University of Agricultural Sciences, Bangalore

ICAR-Krishi Vigyan Kendra

Navile, Shimoga

ANNUAL REPORT 2015-16

(for the period April 2015 to March 2016)

ICAR-KRISHI VIGYAN KENDRA

Navile, Abbalagere Post, Shimoga – 577225

Tele/Fax. No.08182-295516 E-mail:shimogakvk@gmail.com

Annual Report-2015-16
(01-04-2015 to 31-03-2016)

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, Navile, Shivamogga -577 204 Karnataka	08182-295516, 267017	-	shimogakvk@gmail.com	-

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

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

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

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

1.4. Year of sanction: 2000

1.5. Staff Position (as on 31st March 2016)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M /F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/ OBC/Others)
1.	Programme Coordinator	Dr. B.C.Hanumantha swamy	Programme Coordinator	M	Agril. Entomology	M.Sc.,(Agri. Entomology) Ph.D., PGDBA, PGDPP, PGDAEM	37400-67000	47800	22.12.2011	Permanent	General
2.	SMS	Dr. Basavaraj Beerannavar	SMS (Agril. Extn.)	M	Agril. Extension	M.Sc. (Agri.) in Agril. Extension, PGDAEM	15600-39100	31070	03.12.2011	Permanent	SC
3.	SMS	Mrs.Jyoti M.Rathod	SMS (Home Science)	F	Home Science	M.H.Sc. (Food and Nutrition)	15600-39100	30160	12.03.2007	Permanent	SC
4.	SMS	Dr. M. Ashok [1]	SMS (Animal Science)	M	Animal Science	M.VSc., PGDAEM	15600-39100	29280	18.05.2007	Permanent	OBC
5.	SMS	Dr. T.M.Soumya	SMS (Agronomy)	F	Agronomy	M.Sc.(Agronomy), Ph.D., PGDAEM	15600-39100	30170	22.10.2014	Permanent	General
6.	SMS	Ms.M.V.Rekha [2]	SMS (SS & AC)	M	Soil Science & Agril. Chemistry	M.Sc.,(Soil Science and Agricultural Chemistry)	22000	25000	19.08.2015	Temporary	Others
7.	SMS	Ms.G.B.Smitha[2]	SMS (Horticulture)	M	Horticulture	M.Sc.,(Horticulture)	22000	25000	24.08.2015	Temporary	Others
8.	Programme Assistant (Lab Tech.)/T-4	Mr. R. Nagaraja	Programme Ass istant (Lab Tech)	M	Agril. Microbiology	M.Sc.(Agri.) in Agricultural Microbiology, PGDAEM	9300-34800	15670	23.10.2010	Permanent	OBC
9.	Programme Assistant (Computer)/ T-4	Smt. Geetha B.S.	Programme Assistant (Computer)	F	Computer	M.Com., PGDCA, PGDHR	9300-34800	15670	22.01.2011	Permanent	General
10.	Programme Assistant/ Farm Manager	Dr. P.R. Somashekharappa	Farm Manager	M	Agronomy	M.Sc.(Agri.) in Agronomy, Ph.D., PGDPP, PGDSMNF, PGDAEM	9300-34800	14330	23.12.2014	Permanent	General
11.	Assistant	**VACANT**									
12.	Jr. Stenographer	Smt. Usha, K [2]	Typist cum computer operator	F	Typist cum computer operator	M.A.	12720	12720	13.08.2007	Temporary	Others
13.	Driver	Mr. N. Gopala	Driver (LV)	M	Driver (Jeep)	SSLC	11600-21000	12250	16.08.2012	Permanent	OBC
14.	Driver	Mr. K.H. Mohan	Driver (Tractor)	M	Driver (Tractor)	7th Std.,	14550-26700	17200	20.10.2008	Permanent	OBC
15.	Supporting staff	Mr. Santhosh L[2]	Messenger	M	Messenger	SSLC	8300	8390	01.08.2015	Temporary	Others
16.	Supporting staff	Mr. T. Chikkaiah	Assistant Cook cum Caretaker	M	Cook cum caretaker	SSLC	10400-16400	11800	22.11.2008	Permanent	OBC

1. Deputed for Ph.D. for three years (From 09.02.2015 to 10.02.2018)
2. On contract basis (consolidated salary)

1.6. Total land with KVK (in ha) : 10.00 ha

Sl. No.	Item	Area (ha)
1.	Under Buildings	0.86
2.	Under Demonstration Units	0.60
3.	Under Crops	3.29
4.	Orchard/Agro-forestry	5.25
5.	Others	10.00

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			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	4330	Good condition
Jeep (Mahindra Bolero)	2005	4,40,000.00	191354	Good condition
Hero Honda Splendor+	2009	39,350.00	37120	Good condition
Honda Activa	2009	46,102.00	25672	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	Printers (2 Nos.)	15645	02/05/2009	Scrapped	2	Lexmark Laser printers
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 Sl.No.2348907	17500	01/22/2013	Good Condition	1	.
Office	Sony digital Camera-DSC H-20 Sl.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	66555	11/18/2008	Good Condition	1	
Laboratory	Digital Micro pipette 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	Incubator	24425	03/18/2011	Good Condition	1	
Furniture & Furnishing	21 Black Onida CTV-21	8990	01/22/2013	Good Condition	1	Kept in KVK Farmers' Hostel
Furniture & Furnishing	Bosch Gas Geyser	7600	01/22/2013	Good Condition	1	Fixed in Farmers' Hostel

Equipment Type	Name of the equipment	Cost (Rs.)	Purchased date	Present status	Total Nos.	Remarks
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 ˜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	

1.8. Details of SAC meeting conducted in 2015-16 : Tentatively June 2nd week

Sl. 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)

S. No	Farming system/enterprise
1.	Rice based cropping system
2.	Pulses and Oilseeds
3.	Arecanut based cropping system
4.	Fruit crops and spices
5.	Sugarcane cropping system
6.	Vegetable production
7.	Dairy

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

Sl. 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. • 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 961.6 mm with minimum of 220.0 mm and maximum of 3089.0 mm. The lowest minimum temperature ranges from 14.7°C (January) to 20.3°C (May) while the maximum temperature ranges from 24.8 °C (July) to 40 °C (April).
2.	Hilly Zone (Zone - 9)	• 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. • 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.

Sl. 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

Sl. 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 Black clayey – 22358 Alluvial loamy – 61133 Alluvial black clayey – 12087 Alluvial clayey – 25660 Forest brown clayey – 15441 Red gravelly clayey –36446
2	Mixed Red and Black Soils	The soils are derived from ignetious rocks and montmorillonite clay with high fertility status, high in water holding capacity and cation 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.	
3	Red loamy 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

Sl. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
Field Crops				
1.	Paddy	106333	382261	3595
2.	Hybrid Jowar	371	812	2187
3.	Ragi	856	961	2708
4.	Maize	3372378	287846	14618
5.	Redgram	808	558	690
6.	Black gram	107	43	1269
7.	Green gram	976	493	1499
8.	Avare	32	15	464
9.	Groundnut	600	745	2512
10.	Niger	11	1	73
11.	Caster	12	2	158
12.	Mustard	10	3	250
13.	Sesame	35	8	437
14.	Cotton	1029	7247	390
15.	Tobacco	8	4	453
16.	Sunflower	2213	2098	1920
17.	Horse gram	70	32	450
18.	Cowpea	524	266	873

Source: Department of Agriculture, Shivamogga (2014-15)

Horticultural Crops				
Sl. No	**Crop**	**Area (ha)**	**Production (tons)**	**Yield (t/ha)**
1.	Mango	3863.00	52895.00	13.69
2.	Banana	6371.00	166165.00	26.08
3.	Guava	23.00	460.00	20.00
4.	Sapota	703.00	9686.00	13.78
5.	Pineapple	1329.00	79740.00	60.00
6.	Pomegranate	3.0	30.00	10.00
7.	Jack	13.00	520.00	40.00
8.	Pepper	1278.00	422.46	0.33
9.	Cardamom	341.00	51.00	0.15
10.	Tamarind	5.00	25.00	5.00
11.	Ginger	5444.00	54440.00	10.00
12.	Turmeric	1185.00	15.00	296.25
13.	Cinnamom	2.00	0.30	0.15
14.	Vanilla	92.00	27.60	0.30
15.	Coconut	6500.00	715.00	0.11
16.	Arecanut	48187.00	68720.00	1.43
17.	Betelvine	198.00	3960.00	20.00
18.	Cocoa	544.00	326.40	0.60
19.	Oil Palm	264.00	3168.00	12.00
20.	Cashew	1227.00	1840.50	1.50

Source: Department of Horticulture, Shivamogga (2014-15)

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0}C		Relative Humidity (%)	
		Maximum	Minimum	At 0830 hours	At 1730 hours
Apr-15	48.6	34.6	22.1	76.8	51.5
May -15	196.0	33.2	22.7	82.7	74.1
June-15	294.8	28.7	21.5	85.7	76.4
July-15	121.0	28.5	21.1	86.1	78.4
August-15	83.2	29.7	22.3	86	76.9
September-15	214.4	30.1	22	85.4	75.4
October-15	135.0	31.3	21.9	81.4	72.3
November-15	79.4	29.2	19.4	82.8	69.2
December-15	2.0	31.8	18	84.3	60.4
Jan-16	0.6	31.1	15.2	76.1	50.5
February-16	0.0	34.3	18.2	73.7	48.9
March-16	0.0	37.6	21	72	33.7
TOTAL	**1175.0**	**31.68**	**20.46**	**81.09**	**63.98**

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 (2015-16)

2.7 District profile has been updated for 2015-16 Yes / No: YES

2.8 Details of Operational area / Village

Sl. 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	2	Paddy, Maize	Stem borer, blast, nutrient deficiency	Integrated Crop Management
2.	Shivamogga	Mathodu	1	Paddy, Areca	Stem borer, nutrient losses	Integrated Crop Management
3.	Shivamogga	Basavanaganguru	2	Paddy, Maize	Blast, nutrient losses	Integrated Crop Management
4.	Shivamogga	Sominakoppa	4	Maize, Paddy, vegetables, banana, arecanut	Bacterial wilt problem in solaneceous vegetables, hidimundige in arecanut	Integrated Crop Management
5.	Sagar	Toragodu	2	Arecanut, Pineapple	Root grub, Heart rot	Integrated Pest Management and Integrated Disease Management
6.	Shivamogga	Godekoppa	1	Arecanut, pepper, paddy	Root grub, wilt, thrips, stem borer	Integrated Pest Management and Integrated Disease Management
7.	Shivamogga	Koodi	1	Paddy, Ginger	Stem borer, Rhizome rot	Integrated Pest Management and Integrated Disease Management
8.	Sagar	Shettikoppa	1	Arecanut, pepper, paddy	Root grub, wilt, thirps, stem borer	Integrated Pest Management and Integrated Disease Management
9.	Sagar	Balekoppa	1	Arecanut, pepper, paddy	Root grub, wilt, thirps, stem borer	Integrated Pest Management and Integrated Disease Management
10.	Sagar	Gullehalli	1	Arecanut, pepper, paddy	Root grub, wilt, thirps, stem borer	Integrated Pest Management and Integrated Disease Management
11.	Bhadravathi	Bhandarahalli	1	Paddy, sugarcane, arecanut	Stem borer, nutrient deficiency, inflorescence dieback and caterpillar	Integrated Pest, Disease, Nutrient Management
12.	Bhadravathi	Karehalli	1	Paddy, sugarcane, arecanut	Stem borer, nutrient deficiency, inflorescence dieback and caterpillar	Integrated Pest, Disease, Nutrient Management

Sl. 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
13.	Shivamogga	Kyatinakoppa	1	Paddy, sugarcane, arecanut	Stem borer, nutrient deficiency, inflorescence dieback and caterpillar	Integrated Pest, Disease, Nutrient Management
14.	Shikaripura	Eleneerukoppa	1	Maize, sunflower, groundnut, green gram	Nutrient deficiency, wilt disease, sucking pests	Integrated Pest, Disease, Nutrient Management
15.	Shivamogga	Kommanalu	2	Paddy, maize, finger millet, vegetables	Water scarcity, monocropping	Fodder crop management for dairy animals
16.	Shikaripura	Halemugalagere	3	Maize, sunflower, ground nut, pulses	Improper resource management, mono cropping	Integrated waste management, Integrated Crop Management
17.	Shikaripura	Jayanagar	1	Maize, pulses, ragi, vegetables	Water scarcity, labour scarcity	Fodder crop management
18.	Shivamogga	Holehatti	1	Arecanut, coconut, paddy, maize, ragi	Transportation problem when sugarcane is cultivated	Resource Management
19.	Shivamogga	Hosahalli, Laxmipura	1	Arecanut, paddy	Improper resource management	Resource Management
20.	Shikaripura	Vittalanagara	1	Paddy, Maize	Water scarcity, excess rainfall	Fodder crop management for dairy, sheep, poultry

2.9 Priority thrust areas

Sl.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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
3	3	11	11	16	16	109	109

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
50	58	2500	2648	350	374	8000	8199

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
--	21.70	-	44411

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	-	-

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									
				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 livestock (No.)	Supply of bio products
1.	Varietal evaluation	Turmeric	Non adoption of high yielding varieties	Evaluation of high yielding varieties of turmeric	-	1	-	-	Field visits – 5	-	Rhizomes= 180 kg	-	-
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	-	2	-	-	Field visits=8	-	-	-	Bioinoculents = 40 kg
3.	INM	Paddy	Improper nutrient management	Assessment of Nitrogen use efficiency in paddy	-	1	-	-	Field visits=5, Field day=1	-	-	-	DAP=150 kg, Urea = 100 kg, MoP=150 kg, $ZnSO_4$=25 kg
4.	INM	Paddy	Improper nutrient management	-	Nutrient management in paddy	1	-	-	Field visits =5, Field day (1)	-	-	-	DAP=250 kg, Urea = 350 kg, MoP=200 kg, $ZnSO_4$=40 kg
5.	IPM	Paddy	Blast, Udubatta, Sheath blight, Stem borer, Leaf roller	-	Management of pest and diseases in paddy	1	-	-	Field day-1, field visits =4	-	-	-	Fipronil=100 kg, Carbendazim =10 kg, Chloropyrifas= 15 L. Tricyclozole=1 800 g.
6.	Integrated Crop Management	Sunflower	Low yield, improper spacing, incidence of powdery mildew and leaf eating caterpillars	-	Integrated Crop Management in sunflower	1	-	-	Field visits =3	Seeds = 20 kg	-	-	SSP=500 kg, Boran=5 kg

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									
				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 livestock (No.)	Supply of bio products
7.	Integrated Crop Management	Groundnut	Low shelling percentage, Incidence of leaf eating caterpillars, Leaf spot disease	-	Integrated Crop Management in groundnut	1	-	-	Field visit =4	Pods =210 kg	-	-	Rhizobium=3 kg Trichoderma=3 kg
8.	Resource management	Green gram	Non adoption of short duration pulse varieties for paddy fallows	-	Demonstration of green gram variety KKM-3 in rice fallows	1	-	-	Field visit=4 Field day =1, method demo=1	Seeds =132 kg	-	-	Rhizobium=10 kg, PSB=10 kg, Trichoderma=10 kg
9.	Resource management	Black gram	Non adoption of short duration pulse varieties for paddy fallows	-	Demonstration of black gram variety Rashmi (LBG – 625) in rice fallows	1	-	-	Field day=1, Field visit=5	Seeds = 30 kg	-	-	Rhizobium=5 kg, PSB=5 kg, Trichoderma=5 kg
10.	Integrated Crop Management	Sugarcane	Low fertilizer use efficiency, Low yield, Improper trash management	-	Production technology of Sugarcane	1	-	-	Field visit=2	-	12000 single eye bud seedlings	-	Urea=300 kg, SSP=300 kg
11.	Varietal evaluation	Pepper	Wilt incidence	-	Performance of Panniyur-1 grafted on *Piper colubrinum*	-	-	-	Field visit=4	-	Pepper grafted plants =375, Pepper grafted cutting=375	-	-

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									
				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 livestock (No.)	Supply of bio products
12.	Varietal evaluation	Hebbal Avare-4 (HA-4)	Improper utilization of inter-space and weed menace in younger arecanut gardens	-	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	1	-	-	Advisories= 3, Field visit=6, Field day (1)	Hebbal Avare seeds =30 kg	-	-	-
13.	Varietal evaluation	French bean	Non adoption of photo period insensitive, less-string variety	-	Demonstration of French bean variety Arka Sharath	1	-	-	Field visit \6, advisories=2	French bean seeds= 50 kgs	-	-	-
14.	Varietal evaluation	Drumstick	Low adoption of new variety	-	Demonstration of Drumstick variety – *Bhagya*	-	-	-	Field visit=2	-	Seedlings =1400	-	-
15.	IPM	Ginger	Rhizome rot	-	Management of rhizome rot in ginger	2	-	-	Field visit=2	-	-	-	Curzate =10.2 kg, Streptocyclin =500 g, Metalaxyl =10 kg
16.	IPM	Arecanut	Root grub	-	Management of Root grub in areca nut	1	-	-	Field visit=2	-	-	-	Immidacloprid= 10 L, Neem cake=500 kg

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									
				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 livestock (No.)	Supply of bio products
17.	IPM	Arecanut	Inflorescence die back and caterpillar	-	Management of inflorescence die back & caterpillar in areca nut	1	-	-	Field visit=2	-	-		Carbendazim + M45 =30 kg, Chloropyrifas= 30 L
18.	IPM	Pineapple	Heart rot disease	-	Management of Heart rot disease in pineapple	1	-	-	Field visit=2	-	-	-	Metalaxyl=10 kg, Neem cake=500 kg, Trichoderma= 27 kg
19.	Fodder production	Fodder Sorghum	Fodder scarcity, unaware of fodder crop, varieties and nutritional deficiencies in dairy cows	-	Introduction of fodder production units at farmer's field	2	-	-	Field visit=2	Seeds =35 kg	Root slips/ cuttings =5000	-	-

3.B2. Details of technology used during reporting period

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Evaluation of high yielding varieties of turmeric	UAS, Dharwad , IISR, Calicut KAU, Thrissur , OUAT, Bhuvaneshwar	Turmeric	1	-	1	Field visits (5)
2.	Evaluation of composting methodology for areca husk	UAS, Bengaluru, Scientific literature. International journal of research in applied natural and social sciences	Composting	10	-	2	Field visit (5)
3.	Assessment of Nitrogen use efficiency in paddy	UAS, Bengaluru, DRR, Hyderabad, IARI, New Delhi	Paddy	5		1	Field visits (5)
4.	Nutrient management in paddy	UAS, Bengaluru	Paddy		5	1	Field visits (5), Field day (1)
5.	Management of pest and diseases in paddy	UAS, Bengaluru	Paddy		10	1	Field visits (4), Field day(1)
6.	Integrated Crop Management in sunflower	UAS, Bengaluru	Sunflower		10	1	Field visits (3)
7.	Integrated Crop Management in groundnut	UAS, Dharwad	Groundnut		3	1	Field visits (4)
8.	Demonstration of green gram variety KKM-3 in rice fallows	UAS, Bangalore	Green gram		20	1	Field day(1), Field visits (4), Method demo(1)

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
9.	Demonstration of black gram variety Rashmi (LBG – 625) in rice fallows	UAS, Bangalore	Black gram		10	1	Field day(1), Field visits (5)
10.	Production technology of Sugarcane	UAS, Bangalore	Sugarcane		2	-	Field visits (2)
11.	Performance of Panniyur-1 grafted on *Piper colubrinum*	IISR, Calicut	Pepper	-	3	-	Field visits (4)
12.	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	UAS, Bengaluru	Hebbal Avare-4 (HA-4)	-	5	1	Field day(1), Field visits (6)
13.	Demonstration of French bean variety Arka Sharath	IIHR, Bangalore	French bean	-	4	1	Field visits (6)
14.	Demonstration of Drumstick variety – *Bhagya*	UHS, Bagalkot	Drumstick	-	7	-	Field visits (2)
15.	Management of rhizome rot in ginger	UAS, Bengaluru	Ginger		10	2	Field visits (2)
16.	Management of Root grub in areca nut	UAS, Bengaluru	Arecanut		5	1	Field visits (2)
17.	Management of inflorescence die back & caterpillar in areca nut	UAS, Bengaluru	Arecanut		10	1	Field visits (1)
18.	Management of Heart rot disease in pineapple	UAS, Dharwad	Pineapple		5	1	Field visits (2)
19.	Introduction of fodder production units at farmer's field	IGFRI, Dharwad (RC)			7	2	Field visits (2)

3.B2 contd..

Sl. No.	No. of farmers covered															
	OFT				FLD				Training				Others (Specify)			
	General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1.	1	-	-	-	-	-	-	-	17	9	8	3	8	-	-	
2.	8		2			-			26	6	45	17	20	-	-	
3.			2						15	10	3	2	8	-	4	
4.					3	-	2		12	8	7	3	52	20	6	
5.					7	2	1		20	7	10	4	35	6	15	7
6.					2	-	7		2	-	7	1	6	2	20	10
7.						-	3		-	-	-	-	-	-	-	
8.					11	-	9		0	-	31	1	100	8	-	
9.					8	2	-		8	2	-	-	97	8		5
10.					1	-	1		-	-	-	-	-	-		
11.					2	-	1		-	-	-	-	6	-		
12.					4		1		20	8	-	-	48	17		
13.					4		-		18	5	3	-	10			
14.					7		-		-	-	-	-	-			
15.					10		-		36	21	18	13	16			
16.					5		-		21	3	8	5	5			
17.					9		1		15	7	15	9	10			
18.					5		-		10	5	7	2	5			
19.					7				33	15	5	3	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 Management	1									1
Varietal Evaluation				1						1
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										
Composting technique								1		1
TOTAL	**1**			**1**				**1**		**3**

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

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	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 ha.
Varietal Evaluation	Turmeric	Evaluation of turmeric varieties for high yielding and curcumin content	1	1	0.2 ha
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			**16**	**16**	**2.2 ha + 10 units**

4.B.2. Technologies Refined under various Crops : NIL

Thematic areas	Crop	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					
Storage Technique					
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				

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 the parameter				Results of assessment	Feedback from the farmer
							8					
1	2	3	4	5	6	7	Tech. opt.1	Tech. opt.2	Tech. opt.3	Tech. opt.4	9	10
Paddy	Irrigated	Improper nutrient management	Assessment of Nitrogen use efficiency in paddy	5	Technology. Option 1: Basal application of N & P only followed by N & K top dressing Technology. Option 2: RDF, basal application of 50% N & K + 100 % P, 50% N as top dressing in 2 split & 55 DAP + 50% K at 55 DAP Technology. Option 3: RDF + foliar application of 1% 19:19:19 at maximum tillering stage + foliar application of 1% 13:0:46 @ grain filling stage Technology. Option 4: RDF, RD nitrogen through slow release urea (neem coated urea)	1. Nitrogen status (kg/ha)	175.65	161.12	150.34	135.26	Higher No. of tillers and yield observed in alternate practices	Farmers are interested in new technologies they told that, they practice these technologies in future
						2. Productive tillers / m^2	27	28	31.4	32		
						3. Grain yield (q/ha)	50.7	55.9	62	68.4		

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
-	-	Technology. Option 1: Basal application of N & P only followed by N & K top dressing	Farmer practice	50.7	q/ha	43250	2.36
		Technology. Option 2: 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	55.9	q/ha	49850	2.47
		Technology. Option 3: RDF + foliar application of 1% 19:19:19 at maximum tillering stage + foliar application of 1% 13:0:46 @ grain filling stage	UAS, Bengaluru + DRR, Hyderabad	62.0	q/ha	55780	2.51
		Technology. Option 4: RDF, RD nitrogen through slow release urea (neem coated urea)	IARI, New Delhi	68.4	q/ha	63700	2.64

1) **Title of Technology Assessed :** Assessment of Nitrogen use efficiency in paddy

2) **Problem Definition:** Improper nutrient management

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

Sl. 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	RDF, basal application of 50% N & K + 100 % P, 50% N as top dressing in 2 split & 55 DAP + 50% K at 55 DAP
3.	Technological Option 3	RDF + foliar application of 1% 19:19:19 at maximum tillering stage + foliar application of 1% 13:0:46 @ grain filling stage
4.	Technological Option 4	RDF, RD nitrogen through slow release urea (neem coated urea)

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.

9) **Constraints identified and feedback for research:**

10) **Process of farmers' participation and their reaction:** Farmers actively participated integrated the trial.

2. Evaluation of turmeric varieties for high yielding and curcumin content.

Crop	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
Turmeric	Irrigated	Low yield and low curcumin content	Evaluation of turmeric varieties for high yielding and curcumin content.	1	Assessment of high yielding turmeric varieties : Salem, Kadapa, Prathibha, Suguna, PTS-24, Prabha	Fresh weight, Dry weight, Curcumin content				-	-

Contd..

Technology Assessed	Source of Technology	Production (Fresh weight (q/ha)	Production (Dry weight (q/ha)	Curcumin content (%)	Gross cost (Rs./ha)	Gross Return (Rs./ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**15**	**15**			**17**	**18**
Technology option 1: Salem	Farmers practice	331.8	66.3	2.86	116980	331680	214700	2.83
Technology option 2: Kadapa	UAS, Dharwad	232.8	46.4	3.72	93934	191985	98051	2.04
Technology option 3: Prathibha	IISR, Calicut	414.8	76.7	3.47	133402	439965	306563	3.29
Technology option 4: Prabha	KAU, Thrissur	393.8	75.7	3.34	98716	335687	236971	3.40
Technology option 5: Suguna	KAU, Thrissur	350.8	42	0.37	82605	216571	133966	2.62
Technology option 6: PTS-24	OUTA, Bhuvaneshwar	427.3	98.2	1.42	129580	458297	328717	3.53

1. **Title of Technology Assessed : Evaluation of turmeric varieties for high yielding and curcumin content.**
2. **Problem Definition:** Low yield and low curcumin content
3. **Details of technologies selected for assessment**

Sl. No.	Technological Options	Details of Technology
1.	Technology option 1	Salem
2.	Technology option 2	Kadapa
3.	Technology option 3	Prathibha
4.	Technology option 4	Prabha
5.	Technology option 5	Suguna
6.	Technology option 6:	PTS-24

4. **Source of technology :** UAS, Dharwad, IISR, Calicut , KAU, Thrissur, OUTA, Bhuvaneshwar
5. **Production system and thematic area :** Irrigated, Varietal evaluation
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:**

3. Evaluation of composting methodology for areca husk.

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 2.Pollution 3.Very slow degradation	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: Layer-wise filling of arecanut wastes + other crop residues + Bioinoculants (*Pleurotous sajarcaju* + *Phanerochaete chrysosporium*) + N_2 + SSP + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)	Days for decomposition, nutrient content	-	-	-	-	-

Contd..

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 (*Pleurotous sajarcaju* + *Phanerochaete chrysosporium*) + N_2 + SSP + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)	Scientific literature. International journal of research in applied natural and social sciences				

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

Sl. 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 (*Pleurotous sajarcaju* + *Phanerochaete chrysosporium*) + N_2 + SSP + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)

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

Results of On Farm Trial

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

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)					
Technology Option 2 (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 2014-15

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1.	Oilseeds	Irrigated	*Summer-201*	Groundnut	GPBD-4	-	Integrated Crop Management	**Integrated Crop Management in groundnut** • Variety GPBD-4, • Seed treatment with *Rhizobium*, PSB & *Trichoderma,* • Gypsum application @ 500 kg / ha, • Foliar application of borax @ 0.2 %, • Spraying with 0.2 % Carbendazim and 0.2% Profenophos	1.2	1.2	3	-	3	-
		Irrigated	Summer, 2015	Sunflower	-	KBSH -41	Integrated Crop Management	**Integrated Crop Management in sunflower** • Sulphur application @ 20 kg/ha. • Foliar spray with Borax @ 0.2% • Spray with Imidacloprid @ 0.5 ml/ltr. • Use of Trichoderma	4.0	4.0	8	2	10	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
2.	Pulses	Rainfed	Rabi/ summer, 2015	Green gram	KKM-3	-	Resource management	**Green gram variety KKM-3 in rice fallows.** 1) Short duration green gram variety KKM – 3 in rice fallows 2) Seed treatment with bio-fertilizers	8.8	8.8	9	11	20	-
		Rainfed	Rabi/ summer, 2015	Black gram	Rashmi (LBG-625)	-	Varietal evaluation	**Black gram variety LBG - 625 in rice fallows** 1) Short duration black gram variety Rashmi (LBG – 625) in rice fallows, 2) Seed treatment with bio-fertilizers	2.0	2.0	-	10	10	--
3	Cereals	Irrigated	Kharif-2015	Paddy	JGL 1798	-	INM	**Nutrient management in paddy** • RDF, basal application of 50% N & K + 100 % P, 50% N as top dressing in 2 equal split @ 25 & 55 DAP & 50% K @ 55 DAP	2.0	2.0	2	3	5	--

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
		Irrigated	Kharif-2015	Paddy	JGL 1798	-	IPM	**Integrated pest and disease management in paddy** • Seed treatment with Carbendazim @ 4 gm/kg • Application of Fipronil @ 10 kg/ac • Spraying of Tricyclozole @ 0.6 gm/ltr. • Spraying of Hexaconozole @ 1 ml/ltr • Spraying of Chloropyriphos @ 2 ml/ltr	4.0	4.0	1	9	10	-
4	Millets													
5	Vegetables	Limited irrigation	*Kharif-2015*	French bean	Arka Sharath	-	Varietal evaluation	**Demonstration of French bean variety Arka Sharath** • Photo-period insensitive, less-string, Disease tolerant, High yielding variety	1.6	1.6	-	4	4	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
		Rainfed	*Kharif-2015*	Drumstick	Bhagya	-	Varietal evaluation	**Demonstration of Drumstick variety – *Bhagya*** • High yielding Drumstick variety – Bhagya as a profitable sole / intercrop, • Nipping technique	2.8	2.8	-	7	7	-
		Limited irrigation	*Kharif-2015*	Field bean	Hebbal Avare (HA-4)	-	Varietal evaluation	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	2.00	2.00	1	4	5	-
6	Flowers													
7	Ornamental													
8	Fruit	Limited irrigation	Kharif 2015	Pineapple	Kew	-	Integrated Pest Management	**Management of Heart rot disease in pineapple** • Soil application of Trichoderma enriched Neem cake @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%, Drenching with Metalaxyl MZ	2.0	2.0	-	5	5	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
9	Spices and condiments	Limited irrigation	Kharif-2015	Ginger	Riode geniro	-	Integrated Pest Management	**Management of rhizome rot in ginger** • Rhizome treatment with 0.2% Curzate + 0.05% Streptocyclin • Drenching of 0.2% Curzate + 0.05% Streptocyclin	4.0	4.0	-	10	10	-
		Irrigated	Kharif-2015	Black Pepper	Panniyur-1	-	Varietal Evaluation	**Performance of Panniyur-1 grafted on *Piper colubrinum*** • Planting Panniyur-1 grafted on *Piper colubrinum*	0.2	0.2	1	2	3	-
10	Commercial	Irrigated	Kharif-2015	Sugarcane	Co-86032	-	Integrated Crop Management	**Production technology of Sugarcane** • RDF:250-75-75 NPK kg./ha • Transplanting young chip budded seedlings • IPM • Removal of top shoots at 2-3 leaves stage • Removal of older leaves at 5th and 7th month • Trash management after harvest	0.8	0.8	1	1	2	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
11	Medicinal and aromatic													
12	Fodder	Irrigated	Kharif-2015	Hybrid Napier, Multicut Sorghum, Fodder maize, cowpea	Co-3 and Co-4, COFS-29, South African tall, MFC 0814	-	Integrated Crop Management	**Introduction of fodder production units at farmer's field.** • Multicut Sorghum (COFS-29), hybrid Napier (CO-4), maize (SAT) & cowpea (MFC-0814)	2.0	2.0	-	7	7	-
13	Plantation	Irrigated	Kharif-2015	Arecanut	Sagar local	-	Integrated Pest Management	**Management of Root grub in areca nut** • Soil application of neem cake @ 2 kg/palm + *Metarhizium anisopliea* @ 20 gm/palm • Drenching of Imidacloprid 3L solution/palm @ 0.5 ml/L	2.0	2.0	1	4	5	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
		Limited irrigation	Summer 2015	Arecanut	Thirthahalli local	-	Integrated Pest Management	**Management of inflorescence die back & caterpillar in areca nut** • Spraying with 0.2% Carbendazim + Mancozeb and Chlorpyriphos @ 0.2%	4.0	4.0	1	9	10	-
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													

5.A. 1. Soil fertility status of FLDs plots during 2015-16

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
1.	Oilseeds	Irrigated	*Summer*2015	Groundnut	GPBD-4	-	Integrated Crop Management	Integrated Crop Management in groundnut • Variety GPBD-4, • Seed treatment with *Rhizobium*, PSB & *Trichoderma,* • Gypsum application @ 500 kg / ha, • Foliar application of borax @ 0.2 %, • Spraying with 0.2 % Carbendazim and 0.2% Profenophos	L	M	M	Maize
		Irrigated	Summer, 2015	Sunflower	-	KBSH-41	Integrated Crop Management	**Integrated Crop Management in sunflower** • Sulphur application @ 20 kg/ha. • Foliar spray with Borax @ 0.2% • Spray with Imidacloprid @ 0.5 ml/ltr. • Use of Trichoderma	L	H	M	Maize, Paddy
2	Pulses	Rainfed	Rabi/ summer, 2015	Green gram	KKM-3	-	Resource management	**Green gram variety KKM-3 in rice fallows.** • Short duration green gram variety KKM – 3 in rice fallows • 2) Seed treatment with bio-fertilizers	L	M	H	Paddy

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
		Rainfed	Rabi/ summer, 2015	Black gram	Rashmi (LBG-625)	-	Varietal evaluation	**Black gram variety LBG - 625 in rice fallows** • Short duration black gram variety Rashmi (LBG – 625) in rice fallows, • Seed treatment with bio-fertilizers	L	H	M	Paddy
3	Cereals	Irrigated	Kharif- 2015	Paddy	JGL 1798	-	INM	**Nutrient management in paddy** • RDF, basal application of 50% N & K + 100 % P, 50% N as top dressing in 2 equal split @ 25 & 55 DAP & 50% K @ 55 DAP	L	H	M	Paddy
		Irrigated	Kharif- 2015	Paddy	JGL 1798	-	IPM	**Integrated pest and disease management in paddy** • Seed treatment with Carbendazim @ 4 gm/kg • Application of Fipronil @ 10 kg/ac • Spraying of Tricyclozole @ 0.6 gm/ltr. • Spraying of Hexaconozole @ 1 ml/ltr • Spraying of Chloropyriphos @ 2 ml/ltr	L	H	M	Green gram, cowpea
4	Millets											

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
5	Vegetables	Limited irrigation	*Kharif-2015*	French bean	Arka Sharath	-	Varietal evaluation	**Demonstration of French bean variety** **Arka Sharath** • Photo-period insensitive, less-string, Disease tolerant, High yielding variety	L	H	M	Maize
		Rainfed	*Kharif-2015*	Drumstick	Bhagya	-	Varietal evaluation	**Demonstration of Drumstick variety – *Bhagya*** • High yielding Drumstick variety – Bhagya as a profitable sole / intercrop, • Nipping technique	L	H	M	Maize
		Limited irrigation	*Kharif-2015*	Field bean	Hebbal Avare (HA-4)	-	Varietal evaluation	**Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens**	L	H	M	No intercrop in arecanut
6	Flowers											
7	Ornamental											
8	Fruit	Limited irrigation	Kharif 2015	Pineapple	Kew	-	Integrated Pest Management	**Management of Heart rot disease in pineapple** • Soil application of Trichoderma enriched Neem cake @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%, Drenching with Metalaxyl MZ	L	H	M	Pineapple

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
9	Spices and condiments	Limited Irrigation	Kharif-2015	Ginger	Riode geniro	-	Integrated Pest Management	**Management of rhizome rot in ginger** • Rhizome treatment with 0.2% Curzate + 0.05% Streptocyclin • Drenching of 0.2% Curzate + 0.05% Streptocyclin	L	H	M	Maize
		Irrigated	Kharif-2015	Black Pepper	Panniyur-1	-	Varietal Evaluation	**Performance of Panniyur-1 grafted on *Piper colubrinum*** • Planting Panniyur-1 grafted on *Piper colubrinum*	L	H	M	Arecanut
10	Commercial	Irrigated	Kharif-2015	Sugarcane	Co-86032	-	Integrated Crop Management	**Production technology of Sugarcane** • RDF:250-75-75 NPK kg./ha • Transplanting young chip budded seedlings • IPM • Removal of top shoots at 2-3 leaves stage • Removal of older leaves at 5th and 7th month • Trash management after harvest	L	H	M	Sugarcane
11	Medicinal and aromatic											
12	Fodder	Irrigated	Kharif-2015	Hybrid Napier, Multicut Sorghum, Fodder maize, cowpea	Co-3 and Co-4, COFS-29, South African tall, MFC 0814	-	Integrated Crop Management	**Introduction of fodder production units at farmer's field.** • Multicut Sorghum (COFS-29), hybrid Napier (CO-4), maize (SAT) & cowpea (MFC-0814)	L	M	H	Jowar, Maize, Chilli, Fallow

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
13	Plantation	Irrigated	Summer - 2015	Arecanut	Sagar local	-	Integrated Pest Management	**Management of Root grub in areca nut** • Soil application of neem cake @ 2 kg/palm + *Metarhizium anisopliea* @ 20 gm/palm • Drenching of Imidacloprid 3L solution/palm @ 0.5 ml/L	L	H	M	Arecanut
		Limited irrigation	Kharif-2015	Arecanut	Thirthahalli local	-	Integrated Pest Management	**Management of inflorescence die back & caterpillar in areca nut** • Spraying with 0.2% Carbendazim + Mancozeb and Chlorpyriphos @ 0.2%	L	H	M	Arecanut
14	Fibre											
15	Dairy											
16	Poultry											
17	Rabbitry											
18	Pigerry											
19	Sheep & 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											

5.B. Results of Frontline Demonstrations

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Groundnut	Integrated Crop Management in groundnut	GPBD-4	-	Irrigated	3	1.2	IN PROGRESS												
Sunflower	Integrated Crop Management in sunflower	-	KBSH-41	Irrigated	10	4.0	10.5	10.0	10.10	11.63	-13.16	23500	26313	2813	1.1	23000	29063	6063	1.30
Green gram	Short duration green gram variety KKM-3 in rice fallows	KKM-3	-	Paddy fallows	20	8.8	2.5	3.80	2.85	2.60	9.62	8250	19095	10845	2.31	6000	16900	10900	2.82
Black gram	Short duration black gram variety LBG - 625 in rice fallows	Rashmi (LBG-625)	-	Paddy fallows	10	2.0	2.10	5.0	2.03	4.24	18.63	20000	30192	10192	1.51	18750	25440	6690	1.36
Paddy	Integrated Nutrient management in paddy	JGL 1798	-	Irrigated	5	2.0	68	55.5	61.50	51.8	18.72	36200	92100	55900	2.54	33200	77700	44500	2.33
Paddy	Integrated pest and disease management in paddy	JGL 1798	-	Irrigated	10	4.0	70.0	42.0	58.6	49.1	19.35	37600	87900	50300	2.34	33700	73600	39900	2.19
French bean	Demonstration of French bean variety Arka Sharath	Arka Sharath	-	Limited irrigation	4	1.6	218	192.50	204.55	193.5	5.71	68335	306825	238490	4.5	65662.5	255150	189487.5	3.9
Drumstick	Demonstration of Drumstick variety – *Bhagya*	Bhagya	-	Rainfed	7	2.8	IN PROGRESS												

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Hebbal Avare (HA-4)	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	Hebbal Avare (HA-4)	-	Limited irrigation	5	2.0	22	19	20.45	15.17	34.80	13279	42800	29521	3.2	11826	30340	18514	2.6
Pineapple	Management of Heart rot disease in pineapple	Kew	-	Limited irrigation	5	2.0	530	440	498	419.6	18.68	178400	597600	419200	3.35	171800	503520	331720	2.93
Ginger	Management of rhizome rot in ginger	Riode geniro	-	Limited Irrigation	10	4.0	375	245	315.25	250.5	25.85	327200	851175	523975	2.6	313400	676350	362950	2.16
Black Pepper	Performance of Panniyur-1 grafted on *Piper colubrinum*	Panniyur-1	-	Irrigated	3	0.2	**IN PROGRESS**												
Sugarcane	Production technology of Sugarcane	Co-86032	-	Irrigated	2	0.8	**IN PROGRESS**												
Hybrid Napier, Multicut Sorghum, Fodder maize, cowpea	Introduction of fodder production units at farmer's field.	Co-3 and Co-4, COFS-29, South African tall, MFC 0814	-	Irrigated	7	2.0	**IN PROGRESS**												
Arecanut	Management of Root grub in areca nut	Sagar local	-	Irrigated	5	2.0	14.0	10.5	12.1	9.4	28.72	75400	314600	239200	4.17	67000	244400	177400	3.65
Arecanut	Management of inflorescence die back & caterpillar in areca nut	Thirthahalli local	-	Limited irrigation	10	4.0	**IN PROGRESS**												

* Economics is worked out based on total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST
H – Highest Yield, L – Lowest Yield A – Average Yield

Data on additional parameters other than yield

Management of pest and diseases in paddy		
Parameter with unit	**Demo**	**Check**
Stem borer (%)	8.83	13.52
Leaf roller (%)	8.32	15.82
Sheath blight (%)	15.03	22.59
Blast (%)	9.63	12.76

Nutrient management in paddy		
Parameter with unit	**Demo**	**Check**
Initial N status (kg/ha)	145.34	145.34
Final N Status (kg/ha)	108.89	129.07
Sheath blight incidence (%)	14.76	22.94

Demonstration of photo period insensitive, stringless, high yielding French bean variety–Arka Sharath		
Parameter with unit	**Demo**	**Check**
Pod length (cm)	17.25	12.55
Average Pod weight (gm)	11.97	7.67

Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens		
Parameter with unit	**Demo**	**Check**
Pod borer incidence (%)	11.18	25.05

Management of rhizome rot in ginger		
Parameter with unit	**Demo**	**Check**
Rhizome rot incidence (%)	21.25	41.45

Management of Heart rot disease in pineapple		
Parameter with unit	**Demo**	**Check**
Heart rot incidence (%)	11.1	21.6

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

Integrated Crop Management in sunflower		
Parameter with unit	**Demo**	**Check**
Leaf eating caterpillar incidence (%)	8.4	19.2
Bud necrosis (%)	6.8	22.8
Powdery mildew (%)	8.6	14.0

Green gram variety KKM-3		
Parameter with unit	**Demo**	**Check**
Pod length (cm)	8	10
Pods per plant (Nos.)	19	14
Duration (Days)	60-62	70-75

Black gram variety LBG-625		
Parameter with unit	**Demo**	**Check**
Pod length (cm)	7.2	6.1
Pods per plant (Nos.)	13.0	10.0
Duration (Days)	70-73	78-80

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)			
					Demonstration			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
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 Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m^2)	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit) or (Rs./m2)				*Economics of check Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
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

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m^2}	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)				*Economics of check (Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Oyster mushroom																	
Button mushroom																	
Vermicompost																	
Sericulture																	
Apiculture																	
Others (pl.specify)																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST
H-High L-Low, A-Average

Data on additional parameters other than yield: NIL

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

5.B.5. Farm implements and machinery : NIL

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check			Gross cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net 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 to technology demonstrated		
Parameter with unit	**Demo**	**Local**

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

Sl. No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	5	268	
2	Farmers Training	14	465	
3	Media coverage (TV)			
4	Training for extension functionaries			
5	Others (Please specify)			

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Cereals																	
Bajra																	
Maize																	
Paddy																	
Sorghum																	
Wheat																	
Others (pl.specify)																	
Total																	
Oilseeds																	
Castor																	
Mustard																	
Safflower																	
Sesame																	
Sunflower	ICM	KBSH-41	10	4	10.5	10	10.10	11.63	-13.16	23500	26313	2813	1.1	23000	29063	6063	1.30
Groundnut																	
Soybean																	
Others (pl.specify)																	
Total																	
Pulses																	
Greengram																	
Blackgram																	
Bengalgram																	
Redgram																	
Others (pl.specify)																	

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
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)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	4	41	10	71	39	3	42	85	13	113
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
PPV&FRA-2001										
Others (pl.specify)										
1) Improved agro techniques in paddy 2) Pre-Kharif campaign on agricultural activities (Raitha Sammelan)	2	94	26	120	18	15	33	112	41	153
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
Improved cultivation of horticultural crops	1	32	-	32	13	-	13	45	-	45
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	5	12	17	-	-	-	5	12	17
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) Floriculture	1	23	16	39	4	10	14	27	26	53
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
f) Spices										
Production and Management technology										
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										
Others (pl.specify)										
Soil & water sample analysis	1	8	19	27				8	19	27
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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	8	127	222	349	9	25	34	136	571	707
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Post Harvest Technology										
Others (pl.specify)										
Mechanised cultivation	1	20	6	26	18	4	22	38	10	48
Plant Protection										
Integrated Pest Management	1	7	34	41	2	7	9	9	41	50
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										
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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										
Apiculture	1	347	2	36	16	-	16	50	2	52
Others (Pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	2	120	15	135	24	3	27	144	18	162
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
a) Orientation about KVK activities b) Orientation about UAHS activities and field visit c) Orientation about KVK activities to B.Sc.(Agri) students	4	98	183	281	44	37	81	142	220	362
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	1	55	-	55	11	-	11	66	-	66
Others (Pl. specify)										
Lac cultivation										
TOTAL	**28**	**977**	**545**	**1229**	**198**	**104**	**302**	**1175**	**649**	**1531**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	78	32	110	-	-	-	78	32	110
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Cultivation of Fruit	1	12	7	19	8	7	15	20	14	34
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)										
Flower Crops										
Protected cultivation										
d) Plantation crops										
Production and Management technology	1	21	10	31	20	13	33	41	23	64
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										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Sandal wood cultivation										
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				70	11	81	70	11	81
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	2	33	15	48	5	3	8	38	18	56
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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	7	31	209	240	74	14	88	105	223	328
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance	1	13	-	13	3	-	3	16	-	16
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	2	50	-	50	41	9	50	91	9	100
Integrated Disease Management										
Bio-control of pests and diseases										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production	**2**	**26**	**6**	**32**	**45**	**17**	**62**	**71**	**23**	**94**
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	1	1	45	46	-	15	15	-	60	61
Others (Pl. specify)										
TOTAL	**19**	**265**	**324**	**589**	**266**	**89**	**355**	**531**	**413**	**944**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										

Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
Coconut palm climbing	2	44	6	50	9	1	10	53	7	60
TOTAL	**2**	**44**	**6**	**50**	**9**	**1**	**10**	**53**	**7**	**60**

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

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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)										
Soil testing	7	53	52	105	-	-	-	53	52	105
Total	**7**	**53**	**52**	**105**	**-**	**-**	**-**	**53**	**52**	**105**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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 & 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)										
Establishment and maintenance of nutritional gardens										
Total										

7.G. Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			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)**										
7	**Post harvest technology and value addition**										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	**Livestock and fisheries**										
10	**Livestock production and management**										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c	Fisheries Nutrition										
10.d	Fisheries Management										
10.e.	Others (pl.specify)										
11.	**Home Science**										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										

11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	**Agricultural Extension**										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others (pl.specify)										
	Protection of plant varieties and farmers' right act-2001										
	Total										

Details of sponsoring agencies involved

1. Directorate Of Cashewnut & Cocoa Development, Kochi
2. Coconut development board, Hulimavu, Bengaluru
3. Sanjeevini - Karnataka State Rural Livelihood Promotion Institution, Bengaluru

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

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			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)										

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
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 & implements										
4.d.	Rural Crafts										
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (pl.specify)										
5	**Agricultural Extension**										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl.specify)										
	Grand Total										

PART VIII – EXTENSION ACTIVITIES

Extension Programmes (including extension activities undertaken in FLD programmes)

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No.of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	5	182	40	222	26	15	41	5	0	5
Kisan Mela	1	37950	24150	62100	110400	172500	282900	1000	4000	5000
Kisan Ghosthi										
Exhibition a) Foundation Day b) Pre-Rabi workshop c) Technology week-2015 d) Pulse Day e) Krishimela-Bagalkot f) Krishimela-Smg	6	188	122	310	133	66	199	8	0	8
Film Show	5	128	92	220	99	44	143	4	0	4
Method Demonstrations	6	30	0	30	103	12	115	1	0	1
Farmers Seminar / Workshop a) Pre-Kharif workshop b) Pre-rabi workshop c) Pulse day d) Technology week-2015	4	295	154	449	138	74	212	12	8	20
Group meetings	9	66	5	71	59	12	71	2	0	2
Lectures delivered as resource persons	42	1871	1557	3428	297	142	439	55	40	95
Newspaper coverage	21									
Radio talks	5									
TV talks	1									
Popular articles	21									
Extension Literature	5									

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No.of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Advisory Services	27	30	5	35	16	8	24			
Scientific visit to farmers field	87	294	5	299	67	3	70	2	3	5
Farmers visit to KVK	73	95	72	167	8	5	13	0	0	0
Diagnostic visits	3	7	0	7	1	0	1	7	3	10
Exposure visits	6	149	10	159	25	1	26	8	0	8
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	1	0	0	0	0	25	25	1	0	1
Mahila Mandals Conveners meetings										
Celebration of important days (specify) 1) World food day 2) Women in agriculture day 3) Kisan day 4) World soil day 5) Pulse day	5	201	66	267	156	241	397	22	9	31
Any Other (Specify)										
SMS Messages	44	1117	392	1508	215	101	316	95	39	134
Total	**377**	**42415**	**26548**	**68962**	**111610**	**173183**	**284792**	**1214**	**4102**	**5316**

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
Cereals (crop wise)	Ragi	ML-365, GPU-28	158	3634	6
Oilseeds	Groundnut	GPBD-4	1676	91163	13
Pulses	Green gram	KKM-3	172	17459	15
	Cowpea	KBC-2	63	4533	4
	Black gram	Rashmi	35	3105	9
Millets					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder Sorghum	CoFS-29	6.5	2600	8
Fiber crops					
Forest Species					
Others (specify)					
Total			**2170.5**	**127534**	**58**

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 seedlings	Drumstick	Bhagya, PKM-1	41	410	3
	Chilli (green)	Arka Kyati	41500	4150	5
	Brinjal	Arka	1000	600	1
Fruits	Papaya	Taiwan-786	1648	19776	14
	Mango	Badami	38	1570	6
	Sapota	Cricket Ball	31	1360	7
Ornamental plants					
Medicinal and Aromatic					
Plantation	Cashew	Ullal	2	80	2
Spices	Curryleaf	Local	177	1770	12
Tuber					
Fodder crop saplings					
Forest Species					
Others(specify)					
Flower					
		TOTAL	**44437**	**29716**	**50**

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	105 (kg)	12600	25
Others (Pl. specify)				
Total		**105 (kg)**	**12600**	**25**

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**

(B) **Literature developed/published**

Item	Title	Authors name	Number
Research papers	Frontline demonstrations on French bean : an impact analysis	Nagarajappa Adivappar B.C.Hanumanthaswamy T.S. Aghora	-
Technical reports	1. Monthly Progress Report	B.C.Hanumanthaswamy Basavaraj Beerannavar Mrs. Jyoti M. Rathod T.M.Soumya Nagaraja R. P.R.Somashekharappa Rekha M.V. Smitha G.B.	12
	2. ZREP Report		1
	3. EEC Report		1
	4. Citizen's-Client's Charter Report		12
	5. Information on Agricultural Ecological Situation		6
	6. Significant Achievements		2
	7. Annual Progress Report		1
	8. Action Plan		1
News letters	'Spandana' – Quarterly farmers' news letter	B.C.Hanumanthaswamy Basavaraj Beerannavar Mrs. Jyoti M. Rathod T.M.Soumya Nagaraja R. P.R.Somashekharappa Rekha M.V. Smitha G.B. B.S.Geetha	4
Technical bulletins	Pest and disease management in paddy	B.C.Hanumanthaswamy Basavaraj Beerannavar B.C.Dhananjaya T.M.Soumya Somashekharappa, P. R.	1000
	Bee keeping	B.C.Hanumanthaswamy Nagarajappa Adivappar Basavaraj Beerannavar Nagaraja R.	1000
Popular articles	Erehulu gobbara, Sampanmulagala sadbalake mattu mannina arogya, neerina samarpaka balake	T.M.Soumya	
	Saraku vinimaya kendra (Commodity exchange), Beejopacharada mahathva, Hasiru mevu, Tengina mara hattuva sadhana, samagra krishi paddati, Krishimela-2015, kabbinalli onti kannina naati paddati, krishi aranya	T.M.Soumya	

Item	Title	Authors name	Number
	Nivrutta Engineerna Krishi Sadhane	Nagarajappa Adivappar B.C.Hanumanthaswamy	
	Mahila Krishi Rushigalu	T.M.Soumya	
	Kutumbada nirvahaneyalli mahileya patra	Jyoti M. Rathod	
	Maguvina belavanigeyalli taayiya madila patra	Jyoti M. Rathod	
Extension literature			
Others (Pl. Specify)			
Abstracts			7
Training manual	Soil sample analysis	Ganapathi Rekha M.V. Yogendra N.D., G.N.Thippeshappa	51
Chapters in manual			
Folder	Mannina madari sangrahane (Soil sample collection)	M.V.Rekha B.C.Hanumanthaswamy T.M.Soumya P.R.Somashekharappa G.B.Smitha	1000
	Mannina madari sangrahane (Soil sample collection)	M.V.Rekha B.C.Hanumanthaswamy T.M.Soumya P.R.Somashekharappa G.B.Smitha	1000
	Jenu Sakanike	B.C.Hanumanthaswamy Basavaraj Beerannavar Jyoti M. Rathod R. Nagaraja	1000
	Krishi Vigyan Kendra, Shivamogga Parichaya Patrike	B.C.Hanumanthaswamy Basavaraj Beerannavar Jyoti M. Rathod T.M.Soumya R. Nagaraja P. R. Somashekharappa M.V. Rekha G.B. Smitha	1000
	Dhanyagala surakshita sangrahanegagi daastanu keetagala nirvahane	T.M.Soumya B.C.Hanumanthaswamy G.B.Smitha M.V.Rekha	1000
	Mita sampanmulakke hitavaada bele -Hesru	T.M.Soumya B.C.Hanumanthaswamy T.H.Gowda M.V.Rekha G.B.Smitha P.R.Somashekharappa	1000
TOTAL			

10.B. Details of Electronic Media Produced : NIL

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number

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 2015-16 KVK conducted 12 training programmes on topics related to "Improved production technologies of papaya and drumstick". During the training programmes about 400 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, 38150 drumstick (PKM-1 & Bhagya) seedlings of worth Rs. 3,81,500/- were sold to 100 farmers by covering an area of 100 ha. as sole crop or intercrop in younger arecanut gardens. Similarly, 61135 papaya seedlings (Arka Surya and Taiwan–786) of worth Rs.7,33,620/- were sold to 125 farmers by covering in area of 55 ha as intercrop in younger areanut gardens. By growing papaya and drumstick as intercrops farmers have obtained Rs. 1,50,000/- and Rs. 1,30,000/- 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 495 ha in the district with an additional income of Rs. 7.5 to 9.5 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
- Inservice personnel

1. 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 : 14
ii. No. of farm families selected : 1400
iii. No. of survey/PRA conducted : 14

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 :

Sl. 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

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	4344	2116	2102	1,55,000
Water Samples	1141			94,020
Plant/manure/lime	93			11,590
TOTAL	**5578**	**2116**	**2102**	**2,60,610**

Details of samples analyzed during 2015-16

Sample Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil	1,084	687	687	54,200
Water	616	488	488	61,600
Plant/manure/lime	17	3	3	2,800
TOTAL	**1,717**	**1,178**	**1,178**	**1,18,600**

10.I. Technology Week celebration during 2015-16 : YES

Period of observing Technology Week : 23-11-2015 to 27-11-2015
Total number of farmers visited : 367
Total number of agencies involved : 0
Number of demonstrations visited by the farmers within KVK campus : 20

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosties	-	-	-
Lectures organized	5	367	Paddy, maize, groundnut, turmeric, flower crops, dairy, value addition, marketing, bee keeping, vegetable crops,
Exhibition	1		
Film show	3		
Fair			
Farm Visit	5	367	Maize, Hebbal avare, chilli, groundnut, ragi, papaya, drumstick, bird of paradise, cowpea, redgram, fodder crop, Green gram, black gram, French bean, brinjal, , farm machineries, implements, sprayers
Diagnostic Practical	3	219	Soil and water testing laboratory, Disease diagnostic lab.
Supply of Literature (No.)	3	219	
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)			
Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week		367	

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 : NIL

State	Livestock components	Number of interactions	No. of participants
Total			

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 : NIL

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	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												
TOTAL												

PART XI. IMPACT

11.A. Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Demonstration of photoperiod insensitive, less string, high yield French bean variety Arka Sharath	4	40%	70,750/- per ha	1,19,000/- per ha
Nitrogen use efficiency in paddy	5	35%	43,250/- per ha	59500/- per ha
Management of arecanut root grub	5	40%	1,77,400/- per ha	2,39,200/- 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 district 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 89 farmers in 10 years. Totally 89 demonstrations on groundnut crop in an area of 35.8 hectares by involving 89 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 89 demonstrations in an area of 35.8 ha. ranged from 11.23 to 28.94 q/ha. There was 16.88 % increase in pod yield in demonstrated groundnut GPBD - 4 variety which was found economically superior with higher BC ratio of 3.54 against the lower BC ratio of 2.98 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 2015, the variety has spread to 52 villages extending over an area of 1600 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.

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

Year	Name of the block / village	Variety	No. of demonstration	Area (ha)	Pod Yield			
					Demonstration		Check	% increase in yield
					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
Total			**89**	**35.8**	**26.93**	**23.32**	**19.95**	**16.88**

Table 2: Cost economics of Groundnut varieties demonstrated under FLD programme in Shivamogga district

Years	Demonstration			Control / check			B:C ratio	
	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
Total	**18831**	**66842.1**	**47617**	**36957.5**	**57288.4**	**37965.9**	**3.54**	**2.98**

2. Green gram – A Crop for Paddy

Krihsi 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 two clusters, one each from Shikaripura and Shivamogga taluk. Harnahalli a village from Shivamogga taluka had 15 demonstrations and Eleneerukoppa of Shikaripura taluka had 10 demonstrations.

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. Though the crop yielded less (2.85 q/ha) 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 village and the neighbouring village through several extension activities like training, method demonstration, field visit and by organizing a Krishimela on large scale. This encouraged fellow farmers of the village 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 36 demonstrations were conducted in 36 farmers fields in an area of 14.6 ha from 2012-2015. 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.

Sl. 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 11.93 per cent increase in yield over farmers practice with an average of 7.68 per cent. For the four years an average of 11.73 and 4.36 quintals of extension gap and technology gap were observed respectively. The extension gap ranging from 4.80 to 20.30 qha-1 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 2.18 per cent during the four 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 four years of demonstration (3.62) compared to farmers practice (3.15). **(Table-2)**

Year	No. of demon strations	Yield (q/ha^{-1})		Per cent increase over farmers plot	Potential yield (q/ha^{-1})	Extension gap (q/ha^{-1})	Technology gap (q/ha^{-1})	Tech index	B:C	
		Demo plot	Farmers Plot						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
Average	**9**	**195.63**	**183.89**	**7.68**	**200.00**	**11.73**	**4.36**	**2.18**	**3.62**	**3.15**

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 2015 in Kouthi village 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 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 90.14 % in the trees receiving application of Imidachloprid + neem cake (Table-1).

Strategies	Method of application	Dose/tree	Mean no. of grub/tree during 4 years				Percent reduction over F.P. at 60 days after		Mean percent reduction
			30 days after treatment		60 days after treatment				
			2012	2013	2012	2013	2012	2013	
Farmers practice	Broad casting and spraying	5-10 kg and 2-3 L/acre	7.0	6.20	9.40	8.23	-	-	-
Demonstrated technology (Imidachloprid + neem cake application)	Root absorption + soil application	1.5 ml/tree 2kg / tree	2.5	2.30	0.86	0.42	90.85	94.90	92.88

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 (10.73 q/ha) as compared to farmers practice (8.16 q/ha), registering an increase in yield of 28.32 per cent over farmers practice (Table-2).

Parameters	Demonstrated technology				Mean	Farmers practice				Mean
	2012	2013	2014	2015		2012	2013	2014	2015	
Average yield (q/ha)	10.0	10.0	10.8	12.1	10.73	6.75	8.0	8.50	9.4	8.16
Percent increase in yield over Farmers' Practice	32.5	25.0	27.06	28.72	28.32	-	-	-	-	-
Cost of production	65000	63000	62200	75400	66400	55000	54000	52600	67000	57150
Gross income	120000	200000	388800	314600	255850	81000	160000	306000	244400	197850
Net profit	55000	137000	326600	239200	189450	26000	106000	253400	177400	140700
C.B. Ratio	1.84	3.14	6.25	4.17	3.86	1.47	2.96	5.82	3.65	3.48

The cost of production was slightly more under demonstration plot (Rs.66400/ha) in comparison to farmers practice (Rs.57150/ha). But one net profit was more under demonstrated technology (Rs.189450/ha) compared to farmers practice with a lesser profit of Rs.140700/ha. The cost : benefit ratio obtained was 1:3.86 as against 1:3.48 in farmers practice (Table-3)

	30 Days after treatment				60 Days after treatment				Percent reduction				Mean percent
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	
Farmers' Practice	7.0	6.20	6.5	5.10	9.4	8.23	8.5	7.60	-	-	-	-	-
Demonstration	2.5	2.30	1.80	1.70	0.86	0.42	0.80	1.20	90.85	94.90	90.59	84.21	90.14

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.

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Sl. No.	Name of organization	Nature of linkage
1.	Karnataka State Dept. of Agriculture	- Joint diagnostic survey - Joint implementation of FLD's - Bi-monthly workshops - Collaborative training programme under ATMA - Joint field visits - Demonstration under ATMA
2.	Karnataka State Dept. of Horticulture	- Joint diagnostic survey - Collaborative training under NHM project - Field visits - Technology Demonstration
3.	Karnataka state Dept. of Animal Health & Veterinary Sciences	- Collaborative training - Joint implementation of animal health camps, vaccination camps, mass deworming and nutrition management of dairy stock and calf management - Technology demonstration of Feed formulation etc.,
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	- Collaborative farmers training programme - Technology dissemination
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 - Training Programme - Method demonstration - Group meeting & field visits
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 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-215	Government of Karnataka	1.00 lakh

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 2015-16

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings				
02	Research projects				
03	Training programmes	Off campus training programme	2	-	-
	Field day				
04	**Demonstrations**				
05	**Extension Programmes**				
	Kisan Mela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	**Other Activities** (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

12.D. Give details of programmes implemented under National Horticultural Mission : NIL

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

12.E. Nature of linkage with National Fisheries Development Board : NIL

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

12.F. Details of linkage with RKVY : NIL

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

12.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 2015	8	1959	-
May 2015	2	1959	-
June 2015	12	1959	-
July 2015	22	1959	-
August 2015			
September 2015			
October 2015			
November 2015			
December 2015			
January 2016			
February 2016			
March 2016			
Total for the year 2015-16	**44**	**1959**	**-**

* In our farmers' data base we have only 1959 farmers upto March-2016.

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of Establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty. (kg./ Nos.)	Cost of inputs	Gross income (Rs.)	
1.	Horticulture crop demonstration unit	2014	0.20	Elakki and Nendran	Banana fruits	85 kg.	8575	1275	
				Arka Kusumakar	Brinjal	62 kg.		1260	
				Arka kyati	Chilli	20 kg.		400	
				Local	Curry leaves (bunch)	300 Nos.		600	
				PKM-1	Drumstick pods	60 kg.		1360	
				Doutch rose	Flower pockets	128 Nos.		640	
				-	Leafy vegetable (bunch)	1930 Nos.		6903	
				Red lady, Taiwan-786	Papaya fruits	74 kg.		740	
				Local	Radish	111 kg.		1510	
				Arka Rakshak	Tomato	105 kg.		1050	
				Arka Suguna	Onion	20 kg		200	
							TOTAL	**15938**	

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income	
Cereal : Ragi	12.08.2015	26.11.2015	0.07	GPU-28	TLS	1.20	1200	2760	
Ragi	12.08.2015	26.11.2015	0.07	ML-365	TLS	1.18	1200	2714	
Ragi	12.08.2015	26.11.2015	0.06	KMR-301	TLS	0.61	1200	1430	
Oil seed									
Groundnut	10.07.2015	28.11.2015	0.80	GPBD-4	TL seeds	16.76	30250	103912	
PULSES									
Green gram	28.08.2015	18.11.2015	0.30	KKM-3	TL seeds	2.66	4560	27132	
Black gram	28.08.2015	18.11.2015	0.20	Rashmi	TL seeds	0.62	2750	5518	
Cowpea	28.08.2015	18.11.2015	0.10	KBC-2	TL seeds	0.68	950	4964	
Field bean	28.08.2015	18.11.2015	0.10	HA-3	TL seeds	0.15	950	2325	
Soyabean	28.08.2015	18.11.2015	0.10	DSB-1	TL seeds	0.30	950	3000	
Redgram	06.07.2015	08.12.2015	0.10	BRG-1	TL seeds	0.58	950	5162	
Redgram	06.07.2015	08.12.2015	0.10	BRG-2	TL seeds	0.46	950	4094	

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income	
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									
Fodder Sorghum	15.06.2014	30.07.2015	0.10	CoFS-29	TL seeds	0.065	560	2600	

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

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

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

Sl. No.	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty. (kg)	Cost of inputs	Gross income	
1.	Fish	Gowri, Rohu	Bulk	105	2650/-	12600/-	

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 2015	30	4	Fund is not given for hostel furnishing
May 2015	35	9	
June 2015	2	1	
July 2015	10	7	
August 2015	7	4	
September 2015	64	3	
October 2015	134	4	
November 2015	66	3	
December 2015	7	2	
January 2016	21	14	
February 2016	26	6	
March 2016	131	4	
TOTAL	**533**	**61**	

13.F. Database management :

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

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

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

14.B. Utilization of KVK funds during the year 2015-16 (Rs. in lakh)

S.No.	Particulars	Released	Expenditure	Balance
A. Recurring Contingencies				
1	Pay & Allowances	7087000	7099537	-12537
2	Traveling allowances	100000	113683	-13683
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	150000	231227	-81277
B	POL, repair of vehicles, tractor and equipments	150000	204320	-54320
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	50000	67507	-17507
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	45000	70536	-25536
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demo in a year)	285000	385699	-100699
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	48000	47823	2177
G	Training of extension functionaries	---	---	---
H	Maintenance of buildings	---	---	---
I	Establishment of Soil, Plant & Water Testing Laboratory	---	---	---
J	Integrated farming system	---	---	---
K	Extension Activities	34000	64613	-30613
L	Farmers' Field School	---	---	---
M	Library	3000	2990	10
	TOTAL (A)	**7952000**	**8287935**	**-338309**
B. Non-Recurring Contingencies				
1	Works	---	---	---
2	Equipments including SWTL & Furniture	200000	198818	1182
3	Vehicle (Four wheeler/ Two wheeler, please specify)	---	---	---
4	Library (Purchase of assets like books & journals)	---	---	---
TOTAL (B)		**200000**	**198818**	**1182**
C. REVOLVING FUND		**---**	**---**	**---**
GRAND TOTAL (A+B+C)		**8152000**	**8486753**	**-339491**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2013 to March 2014	4.78	8.00	5.30	7.49
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

15. Details of HRD activities attended by KVK staff during 2015-16

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. T.M.Soumya	Scientist (Agronomy)	Developing entrepreneurship among farmers for sustainability	College of Agriculture, Hassan, UAS, Bengaluru	03-11-2015 to 23-11-2015
Mr. Basavaraj Beerannavar	Scientist (Agril. Extension)	Dynamics of farmers' empowerment and entrepreneurial development	Department of Agril. Extension, UAS, Dharwad,	25-11-2015 to 15-12-2015
Miss M. V. Rekha	Scientist (Soil Science)	Workshop cum training programme on Rabi pulses under NFSM	ICAR, ZPD, ATARI- KVK-Gulbarga	21-12-2015 to 22-12-2015
Miss G. B. Smitha	Scientist (Horticulture)	Workshop on Oil palm cultivation	International institute of oil palm research, Pedangevi	28-01-2016
Mr. Basavaraj Beerannavar	Scientist (Agril. Extension)	Community radio for agricultural development	MANAGE Hyderabad at UAS, Dharwad	14-03-2016 to 17-03-2016
Mrs. Jyoti M. Rathod	Scientist (Home Science)	Training programme on communication skills for effective extension delivery	STU-SAMETI (South), Director of Extension, UAS, Hebbal, Bengaluru	14-03-2016 to 17-03-2016

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

SUMMARY FOR 2015-16

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management	Paddy	Assessment of nitrogen use efficiency in paddy	5
Varietal Evaluation	Turmeric	Evaluation of high yielding varieties of turmeric	1
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 (Pl. specify) Composting technology	Arecanut	Evaluation of composting methodology for areca husk	10
TOTAL			16

Summary of technologies assessed under livestock

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 (Pl. 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 (Pl. 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 (Pl. 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

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

III. FRONTLINE DEMONSTRATION

Crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Groundnut	Integrated Crop Management	Integrated Crop Management in groundnut		3	1.2	IN PROGRESS			Leaf eating caterpillar incidence (%)		IN PROGRESS							
									6.4	18.2								
									Leaf spot incidence (%)									
									2.8	24.6								
									Wilt incidence (%)									
									8.2	17.4								
Sunflower	Integrated Crop Management	Integrated Crop Management in sunflower		10	4.0	10.10	11.63	-13.16	Leaf eating caterpillar incidence (%)		23500	26313	2813	1.1	23000	29063	6063	1.30
									8.4	19.2								
									Bud necrosis (%)									
									6.8	22.8								
									Powdery mildew (%)									
									8.6	14.0								
Green gram	Varietal evaluation	Short duration green gram variety KKM-3 in rice fallows		20	8.8	2.85	2.60	9.62	Pod length (cm)		8250	19095	10845	2.31	6000	16900	10900	2.82
									8	10								
									Pods per plant (Nos.)									
									19	14								
									Duration (Days)									
									60-62	70-75								
Black gram	Varietal evaluation	Short duration black gram variety LBG - 625 in rice fallows		10	2.0	5.03	4.24	18.63	Pod length (cm)		20000	30192	10192	1.51	18750	25440	6690	1.36
									7.2	6.1								
									Pods per plant (Nos.)									
									13.0	10.0								
									Duration (Days)									
									70-73	**78-80**								

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Paddy	INM	Integrated Nutrient Management in paddy		5	2.0	61.5	51.8	18.72	Initial N status (kg/ha)		36200	92100	55900	2.54	33200	77700	44500	2.33
									145.34	145.34								
									Final N Status (kg/ha)									
									108.89	129.07								
									Initial P status (kg/ha)									
									96.74	96.74								
									Final P status (kg/ha)									
									87.93	79.96								
									Initial K status (kg/ha)									
									222.16	222.16								
									Final K status (kg/ha)									
									196.96	180.92								
									No. of tillers (Nos./m^2)									
									28	26								
									Sheath blight incidence (%)									
									14.76	22.94								
Paddy	IPM	Pest and disease Management in paddy		10	4.0	58.6	49.1	19.35	Stem borer (%)		37600	87900	50300	2.34	33700	73600	39900	2.19
									8.83	13.52								
									Leaf roller (%)									
									8.32	15.82								
									Sheath blight (%)									
									15.03	22.59								
									Blast disease (%)									
									9.63	12.76								

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
French bean	Varietal evaluation	Demonstration of French bean variety Arka Sharath		4	1.6	204.55	193.5	5.71	Pod length (cm) 17.25	12.60	68335	306825	238490	4.5	65662.5	255150	189487.5	3.9
									Average Pod weight (gm) 12.00	7.70								
Drumstick	Varietal evaluation	Demonstration of Drumstick variety – *Bhagya*		7	2.8	IN PROGRESS												
Hebbal Avare (HA-4)	Varietal evaluation	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens		5	2.0	20.45	15.17	34.80	Pod borer incidence (%) 11.14	25.05	13279	42800	29521	3.2	11826	30340	18514	2.6
Pineapple	Integrated Pest Management	Management of Heart rot disease in pineapple		5	2.0	498	419.6	18.68	Heart rot incidence (%) 11.1	21.6	178400	597600	419200	3.35	171800	503520	331720	2.93
Ginger	Integrated Pest Management	Management of rhizome rot in ginger		10	4.0	315.25	250.5	25.85	Rhizome rot incidence (%) 21.25	41.45	327200	851175	523975	2.6	313400	676350	362950	2.16
Black Pepper	Varietal Evaluation	Performance of Panniyur-1 grafted on *Piper colubrinum*		3	0.2	IN PROGRESS												

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Sugarcane	Integrated Crop Management	Production technology of Sugarcane		2	0.8	IN PROGRESS												
Hybrid Napier, Multicut Sorghum, Fodder maize, cowpea	Integrated Crop Management	Introduction of fodder production units at farmer's field.		7	2.0	IN PROGRESS												
Arecanut	Integrated Pest Management	Management of Root grub in areca nut		5	2.0	12.1	9.4	28.72	Grubs per plant (Nos.) (Days After Treatment) 30 DAT		75400	314600	239200	4.17	67000	244400	177400	3.65
									1.70	5.10								
									Grubs per plant (Nos.) (Days After Treatment) 60 DAT									
									1.20	7.60								
									Grubs per plant (Nos.) (Days After Treatment) 90 DAT									
									0.80	7.80								
									Grubs / plant (Mean Nos.)									
									1.23	6.84								
Arecanut	Integrated Pest Management	Management of inflorescence die back & caterpillar in areca nut		10	4.0	IN PROGRESS			Inflorescence Die-Back incidence (%)		IN PROGRESS							
									5.60	18.40								
									Inflorescence caterpillar incidence (%)									
									8.5	22.60								

* 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

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	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

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	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 demonstrated	No. of KVKs	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit			
					Demonstration	Check		Demonstration	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)																	
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

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)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit ect.)			
						Demonstration	Check									

* 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

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

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonst-ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Mustard										
Safflower										
Sesame										
Sunflower	KBSH-41	10	4.0	10.10	11.63	-13.16	23500	26313	2813	1.10
Groundnut										
Soybean										
Others (pl.specify)										
Total										
Pulses										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										
Total										
Vegetable crops										
Bottle gourd										
Capsicum										
Others (pl.specify)										
Total										
Cucumber										
Tomato										

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

IV. TRAINING PROGRAMME

Training of Farmers and Farm Women including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	4	41	10	71	39	3	42	85	13	113
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
PPV&FRA-2001										
Others (pl.specify)										
1. Improved agro techniques in paddy 2. Pre-Kharif campaign on agricultural activities (Raitha Sammelan)	2	94	26	120	18	15	33	112	41	153
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
Improved cultivation of horticultural crops	1	32	-	32	13	-	13	45	-	45
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	5	12	17	-	-	-	5	12	17
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) Floriculture	1	23	16	39	4	10	14	27	26	53
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
f) Spices										
Production and Management technology										
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										
Others (pl.specify)										
Soil & water sample analysis	1	8	19	27				8	19	27
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal 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
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	8	127	222	349	9	25	34	136	571	707
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)										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Mechanised cultivation	1	20	6	26	18	4	22	38	10	48
Plant Protection										
Integrated Pest Management	1	7	34	41	2	7	9	9	41	50
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										
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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										
Apiculture	1	347	2	36	16	-	16	50	2	52
Others (Pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	2	120	15	135	24	3	27	144	18	162
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
1. Orientation about KVK activities 2. Orientation about UAHS activities and field visit 3. Orientation about KVK activities to B.Sc.(Agri) students	4	98	183	281	44	37	81	142	220	362
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	1	55	-	55	11	-	11	66	-	66
Others (Pl. specify)										
Lac cultivation										
TOTAL										

Training of Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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	78	32	110	-	-	-	78	32	110
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Cultivation of Fruit	1	12	7	19	8	7	15	20	14	34
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)										
Flower Crops										
Protected cultivation										
d) Plantation crops										
Production and Management technology	1	21	10	31	20	13	33	41	23	64
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										
Processing and value addition										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Sandal wood cultivation										
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				70	11	81	70	11	81
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	2	33	15	48	5	3	8	38	18	56

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	7	31	209	240	74	14	88	105	223	328
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance	1	13	-	13	3	-	3	16	-	16
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
Plant Protection										
Integrated Pest Management	2	50	-	50	41	9	50	91	9	100
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										
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production	2	26	6	32	45	17	62	71	23	94
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)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	1	1	45	46	-	15	15	-	60	61
Others (Pl. specify)										
TOTAL										

Training for Rural Youths including sponsored training programmes (on campus) :

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
Coconut palm climbing	2	44	6	50	9	1	10	53	7	60
TOTAL										

Training for Rural Youths including sponsored training programmes (off campus) : NIL

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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										

Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
Soil testing	7	53	52	105	-	-	-	53	52	105
Total										

Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		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 & 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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Establishment and maintenance of nutritional gardens										
Total										

Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			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)**										
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)										

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
9.	**Livestock and fisheries**										
10	**Livestock production and management**										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c	Fisheries Nutrition										
10.d	Fisheries Management										
10.e.	Others (pl.specify)										
11.	**Home Science**										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	**Agricultural Extension**										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others (pl.specify)										
	Protection of plant varieties and farmers' right act-2001										
	Total										

Details of Vocational Training Programmes carried out

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			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)										

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
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 & implements										
4.d.	Rural Crafts										
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (pl.specify)										
5	**Agricultural Extension**										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl.specify)										
	Grand Total										

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	27	59		59
Diagnostic visits	3	7	10	7
Field Day	5	263	5	268
Group discussions	9	142	2	144
Kisan Ghosthi		0		0
Film Show	5	363	4	367
Self -help groups	1	25	1	26
Kisan Mela	1	3250000	25000	350000
Exhibition	6			
Scientists' visit to farmers field	87	369	5	374
Plant/animal health camps		0		0
Farm Science Club		0		0
Ex-trainees Sammelan		0		0
Farmers' seminar/workshop	4	661	20	681
Method Demonstrations	6	145	1	146
Celebration of important days	5	664	31	695
Special day celebration		0		0
Exposure visits	5	135	6	141
Others (pl.specify)		0		0
SMS Messages	44	1824	134	1958
TOTAL	**208**	**4657**	**209**	**4866**

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

Details of other extension programmes

Particulars	Number
Electronic Media	
Extension Literature	5
News Letter	4
News paper coverage	21
Technical Articles	
Technical Bulletins	2
Technical Reports	8
Radio Talks	5
TV Talks	1
Animal health camps (Number of animals treated)	0
Others (pl.specify)	0
Abstracts	7
Awareness Campaign	1
TOTAL	

VI PRODUCTION OF SEED/PLANTING MATERIAL

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
Cereals (crop wise)	Ragi	ML-365, GPU-28	158	3634	6
Oilseeds	Groundnut	GPBD-4	1676	91163	13
Pulses	Green gram	KKM-3	172	17459	15
	Cowpea	KBC-2	63	4533	4
	Black gram	Rashmi	35	3105	9
Millets					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder Sorghum	CoFS-29	6.5	2600	8
Fiber crops					
Forest Species					
Others (specify)					
Total			**2170.5**	**127534**	**58**

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, PKM-1	41	410	3
	Chilli (green)	Arka Kyati	41500	4150	5
	Brinjal	Arka	1000	600	1
Fruits	Papaya	Taiwan-786	1648	19776	14
	Mango	Badami	38	1570	6
	Sapota	Cricket Ball	31	1360	7
Ornamental plants					
Medicinal and Aromatic					
Plantation	Cashew	Ullal	2	80	2
Spices	Curryleaf	Local	177	1770	12
Tuber					
Fodder crop saplings					
Forest Species					
Others(specify)					
Flower					
		TOTAL	**44437**	**29716**	**50**

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 (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Fish	Rohu, Gowri	105 kg	12600/-	25 Nos.
Total				

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2015-16

Sample Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil	1,084	687	687	54,200
Water	616	488	488	61,600
Plant/manure/lime	17	3	3	2,800
TOTAL	**1,717**	**1,178**	**1,178**	**1,18,600**

VIII. SCIENTIFIC ADVISORY COMMITTEE

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

IX. NEWS LETTER

Number of issues of newsletter published : 4 Nos.

X. RESEARCH PAPER PUBLISHED :

Number of research paper published : 1

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

Activities conducted				
No. of Training programmes	**No. of Demonstrations**	**No. of plant materials produced**	**Visit by farmers (No.)**	**Visit by officials (No.)**

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