Srikara		295	2950	19
	Black pepper	IISR Shakthi		318	3180	13
	Black pepper	IISR Thewam		426	4260	94
	Bush pepper	Panniyur-1		121	3630	7
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)Flowers	Jasmine	Udupi Jasmine		524	15720	89
Total				19302	353760	997

## 9.C. Production of Bio-Products – Nil-

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others (specify)				
Total				

## 9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers	Giriraja/Swarnadhara	3605	324450	136
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings	Rohu/Catla/Common carp	2267	11335	13
Others (Pl. specify)				
Total		5872	335785	149

# PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION

# 10. A. Literature Developed/Published (with full title, author & reference)

## (A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

## (B) Literature developed/published

Item	Title	Authors name	Number
Research papers	1. Popularization of Mechanized	Dr. N.E Naveen	International journal on Agricultural
	Technologies in Paddy	Mr. Chaitanya H.S Dr. B. Dhananjaya	Sciences Vol.7 Issue-2, 2016
	through Front Line	Dr. Jayalaxmi N	
	Demonstrations in Coastal	Hegde Dr. Jayaprakash R.	
	Karnataka of Udupi		
	District.(Journal Name:		
	International Journal of		
	Agricultural Sciences		
	7(2):133-136, July-December		
	2016).		
	2. Impact of front line	Dr. N.E Naveen	International journal on Agricultural
	demonstration on productivity	Mr. Chaitanya H.S Dr. Jayalaxmi N	Sciences Vol.8 Issue-1, 2017
	of Groundnut in farmers fields	Hegde	
	of Coastal Karnataka Udupi	Dr. B. Dhananjaya	
	District.(Journal Name:		
	International Journal of		
	Agriculture Sciences Vol.9,		

	133dc 57,2017,pp +301 +302.j		
	<ol> <li>An Impact Assessment of on Farm Testing (OFTs) on Blackgram Growers in Udupi District of Coastal Karnataka. (Journal Name: International Journal of Agricultural Sciences 8(1):1-3,January-June 2017.</li> </ol>	Dr. N.E Naveen Mr. Chaitanya H.S Dr. B. Dhananjaya Dr. Jayalaxmi N Hegde	International journal on Agricultural Sciences Vol.8 Issue-1, 2017
Folders	ಸಾವಯವ ಕಾಳು ಮೆಣಸು ಉತ್ಪಾದನೆ	Dr. H.S. Chaitanya	
Tolders	ಹಾಗೂ ಬುಡಕೊಳೆ ರೋಗದ ನಿರ್ವಹಣೆ	Dr. R. Dhananiava	
		Dr. N.E. Naveen	
	ಅಡಿಕೆ ಬೇರು ಹುಳುವಿನ ಜೀವನ ಚರಿತ್ರೆ,	Sri Kumara B.B.	
	ಹಾನಿಯ ಲಕ್ಷಣಗಳು ಮತ್ತು ಸಮಗ್ರ	Dr. B. Dhananjaya	
	ಹತೋಟ ಕ್ರಮಗಳು	Dr. S.U. Patil	
		Dr. H.S. Chaitanya	
		Dr. N.E. Naveen	
		Kumari Kavyashree	
		M.C	
	ತೆಂಗಿಗೆ ಬರುವ ಪ್ರಮುಖ ಕೀಟಗಳು ಮತ್ತು	Sri Kumara B.B.	
	ಅವುಗಳ ಸಮಗ್ರ ಹತೋಟ ಕ್ರಮಗಳು	Dr. B. Dhananjaya	
		Dr. S.U. Patil	
		Dr. H.S. Chaitanya	
		Dr. N.E. Naveen	
		Kumari Kavyashree	
	ಸುತ್ತಿಸದ ತಿರುದಾನ . ಸೆಂಬಸಡೆಗೆ ನಡದಾನ	M.C	
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		Padeppagol	
		Dr. B. Dhananjaya	
		Dr. N.E. Naveen	
Folders	ಸಾವಯವ ಕಾಳು ಮೆಣಸು ಉತ್ಪಾದನೆ ಹಾಗೂ ಬುಡಕೊಳೆ ರೋಗದ ನಿರ್ವಹಣೆ ಅಡಿಕೆ ಬೇರು ಹುಳುವಿನ ಜೀವನ ಚರಿತ್ರೆ. ಹಾನಿಯ ಲಕ್ಷಣಗಳು ಮತ್ತು ಸಮಗ್ರ ಹತೋಟ ಕ್ರಮಗಳು ತೆಂಗಿಗೆ ಬರುವ ಪ್ರಮುಖ ಕೀಟಗಳು ಮತ್ತು ಅವುಗಳ ಸಮಗ್ರ ಹತೋಟ ಕ್ರಮಗಳು	Mr. Chaitanya H.S Dr. B. Dhananjaya Dr. Jayalaxmi N Hegde Dr. H.S. Chaitanya Dr. B. Dhananjaya Dr. N.E. Naveen Sri Kumara B.B. Dr. B. Dhananjaya Dr. S.U. Patil Dr. H.S. Chaitanya Dr. N.E. Naveen Kumari Kavyashree M.C Sri Kumara B.B. Dr. B. Dhananjaya Dr. S.U. Patil Dr. H.S. Chaitanya Dr. S.U. Patil Dr. H.S. Chaitanya Dr. N.E. Naveen Kumari Kavyashree M.C Sri Siddarudh Padeppagol Dr. B. Dhananjaya Dr. H.S. Chaitanya Dr. N.E. Naveen	Sciences Vol.8 Issue-1, 2017

	Sri Kumara B.B.	
	Dr. Jayaprakash R.	
Technical reports		
News letters		
Technical bulletins		
Popular articles		
Extension literature		
Others (Pl. specify)		
TOTAL		

#### 10.B. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
1.	DVD	Hydroponics for green fodder production	10
2	DVD	Groundnut G2-52 production technology	10

# 10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

This will be considered only with suitable photos for further reporting/reference.

The Broad outline for the case study may be

## Success story : 1 Popularization of farm mechanization in Paddy through Front Line Demonstrations in Coastal Karnataka of Udupi district (Success Story)

**Background:** Rice cultivation in Udupi district is declining at an increasing rate. The total area under rice cultivation declined from 62,290 ha in 2004-05 to 51,597 hectares in 2013-14 (Department of Agriculture Udupi). Labour scarcity being the major reason for the decline and to overcome this, farm mechanization is considered as an important remedial measure. However there are several constraints for wider adoption of farm mechanization in Udupi district especially for crops like paddy for reasons such as pre-dominance of small and marginal farms, fragmentation of land holdings and non-availability of suitable equipments

## Challenge:

- Decrease in area under paddy cultivation: Conversion of paddy fields to horticultural crops and non-agricultural purposes is wide spread in the district.
- *High labour cost*: The younger generation, particularly the literate is reluctant to adopt agriculture as a profession.
- Migration: Migration to foreign countries, especially to the gulf countries is another reason for the rise in cost of production.

**Programme Activities**: ICAR - Krishi Vigyan Kendra, Brahmavar, Udupi conducted a large number of 40 front line demonstration were conducted at 40 farmers' fields from 2010 to 2013 (4 years) to evaluate the performance of mechanical transplanted rice (MTR), Conoweeder and Mechanical harvesting under puddled condition in rainfed situations as compared to the conventional puddled transplant rice (CPTR) system, Hand weeding and Manual Harvesting. "Mat type" nursery was prepared for transplanting with self propelled paddy transplanter (powered by a 4.5 HP diesel engine with fuel consumption of 0.5 l/hr during field operations). It could plant 4 rows in one pass at a spacing of 23.5 cm  $\times$  12 or 14 cm with 35 and 30 hills m<sup>2</sup>, respectively. Similarly, the number of plants per hill could be adjusted (2 - 4 plants per hill). The cono weeder is generally used in Transplanted paddy for weed management practice. Twin wheel hoe is used for weed management. Combine harvester having 2 to 6 m long cutter bar are used in the demonstration. Production and economic data for FLDs and local practices were collected and analyzed. The extension gap, technology gap and technology index were calculated.

Extension gap (qha-1) = Demonstration yield (qha-1) – yield of local check (qha-1)

Technology gap (qha-1) = Potential yield (qha-1) - Demonstration yield (qha-1)

Technology index (%) = Potential yield (qha-1)- Demonstration yield/ Potential yield x100

**Results**: The data of the front line demonstration presented in Table 1 showed that use of Mechanical transplanting, Conoweeder and Mechanical harvesting reflected the yield of paddy crop fluctuated successively over the year. The demonstration plot gave maximum yield in system of mechanization from 53.4 q/ha to 58.0 q/ha against traditional practices / farmers' practices 49.0 q/ha to 55.0 q/ha. There was 7.76 per cent average increase in yield. The increase in yield is due to the less labour intensive operation, helps in line transplanting, easy weeding and intercultural operations.

The data indicated that the positive effect of front line demonstration over local farmers practices (Table 2) towards increasing the yield of paddy crop in Udupi district of Coastal Karnataka. The technology gap i.e the difference between potential yield and demonstrated plots yield was ranging from 2.0 to 5.2 q/ha during 2010 to 2013. The technology index revels the feasibility of the demonstration technology as values were lowered in three years of FLD. As such variation in technology index (8.87, 4.95, 4.91 and 3.33%) during the demonstration period in certain area may be attributed to the difference in soil fertility status, weather condition, non availability of irrigation water and insect –pest attack in the crop. The Economics of front line demonstration under mechanization in paddy have been presented in Table 3. The economic revealed that average gross cost Rs.27,354 was lower than the farmers' practices Rs. 28,790 per ha about 4.98% with recording average gross returns Rs. 60,841 per ha and average net return Rs.33,488 per ha. The average benefit cost ratio of demonstrated plot (2.24) was also more than the farmers' practices (2.02).

*Impact:* Paddy mechanization technology was initially adopted in 40 ac during (2010 to 2013) presently this technology horizontally spread in area of 6000 ac (2015 to 2017). This all due to Agriculture Department the Government of Karnataka has decided to establish Custom Hire Service Centre (CHSC) at hobli-level, with an objective to assist the small and marginal farmers to provide machineries at their door steps. In Udupi district at present 12 Custom Hire Service Centre (CHSC) operating since 2015.

Year	Name of Black/Village	Technology	No. of	Area (ba)		% increase		
		demonstrated	Demos	(114)	Demo (Max)	Average	Check Avg	in yield
2010-11	Kota, Udupi Taluk	Transplanting with 4	10	4.0	58.6	53.4	49.2	7.2
2011-12	Hemmadi, Kundapura Taluk	row, Cono-weeder at	10	4.0	60.5	57.5	55.0	5.0
2012-13	Koteshwara, Kundapura Taluk	$15^{\text{th}} \& 30^{\text{th}} \text{ DAT and}$	10	4.0	61.0	58.0	52.0	13.46
2013-14	Saligrama, Udupi Taluk	Combined Harvester	10	4.0	60.0	58.0	55.0	5.4

Table:1 Yie	ld performance	of Paddy in me	chanization unde	r FLD progi	ramme in Udup	oi District of	Coastal Karnataka
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#### Table:2 Yield performance of Mechanization in Paddy demonstrated under FLD programme in Udupi district

Voor	Amon (ha)	No of	<b>Potential Yield</b>	Demo yield	Check Yield	Extn. Gap	Tech. gap	Tech. index
rear	Area (lla)	Demo	(q/ha)	(q/ha)	(q/ha)	(q/ha)	(q/ha)	(%)

2010-11	4.0	10	58.6	53.4	49.2	4.2	5.2	8.87
2011-12	4.0	10	60.5	57.5	55.0	2.5	3.0	4.95
2012-13	4.0	10	61.0	58.0	52.0	6.0	3.0	4.91
2013-14	4.0	10	60.0	58.0	55.0	3.0	2.0	3.33

Table:3 Cost economics of Mechanization in Paddy demonstrated under FLD programme in Udupi district

	Demonstration			0	Control / Chec	B:C ratio		
Year	Cost of cultivation (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Cost of cultivation (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Demonstration	Check
2010-11	21,435	60,740	39,305	22,869	56,780	33,911	2.83	2.48
2011-12	28,980	59,625	30,645	30,450	57,250	26,800	2.05	1.88
2012-13	30,000	63,000	33,000	31,250	58,000	26,750	2.10	1.85
2013-14	29,000	60,000	31,000	30,590	58,173	27,583	2.00	1.90

## Success story – 2 : Title: Soil acidity management in coastal soils of Udupi District

**Background:**The average rainfall of Udupi District is 4300 mm and soils are susceptible to leaching, because of this soils of Udupi District are acidic in nature and reclamation of acid soils is a must for every farmer who is doing farming. Soil acidity has resulted in leaching of nutrients, applied manures and fertilizers which resulted in low yield of agriculture and horticulture crops and low income to farming community. Soil health and soil fertility has been deteriorated because of soil acidity. Soil test based lime application is the solution to overcome the soil acidity. This success story is categorized under agriculture in the area of reclamation of problematic soils.

#### Interventions

**Process :** To mitigate and reclaim acidic soils the frontline demonstrations from 2012-2017 and large scale demonstration under GOK plan grants for the year 2017-18 was under taken by Krishi Vigyan Kendra, Brahmavar. Total 7 villages and 450 farmers were selected in paddy growing soil acidity affected areas of Udupi District. Before the demonstration soil samples were collected from the farmers field and tested for soil acidity and lime requirement for the acid soils. Concerned Scientist from Krishi Vigyan Kendra monitored the demonstration plots till the crop was harvested

**Technology:** To overcome the soil acidity soil test based lime application (UAS, Bangalore technology) was undertaken in which soils were tested for acidity and requirement of lime for each and every farmer based on the extent of acidity was calculated and distributed among the farmers. Training on Scientific application of lime was imparted which included how to apply, when to apply and the time of application (Agriculture lime should be applied 21 days prior to the application of fertilizers) and also technical information on lime quality and information on different liming materials was also given along with agriculture lime farmers were also advised to apply dolomite which also plays vital role in correcting soil acidity.

#### Impact

**Horizontal Spread:** For the successful implementation of the demonstration farmers were imparted training with respect to soil acidity management, application of lime and importance of agricultural lime in increasing the soil fertility and yield which finally increased the farmers income. Total 17 training programmes were conducted in the selected villages and more than 1000 farmers were participated in the training and the technology has been disseminated across the Udupi District. More than 20% of the total farmers of the Udupi District are applying lime to correct the soil acidity.

**Economic gains:** Prior to the application of lime or intervention, farmers were getting low yield in paddy in the average yield was 32 qtl/ha and after the demonstration to the average yield of the paddy crop increased to 40 qtl/ha. The yields were increased upto 25% and farmers income increased upto 20%. The impact of the study showed that soil acidity in the demonstration plot was reduced and soil test results after the harvest of the crop showed increased in soil fertility and soil health. The overall impact of soil acidity management in coastal soils of Udupi District has been positive and significant there has been a remarked improvement in the demonstrated areas. Crop yield have risen. Success of this frontline demonstration and large scale demonstration has been seen on the face of the people.

## Success story-3: Wilt Management in Black Pepper- Success story

#### **Brief background :**

Black pepper (*Piper nigrum* L.) is a perennial vine grown for its berries extensively used as spice and in medicine. Udupi district is one of the black pepper growing regions with an area 421 acres and a production of 168.4 tonnes (2014–15) (Source Dept. of Horticulture, Udupi). As this crop is cultivated as a mixed crop in arecanut and coconut gardens, less importance has been given with respect to

management of disease and nutrition management. The major problem addressed by the farmers is the high incidence of foot rot or the quick wilt which is caused by *Phytophthora capsici* and is the most destructive of all diseases of black pepper. The disease occurs mainly during monsoon season and all parts of the vine are vulnerable to the disease.

## Management of Wilt in Black Pepper

As it has been described earlier, black pepper wilt/ quick wilt/ foot rot disease is the most devastating disease and the disease spreads very rapidly causing the wilting of the vine. Hence management of the disease by adopting prophylactic measures and integrated disease management practices can help in controlling the spread of the disease. In this regard ICAR-Krishi Vigyan Kendra, Brahmavar, has conducted 30 front line demonstrations from 2014-15 to 2017-18 and 2 large scale demonstrations, comprising of 100 farmers from each demonstration during 2016-17 and 2017-18. The conventional practice in controlling the disease is spraying of Bordeaux mixture to the infected vine. In the integrated management practice the following technologies were demonstrated to the famers in the areas where the incidence of the disease prevailed.

- 1. Scientific preparation and spraying of Bordeaux mixture and spraying of 1% Bordeaux mixture so that lower portion of the vine was covered with the spray. The second spray was repeated 30 to 35 days after first spray.
- 2. Mulching with plastic sheet and use of microbes
  - Spreading of 1 basket (20 kg) FYM or compost around the base of the vine
  - Application of neem cake 0.5 kg per vine mixed with 50 grams of *Trichoderma viridae*.
  - Drenching of Arka Microbial Consortium 25g/ L (3 litres per vine)
  - To enhance the growth of the of the beneficial micro organisms, the base of the vine was mulched with 1.25m<sup>2</sup> UV resistant polythene sheet tightly around the corner of the vine.
  - After rainy season in September the plastic mulch was removed.

4. Planting of grafted black pepper plants in low lying areas, where Hippali (*Piper colubrinum*) is used as root stock which is resistant to root rot.

#### **Results:**

The data pertaining to yield and percent increase in yield over the check is depicted in Table-1. Higher yield of about 9.09 to 13.92 q/ha was observed in the plots where demonstration of wilt management was taken up compared to 7.62 to 11.05 q/ha observed in the plots where only Bordeaux mixture was sprayed as a control measure for management of wilt disease in black pepper. The increase in yield is mainly due to integrated management of wilt disease conducted through demonstrations.

The technology gap which is the difference between the potential yield and demonstrated yield recorded was 2.41 q/ha, 1.65 q/ha and 1.28 q/ha in the year 2014-15, 2015-16 and 2016-17 respectively, which reflected the farmers' cooperation, in carrying out such demonstrations with encouraging results in subsequent year. The technology index shows the feasibility of the demonstrated technology at the farmers' field. The technology index varied from 8.42 to 20.95 percent (Table 2). The technology index reveals the feasibility of the demonstration technology as values were reduced in three years of demonstration.

Economic analysis (Table 3) of the yield performance revealed that maximum gross return of Rs 3,41,500 per hectare and maximum benefit cost ratio of 4.03 was observed during 2015-16. Higher benefit cost ratio of front line demonstration plots than local check plots proved the economic viability of the intervention. Thus the results obtained from FLD and large scale demonstrations depicts a significant positive result and also provides the researchers an opportunity to demonstrate the productivity potential and profitability of the scientific management under field conditions.

## Up scaling of the technology

ICAR- Krishi Vigyan Kendra, Brahmavar has taken up demonstrations of wilt management in black pepper since 2014 and initially covered an area of 30 hectares till 2016. The technology has been spread to an extent of 130 hectares (2017-18) in collaboration with other

allied departments. Department of Horticulture have taken up the initiative through cluster approach by forming pepper growers association wherein the association members are supplied with wilt resistant grafted pepper plants and *Trichoderma viridae* microbial agent at subsidized rates. Under Innovative Programme Plan funded by Govt, of Karnataka through Directorate of Extension, UAHS, Shivamogga, 200 large scale demonstrations were conducted in an area of 20 hectares which has been covered in 5 cluster villages of Shirlalu, Irrvathur of Karkala Tq and Heggunje, Chara, Perdoor of Udupi Taluk. In collaboration with Directorate of Spices and Arecanut, Kochi, district level seminar on management of wilt in black pepper was organized on 26th April 2017 at ICAR-Krishi Vigyan Kendra, Brahmavar, where in 120 farmers attended the training programme and gained knowledge on scientific management in black pepper.

Year	Name of Block/Village	Technology	No. of	Area		% increase		
		demonstrated	Demos	(IIA)	Demo (Max)	Average	Check Avg	in yield
2014-15	Heggunje, Shiroor, Udupi Tq	Integrated	10	5	11.50	9.09	7.62	19.29
2015-16	Kanajaru, Karkala Tq.	management of wilt	10	5	15.25	13.60	10.90	24.47
2016-17	Shirlalu, Irvathur, Karkala Tq.	in black pepper	110	40	15.20	13.92	11.05	25.97
2017-18	Shivpura, Santhekatte, Shirlalu Karkala Tq. Mandarthi Udupi Tq.		110	40	14.75	13.15	10.70	22.89

Table: 1 Yield performance of black pepper under FLD and Large scale demonstration programme in Udupi District.

Table: 2 Yield, extension gap, technology gap, technology index of black pepper pertaining to wilt management in comparison with demonstration and check plots.

	A 100	No of	Potential	yield (q/h	na)	% disease incid		Extn.	Tech.	Tech.
Year	(ha)	Demos	Yield	Demo	Farmer's	Demo	Farmer's	gap	gap	index
			(q/na)		practice		practice	(q/na)	(q/na)	(%)
2014-15	5	10	11.50	9.09	7.62	3.25	21	1.47	2.41	20.95
2015-16	5	10	15.25	13.60	10.90	4.68	18.20	2.70	1.65	10.81
2016-17	40	110	15.20	13.92	11.05	2.43	14.16	2.87	1.28	8.42
2017-18	40	110	14.75	13.15	10.70	1.46	19.18	2.45	1.60	10.84

Demonstration				(	Control / Check			B:C ratio	
Year	Gross Cost (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Gross cost (Rs./ha)	Gross Return (Rs./ha)	Net Return (Rs./ha)	Demonstration	Check	
2014-15	80862	281055	200193	59900	155000	95100	3.47	2.58	
2015-16	84410	341500	257090	60295	194725	134430	4.03	3.22	
2016-17	89500	325030	235530	68650	187300	118650	3.63	2.72	
2017-18	93350	314030	220680	69700	172500	102800	3.36	2.47	

Table: 3 Cost economics of integrated management of black pepper wilt under FLD programme in Udupi district

## Success story-4: Popularization of Asian sea bass (*Lates calcarifer*) culture in cages through Front Line Demonstrations in Coastal Karnataka of Udupi district Background

Kundapur Taluk of Udupi district is well known for aquaculture practices since time immemorial. Most of the entrepreneurs of this area are concentrating on shrimp farming only. Due to the recent setbacks in shrimp farming the traditional shrimp farmers are looking for the alternate. Moreover the shrimp farming is not affordable by all farmers. The cage culture is receiving more attention by both researchers and commercial producers. Factors such as increasing consumption of fish, declining stocks of wild fishes and poor farm economy has increased interest in fish production in cages. Many small or limited resource farmers are also looking for alternatives to traditional agricultural crops. Aquaculture appears to be rapidly expanding industry and it offer opportunities even on a small scale. Cage culture also offers the farmer a chance to utilize existing water resources in which most of the cases have only limited use for other purposes.

In the year 2007 CMFRI, started the open sea cage culture at Vishakhapattana for the first time in India. In 2008 CMFRI, Mangalore made an attempt for open sea cage culture at Karkikali village near Uppunda of Kundapur taluk of Udupi district for the first time in Karnataka. Due to some reasons the experiment got closed in six months.

In 2008-09 CMFRI, Mangalore came with a new venture to attempt the cage culture in brackish water in the same area parallel to the sea and initiated the culture with 3-4 cages.

In that situation in 2012-13 KVK, Udupi took initiation to popularize the eco-friendly technology as an alternate farming and made attempts to generate self employment for the fisher folks of the region and created awareness as one of the solutions for increased pressure on marine capture fisheries and increased demand for sea food as people are health conscious and alternate livelihood option during fishing ban period during monsoon i.e. from June  $1^{st}$  to July  $31^{st}$ . It has got a very good domestic demand. As it can tolerate wide range of salinity from 0-40 ppt. and can be farmed in marine, brackish and freshwater conditions. The fish can grow above 2 kg to 5 kg in 16-18 months period and fetches Rs.400-450/ kg. we concentrated mainly on small and marginal farmers for this culture.

#### Aim of the FLD:

Sea bass *Lates calcarifer* has commercial value rather than other fishes in Export as well as domestic markets. To create awareness of seabass culture in adjacent areas and continuous supply to local markets especially during lien period. We have aimed to increase the water area under cage culture practice in the region and which will make the best utilization of the resources to increase productivity of existing water bodies.

### **Challenges:**

- Shrimp and other coastal aquaculture practices are not affordable by every farmers
- Need of eco friendly technology
- Increasing consumption of fish and declining stocks of wild fishes
- Poor farm economy increased disease outbreaks
- Utilize existing water resources
- Alternate livelihood during lien period and creation of self employment for the fisheer folk.

**Programme Activities:** ICAR - Krishi Vigyan Kendra, Udupi conducted Front Line Demonstration at Uppunda, Karkikali, Alivekodi, Kodi kanyana and Sasthana. Initiated in the year 2012-13 with 4 farmers and continued the demonstration upto 2014-15 (3years) with different farmers to evaluate the performance, constraints, challenges and viability of the technology and popularised the technology through creating the awareness of the technology. At the end of the study numbers of cages were increased to 30. KVK, Udupi gave training on cage culture during the study period and guided the farmers in

fabricating the cage, trained them in nursery rearing, to periodical grading, mooring the cage, site selection, food and feeding, given the knowledge of fouling and cleaning the cage, when to feed how to feed and what to feed, and as a critical input we have given them fish seeds from our KVK side.

**Result:** The Frontline Demonstration conducted on cage culture has been proved that the Seabass (<u>Lates calcarifer</u>) cage culture is one of the most potentially profitable segments of the brackish and marine water fish farming industry. It is a desirable fish with good flesh texture and taste, high market value and demand. It can be reared both in freshwater and seawater conditions. In the past 5 years, over 300 farmers engaged in cage culture of seabass and over 500 cages have been established in the region.

The demonstration conducted on floating type of cages of various sizes like  $2 \times 2 \times 2$ ,  $2 \times 4 \times 2$  and  $2 \times 6 \times 2$  meter we have used both square and rectangular cages for the demonstration. G.I. pipes were used as cage frames. PVC pipes and empty drums used as floaters. For mooring sand bags used as anchors. HDPE net used as outer layer to avoid entry of other fishes and fouling was under control. Nylon net was provided as inner layer.

Sufficient seed is being supplied by RGCA, Tamilnadu to the farming industry. Since the RGCA is the only seed producing unit 4-4.5 cm length seed brought from there. Initially 4 months periodical grading is mandatory for nursery rearing to avoid cannibalism and they were reared separately. When it attains 15-20 cm the rate of cannibalism will be comparatively less.

Initially for first two months fed with shrimp starter 1 and 2. Third month onwards fed with small pieces of sardine. Based on its growth size of the feed was increased. After 9 months onwards fed with whole sardine fish, trash fishes and cutting waste from fish markets.

We observed the fast growth after 12 months, hence the culture was extended up to 16-18 months coinciding the lien period for the better market price. Fishes were grown to the size range of 40 to 75 cm in length and 2-5 kg weight. On and average each farmer produced 1.2 to 1.5 ton of fishes of 5 to 6 Lakh worth. After deducting all expenses net profit was around 2.75 -3 Lakh/cage.

*Impact:* The cage culture initially started with 3-4 cages. After the intervention of KVK, Brahmavara through conducting frontline demonstration, training programme and field days. The success of the technology has been spread through out the district and wildly adopted by the farmers. As a result at present 500 cages have been installed and all cages put together are producing approximately 750 tons of Sea bass fish in district.

**Feedback of the farmers :** All farmers are dependent on trash fish as feeds. As the supply of trash fish is limited and expensive, these factors have little hampered the growth of the industry. Thus, in addition to finding suitable alternative live food organisms, research work on artificial feeds must be conducted as substitutes for trash fish.

Another factor that constraints the seabass industry in the region is locally non availability of quality seeds and financial assistance. As long as the above factors remain unsolved, these will slow down the growth of the seabass industry as a whole.

#### 10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

- Use of multi media in training the farmers
- Use of mass media like newspaper, agriculture magazines, tv and All India Radio for transfer of technology
- Text messages through MKISAN Portal
- 10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop /	ITK Practiced	Purpose of ITK
	Enterprise		
1.	Paddy	Alternate drying wetting of Paddy upland situation	Provides good aeration and helps control yellow Green
			Algae in paddy
			(Harishchandra Upadyaya)
2.	Paddy	Spraying Paddy with a week old fermented decoction of	Increased the productive tillers and promoted luxuriant
		neem cake, extract of tobacco leaves, sour buttermilk,	growth in Paddy.
		fish oil along with Jeevamritha	
3.	Vegetables	Butter milk spray for vegetables	Resulted in robust growth of vegetables
4.	Watermelon	200ml Butter, 200 ml Tender Coconut water and 200	Results in robust grouth of Watermelon and it is as good
		gram jaggery diluted in 100 liter of water	as Gibberlic acid spray.

S. No.	Crop /	ITK Practiced	Purpose of ITK
	Enterprise		
			(Nagur Watermelon farmers)
5.	Cowpea	Application of top	Resulted in good germination and early crop
		soil along with vermi	establishment of cowpea.
		compost to cowpea	
6.	Cowpea	Application of well decomposed areca husk compost in	Supplements potash to cowpea.
		rotation with gobar gas slurry.	
7.	Cowpea	Application of coconut	Boosts the crop growth and acts as a potash supplement
		coir pith and rice hull	
		compost for cowpea	
8.	Cowpea	Vermi wash spray to cowpea	Enhanced yield and resulted in a healthy crop stand
9.	Jasmine	Spraying one month old fermented mixture of 3 Kg	Increased flowering and yield
		Azzola with 1 Kg Jaggery at the rate of 1 ml of extract in	
		1 liter of water to jasmine.	
10.	Paddy	Spraying Jeevamritha : A week old filtered fermented	Acted as a nutrient supplement to the crop in paddy
		preparation consisting of Bengal gram (Cicer arietinum)	
		flour- 2 Kg; Jaggery -2 Kg; Cow dung – 5 Kg Cow urine	
		- 5 l; Top soil - 2 Kg; Groundnut cake- 2 kg; fermented	
		butter milk – 2 liter in a copper container	
11.	Paddy	Spraying Paddy with a week old fermented decoction of	Increased the productive tillers and promoted luxuriant
		neem cake, extract of tobacco leaves, sour buttermilk,	growth in Paddy with less incidence Pest and Diseases .
		fish oil and Jeevamrita	
12.	Vegetables	Butter milk spray	Resulted in robust growth of vegetables
		for vegetables	
13.	Jasmine	Nipping water shoots	Resulted in profused flowering
		in jasmine	
14.	Jasmine	Spray of 42 days old fermented butter milk stored in	Reduced pests and diseases in Jasmine and it also helped
		copper container at 10 days interval @ a 1ilre in 10 liter	to overcome the micro nutrient deficiencies
		of water to jasmine.	

S. No.	Crop /	ITK Practiced	Purpose of ITK
	Enterprise		
15.	All Crops	Application of ash	Adds potash to the soil, improved soil properties.
16.	Areca nut	Earthing up ( Raking the soil) to the areca nut palms	enhances fresh rooting due to loosening of soil and
		with organic manure	rebuilding soil fertility after heavy rains
17.	Jasmine	Bio digester spraying/ drenching the crop jasmine in the	Acts as a pesticide and micro nutrient supplement.
		proportion 1 liter in 3 liter of water	
18.	Areca nut	Application of	Reduces button shedding in coconut and also acts as a
		salt granules	substitute to potash and repulses the insects
		for coconut	

## 10.F. Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women
  - Need assessment of farmers through focused group discussion method
- Rural Youth
  - Need assessment of farmers through focused group discussion method
  - Matrix ranking
  - Inservice personnel
    - Need assessment through using scheduled questionnaire method

## 10.G. Field activities

-

-

- i. Number of villages adopted 1
- ii. No. of farm families selected-45
- iii. No. of survey/PRA conducted-6

## **10.H.** Activities of Soil and Water Testing Laboratory

Status of establishment of Lab

: Full pledged Establishment in the Year 2002

: 2002

- 1. Year of establishment
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1.	Autoclave- Vertical	1	25,500
2	Combined Electrode Model CL -518	1	1,000
3	Digital Conductivity meter	1	7,400
4	Digital Micropipettes	1	18,827
5	Digital PH meter	1	8,550
6	Double glass distillating unit	1	49,000
7	Ducting from fume cupboard	1	23,000
8	Electronic Acid Neutralizer scrubber	1	24,000
9	Electronic automatic	1	53,000
	kel plus microprocessor (Digestion system)		
10	Electronic automatic	1	86,000
	kel plus microprocessor (Distillation system)		
11	FGL I 615 PH meter	1	6,346
12	Flame photometer	1	39,000
13	Fume cup board	1	42,000
14	Hot air oven	1	20,000
15	Hot air oven PSM make	1	18,370
16	Hot plate with thermostatic control	1	9,600
17	Laminar air flow	1	44,900
18	LG Frost free refrigerator	1	22,000
19	Magnetic stirrer with hot plate	1	5,500
20	Physical balance	1	12,000
21	Research Microscopes	1	59,160
22	Rotary Shaker	1	28,000
23	Spectrophotometer	1	46,200
24	Top loading balance	1	49,000

Details	No. of Samplesanalyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	3543	3151	1857	134389
Water Samples	813	724	615	62500
Plant samples				
Manure samples				
Others (specify)				
Total	4356	3875	2472	196889

## Details of samples analyzed so far since establishment of SWTL:

## Details of samples analyzed during the 2017-18:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	277	178	150	27977
Water Samples	136	93	90	13600
Plant samples	-	-	-	-
Manure samples	-	-	-	-
Others (specify)	-	-	-	-
Total	413	271	240	41577

## Details of soil health cards issued during the 2017-18 :

					Public representatives participated		
					MLA/Ministe Other Dignitaries/ Chief guest		
Date (s)	Farmers	No. of Samples	Soil health cards	No. of			
	participated	analyzed	issued	Villages			
2017-18	300	50	50	38	-	1. Dr. M.J. Chandre Gowda	
						Director, ATARI, Bengaluru	
						2. President	
						Zilla Panchayat, Udupi	
						3. Joint Director of Agriculture, Udupi	
						4. Deputy Director of Horticulture, Udupi	
						5. Associate Director of Research &	
						Extension, ZAHRS, Brahmavar	

#### 10.I. Technology Week celebration during 2017-18 Yes/No, If Yes

Period of observing Technology Week: From 04.12.2017 to 09.12.2017 Total number of farmers visited : 605 Total number of agencies involved : 6 Number of demonstrations visited by the farmers within KVK campus : 685

#### Other Details

Types of Activities	No. of Activitie	Number	Related cron/livestock technology
	s	Farmers	Kelated crop/nvestock termology
Gosthies	4	4609	
Lectures organized			1. Poly house cultivation
			2. Scientific poultry farming practices in Udupi District
			3. Poultry disease management
	4	215	4. Bakery training
Exhibition	12	56749	
Film show	10	370	
Fair	3	709	
Farm Visit	114	522	
Diagnostic Practicals	14	124	
Supply of Literature (No.)	5		
Supply of Seed (q)	19.356	77	
Supply of Planting materials (No.)	19302	997	
Bio Product supply (Kg)	-	-	
Bio Fertilizers (q)	-	-	
Supply of fingerlings	2267	13	
Supply of Livestock specimen			
(No.)	3605	136	
Total number of farmers visited	6	605	1. Women in agriculture day and bakery training
the technology week			2. World soil day $-2017$
			3. Poultry farming
			4. Polyhouse and net house cultivation of vegetable crops and importance of drip irrigation
			5. Hydroponics for green fodder production
			6. Training programme for school children on beekeeping, grafting and pest and disease
			management

#### 10. J. Interventions on drought mitigation (if the KVK included in this special programme)------ Nil ------ Nil

 A. Introduction of alternate crops/varieties

 State
 Crops/cultivars
 Area (ha)
 Number of beneficiaries

### B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	230	827
Pulses	1200	4050
Cereals	-	-
Vegetable crops		
Tuber crops		
Total	1430	4877

#### C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of	No.of participants
		interactions	
Karnataka	Poultry, rabbit, goat, cow & fish	7	1300
Total		7	1300

#### D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Karnataka	2	200	85
Total	2	200	85

#### E. Seed distribution in drought hit states - Nil-

State	Crops	Quantity (qtl)	Coverage	Number
			of area	of
			(ha)	farmers
Total				

## F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Karnataka	Wilt management in black pepper	89	100
Total		89	100

# G. Awareness campaign

State	Meetings Gos		Gosthies	es Field days		ays	Farmers fair		Exhibition		Film show	
	No.	No.of	No.	No.of	No.	No.of	No.	No.of	No.	No.of	No.	No.of
		farmers		farmers		farmers		farmers		farmers		farmers
	-	-	-	-	8	480	3	709	12	56749	10	370
Total	-	-	-	-	8	480	3	709	12	56749	10	370

# PART XI. IMPACT

# **11.A. Impact of KVK activities (Not restricted for reporting period).**

Name of specific technology/skill transferred	No. of	% of	Change in in	come (Rs.)
	participants	adoption	Before	After
			(Rs./Unit)	(Rs./Unit)
Farmers participatory mode of seed production activity in Groundnut variety	12	-	82620	96920
G2-52				
Integrated Crop Management in HA-4 field bean variety in paddy fallows	10	6%	19388	21630
Introduction of high yielding DS-5 white seeded Sesamum variety in paddy	10	24%	6600	20700
fallows				
Soil acidity management in paddy	10	25%	26593	37410
Demonstration of French bean variety Arka Sharath for high yield	20	90%	96950	141600
ICM in paddy	5	30%	42460	52975
IPDM in Amaranthus Cultivation	5	20%	34750	49450
Demonstration of Nutritional Garden for Nutrition Security among School	5	70%	-	2285
Children				
Demonstration of Terrace Gardening for Nutrition Security	5	80%	-	1357
Processing of pepper in between two layers of poly film using solarization	5	85%	-	2950

Name of specific technology/skill transferred	No. of	% of	Change in income (Rs.)	
	participants adopti		Before	After
			(Rs./Unit)	(Rs./Unit)
technique(MD)				
Mixed carp seed rearing in pens	3	35%	117350	409325

- NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.
- 11.B. Cases of large scale adoption (Please furnish detailed information for each case with suitable photographs)
- 11.C. Details of impact analysis of KVK activities carried out during the reporting period

## PART XII - LINKAGES

## 12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
SKDRDP	Training Programme and demonstrations
RUDSET	Training Programme
Novodaya SHGs	Training Programme
KSDA	Demonstration cum Training Programme
KCDC	Demonstration cum Training Programme
DCCD	Demonstration cum Training Programme
Dept. of Agri.	Training Programme
Dept. of Horti.	Training Programme
Dept. of Fisheries	Demonstration cum Training Programme
Dept. of AH & VS	Training Programme
BVT, Manipal	Training Programme
Engineering College, Nitte	Agricultural implements
MIT	Marketing linkage for Mattugulla, Brinjal

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

## 12.B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Effect of herbicide/herbicides mixture in the transplanted rice with special reference to vaucheria species of yellow green algae and other weed species	Kharif-2017	Director of Research	Rs. 50,000/- (2017-18)
Evaluation of Hydrogel on the performance of Groundnut in paddy fallows of Coastal region	Rabi-2017	Director of Research	Rs. 50,000/- (2017-18)
Hydroponic for green fodder production	Rabi-2017	GOK, Plan grants	Rs. 5,00,000/-
Demonstration on drought tolerant groundnut variety for coastal districts	Rabi-2017	GOK, Plan grants	Rs. 5,00,000/-
Reclamation of coastal saline soils of Karnataka:An integrated approach towards bio-saline agriculture	Rabi-2017	GOK	Rs. 25 lakhs (2017-18)
Effect of growth regulators on growth and yield of cashew (Anacardium occidentale L.) var.Ullal-1	Rabi-2017	Director of Research	Rs.20,000/-
Establishment of Mother Block Unit at ZAHRS, Brahmavar	Kharif/Rabi	GOK, Plan grants	Rs.2,00,000
Large scale demonstration of wilt management in black pepper	Kharif/Rabi	GOK, Plan grants	Rs.4,00,000
Production of Black pepper cutting and Kokum grafts	Rabi/Summer	DCCD, Kochi	2,50,000
Soil acidity management in coastal soils	Rabi-2017	GOK, Plan grants	5,00,000

## 12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes If yes, role of KVK in preparation of SREP of the district?

## Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings		39	4	
02	<b>Research projects</b>				
03	Training programmes				

		2	2	
04	Demonstrations			
		33	4	
05	Extension			
05	Programmes			
	Kisan Mela	2		
	Technology Week	-		
	Exposure visit	28		
	Exhibition	2		
	Soil health camps	1		
	Animal Health			
	Campaigns	-		
	Others (Pl. specify)	-		
06	Publications			
	Video Films	-		
	Books	-		
	Extension Literature	4		
	Pamphlets	5		
	Others (Pl. specify)	-		
07	Other Activities			
07	(Pl.specify)			
	Watershed approach	-		
	Integrated Farm	20		
	Development	20		
	Agri-preneurs			
	development	 		

# 12.D. Give details of programmes implemented under National Horticultural Mission-Nil-

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any

## 12.E. Nature of linkage with National Fisheries Development Board –Nil-

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks

#### 12.F. Details of linkage with RKVY -- Nil-

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks

## 12. GKisan Mobile Advisory Services

Month	Messa			SMS/voice c	alls sent (No.)	)		Total	Farmers
	ge type	Crop	Livestock	Weather	Marketing	Awareness	Other	SMS/Voice	(No.)
	(Text/						enterprises	calls sent	
	Voice)							(No.)	
April	Text	Coconut	-	-	-	-	-	1	2280
2017									
May		-	-	-	-	-	-	-	-
June		Paddy	-	-	-	-	-	1	2280
July		Paddy	-	-	-	-	-	1	2280
August		Black pepper	-	-	-	-	-	8	2725
		Paddy							
		Udupi							
		Jasmine							
		Arecanut							
September		Black pepper	-	-	-	-	-	1	2725
October		Arecanut	-	-	-	-	-	3	3067
		Paddy							
November		Blackgram	-	-	-	-	-	2	3079
		Brinjal							
December		Blackgram	-	-	-	-	-	5	3082
		Vegetables							
		Paddy							
		Udupi							

Month	Messa		SMS/voice calls sent (No.)						Farmers
	ge type	Crop	Livestock	Weather	Marketing	Awareness	Other	SMS/Voice	(No.)
	(Text/	_			_		enterprises	calls sent	
	Voice)							(No.)	
		Jasmine							
January		Jasmine	-	-	-	-	-	4	3083
2018		Arecanut							
		Black pepper							
		Groundnut							
February		-	-	-	-	-	-	-	-
March		Paddy	-	-	-	-	-	3	3083
		Cashew							
Total			-	-	-	-	-	29	

# PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

# **13.A.** Performance of demonstration units (other than instructional farm)

		Voor of	Aroo	Details of production			Amou		
Sl. No.	Demo Unit	establishment	(ha)	Variety	Produce	Qty.	Cost of inputs	Gross income	Remarks
1	Paddy plot	2002	0.8	MO-21	Bulk	1879.3	21048.16	30069.92	-
					paddy	kgs			
2	Lady's finger	2017-18	0.42	White velvet	Seeds	56.3	43914	67560	-
						kgs			
3	Poly		0.10	Cashew(Ullal-1)	Grafts	500	8000	12500	-
	house(Nursery)			Papaya	Seedlings	6782	76297.5	101730	-
4	Poly house	2014-15	0.10	Pepper (P-1, P-5,P-7	Seedlings	7306	43836	73060	-
	under NHM			IISR Shakthi, Srikara					
				Arecanut(Mohit	Seedlings	2418	31434	48360	-
				Nagar)					
				Sapota (Cricket ball)	Seedlings	30	800	1500	-
5	Jasmine	2004-2005	0.16	Udupi Jasmine	Cuttings	524	9432	15720	-
6	Coconut	2016-17	0.01	WCT	Seedlings	1621	63219	97260	-
7	Bush pepper	2004-2005	0.04	Panniyur-1	Seedlings	121	2870	3630	-

8	Poultry shed	2006-2007	0.04	Giriraja/Swarnadhara	Chicks	3605	227115	324450	-
9	Fish pond	2005-2006	0.04	Rohu, Katla,	Fingerlings	2267	6801	11335	-
				Common carp					

## 13.B. Performance of instructional farm (Crops) including seed production- Nil-

Name		Date of harvest	ea a)	Details of production			Amount (Rs.)		D 1
of the crop	Date of sowing		Ar (h:	Variety	Type of Produce	Qty.	Cost of inputs	Gross income	Kemarks
Cereals									
Pulses									
Oilseeds									
Fibers									
Spices & Plantation	n crops								
Floriculture									
Fruits									
Vegetables									
Others (specify)									

# 13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,) -Nil-

Sl.	Name of the		Amou		
No.	Product	Qty	Cost of inputs	Gross income	Remarks

## 13.D. Performance of instructional farm (livestock and fisheries production) -Nil-

S1.	Name	Det	tails of production		Amou		
No	of the animal / bird / aquatics	Breed	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks

# **13.E.** Utilization of hostel facilities – Under repair

## Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2017			
May			
June			
July			
August			
September			
October			
November			
December			
January 2018			
February			
March			

## 13.F. Database management

S.No	Database target	Database created							
1.		Database Management in OLRS format designed by ATARI,							
		Bengaluru							
		KMAS - Four messages per month							
		Upload the KVK website							
		Reports - MPR, QPR, Annual Report, Action Plan Report,							
		EPCB, ZREP, SAC							
Toror Downing on Runn (Futor Hur Cooling Schubbart e und mitro in Figurion System - 1717									
--	-------------	---	-------------------------------	------------------------	---------------------------------------	------------------------------	-----------------------------	----------------------------------	---------------------------------------
Amount	Expenditure	Details of	Activities conducted					Quantity	Area
sanction (Rs.)	(Rs.)	infrastructure created / micro irrigation	No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)	of water harvested in '000	irrigated / utilization pattern
		system etc.						ntres	

13.G. Details on Rain Water Harvesting Structure and micro-irrigation system - NA-

## PART XIV - FINANCIAL PERFORMANCE

#### 14.A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	-	-	-	-	-	-	-
With KVK	Canara Bank	Varamballi,	0466	S.B.	0466101172871		CNRB
		Brahmavar		Account	0466101173629		0000466

## 14.B. Utilization of KVK funds during the year 2017-2018 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Re	ecurring Contingencies			
1	Pay & Allowances	73.86	73.86	80,93,014
2	Traveling allowances	1.70	1.70	1,55,986
3	Contingencies			
A	Stationery, telephone, postage and other			
	expenditure on office running, publication of			
	Newsletter	3.0	3.0	2,93,107
В	POL, repair of vehicles, tractor and equipments	3.0	3.0	2,79,939
С	Food /refreshment for farmers/extension			
	personnel @Rs.150/person/day	1.0	1.0	91,414
D	Training material (need based materials and			
	equipments for conducting the training)	0.60	0.60	53,926
E	Frontline demonstration	3.15	3.15	3,14,616
F	On farm testing (on need based, location specific			
	and newly generated information in the major	0.75	0.75	60,515

S. No.	Particulars	Sanctioned	Released	Expenditure
	production systems of the area)			
G	Integrated farming systems (IFS) (Min. 5 units)	0.50	0.50	49,708
Н	Training of extension functionaries	0.15	0.15	14,204
Ι	Extension activities including world soil health			
	day	0.85	0.85	84,731
J	Farmer's Field School	0.30	0.30	29,462
K	EDP (1 No)/Innovative activities	0.20	0.20	20,000
l	Soil & Water testing and issue of soil health			
	cards	0.25	0.25	18,880
M	Maintenance of buildings	0.75	0.75	47,935
N	Farmers conclave, KVK Conference	0.25	0.25	23,204
0	Video production	0	0	0
P	Library (Purchase of journals, periodicals, News			
	Paper & Magazines)	0.09	0.09	4,960
	TOTAL (A)	90.40	90.40	
<b>B.</b> C <i>A</i>	APITAL Non-Recurring Contingencies			
1	Equipments and furniture			
2	Works			
3	Vehicle			
4	Library (Purchase of assets like books &			
	journals back volume)			
TOT	AL (B)			
<b>C. R</b>	EVOLVING FUND			
GRA	ND TOTAL (A+B+C)	90.40	90.40	96,35,601

# 14.C. Status of revolving fund (Rs. in lakh) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2015 to March 2016	241082	646323	587150	300255
April 2016 to March 2017	300255	769970	359954	710271
April 2017 to March 2018	710271	916822	732756	894337

## 15. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Mr. Chaitanya H.S Dr. N.E. Naveen	Scientist (Horticulture) Scientist (Agronomy)	Enhancing water nutrient use Efficiency in Indian farming system through precision Agriculture	GKVK, Bangalore	26.07.2017 to 04.08.2017 (10 days)
Mr. Chaitanya H.S	Scientist (Horticulture)	Capacity building of Teachers/Scientists of Agriculture Research in Frontier Areas of Science on Competency Enhancement for Efficiency and Effectiveness at work place	UAHS, Shivamogga	29.01.2018 to 02.02.2018
Mr. Chaitanya H.S	Scientist (Horticulture)	Effect of climate change in horticulture crops	UHS, Bagalkot	6-13 <sup>th</sup> March 2018
Dr. Dhananjaya B Dr. Jayaprakash R Dr. N.E. Naveen	Senior Scientist & Head Scientist (SS & AC) Scientist (Agronomy)	Innovative approaches in Agricultural Extension	EEI Hyderabad	7-10 November 2017
Mr. Siddaroudh Padeppagol	Scientist (Home Science)	Capacity building training for elected women representatives of Panchayat raj	NIPCCD	27-30 <sup>th</sup> November 2017
Mr. Shrinivas H Hulkoti	Scientist (Fishery Science)	Aquatic pollution and abatement	College of Fisheries of Mangalore	06.11.2017 to 15.11.2017
Dr. Jayaprakash R	Scientist (Soil Science)	Orientation training for soil science	NBSS LUP	1 day
	Scientist (Soil Science	Refresher course on statistical techniques in agriculture research	UAS, Dharwad	19 <sup>th</sup> December 2017 to 8 <sup>th</sup> January 2018
Mr Shrinivas H Hulkoti	Scientist (Fishery Science	Orientation training for Animal Science & Fisheries	NIANP, Bengaluru	06.02.2018
Mr Shrinivas H Hulkoti	Scientist (Fishery Science	Farmers conclave meeting	NIANP, Audugodi, Bengaluru	16-17 February 2018