

# Annual Progress Report-2016-17 (01-04-2016 to 31-03-2017)

## **PART I - GENERAL INFORMATION 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				
Savalanga Road,	08182-			
Navile,	295516,	-	shimogakvk@gmail.com	-
Shivamogga -577 204	267017			
Karnataka				

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

Address	Telep	ohone	E mail	Web Address	
Address	Office	Fax	Eman	web Address	
University of Agricultural and					
Horticultural Sciences,	08182-	08182-	vcuahss2014	www.uoho.in	
Savalanga Road,	267011	298008	@gmail.com	www.uahs.in	
Shivamogga-577 204					

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

Name	Telephone / Contact						
name	Residence	Mobile	Email				
Dr. B. C. Hanumanthaswamy	9448255252	9480838976	bchswamy@gmail.com				

#### 1.4. Year of sanction: 2000

1.5.	Staff Position	(as on	31 <sup>st</sup> March	2017)

SI. 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	Phone No.	Permanent /Temporary	Category (SC/ST/ OBC/Others)
1.	Senior Scientist and Head	Dr. B.C.Hanumantha swamy	Senior Scientist and Head	м	Agril. Entomology	M.Sc.,(Agri. Entomology) Ph.D., PGDBA, PGDPP, PGDAEM	37400- 67000	47800	12/22/2011	9480838976	Permanent	General
2.	Scientist	Mrs.Jyoti M.Rathod	Scientist	F	Home Science	M.H.Sc. (Food and Nutrition)	15600- 39100	30160	03/12/2007	9448565007	Permanent	SC
3.	Scientist	Dr. M. Ashok <sup>1</sup>	Scientist	М	Animal Science	M.VSc., PGDAEM	15600- 39100	29280	05/18/2007	7760254764	Permanent	OBC
4.	Scientist	Ms.M.V.Rekha <sup>2</sup>	Scientist	F	Soil Science & Agril. Chemistry	M.Sc.,(Soil Science and Agricultural Chemistry)	-	30000	08/19/2015	9481623920	Temporary	Others
5.	Scientist	Ms.G.B.Smitha <sup>2</sup>	Scientist	F	Horticulture	M.Sc.,(Horticulture)	-	30000	08/24/2015	9611726001	Temporary	Others
6.	Scientist	Dr. Arun Kumar <sup>2</sup>	Scientist	М	Ag. Extension	M.Sc.(Agri),Ph.D.	-	35000	23/09/2016	8095150599	Temporary	Others
7.	Scientist	Imran Khan H. S. <sup>2</sup>	Scientist	М	Plant Pathology	M.Sc. (Agri), Ph.D.	-	30000	27/09/2016	9379228200	Temporary	Others
8.	Programme Assistant (Lab Tech.)/T-4	Mr. R. Nagaraja	Programme Assistant (Lab Tech)	м	Agril. Microbiology	M.Sc.(Agri.) in Agricultural Microbiology, PGDAEM	9300- 34800	15670	10/23/2010	9448255250	Permanent	OBC
9.	Programme Assistant (Computer)/ T-4	Smt. Geetha B.S.	Programme Assistant (Computer)	F	Computer	M.Com., PGDCA, PGDHR	9300- 34800	15670	01/22/2011	9632184655	Permanent	General
10.	Programme Assistant/ Farm Manager	Dr. P.R. Somashekharappa	Farm Manager	м	Agronomy	M.Sc.(Agri.) in Agronomy, Ph.D., PGDPP, PGDSMNF, PGDAEM	9300- 34800	14330	12/23/2014	9972458923	Permanent	General
11.	Assistant	VACANT										
12.	Jr. Stenographer	Smt. Usha, K <sup>2</sup>	Typist cum computer operator	F	Typist cum computer operator	M.A.	12720	12720	08/13/2007	9731202080	Temporary	Others
13.	Driver	Mr. N. Gopala	Driver (LV)	М	Driver (Jeep)	SSLC	11600- 21000	12250	08/16/2012	9900711581	Permanent	OBC
14.	Driver	Mr. K.H. Mohan	Driver (Tractor)	М	Driver (Tractor)	7th Std.,	14550- 26700	17200	10/20/2008	9964892387	Permanent	OBC
15.	Supporting staff	Mr. Manjunatha B. M.	Messenger	М	Messenger	SSLC	9950	9950	09/21/2017	7090639775	Temporary	OBC
16.	Supporting staff	Mr. T. Chikkaiah	Assistant	М	Cook cum	SSLC	10400-	11800	11/22/2008	9980365326	Permanent	OBC

		Cook cum Caretaker		caretaker	1	16400				
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Deputed for Ph.D. for three years (From 09.02.2015 to 10.02.2018)
 On contract basis (consolidated salary)

## 1.6. Total land with KVK (in ha) : 3.96 ha

SI. No.	ltem	Area (ha)
1.	Under Buildings	0.86
2.	Under Demonstration Units	0.60
3.	Under Crops	2.00
4.	Others	0.50
	TOTAL	3.96

## 1.7. Infrastructural Development:

## A) Buildings

			Stage						
SI.		Source	C		Incomplete				
No.	Name of building	of funding	Completion Date	Plinth area (Sq.m)	Expenditure (Rs. In lakhs)	Starting Date	Plinth area (Sq.m)	Status of construction	
1.	Administrative Building	ICAR	Oct. 2009	550	55	-	-	-	
2.	Farmers Hostel	ICAR	Sept. 2012	305	33.33	-	-	-	
3.	Staff Quarters	-	-	-	-	-	-	-	
4.	Demonstration Units	-	-	-	-	-	-	-	
	1. Vermi Compost Unit	NCOF Ghaziabad	2008	-	1.25	-	-	-	
	2. Poultry Unit	RKVY	2012	100 sq.m.	1.20	-	-	-	
5	Fencing	-	-	-	-	-	-	-	
6	Rain Water harvesting system	-	-	-	-	-	-	-	
7	Threshing floor	-	-	-	-	-	-	-	
8	Farm godown	-	-	-	-	-	-	-	

# B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status	
Tractor with Trailer	2001	3,71,892.00	4428.1	Good condition	
Jeep (Mahindra Bolero)	2005	4,40,000.00	205269	To be replaced	
Hero Honda Splendor+	2009	39,350.00	41303	Good condition	
Honda Activa	2009	46,102.00	27041	Good condition	

### C) Equipments & AV aids

Equipment Type	Name of the equipment	Cost (Rs.)	Purchased date	Present status	Total Nos.	Remarks
AV Aids	Lap top and LCD	100000	10/10/2007	Scrapped	1	Laptop is in working condition. LCD was scrapped.
AV Aids	Mobile Display Board	3360	7/29/2008	Good Condition	1	
AV Aids	Hakims mobile Pivot Stand	2300	06/10/2008	Good Condition	1	
AV Aids	Hakims Data Press Board	4400	06/10/2008	Good Condition	1	
AV Aids	Hakims Combination Board	1800	06/10/2008	Good Condition	1	
AV Aids	Hakims 3 type rotation Book Stand	3100	07/29/2008	Good Condition	1	
AV Aids	Hakims Display in minutes 4 board " double side stand	8950	07/29/2008	Good Condition	1	
AV Aids	Video Camera	184000	02/05/2009	Good Condition	1	
AV Aids	LCD	44990	02/05/2009	Good Condition	1	
AV Aids	Motorized Screen	23000	02/05/2009	Good Condition	1	
AV Aids	Visual production Unit	599500	02/05/2009	Good Condition	1	
Office	Desk Top Computers (2 Nos.)	46000	02/05/2009	Scrapped	2	
Office	Lexmark Laser printers (2 Nos.)	15645	02/05/2009	Scrapped	2	
Office	Digital Copier cum network printer	55125	02/05/2009	Good Condition	1	
Office	Display board (15 Nos.)	30000	02/05/2009	Good Condition	15	
Office	Voltage Stabilizer (2 Nos.)	5520	02/05/2009	Good Condition	2	
Office	UPS " (CBTMPCS)	26000	10/05/2010	Scrapped	1	UPS 1.5 KVA is in good condition. But supporting batteries were replaced on 18- 09-2015 with 120 AH (20/12V) batters with old batteries buyback.
Office	Canon Printer-2900B	5524	01/22/2013	Good Condition	1	
Office	HP Laser Printer	19864	03/15/2010	Good Condition	1	
Office	Sony digital Camera- DSC H-20 SI.No.2348907	17500	01/22/2013	Good Condition	1	
Office	Sony digital Camera- DSC H-20 SI.No.2285039	9950	01/22/2013	Good Condition	1	
Office	Panasonic Fax Machine (Sl. No.91CBA004235)	8736	01/22/2013	Good Condition	1	
Office	Generator (Genset- EXK-28005)	59850	03/29/2011	Good Condition	1	

Equipment Type	Name of the equipment	Cost (Rs.)	Purchased date	Present status	Total Nos.	Remarks
Office	UPS	38587	03/29/2011	Scrapped	1	UPS is in Good condition. Batteries supporting to this UPS is scrapped. Hence, on 18- 09-2015 purchased 5 tubular batteries of 120AH (20/12V) with this old batteries buyback.
Office	Photocopier	92297	7/29/2008	Scrapped	1	
Office	Acrylic name holder	2800	07/29/2008	Good Condition	1	
Office	Hakims Security Board (Flap type)	3100	07/29/2008	Good Condition	1	
Office	HP Scanner	4000	03/15/2009	Good Condition	1	
Office	Desk Top Computers (2 Nos.) HCL	38600	01/22/2013	Scrapped	2	
Office	Desk Top Computers (2 Nos.) HCL	38169	01/22/2013	Good Condition	2	
Office	Tubular Batteries of 120 AH (20/12V)	50000	09/18/2015	Good Condition	5	Tubular Batteries of 120 AH (20/12 V with old batteries buyback). 3 batteries for 2 KVA UPS for PC's chamber, 1 typist computer system, 2 batteries for 1.5 KVA UPS for Programme Assistant (Computer) chamber
Office	Information KIOSK (Touch screen)	124519	02/05/2009	Good Condition	1	
Laboratory	Research Microscope Digital Micro pipette	66555	11/18/2008	Good Condition	1	
Laboratory	set	21180	09/15/2008	Good Condition	1	
Laboratory	Hot Air Oven	24160	02/12/2009	Good Condition	1	
Laboratory	Laminar Air Flow	54013	02/12/2009	Good Condition	1	
Laboratory	pH Meter	6600	03/12/2009	Good Condition	1	
Laboratory	Autoclave	28687	03/31/2009	Good Condition	1	
Laboratory	ELISA Reader	147155	03/12/2010	Good Condition	1	
Laboratory		24425	03/18/2011	Good Condition	1	
Furniture & Furnishing	21 Black Onida CTV- 21	8990	01/22/2013	Scrapped	1	Kept in KVK Farmers'

Equipment Type	Name of the equipment	Cost (Rs.)	Purchased date	Present status	Total Nos.	Remarks
						Hostel
Furniture & Furnishing	Bosch Gas Geyser	7600	01/22/2013	Good Condition	1	Fixed in Farmers' Hostel
Farm	Shakthi Power Tiller and accessories	131500	03/31/2010	Good Condition	1	
Farm	5 HP diesel engine pump and accessories	18030	06/03/2010	Good Condition	1	
Farm	Portable agri sprayer	9975	06/03/2010	Good Condition	1	
Farm	Tractor drawn implements, Trencher, ridger, marker	86500	03/26/2011	Good Condition	1	
Farm	Tractor drawn 2 ferrow MB plough & Tractor drawn disk harrow	88000	03/28/2011	Good Condition	1	
Farm	Power Tiller trailer	48048	03/28/2011	Good Condition	1	
Farm	Tractor drawn water tanker " Chassis mounted 3500 ltr. Capacity, Water tank with resole tyre and heavy axel, Water Tanker	99250	06/22/2011	Good Condition	1	
Farm	Hand operated <sup>~</sup> C type areca leaf plate making machine.	38850	06/21/2011	Good Condition	1	
Farm	Tractor mounted water pully	32500	07/02/2011	Good Condition	1	
Farm	Tractor operated winnover	20500	06/30/2011	Good Condition	1	
Farm	Chaff cutter with 2 HP ISI	20500	08/26/2011	Good Condition	1	
Farm	Tractor drawn 5 furrow opener	31000	08/26/2011	Good Condition	1	
Farm	Disk harrow	1455	06/22/2013	Good Condition	1	
Farm	Pruning saw - ~OM	18723	09/12/2013	Good Condition	1	
Farm	Iron plough - 1 wing	1600	12/19/2012	Good Condition	1	
Farm	Iron plough - 2 wings	1900	12/19/2012	Good Condition	1	
Laboratory	AAS equipment & accessories	1420000	15.06.2016	Good Condition	1	
Laboratory	V Guard Stabilizer	2400	20.06.2016	Good Condition	1	
Laboratory	Battery 150 am with UPS	54548	20.06.2016	Good Condition	1	
AV Aids	Studio master wireless	3801	20.06.2016	Good Condition	1	
AV Aids	Podium Wireless mike	6612	20.06.2016	Good Condition	1	
Office	Aqua pearl RO+UV water purifier	16157	30.06.2016	Good Condition	1	
Office	Canon 226 DN Laser All-in-one printer (print/copy/ scan/duplex network) HP Desktop computer	28000	26.09.2016	Good Condition	1	
Office	Intel core-i3, 4 GB RAM, 1TB HDD, 20 moniter, key board & mouse	96900	30.09.2016	Good Condition	02	

Equipment Type	Name of the equipment	Cost (Rs.)	Purchased date	Present status	Total Nos.	Remarks
Office	Dell Laptop, Core @ i3, 1 TB, 4GB RAM	48500	04.10.2016	Good Condition	1	
Office	Dell LCD Projector	38500	04.10.2016	Good Condition	1	
Value addition demo unit	Pulverizer	29770	25.02.2017	Good Condition	1	
Value addition demo unit	Bag Sealer	21984	25.02.2017	Good Condition	1	
Value addition demo unit	Weighing balance	10076	25.02.2017	Good Condition	1	
Value addition demo unit	Hot case	17935	03.03.2017	Good Condition	1	
Value addition demo unit	Deck Oven	50640	03.03.2017	Good Condition	1	
Value addition demo unit	Moulds & Trays	8440	03.03.2017	Good Condition	1	
Value addition demo unit	Extruder	74425	09.03.2017	Good Condition	1	
Value addition demo unit	Deep Fat Fryer	20381	09.03.2017	Good Condition	1	
Value addition demo unit	Godrej F/F Refrigerator	26201	10.03.2017	Good Condition	1	
Value addition demo unit	Usha Mixer Grinder	5450	10.03.2017	Good Condition	1	
Value addition demo unit	Kraft Chopper	2490	10.03.2017	Good Condition	1	
Office	Acrylic display name board	12000	10.03.2017	Good Condition	1	
Office	1 TB Hard Disk External	5900	14.03.2017	Good Condition	1	
Hostel	Sony 40" LED TV + stabilizer	48500	16.03.2017	Good Condition	1	
Hostel	Setup box	2743	20.03.2017	Good Condition	1	
Office	Canon Camera	19408	20.03.2017	Good Condition	1	
Hostel	Whirlpool Refrigerator + V Guard Fridge + stand	26550	23.03.2017	Good Condition	1	
Office	Samsung T 355 TAB – 4G	18623	23.03.2017	Good Condition	1	

## 1.8. Details of SAC meeting conducted in 2016-17 : Not conducted

SI. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.					

## PART II - DETAILS OF DISTRICT

## 2.1 Major farming systems / enterprises (based on the analysis made by the KVK)

SI. No	Farming system/enterprise
1.	Rice based cropping system
2.	Maize based cropping system
3.	Pulses and oilseeds
4.	Arecanut and Coconut based cropping system
5.	Vegetables, fruits and spice crops cultivation
6.	Value addition
7.	Floriculture
8.	Dairying
9.	Poultry farming
10.	Sheep and goat rearing
11.	Apiary

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

SI. No	Agro-climatic Zone	Characteristics
1.	Southern Transition Zone (Zone - 7)	• The total geographical area of Southern Transition Zone (STZ) (Zone–7) is 13.09 lakh ha. Shivamogga, Bhadravathi and Shikaripur taluks of Shivamogga District comes under this zone. KVK, Navile, Shivamogga is located in this zone.
		• The zone 7 has varying altitude ranging from as low as 547 m. in the North to as high as 1050 m. in the South.
		• The soils of the zone are predominantly sandy soils, shallow to moderate deep, reddish brown to black in colour, slightly acidic in pH and low in organic matter. Soils are generally medium in fertility and respond well to irrigation, manuring and management practices.
		<ul> <li>The climate of the zone is basically tropical benefited by the two monsoons accounting for major part of the rainfall. The zone receives an average annual rainfall of 580.6 mm. The lowest minimum temperature ranges from 14.9°C (December) to 23.2°C (April) while the maximum temperature ranges from 28.4 °C (July) to 39.1 °C (April).</li> </ul>
2.	Hilly Zone (Zone - 9)	<ul> <li>The total geographical area of hilly Zone (Zone–9) is 22.90 lakh ha. Soraba, Sagara, Thirtthahally and Hosanagara taluks of Shivamogga District comes under this zone.</li> </ul>
		• The zone - 9 has varying altitude ranging from as low as 700 to as high as 1050 m. above mean sea level.
		• The soils of the zone are predominantly sandy loamy or sandy clay loam soils, shallow to moderate deep, yellow, reddish brown to black in colour, low in cation exchange capacity, low

in water holding capacity, moderately to highly acidic in pH, low in organic matter and deficient in zinc and boron. Generally, the soils are low in fertility and respond well to irrigation, manuring and management practices.
• The climate of the zone is basically tropical benefited by the two monsoons accounting for major part of the rainfall. The zone receives and average annual rainfall of 2308 mm with a minimum of 922 mm and maximum of 3695 mm. The lowest minimum temperature of 100 °C will be observed during winter.

SI. No	Agro ecological situation	Characteristics
1	Lateritic gravelly soils with high rainfall based (Thirthahally, part of Hosanagara, Sagara and Soraba taluks)	Comparatively dense forest based, hilly tracks, moderate temperature region, high rainfall. The soils under this AES soils are yellow, reddish brown surface sandy loamy soils or sand clay loam texture. These soils are low in cation exchange capacity with medium water holding capacity and low in fertility status i.e. low in organic matter, and deficiency in zinc and boron. The Western Ghats regions are rich in flora and fauna. Medicinal plants and herbs like, Asana, Amla, Sandal, Anale, Sarpagandhi, Terminalia, Bixa,etc
2	Red loamy soil with medium rainfall (Parts of Sagara, Soraba, Shikaripura and Hosanagara)	This AES's comprises of medium rainfall area with medium temperature. The soils are medium, shallow to moderate deep with reddish brown to black in colour. Medium in water holding capacity, low in organic matter, only in some patches deficient in Zinc and Boron.
3	Red and Black mixed soils with medium rainfall (Parts of Shivamogga, Bhadravathi, Shikaripura)	The soils under this AES are derived from Ignatius rocks and montmorillonite clay with high in fertility status, high in water holding capacity and cation exchange capacity. These soils are deep and sufficient in micronutrients except some patches.
4	Irrigated red sandy with medium rainfall (Parts of Shivamogga and Bhadravathi)	Comparatively plain lands. Less vegetation, higher temperature. Soils of this situation are predominantly sandy soils, shallow to moderate deep, reddish brown to acidic in pH. Soils are medium in fertility level and respond well for irrigation, manuring and other management practices.

## 2.3 Soil type/s

SI. No	Soil type	Characteristics	Area in ha
1	Red Sandy	Red sandy soils are derived from acidic rock materials, reddish brown to dark reddish brown in colour and gravelly loamy sand to sandy loam in texture. They are neutral to acidic in reaction with low cation exchange capacity, low base saturation and low water holding capacity. The soils are well drained and respond well to irrigation, manuring and other management practices. These soils are found in the eastern parts of Shikaripur and entire Shivamogga and Bhadravathi Taluks.	Red gravelly loam – 61546 Red loamy – 22819 Red gravelly clay – 6357 Red gravelly mixed with deep black – 58849 Red clayey – 33904 Red gravelly clay – 14491 Red clayey – 14167 Laterite gravelly clay – 13524 Laterite clayey – 118301 Laterite gravelly clay – 19904
2	Mixed Red and Black	The soils are derived from ignetious rocks and montmorillonite clay with high fertility status, high in water holding capacity and cation	Black clayey – 22358 Alluvial loamy – 61133 Alluvial black clayey – 12087

	Soils	exchange capacity. The soils are deep and sufficient in micronutrients except in some patches. These soils are found in the eastern parts of Shikaripur and entire Shivamogga and Bhadravathi Taluks.	Alluvial clayey – 25660 Forest brown clayey – 15441 Red gravelly clayey –36446
3	Red Ioamy Soils	The soils are medium, shallow to moderate, deep with reddish brown to Black in colour. They are Medium in water holding capacity, low in organic matter, deficient in Zinc and Boron in some patches. These soils are found in the eastern parts of Sagar, Soraba, Shikaripur and Hosanagar Taluks.	
4	Lateritic gravelly soils	Laterite soils are derived from acidic ignetious rocks, sand stones and sedimentary rocks, yellowish red to reddish brown in colour. They are dominated with kaolinite clay mineral. The soils are acidic with low cation exchange capacity and medium water holding capacity. These soils are found in the western parts of Shikaripur taluk, Thirthahalli and parts of Hosanagar, Sagar and Soraba Taluks.	

Source: NBSS & LUP Publication - 47 (1998)

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

SI. No	Сгор	Area (ha)	Production (Metric tons)	Productivity (kg /ha)			
Field Cr	Field Crops						
1.	Paddy	120629	394521	3332			
2.	Hybrid Jowar	100	698	1918			
3.	Bajra	2	5	1416			
4.	Maize	47254	191117	3074			
5.	Ragi	501	1115	1736			
6.	Redgram	254	234	965			
7.	Horse gram	50	19	541			
8.	Black gram	83	32	602			
9.	Green gram	920	182	197			
10.	Avare	42	45	1008			
11.	Cowpea	276	88	406			
12.	Bengal Gram	11	36	806			
13.	Groundnut	341	388	862			
14.	Sunflower	842	1971	2241			
15.	Safflower	11	6	828			
16.	Caster	2	5	966			
17.	Sesame	9	7	559			
18.	Niger	5	28	262			
19.	Flax seeds	1	1	308			
20.	Cotton	845	1796	435			
21.	Sugarcane	6736	583656	125000			
22.	Tobacco	6	2	850			

Source: Director of Economic and statistics (2015-16)

SI. No	Itural Crops Crop	Area (ha)	Production (tons)	Yield (t/ha)
1.	Mango	3959	53065	30.40
2.	Banana	5204	138125	26.54
3.	Guava	17	340	20
4.	Sapota	693	9536	13.76
5.	Pineapple	1411	84660	60
6.	Pomegranate	9	90	10
7.	Jack	13	520	40
8.	Limes and lemon	10	250	25
9.	Sweet orange	3	54	18
10.	Pepper	1354	450.54	0.33
11.	Cardamom	376	56.35	0.14
12.	Tamarind	4.5	22.50	5
13.	Ginger	5892	58920	10
14.	Turmeric	38	570	15
15.	Cinnamom	2	0.3	0.15
16.	Vanilla	53	15.9	0.3
17.	Coconut	6500	715	0.11
18.	Arecanut	50820	72726	1.43
19.	Betelvine	150	2580	17.20
20.	Сосоа	509	305.4	0.6
21.	Oil Palm	617	1611	2.61
22.	Cashew	1226	1839	1.5
23.	Tomato	116	2650	22.84
24.	Brinjal	42	840	20
25.	Green chilli	138	1992	14.43

Source: Department of Horticulture, Shivamogga (2015-16)

#### 2.5. Weather data

		Tempera	Relative	
Month	Rainfall (mm)	Maximum	Minimum	Humidity (%)
Apr-16	11.2	39.1	23.2	56.2
May -16	88.2	36.1	23.1	68.3
June-16	149.8	29.8	21.9	81.6
July-16	158.2	28.4	21.6	82.5
August-16	93.8	29.1	21.3	84.7
September-16	26.0	29.3	20.8	82.9
October-16	18.2	32.3	18.9	79.6
November-16	21.2	32.2	16.1	68.6
December-16	7.2	31.7	14.9	69.3
Jan-17	0	32.0	15.4	71.3
February-17	0	34.3	17.7	80.7
March-17	6.8	36.4	19.2	72.0
TOTAL	580.6	32.56	19.51	80.05

Source: Agromet advisory services CoA / ZAHRS, Shivamogga

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

Category	Population	Production	Productivity				
Cattle							
Crossbred	112000	44000 MT	5.909				
Indigenous	456000	80000 MT	2.388				
Total	568000	124000 MT					
Buffalo	149515	43000	2.446				
Sheep	36791	491527.76 kg(meat)	13.36				
Goats	58034	638954.34Kg	11.01				
Pigs	4007	161321.82Kg	40.26				

**Source :** Department of Animal husbandry, Shivamogga (2014-15)

### 2.7 District profile has been updated for 2016-17 Yes / No: YES

## 2.8 Details of Operational area / Village

SI. No.	Name of the Taluk /block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problems identified	Identified thrust areas
1.	Shivamogga	Hunsodu, Mathodu, Basavanaganguru	2	Paddy, Areca, black pepper , nutmeg, cocoa, betel vine,	Stem borer, nutrient losses, quick wilt in black pepper, lack of knowledge on value addition in cocoa, nut dropping in arecanut, Blast, nutrient losses	Integrated Crop Management, Integrated Nutrient Management, Integrated Pest & Disease Management
		Aladalli, Belalakatte Sominakoppa, Godekoppa, Koodi	5	Maize, Paddy, vegetables, banana, arecanut, Ginger	Bacterial wilt problem in solaneceous vegetables, hidimundige in arecanut, murda complex in chilli, Lack of knowledge on high yielding varieties in vegetables, Stem borer, Rhizome rot	Integrated Crop Management , Integrated Pest Management and Integrated Disease Management
		Kyatinakoppa, Kommanalu	2	Paddy, sugarcane, arecanut, , finger millet, vegetables	Stem borer, nutrient deficiency, inflorescence dieback and caterpillar, monocropping	Integrated Pest, Disease, Nutrient Management, Fodder crop management for dairy animals
		Holehatti	1	Arecanut, coconut, paddy, maize, ragi	Transportation problem when sugarcane is cultivated	Resource Management
		Hosahalli, Laxmipura	1	Arecanut, paddy	Improper resource management	Resource Management
		Chikkamarasa Koteganguru, Harnahalli, Ayanur,	1	Paddy, maize, ginger, arecanut, banana, watermelon, vegetables	Stem borer, rhizome rot, bud necrosis in watermelon, lack of awareness on high yielding hybrids, Fusarium wilt in banana, low yielding varieties in ginger, non availability of multi cut fodder crops	Integrated Crop, Pest & Disease Management
2.	Sagar	Shettikoppa, Balekoppa, Gullehalli,Shiruvala, Toragudo, Kalase, Anandapura, Konanakatte	2	Pineapple, arecanut, Paddy, Sugarcane, Coconut, fodder crops	Heart rot disease in pineapple, arecanut root grub, non availability of multi cut fodder crop, Root grub, wilt, thirps, stem borer	Integrated Pest and Disease Management

SI. No.	Name of the Taluk /block	Name of the Village				Major crops & enterprises	Major problems identified	Identified thrust areas
		Eleneerukoppa, 3 Halemugalagere,		Maize, sunflower, groundnut, pulses, maize, pulses, ragi, vegetables	Nutrient deficiency, wilt disease, sucking pests, Improper resource management, mono cropping	Integrated Pest, Disease, Nutrient Management, Integrated waste management, Integrated Crop Management, Fodder crop management		
3.	Shikaripura	Vittalanagara	1			Fodder crop management for dairy, sheep, poultry		
		Nimbegondi, Isoor, Anjanapura, Eleneerukoppa		Turmeric, groundnut, maize, sunflower, vegetables, ginger, arecanut	Rhizome rot, bud necrosis, low yielding in vegetables, yellow leaf disease in arecanut, low yielding varieties in ginger, Lack of knowledge on short duration pulses varieties	ICM, IPDM		
		Kadadakatte, Majjgenalli, Bhandaralli	2	Paddy, sugarcane, arecanut, banana, vegetables	Inflorescence dieback and caterpillar in arecanut,	Integrated Pest and Disease Management		
4.	Bhadravathi	Holebyranahalli , Bhandarahalli, Karehalli	3	Turmeric, arecanut, paddy, banana, maize, flower crops	Lack of knowledge on micro nutrient management, low yielding varieties and Rhizome rot in turmeric, Stem borer, nutrient deficiency, inflorescence dieback and caterpillar	Integrated Crop Management and Integrated Nutrient Management , Integrated Pest, Disease, Nutrient Management		
5.	Soraba	Samanavalli	1	Paddy, arecanut, pineapple, ginger, banana, vegetables	Pest and disease problem in paddy, ginger	Integrated Pest and disease Management		
6.	Thirthahalli	Mandagadde	2	Paddy, arecanut, banana	Pest and disease problem in paddy, Koleroga in arecanut, psudostem weevil in banana	Integrated Pest and disease Management		
7.	Hosanagara	Jayanagar, Humcha, Gartikere, Ripponpet, Kerehalli 2 Paddy, ginger, arecanut, Banana Pest and disease problem in paddy, Koleroga in arecanut, psudostem weevil in banana		Integrated Pest and disease Management				

## 2.9. Priority thrust areas

SI. No.	Thrust Area
1.	Integrated Crop Management
2.	Integrated Nutrient Management
3.	Integrated Pest and Disease Management
4.	Variety / Hybrid introduction
5.	Farm mechanisation
6.	Quality seed / seedlings production
7.	Fodder production
8.	Backyard poultry
9.	Value addition
10.	Post harvest technology
11.	Organic Farming
12.	Apiculture

# PART III - TECHNICAL ACHIEVEMENTS

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

	O	FT		FLD					
		1			2				
Numb	per of OFTs	Numbe	er of farmers	Number of FLDs Number of farmers					
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement		
2	2	15	15	15 15 148 14					

	Trai	ning		Extension Programmes					
		3		4					
	mber of ourses		mber of ticipants		mber of grammes	Number of participants			
Targets	Achievement	Targets	Achievement	Targets	ts Achievement Targets		Achievement		
60	83	3250	3557	28	19	12000	16343		

Seed Proc	luction (Qtl.)	Planting m	aterials (Nos.)			
	5	6				
Target	Achievement	Target	Achievement			
20.0	20.5	15000	17732			

	strains and fingerlings No.)	Bio-pro	ducts (Kg)			
	7	8				
Target	Achievement	Target	Achievement			
-	-	-	-			

				Interventions									
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No`.)	Supply of livestoc k (No.)	Supply of bio products
1.	INM	Paddy	Assessment of Nitrogen use efficiency in paddy	Assessment of Nitrogen use efficiency in paddy	-	1	-	-	Field day:1; Field visits:7	-	-	-	-
2.	Resource management	Arecanut	1) Huge quantity of areca waste is thrown on public places and is burnt 2) Pollution 3) Very slow degradation	Evaluation of composting methodology for areca husk	-	1	-	-	Field visit=1				
3.	IPDM	Paddy	Blast, Udubatta, Sheath blight, Stem borer, Leaf roller	-	Pest and disease management in paddy	3	-	-	Field visits=4, Group discussions=1 Advisory services=5				
4.	Food Science and Nutrition	Millet	Diabetes problem	-	Millet based diet among diabetics	3	-	-	Visit : 2 Advisories over phone : 2				
5.	ICM	Groundnut	Zinc & Boron Deficiency, Low shelling percentage, Incidence of leaf eating caterpillars, Leaf spot disease		Integrated Crop Manageme nt in groundnut	-	-	-	Field day :1; Field visit :5	Seeds : 3.95	-	-	Trichoderma=5 kg Pseudomonos=5 kg
6.	Integrated Crop Management	Sunflower	Sulphur deficiency in acid soils, Incidence of powdery mildew	-	Integrated Crop Manageme nt in sunflower	1	-	-	Field visit:1; Field day :1				

# 3.B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in SI.No.2.7

								Inter	rventions				
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No`.)	Supply of livestoc k (No.)	Supply of bio products
7.	Food and Nutrition	Pulse (Soya)	Menopausal problems		Demonstration on Soya based health food for menopausal problems	2	-	-	Visit : 2 Advisory services over phone =4	-	-	-	
8.	Varietal evaluation	Turmeric	Low yield and low curcumin content		High yielding and high curcumin content Turmeric variety- PTS-24	-	-	-	Field visit:3;	-	-	-	-
9.	Resource management	Black gram	Non adoption of short duration pulse varieties for paddy fallows	-	Demonstratio n on short duration Black gram variety Rashmi (LBG – 625) in rice fallows	1	-	-	Field visit:5		Seeds : 150 kg.	-	-
10.	IPM	Arecanut	Root grub	-	Management of Root grub in areca nut	1	-	-	Field visit:4	-	-	-	Neem cake=600 kg
11.	IPDM	Arecanut	Inflorescence die back and caterpillar	-	Management of inflorescence die back & caterpillar in areca nut	1	-		Field visit=3 Advisory services=1	-	-	-	
12.	IPDM	Ginger	Shoot borer, defoliators and rhizome rot	-	Management of Major Pest and Diseases in Ginger	7	-	-	Field visit:5	-	-	-	Pseudomonos =10 kg. Trichoderma=10 kg
13.	IDM	Pineapple	Heart rot disease	-	Management of Heart rot disease in pineapple	1	-	-	Field visit : 3	-	-	-	Neem cake=600 kg. Trichoderma=28 kg.

								Inter	ventions				
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No`.)	Supply of livestoc k (No.)	Supply of bio products
14.	Varietal evaluation	Hebbal Avare-4 (HA-4)	Improper utilization of inter-space and weed menace in younger arecanut gardens	-	Inter- cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens	1			Field visit : 4	Seeds : 0.75 Field visits : 2;			
15.	Varietal evaluation	French bean	Non adoption of photo period insensitive, less-string variety	-	Demonstrat ion of photoperiod insensitive, stringless & high yielding French bean variety - Arka Sharath				Field day : 1 Group discussion : 3; Field visits : 5;	Seeds : 0.75			
16.	Fodder production	Fodder Sorghum	Fodder scarcity, unaware of fodder crop, varieties and nutritional deficiencies in dairy cows	-	Introduction of Fodder Sorghum CoFS-31	-	-	-	Field visits : 4,				
17.	Food Science & Nutrition	Vegetables	Lack of awareness on nutrition and Nutritional deficiency		Demonstrat ion on Nutritional Gardens to ensure nutritional security	3	-	-	Method demonstration : 3; Field visit : 6 Advisory services over phone : 2	-	175		Vegetable special = 10 kg. Vermicompost= 2.5 q.

# 3.B2. Details of technology used during reporting period

S.		Source of	0		No.	of programmes	conducted
No	Title of Technology	technology	Crop/enterprise	OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment of Nitrogen use efficiency in paddy	UAS, Bengaluru DRR Hyderabad IARI, New Delhi	Paddy	5	-	1	Field day:1 Field visit : 8
2.	Evaluation of composting methodology for areca husk	UAS, Bengaluru and Scientific literature. International journal of research in applied natural and social sciences	Arecanut	10		1	Field visit : 3 Advisory services=1
3.	Pest and disease management in paddy	UAS, Bengaluru	Paddy		8	3	Field visits=4, Group discussions=1, Advisory services=5,
4.	Millet based diet among diabetics	RHSc (FSN), UAS, Dharwad	Millet		20	2	Visit : 2 Advisories over phone : 2
5.	Integrated Crop Management in groundnut	UAS, Dharwad	Groundnut		5	-	Field day : 1 Field visit : 5
6.	Integrated Crop Management in sunflower	UAS, Bangalore	Sunflower		10	1	Field day : 1 Field visit : 1 Advisories over phone =15
7.	Demonstration on Soya based health food for menopausal problems	RHSc (FSN), UAS, Dharwad	Soya		20	2	Visit : 2 Advisory services over phone =4
8.	High yielding and high curcumin content Turmeric variety-PTS-24	OUAT, Bhuvaneshwar	Turmeric		3	-	Field visit:3

S.		Source of	Cran/antornriaa		No.	of programmes	conducted
No	Title of Technology	technology	Crop/enterprise	OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
9.	Demonstration of black gram variety Rashmi (LBG – 625)	UAS, Bangalore	Blackgram		20	3	Field visits : 5
10.	Management of Root grub in areca nut	UAS, Bengaluru	Arecanut		5		
11.	Management of inflorescence die back & caterpillar in areca nut	UAS, Bengaluru	Arecanut		10	1	Field visit : 3
12.	Management of Major Pest and Diseases in Ginger	UAS, Bangalore	Ginger		10	7	Field visit : 5
13.	Management of Heart rot disease in pineapple	UAS, Dharwad	Pineapple		5	1	Field visit : 3
14.	Inter-cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens	UAS, Bengaluru	Hebbal Avare-4 (HA-4)		13	1	Field visit : 4
15.	Demonstration of photoperiod insensitive, stringless & high yielding French bean variety - Arka Sharath	IIHR, Bangalore	French bean		5	2	Field visit : 5, Group discussion : 3, field day : 1
16.	Introduction of Fodder Sorghum CoFS-31	TNAU, Coimbatore	Fodder sorghum CoFS-31		20	-	Field visit : 4
17.	Demonstration on Nutritional Gardens to ensure nutritional security	UAS, Bengaluru	Vegetables		5	3	Method demonstration : 3; Field visit : 6 Advisory services over phone : 2

#### 3.B2 contd..

3.DZ	No. of farmers covered           OFT         FLD         Training         Others (Specify)															
SI.			OFT							Trai	ning		Others (Specify)			
No.		neral	SC	C/ST		eral		/ST		neral		/ST		neral		/ST
	М	F	M	F	М	F	М	F	М	F	М	F	М	F	м	F
1.	4	-	1	-					5	14	2	4	31	8	5	2
2.	6	2	2	-					67	3	24	0	4	-	-	-
3.					8	-	-	-	58	19	21	8	20	2	1	-
4.					2	15	1	2	4	105	0	16	7	32	1	3
5.					4	-	1		-	-	-	-	24	8	5	3
6.					5	-	4	1	2	-	9	1	11	-	55	-
7.									2	62	0	9	-	24	-	4
8.					3	-	-	-	-	-	-	-	3	-	-	-
9.					15	4	1	-	124	43	18	7	4	1	1	-
10.					5	-	-	-	5	-	4	1	3	1	2	-
11.					10	-	-	-	5	-	4	-	3	-	-	-
12.					10	-	-	-	270	102	30	77	21	2	2	1
13.					5	-	-	-	13	21	4	12	2	2	1	1
14.					11	-	2	-	2	35	0	7	7	-	-	-
15.					5	-	-	-	17	15	3	5	65	8	17	2
16.					18	-	2	-	-	-	-	-	4	-	-	-
17.					3	2	-	-	82	47	27	27	42	48	6	5

# PART IV - On Farm Trial

# 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	1									1
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						l				
Technique										
Mushroom										
cultivation										
Composting										
technique	1									1
TOTAL	2									2

# 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 : NIL

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

# 4.A4. Abstract on the number of technologies refined in respect of livestock enterprises : NIL

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	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

Thematic areas	Сгор	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management	Paddy	Assessment of Nitrogen use efficiency in paddy	5	5	2.0
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					
Resource management	Arecanut	Evaluation of composting methodology for areca husk	10	10	10 units
Total			15	15	2.0 ha + 10 units

## 4.B.1. Technologies Assessed under various Crops

#### 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 trail 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			
Drudgery Reduction			
Storage Technique			
Storage rechnique			
Mushroom cultivation			
Total			

## 4.B.3. Technologies assessed 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				
	<u> </u>	Total		

#### 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 : 1) Assessment of Nitrogen use efficiency in paddy

Crop	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment		Data on th	e paramete	r	Results of assessment	Feedback from the farmer
				_	•	_			8			1.
1	2	3	4	5	6	7	Tech. opt.1	Tech. opt.2	Tech. opt.3	Tech. opt.4	9	10
Paddy	Irrigated	Leaching and volatilizatio	Assessment of Nitrogen use	5	Technology. Opt1 : Basal application of N & P only followed by N & K	Nutrient status	246.17	246.17	246.17	246.12	Higher No. of tillers and yield	Farmers are interested in new
		n losses of efficiency 'N' in paddy at critical	top dressing. Technology. O	top dressing. Technology. Opt2 :	Productive Tillers / m <sup>2</sup>	177	197	206	212.2	observed in	technologies they told that,	
		at critical growth stages			Recommended dose of fertilizers (RDF): Basal application of 50% N & K	(RDF): Basal Grain yield 47.2 53.8 59 58.4	alternate practices	they practice these technologies				
			and 1009 top dress splits at 2	and 100% P. 50% N as top dressing in two equal splits at 25 and 55 DAP and 50% K at 55 DAP.	B:C	2.55	2.99	3.12	3.19		in future	
					Technology. Opt3 : Recommended NPK + foliar application of 1% 19:19:19 NPK at maximum tillering stage + foliar application of 1% 13:0:46 NPK at grain filling stage.							
				Technology. Opt4 : RDF:RD Nitrogen throu slow release urea (Nee coated urea)								

Contd Any refinement needed	Justification for refinement	Technology Assessed	Source of Technology	Production	Please give the unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16	17	18
		<b>Technology. Option 1:</b> Basal application of N & P only followed by N & K top dressing.	Farmer practice	47.2	q/ha	57480	2.55
		<b>Technology. Option 2:</b> RDF, basal application of 50% N & K + 100 % P, 50% N as top dressing in 2 split & 55 DAP + 50% K at 55 DAP	UAS, Bengaluru	53.8	q/ha	71660	2.99
-	-	<b>Technology. Option 3:</b> Recommended NPK + foliar application of 1% 19:19:19 NPK at maximum tillering stage + foliar application of 1% 13:0:46 NPK at grain filling stage.	UAS, Bengaluru + DRR, Hyderabad	59	q/ha	80260	3.12
		<b>Technology. Option 4 :</b> RDF:RD Nitrogen through slow release urea (Neem coated urea)	IARI, New Delhi	58.4	q/ha	80280	3.19

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- 1) **Title of Technology Assessed** : Assessment of Nitrogen use efficiency in paddy
- 2) **Problem Definition :** Improper nutrient management

SI. No.	Technological Options	Details of Technology
1.	Farmer's Practice	Basal application of N & P only followed by N & K top dressing.
2.	Technological Option 2	Recommended dose of fertilizers (RDF): Basal application of 50% N & K and 100% P. 50% N as top dressing in two equal splits at 25 and 55 DAP and 50% K at 55 DAP.
3.	Technological Option 3	Recommended NPK + foliar application of 1% 19:19:19 NPK at maximum tillering stage + foliar application of 1% 13:0:46 NPK at grain filling stage.
4.	Technological Option 4	RDF:RD Nitrogen through slow release urea (Neem coated urea)

#### 3) Details of technologies selected for assessment

- **4) Source of technology:** UAS, Bengaluru, UAS, Bengaluru + DRR, Hyderabad, IARI, New Delhi
- 5) Production system and thematic area : Irrigated, INM
- 6) Performance of the Technology with performance indicators:
- 7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
- 8) Final recommendation for micro level situation: Nitrogen fertilizer split application and application through NCU fulfil the crop nitrogen requirement and also availability of nitrogen at different crop growth stages and minimizes the nitrogen loss through leaching.
- 9) Constraints identified and feedback for research:
- **10) Process of farmers' participation and their reaction:** Farmers actively participated in the trial and they noticed the quality improvement in grains through foliar spray of potash.

Crop/ Entreprises	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Arecanut	Irrigated	1.Huge quantity of areca waste is thrown on public places and is burnt	Evaluation of composting methodology for areca husk	10	Tech. Opt.1: Burning / throwing on public places Tech. Opt.2 :Recommended practice: Layer-wise filling of arecanut wastes + other crop residues along with cow dung and red earth Tech. Opt.3 :Alternate practice:	Days for decomposition, nutrient content	-	-	-	-	-
		2.Pollution 3.Very slow degradation	L w B s c G tr	Layer-wise filling of arecanut wastes + other crop residues + Bioinoculants ( <i>Pleurotous</i> sajarcaju + <i>Phanerochaete</i> <i>chrysosporium</i> ) + N <sub>2</sub> +SSP + Green leaf manures (Pre- treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)							

2. Evaluation of composting methodology for areca husk.

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / unit	BC Ratio			
13	14	15	16	17	18			
Tech. Opt.1 : Burning / throwing on public places	Farmers' practice			·				
Tech. Opt.2 : Recommended practice: Layer-wise filling of arecanut wastes + other crop residues along with cow dung and red earth	UAS, Bengaluru							
Tech. Opt.3: Alternate practice: Layer-wise filling of arecanut wastes + other crop residues + Bioinoculants ( <i>Pleurotous sajarcaju</i> + <i>Phanerochaete chrysosporium</i> ) + $N_2$ + SSP + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)	n progress							

- 1. Title of Technology Assessed : Evaluation of composting methodology for areca husk
- Problem Definition: (1) Huge quantity of areca waste is thrown on public places and is burnt,
   (2) Pollution (3) Very slow degradation

SI. No.	Technological Options	Details of Technology
1.	Technology option 1	Burning / throwing on public places
2.	Technology option 2	Recommended practice :Layer-wise filling of arecanut wastes + other crop residues along with cow dung and red earth
3.	Technology option 3	Alternate practice: Layer-wise filling of arecanut wastes + other crop residues + Bioinoculants ( <i>Pleurotous sajarcaju</i> + <i>Phanerochaete</i> <i>chrysosporium</i> ) + $N_2$ + SSP + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)

#### 3. Details of technologies selected for assessment

- **4. Source of technology :** UAS, Bengaluru, Scientific literature. International journal of research in applied natural and social sciences
- 5. Production system and thematic area : Irrigated and Resource conservation
- 6. Performance of the Technology with performance indicators:
- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
- 8. Final recommendation for micro level situation :
- 9. Constraints identified and feedback for research :
- 10. Process of farmers' participation and their reaction :

#### 4.D1. Results of Technologies Refined : NIL

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined t	Data on the parameter	Results of refinement	Feedback from the farmer	Details of refinement done				
1	2	3	4	5	6	7	8	9	10	11				

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

Contd..

Technology Refined	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/ year)	Net Return (Profit) in Rs. / unit	BC Ratio
13		14	15	16	17
Technology Option 1 (Best performing Technology Option in assessment)					
<b>Technology Option 2</b> (Modification over Technology Option 1)					
Technology Option 3 (Another Modification over Technology Option 1)					

# 4.D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the following details:

- 1. Title of Technology refined
- 2. Problem Definition
- 3. Details of technologies selected for refinement
- 4. Source of technology
- 5. Production system and thematic area
- 6. Performance of the Technology with performance indicators
- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
- 8. Final recommendation for micro level situation
- 9. Constraints identified and feedback for research
- 10. Process of farmers participation and their reaction

# PART V - FRONTLINE DEMONSTRATIONS

# 5.A. Summary of FLDs implemented during 2015-16

Gran	Name of the	Veriety	Hybrid	Farming	No. of	Area		Yiel	d (q/ha)		%	*Econ	omics of o (Rs./		tion	*Economics of check (Rs./ha)			
Crop	technology demonstrated	Variety	пурпи	situation	Demo.	(ha)		Demo	-	Check	Incre ase	Gross	Gross	Net	**	Gross	Gross	Net	**
	uomonotiatoa						Н	L	A			Cost	Return	Return	BCR	Cost	Return	Return	BCR
Groundnut	Integrated Crop Management in groundnut	GPBD-4	-	Irrigated	3	1.2	22	22	20.66	18.33	12.71	19666	71000	51334	3.61	17850	63666	45816	3.56
Drumstick	Demonstration of Drumstick variety – <i>Bhagya</i>	Bhagya	-	Rainfed	7	2.8	273.50	180	228.06	141.85	60.77	81178	342096	260970	4.21	67385	213285	145900	3.16
Black Pepper	Performance of Panniyur-1 grafted on <i>Piper</i> <i>colubrinum</i>	Panniyur-1	-	Irrigated	3	0.2	IN PROGRESS												
Sugarcane	Production technology of Sugarcane	Co-86032	-	Irrigated	2	0.8	88	85	86.5	85.5	1.16	96500	190300	93800	1.96	96500	188100	91600	1.94
Arecanut	Management of inflorescence die back & caterpillar in areca nut	Thirthahalli local	-	Limited irrigation	10	4.0	11.5	8.5	9.75	7.6	28.28	60100	243750	183650	4.05	51900	190000	138100	3.67

SI. No	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology	Area	(ha)		o. of farmers emonstratior		Reasons for shortfall in
NO		Situation	Year			,		Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
1.	Oilseeds	Irrigated	Summer- 2016	Groundnut	G-2-52	-	Integrated Crop Management	Integrated Crop Management in groundnut	2.0	2.0	1	4	5	
								• Variety G-2-52						
								<ul> <li>Lime application based on soil test</li> </ul>						
								<ul> <li>Seed treatment with <i>Rhizobium</i>, PSB &amp; <i>Trichoderma</i></li> </ul>						
								• Gypsum application @ 500 kg / ha						
								<ul> <li>Foliar application of borax @ 0.2 %</li> </ul>						
		Irrigated	Summer, 2016	Sunflower	-	SB- 275	Integrated Crop Management	Integrated Crop Management in sunflower	4.0	4.0	5	5	10	-
								<ul> <li>Lime application based on soil test</li> </ul>						
								<ul> <li>Sulphur application @ 20 kg/ha.</li> </ul>						
								<ul> <li>Foliar spray with borax 0.2 %</li> </ul>						
								<ul> <li>Spray with Imidacloprid 0.5 ml/ltr.</li> </ul>						
								<ul> <li>Use of Trichoderma</li> </ul>						

## 5.A. Summary of FLDs implemented during 2016-17

SI.	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology	Area	(ha)		o. of farmers emonstratior		Reasons for shortfall in
No		Situation	Year		, <b>,</b>	, , , ,		Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
2.	Pulses	Rice fallow	Rabi/ summer, 2016	Black gram	Rashmi (LBG-625)	-	Varietal evaluation	Demonstration on short duration Black gram variety Rashmi (LBG – 625) in rice fallows	8.0	8.0	1	19	20	
								• Short duration black gram variety Rashmi (LBG – 625) in rice fallows,						
								• Seed treatment with bio-fertilizers						
		-	-	Soya bean	-	-	Food Science and Nutrition	Demonstration on Soya based health food for menopausal problems	20	20	2	18	20	
								<ul> <li>Soya based health food         <ul> <li>Soya Hurigalu</li> </ul> </li> </ul>						
3	Cereals	Irrigated	Kharif- 2016	Paddy	JGL 1798	-	IPDM	Pest and disease management in paddy	3.2	3.2	0	8	8	
								<ul> <li>Seed treatment with Carbendazim @ 4 gm/kg</li> </ul>						
								<ul> <li>Application of Fipronil @ 10 kg/ac</li> </ul>						
								<ul> <li>Spraying of</li> </ul>						

SI.	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology	Area	(ha)		lo. of farmers lemonstratior		Reasons for shortfall in
No	0,	Situation	Year	•	,			Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
								Tricyclozole @ 0.6 gm/ltr.						
								Spraying of Hexaconozole @ 1 ml/ltr.						
								Spraying of Chlorpyriphos @ 2 ml/ltr.						
4	Millets	-	2016	Millets	-	-	Food Science and Nutrition	Consumption of millet based diabetic mix	20	20	1	19	20	
5	Vegetables	Irrigate d	Kharif- 2016	French bean	Arka Sharath	-	Varietal evaluation	Demonstration of photoperiod insensitive, stringless & high yielding French bean variety - Arka Sharath • Photo-period insensitive, String-less, Disease tolerant, High yielding variety	2.0	2.0	-	5	5	
		Limited irrigation	Kharif- 2016	Field bean	Hebbal Avare (HA- 4)	-	Varietal evaluation	Inter-cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens	5.2	5.2	2	11	13	
6	Flowers													
7	Ornamental													

SI.	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area	(ha)		o. of farmers emonstratior		Reasons for shortfall in
No		Situation	Year	•	-	-		Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
8	Fruit	Limited irrigation	Kharif 2016	Pineapple	Kew	-	Integrated Disease Management	Management of Heart rot disease in pineapple	2.0	2.0	0	5	5	
								<ul> <li>Soil application of Neem cake enriched Trichoderma @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3% Drenching with Metalaxyl MZ when disease noticed</li> </ul>						
9	Spices and condiments	Limited irrigation	Kharif- 2016	Ginger	Himachal	-	Integrated Pest and disease Management	<ul> <li>Management of Major Pest and Diseases in Ginger</li> <li>Rhizome treatment with 0.2% Curzate + 0.05% Streptocyclin.</li> <li>Drenching the same chemicals when disease noticed.</li> <li>Spraying of Lamda Cyhalothrin @ 0.1 %</li> <li>Spraying of Profenophos @ 0.2 %</li> </ul>	4.0	4.0	0	10	10	

SI.	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology	Area	(ha)		lo. of farmers lemonstratior		Reasons for shortfall in
No		Situation	Year			<b>,</b>		Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
		Irrigated	Kharif- 2016	Turmeric	PTS-24	-	Varietal evaluation	High yielding and high curcumin content Turmeric variety-PTS-24	0.6	0.6	0	3	3	
10	Commercial													
11	Medicinal and aromatic													
12	Fodder	Irrigated	Kharif- 2016	Fodder sorghum	CoFS-31	-	Fodder crop	Introduction of Fodder Sorghum CoFS-31	5.0	5.0	2	18	20	
								Introduction of Fodder sorghum CoFS-31						
13	Plantation	Irrigated	Kharif- 2016	Arecanut	Sagar local	-	Integrated Pest Management	<ul> <li>Management of Root grub in areca nut</li> <li>Soil application of neem cake @ 2 kg/palm</li> <li>Drenching of Imidacloprid 3L solution/palm @ 0.5 ml/L</li> </ul>	2.0	2.0	-	5	5	
		Limited irrigation	Summer 2016	Arecanut	Tarikere local	-	Integrated Pest Management	Management of inflorescence die back & caterpillar in areca nut • Spraying with 0.2% Carbendazim+ Mancozeb + Chlorpyriphos @ 0.2%	4.0	4.0	-	10	10	

SI.	Category	Farming	Season and	Сгор	Variety/ breed	Hybrid	Thematic area	Technology	Area	(ha)		lo. of farmers lemonstration		Reasons for shortfall in
No		Situation	Year					Demonstrated	Proposed	Actual	SC/ST	Others	Total	achievement
14	Fibre													
15	Dairy													
16	Poultry													
17	Rabbitry													
18	Pigerry													
19	Sheep and goat													
20	Duckery													
21	Common carps													
22	Mussels													
23	Ornamental fishes													
24	Oyster mushroom													
25	Button mushroom													
26	Vermicompost													
27	Sericulture													
28	Apiculture													
29	Implements													
30	Other – Nutritional Garden	Limited irrigation	Kharif- 2016	Vegetabl es	-	-	Food Science & Nutrition	Establishment of nutritional garden in schools	5	5		5	5	

SI. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		ondución			brood		urou		Ν	Ρ	K	orop grown
1.	Oilseeds	Irrigated	<i>Summer</i> 2016	Groundnut	G-2-52	-	Integrated Crop	Integrated Crop Management in groundnut	L	Н	М	Paddy, Maize
							Management	• Variety G-2-52				
								• Lime application based on soil test				
								<ul> <li>Seed treatment with <i>Rhizobium</i>, PSB &amp; <i>Trichoderma</i> </li> </ul>				
								• Gypsum application @ 500 kg / ha				
								• Foliar application of borax @ 0.2 %				
		Irrigated	Summer, 2016	Sunflower	-	SB- 275	Integrated Crop	Integrated Crop Management in sunflower	L	Н	М	Maize
							Management	<ul> <li>Lime application based on soil test</li> </ul>				
								<ul> <li>Sulphur application @ 20 kg/ha.</li> </ul>				
								• Foliar spray with borax 0.2 %				
								• Spray with Imidacloprid 0.5 ml/ltr.				
								<ul> <li>Use of Trichoderma</li> </ul>				

5.A. 1. Soil fertility status of FLDs plots during 2016-17

SI. No	Category	Farming Situation	Season and Year	Сгор	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		Jituation			Dieeu		aica		Ν	Р	K	
2	Pulses	Rainfed	Rabi/ summer, 2016	Black gram	Rashmi (LBG- 625)	-	Varietal evaluation	Demonstration on short duration Black gram variety Rashmi (LBG – 625) in rice fallows	L	Н	М	Paddy
								<ul> <li>Short duration black gram variety Rashmi (LBG – 625) in rice fallows,</li> </ul>				
								Seed treatment with bio- fertilizers				
		-	-	-	-	-	Food Science and Nutrition	Demonstration on Soya based health food for menopausal problems	-	-	-	-
								Soya based health food – Soya Hurigalu				
3	Cereals	Irrigated	Kharif- 2016	Paddy	JGL 1798	-	IPDM	Integrated Pest and Disease management in paddy	L	н	М	Diancha
								<ul> <li>Seed treatment with Carbendazim @ 4 gm/kg</li> </ul>				
								<ul> <li>Application of Fipronil @ 10 kg/ac</li> </ul>				
								Spraying of Tricyclozole @     0.6 gm/ltr.				
								Spraying of Hexaconozole     @ 1 ml/ltr				
								<ul> <li>Spraying of Chloropyriphos</li> <li>@ 2 ml/ltr</li> </ul>				

SI. No	Category	Farming Situation	Season and Year	Сгор	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		ondation			biccu		urca		Ν	Ρ	K	crop grown
4	Millets	-	-	-	-	-	Food Science and Nutrition	Millet based diet among diabetics	-	-	-	-
								Consumption of millet     based diabetic mix				
5	Vegetables	Irrigated irrigation	Kharif- 2016	French bean	Arka Sharath	-	Varietal evaluation	<ul> <li>Demonstration of photoperiod insensitive, stringless &amp; high yielding</li> <li>French bean variety - Arka Sharath</li> <li>Photo-period insensitive, String-less, Disease tolerant, High yielding variety</li> </ul>	L	Η	М	Maize
		Limited irrigation	Kharif- 2016	Field bean	Hebbal Avare (HA-4)	-	Varietal evaluation	Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardens	L	Н	M	No intercrop in arecanut
6	Flowers											
7	Ornamental											
8	Fruit	Limited irrigation	Kharif 2016	Pineapple	Kew	-	Integrated Pest Management	<ul> <li>Management of heart rot disease in Pineapple</li> <li>Soil application of Neem cake enriched Trichoderma @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%</li> <li>Drenching with Metalaxyl MZ when disease noticed</li> </ul>	L	Н	М	Pineapple

SI. No	Category	Farming Situation	Season and Year	Сгор	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		ondation			biccu		arca		Ν	Р	K	crop grown
9	Spices and condiments	Limited Irrigation	Kharif- 2016	Ginger	Himachal	-	Integrated Pest and Disease Management	<ul> <li>Management of major pest and diseases in ginger</li> <li>Rhizome treatment with 0.2% Curzate + 0.05% Streptocyclin.</li> <li>Drenching the same chemicals when disease noticed.</li> <li>Spraying of Lamda Cyhalothrin @ 0.1 %</li> <li>Spraying of Profenophos @ 0.2 %</li> </ul>	L	Η	Μ	Maize, pulses
		Irrigated	Kharif- 2016	Turmeric	PTS-24	-	Varietal evaluation	High yielding and high curcumin content turmeric variety PTS-24	L	Н	М	Flower crops
10	Commercial											
11	Medicinal and aromatic											
12	Fodder	Irrigated	Kharif- 2016	Fodder Sorghum	CoFS-31	-	Integrated Crop Management	Introduction of Fodder Sorghum CoFS-31 • Introduction of Fodder sorghum CoFS-31	L	М	H	Maize, paddy, Sugarcane, Napier, Jowar, Fallow

SI. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		ondation			bieed		area		Ν	Р	K	
13	Plantation	Irrigated	Summer - 2016	Arecanut	Sagar local	-	Integrated Pest	Management of Root grub in areca nut	L	н	м	Arecanut
							Management	<ul> <li>Soil application of neem cake @ 2 kg/palm + <i>Metarhizium anisopliea</i> @ 20 gm/palm</li> <li>Drenching of Imidacloprid 3L solution/palm @ 0.5 ml/L</li> </ul>				
		Limited irrigation	Kharif- 2016	Arecanut	Tarikere local	-	Integrated Pest Management	Management of inflorescence die back & caterpillar in areca nut	L	н	М	Arecanut
								<ul> <li>Spraying with 0.2% Carbendazim+ Mancozeb</li> <li>+ Chlorpyriphos @ 0.2%</li> </ul>				
14	Fibre											
15	Dairy											
16	Poultry											
17	Rabbitry											
18	Pigerry											
19	Sheep & goat											
20	Duckery											
21	Common carps											
22	Mussels											

SI. No	Category	Farming Situation	Season and Year	Сгор	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	St	atus soil		Previous crop grown
		Citauton			Diccu		urou		Ν	Р	K	0.00 9.000
23	Ornamental											
25	fishes											
24	Oyster											
27	mushroom											
25	Button											
25	mushroom											
26	Vermicompost											
27	Sericulture											
28	Apiculture											
29	Implements											
30	Other – Nutritional Garden	Limited irrigation	Kharif-2016	Vegetables	-	-	Food Science & Nutrition	Establishment of nutritional garden in schools	-	-	-	-

#### 5.B. Results of Frontline Demonstrations

#### 5.B.1. Crops

Gran	Name of the	Veriety	Hybrid	Farming	No. of	Area		Yield	(q/ha)		% Incre	*Ecor	omics of ( (Rs./		tion	*	Economics (Rs.)	s of check /ha)	
Crop	technology demonstrated	Variety	нургіа	situation	Demo.	(ha)		Demo	-	Check	ase	Gross	Gross	Net	**	Gross	Gross	Net	**
							Н	L	A	CHECK	ase	Cost	Return	Return	BCR	Cost	Return	Return	BCR
Groundnut	Integrated Crop Management in groundnut	G-2-52	-	Irrigated	5	2.0	20.00	16.00	18.00	15.60	15.38	18840	119100	100260	6.33	17600	103260	85660	5.89
Sunflower	Integrated Crop Management in sunflower	-	SB- 275	Irrigated	10	4.0	14.5	11.50	13.30	10.47	27.02	14570	46550	31980	3.20	12710	36645	23935	2.55
Black gram	Short duration black gram variety LBG - 625 in rice fallows	Rashmi (LBG-625)	-	Paddy fallows	20	8.0	5.10	4.60	4.92	4.12	19.41	17252	34287	17035	1.98	16039	26503	10464	1.65
Soya	Demonstration on Soya based health food for menopausal problems	-	-	-	20	20 persons	Sons RESULT GIVEN BELOW IN SEPARATE TABLE (Soya based health food Result Table)												
Millet	Millet based diet among diabetics	-	-	-	20	20 persons			RES	ULT GI	/EN BE	LOW IN	SEPARA	TE TAB	LE (Mil	let Resu	lt Table)		
Paddy	Pest and disease management in paddy	JGL 1798	-	Irrigated	8	3.2	59.00	54.00	56.75	48.00	18.23	32250	90800	58550	2.82	30250	76800	46550	2.54
French bean	Demonstration of French bean variety Arka Sharath	Arka Sharath	-	Limited irrigation	5	2.0	216	200	208	174	19.54	88190	303498	215308	3.45	72720	201212	128492	2.77
Hebbal Avare (HA-4)	Inter-cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens	Hebbal Avare (HA-4)	-	Limited irrigation	13	5.2	20.50	16.00	18.49	13.44	37.57	14666	46244	31578	3.17	13123	33615	20492	2.56

Сгор	Name of the technology	Variety	Hybrid	Farming	No. of	Area		Yield	(q/ha)		% Incre	*Ecor	nomics of ( (Rs./			*Economics of check (Rs./ha)			
Сгор	demonstrated	variety	пурпа	situation	Demo.	(ha)	Н	Demo	Α	Check	ase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Pineapple	Management of Heart rot disease in pineapple	Kew	-	Limited irrigation	5	2.0				1		1	IN PROGE		DON	UUSI	Return	Return	Box
Turmeric	High yielding and high curcumin content Turmeric variety-PTS-24	PTS-24	-	Irrigated	3	0.6	400	380	390	256.66	51.95	128500	468000	339500	3.64	110800	276000	165200	2.49
Ginger	Management of rhizome rot in ginger	Riode geniro	-	Limited Irrigation	10	4.0	320	230	289	230	25.65	320000	520200	200200	1.63	301400	414000	112600	1.37
Fodder Sorghum	Introduction of Fodder Sorghum CoFS- 31	CoFS-31	-	Limited Irrigated	20	5.0							IN PROGE	RESS					
Arecanut	Management of Root grub in areca nut	Sagar local	-	Irrigated	5	2.0	9.5	6.5	8.1	6.4	26.56	47800	243000	195200	5.06	41800	192000	150200	4.57
Arecanut	Management of inflorescence die back & caterpillar in areca nut	Thirthahalli local	-	Limited irrigation	10	4.0							IN PROGE	RESS					

#### **RESULT OF FLD - SOYA BASED HEALTH FOOD FOR MENOPAUSAL PROBLEMS**

Menopausal Symptoms (20 members)	% reduction from symptoms
Hot flashes	45
Head ache	50
Depression	45
Insomnia (Restlessness)	50
Fatigue	48
Mood swing	45
Fuzzy thinking	48

#### **RESULT OF FLD - MILLET BASED DIET AMONG DIABETICS**

#### Blood glucose level of the diabetics

	Blood sugar level				
SI. No.	Before (mg/dl)	After (mg/dl)	% reduction		
1	143	135	5.59		
2	152.55	131.86	13.56		
3	134.23	128.22	4.48		
4	155.12	138.23	10.89		
5	148	133	10.14		
6	128.21	155.03	-20.92		
7	162.05	140.10	13.55		
8	149.10	136.11	8.71		
9	163.04	149	8.61		
10	157.41	138.16	12.23		
11	142.63	124.05	13.03		
12	151.14	137.20	9.22		
13	140.08	128.01	8.62		
14	159.20	135.04	15.18		
15	161.04	145.10	9.90		
16	148.11	136.01	8.17		
17	155.35	139.23	10.38		
18	158.06	146.14	7.54		
19	144.13	129.65	10.05		
20	153.24	130.21	15.03		

### Data on additional parameters other than yield

Pest and disease management in paddy					
Parameter with unit	Demo	Check			
Stem borer (%)	8.25	15.0			
Leaf roller (%)	8.13	16.38			
Sheath blight (%)	9.13	23.5			
Blast disease (%)	9.25	26.75			

Inter-cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens					
Parameter with unit Demo Check					
Pod borer incidence (%)	15.46	30.07			

Demonstration of photo period insensitive, stringless, high yielding French bean variety–Arka Sharath					
Parameter with unit Demo Check					
Pod length (cm)	18.05	15.10			
Pod weight (gm)	13.10	10.23			

Management of rhizome rot in ginger				
Parameter with unit	Demo	Check		
Rhizome rot incidence (%)	19.50	39.10		
Shoot Borer incidence (%)	8.3	20.7		
Defoliators incidence (%)	7.5	15.3		

Integrated Crop Management in groundnut					
Parameter with unit	Demo	Check			
Rust incidence (%)	-	11.8			
Pods per plant (No.)	25	22			
Leaf spot incidence (%)	2	16.6			
Shelling percentage	70	65			

Management of arecanut root grub				
Parameter with unit	Demo	Check		
Grubs per plant (Nos.) (Days After Treatment)				
30 DAT	1.70	5.10		
60 DAT	1.20	7.60		
90 DAT	0.80	7.80		
Grubs / plant (Mean Nos.)	1.23	6.84		

Management of Heart rot disease in pineapple					
Parameter with unit Demo Check					
Heart rot incidence (%)8.821.0					

Integrated Crop Management in sunflower					
Parameter with unit Demo Check					
Bud necrosis incidence (%)	9.4	16			
Ear head caterpillar incidence (%)	6.6	10.5			

Demonstration on short duration Black gram variety Rashmi (LBG – 625) in rice fallows					
Parameter with unit Demo Check					
Pods per plant (No.)	13	10			
Crop duration	71	80			

|--|

Time of the starts	Name of the	Durad	No. of	No.	Yield (q/ha)		%	*Econo	omics of de	monstration Rs	./unit)	*Economics of check (Rs./unit)					
Type of livestock	technology demonstrated	Breed	Demo	of Units	Dem H	onstr L	ation A	Check if any	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy																	
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others (pl.specify)																	
Nutrient management						•		·	•			•			•	•	

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

#### 5.B.3. Fisheries : NIL

Type of	Name of the	Breed	No. of	Units/		Y	ield	(q/ha)	% Incr			demonstrat r (Rs./m2)	tion			s of check or (Rs./m2)	
Breed	technology demonstrated	Dreeu	Demo	Area (m <sup>2</sup> )	С Н	)em L	o A	Check if any	eas e	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common																	
carps																	
Mussels																	
Ornamental fishes																	
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 : NIL

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

#### 5.B.4. Other enterprises : NIL

	Name of the	Variety/	No.	Units		Yie	eld (	q/ha)	%		omics of Rs./unit) o			*Economics of check (Rs./unit) or (Rs./m2)				
Enterprise	technology demonstrated	species	of Demo	Area {m <sup>2</sup> }		Dem	-	Check if any	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Oyster mushroom				(,	(m) H L A many													
Button mushroom																		
Vermicompost																		
Sericulture																		
Apiculture																		
Others (pl.specify)																		
Nutritional Garden	Demonstration on Nutritional Gardens to ensure nutritional security	-	5	1.75	-	-	-	-	-		Resul	lt given b	elow in	separat	e table fo	rmat		

#### Result of Demonstration on Nutritional Gardens to ensure nutritional security

Name of the crops	School name	Quantity produced (Kgs.)	Feedback from school teachers and students
<u>Vegetables :</u> Beans, Bhendi, Tomato, Onion,	Siddapura Tanda	180.00	<i>Learning by doing'</i>
Cowpea, Chilli, Drumstick Green leafy	Danavadi	161.75	<b>STUDENTS</b> : We established nutritional garden enthusiastically and gained practical knowledge on growing vegetables and fruits.
Vegetables : Palak, Coriander, Rajgira, Curry leaves	Arebilachi	162.80	We are proud to eat vegetables grown by us.
Fruit crops : Papaya, Sapota	Gajanur	192.50	<b>TEACHERS :</b> Proper utilization of space around schools by establishing nutritional garden, taught about nutritional security.
	Honnesara	157.50	Grown vegetables are being used for 'Mid-day-meal'.

#### Data on additional parameters other than yield: NIL

	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 in	Name of the technology	No. of	Area covered under	require	oour ement in idays	%	Savings in labour	*Econ	omics of ( (Rs./	demonstra /ha)	ation	*E	conomics (Rs./	s of check /ha)	K
implement	Rs.	demonstrated	Demo	demo	Demo	Check	save	(Rs./ha)	Gross	Gross	Net	**	Gross	Gross	Net	**
				in ha	Dellio	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 labour saved : NIL

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

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

SI. No.	Activity	No. of activities organised	Number of participants	Remarks
1.	Field days	3	130	<ol> <li>Demonstration of photo period insensitive, stringless, high yielding French bean variety–Arka Sharath</li> <li>Integrated Crop Management in groundnut</li> <li>Integrated Crop Management in sunflower</li> </ol>
2.	Farmers Training	17	861	-
3.	Media coverage (TV)	-	-	-
4.	Training for extension functionaries	-	-	-
5.	Others (Please specify)			
a.	Field visits	25	68	-
b.	Group discussions	4	28	-
C.	Advisory services over phone	6	6	-

## PART VI – DEMONSTRATIONS ON CROP HYBRIDS

#### \*Economics of demonstration \*Economics of check Yield (q/ha) Name of the Name of Type of No. of % (Rs./ha) (Rs./ha) Area technology the \*\* \*\* Breed Demo (ha) Demo Gross Gross Net Gross Gross Net Increase demonstrated hybrid Check Н L Α Cost Return Return BCR Cost Return Return BCR Cereals Bajra Maize Paddy Sorghum Wheat Others (pl.specify) Total Oilseeds Castor Mustard Safflower Sesame Integrated Crop Management in Sunflower SB-275 15.38 18840 119100 100260 17600 103260 85660 5.89 10 4.0 20.00 16.00 18.00 15.60 6.33 sunflower Groundnut Soybean Others (pl.specify) Total Pulses Greengram Blackgram Bengalgram Redgram Others (pl.specify)

#### Demonstration details on crop hybrids

Type of	Name of the	Name of	No. of	Area		Yield	(q/ha)		%	*Ec	onomics of (Rs.)	demonstrati /ha)	on	*	Economic: (Rs.)	s of check /ha)	(
Type of Breed	technology	the	Demo	(ha)		Demo		0	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
	demonstrated	hybrid			н	L	Α	Check		Cost	Return	Return	BCR	Cost	Return	Return	BCR
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)																	
Others (pl.specify)																	
Total																	

H-High L-Low, A-Average

# **PART VII. TRAINING**

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

		No. of Participants												
Area of training	No. of Courses		General			SC/ST			Grand Tota	I				
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total				
Crop Production														
Weed Management														
Resource Conservation Technologies														
Cropping Systems														
Crop Diversification														
Integrated Farming														
Micro Irrigation/Irrigation														
Seed production														
Nursery management	1	13	8	21	4	4	8	17	12	29				
Integrated Crop Management	1	20	17	37	13	8	21	233	25	58				
Soil and Water Conservation														
Integrated Nutrient Management	1	5	14	19	2	4	6	7	18	25				
Production of organic inputs														
Others (Pl.specify)														
a) Post harvest management in rice	1	7	3	10	4	1	5	11	4	15				
b) Improved cultivation practices in pulses	1	61	12	73	6	3	9	67	15	82				
c) Production and use of Azolla	1	21	16	37	8	5	13	29	21	50				
<ul> <li>d) Precaution measures for purchasing inputs</li> </ul>	1	13	11	24	12	8	20	25	19	44				

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	I
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<ul> <li>e) Importance and use of agricultural inputs</li> </ul>	1	23	1	24	17	0	17	40	1	41
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	1	7	0	7	0	0	0	7	0	7
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<ul> <li>a) Integrated crop management in vegetable crops</li> </ul>	1	2	35	37	0	7	7	2	42	44
b) Production technology of drumstick	1	31	0	31	7	0	7	38	0	38
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										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
	Couroco	Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
a) Improved cashew cultivation	1	63	0	63	33	0	33	96	0	96
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	0	19	19	0	11	11	0	30	30
Processing and value addition										
Others (pl.specify)										
a) Nursery, Agronomic practices, pest and disease management in coconut	1	29	0	29	14	0	14	43	0	43
b) Integrated Disease Management in arecanut	1	5	0	5	4	0	4	9	0	9
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology	2	101	6	107	2	0	9	103	6	116
Processing and value addition										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	.1
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
a) Integrated Crop Management in ginger	1	39	18	57	4	0	4	43	18	61
b) Plant protection in ginger	1	40	1	41	0	0	0	40	1	41
c) Integrated Nutrient and Disease Management in ginger	1	32	0	32	8	0	8	40	0	40
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										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs	1	20	20	40	5	7	12	25	27	52
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	20	11	31	7	0	7	27	11	38
Others (pl.specify)										
<ul> <li>a) Improved compost making methods and cultivation of pulses</li> </ul>	1	32	4	36	4	0	4	36	4	40

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	40	1	41	40	1	41
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	1	46	0	46	10	0	10	56	0	56
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery production										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	I
	Couroco	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rural Crafts										
Women and child care										
Others (pl.specify)										
<ul> <li>a) Millet based diabetic mix and soya based health food preparation</li> </ul>	1	2	26	28	0	3	3	2	29	31
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										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
a) Plant protection in ginger	1	39	2	41	2	0	2	41	2	43

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	d
		Male	Female	Total	Male	Female	Total	Male	Female	Total
b) Plant protection in Green gram	1	17	0	17	0	6	6	17	6	23
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
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)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
	0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
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	2	24	34	58	5	5	10	29	39	68
Apiculture										
Others (pl.specify)										
a) Value addition in mushroom and its nutrition	1	14	12	26	0	0	0	14	12	26
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	36	0	36	5	0	5	41	0	41
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										

						No	o. of Particip	ants			
	Area of training	No. of Courses		General			SC/ST			Grand Tota	l
		0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
Integra	ited Farming Systems	2	19	35	54	7	12	19	26	47	73
Others	(PI. specify)										
a)	Agricultural Extension activities in KVK	1	6	10	16	8	6	14	14	16	30
b)	Agricultural extension and demonstration	2	37	4	41	17	10	27	54	14	68
c)	Doubling farmers' income by 2022	1	16	0	16	8	0	8	24	0	24
d)	Role of KVK for increasing farmers' income	1	28	0	28	12	0	12	40	0	40
e)	Role of KVK for transfer of technology	1	33	0	33	8	0	8	41	0	41
f)	Crop selection based on market	1	32	0	32	11	0	11	43	0	43
g)	Micro finance	1	2	21	23	0	14	14	2	35	37
h)	Skill development activities in agriculture	1	9	13	22	3	10	13	12	23	35
i)	Crop grown based on market	1	6	0	6	4	0	4	10	0	10
	TOTAL	44	950	353	1303	294	125	426	1444	478	1729

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

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	1
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	I
	Cources	Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	2		2	9	1	10	11	1	12
Soil and Water Conservation										
Integrated Nutrient Management	1	31	27	58	8	4	12	39	31	70
Production of organic inputs										
Others (pl.specify)										
a. Mechanized paddy cultivation	2	229	4	233	12		12	241	4	245
<ul> <li>Swachchata Andolana and disease management in paddy crop – FFS</li> </ul>	1	19	1	20	4		4	23	1	24
c. Pest and disease management in paddy – FFS	1	19	1	20	4		4	23	1	24
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	d
	0001303	Male	Female	Total	Male	Female	Total	Male	Female	Total
Protective cultivation										
Others (pl.specify)										
a. Production technology of French bean	1	10	15	25	3	5	8	13	20	33
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	67	3	70	24	0	24	91	3	94

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	I
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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	75	7	82	77	6	83	152	13	165
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										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs										
Management of Problematic soils										

Area of training	No. of Courses	No. of Participants									
		General			SC/ST			Grand Total			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Micro nutrient deficiency in crops											
Nutrient use efficiency											
Balanced use of fertilizers											
Soil and water testing	1	19	1	20	4	2	6	23	3	26	
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											
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											

Area of training	No. of Courses	No. of Participants									
		General			SC/ST			Grand Total			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Gender mainstreaming through SHGs											
Storage loss minimization techniques											
Value addition	12	67	402	469	18	52	70	85	454	539	
Women empowerment											
Location specific drudgery production											
Rural Crafts											
Women and child care											
Others (pl.specify)											
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											
Post Harvest Technology											
Others (pl.specify)											
a. Nutritional garden	3	82	107	189	27	27	54	109	134	243	
Plant Protection											
Integrated Pest Management											
Integrated Disease Management											

Area of training	No. of Courses	No. of Participants									
		General			SC/ST			Grand Total			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Bio-control of pests and diseases											
Production of bio control agents and bio pesticides											
Others (pl.specify)											
Fisheries											
Integrated fish farming											
Carp breeding and hatchery management											
Carp fry and fingerling rearing											
Composite fish culture											
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)											
Production of Inputs at site											
Seed Production											
Planting material production											
Bio-agents production											

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	I
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
a. KVK Extension activities	1	3	41	44	4	19	23	7	60	67

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	l
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (PI. specify)										
TOTAL	26	623	609	1232	194	116	310	817	725	1542

# 7.C. Training for Rural Youths including sponsored training programmes (on campus)

					No. o	of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tot	al
		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										

					No. d	of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tot	al
		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										

					No. c	of Participa	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tot	al
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
a) Soil fertility management	2	25	11	36	4	1	5	29	12	41
TOTAL	2	25	11	36	4	1	5	29	12	41

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

					No. o	f Participa	ants				
Area of training	No. of Courses		General			SC/ST			Grand To	otal	
		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											

					No. c	f Participa	ants			
Area of training	No. of Courses		General			SC/ST			Grand To	tal
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
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)

		•				of Participa				
Area of training	No. of 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	1	36	0	36	0	2	2	36	2	38
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)										
a) Soil health and fertility management	7	82	46	128	0	0	1	82	46	128
b) Soil testing	1	15	2	17	4	2	6	19	4	23
Total	9	133	48	181	4	4	9	137	52	189

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

		-		0. 0		of Participa				
Area of training	No. of 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)										
Total										

# 7.G. Sponsored training programmes conducted

						No.	of Particip	ants			
S.No.	Area of training	No. of Courses		General			SC/ST			Grand Tota	I
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops										
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										
4	Production of Inputs at site										
5	Methods of protective cultivation										
6	Others (pl.specify)										
	a) Bee keeping	1	13	2	15	14	1	15	27	3	30
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										
		1		1	1	1	1	1		1	h

						No.	of Particip	ants			
S.No.	Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
10.b.	Animal Disease Management										
10.c	Fisheries Nutrition										
10.d	Fisheries Management										
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)										
	1) Ready to eat product preparation	1	0	15	15	0	6	6	0	21	21
12	Agricultural Extension										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others (pl.specify)										
	Total	2	13	17	30	14	7	21	27	24	51

### Details of sponsoring agencies involved

1. Karnataka State Government

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

						No.	of Particip	ants			
S.No.	Area of training	No. of Courses		General			SC/ST			Grand Tota	I
		e cui coo	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										
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										

			No. of Participants								
S.No.	Area of training	No. of Courses		General		SC/ST			Grand Total		
		e o un o o o	Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
	GRAND TOTAL										

# PART VIII – EXTENSION ACTIVITIES

Extension Programmes (including extension activities undertaken in FLD programmes)

Nature of Extension	No. of	No. of Pa	articipants (	General)	No.	of Participa SC / ST	ants	No. of e	xtension pe	ersonnel
Programme	Programmes	Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	7	157	116	273	92	90	182	25	8	33
Kisan Mela	1	312000	96000	408000	38400	14400	52800	14400	4800	19200
Kisan Ghosthi										
<ul> <li>Exhibition <ul> <li>a) Pradhan Mantri Fasal</li> <li>Bhima Yojan</li> </ul> </li> <li>b) Foundation Day</li> <li>c) Pre-Rabi workshop</li> <li>d) Technology week-2016</li> <li>e) Krishimela-Dharwad</li> <li>f) Krishi Utsava-Pillangere</li> <li>g) Krishimela-Shivamogga</li> </ul>	7	723188	221505	944693	88856	33318	122174	33192	11084	44276
Film Show	44	950	353	1303	301	126	427	45	4	49
Method Demonstrations	6	155	14	169	25	5	30	10	1	11
Farmers Seminar / Workshop a) Pre-rabi workshop b) Technology week-2016	2	253	192	445	164	98	262	31	18	49
Group meetings	4	28	0	22	0	0	0	0	0	0
Lectures delivered as resource persons	28	2663	3861	6524	1104	2075	3179	211	67	278
Newspaper coverage	10									
Radio talks										
TV talks	1									
Popular articles	12									
Extension Literature	9									
Advisory Services	49	57	2	59	-	-	-	-	-	-
Scientific visit to farmers field	51	95	7	102	14	2	16	11	2	13
Farmers visit to KVK	159	166	8	174	9	3	12			

Nature of Extension	No. of	No. of P	articipants (	General)	No.	of Particip SC / ST	ants	No. of e	extension pe	ersonnel
Programme	Programmes	Male	Female	Total	Male	Female	Total	Male	Female	Total
Diagnostic visits	4	26	0	26	2	0	2	37	5	42
Exposure visits	2	25	22	47	2	1	3	-	-	-
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										
meetings										
Celebration of important										
days (specify)										
1) Pradhan Mantri Fasal	3	257	104	361	106	61	167	48	20	68
Bhima Yojan	3	257	104	301	100	01	107	40	20	00
2) Kisan day										
3) World soil day										
Any Other (Specify)										
a. SMS Messages	4	936	374	1310	211	47	258	125	55	180
a. Method demonstration										
on Establishment and										
maintenance of kitchen										
garden in school										
premises under FLD :	3	82	107	189	27	27	54	15	9	24
Demonstration on										
Nutritional Gardens to										
ensure nutritional										
security										
TOTAL	405	1041032	322665	1363697	129313	50253	179566	48150	16073	64223

# PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

# 9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
		GPU-28	1.03	2369	27
Cereals (cron wise)	Ragi	GPU-67	2.07	4761	36
Cereals (Crop wise)	Tayi	ML-635	0.15	345	6
Cereals (crop wise) Oilseeds Pulses Millets Commercial crops Vegetables Flower crops		KMR-301	0.15	345	5
Oilseeds	Groundnut	G-2-52	5.10	38250	15
	Cowpea	KBC-2	0.25	1250	6
Dulaca	Blackgram	Rashmi	0.10	500	3
Pulses	Green gram	KKM-3	0.04	200	2
	Field bean	HA-4	0.04	200	2
Millets					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder sorghum	Co-FS-29	0.12	4800	26
Fiber crops					
Forest Species					
Others (specify)					
Total			9.05	53020	128

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

Crop category	Name of the crop	Variety	Number	Value (Rs.)	Number of farmers to whom provided
Commercial					
Vegetable	Drumstick	Bhagya	1106	13275	12
seedlings					
Fruits	Papaya	Taiwan-786	9169	137535	22
	Sapota	Cricket ball	39	1950	4
Ornamental plants					
Medicinal and					
Aromatic					
Plantation					
Spices	Curry leaves	Local	418	5016	12
	Chilli	Arka Anand	5000	5000	2
Tuber					
Fodder crop	Fodder slips	Co-4	2000	2000	4
saplings		00-4	2000	2000	4
Forest Species					
Others(specify)					
Flower					
		TOTAL		164776	56

### 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: NIL

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Fish	Gowri, Rohu	60 kg	6000	26
Others (Pl. specify)				
Total		60 kg	6000	26

# 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.) : **December, - 2006, Quarterly – 1000** 

ltem	Title	Authors name	Number
Research papers	-		-
	1. Monthly Progress Report		12
	2. ZREP Report	7	1
	3. EEC Report	7	1
Technical reports	4. Citizen's-Client's Charter Report		12
Терона	5. Significant Achievements	7	2
	6. Annual Progress Report	7	1
	7. Action Plan		1
News letters	'Spandana' – Quarterly farmers' news letter		2
Technical bulletins	Samagra Krishiyalli Jenusakanike - (Bee keeping in Integrated farming system)	B. C. Hanumanthaswamy T.H.Gowda	1500
	Tomato beleya utpadana tantrikate (Production technology of tomato)	B. C. Hanumanthaswamy, G. B. Smitha, Jyoti M. Rathod	1500
	Sasya poshakamshagalu – Korateya lakshna haagu nirvahane (Plant nutrients – Deficiency symptoms and management )	B. C. Hanumanthaswamy, M.V.Rekha, G. B. Smitha	1500
	Dwidala dhanya belegala keeta hagu rogagala nirvahane (Pest and disease management in pulse crops)	Dr. B. C. Hanumanthaswamy T.H. Gowda	1500
	Shunti beleya sudharitha besaya kramagalu (Improved cultivation practice of ginger)	B. C. Hanumanthaswamy, G. B. Smitha, Jyoti M. Rathod, M.V.Rekha	1500
Popular articles	Kalenaashakagalannu balasuvaga	T.M.Soumya	
	Male maathanaaduva munna	T.M.Soumya	
	Gramada Sogadu Hebbala Avare	G.B.Smitha, M.V.Rekha	
	Kasturi Kallangadi	(1) Jyoti M. Rathod (2) Deeksha Naik (3) Vanishree Umarji	
	Jaivika gobbara Rhizobium	(1) Rekha M.V. (2) Smitha G.B.	
	Spoorti tumbida tonde krishi	(1) T.H.Gowda, (2) B.C.Hanumanthaswamy (3) M. Sudheendra	

### (B) Literature developed/published

Agaseya manatriva matu upayukthateDeeksha Naik (3) Vanishree UmarjiBaradallu Baridagada baviT.M. SoumyaBaradallu Baridagada baviT.M. SoumyaSamskarisi sampadisi - Sundaresh1) G.B.Smitha 2) Dr. B.C.Hanumanthaswamy 3) M.V.RekhaRole of women in Rural DevelopmentDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiApps for Women securityDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiExtension literatureThengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)B. C. Hanumanthaswamy, G. B. Smitha	ltem	Title	Authors name	Number
upayukthate         Deeksna Nak (3) Vanishree Umarji           Baradallu Baridagada bavi         T.M. Soumya           Samskarisi sampadisi - Sundaresh         1) G.B.Smitha 2) Dr. B.C.Haumanthaswamy 3) M.V.Rekha           Role of women in Rural Development         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Daughter's Journey         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Apps for Women security         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Extension literature         Thengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)         B. C. Hanumanthaswamy, G. B. Smitha         1500           Bojju – Karana haagu parihara (Obesity – cause and remedies)         Jyoti M. Rathod, B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha         1500           Haalina poustikate mattu utpannagalu (Milk – Nutrition and products)         B. C. Hanumanthaswamy, M.V.Rekha, G. B. Smitha,         1500           Others (PI. Specify)         B. C. Hanumanthaswamy, Mannina Bhowtika Gunadharmagalu mattu nirvahane (Physical properties of soil and its management )         B. C. Hanumanthaswamy, M.V.Rekha, G. B. Smitha,         1500           Others (PI. Specify)         Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardens         Miss G. B. Smitha B. C. Hanumanthaswamy Rekha M.V. Ganapathi         1           Training manual         Soil sample analysis         Ganapathi Rekha M.V. G. N.Thippeshappa B.C		Agaseva mahathya mattu	(1) Jyoti M. Rathod (2)	
Earadallu Baridagada bavi         T.M. Soumya           Baradallu Baridagada bavi         T.M. Soumya           Samskarisi sampadisi - Sundaresh         1) G.B. Smitha 2) Dr. B.C. Hanumanthaswamy 3) M.V. Rekha           Role of women in Rural Development         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Daughter's Journey         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Apps for Women security         Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji           Extension literature         Thengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)         B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha         1500           Bojju – Karana haagu parihara (Obesity – cause and remedies)         B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha         950           Haalina poustikate mattu utpannagalu (Milk – Nutrition and products)         B. C. Hanumanthaswamy, Gunadharmagala Agara (Compost – Sasya Poshakamshagala Agara (Sail and its management )         Miss G. B. Smitha, P. R. Somashekharappa         1000           Others (PI. Specify)         Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardens         Miss G. B. Smitha P. C. Hanumanthaswamy Rekha M.V. Ganapathi         1 Not M. Rathod P. C. Dhananjaya           Training manual         Soil sample analysis			Deeksha Naik (3)	
Samskarisi sampadisi - Sundaresh1) G.B. Smitha 2) Dr. B.C. Hanumanthaswamy 3) M.V. RekhaRole of women in Rural DevelopmentDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiApps for Women securityDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiExtension literatureThengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)B. C. Hanumanthaswamy, G. B. SmithaTingala huruli (French bean )B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha1500Bojju – Karana haagu parihara (Obesity – cause and remedies)Jyoti M. Rathod, B. C. Haalina poustikate mattu utpannagalu (Milk – Nutrition and products)950Haalina poustikate mattu utpanagalu (Milk – Nutrition and products)Jyoti M. Rathod, B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha950Mannina Bhowtika (Compost – Source of plant nirvahane (Physical properties of soil and its management )B. C. Hanumanthaswamy, M.V.Rekha, G. B. Smitha, N.V.Rekha1000Others (PI. Specify)Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardensMiss G. B. Smitha B. C. Hanumanthaswamy Rekha M.V. Jyoti M. Rathod1Training manualSoil sample analysisGanapathi Rekha M.V. G. N.Thippeshappa B. C.Dhananjaya1006		upayukinale	Vanishree Umarji	
Samskarisi sampadisi - Sundaresh1) G.B. Smitha 2) Dr. B.C. Hanumanthaswamy 3) M.V. RekhaRole of women in Rural DevelopmentDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiDaughter's JourneyDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiApps for Women securityDeeksha Naik, Jyoti M. Rathod, Vanishree K. UmarjiExtension literatureThengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)B. C. Hanumanthaswamy, G. B. SmithaTingala huruli (French bean )B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha1500Bojju – Karana haagu parihara (Obesity – cause and remedies)Jyoti M. Rathod, B. C. Haalina poustikate mattu utpannagalu (Milk – Nutrition and products)950Haalina poustikate mattu utpanagalu (Milk – Nutrition and products)Jyoti M. Rathod, B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha950Mannina Bhowtika (Compost – Source of plant nirvahane (Physical properties of soil and its management )B. C. Hanumanthaswamy, M.V.Rekha, G. B. Smitha, N.V.Rekha1000Others (PI. Specify)Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardensMiss G. B. Smitha B. C. Hanumanthaswamy Rekha M.V. Jyoti M. Rathod1Training manualSoil sample analysisGanapathi Rekha M.V. G. N.Thippeshappa B. C.Dhananjaya1006		Baradallu Baridagada bavi	T.M. Soumya	
Sundaresh       E. C. Hanumanthaswamy 3) M.V.Rekha         Role of women in Rural Development       Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji         Daughter's Journey       Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji         Apps for Women security       Deeksha Naik, Jyoti M. Rathod, Vanishree K. Umarji         Extension literature       Thengina beleya pramukha keeta haagu peedegala nirvahane – (Important pest and disease management in coconut)       B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha         Bojju – Karana haagu parihara (Obesity – cause and remedies)       Jyoti M. Rathod, B. C. Hanumanthaswamy, G. B. Smitha, M.V.Rekha       950 Hanumanthaswamy, G. B. Smitha, M.V.Rekha         Haalina poustikate mattu utpannagalu (Milk – Nutrition and products)       M.V.Rekha, G. B. Smitha, NV.Rekha, C. B. Smitha, NV.Rekha, C. B. Smitha,       1500 M.V.Rekha, C. B. Smitha,         Others (PI. Specify)       Inter-cropping of Field Bean variety Hebbal Avare-4 (HA- 4) in younger arecanut gardens       Miss G. B. Smitha B. C. Hanumanthaswamy, M.V.Rekha       1000 M.V.Rekha         Training manual       Soil sample analysis       Ganapathi Rekha M.V. G.N.Thippeshappa B.C.Dhananjaya       106			1) G.B.Smitha 2) Dr.	
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TOTAL 13539				13539

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

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
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### 10.C. Success Stories / Case studies.

### 1. Success Story of KVK Nursery

During 2008-09 National Horticulture Mission (NHM) has sanctioned a project on Model Horticulture Nursery to KVK, Shivamogga. In this project different propagating structures *viz.,* mist chamber, poly house and shed nets were constructed. The main objective of the project is to produce elite horticultural planting material for the needy farmers of the district. KVK, Shivamogga has taken initiative in production of different horticultural plants viz., mango, sapota, papaya, drumstick, vegetable seedlings, curry leaf and flowering plants. Among these different seedlings / grafts production, papaya and drumstick seedlings were major part because of demand by the farmers.

For successful horticulture crop production, supply of elite planting material and training to growers are very essential. In this regard, from 2010-11 to 2016-17 KVK conducted 15 training programmes on topics related to "Improved production technologies of papaya and drumstick". During the training programmes about 550 farmers/farm women / rural youth were trained. By realizing the immense scope and potentiality of growing papaya and drumstick as a sole / intercrop farmers purchased quality planting material from KVK, Shivamogga. Totally, 39256 drumstick (PKM-1 & Bhagya) seedlings of worth Rs. 4,31,816/- were sold to more than 112 farmers by covering an area of about 110 ha. as sole crop or intercrop in younger arecanut gardens. Similarly, 70304papaya seedlings (Arka Surya and Taiwan-786) of worth Rs.8,71,155/- were sold to 140 farmers by covering in area of about 655 ha as intercrop in younger areanut gardens. By growing papaya and drumstick as intercrops farmers have obtained Rs. 1,65,000/- and Rs. 1,45,000/- per ha respectively as a additional income in arecanut apart from protecting younger arecanut plants from scorching sun, reducing weed menace and creating better micro climate for areca growth. Due to concerted efforts of KVK intercropping of papaya and drumstick in younger areca gardens has spread to more than 500 ha in the district with an additional income of Rs. 8.5 to 10.0 crores.

### 2. Upliftment of farm families through Integrated Farming System Demonstration project by KVK.

**Introduction :** Historically, India's crop production scenario has been dominated by food grains more especially cereals. The country has registered a declining trend in crop and livestock production and per head food production, while maintaining increase in cereal productivity over the past decade. Sustainable development in agriculture must include integrated farming systems with efficient soil, water, crop and pest management practices, which are environmentally sound, economically viable and socially acceptable. The future agricultural system should reorient from the single commodity system to food diversification approach for sustaining food production and income generation. Integrating crops and cropping systems, horticulture, livestock, sericulture, agro-forestry, aquaculture, etc., therefore, assume greater importance for conserving and recycling of farm resources to enhance farm productivity, which will reduce environmental degradation and maintain agricultural sustainability by providing nutritional and livelihood security. Realizing the importance of integrated farming system, Government of Karnataka under RKVY project supported financial assistance for implementing

the IFSD project through Agricultural Universities. University of Agricultural Sciences, Bangalore has initiated integrated farming system through 12 KVKs, 3 EEUs and FTI, GKVK with the involvement of Scientists / Teachers working at ZARS / ARS and Colleges coming under different agro-climatic zones. KVK, Shivamogga is one of the implementing centre under UAS, Bangalore.

**Need for IFS :** A large gap exist between potential, on-farm and farmers yields of post crop varieties developed during the green revolution. FARMSCAPE (Farmers, Advisors, Researchers, Monitoring, Communication and Performance Evaluation) of programme of participatory transfer of technology with the farming community could be successful in translating technological development on the farmers' fields. Improving the productivity of the whole farm is of larger concern today than ever before for the reason of Total Factor Productivity (TFP). Although, the overall production of food grains and milk are the highest, the per hectare productivity is low. Thus, augmenting production through efficient management of natural resources, human resources through IFS approach would meet the present requirement of livelihood security and farm profitability.

### Objectives

- To attain sustainable improvement in productivity and income by adopting IFS model.
- To ensure livelihood security of farm families and landless labourers in the project area.

**Location :** The programme was implemented in Konagavalli Gramapanchayath of Shivamogga Taluk. Total of 10 villages (1515 farm families) comprising 1058 agriculturists and 457 landless agricultural laborers were covered under the project.

**Duration :** The project was initiated in the year 2011-12. The total duration of project is three years.

### Activities carried out under IFSD project.

- Orientation about IFSD schedule to the data collecting volunteers.
- Collected bench mark information of IFSD villages (1515 families)
- Orientation on the PRA techniques to all the implementing staff of the project.
- Analysis of the collected data through outsourcing.
- Capacity building of farmers / farm women through various trainings, demonstrations and exposure visits.
- Distribution of critical inputs to the farmers as per their needs.
- Conduct of field days before harvest of the demonstration plot.
- Selection of model stake holders for showcasing / impact analysis
- Formation and strengthening of the commodity based association / agro service centres.

### Critical inputs supplied

### I. Crop Component

- 1) Cereals Paddy, Ragi, Maize
- 2) Pulses Black gram, Redgram, Green gram
- 3) Oil seeds Groundnut

### II. Horticulture component

1) Planting materials : Drumstick, papaya, mango, Coconut, sapota, curry leaf, lime.

### III. Animal component

- 1) Sheep (Bandur cross breed),
- 2) Poultry birds Giriraja, Swarnadhara
- 3) Mineral mixture, feed additives and deworming agents

### **IV. Other components**

- 1) Micro nutrients Zinc sulphate, gypsum, Boron
- 2) Bio-Fertilizers
- 3) Foliar sprays
- 4) Mobile vermicompost unit with earthworms
- 5) Plant protection chemicals
- 6) Small Agricultural equipments

### V. Initiation of Commodity Based Associations (CBAs) / Agro Service Centres (ASCs)

In order to provide inputs at desired level and also interlink the sale of produce two CBAs/ ASCs were started in two villages of the project area. Each CBA is having 15 members and the members contributed Rs.1.00 lakh. Seed money of Rs. 1.00 is contributed from the project to each of the CBA.

### Impact of the IFSD project

- 1) Seed replacement with improved varieties of crops
- 2) Increase in yield of crops (8-10 %) due to use of supplied critical inputs
- 3) Improvement in soil health by use of micronutrients, bio-fertilizers and organic fertilizers (Vermi Compost)
- 4) Improvement in long term assets of farming communities through Horticulture plant seedlings.
- 5) Additional income to the landless labourers and small farmers through rearing of sheep and poultry birds.
- 6) Increase in knowledge, skill development through capacity building programmes and exposure visits.

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

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) : NIL

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

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

- Identification of courses for farmers/farm women
- Rural Youth
- In service personnel
- Training courses decided based on the feedback from the field extension workers of agriculture / Horticulture / animal husbandry / NGOs and allied departments during bimonthly workshop / meetings and also based on the feedback collected during the field visit by KVK scientists.
- 2. Based on the suggestions by Scientific Advisory Committee members
- 3. Based on Ex-trainees' suggestions
- 4. Based on the SWOT / thrust areas identified during action plan preparation

### 10.G. Field activities

- i. Number of villages adopted : 1
- ii. No. of farm families selected : 68
- iii. No. of survey/PRA conducted : 1

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

- 1. Status of establishment of Lab : Good
- 2. Year of establishment : 2006
- 3. List of equipments purchased with amount :

SI. No	Name of the Equipment	Qty.	Cost
1.	pH Meter	1 No.	8,550
2.	Conductivity meter	1 No.	7,400
3.	Physical balance (KROY)	1 No.	12,000
4.	Chemical balance (Shimadzu)	1 No.	48,900
5.	Water distillation still	1 No.	48,850
6.	Shaker	1 No.	27,600
7.	Hot air oven	1 No.	20,000
8.	Magnetic stirrer with hot plate	1 No.	5,500
9.	Spectrophotometer	1 No.	42,000
10.	Flame photometer	1 No.	35,200
11.	Macro digestion system	1 No.	52,118
12.	Automatic distillation system	1 No.	85,232
13.	Electronic Acid neutralizer scrubber	1 No.	23,909
14.	Hot plate Rectangular	1 No.	9,600
15.	Ind. & Comml.	1 No.	26,400
16.	F & P Fume cupboard	1 No.	41,625
17.	FRP ducting with FRP blower	1 No.	18,000
18.	Refrigerator	1 No.	18,133
19.	Khaitan Heavy duty fan	1 No.	3,777

20.	Flame Burner	1 No.	1,146
21.	Digital Micro pipette set	1 No.	21,180
22.	pH Meter	1 No.	6,600
23.	Soil testing kit	1 No.	72,000
24.	Electrical conductivity meter	1 No.	12,022
25.	AAS with accessories	1 No.	14,20,000
26.	UPS with battery	1 No.	54,548
27.	LG Ikon split 3 star AC	1 No.	27,000
28.	V-Guard stabilizer	1 No.	2,400
29.	pH meter (MKV-1)	1 No.	10,305

Details of samples analyzed so far since establishment of SWTL

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)	
Soil Samples	7911			435452	
Water Samples	2321	4332	4318	212020	
Plant/manure/lime	99			16390	
TOTAL	10331	4332	4318	663862	

### Details of samples analyzed during 2016-17

Sample Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)	
Soil	3567	1179	1179	280452	
Water	1180	1036	1036	118000	
Plant/manure/lime	6	1	1	4800	
TOTAL	4753	2216	2216	403252	

# 10.I. Technology Week celebration during 2016-17 : YES

Period of observing Technology Week : 08-11-2016 to 12-11-2016 Total number of farmers visited : 631 Total number of agencies involved : 5 Number of demonstrations visited by the farmers within KVK campus : 8

### Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosties			-
Lectures organized	9		<ol> <li>Soil health for sustainable agriculture</li> <li>Role of pulse crop in cropping system</li> <li>Nutrition and value addition in pulse crop</li> <li>Backyard poultry</li> <li>Production technology in ginger</li> </ol>
Exhibition	1	631	<ol> <li>Displayed technical information Charts on different crops;</li> <li>Seeds-Ragi, Maize, Green gram , Blackgram, groundnut, Hebbala Avare-4, Redgram, drumstick, Fodder, sunflower</li> <li>Medicinal plants – Multi-vitamin, Insulin, Basil, Coleus, Hippali, Alovera, Mint</li> </ol>

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
			<ol> <li>Bio-agents, Bio-fertilizers</li> <li>Bee keeping equipments viz., Bee hive, knife, honey extractor, mask, Queen gate, queen cage, queen excluder, hive tool</li> </ol>
Film show	10		Paddy, maize, groundnut, turmeric, flower crops, dairy, value addition, marketing, bee keeping, vegetable crops, water management, protected cultivation
Farm Visit	5		Maize, Hebbal avare, groundnut, ragi, drumstick, cowpea, redgram, fodder crop, Green gram, black gram, French bean, brinjal, farm machineries, implements, sprayers
Diagnostic Practical	1	130	Soil and water testing laboratory
Fair			
Supply of Literature (No.)	5	631	<ol> <li>Production technology of tomato</li> <li>Bee keeping in Integrated farming system</li> <li>Important pest and disease management in coconut</li> <li>French bean</li> <li>Improved cultivation practice of ginger</li> </ol>
Supply of Seed (q)			
Supply of Planting materials (No.)	4	45	
Bio Product supply (Kg) Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.) Total number of			
farmers visited the technology week	631	-	

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

### A. Introduction of alternate crops / varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

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

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

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

State	Livestock components	Number of interactions	No. of participants	
Karnataka	Backyard poultry	1	133	
Total		1	133	

### D. Animal health camps organized : NIL

State	Number of camps	No.of animals	No.of farmers
Total			

### E. Seed distribution in drought hit states : NIL

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

### F. Large scale adoption of resource conservation technologies : NIL

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers	
Total				

# G. Awareness campaign :

State	Meetings		Gos	sthies		<sup>-</sup> ield lays		mers air	Exh	nibition		ilm how
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Karnataka					7	488	1	310	7	1111143	44	1779
TOTAL					7	488	1	310	8	1111143	44	1779

### 11.A. Impact of KVK activities

Name of specific technology/skill	No. of	% of	Change in i	ncome (Rs.)
transferred	participants	adoption	Before (Rs./Unit)	After (Rs./Unit)
Demonstration of photoperiod insensitive, less string, high yield French bean variety Arka Sharath	5	45%	88,190/- per ha	2,01,212/- per ha
Nitrogen use efficiency in paddy	5	40%	57,480/- per ha	77,400/- per ha
Inter-cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens	10	30 %	-	31,578/- per ha
Management of arecanut root grub	5	45%	1,50,200/- Per ha	1,95,200/- per ha

### 11.B. Cases of large scale adoption

# 1) Profitability and productivity enhancement of demonstrating farmers through leaf spot resistant groundnut variety GPBD – 4 for Shivamogga district

Shivamogga is one of the districts in Karnataka where groundnut is being grown both in *kharif* and summer seasons. As the district's groundnut growing area falls under southern transition zone with assured rainfall and prevalence of cloudy weather during cropping season of groundnut is very common. Under such climatic conditions occurrence of leaf spot disease in groundnut variety TMV-2 predominantly (released during 1960) quite obvious which results in substantial yield loss with reference to pod and haulm yield.

Over a period of time, the yields of TMV-2 have been gradually decreasing owing to various reasons *viz.*, non availability of pure seed, loss of genetic vigor in the available seed, small size of pods and kernels and susceptibility to pests and diseases owing to continuous cultivation and its removal from the government subsidy programme.

### The programme :

Understanding the need for an improved groundnut variety suitable to Shivamogga district, a programme on assessment of groundnut varieties was launched during 2005.

### The process :

To start with an awareness meeting was held with farmers. Farmers identified constraints in groundnut, production and also ways to mitigate them. Based on the problems and possible solutions it was decided to conduct frontline demonstrations in farmers field with improved variety GPBD - 4 released by UAS, Dharwad during 2005, which is having resistance to leaf spot disease.

### Intervention :

KVK, Shivamogga conducted frontline demonstration on groundnut variety GPBD - 4 during the years 2005-06 to 2015-16 in summer / Kharif seasons involving 92 farmers in 11 years. Totally 92 demonstrations on groundnut crop in an area of 38.00 hectares by involving 92 farmers in all the ten years of demonstration were conducted in 3 taluks of Shivamogga district (Soraba, Shikaripura and Shivamogga taluks).

### Output / results :

FLD results showed that GPBD-4 performed consistently better as the average pod yield of 92 demonstrations in an area of 38.00 ha. ranged from 19.37 to 28.94 q/ha. There was 16.02 % increase in pod yield in demonstrated groundnut GPBD - 4 variety which was found economically superior with higher BC ratio of 3.55 against the lower BC ratio of 3.03 in TMV-2. Incidence of leaf spot disease was not noticed in GPBD-4 as compared to severe incidence of 60 % in local check (TMV-2)

### Outcome

Field days in all the years in collaboration with Department of Agriculture were conducted for larger spread of this variety. Printed literature was also provided to the needy farmers. Performance of this variety was also published in local print and electronic media. For promoting this better variety across the district, Department of Agriculture took interest in spreading the variety along with Karnataka Oil Federation (KOF).

### Following are some of the efforts made to spread the variety

- ✓ Identification of farmers interested in this new variety
- ✓ Supply of foundation seeds by KVK to its contact farmers through IFSD programme
- ✓ Procuring the seeds from farmers and distributing to other farmers through FLD
- ✓ Giving wide publicity through news letter and media

By summer 2016, the variety has spread to 52 villages extending over an area of 1800 acres. It is very appreciable to note the sustained performance of GPBD - 4 groundnut variety even in adverse conditions and the increasing demand for the seed.

			No. of			Ро	d Yield	
Year	Name of the block / village	Variety	demonst ration	Area (ha)	Demons	stration	Check	% increase in yield
			ration		Maximum Average		Average	Average
2005-06	Bedarahosally, Shivamogga Tq	GPBD - 4	12	4.80	31.80	28.94	23.38	23.78
2006-07	Devikoppa, Soraba Tq.	GPBD - 4	12	4.80	37.50	26.25	22.25	17.97
2007-08	Tumarikoppa, Soraba Tq	GPBD - 4	12	4.80	30.00	24.75	19.87	24.55
2008-09	Mallapura, Soraba Tq.	GPBD - 4	12	4.80	27.50	23.55	19.37	21.57
2009-10	Begur, Shikaripura Tq.	GPBD - 4	12	4.80	29.12	26.08	22.27	17.10
2010-11	Haramghatta, Shivamogga Tq.	GPBD - 4	7	4.00	27.25	25.57	22.76	12.35
2011-12	Nimbegondi, Shikaripura Tq.	GPBD - 4	7	2.80	25.00	23.39	20.86	12.13
2012-13	Hirakasavi, Soraba Tq.	GPBD - 4	5	2.00	27.00	24.50	22.00	11.36
2013-14	Basavanaganguru, Soraba Tq.	GPBD - 4	5	2.00	27.00	24.50	22.00	11.36
2014-15	Halemugalagere, Shikaripura Tq.	GPBD - 4	5	2.00	27.00	24.50	22.00	11.36
2015-16	Eleneerukoppa, Shikaripura TQ.	GPBD - 4	3	1.20	22.00	20.66	18.33	12.71
		Total	92.00	38.00	28.29	24.79	21.37	16.02

# Table 1: Yield performance of groundnut varieties demonstration under FLD programme in Shivamogga district of Karnataka

	De	emonstrati	on	C	ontrol / che	ck	B:C	ratio
Years	Total cost (Rs/ha)	Gross return (Rs/ha)	Net income (Rs/ha)	Total cost (Rs/ha)	Gross return (Rs/ha)	Net income (Rs/ha)	Demon stration	Check
2005-06	19000	54986	35986	19500	44422	24922	2.89	2.27
2006-07	19500	52500	33000	19750	44500	24750	2.69	2.25
2007-08	18150	53213	35062	19750	42720	22970	2.93	2.16
2008-09	18500	58875	40375	21500	48425	26925	3.14	2.21
2009-10	19560	69200	45700	17775	55675	37900	3.34	3.13
2010-11	17000	56254	39254	19000	50072	31072	3.30	2.63
2011-12	16000	81865	65865	17500	73010	55510	5.12	4.17
2012-13	18000	85750	67750	19000	77000	58000	4.76	4.05
2013-14	21250	74118	52868	195850	62700	43200	3.49	3.21
2014-15	21350	81660	60310	19950	74360	54410	3.82	3.73
2015-16	19666	71000	51334	17850	63666	45816	3.61	3.56
TOTAL	18907	67220	47955	35220	57868	38680	3.55	3.03

# Table 2: Cost economics of Groundnut varieties demonstrated under FLD programme inShivamogga district

### 2. Green gram (KKM-3) – Better crop for paddy fallows

Krishi Vigyan Kendra, Shivamogga had demonstrated on the use of short duration green gram variety KKM-3 for paddy fallows under NFSM scheme. It was taken up in different clusters of Shivamogga district viz., Shikaripura, Shivamogga, Sagar taluks. Since 2015-16 and 2016-17 totally 75 demos covering an area of 75.00 acres.

Crop was sown during January under residual soil moisture after the harvest of paddy grown during Kharif. Available soil moisture facilitated better establishment and growth of the crop. During the demonstration period soil moisture reseeded soon as there was a high temperature. Inspite of this, KKM-3 could yield filled grains due to its short duration nature. KKM-3 is a short duration green gram variety released during 2010-11. Along with the varietal introduction to farmer's fields several low cost technologies and precautionary measures were demonstrated as a capsule to make the farmer partners understand the concept of integrated crop management. Seeds were treated with bio-inoculates viz., Rhizobium, PSB and Trichoderma @ 500 g/6 kg seeds which were sufficient to sow in an acre area. Application of recommended dose of nutrients foliar spray of nutrients with water soluble fertilizers at flower initiation stage and prophylactic spray of PPC against pod borer and sucking pests were demonstrated. KKM-3 was compared with local check with 10-12 days longer duration. Green gram demonstration on paddy fallows was taken up with least inputs supply and with no irrigation facility. Green gram variety KKM-3 was accepted by farmer friends due its short duration and small, shiny seeds which fetches better price in the market compared to local check. Seeds produced were shared among fellow farmers with and / without payment.

Green gram and specially KKM-3 variety was accepted for this short duration which facilitates to take up and additional crop without leaving it fallow for the want of resources.

Green gram variety KKM-3 grow under paddy fallows was popularized to many farmers for the villages and the neighbouring villages through several extension activities like training, method demonstration, field visits, field day and by organizing a Krishimela on large scale. This encouraged fellow farmers of the villages to know the technology.

# 11.C. Details of impact analysis of KVK activities carried out during the reporting period:

# 1) Dissemination of improved variety of French bean through Frontline demonstration

### Background

The low productivity in French bean is due to non-adoption of high yielding and disease tolerant varieties. Even though many technologies for cultivation have been evolved for increasing the productivity but farmers have hardly adopted them. The present study on photo insensitive, stringless and high yielding French bean variety 'Arka Sharath' was conducted by Krishi Vigyan Kendra (KVK), Shivamogga in Karnataka.

#### Interventions

A total of 41 demonstrations were conducted in 41 farmers fields in an area of 16.6 ha from 2012-2017. To demonstrate the improved French bean production, the constraints were identified through participatory approach.

The data was collected from both FLD and farmers practice to know extension gap (Demonstration yield-Farmers yield), Technology gap (Potential yield-Demonstrated yield), Technology index (Potential yield-Demonstrated yield)/Potential yield x 100), per cent increase in yield and B:C. (Table-1)

Table-1	:	Comparison	of	improved	French	bean	production	practices	and	farmers
		practice.								

SI. No.	Technology	Improved production practice	Farmers practice
1.	Seed rate (kg/ha)	40	50-60
2.	Seed treatment with Rhizobium	Followed	Not followed
3.	Use of improved variety	Arka Sharath / Arka Anoop	Local varieties
4.	Spacing (cm)	30 x 15	30 x 30
5.	Nutrient management (N:P:K kg/ha)	63 :100:75	100:50:50
6.	Integrated pest and disease management	Followed	Not followed
7.	Harvesting	50-55 days from sowing	60 days from sowing
8.	Post harvest management	Sorting and grading followed	Sorting and grading not followed

#### Output / result

The results revealed that 2.50 to 19.17 per cent increase in yield over farmers practice with an average of 9.98 per cent. For the five years an average of 16.06 and 1.97 quintals of extension gap and technology gap were observed respectively. The extension gap ranging from

4.80 to 20.30 qha<sup>-1</sup> emphasizes the need to educate farmers through various means of adoption of improved techniques of production. The technology index varied from 2.50-4.75. The average technology index observed was 0.98 per cent during the five years of demonstration, which shows the performance of variety.

The results indicated that by adopting improved variety of French bean higher average B:C was recorded for five years of demonstration (3.59) compared to farmers practice (3.07). **(Table-2)** 

	No. of	Yield	(q/ha <sup>-1</sup> )	Per cent increase	Potential	Extension	Technology	Tech	B	:C
Year	demon strations	Demo plot	Farmers Plot	over farmers plot	yield (q/ha <sup>-1</sup> )	gap (q/ha⁻¹)	gap (q/ha⁻¹)	index	DP	FP
2012-13	10	190.50	170.20	11.93	200.00	20.30	9.50	4.75	3.38	2.90
2013-14	12	195.00	190.20	2.50	200.00	4.80	5.00	2.50	3.17	2.80
2014-15	10	192.50	181.68	10.59	200.00	10.82	7.50	3.75	3.46	3.01
2015-16	4	204.55	193.50	5.71	200.00	11.00	-4.55	-2.27	4.5	3.9
2016-17	5	207.60	174.20	19.17	200	33.40	-7.60	-3.80	3.45	2.77
Average	8.2	198.03	181.956	9.98	200	16.064	1.97	0.986	3.592	3.076

### Outcome

The improved variety of French bean coupled with improved agronomic practices significantly increased the yield. Higher profitability and economic viability was noticed in demonstration plots apart from self satisfaction compared to the farmer's practice.

### 2. Impact of Demonstration on Arecanut Rootgrub Management

Arecanut is an important plantation crop grown in large scale in Malnad districts of Karnataka, particularly in Shivamogga. Farmers were getting low yield in spite of good cultivation practices. Although no major problems were observed in their cultivation, observations indicated that the trees show the symptoms like tapering towards tip, short internodes and yellow colored little leaves. Based on the symptoms the trees were examined and effected roots were severely infested with rootgrubs.

### Intervention

The front line demonstration was conducted in farmers' field during August-September, 2012 to 2016 in Kouthi and Thoragodu villages of Sagar taluk, Shivamogga district. Regular farmers meeting, training programmes, field visit and group discussions were conducted which helped farmers in identifying the stages of pest, nature of damage, critical stages for intervention and enlighten the farmers the benefits of the demonstrated technology in reducing the root grub incidence. Based on symptoms the trees were uprooted and examined. The demonstration was conducted in severely affected arecanut gardens by imposing different treatments. The farmers practice included indiscriminate use of pesticides compared to selective insecticides followed in demonstration. The incidence (number of grubs / tree) of root grubs was recorded on 30 and 60 days after application of insecticides. In demonstration plot the management strategy included proper dosage, proper method and right time of application of neem cake @ 2 kg /tree and Imidachloprid @ 0.5 ml/ litre of water (3 litre solution/tree). The farmers practice included indiscriminate use of neem cake included indiscriminate use of insecticides compared to selective insecticides included indiscriminate use of neem cake included indiscriminate use of insecticides compared to selective insecticides followed in front line demonstration.

### Results

The results revealed that the farmers practice certainly experienced more number of grubs / tree as compared to demonstrated one. The demonstrated technology is effective compared to farmers practice mainly because of the intervention made at right time in August-September when the first instar grubs are in the upper surface of soil, Imidachloprid application by root absorption technique, neem cake application for effective repellent and antifeedent action against rootgrubs. In terms of number of grubs' reduction on the trees on 60 days after treatment, there was decrease over farmers practice to the extent of 88.95% in the trees receiving application of Imidachloprid + neem cake (Table-1).

			Mean No. of grubs per tree during 5 years								Percent reduction over farmers'				s'	Mean		
Strategies	Method of application	Dose/ tree		30 Days	after trea	tment		6	0 Days	after tre	atmer	ıt		р	ractice			percent reducti
			2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	on
Farmers practice	Broad casting and spraying	5-10 kg and 2-3 L/acre	7	6.2	6.5	5.1	5.1	9.4	8.23	8.5	7.6	7.6	-	-	-	-	-	
Demonstrated technology (Imidachloprid + neem cake application)	Root absorption + soil application	1.5 ml/tree 2kg / tree	2.5	2.3	1.8	1.7	1.7	0.86	0.42	0.8	1.2	1.2	90.85	94.9	90.59	84.21	84.21	88.95

The treatment effect was reflected in nut yields. The maximum yield was recorded in the trees where neem cake was applied and Imidachloprid was treated under demonstrated technology (10.48 q/ha) as compared to farmers practice (7.81 q/ha), registering an increase in yield of 27.97 per cent over farmers practice (Table-2).

Demonsterre		Demon	strated te	chnology				Far	mers pra	ctice		
Parameters	2012	2013	2014	2015	2016	Mean	2012	2013	2014	2015	2016	Mean
Average yield (q/ha)	10	10	10.8	12.1	9.5	10.48	6.75	8	8.5	9.4	6.4	7.81
Percent increase in yield over Farmers' Practice	32.5	25	27.06	28.72	26.56	27.97	-	-	-	-	-	-
Cost of production (Rs.)	65000	63000	62200	75400	47800	62680	55000	54000	52600	67000	41800	54080
Gross income (Rs.)	120000	200000	388800	314600	243000	253280	81000	160000	306000	244400	192000	196680
Net profit (Rs.)	55000	137000	326600	239200	195200	190600	26000	106000	253400	177400	150200	142600
B:C Ratio	1.84	3.14	6.25	4.17	5.06	4.09	1.47	2.96	5.82	3.65	4.57	3.69

The cost of production was slightly more under demonstration plot (Rs.62680/ha) in comparison to farmers practice (Rs.54080/ha). But net profit was more under demonstrated technology (Rs.190600/ha) compared to farmers practice with a lesser profit of Rs.142600/ha. The cost : benefit ratio obtained was 1:4.09 as against 1:3.69 in farmers practice (Table-2)

### Outcome

The study indicated that the trees in the treated gardens showing the symptoms of untapering towards tip, larger internodes, greenish colored healthy and normal sized leave and the garden was completely free from root grubs infestation.

### 3. Intercropping of Field bean variety Hebbala Avare-4 in younger arecanut

In Shivamogga arecanut is the major plantation crop covering an area of 54000 ha. Predominantly arecanut is grown as sole crop in some parts of district. Most of the farmers are not interested in putting effort or getting money from intercrops in younger Arecanut garden. Only their interest is in minimizing weed infestation, moisture conservation and fertility maintainance. They want easy ways for getting above results. Hence, field bean variety Hebbal Avare-4, a pulse crop can satisfy all the above requirements with minimum care and cost. As per the mandate of Krishi Vigyan Kendra, Shivamogga introducing the field bean crop as intercrop in younger arecanut garden.

This programme is important for the benefit the farmers because field bean variety Hebbal Avare-4 is pulse crop able to fix the atmospheric nitrogen in the soil and it needs less care and less susceptible to pod borer damage. This will reduce the weeds, reduces moisture loss and fallen foliage or green mulching will improves the soil fertility.

#### **KVK** Intervention

Our KVK has conducted the front line demonstration on "Intercropping of Field bean variety Hebbal Avare-4 in younger arecanut garden".

#### **Outcome Impact:**

Farmer Sri Rangayya, Sominakoppa village of Shivamogga taluk not practiced intercropping in younger arecanut garden. He contacted KVK, Shivamogga scientists and enquired intercrops in younger arecanut garden and other pulse crops. Scientists were visited his field and suggested him to cultivate Field bean variety Hebbal Avare-4 during Kharif, 2016 and also laid demonstration trials (FLD) in his field. He earned net profit of Rs. 32,450/- by adopting the improved technology under the supervision of KVK scientists.

The other farmers of Sominakoppa village and the surrounding villages were inspired about the technology and showed their interest to take up the field bean variety Hebbal Avare-4 in younger arecanut garden.

#### 4. Impact of management of Heart rot disease in pineapple

Pineapple is an economically important tropical fruit crop grown in different parts of Karnataka. In Shivamogga district it is grown in Sagara and Soraba taluks. Heart rot caused by *Phytophthora* sp. may lead to reduced crop yields and crop failures. The infection process and intensity of this disease mainly depends on the management practices undertaken. Knowledge on the symptoms, severity of the disease and management practices is very important. Hence, to impart the knowledge technology intervention has been carried out.

#### Interventions:

The front line demonstration was conducted in farmers' field during 2012-13, 2014-15 and 2015-16 in different villages of Soraba and Sagara taluks of Shivamogga district. Farmers were educated about the disease identification, symptoms, nature of damage; critical stages / intervention were briefed to the farmers. The benefits of technology demonstrated in minimizing the disease incidence was done through meetings, training programme, field visits and group discussions. The demonstrations were conducted in disease affected plots and the treatments were imposed. The farmers practice was included as check for comparison. The incidence of rotting of leaves and plants were recorded at 30 days interval after treatment imposition. In demonstration plots the management strategy includes soil application of *Trichoderma* enriched Neem cake @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%, Drenching with Metalaxyl MZ. The farmers practice included Application of Bordeux mixture and Mancozeb followed in front line demonstration.

### **Results:**

The results revealed that the technology demonstrated minimized the incidence of heart rot disease when compared to farmers practice. The technology demonstrated was effective and was convinced by the farmers mainly because of the intervention made at the right time during the season. Treating the suckers with Metalaxyl – MZ @ 0.3% and application of Trichoderma enriched Neem cake @ 20 g/hill and drenching with Metalaxyl – MZ minimized the infection both in suckers and in soil. There was an increased in yield of about 26.81 % when compared to farmers practice. There was a net return of about Rs. 377733/ha with B:C of 3.29 (Table-1).

The treatment imposed resulted in reduced rot incidence and increased in the yield. The maximum yield of 531 q/ha was a recorded when compared to 453 q/ha in farmers practice registering an increase in yield of 26.81% over farmers practice.

The net profit was more under demonstration technology (Rs. 377733/ha) compared to farmers practice with a lesser profit of Rs. 327906 / ha. The cost benefit ratio obtained was 1 : 3.29 as against 1:2.90 in farmers practice (Table-1).

	Der	nonstrated	technolog	IY		Farmer	s practice	
Parameters	2012- 2013	2014- 2015	2015- 2016	Mean	2012- 2013	2014- 2015	2015- 2016	Mean
Yield % q/ha	495	505.4	498	499.46	340	435	419.6	398.2
% increase in yield	45.59	16.18	18.68	26.81	-	-	-	-
Cost of production (Rs.)	185000	184600	178400	182000	175000	180000	175000	176666
Gross returns (Rs.)	594000	606960	597600	599500	480000	522000	503520	501840
Net returns (Rs.)	409000	423400	419200	294500	305000	347000	331720	327906
B:C	3.2	3.32	3.35	3.29	2.8	2.98	2.93	2.90

# PART XII - LINKAGES

# 12.A. Functional linkage with different organizations

SI. No.	Name of organization	Nature of linkage
1.	Karnataka State Dept. of Agriculture	<ul> <li>Joint diagnostic survey</li> <li>Joint implementation of FLD's</li> <li>Bi-monthly workshops</li> <li>Collaborative training programme under ATMA</li> <li>Joint field visits</li> <li>Demonstration under ATMA</li> </ul>
2.	Karnataka State Dept. of Horticulture	<ul> <li>Joint diagnostic survey</li> <li>Collaborative training under NHM project</li> <li>Field visits</li> <li>Technology Demonstration</li> </ul>
3.	Karnataka state Dept. of Animal Health & Veterinary Sciences	<ul> <li>Collaborative training</li> <li>Joint implementation of animal health camps, vaccination camps, mass deworming and nutrition management of dairy stock and calf management</li> <li>Technology demonstration of Feed formulation etc.,</li> </ul>
4.	Karnataka State Sericulture Dept.	- Collaborative training ; technology demonstration
5.	Karnataka State Dept. of Fisheries	- Technology demonstration and training under NFDB
6.	Dept. of Industries and commerce	- Collaborative training
7.	All India Radio	- Technology dissemination
8.	Doordarshan & Private TV Channels	- Technology dissemination
9.	Information and Broadcasting Dept.	- Technology dissemination & publicity
10.	Financial institutions like NABARD & Nationalized co-operative banks	- Formation of self help groups -Collaborative training programme
11.	Input agencies	<ul> <li>Collaborative farmers training programme</li> <li>Technology dissemination</li> </ul>
12.	Self Help Group	- Technology dissemination & organizing training
13.	Non-Governmental Organisations	- Training programme
14.	Local village level youth clubs	- Organizing training programme & field demonstration
15.	Co-operative sectors viz., milk producers, co-operative society, water users co-operative society etc.,	- Health camps and training programmes
16.	College of Agriculture	Involving RAWEP in conducting <ul> <li>Training Programme</li> <li>Method demonstration</li> <li>Group meeting &amp; field visits</li> </ul>
17.	Dept. of marketing and Co-operation	- Awareness & training programme on go down schemes
18.	Department of Panchayath raj and rural development	Training
19.	Coconut development Board	Training
20.	Protection of Plant Varieties and Farmers' Rights Authority, New Delhi	Training
21.	UAHS, Shivamogga	Interaction Meet, Krishi Mela, Training, Seminar, Workshop
22.	Rural self employment training institute	Training

# 12.B. List of Externally Funded Projects / schemes 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
Village Adoption Programme	August-2015	Government of Karnataka	2.00 lakhs
Large scale demonstration on mechanized paddy cultivation	June-2016	Government of Karnataka	5.00 lakhs
Production technology of Ginger	June-2016	Government of Karnataka	4.00 lakhs
Bee keeping – certification course	Feb-2017	Government of Karnataka	4.00 lakhs
Ready to eat product preparation - certification course	March-2017	Government of Karnataka	5.00 lakhs

### 12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district. Yes/ No : YES

Role of KVK in preparation of SREP of the district : Implementing the project.

### Coordination activities between KVK and ATMA during 2016-17

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
1.	Meetings	a. Action Plan meeting b. Review meeting			
2.	Research projects				
3.	Training programmes	<ol> <li>Paddy cultivation</li> <li>Water management</li> <li>Cultivation practices         <ul> <li>and irrigation technology</li> <li>in horticultural crops</li> </ul> </li> </ol>	3	1	-
4.	Field day	ICM in Groundnut	1		
5.	Demonstrations	Processing and value addition in agricultural crops	1	-	
6.	Extension Programmes				
	Kisan Mela				
	Technology Week	Technology week	-	1	
	Exposure visit	KVK activities	5		
	Exhibition				
	Soil health camps				
	Animal Health				
	Campaigns				
	Others (PI. specify)				
7.	Publications				
8.	Video Films				
9.	Books				
10.	Extension Literature				
11.	Pamphlets				
12.	Others (Pl. specify)				

### 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.G Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2016			
May 2016			
June 2016			
July 2016			
August 2016			
September 2016			
October 2016	4	1748	-
November 2016			
December 2016			
January 2017			
February 2017			
March 2017			
Total for the year 2016-17	4	1748	-

\* In our farmers' data base we have only 1959 farmers upto March-2017.

# PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

	Demo Unit	Year of	E Details of production			า	Amou	ınt (Rs.)	ø
SI. No.		Establi shment	Area (ha)	Variety	Produce	Qty. (kg./ Nos.)	Cost of inputs	Gross income (Rs.)	Remarks
1.	Horticultu re crop	2014	0.30	PKM-1, Bhagya	Drumstick	63		2520	Due to fencing problem,
	demonstra tion unit			Suhasini	Curry leaves	210		420	Crop suffered
				Arka Kalyan	Onion	25		1000	by animal graze
				Arka Nishanth	Radish	46		920	graze
				Arka Samrat	Tomato	40		800	
				Arka Anamika	Bhendi	5		200	
				Arka Sharath	Beans	10		200	
				Arka Anand	Brinjal	30		600	
				Arka Kyati	Chilli green	3		120	
				HA-3	Field bean	6.5		260	
				Private hybrid	Cauliflower	6		120	
				Yellow maxima	Marry gold	8		320	
							TOTAL	7480	

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

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

		Datast	(ha)	Details of production			Amou	ks	
Name of the crop	Date of sowing	Date of harvest	Area (h	Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income	Remarks
Cereal : Ragi	01.08.2016	15.11.2016	0.40	GPU-28, GPU-67, ML-635, KMR-301	TL Seeds	1.03 2.07 0.15 0.15	3650	2369 4761 345 345	
Oil seed									
Groundnut	10.07.2016	28.10.2016	0.80	G-2-52	TL Seeds	5.10	24850	38250	
PULSES									Due to fencing
Green gram	30.08.2016	05.12.2016	0.10	KKM-3	TL Seeds	0.04		200	problem, Crop
Black gram	30.08.2016	05.12.2016	0.10	Rashmi	TL Seeds	0.10		500	suffered by animal
Cowpea	20.07.2016	03.12.2016	0.10	KBC-2	TL Seeds	0.25		1250	graze
Field bean	20.07.2016	28.11.2016	0.10	HA-4	TL Seeds	0.04	5250	200	
Soyabean	30.08.2016	0.12.2016	0.10	JS-335	TL Seeds	0.05		250	
Redgram	12.07.2016	25.12.2016	0.10	BRG-1 &2	TL Seeds	0.20		1000	
Nizer	26.08.2016	30.11.2016	0.10	KBN-1	TL Seeds	0.20		1000	

	arma Data af Data af		(ha)	Details	s of production		Amou	nt (Rs.)	ks
Name of the crop	Date of sowing	Date of harvest	Area (ŀ	Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income	Remarks
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specif	fy)								
Fodder Sorghum	6.6.2014	10.11.2016	0.20	CoFS-29	TL seeds	0.12	1250	4800	
	6.6.2014	Multi-cut	0.20	CoFS-29	Green fodder	11	1230	1100	

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

SI.	Name of the		Amount (Rs.)		
No.	Product	Qty	Cost of inputs	Gross income	Remarks

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

	Name	Details	Details of production			Amount (Rs.)		
SI. No.	of the animal / bird / aquatics	Breed	Type of Produce	Qty. (kg)	Cost of inputs	Gross income	Remarks	
1.	Fish	Gowri, Rohu	Fish	66	950	6000		

#### 13.E. Utilization of hostel facilities

#### Accommodation available (No. of beds) : 40

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2016	-	-	-
May 2016	4	8	-
June 2016	2	2	-
July 2016	-	-	-
August 2016	-	-	-
September 2016	-	-	-
October 2016	-	-	-
November 2016	-	-	-
December 2016	77	2	-
January 2017	71	20	-
February 2017	34	10	-
March 2017	31	2	
TOTAL	219	44	-

## 13.F. Database management :

S. No.	Database target	Database created
1.	Planning and implementing to develop database management which will helps both on and off line reporting system	<ul> <li>Database maintaining in MS-Excel, MS-Word format</li> <li>Managing the data in MS-Office other than Online Reporting system developed exclusively for KVKs by ATARI, Bengaluru.</li> </ul>

#### 13.G. Details on Rain Water Harvesting Structure and micro-irrigation system : NIL

		Details of		Activities conducted					Area
Amount sanction (Rs.)	Expend iture (Rs.)	infrastructu re created / micro irrigation system etc.	No. of Training programm es	No. of Demonstr ations	No. of plant materials produced	Visit by farme rs (No.)	Visit by officia Is (No.)	Quantity of water harvested in '000 litres	irrigated / utilizati on pattern

# 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	Canara	S.M.Circle,	524	SB A/c	0524101038350	577015205	CNRB
With KVK	Bank	Shivamogga	524	SD A/C	0524101032710	577015205	0000524

#### 14.B. Utilization of KVK funds during the year 2016-17 (Rs. in lakh)

S.#	Particulars	Released	Expenditure	Balance
<b>A</b> . R	ecurring Contingencies			
1	Pay & Allowances	80.49	69.02	11.47
2	Traveling allowances	0.70	0.66	0.04
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	4.00	5.64	-1.64
В	POL, repair of vehicles, tractor and equipments	1.75	2.50	-0.75
С	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.75	0.99	-0.24
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	1.00	1.18	0.18
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demo in a year)	3.33	3.33	-
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.30	0.27	0.03
G	Integrated Farming System			
Н	Training of extension functionaries	0.15	0.03	0.12
1	Extension Activities	0.50	0.50	-
J	Farmer's Field School	0.30	0.30	-
κ	EDP / Innovative Activities	0.30	0.30	-
L	Soil & Water Testing & Issue of soil health card	0.50	0.50	-
М	Display Board	0.10	0.10	-
Ν	Maintenance of building	0.50	0.49	0.01
0	Library	0.05	0.04	0.01
	TOTAL (A)	94.72	85.85	9.23

B. N	on-Recurring Contingencies			
1	Equipments & Furniture			
	a. Office Automation	3.00	3.00	-
	b. Furniture & Fixture	1.00	1.00	-
2	Works			
3	Vehicle			
	a. 4 wheeler (Replacement)	8.00	-	8.00
тот	AL (B)	12.00	4.00	8.00
C. R	EVOLVING FUND			
GRA	AND TOTAL (A+B+C)	106.72	89.85	17.23

# 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 2014 to March 2015	7.49	4.19	5.03	6.64
April 2015 to March 2016	6.64	10.33	11.00	5.97
April 2016 to March 2017	5.97	10.56	8.57	7.96

## 15. Details of HRD activities attended by KVK staff during 2016-17

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. B.C.Hanumanthaswamy	Senior Scientist and Head	State level seminar on spice crops	JNNCE, Shivamogga	14/06/2016 15/06/2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	State level seminar on spice crops	JNNCE, Shivamogga	14/06/2016 15/06/2016
Miss G. B. Smitha	Scientist (Horticulture)	State level seminar on spice crops	JNNCE, Shivamogga	14/06/2016 15/06/2016
Miss M. V. Rekha	Scientist (Soil Science)	State level seminar on spice crops	JNNCE, Shivamogga	14/06/2016 15/06/2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	Strategic research and extension planning (SREP) for field functionaries	STU, UAS, Bengaluru	08/08/2016 11/08/2016
Dr. B.C.Hanumanthaswamy	Senior Scientist and Head	Bee keeping	CoF, Ponnampet	08/09/2016 09/09/2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	Smart functional textile and apparel to combat extremities : A futuristic approach	UAS, Dharwad	01/12/2016 21/12/2016
Dr. Imran Khan H	Scientist (Plant Pathology)	Advanced instrumentation methods for analysis of inorganic and organic nutrients in plants and soils	UAHS, Shivamogga	29/11/2016 30/11/2016
Dr. Arun Kumar P.	Scientist (Agril.Extension)	Advanced instrumentation methods for analysis of inorganic and organic nutrients in plants and soils	UAHS, Shivamogga	29/11/2016 30/11/2016
Miss. G. B. Smitha	Scientist (Horticulture)	Advanced instrumentation methods for analysis of inorganic and organic nutrients in plants and soils	UAHS, Shivamogga	29/11/2016 30/11/2016

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Rekha M. V.	Scientist (Soil Science)	Advanced instrumentation methods for analysis of inorganic and organic nutrients in plants and soils	UAHS, Shivamogga	29/11/2016 30/11/2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	Advanced instrumentation methods for analysis of inorganic and organic nutrients in plants and soils	UAHS, Shivamogga	29/11/2016 30/11/2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	Rural entrepreneurship development for farmers empowerment	KVK, Vijaypur	02/01/2017 11/11/2017
Rekha M. V.	Scientist (Soil Science)	KVK 2 <sup>nd</sup> Symposium	TNAU, Coimbatore	07/03/2017 to 08/03/2017
Miss G. B. Smitha	Scientist (Horticulture)	KVK 2 <sup>nd</sup> Symposium	TNAU, Coimbatore	07/03/2017 to 08/03/2017

16. Please include any other important and relevant information which has not been reflected above (write in detail). : NIL

# SUMMARY FOR 2016-17

# I. TECHNOLOGY ASSESSMENT

#### Summary of technologies assessed under various crops

Thematic areas	Сгор	Name of the technology assessed	No. of trials
Integrated Nutrient Management	Paddy	Assessment of nitrogen use efficiency in paddy	5
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			
Others (PI. specify) Composting technology	Arecanut	Evaluation of composting methodology for areca husk	10
TOTAI			15

#### Summary of technologies assessed under livestock : NIL

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Disease Management			
Evaluation of Breeds			
Feed and Fodder management			
Nutrition Management			
Production and Management			
Others (PI. specify)			
Total	·	·	

Summary of technologies assessed under various enterprises : NIL

Thematic areas	Enterprise	Name of the technology assessed	No. of trials

Summary of technologies assessed under home science : NIL

# II. TECHNOLOGY REFINEMENT

#### Summary of technologies refined under various crops : NIL

Thematic areas	Crop	Name of the technology refined	No. of trials
Integrated Nutrient			
Management			
Varietal Evaluation			
Integrated Pest			
Management			
Integrated Crop			
Management			
Integrated Disease			
Management			
Small Scale Income			
Generation Enterprises			
Resource Conservation			
Technology			
Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique			
Others (PI. specify)			
TOTAL			

#### Summary of technologies assessed under refinement of various livestock : NIL

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials
Disease Management			
Evaluation of Breeds			
Feed and Fodder management			
Nutrition Management			
Production and Management			
Others (PI. specify)			
		TOTAL	

#### Summary of technologies refined under various enterprises : NIL

Thematic areas	Enterprise	Name of the technology assessed	No. of trials
----------------	------------	------------------------------------	---------------

#### Summary of technologies refined under home science : NIL

technology assessed
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# **III. FRONTLINE DEMONSTRATION**

#### Crops

Crop	Thematic	Name of the technology	No. of	No. of	Area	Yield	(q/ha)	% change		her neters	*Ecor	nomics of c (Rs./l		tion	*	Economics (Rs./		
Стор	area	demonstrated	KVKs	Far mer	(ha)	Demo	Check	in yield	Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Paddy	IPDM	Integrated Pest and disease Management in paddy		5	2.0	61.5	51.8	18.72	8.25 Leaf ro 8.13 Sheat (9.13 Blast o	orer (%) 15.0 Iller (%) 16.38 h blight %) 23.5 disease %) 26.75	32250	90800	58550	2.82	30250	76800	46550	2.54
Hebbala Avare-4	Varietal evaluation	Inter- cropping of Field Bean variety Hebbal Avare-4 (HA-4) in younger arecanut gardens		13	5.2	18.49	13.44	37.57		borer nce (%) 30.07	14666	46244	31578	3.17	13123	33615	20492	2.56
French bean	Varietal evaluation	Demonstratio n of photoperiod insensitive, stringless high yielding French bean variety- Arka Sharath		5	2.0	207.76	174.20	19.26	18.05	gth (cm) 15.10 ight (gm) 10.23	88190	303498	215308	3.45	72720	201212	128492	2.77

Crop	Thematic	Name of the technology	No. of	No. of	Are a	Yield	(q/ha)	% change	Other parameters		*Economics of demonstration (Rs./ha)			tion	*	*Economics of check (Rs./ha)		
Стор	area	demonstrated	KVKs	Far mer	(ha)	Demo	Check	in yield	Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Turmeric	Varietal evaluation	High yielding and high curcumin content Turmeric variety-PTS- 24		3	0.6	390.00	256.66	51.95	(q, 390 Dry weig 78.00 Shoo incide 8.21	weight /ha) 256.66 ght (q/ha) 38.50 t borer nce (%) 10.98	136500	468000	331500	3.43	110723	308000	197277	2.78
Ginger	Integrated Pest Management	Management of rhizome rot in ginger		10	4.0	315.25	250.5	25.85	incide 19.50 Shoo incide 8.3 Defo	me rot           nce (%)           39.10           t Borer           nce (%)           20.7           liators           nce (%)           15.3	320000	520200	200200	1.63	301400	414000	112600	1.37
Arecanut	Integrated Pest Management	Management of Root grub in areca nut		5	2.0	8.1	6.4	26.56		f grubs plant 6.84	47800	243000	195200	5.06	41800	192000	150200	4.57
Sun- flower	Integrated Crop Management	Integrated Crop Managem ent in sunflower		10	4.0	13.3	10.47	27.02		-	14570	46550	31980	3.20	12710	36645	23935	2.55
Ground- nut	Integrated Crop Management	Integrated Crop Managem ent in groundnut		5	2.0	18.00	15.6	15.38	 Pods p	cidence %) 11.8 er plant lo.) 22	18840	119100	100260	6.33	17600	103260	85660	5.89

Сгор	Themati	Name of the technology	No. of	No. of	Are a	Yield	(q/ha)	% change		her neters	*Ecor	nomics of o /(Rs./		tion	*	Economics /Rs./		
отор	c area	demonstrated	KVKs	Far mer	(ha)	Demo	Check	in yield	Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Black gram	Varietal evaluation	Demonstrati on on short duration Black gram variety Rashmi (LBG – 625) in rice fallows		20	8.0	5.10	4.60	19.41			17252	34287	17035	1.98	16039	26503	10464	1.65

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

#### Livestock : NIL

Catawaru	Thematic	Name of the	No. of	No. of	No. of	Major parameters		% change	Other parameter		*Econ	omics of de	monstratio	n (Rs.)	*Economics of check (Rs.)				
Category	area	technology demonstrated	KVKs	Farmer	units	Demons ration	Check	in major parameter	Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Dairy																			
Poultry																			
Rabbitry																			
Pigerry																			
Sheep and goat																			
Duckery																			
Others (Pl.specify)																			
	Total																		

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

#### Fisheries : NIL

Cotogony	Thema tic	Name of the technology	No. of	No. of		Major parameters		% change	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
Category	area	demonstrated	KVKs	Farmer	units			in major parameter	Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																		
Mussels																		
Ornamental fishes																		
Others (pl.specify)																		
	Total																	

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

\*\* BCR= GROSS RETURN/GROSS COST

#### Other enterprises : NIL

Category	Name of the technology	No. of	No. of Farmer	No.of units	Major par	ameters	% change in major parameter	Other par	rameter	*Econor	mics of dei or Rs.		n (Rs.)	*	Economics (Rs.) or I		
	demonstrated	KVKs	Faillei	units	Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oyster mushroom																	
Button mushroom																	
Vermicompost																	
Sericulture																	
Apiculture																	
Others (pl.specify)																	
Nutritional Garden	Demonstration on Nutritional Gardens to ensure nutritional security		5	5						In Pro	ogress						
	Total		5	5													

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

#### Women empowerment : NIL

Category	Name of technology	No. of KVKs	No. of demonstrations	Name of observations	Demonstration	Check
Women						
Pregnant women						
Adolescent Girl						
Other women						
Children						
Neonates						
Infants						
Children						

#### Farm implements and machinery : NIL

Name of the implement	Crop	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	File observ (output hou	ation /man	% change in major	L	 eduction days)		 duction s./Unit	
Implement		demonstrated	NVN5			Demons ration	Check	parameter					

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

#### **Other enterprises : NIL**

#### Demonstration details on crop hybrids

	Name of	No. of	Area	Yield (kg	/ha) / major p	parameter	Economics (Rs./ha)					
Crop	the Hybrid	farmers	Area (ha)	Demonst- ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR		
Cereals												
Bajra												
Maize												
Rice												
Sorghum												

	Nomo of	No of	Aroa	riela (kg/	ha) / major	parameter		Economic	s (Rs./ha)	
Crop	Name of the Hybrid	No. of farmers	Area (ha)	Demonst- ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Wheat										
Others (pl.specify)										
Total										
Oilseeds										
Castor										
Mustard										
Safflower										
Sesame										
Sunflower	SB-275	10	4.0	13.3	10.47	27.02	14570	46550	31980	3.20
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										

	Name of	No. of	Area	Yield (kg/	/ha) / major	parameter		Economic	cs (Rs./ha)	
Crop	the Hybrid	No. of farmers	(ha)	Demonst- ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
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)										
Others (pl.specify)										
Total		10	4.0							

# **IV. TRAINING PROGRAMME**

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

				01 0	•	of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management	1	13	8	21	4	4	8	17	12	29
Integrated Crop Management	1	20	17	37	13	8	21	233	25	58
Soil and Water Conservation										
Integrated Nutrient Management	1	5	14	19	2	4	6	7	18	25
Production of organic inputs										
Others (Pl.specify)										
f) Post harvest management in rice	1	7	3	10	4	1	5	11	4	15
<ul> <li>g) Improved cultivation practices in pulses</li> </ul>	1	61	12	73	6	3	9	67	15	82
h) Production and use of Azolla	1	21	16	37	8	5	13	29	21	50
<ul> <li>Precaution measures for purchasing inputs</li> </ul>	1	13	11	24	12	8	20	25	19	44
<ul> <li>j) Importance and use of agricultural inputs</li> </ul>	1	23	1	24	17	0	17	40	1	41

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	l
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	1	7	0	7	0	0	0	7	0	7
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<ul> <li>c) Integrated crop management in vegetable crops</li> </ul>	1	2	35	37	0	7	7	2	42	44
d) Production technology of drumstick	1	31	0	31	7	0	7	38	0	38
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)										
b) Improved cashew cultivation	1	63	0	63	33	0	33	96	0	96

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
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	0	19	19	0	11	11	0	30	30
Processing and value addition										
Others (pl.specify)										
<ul> <li>Nursery, Agronomic practices, pest and disease management in coconut</li> </ul>	1	29	0	29	14	0	14	43	0	43
<ul> <li>d) Integrated Disease Management in arecanut</li> </ul>	1	5	0	5	4	0	4	9	0	9
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology	2	101	6	107	2	0	9	103	6	116
Processing and value addition										
Others (pl.specify)										
<ul> <li>d) Integrated Crop Management in ginger</li> </ul>	1	39	18	57	4	0	4	43	18	61

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
	Courooo	Male	Female	Total	Male	Female	Total	Male	Female	Total
e) Plant protection in ginger	1	40	1	41	0	0	0	40	1	41
<ul> <li>f) Integrated Nutrient and Disease Management in ginger</li> </ul>	1	32	0	32	8	0	8	40	0	40
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										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs	1	20	20	40	5	7	12	25	27	52
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	20	11	31	7	0	7	27	11	38
Others (pl.specify)										
<ul> <li>b) Improved compost making methods and cultivation of pulses</li> </ul>	1	32	4	36	4	0	4	36	4	40
Livestock Production and Management										
Dairy Management										
Poultry Management										

					No	of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	l
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	40	1	41	40	1	41
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	1	46	0	46	10	0	10	56	0	56
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	l
	0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
<ul> <li>b) Millet based diabetic mix and soya based health food preparation</li> </ul>	1	2	26	28	0	3	3	2	29	31
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										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
c) Plant protection in ginger	1	39	2	41	2	0	2	41	2	43
d) Plant protection in Green gram	1	17	0	17	0	6	6	17	6	23
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	al
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Carp fry and fingerling rearing										
Composite fish culture										
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)										
Production of Inputs at site										
Seed Production										
Planting material production										
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										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production	2	24	34	58	5	5	10	29	39	68
Apiculture										
Others (pl.specify)										
<ul> <li>b) Value addition in mushroom and its nutrition</li> </ul>	1	14	12	26	0	0	0	14	12	26
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	36	0	36	5	0	5	41	0	41
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	2	19	35	54	7	12	19	26	47	73
Others (Pl. specify)										
<ul> <li>j) Agricultural Extension activities in KVK</li> </ul>	1	6	10	16	8	6	14	14	16	30
<ul> <li>Agricultural extension and demonstration</li> </ul>	2	37	4	41	17	10	27	54	14	68
I) Doubling farmers' income by 2022	1	16	0	16	8	0	8	24	0	24

						No	. of Particip	oants			
	Area of training	No. of Courses		General			SC/ST			Grand Tota	ป
			Male	Female	Total	Male	Female	Total	Male	Female	Total
m)	Role of KVK for increasing farmers' income	1	28	0	28	12	0	12	40	0	40
n)	Role of KVK for transfer of technology	1	33	0	33	8	0	8	41	0	41
o)	Crop selection based on market	1	32	0	32	11	0	11	43	0	43
p)	Micro finance	1	2	21	23	0	14	14	2	35	37
q)	Skill development activities in agriculture	1	9	13	22	3	10	13	12	23	35
r)	Crop grown based on market	1	6	0	6	4	0	4	10	0	10
	TOTAL	44	950	353	1303	294	125	426	1444	478	1729

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

					No	o. of Particip	oants			
Area of training	No. of 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										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	1	2		2	9	1	10	11	1	12

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	l
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Soil and Water Conservation										
Integrated Nutrient Management	1	31	27	58	8	4	12	39	31	70
Production of organic inputs										
Others (pl.specify)										
d. Mechanized paddy cultivation	2	229	4	233	12		12	241	4	245
<ul> <li>Swachchata Andolana and disease management in paddy crop – FFS</li> </ul>	1	19	1	20	4		4	23	1	24
f. Pest and disease management in paddy – FFS	1	19	1	20	4		4	23	1	24
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b. Production technology of French bean	1	10	15	25	3	5	8	13	20	33
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										

					No	o. of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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	67	3	70	24	0	24	91	3	94
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	75	7	82	77	6	83	152	13	165

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	al
		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										
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	1	19	1	20	4	2	6	23	3	26
Others (pl.specify)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
	0001303	Male	Female	Total	Male	Female	Total	Male	Female	Total
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
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	12	67	402	469	18	52	70	85	454	539
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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										
Post Harvest Technology										
Others (pl.specify)										
b. Nutritional garden	3	82	107	189	27	27	54	109	134	243
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										

					No	o. of Partici	pants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	ป
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
Production of Inputs at site										
Seed Production										
Planting material production										
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										

					No	o. of Particip	oants			
Area of training	No. of Courses		General			SC/ST			Grand Tota	1
	0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
b. KVK Extension activities	1	3	41	44	4	19	23	7	60	67
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (PI. specify)										
TOTAL	26	623	609	1232	194	116	310	817	725	1542

#### 7.C. Training for Rural Youths including sponsored training programmes (on campus)

			•		No. c	of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tot	al
		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										

					No. c	of Particip	ants			
Area of training	No. of Courses		General			SC/ST			Grand Tot	al
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
b) Soil fertility management	2	25	11	36	4	1	5	29	12	41
TOTAL	2	25	11	36	4	1	5	29	12	41

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

					No. c	No. of Participants						
Area of training	No. of Courses		General			SC/ST			Grand To	tal		
		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												

					No. c	of Participa	ants			
Area of training	No. of Courses		General			SC/ST			Grand To	tal
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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 Participants								
Area of training	No. of 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	1	36	0	36	0	2	2	36	2	38
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)										
c) Soil health and fertility management	7	82	46	128	0	0	0	82	46	128
d) Soil testing	1	15	2	17	4	2	6	19	4	23
Total	9	133	48	181	4	4	8	137	52	189

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

		No. of Participants								
Area of training	No. of 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)										
Total										

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

						No.	of Particip				
S.No.	Area of training	No. of Courses		General			SC/ST			Grand Tota	l
			Male	Female	Total	Male	Female	Total	Male	Female	Tota
1	Crop production and management										
1.a.	Increasing production and productivity of crops										
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										
4	Production of Inputs at site										
5	Methods of protective cultivation										
6	Others (pl.specify)										
	b) Bee keeping	1	13	2	15	14	1	15	27	3	30
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										
		1	1	1	1	1	1	1	1	1	1

						No.	of Particip	ants	0 21		
S.No.	Area of training	No. of Courses		General			SC/ST			Grand Tota	ıl
			Male	Female	Total	Male	Female	Total	Male	Female	Total
10.c	Fisheries Nutrition										
10.d	Fisheries Management										
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)										
	1) Ready to eat product preparation	1	0	15	15	0	6	6	0	21	21
12	Agricultural Extension										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others (pl.specify)										
	Total	2	13	17	30	14	7	21	27	24	51

#### Details of sponsoring agencies involved

1. Karnataka state Government

			-			No	of Particip	ants			
S.No.	Area of training	No. of Courses		General	1		SC/ST	1		Grand Tota	
		0001000	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										<u> </u>
1.a.	-										
	Commercial fruit production										L
1.c.											
	Integrated crop management										
1.e.											
1.f.											
2	Post harvest technology and value addition										
2.a.											
2.b.	Others (pl.specify)										
3.	Livestock and fisheries										
	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 6	Production of bio-agents, bio-pesticides,										
4.b.	bio-fertilizers etc.										
4 -	Repair and maintenance of farm machinery										
4.c.	and implements										
4.d.	Rural Crafts										
4.e.	Seed production										
4.f.											
4.g.	Mushroom cultivation										
4.h.											
4.i.											
4.j.											
4.k.											
5	Agricultural Extension										
-	Capacity building and group dynamics										
5.b.											
0.0.	GRAND TOTAL										

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

#### V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	49	59	0	59
Diagnostic visits	4	28	42	70
Field Day	7	455	33	488
Group discussions	4	28	0	28
Kisan Ghosthi				0
Film Show	44	1730	49	1779
Self -help groups				
Kisan Mela	1	460800	19200	480000
Exhibition	7	1066867	44276	1111143
Scientists' visit to farmers field	51	102	16	118
Plant/animal health camps				
Farm Science Club				
Ex-trainees Sammelan				
Farmers' seminar/workshop				
Method Demonstrations	6	169	30	199
Celebration of important days	3	361	167	528
Special day celebration				
Exposure visits	2	47	3	50
Others (pl.specify)				
SMS Messages	4	1310	258	1568
Method demonstration on FLD- nutritional gardenw3	3	243	24	267
TOTAL	185	1532199	64098	1596297

\* Exhibitions organised during Krishimela-2015 at UAHS, Shivamogga + Technology Week-2015, Foundation

#### Details of other extension programmes

Particulars	Number
Electronic Media	
Extension Literature	18
News Letter	2
News paper coverage	10
Technical Articles	
Technical Bulletins	5
Technical Reports	7
Radio Talks	
TV Talks	1
Animal health camps (Number of animals treated)	
Others (pl.specify)	
Abstracts	1
Awareness Campaign	1
Training manual	7
TOTAL	52

# **VI PRODUCTION OF SEED / PLANTING MATERIAL**

Crop category	Name of the crop	Variety	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Ragi	GPU-28	1.03	2369	27
		GPU-67	2.07	4761	36
		ML-635	0.15	345	6
		KMR-301	0.15	345	5
Oilseeds	Groundnut	G-2-52	5.10	38250	15
	Cowpea	KBC-2	0.25	1250	6
Pulses	Blackgram	Rashmi	0.10	500	3
Puises	Green gram	KKM-3	0.04	200	2
	Field bean	HA-4	0.04	200	2
Millets					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder sorghum	Co-FS-29	0.12	4800	26
Fiber crops					
Forest Species					
Others (specify)					
Total			9.05	53020	128

#### Production of seeds by the KVKs

#### Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Number	Value (Rs.)	Number of farmers to whom provided
Commercial					
Vegetable seedlings	Drumstick	Bhagya	1106	13275	12
	Рарауа	Taiwan-786	9169	137535	22
Fruits	Sapota	Cricket ball	39	1950	4
Ornamental plants					
Medicinal and Aromatic					
Plantation					
Spices	Curry leaves	Local	418	5016	12
	Chilli	Arka Anand	5000	5000	2
Tuber					

Fodder crop saplings	Fodder slips	Co-4	2000	2000	4
Forest Species					
Others(specify)					
Flower					
TOTAL			17732	164776	56

#### **Production of Bio-Products : NIL**

Bio Products	Name of the bio-product	Quantity (Kg)	Value (Rs.)	No. of Farmers
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
Total				

## Production of livestock and related enterprise materials :

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (PI. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Fish	Gowri, Rohu	60 kg	6000	26
Total		60 kg	6000	26

# VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2016-17

Sample Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil	3567	1179	1179	280452
Water	1180	1036	1036	118000
Plant/manure/lime	6	1	1	4800
TOTAL	4753	2216	2216	403252

# VIII. SCIENTIFIC ADVISORY COMMITTEE : Not conducted during 2016-17

Number of SACs conducted : During 2014-15 One SAC (11<sup>th</sup> SAC) meeting conducted on 12/08/2014

# IX. NEWS LETTER

Number of issues of newsletter published : 2 Nos.

# X. RESEARCH PAPER PUBLISHED :

Number of research paper published :

# XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM : NIL

Activities conducted				
0		No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)

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