University of Agricultural Sciences, Bangalore

Krishi Vigyan Kendra

Navile, Shimoga

ANNUAL REPORT 2012-13

(for the period April 2012 to March 2013)

KRISHI VIGYAN KENDRA

Navile, Abbalagere Post, Shimoga – 577225

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

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 Navile, Abbalagere Post, Shimoga-577 225 Karnataka	08182-295516	08182-227946	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 Sciences, GKVK Bangalore-65	080-23418883	080-23516836	deuasb@yahoo.com	www.uasbangalore.edu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. B.C.Hanumanthaswamy	9448255252	9449866938	bchswamy@gmail.com

1.4. Year of sanction : 2000

STAFF POSITION AS ON 31ST MARCH, 2013

Sl. No.	Name of the incumbent	Designation	Pay Scale	Sanction Post	Filled up	Vacant
1.	Dr. B.C.Hanumantha Swamy	Programme Coordinator	15600-39100	1	1	-
2.	Dr. Basavaraj Beerannavar	SMS (Agril. Extn.)	15600-39100	6	1	-
3.	Dr. B.C. Dhananjaya	SMS (SS & AC)	15600-39100		1	-
4.	Mrs. Jyoti M. Rathod *	SMS (Home Science)	15600-39100		1	-
5.	Dr. M. Ashok	SMS (Animal Science)	15600-39100		1	-
6.	Dr. K.R. Shreenivasa	SMS (Pl. Pathology)	15600-39100		1	-
7.	Dr. Nagarajappa Adivappar	SMS (Horticulture)	15600-39100		1	-
8.	Mr. R. Nagaraja	Programme Assistant (Lab Tech)	9300-34800	1	1	-
9.	Smt. Geetha B.S.	Programme Assistant (Computer)	9300-34800	1	1	-
10.	Mr. Anup, S.**	Farm Manager	9300-34800	1	1	-
11.	Smt. Sujatha, K	Assistant	16000-29600	1	1	-
12.	Smt. Usha, K**	Typist cum computer operator (Stenographer Grade III)	14550-24700	1	1	-
13.	Mr. N. Gopala	Driver (LV)	11600-21000	1	1	-
14.	Mr. K.H. Mohan	Driver (Tractor)	14500-26700	1	1	-
15.	Mr. H Manjunatha	Supporting Staff (Messenger)	9600-14550	1	1	-
16.	Mr. T. Chikkaiah	Supporting Staff (Assistant Cook cum Caretaker)	10400-16400	1	1	-
			TOTAL	**16**	**16**	**-**

* On study leave for three years. (From 3-8-2013 to 2-8-2015 to pursue her Ph.D. degree in the subject of Home Science at UAS, Dharwad)

** On 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.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	Oct. 2009	550	55 Lakhs	-	-	-
2.	Farmers Hostel	ICAR	Sept. 2012	305		4/6/2011		Completed
3.	Staff Quarters	-	-	-	-	-	-	-
4.	Demonstration Units		-	-	-	-	-	-
	1. Vermi Compost Unit	NCOF Ghazi abad	2008	-	1.25 lakhs			
	2. Poultry Unit	RKVY	2012	100 sq.m.	1.20 lakhs			
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-

B) Vehicles (31st March)

Type of vehicle	Model	Actual cost	Total kms. Run	Present status
Tractor with Trailer	2001	3,71,892.00	3825.20 Hrs.	Good condition
Jeep (Mahindra Bolero)	2005	4,40,000.00	138938	Good condition
Hero Honda Splendor +	2009	39,350.00	21728	Good condition
Honda Activa	2009	46,102.00	15807	Good condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Lap top and LCD	2007	1,00,000.00	Good
Photocopier	2008	92,297.00	Good
Mobile Display Board	2008	3,360.00	Good
Hakims mobile Pivot Stand	2008	2,300.00	Good
Hakims Data Press Board	2008	4,400.00	Good
Hakims Combination Board	2008	1,800.00	Good
Hakims 3 type rotation Book Stand	2008	3,100.00	Good
Acrylic name holder	2008	2,800.00	Good
Hakims Security Board (Flap type)	2008	3,100.00	Good
Hakims Display in minutes 4 board – double side stand	2008	8,950.00	Good
Research Microscope	2008	66,555.00	Good
Digital Micro pipette set	2009	21,180.00	Good
Hot Air Oven	2009	24,160.00	Good
Laminar Air Flow	2009	54,013.00	Good
pH Meter	2009	6,600.00	Good
HP Scanner	2009	4,000.00	Good
Autoclave	2009	28,687.00	Good
ELISA Reader	2009	1,47,155.00	Good
Video Camera	2009	1,84,000.00	Good
Information KIOSK (Touch screen)	2009	1,24,519.00	Good
Video Conference Facility	Due to satellite failure, the video conferencing system is not working since last 1 ½ years.		
LCD	2009	44,990.00	Good
Motorized Screen	2009	23,000.00	Good
Visual production Unit	2009	5,99,500.00	Good
Desk Top Computers (2 Nos.)	2009	46,000.00	Good
Printers (2 Nos.)	2009	15,645.00	Good
Digital Copier cum network printer	2009	55,125.00	Good
Display board (15 Nos.)	2009	30,000.00	Good
Voltage Stabilizer (2 Nos.)	2009	5,520.00	Good
Generator	2011	59850.00	Good
UPS	2011	38587.00	Good
Incubator	2011	24425.00	Good
UPS	2010	26,000.00	Good
Canon Printer-2900B	2010	5,524.00	Good
HP Laser Printer	2010	19,864.00	Good
Desk Top Computers (2 Nos.) HCL	2011	38,600.00	Good
Desk Top Computers (2 Nos.) HCL	2011	38,169.00	Good
Panasonic Fax Machine (Sl. No.91CBA004235)	2010	8,736.00	Good
Sony digital Camera-DSC H-20 Sl.No.2348907	2010	17,500.00	Good
Sony digital Camera-DSC H-20 Sl. No.2285039	2010	9,950.00	Good
21” Black Onida CTV-21	2011	8,990.00	Good

1.8. Details SAC meeting conducted in 2012-13

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	04-09-2012	32	-	Training programme on micro-irrigation	• During technology week celebration (10-14th September, 2012) one training programme on micro irrigation in horticultural crops was organized at KVK, Shimoga in which 125 farmers have participated • On 3rd October, 2012 training on micro irrigation was organized to 52 extension functionaries of Department of Horticulture, Shimoga District
				Assessment on use of Maize Maxim in on-farm trials	Use of maize maxim in maize for yield enhancement will be taken up during kharif 2013-14
				Training programmes on bio-digester, compost preparation design and structures	Training programmes on composting were conducted on 11.06.2012 (50 participants), 16.10.2012 (66 participants) and from 11-20.06.2012 (20 participants) and visits to demonstration units in ZARS and OFRC were made.
				To invite one farmer on each important crops for SAC meeting	One progressive farmer on each important crops will be invited for future SAC meetings
				Intercropping of Mangosteen and Rambhutan in arecanut	Two training programmes on intercropping in Arecanut have been conducted and SMS (Horticulture) participated as resource person on the topic entitled Intercropping in Arecanut. In these training programmes scope and importance of intercropping of Mangosteen and Rambhutan in arecanut gardens have been dealt
				Trials on agarwood cultivation	Agarwood is perennial crop and requires many years to conduct trial on infection of fungus for development of aromatic gum. Hence, information is passed to research system.
				Training to farmers under comprehensive horticulture demonstration	During technology week celebration (10-14th September, 2012) one training programme on micro irrigation in horticultural crops was organized for farmers who have

					enrolled under comprehensive horticulture demonstration at KVK, Shimoga in which 125 farmers have participated
				Information on high density orcharding in fruit crops	From 3-4th October, 2012 training programme on Hi-tech Horticulture was organized to Extension Functionaries of Horticulture Department at KVK, Shimoga in collaboration with Department of Horticulture. In this training programme experts from Jain Irrigation, Jalgoa have been invited and participants are trained on high density orcharding in fruit crops
				To conduct awareness programmes on *nematodes* problem in paddy and also their management practices.	Two off campus training programmes were organized to create awareness on Rice Root knot nematode in paddy and its management
				To develop demonstration units of stall feeding in goats and sheep	Proposed in 12th five year plan
				Production of COFS-29 seeds / fodder root slips.	During 2012-13 through FLD COFS-29 seeds and fodder production demonstration was taken at farmers field
				To takeup activities on balanced feeding in dairy animals and buffaloes, stall feeding in sheep and goat and demonstrations on backyard poultry	Proposed related FLD, trainings and FFS during 2013-14
				To conduct demonstration and training programmes on fish farming.	Proposed vocational training programme during 2013-14

PART II - DETAILS OF DISTRICT

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

Sl. No	Farming system/enterprise
1	Rice based cropping system
2	Maize based cropping system
3	Ragi, Pulses and Oilseeds
4	Arecanut based cropping system
5	Coconut based cropping system
6	Fruit crops and spices
7	Floriculture
8	Dairy
10	Poultry

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. Shimoga, Bhadravathi and Shikaripur taluks of Shimoga District comes under this zone. KVK, Navile, Shimoga is located in this zone. • The zone 7 has varying altitude ranging from as low as 547 mt. in the North to as high as 1050mt. 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 96.16 mm with minimum of 2.20 mm and maximum of 308.90 mm. The lowest minimum temperature ranges from 14.7^0 C (January) to 20.3^0C (May) while the maximum temperature ranges from 24.8^0C (July) to 33.2^0 (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 Shimoga District comes under this zone. • The zone - 9 has varying altitude ranging from as low as 700 to as high as 1050mt. 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 2308mm with a minimum of 922mm and maximum of 3695mm. The lowest minimum temperature of 10^0 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 Shimoga, 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 Shimoga 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 Shimoga 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 Shimoga 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	105000	426000	4057
2	Sugarcane	5386	538600	100000
3	Maize	68199	275329	4037
4	Ragi	837	1009	1206
5	Groundnut	273	246	900
6	Avare	64	35	550
7	Tobacco	33	24	725
8	Cotton (Bales)	731	1677	390
9	Jowar (hybrid)	431	881	2045
10	Redgram	429	296	690
11	Blackgram	16	07	450
12	Greengram	67	30	450
13	Cowpea	88	44	500
14	Niger	61	12	200
15	Sesamum	42	11	250
16	Castor	27	26	950

Horticultural Crops				
Sl. No	**Crop**	**Area (ha)**	**Production (Metric tons)**	**Productivity (t/ha)**
1	Arecanut	37631	52780.05	1.40
2	Coconut	6925	791.24	0.11
3	Banana	6358	151500.00	23.83

4	Mango	2845	23875.00	8.39
5	Sapota	436	4629.00	10.62
6	Ginger	4691	49088.00	10.46
7	Cashew	1419	2128.50	1.50
8	Cocoa	18	10.80	0.60
9	Cardamom	278	32.90	0.12
10	Pineapple	1760	105600.00	60.00
11	Pomegranate	3	30.00	10.00
12	Jack	12	480.00	40.00
13	Vanilla	422	126.30	0.30
14	Guava	21	420.00	20.00

Source: Department of Agriculture and Horticulture, Shimoga

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	At 0830 hours	At 1730 hours
April-2012	135.6 (7)	38.12	21.23	91.90	43.73
May-2012	22.4 (2)	37.83	22.57	91.84	44.45
June-2012	74.4 (7)	33.21	21.65	92.03	55.00
July-2012	176.2 (15)	30.90	21.20	92.00	72.48
Aug-2012	246.4 (21)	31.11	20.22	91.77	68.52
Sept-2012	78.0 (13)	30.74	21.58	88.35	66.81
Oct-2012	109.6 (4)	33.36	20.49	91.87	60.19
Nov-2012	135.0 (6)	32.18	18.33	88.45	65.60
Dec-2012	0.0 (0)	34.15	15.39	91.00	56.03
Jan-2013	0.0 (0)	36.27	15.50	90.90	46.71
Feb-2013	6.2 (1)	36.98	25.25	91.79	83.06
March-2013	0.0 (0)	39.01	21.57	92.06	38.87
TOTAL	983.8 (76)	-	-	-	-

Source: Agromet advisory services ZARS, Shimoga

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

Category	Population	Production	Productivity
Cattle			
Crossbred	72,631	3065.09 tons / year	3.6 lts
Indigenous	498562		
Buffalo	191147		
Sheep	25200	1076 tons	11.2 kg
Crossbred	-		
Indigenous	-		
Goats	60680		
Poultry	428907	-	-

Source – Department of veterinary Sciences and Animal Husbandry, Shimoga

Category	Area	Production	Productivity
Fish	14957	16453 mt.	1.1 mt./ha

Source – Department of fisheries, Shimoga.

2.7 District profile has been Updated for 2012-13 Yes / No : NO

2.8 Details of Operational area / Villages

Sl. No.	Taluk Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problems identified	Identified thrust areas
1.	Shimoga	Holaluru cluster Kumsi Aynuru Haranahalli Puradalu Gajanur Melinahanasawadi Sominakoppa Haramghatta Biranakere Aladahalli	3 4 4 3 4 4 6 6 6 4 2	Paddy Maize Banana Ginger Vegetables Coconut Dairy	▪ Leaching losses N & K nutrients ▪ Scarcity of labour for transplanting ▪ Blast and sheath blight disease ▪ Improper utilization of maize straw ▪ Non availability of new ginger varieties ▪ Nutrients deficiency in banana and coconut ▪ Imbalanced Nutrition in dairy cows ▪ Infertility in dairy animals ▪ Infectious and parasitic disease ▪ Lack of scientific dairying	▪ INM ▪ IPDM ▪ Farm mechanization ▪ Resource utilization ▪ Value addition ▪ Nutrient and disease management in dairy cows ▪ Vaccination and deworming in back yard poultry ▪ Deworming and concentrate feeding in growing sheep ▪ IFS model for dry lands

2.	Bhadravathi	Holehonnur Anveri Ittigehalli	6 4 2	Paddy Azolla Groundnut Arecanut Flower crops Backyard poultry and commercial poultry	• Leaching losses N & K nutrients • Blast and sheath blight disease • Inefficient space utilization in Arecanut • Inflorescence die back and caterpillar in Arecanut • Lack of awareness on flower cultivation • Lack of awareness on new variety of poultry birds • Soil acidity	▪ Varietal introduction ▪ Integrated Nutrient Management ▪ IPDM ▪ Garden management ▪ Soil reclamation ▪ Value addition ▪ Mushroom cultivation
3.	Shikaripura	Hosur Shiralkoppa Anjanapura Hittala Madagaharanahalli Esuru Nimbegondi Suragihalli Madagaharnahalli	5 5 5 6 2 2 2 2 2	Maize Groundnut Sunflower Cotton Azolla Banana	▪ Non-availability of improved hybrids ▪ Improper nutrient management ▪ Tikka disease ▪ Bollworm incidence ▪ Sigatoka leaf spot in Banana ▪ Non-availability of green fodder source for livestock	▪ Varietal and hybrid introduction ▪ Introduction of Bt. Cotton ▪ INM ▪ IPDM ▪ Nutrient management in dairy cows ▪ Value addition
4.	Hosanagara	Ripponpet Nagara Benavalli	6 3 5	Coconut Ginger	• Improper nutrient management • Bud rot in Coconut • Lack of awareness on new ginger varieties	• INM • IPDM • Varietal introduction • Value addition

5.	Sagara	Saiduru Varadamula Byakodu Thalaguppa Ulluru Mavali	5 7 4 5 4 5	Paddy Arecanut Coconut Banana Pepper Jack Vegetables	• Non-availability of submergence tolerant paddy varieties • Improper nutrient management • Root grub in Arecanut • Bud rot in Arecanut • No value addition	• Varietal introduction • IPDM • Value addition in Banana and Jack
6.	Soraba	Jade Hirekasavi Ulavi Mallapura	6 6 5 2	Ginger Pulses	• Lack of awareness on new ginger varieties • Non-availability of short duration pulse varieties • Lack of pulse storage knowledge	• Varietal introduction • Value addition • Improved storage techniques
7.	Thirthahalli	Devangi Konandur	7 5	Paddy Arecanut Jack fruit Pepper	• Non-availability of submergence tolerant paddy varieties • Root grub • No value addition • Improper drying techniques	• Varietal introduction • IPDM • Value addition in Jack fruit • Value addition in pepper

2.9 Priority thrust areas

Sl. No.	Thrust Area
1.	Soil reclamation
2.	INM
3.	IPDM
4.	Variety / hybrid introduction
5.	Farm mechanization
6.	Quality seed / seedling production
7.	Nutrient and disease management in cattle
8.	Enrichment of fodder
9.	Estrous synchronization
10.	Back yard poultry
11.	Value addition
12.	Post harvest technology

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
4	4	16	16	22	22	166	146

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
85	88	4000	4111	400	408	2500	2961

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Targets	Achievement	Targets	Achievement
20.00	19.94	40000	42840

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

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

Sl. 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 raining (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products/ Chemicals (No. /kg)	
1.	INM	Paddy	Non availability of nutrients at critical crop growth stages due to leaching and volatilization losses	Assessment on use of boron in Paddy	Assessment on foliar nutrition in paddy through water soluble fertilizers for higher yields	3	-	-	3	Paddy Variety JGL-1678 seeds - 1.5 q.			-	-
		Coconut	Improper nutrient management	-	Root feeding of coconut tonic to enhance palm yield	1	1	1	2		Coconut tonic : 25 Ltr.			
		Banana	Lack of knowledge on use of micronutrient formulations	Assessment of enhancement of bunch size in banana	-	1	1	1	2		Banana Special : 50 kg.			
	ICM	Paddy	Weeds, sheath blight, blast, stem borer	-	ICM in paddy	4	-	1	5	-	-	-	Weedicide : Londax Power, Carbendazim	40 kg, 5 kg.
		Maize	Stagnated yield, no use of micronutrients. Major and micronutrient deficiencies, stemborer and monocropping.	Assessment on foliar nutrition of maize through maize maxim	Introduction of maize hybrid NAH-1137	3	-	-	4	NAH-1137 Seeds 0.6 and redgram 0.3	-	-	-	-

		Sunflower	Sulphur deficiency in acid soils, no seed treatment, bud necrosis, and powdery mildew.		Integrated Crop Management in sunflower	1	-	-	4	-	-	-	-	-
		Groundnut	• Soil acidity • Deficiency of secondary and micronutrients • Low fertilizer use efficiency • Low shelling percentage • Incidence of leaf spot	-	Introduction of groundnut variety GPBD-4	1	-	-	3	Ground nut variety GPBD-4 seeds – 3.80	-	-	-	-
		Mango	• Anthracnose • Fruit fly • Powdery Mildew • Micronutrient	-	ICM in mango	2	-	-	5	-	-	-	Mango special, Imidachloprid, Carbendazim	80 kg, 5 ltr., 5 kg.
		Ragi	Non availability of high yielding varieties	-	Introduction of ragi variety GPU-66	2	1	-	1	0.5	-	-	-	-
		Black Gram	Lack of high yielding varieties	-	Demonstration of Black Gram variety (Rashmi LBG-625)	1	-	-	1	0.5	-	-	-	-
		Green Gram	Non availability of suitable varieties for rice fallows		Introduction of short duration green gram variety (KKM-3) for rice fallows	-	-	-	-	0.10	-	-	-	-
2.	IPM	Arecanut	Root grub		Management of Root grub in arecanut	6	-	2	2	-	-	-	-	-

		Arecanut	Inflorescences caterpillar and dieback		Management of Inflorescences dieback and caterpillar	4	-	-	3				SAAF, Chloropyriphos	15 kg., 15 ltr.
		Pineapple	Heart rot		Management of Heart rot in pineapple	3	-	-	5				Trichoderma, Metalaxyl Mz	10 kg., 5 kg.
		Ginger	Rhizome rot		Integrated management of rhizome rot in ginger	4	-	-	4				Curzate M8, Streptocycline	5 kg. 500 g.
		Ginger	Rhizome rot		Disease management in organic ginger cultivation	3	-	1	2				Trichoderma, Pseudomonans, fluorescens	10 kg., 10 kg.
3.	Varietal Introduction	French bean	• Lack of high yielding and photo insensitive variety	-	High yielding and photo insensitive variety Arka Sharath & Arka Anoop	6	-	1	-	Seeds :75 kgs.	-	-	-	-
		Tomato	Lack of high yielding and disease resistance hybrids	-	Demonstration of high yielding F1 Hybrid tomato – Arka Samrat & Arka Rakshak	6	-	1	-	Seeds : 100 gm.	-	-	-	-
		Amaranthus	Lack of leaf rust resistant and multicut variety	-	Demonstration of multicut variety of Amaranthus – Arka Suguna	6	-	1	-	Seeds : 5 k.g	-	-	-	-

		Turmeric	Lack of high yielding varieties		Introduction of high yielding varieties of Turmeric	1	-	-	1	Rhizomes : 4.15 qtl.				
		Ginger	Lack of high yielding and disease resistance variety		Introduction of disease tolerant and high yielding varieties of Ginger	3	-	1	-	Rhizxomes : 6 Qtl.				
4.	Infertility management	Dairy	Repeat breeders, nutritional deficiency		Ovu synch protocol in dairy cattle	3	-	1	3	-	-	-	-	-
5.	Fodder production	Sorghum	Scarcity of fodder source	-	Demonstration of Multi Cut Fodder Sorghum COFS-29	2	-	-	4	-	-	-	-	-
6.	Chicken production in rural area	Backyard poultry	Unscientific rearing and lack of awareness about new breeds for backyard poultry		Introduction of Swarnadhara bird in Malnad area	7	-	-	5	-	-	-	-	-

3.B2. Details of technology used during reporting period

Sl. 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.	Assessment on use of boron in Paddy	UAS, Bangalore + ICRISAT, Hyderabad	Paddy	5	-	3	3
2.	Assessment on foliar nutrition of Maize through maize maxim	UAS, Bangalore + TNAU	Maize	5	-	3	4
3.	Introduction of disease tolerant and high yielding ginger varieties	IISR, Calicut + UAS, Dharwad	Ginger	4	-	3	-
4.	Introduction of high yielding varieties of turmeric	IISR, Calicut + UAS, Dharward	Turmeric	2	-	1	1

3.B2 contd..

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
4	-	1	-					5	25	30	5	25	5	5	3
3	-	2	-					49	-	11	-	18	3	4	-
3	-	1	-					5	20	-	40				
1	-	1	-					20	-	5	-				
				4	-	1	-	97	35	23	37	12	-	6	-
				4	3	2	1	135	25	30	5				
				10	-	2	-	38	-	6	-	8	-	4	-
				8	-	-	2	60	30	42	22	20	10	30	12
				6	2	2	-	-	-	9	6	16	10	2	2
				4	-	1	-	40		17					
				3	-	2	-	45	10	10	-				
				3	-	2	-	-	-	-	-				
				3	-	2	-	-	-	-	-				
				3	-	1	-	22	-	14	-				
				7	-	24	-	50	4	35	4				
				4	-	1	-	185	-	45	-				
				5	1	2	2	71	5	15	-				
				10	-	-	-	56	10	30	10				
				7	-	3	-	50	30	25	5				
				4	-	1	-	25	5	4	-	15	-	4	-
				4	-	1	-	40	10	-	-	8	-	2	-
				1	-	1	-					6	-	4	-
				2	-	2	-								
				5	1	2	-	7	13						
				12	-	4	-	78	6	62	21				
				6	2	2	-	56	99	8	23				

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	Veget-ables	Fruits	Flower	Plant-ation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	10	-								
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management				2						
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

4.A2. Abstract on the number of technologies refined in respect of crops : NIL

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	Sheep	TOTAL
Evaluation of Breeds							
Nutrition Management							
Disease of 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

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
Integrated Nutrient Management	Paddy	Assessment on use of boron in Paddy	5	5	1.0
	Maize	Assessment on foliar nutrition of Maize through maize maxim	5	5	1.0
	Coconut	Root feeding of Coconut to enhance palm yield	31	31	625 palms
	Banana	Yield enhancement in Banana through foliar application of micro nutrients.	5	5	2.0
Varietal Evaluation	Ginger	Introduction of disease tolerant and high yielding ginger varieties	4	4	0.4
	Turmeric	Introduction of high yielding varieties of turmeric	2	2	0.4
	French Bean	Introduction of high yielding French bean variety Arka Sharath and Arka Anoop	5	5	1.5
	Tomato	Introduction of high yielding F1 hybrid Arka Samrat and Arka Rakshak	4	4	1.0
	Amaranthus	Introduction of multi cut amaranth variety Arka Suguna	4	4	2.0
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
TOTAL			**65**	**65**	**8.3 + 625 palms**

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

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

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

4.B.4. Technologies Refined under Livestock and other enterprises : NIL

4.C1. Results of Technologies Assessed

1) Results of On Farm Trial : ASSESSMENT ON USE OF BORON IN PADDY

Crop/ enterprise	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
Paddy	Irrigated	Deficiency of boron	Assessment on use of boron in Paddy	5	Soil application of boron at 5 kg borax/ha.	Yield, BC Ratio	-	2.56 q/ha (4.04%) and 1.14 q/ha (1.76%) increase in yield by the application of borax over Farmers Practice and recommended practice respectively.	Farmers appreciated the use of technology	-	-

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) Basal application of N & P only followed by N & K top dressing.	Farmer practice	63.24	q/ha	50888	3.03
Technology option 2: Rec. practice: FYM 12.5 t/ha RDF: 100:50:50 NPK kg/ha. 50% N & K and 100% P as basal application. Top dressing 50% N in two equal splits @ 25–30 DAT and 50-60 DAT. 50% K @ 50-60 DAT. $ZnSO_4$ @ 20 kg/ha.	UAS, Bangalore	64.66	q/ha	54592	3.37
Technology option 3: Tech.Opt. 2 + soil application of boron at 5 kg borax/ha. before transplanting.	UAS, Bangalore + ICRISAT, Hyderabad	65.80	q/ha	55710	3.39

1) **Title of Technology Assessed :** Assessment on use of Boron in Paddy

2) **Problem Definition:** Deficiency of boron

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	FYM 12.5 t/ha RDF: 100:50:50 NPK kg/ha. 50% N & K and 100% P as basal application. Top dressing 50% N in two equal splits @ 25–30 DAT and 50-60 DAT. 50% K @ 50-60 DAT. $ZnSO_4$ @ 20 kg/ha.
3.	Technological Option 3	Tech.Opt. 2 + soil application of boron at 5 kg borax/ha. before transplanting.

4) **Source of technology :** UAS, Bangalore + ICRISAT, Hyderabad

5) Production system and thematic area : Irrigated and nutrient management

6) Performance of the Technology with performance indicators: Grain yield increased by 4.04% over farmers practice.

7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : Yield can be increased by applying borax before transplanting.

8) Final recommendation for micro level situation: Application of borax increases yield under heavy rainfall situation.

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

10) Process of farmer's participation and their reaction: Farmer actively participated and appreciated the advantage of application of borax

2) Results of On Farm Trial : ASSESSMENT ON FOLIAR NUTRITION OF MAIZE THROUGH MAIZE MAXIM

Crop/ enterprise	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
Maize	Rainfed	Stagnated yield, no use of micronutrients. Major and micronutrient deficiencies.	Assessment on foliar nutrition of Maize through maize maxim	5	Application of Maize maxim @15kg/ha (4 g/L). Two sprays. One @ tassel initiation and another 20 days after 1st spray	Yield and BC Ratio	-	5.3 q/ha (10.41%) and 1.8 q/ha (2.77%) increase in yield by the application of maize maxim over Farmers practice and recommended practice respectively	Farmers expressed difficulty in spraying of maize maxim at tassel initiation stage.	-	-

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) : Imbalanced application of nutrients (2 bags of complex fertilizer i.e. 17:17:17 or DAP	Farmers Practice	60.50	q/ha	54675	3.02
Technology option 2: FYM – 12.5 t/ha. RDF – NPK, 100:50:25 Kg/ha, $ZnSO_4$: 10kg/ha	UAS, Bangalore	65.00	q/ha	62750	3.51
Technology option 3: Tech.opt. 2 + Maize maxim : @15kg/ha. Two sprays. One @ tassel initiation and another 20 days after 1st spray	UAS, Bangalore + TNAU	66.80	q/ha	64680	3.53

1) **Title of Technology Assessed :** Assessment on foliar nutrition of Maize through maize maxim

2) **Problem Definition:** Stagnated yield, no use of micronutrients. Major and micronutrient deficiencies.

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

Sl. No.	Technological Options	Details of Technology
1.	Farmer's Practice	Imbalanced application of nutrients (2 bags of complex fertilizer i.e., 17:17:17 or DAP
2.	Technological Option 2	FYM – 12.5 t/ha. RDF – NPK, 100:50:25 Kg/ha, $ZnSO_4$: 10kg/ha
3.	Technological Option 3	Tech.opt. 2 + Maize maxim : @15kg/ha. Two sprays. One @ tassel initiation and another 20 days after 1st spray

4) **Source of technology :** UAS, Bangalore + TNAU

5) **Production system and thematic area :** Rainfed and nutrient management

6) **Performance of the Technology with performance indicators: G**rain yield increased by 10.42% over farmers practice.

7) **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :** Farmers expressed difficulty in spraying of maize maxim at tassel initiation stage.

8) **Final recommendation for micro level situation:** Foliar application of nutrients is effective under heavy rainfall areas.

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

10) **Process of farmers participation and their reaction:** Farmer actively participated and noticed the advantage of foliar application of maize maxim.

3) Results of On Farm Trial : INTRODUCTION OF DISEASE TOLERANT AND HIGH YIELDING GINGER VARIETIES

Crop/ enterprise	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
Ginger	Irrigated	Disease susceptibility and low yield	Introduction of disease tolerant and high yielding ginger varieties	4	Evaluation of disease tolerant and high yielding ginger varieties : Himachal, Rio-de-Janario, Varada and Humnabad local	% disease incidence, yield, B:C	-	Higher yield is recorded in Rio-de-Janario, higher BC recorded in Varada and lower disease incidence is recorded in Humnabad local	Varada and Humnabad local performing better with respect to disease tolerant and giving higher B:C	-	-

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 : Himachal	Farmers Practice	280.20	q/ha	5,45,600.00	2.48
Technology option 2: Rio-de-Jainero	UAS, Bangalore	305.10	q/ha	5,54,830.00	2.85
Technology option 3**:** Varada	IISR, Calicut	269.20	q/ha	5,04,297.00	2.91
Technology option 4: Humnabad Local	UAS, Dharwad	253.60	q/ha	4,37,648.00	2.81

1) **Title of Technology Assessed :** Introduction Of Disease Tolerant And High Yielding Ginger Varieties

2) **Problem Definition:** Disease susceptibility and low yield

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

Sl. No.	Technological Options	Details of Technology
1.	Farmer's Practice	Farmers Practice
2.	Technological Option 2	UAS, Bangalore
3.	Technological Option 3	IISR, Calicut
4.	Technological Option 4	UAS, Dharwad

4) **Source of technology :** UAS, Bangalore, IISR, Calicut and UAS, Dharwad

5) **Production system and thematic area :** Irrigated and varietal introduction

6) **Performance of the Technology with performance indicators:** Lower disease incidence was noticed in Varada and Humnabad Local varieties.

7) **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :** Varada and Humnabad Local varieties tolerant to Rhizome rot, but the fresh yield and dry ginger recovery percent is less.

8) **Final recommendation for micro level situation:** Varada and Humnabad Local varieties are found to be tolerant to Rhizome rot compared to Himachal and Rio-de-Jainero.

9) **Constraints identified and feedback for research:** Availability of rhizomes for planting is the major constraint. Hence, Rhizome multiplication of promising varieties is essential.

10) **Process of farmers participation and their reaction:** Farmers participated actively and rhizomes produced by the farmers in OFT are given to other farmers for varietal spread by farmers themselves.

4) RESULTS OF ON FARM TRIAL : INTRODUCTION OF HIGH YIELDING VARIETIES OF TURMERIC

Crop/ enterprise	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			9	10	11	12
Turmeric	Irrigated	Low yielding varieties	Introduction of high yielding varieties of turmeric	2	Evaluation of High yielding varieties of turmeric : Kadapa, Salem, Alleppy, Rajapuri, PTS-24, Belgaum Local, Bidar-4, Prathibha, CLI-32	Rhizome fresh weight / plant (g) Rhizome fresh weight /ha. (q/ha)	Variety	Rhizome fresh weight / plant (g)	Rhizome fresh weight /ha. (q/ha)	Higher fresh yield, dry yield and BC ratio was recorded in Salem, PTS-24 and Prathibha.	Higher fresh yield, dry yield and BC ratio was recorded in Salem, PTS-24 and Prathibha.	-	-
							Belgaum Local	550	450				
							CLI-32	660	396				
							Bidar-4	810	486				
							Salem	800	480				
							PTS-24	710	426				
							Prathibha	750	450				
							Rajapuri	760	456				
							Alleppy	680	408				
							Kadapa	1100	660				

Technology Assessed	Source of Technology	Production Rhizome dry weight / ha (q/ha)	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1: Belgaum Local	Farmers practice	70.00	q/ha	2,31,460.00	2.22
Technology option 2: CLI-32	Farmers practice	46.20	q/ha	1,03,310.00	1.59
Technology option 3: Bidar-4	Farmers Practice	65.00	q/ha	1,99,000.00	2.04
Technology option 4: Salem	UAS, Dharwad	80.00	q/ha	2,83,500.00	2.44
Technology option 5: PTS-24	OUTA, Orissa	79.00	q/ha	2,78,200.00	2.42
Technology option 6: Prathibha	IISR, Calicut	66.20	q/ha	2,14,880.00	2.44
Technology option 7: Rajapuri	UAS, Dharwad	64.70	q/ha	2,01,685.00	2.08
Technology option 8: Alleppy	UAS, Bangalore	47.50	q/ha	1,09,600.00	1.62
Technology option 9: Kadapa	UAS, Dharwad	70.00	q/ha	2,31,010.00	2.22

1. **Title of Technology Assessed : Introduction of high yielding varieties of turmeric**
2. **Problem Definition:** Low yielding varieties
3. **Details of technologies selected for assessment**

Sl. No.	Technological Options	Details of Technology
1)	Technology option 1:	Belgaum Local
2)	Technology option 2:	CLI-32
3)	Technology option 3:	Bidar-4
4)	Technology option 4:	Salem
5)	Technology option 5:	PTS-24
6)	Technology option 6:	Prathibha
7)	Technology option 7:	Rajapuri
8)	Technology option 8:	Alleppy
9)	Technology option 9:	Kadapa

4. **Source of technology** : UAS, Dharwad, OUTA, Orissa, IISR, Calicut, UAS, Bangalore
5. **Production system and thematic area :** Irrigated, Varietal introduction
6. **Performance of the Technology with performance indicators:** PTS-24, Salem and Belgaum Local have recorded higher recovery percent of dry turmeric. Among the 9 varieties higher yield was recorded in Kadapa, Salem varieties, higher BC ratio recored in Salem, PTS-24 and Prathibha.
7. **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :** Higher recovery percent of dried turmeric was noticed in varieties Salem, PTS-24 and Pratibha
8. **Final recommendation for micro level situation:** Varieties Salem, PTS-24 and Pratibha found to be promising.
9. **Constraints identified and feedback for research:** Availability of rhizomes for planting is the major constraint. Hence, Rhizome multiplication of promising varieties is essential.
10. **Process of farmers participation and their reaction:** Farmers participated actively and rhizomes produced by the farmers in OFT are given to other farmers for varietal spread by farmers themselves.

PART V - FRONTLINE DEMONSTRATIONS

5.A. Summary of FLDs implemented during 2012-13

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	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Oilseeds	Rainfed	Summer-2012	Groundnut	GPBD – 4	-	Varietal introduction	Demonstration of leaf spot resistant variety, GPBD 4	3	2	1	4	5	Reduction in demonstration area
		Rainfed	Summer-2012	Sunflower	-	Kaveri, Champa	Integrated Crop Management	Seed treatment with Imidacloprid @5g/kg. Sulphur nutrition through SSP @ 20 Kg/ha.	5	2	1	4	5	Reduction in demonstration area
2.	Pulses	Rainfed	Summer -2012	Green Gram	KKM-3		Varietal introduction	Efficient utilization of residual moisture	4	0.4	1	1	2	Non availability of sufficient qty. of seeds.
		Rainfed	Rabi/ summer	Black Gram	Rashmi LBG-625		Varietal Introduction	Demonstration of Black Gram variety	4	2.5	2	8	10	Non availability of sufficient qty. of seeds.
3.	Cereals	Irrigated	Kharif-2012	Paddy	JGL-1678	-	Nutrient management	Rec. FYM + RDF + Foliar spray of 1% 19:19:19 during tillering and foliar spray of 1% 13:0:46 during grain filling stage.	4	1	1	4	5	Reduction in demonstration area

		Irrigated	Kharif-12	Paddy	MTU-1001	-	ICM in paddy	Seed treatment with Carbendazim @ 4 g/kg, Weedicide : Londax power @ 4kg/ac Plant protection measures.	4	4	3	7	10	-
		Rainfed	Kharif-2012	Maize	-	NAH-1137	Hybrid introduction	Demonstration of maize hybrid, NAH-1137 with Redgram intercropping	4	4.8	1	4	5	
		Rainfed		Ragi	GPU-66			Intercropping with Redgram BRG-1	4.0	4.0				
4.	**Horticulture** Spices	Irrigated	Kharif-2012	Ginger	Himachal	-	IDM,	Rhizome treatment with 0.2 % Curzate M8 + 0.05 % Streptocycline and drenching the same chemicals when diseases noticed.	2.0	2.0	1	4	5	
		Irrigated	Kharif-2012	Organic Ginger	Himachal	-	IDM under organic farming	Rhizome treatment with Trichoderma + Pseudomonas fluorescens @ 10 gm. / kg.	2.0	2.0	2	3	5	
5.	Vegetables	Irrigated	Kharif and Rabi-2012	French bean	Arka Sharath and Arka Anoop	-	Varietal Introduction	Photo-insensitive, fiberless and High yielding varieties of French bean.	1.0	1.50	2	3	5	-

		Irrigated	Kharif and Rabi-2012	Tomato		Arka Samrat and Arka Rakshak	Varietal Introduction	High yielding, disease tolerant and good keeping quality F_1 hybrid tomato	1.0	1.0	3	1	4	-
		Irrigated	Rabi-2012 Summer-2013	Amaranthus	Arka Suguna		Varietal Introduction	Multicut Amaranthus variety	1.0	2.0	2	2	4	-
6.	Fruit	Irrigated	Rabi-2012 Summer-2013	Banana	G9 and Yelakki Bale		Correction of Micro nutrient deficiency	Micro nutrient formulation for enhance the yield	2.0	2.0	1	4	5	-
		Irrigated	Kharif-12	Pineapple	Queen	-	IDM	Sucker treatment with 0.3% Metalaxyl Maize + soil application of trichoderma enrich neem cake	2	2	2	3	5	
		Dry land	Rabi-2012	Mango	Alphanso	-	ICM in mango	• Spraying of Mango special @ 0.5% and • Carbendazim 0.1 % & Imidacloprid @ 0.05 % • Fruit fly pheromone traps	4	4	4	6	10	
7.	Plantation			Coconut				Root feeding of coconut tonic which contains macro, micro nutrients and growth regulators for increase yield.	10 Demo	31 Demo	24	7	31	-

		Irrigated	Kharif-2012	Arecanut	Sagar Local	-	IPM	Management of root grub in Arecanut	4	4	-	10	10	
		Irrigated	Rabi-2012	Arecanut	Maidan Local	-	IPM	Management of inflorescence die back & caterpillar in arecanut	4	4	3	7	10	-
8.	Poultry		Rabi-2012	Chicken	Swarna dhara	-	Chicken production in rural area	Introduction of Swarnadhara bird in Malnad area	10 units	10 units	2	8	10	-
9.	Dairy		Rabi-2012	Cross bred cows	HF and Jersey cross	-	Infertility management	Ovu synch protocol in dairy cattle	20 units	20 units	3	13	16	-
10.	Fodder Crop	Irrigated	Rabi-2012	Fodder Sorghum	COFS-29	-	Fodder Production	Demonstration of Multi Cut Fodder Sorghum COFS-29	0.8	0.4	2	6	8	Higher cost of seeds

5.A. 1. Soil fertility status of FLDs plots during 2012-13

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
1.	Oilseeds	Rainfed	Summer-2012	Groundnut	GPBD – 4	-	Varietal introduction	Demonstration of leaf spot resistant variety, GPBD 4	Summer-2012	L	M	M	Paddy
		Rainfed	Summer-2012	Sunflower	-		Integrated Crop Management	Seed treatment with Imidacloprid @5g/kg. Sulphur nutrition through SSP @ 20 Kg/ha.	Summer-2012	L	M	M	Paddy

2.	Pulses	Rain fed	Summer	Green gram	KKM-3		Varietal Introduction	Short duration green gram variety KKM-3 for rice fallows	Summer - 2012	L	M	M	Paddy
		Rainfed	Rabi/summer	Black Gram	Rashmi-LBJ-625)		Varietal Introduction	Demonstration of Black Gram variety	Rabi/summer -2012	L	M	M	Paddy/ groundnut
3.	Cereals	Irrigated	Kharif 2012	Paddy	JGL-1678	-	Foliar nutrition in paddy through water soluble fertilizers	Rec. FYM + RDF + Foliar spray of 1% 19:19:19 during tillering and foliar spray of 1% 13:0:46 during grain filling stage.	Kharif 2012	L	M	M	Paddy
		Irrigated	Kharif-2012	Paddy	MTU-1001	-	ICM in paddy	Seed treatment with Carbendazim @ 4 g/kg, Weedicide : Londax power @ 4kg/ac Plant protection measures,	Kharif-2012	H	M	L	Paddy
		Rainfed	Kharif-2012	Maize	-	NAH-1137	Hybrid Introduction	Demonstration of maize hybrid, NAH-1137 with Redgram intercropping	Kharif 2012	L	M	M	Maize
		Rainfed	Kharif-2012	Ragi	GPU-66		Varietal Introduction	Introduction of high yielding and good quality of straw. Resistance to neck blast	Kharif-2012	L	M	M	Maize

4.	Vegetables	Irrigated	Kharif-2012	French Bean	Arka Sharath and Arka Anoop	F1 Hybrid	Varietal introduction	Photo-insensitive, fiberless and High yielding varieties of French bean.	Kharif-2012	M	M	L-M	Tomato
		Irrigated	Kharif-2012	Tomato	Arka Samrat and Arka Rakshak	F1 Hybrid	Hybrid Introduction	High yielding, disease tolerant and good keeping quality F_1hybrid	Kharif-2012	H	M	L-M	Maize
		Irrigated	Rabi-2012 Summer 2013	Amaranthus	Arka Suguna		Demonstration of multi cut amaranth variety Arka Suguna	Multicut Amaranthus variety	Rabi-2012 Summer 2013	H	M	L-M	French Beans
5.	Fruit	Mango Based dry land farming	Rabi, Summer 12	Mango	Alphanso		Integrated Crop Management in Mango	• Spraying of Mango special @ 0.5% and • Carbendazim 0.1 % and Imidacloprid @ 0.05 % • Fruit fly pheromone traps	Rabi, Summer 12	H	M	L	Mango
		Pineapple based cropping system	Kharif-2012	Pineapple	Queen	-	Management of heart rot in pineapple	Sucker treatment with 0.3% Metalaxyl Maize + soil application of trichoderma enrich neem cake	Kharif 2012	H	M	L	Paddy
		Irrigated	Kharif-12 Rabi/ Summer 2013	Banana	G9 and Yelakki Bale	G9	Yield enhancement in banana through foliar application of micronutrients	Micro nutrient formulation for enhance the yield	Rabi-2012 Summer 2013	H	M	L	Banana
6.	Plantation	Irrigated	Rabi – 2012	Coconut	Arasikere Tall	-	Integrated nutrient management	Root feeding of coconut tonic to enhance palm yield	Rabi – 2012	M	M	L	Coconut

		Areca based cropping system	Kharif-2012	Arecanut	Sagar Local	-	Management of root grub in Arecanut	Soil application of Fipronil @ 0.15%.	Kharif-2012	H	M	L	Arecanut
		Areca based cropping system	Rabi-2012	Arecanut	Maidan Local	-	Management of inflorescence die back & caterpillar in arecanut	Spraying with 0.2 % SAAF + Chloropyriphos to inflorescens	Rabi-2012	H	M	L	Arecanut
7.	Spice	Ginger based cropping system	Kharif-12	Ginger	Himachal	-	Management of Rhizome rot complex in Ginger	Rhizome treatment with 0.2 % Curzate M8 + 0.05 % Streptocycline and drenching the same chemicals when diseases noticed	Kharif-12	M	M	L	Maize
8.		Ginger based cropping system	Kharif-12	Ginger	Himachal	-	Disease management in organic ginger cultivation	Rhizome treatment with Trichoderma + Pseudomonas fluorescens @ 10 gm. / kg	Kharif-12	M	M	L	Maize
9.	Fodder Crop	Irrigation	Kharif / Rabi 12	Multi Cut Fodder Sorghum COFS-29	COFS-29	-	Demonstration of Multi Cut Fodder Sorghum COFS-29	Introduction of new fodder Sorghum	Kharif / Rabi 12	M	M	L	Maize

5.B. Results of Frontline Demonstrations

5.B. Results of Frontline Demonstrations-2011-12

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (No. of nuts / palm)				% 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										
Coconut	Root feeding of coconut tonic which contains macro, micro nutrients and growth regulators for increase yield.	Arasikere Tall	-	Irrigated	15	625 palms	101.3	83.00	92.15	83.50	10.35	150	576	426	3.84	136	501	365	3.68

5.B. Results of Frontline Demonstrations-2012-13

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	Demonstration of leaf spot resistant groundnut variety, GPBD-4	GPBD–4	-	Rainfed	5	2	27	22	24.50	22	11.36	18000	85750	67750	4.76	19000	77000	58000	4.05
Sunflower	Integrated Crop Management in sunflower	-	Kaveri, Champa	Rainfed	5	2	13.50	11.5	12.7	11.24	12.98	8000	38100	30100	4.76	8500	33720	25220	3.96
Green Gram	Efficient utilization of residual moisture	KKM-3		Rainfed	2	0.4	6.3	6.1	6.2	4.9	26.5	4000	27900	23900	6.98	4700	22050	17350	4.69

Black Gram	Demonstration of Black Gram variety (Rashmi LBG-625)	Rashmi LBG-625	-	Rainfed	10	2	4.25	3.75	4.00	3.00	33.3	7500	22000	14500	2.93	7000	16500	9500	2.35
Paddy	Foliar nutrition in paddy through water soluble fertilizers	JGL-1978	-	Irrigated	5	1	69.8	64.5	66.42	63.36	4.83	26000	66704	40704	2.56	25000	61032	36032	2.44
Paddy	Seed treatment with Carbendazim @ 4 g/kg, Weedicide : Londax power @ 4kg/ac and Plant protection measures,	MTU-1001	-	Irrigated	10	4	70	54	64.5	59	9.32	36000	77400	37400	2.15	34000	70800	36800	2.08
Maize	Introduction of maize hybrid NAH-1137	-	NAH-1137	Rainfed	12	4.8	75.5	69.6	72.0	68.0	5.88	17000	75200	58200	4.42	18200	66800	48600	3.67
Ragi	Varietal introduction	GPU-66	-	Rainfed	10	4	31.5	28.5	30	24.50	22.44	18000	45000	27000	2.5	15000	30000	15000	2.00
Ginger	Rhizome treatment with 0.2 % Curzate MZ + 0.05 % Streptocycline and drenching the same chemicals when diseases noticed	Himachal	-	Irrigated	5	2	350	240	290	225	28.89	340000	870000	530000	2.55	315000	675000	360000	1.87

Organic Ginger	Rhizome treatment with Trichoderma + Pseudomonas fluorescens @ 10 gm. / kg.	Himachal	-	Irrigated	5	2	265	210	240	185	29.73	325000	720000	395000	2.21	295000	555000	260000	1.88
Pineapple	Sucker treatment with 0.3% Metalaxyl Mz + soil application of Trichoderma enriched neem cake	Queen	-	Irrigated	5	2	545	425	495	340	45.59	185000	594000	409000	3.20	175000	480000	305000	2.80
French Bean	Photo-insensitive, fiberless and High yielding varieties of French bean.	Arka Sharath	-	Irrigated	5	1.50	206	175	190.50	170.20	11.93	56318	190500	134362	3.38	58510	170200	111690	2.90
		Arka Anoop					198.3	169	183.65	165.90	10.67	53816	165240	111424	3.07	58510	170200	111690	2.90
Tomato	High yielding, disease tolerant and good keeping quality F_1hybrid	Arka Samrat	-	Irrigated	4	1.00	823.3	696.6	760.0	655.00	16.03	118690	456000	337310	3.84	126322	393000	266678	3.11
		Arka Rakshak					773.3	653.3	713.3	632.00	12.86	109680	427000	317320	3.89	126322	393000	266678	3.11
Amaranthus	Multicut Amaranthus variety	Arka Suguna	-	Irrigated	4	2.0	287.5	202.5	245	195	25.64	165210	425600	260390	2.57	173180	362350	189170	2.09
Banana	Micro nutrient formulation to enhance the yield.	Elakki Banana	-	Irrigated	5	2.0	350	250	300	255	17.64	145800	541590	395790	3.71	132400	408000	275600	3.08

Mango	Spraying of Mango special @ 0.5% + Carbendazim 0.1 % + Imidacloprid @ 0.05 % and Fruit fly pheromone traps	Alphanso	-	Dry land	10	4	250	150	200	150	25.00	15000	40000	25000	2.60	20000	35000	15000	1.75
Coconut	Root feeding of coconut tonic which contains macro, micro nutrients and growth regulators for increase yield.	Arasikere Tall	-	Irrigated	31	625 palms	135	105	120	102	17.64	125	600	475	4.8	108	510	402	4.7
Arecanut	Management of root grub in Arecanut	Sagar Local	-	Irrigated	10	4	13	7	10	6.75	32.5	65000	120000	55000	1.84	55000	81000	26000	1.47
Arecanut	Management of inflorescence die back & caterpillar in arecanut	Maidan Local	-	Irrigated	10	4	IN PROGRESS												

5.B.2. Livestock and related enterprises

Livestock / Enter-prises	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield				% 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										
Poultry Farming	Introduction of Swarnadhara birds, Brooding management, vaccination, scientific feeding	Swarnadhara	-	Backyard poultry	10 units	500 birds	8th week body weight												
							3.1 kg	1.9 kg	2.2 kg	1.3 kg	69.23	750 / unit	2000/ unit	1250/ unit	2.67	650/ unit	1000/ unit	350/ unit	1.54
Sorghum COFS-29	Demonstration of Multi Cut Fodder Sorghum COFS-29	COFS-29	-	Irrigated	8	0.4 Ha	85 t	60 t	70 t	50 t	20	32000	94720	62720	2.96	29000	68060	39060	2.34
Cattle	Ovu synch protocol in dairy cattle	HF and Jersey Cross	Cross breeds	Dairy	20 animals	20 animals	-	-	Conceived 80 % at 1st AI=12 animals, Conceived at 2nd AI=03 animals, Conceived at 3rd AI=01, Total 16 out of 20	Conceived 35%	45%	22100				12000	Economics to be calculated after collecting data on calving.		

* AI = Artificial Insemination

Data on additional parameters other than yield :

Demonstration of leaf spot resistant variety, GPBD-4		
Parameter with unit	**Demo**	**Local**
Initial nutrient status of soil	pH-6.86, EC-0.018 dS/m, Available N – 198.61 kg/ha, Available P_2O_5 – 46.13 kg/ha, Available K_2O – 174.72 kg/ha	
Disease incidence – Tikka leaf spot (%)	2	18

ICM in Sunflower		
Parameter with unit	**Demo**	**Local**
Initial nutrient status of soil	pH-6.59, EC-0.1018 dS/m, Available N – 179.79 kg/ha, available P_2O_5 – 42.06 kg/ha, Available K_2O – 181.44 kg/ha	
Necrosis Incidence (%)	4.5	12

Short duration green gram variety KKM-3 for rice fallows		
Parameter with unit	**Demo**	**Local**
Initial nutrient status of soil	pH-6.85, EC-0.019 dS/m, Available N – 200.70 kg/ha, Available P_2O_5 – 71.69 kg/ha, Available K_2O – 202.72 kg/ha	

Demonstration of Black Gram variety (Rashmi LBG-625)		
Parameter with unit	**Demo**	**Local**
Crop Duration	70-75 days	80-90 days
Seed rate	25 kg/ha	20 kg/ha

Foliar nutrition in paddy through water soluble fertilizers		
Parameter with unit	**Demo**	**Local**
Initial nutrient status of soil	pH-6.75, EC-0.018 dS/m, Available N– 199.45 kg/ha, Available P_2O_5 – 121.34 kg/ha, Available K_2O –176.06 kg/ha	
Blast disease incidence (%)	8	19

ICM in paddy		
Parameter with unit	**Demo**	**Local**
Sheath blight incidence (%)	12	19
Stem borer incidence (%)	8	11

Demonstration of Maize hybrid, NAH-1137 with Redgram intercropping		
Parameter with unit	**Demo**	**Local**
Initial nutrient status of soil	pH-6.74, EC-0.018 dS/m, Available N– 197.57 kg/ha, Available P_2O_5 – 123.50 kg/ha, Available K_2O–176.96 kg/ha	
Downy mildew incidence (%)	6	14
Percent stem borer infestation	10	22

Varietal introduction of Ragi Variety - GPU-66		
Parameter with unit	**Demo**	**Local**
Disease resistance	Tolerant to Neck blast	Susceptible to Neck blast
Straw quality	Good	Moderate

Management of Rhizome rot complex in Ginger		
Parameter with unit	**Demo**	**Local**
Rhizome rot incidence (%)	21.5	44.5

Disease management in organic ginger cultivation		
Parameter with unit	**Demo**	**Local**
Rhizome rot incidence (%)	34	53.5

Photo-insensitive, fiberless and High yielding varieties of French bean			
Parameter with unit	**Variety**	**Demo**	**Local**
Duration (days)	**Arka Sharath**	70	85-90
Fiber content		Fiber less	Fibrous
Beans type		Ring	Flat
Duration (days)	**Arka Anoop**	80	85-90
Fiber content		Fiber less	Fibrous
Beans type		Flat	Flat

High yielding, disease tolerant and good keeping quality F_1hybrid Tomato			
Parameter with unit	**Hybrid**	**Demo**	**Local**
Duration (days)	Arka Samrat	130-140	135-145
Disease resistance		Resistant to 3 diseases viz., tomato leaf curl virus, bacterial wilt and early blight	Not resistant
Fruit weight (g)		100	85-90
Keeping quality (days)		8-10	7-8
Duration (days)	Arka Samrat	140	135-145
Disease resistance		Resistant to 3 diseases viz., tomato leaf curl virus, bacterial wilt and early blight	Not resistant
Fruit weight (g)		90	85-90
Keeping quality (days)		8-10	7-8

Introduction of multi cut amaranth variety Arka Suguna		
Parameter with unit	**Demo**	**Local**
Duration (days)	90	80
Leaves shape	Broad	Narrow
Tolerant to White Rust	Tolerant	Susceptable
No. of harvests	5-6	4-5

Yield enhancement in banana through foliar application of micronutrients		
Parameter with unit	**Demo**	**Local**
Finger Cracking (%)	2.02	8.23
Finger shape	Round	Less round
Brightness of bunch	More bright	Less bright

Integrated management of heart rot disease in pineapple		
Parameter with unit	**Demo**	**Local**
Heart rot incidence (%)	32	46

ICM in Mango		
Parameter with unit	**Demo**	**Local**
Powdery Mildew Incidence (%)	6	13
Fruit fly trapped per trap	13	-

Management of root grub in Arecanut		
Parameter with unit	**Demo**	**Local**
Average no. of grubs / plant	2.5	7.0

Management of inflorescence die back & caterpillar in arecanut		
Parameter with unit	**Demo**	**Local**
No. of dried inflorescens / palm	2	3.5
Disease incidence (%)	12.5	35.00

Introduction of Swarnadhara bird in Malnad area		
Parameter with unit	**Demo**	**Local**
Incidence of disease (age)	-	Ranikhet at 4th Week
Mortality (%)	5	42

Demonstration of Multicut fodder Sorghum COFS-29		
Parameter with unit	**Demo**	**Local**
Average Milk yield (3 months lactation period)	12 ltr/day/animal	10 ltr/day/animal
Cost of concentrate feed (3 months lactation period)	Rs. 48/day / animal	Rs. 56/day / animal
Palatability	Good compared to local	Moderate

5.B.3. Fisheries : NIL

5.B.4. Other enterprises : NIL

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

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

Sl. No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	5	277	
2	Farmers Training	61	1865	
3	Media coverage	33		
4	Training for extension functionaries	-	-	-
5	Others (Please specify) (1) Seminar on Improved production technology of turmeric	1	25	

PART VI – DEMONSTRATIONS ON CROP HYBRIDS : NIL

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	3	116	28	144	29	4	33	145	32	177
Micro Irrigation/Irrigation										
Seed production	1	13	6	19				13	6	19
Nursery management										
Integrated Crop Management	7	149	45	194	51	31	82	200	76	276
Soil and Water Conservation	1	20	1	21	4		4	24	1	25
Integrated Nutrient Management										
Production of organic inputs										
Others (Pl. specify)										
Demonstration on seed cum fertilizer drill	1	25		25	8	15	23	33	15	48
Safe use of pesticides	1	28	10	38	20	10	30	48	20	68
Training on Environment and agriculture for farm women and farm men										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	3	62	60	122	8	18	26	70	78	148
Off-season vegetables										

Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (Pl. specify)										
High-Tech Horticulture	1	34	5	39	13	3	16	47	8	55
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology	1	18	5	23	5	3	8	23	8	31
Processing and value addition										
Others (Pl. specify)										

e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (Pl. specify)										
f) Spices										
Production and Management technology	1	40	1	41	9		9	49	1	50
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) Crop insurance in agriculture and Horticulture crops										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	1	18	9	27		4	4	18	13	31
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)										
Farmer facilitator training under Bhoo Chetana										
Livestock Production and Management										
Dairy Management	1	21	10	31	71		71	92	10	102

Poultry Management	2	10	80	90		19	19	10	99	109
Piggery Management										
Rabbit Management										
Animal Nutrition Management- tech week										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (Pl. specify) Entrepreneurship development for SHG groups										
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										
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)										
Plant Protection										
Integrated Pest Management	1	25	15	40	10		10	35	15	50
Integrated Disease Management	2	40	15	55	20	5	25	60	20	80
Bio-control of pests and diseases	3	93	1	94	18		18	111	1	112
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										
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	1	10	8	18			0	10	8	18
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (Pl. specify)										
Orientation about KVK	2	40	35	75	15	25	40	55	60	115
Participatory Rural Appraisal and Documentation	1	15	11	26	7	4	11	22	15	37
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**34**	**777**	**345**	**1122**	**288**	**141**	**429**	**1065**	**486**	**1551**

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	2	37	6	43	8	1	9	45	7	52
Crop Diversification										
Integrated Farming	1	18	20	38	20	5	25	38	25	63
Micro Irrigation/Irrigation										
Seed production	1	25	5	30	5	1	6	30	6	36
Nursery management										
Integrated Crop Management	8	214	44	258	109	32	141	323	76	399
Soil and Water Conservation										
Integrated Nutrient Management	2	69		69	20		20	89		89
Production of organic inputs	1	16		16				16		16
Others (Pl. specify)										
Safe use of pesticide	1	20	10	30				20	10	30
Horticulture				0						
a) Vegetable Crops				0						
Production of low value and high volume crop	4	98	9	107	71	22	93	169	31	200
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										
Cultivation of Fruit	6	133	5	138	57		57	190	5	195
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
Demonstration of use of pheromone traps in mango	1	20		20				20	0	20
c) Ornamental Plants										
Nursery Management										
Management of potted plants	2	65	5	70	20	5	25	85	10	95
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology	7	190	4	194	106	4	110	296	8	304
Processing and value addition										
Others (Pl. specify)										
e) Tuber crops										
Production and Management technology	1	40		40	17		17	57	0	57
Processing and value addition										
Others (Pl. specify)										

f) Spices										
Production and Management technology	3	172	5	177	39	6	45	211	11	222
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) Crop insurance in agriculture and Horticulture crops										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	2	38	45	83	17	22	39	55	67	122
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	10		10	3		3	13	0	13
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	8	28	36	10	2	12	18	30	48
Others (Pl. specify)										
Livestock Production and Management										
Dairy Management	6	120	38	158	12	21	33	132	59	191
Poultry Management	3	42	19	61	68	25	93	110	44	154
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management	4	66	17	83	43	18	61	109	35	144

Feed and Fodder technology	1	16	4	20		2	2	16	6	22
Production of quality animal products										
Others (Pl. specify)										
FFS on Clean Milk Production	1	26	3	29		1	1	26	4	30
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	5	120	6	126	18	14	32	138	20	158
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)										
Demonstration on paddy transplanter										
Plant Protection										
Integrated Pest Management	6	167	47	214	93	29	122	260	76	336
Integrated Disease Management	11	385	133	518	154	80	234	539	213	752
Bio-control of pests and diseases	1	22		22	4		4	26	0	26
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	2	34	13	47	16	4	20	50	17	67
Vermi-compost production	1	40	5	45	21		21	61	5	66
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	3	107	33	140	24	20	44	131	53	184
Apiculture										
Others (Pl. specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	20	10	30	10		10	30	10	40
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (Pl. specify)										
Formation of Commodity Association	3	32	26	58	76	34	110	108	60	168
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**92**	**2370**	**540**	**2910**	**1041**	**348**	**1389**	**3411**	**888**	**4299**

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
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming	1	7	4	11	4	9	13	11	13	24
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (Pl. specify)										
Safe use of pesticide										
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										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
Demonstration of use of pheromone traps in mango										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology										
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										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (Pl. specify) Crop insurance in agriculture and Horticulture crops										
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)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										

Feed and Fodder technology										
Production of quality animal products										
Others (Pl. specify)										
FFS on Clean Milk Production										
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										
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)										
Demonstration on paddy transplanter										
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (Pl. specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (Pl. specify)										
Production of Inputs at site										
Seed Production										
Planting material production										

Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
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)										
Formation of Commodity Association										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**1**	**7**	**4**	**11**	**4**	**9**	**13**	**11**	**13**	**24**

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

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	1	25		25				25		25
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization	1	15	11	26	7	4	11	22	15	37
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Organic Farming Training to Certification Agencies / Service Providers	1	16		16				16		16
High-Tech Horticulture	1	34	5	39	13	3	16	47	8	55
TOTAL	**4**	**90**	**16**	**106**	**20**	**7**	**27**	**110**	**23**	**133**

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

7.G. Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			M	F	TOT	M	F	TOT	M	F	TOT
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.	**FOCT Coconut Climbing and Plant Protection**	2	25	2	27	11	2	13	36	4	40
	Total	2	25	2	27	11	2	13	36	4	40

Details of sponsoring agencies involved : Coconut Development Board, Cochin

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

Sl. 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)										
4.	**Income generation activities**										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts										
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										

4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (Pl. specify)										
5	**Agricultural Extension**										
5.a.	Capacity building and group dynamics										
5.b.	**Agri. Engineering & Plant Protection**										
	FOCT Coconut Climbing and Plant Protection	2	25	2	27	11	2	13	36	4	40
	GRAND TOTAL	**2**	**25**	**2**	**27**	**11**	**2**	**13**	**36**	**4**	**40**

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	121	41	162	81	34	115	2	-	2
Kisan Mela	3	468	133	601	131	54	185	12	3	15
Exhibition	1	250	75	325	50	25	75	10	1	11
Film Show	27	629	250	879	95	65	160	-	-	-
Method Demonstrations	4	48	12	60	10	3	13	-	-	-
Farmers Seminar	3	280	120	400	55	15	70	7	2	9
Workshop	2	85	15	100	16	3	19	1	1	2
Group meetings	16	120	55	175	16	4	20	1	-	1
Lectures delivered as resource persons	58	4392	759	5151	955	245	1200	-	-	-
Newspaper coverage	33									
Radio talks	8									
Popular articles	2									
Extension Literature	12									

Advisory Services	210							20	3	23
Scientists visit to farmers field	41							12	-	12
Farmers visit to KVK	221							-	-	-
Diagnostic visits	41							5	-	5
Exposure visits	3	33	27	60	10	2	12	-	-	-
Any Other (Specify)										
Celebration of important days (specify)										
World Food Day	1	40	5	45	21		21	12	1	13
Women in Agriculture day	1	15	70	85	5	11	16	15	3	18
Kisan Day	1	53	5	58	25	2	27	15	3	18
TOTAL	**693**	**6534**	**1567**	**8101**	**1470**	**463**	**1933**	**112**	**17**	**129**

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals	Ragi	GPU-66	-	7.00	16,100.00	54
Oilseeds	Groundnut	GPBD-4	-	10.00	73,000.00	93
Pulses	Green Gram	KKM-3	-	0.08	7,000.00	
	Black Gram	Rashmi LBJ-625	-	0.06	600.00	
	Red Gram	BRG-1, BRG-2	-	2.00	300.00	
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (Specify) Green Manure	Diancha			0.8	3,200.00	
TOTAL				**19.94**	**1,00,200.00**	**147**

9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety	Hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal seedlings	Mohini		5728	1,603.00	3
	Chilli seedlings	Brahma, Sitara		14928	4,180.00	2
	Drumstick	PKM-1, Bhagya		3135	31,750.00	24
	Tomato	JK seeds		4005	1,122.00	1
	Curry leaf	Seedling Origin		3	30.00	1
Fruits	Papaya Seedlings	Taiwan-786, Surya		13064	1,52,668.00	26
	Sapota grafts	Cricket ball		395	15,800.00	13
	Lime seedlings	Seedling Origin		901	9,010.00	15
	Mango grafts	Alphanso		669	26,760.00	13
Ornamental plants	Chrysunthemum	Pot - mum		3	30.00	1
	Hibiscus cuttings (Rooted)			2	20.00	1
Medicinal and Aromatic	Aloe			1	10.00	1
Plantation	Cashew	Ullal-1		3	120.00	2
Spices						
Tuber						
Fodder crop saplings						
Forest Species	Tamarind grafts			3	75.00	1
Others						
TOTAL				**42840**	**2,43,178.00**	**104**

9.C. Production of Bio-Products : NIL

9.D. Production of livestock materials : NIL

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 : 2006
Periodicity : Quarterly
Number of copies distributed etc. : 14000

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports	EPCB, Contingency Crop Planning, SAC, FDC, Award, QRT, EEC, RKVY etc.,	Programme Co-ordinator and Subject Matter Specialists of KVK, Shimoga	
News letters	Spandana – Quarterly Farmers' News Letter	Programme Co-ordinator and Subject Matter Specialists of KVK	1500
Technical bulletins	Apiculture	Dr. B.C. Hanumanthaswamy, Dr. K. R. Shreenivasa, Dr. Nagarajappa Adivappar Dr. T.H.Gowda	500
Popular articles		Dr. K. R. Shreenivasa,	
	Drumstick Cultivation	Dr. Nagarajappa Adivappar	
Extension literature	1) Drumstick cultivation	Dr. Nagarajappa Adivappar Dr. B.C. Hanumanthaswamy, Dr. T.H.Gowda	
	2) KVK Introduction	Programme Co-ordinator and All SMS	
	3) Integrated Farming System	Mr. Basavaraja Beerannavar Dr. B.C. Hanumanthaswamy Nr. Nagaraja R	
	4) Plant Protection in Banana	Dr. K. R. Shreenivasa, Dr. B.C. Hanumanthaswamy Dr. Nagarajappa Adivappar	
	5) Role of Honey Bees in crop production	Dr. B.C. Hanumanthaswamy, Dr. K. R. Shreenivasa, Mr. Basavaraja Beerannavar, Sri Nagaraja R,	
Others (Pl. specify)			
Abstracts			
TOTAL			

10.B. Details of Electronic Media Produced : NIL

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

The Broad outline for the case study may be :

Title : **Integrated management of Rhizome borne diseases in banana- a CASE STUDY**

Background : Banana is one of the important fruit crop of Shimoga District. Which is cultivated in an area of 5305 ha. with a production of 125750 tons during 2008-09. This crop is either grown as a sole crop is a mixed crop under younger arecanut gardens are even in older gardens under traditional farming. The planting material used for banana planting by 80% of the farmers in the District are the suckers / rhizomes obtained by nearby gardens or from any sources. The major constrains for banana cultivation is the diseases and the pest which are either sucker / rhizome borne or from soil viz., the panama disease, burrowing nematode, bunchy top disease, root knot nematode while pest like rhizome weevil / pseudo stem weevil.

It is evident from the past history that the ancient and most tasty banana cultivar Nanjanagood Rasabale which was devastated because of the Rhizome borne disease complex. In order to over cum the rhizome borne disease complex management the tissue culture banana were developed but these cultivars are available only for either robusta / Grand-9 cultivars but 60% of the banana growers and consumers prefer either Rasabale or Yelakki bale, but there no tissue culture materials available as on now on commercial basis however the trials under pipeline.

Interventions : In order to manage this problem an holistic approach of managing these diseases and pest problem were addressed by conducting Front line demonstration in 10 farmers field during 2008-09 and 2009-10 by krishi vigyan Kendra Shimoga in major banana growing areas of the district . The technology was demonstrated through method demonstration , training both on and off campus programmes and other extension activities to spread the technology.

Process /Technology : The technology demonstrated was selection of disease free planting material, opening of banana pits before one month of planting, soil application of Trichoderma enriched FYM/compost , application of 500 gram neemcake per plant , paring and pralinage of sucker, Dipping of the pared suckers in 0.2% Carbendazim and application of 20 gram Carbofuran granules per plant during planting.

Impact

Horizontal Spread : After the successful conduct of the front line demonstration in 10 farmers' field during 2008-09 the farmers could harvest 28.5 t /ha fruit yield in demonstrated plot with a BC ratio of 1:3.01 besides reduction in rhizome borne disease incidence of 23. % and 10% sigatoka severity, compared to farmer practice where they could harvest 19.5 t/ha fruit yield with BC ratio 1:1.84 but rhizome borne disease incidence was 52% and 22% sigatoka severity. Further, the famers could able to raise the ratoon crop in the next with less disease incidence and good harvest.

Similarly 10 more FLD were conducted during 2009-10 in other farmers field to further spread the technology in the district .As a result of successful conduct of the FLD the banana growers in the district could able to manage this problem one such farmer who adapted this technology and harnessed the result is sri Ranganath, sominakoppa village of Shimoga taluk. Now the technology is being spread to other farmers by following different extension methodologies by involving department of horticulture and other agencies

Economic gains : The banana growers in the District could able to reduce the cost of plant protection upto Rs.5000/- per ha. besides the cost on the management of the disease in ratoon crop too.
The suckers grown by the crop are free from the disease so that the next crop could be saved.

Employment Generation :

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

Success Story :

Up scaling innovative practice in paddy cultivation

Paddy is one of the important food crops grown in Melinahanasavadi village of Shimoga taluk in Tunga command area. The farmers in these villages have been following time tested methods of growing crops to accomplish the challenging task of feeding themselves. Paddy is the major crop occupying 90% of the total cultivable area in the village.

Farmers have been facing problems like high incidence of pests and diseases, high cost of cultivation, scarcity of labourers and limited labour available are also to be paid higher wages as this villages are located nearer to Shimoga city (5 kms). Resulting in poor yields and lesser marginal returns to the farmers. They were however living with these problems and not knowing how to address them. KVK, Shimoga was very keen to address this issue by promoting a integrated crop mg practices in paddy by using lesser resources. **The beginning** KVK conducted baseline survey in these villages, Gram sabhas were conducted in each village, followed by PRA for understanding village situation and identifying the problems jointly with communities. KVK identified large scope for improvement in paddy farming and initiated good agricultural practices through a structured capacity building process with groups of farmers. KVK has a firm conviction that, farmers capacity building through participatory approaches is the most effective way to address problems in farming. It is necessary to widen the farmers perception, deepen their insights, modify their attitudes and upgrade their management abilities. For this purpose, KVK has been effectively using. Farmer Field School (FFS) as a methodology of building capacities of farmers. Farmer interest group (Volunteers) with 30 interested farmers in this village was formed in the beginning. Season long FFS was organized in the village during the cropping season from May to November, 2010. Group members were very enthusiastic to learn about scientific paddy cultivation by discovering learning process in FFS made. In different sessions, group members were involved in different short studies, which made them to learn by doing and experiencing. In each session groups actively participated and conducted different short studies as listed below which made them confident. **Learning process** Group of paddy farmer (30) will learn about IPM approaches from seed to crop harvest. FFS conducted in Melinahanasavadi village of Shimoga District. Small sub groups take IPM practices conduct RRA, take observations and analyse the incidence of pest and disease. The priority activities focused in FFS includes ;• Summer deep ploughing and importance of green leaf manuring • Selection of healthy and disease free seeds and seed treatment practices. • Maintenance of soil fertility by use of balanced nutrients for management of pest and diseases. • Method demonstration on mat nursery beds and nursery diseases• Method demonstration on machine transplanting of paddy seedlings• Role of weeds and clean sanitation measures for control of pest and disease. • Preparation of nursery beds and nursery diseases • Better water management practices• Demonstration on identification nutrient deficiency and pest & disease symptoms • Role of botanicals and traps for IPM and plant protection chemicals safe use, dosage and time of application • Harvest and post harvest losses and their management

During the end of FFS 30 farmers, involved in this FFS appreciated this innovative method of rice cultivation Significant changes were observed, such as 42% labour saving with respect to transplanting reduction in seed rate 30-35 kg/ha as compared to 60-65 kg/ha in their traditional practice and maintaining adequate plant population as per recommendation, transplanting of 18 days old seedlings raised on mat nursery through machine transplanter and use of Cono Rotary Weeder for effective weed control and root aeration. Substantial increase in the number of tillers/m2 (456/m2) with lesser or no incidence of BPH (6%) which otherwise was a major problem (32%) prevailed during previous season. Which was also due to balanced dose of fertilizer application as indiscriminate use of chemical fertilizer was also one of the reasons for severe occurrence of BPH during last season. Finally yields were enhanced by 16% (65 q/ha as against 56 q/ha compared to farmer practice). Higher yield is attributed to significant increase in number of tillers (26% higher) more particularly the productive tillers. The FFS has played a critical role in motivating farmers to adopt ICM practices in paddy in a short time. Moreover, it has enhanced the experimenting capacity of farmers leading to innovations. With good results in the very first season ICM practice in paddy has shown the potential for wider spread in the region. **Scaling up of FFS** For wider scaling, meetings and field days were organized. The results of the efforts made were discussed during these events. Farmers from the region participated and got to know the good impacts of following ICM practices in paddy.

Through the events helped in building awareness among a large no of farmers about this practice but, yet it did not help in making them practice. Machine transplanting being a new method of paddy cultivation farmers were very confident of practicing it as they learnt all the skills involved with respect to different operations. Only bottle neck was with respect to cost of machine transplantor. A planned effort and continuous support was therefore required to motivate farmers to follow this innovative practice. In summer season of 2011, KVK, Shimoga with the support of NFSM programme for paddy crop operated by Department of Agriculture planned a scaling up strategy to reach 500 farmers (215 acre). Spread across 15 villages. This programme aimed at sensitizing not only the farmers but also all the other promoters and supporters of ICM practices in the district. Wherein with the support from Department of Agriculture, farmers interest group of Melinahanasavadi village was sanctioned with one machine transplanter and one SHG of that village has come forward for raising and supply of mat nursery needed for the entire village.

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)

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

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

- Training courses will be decided based on the feed back from the field extension workers of agriculture / Horticulture / animal husbandry / NGOs and allied departments during bimonthly workshop / meetings and also based on the feed back collected during the field visit by KVK scientists.
- Based on the suggestions by Scientific Advisory Committee
- Based on Ex-trainees' suggestion
- Based on the SWOT / thrust areas identified during action plan preparation

10.G. Field activities

i. Number of villages adopted : 10 villages
ii. No. of farm families selected : 1500 farm families
iii. No. of survey/PRA conducted : 8

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
22	Chemicals		30,055
23	Glassware		1,35,417

Details of samples analyzed so far since establishment of SWTL: Establishment year 2006

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	2455	1532	783	77,010/-
Water Samples	238			15,760/-
Plant samples	68			7,940/-
Manure samples				
Others (specify)	-	-	-	-
Total	**2761**	**1532**	**783**	**1,00,710/-**

Details of samples analyzed during the 2012-13:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	599	307	175	17,970/-
Water Samples	85			5,100/-
Plant samples	12			1,440/-
Manure samples				
Others (specify)				
Total	**696**	**307**	**175**	**24,510/-**

10.I. Technology Week celebration during 2012-13 Yes/No, If Yes

Period of observing Technology Week: From : 19-09-2012 to 23-09-2012
Total number of farmers visited : 1084
Total number of agencies involved : 6
Number of demonstrations visited by the farmers within KVK campus : 15

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Ghosties	-	-	
Lectures organized	11	1084	Paddy, maize, groundnut, cotton, arecanut, ginger, banana, flower crops, dairy, poultry, value addition.
Exhibition	01		
Film show	05		
Fair	-	-	
Farm Visit	05	1084	Maize, Hebbal Avare, Sunflower, chilli, Cotton, groundnut, ragi, papaya, drumstick, bird of paradise, cowpea, redgram, azolla, quails, CO3 fodder crop, poultry incubator, farm machineries, implements, sprayers,
Diagnostic Practical	02	102	Soil and Water testing laboratory, Pest / Disease diagnostic laboratory,
Supply of Literature (No.)	03	-	Spandana, Improved production technology of Ginger and coconut,
Supply of Seed (q)	25 kg	12	Ragi seeds (GPU – 28, 45 & 48)
Supply of Planting materials (No.)	-	-	Drumstick, papaya,
Bio Product supply (Kg)	-	-	-
Bio Fertilizers (q)	-	-	-
Supply of fingerlings	-	-	-
Supply of Livestock specimen (No.)	-	-	-
Total number of farmers visited the technology week	-	1084	-

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

PART XI. IMPACT

11.A. Impact of KVK activities (Not to be restricted for reporting period).

Sl No.	Name of specific technology/skill transferred	Partici pants	% of adoption	Change in income (Rs.)	
				Before	After

11.B. Cases of large scale adoption
(Please furnish detailed information for each case) :

E) Use of banana special as a foliar spray for higher yield

Shimoga district is a bestowed with ideal conditions for horticultural crops. Banana occupied 10% area of the total horticultural crops in the district. It is grown as a sole crop as well as intercrop in arecanut garden. Banana responds well to good cultural practices. Comparatively lower yields are registered due to improper nutrient management. By realizing the thrust area KVK conducted on farm trials from 2008-10 on nutrient management of banana including foliar spray of 'Banana Special'. Banana Special is a micro nutrient formulation released by Indian Institute of Horticulture Research (IIHR), Bangalore. In on-farm trials four options *viz.,* farmer's practice, recommended practice of UAS, Bangalore, two alternate practices with slight modification in recommended practice were included and important observations bunch weight, percent finger cracking and yield were recorded. By spraying 0.5% banana special at 5,6,7,8 months after planting and two sprays on bunches has registered 10-20 % higher yield. The other beneficial effects are negligible finger cracking, higher bunch weight and higher B:C compared to other options in the trial.

Impact: Due to the constant effort by the KVK this refined practice under OFT has been already spread to 15% of the banana growing area for higher yields. On an average net profit of Rs. 10000-12000 / ha can be earned. The details of the OFT are given here under.

Technology Assessed	2008-09				2009-10				2010-11			
	Bunch weight (kg)	Finger cracking (%)	Yield (t/ha)	B:C	Bunch weight (kg)	Finger cracking (%)	Yield (t/ha)	B:C	Bunch weight (kg)	Finger cracking (%)	Yield (t/ha)	B:C
Tech.- 1	6.02	10-12	12.39	1.14	9.41	10.5-12.5	23.52	1.55	8.05	6.81	24.95	1.95
Tech.- 2	9.69	8.0-9.6	21.56	2.01	13.07	8-10	32.69	2.09	13.14	4.39	40.73	3.01
Tech.- 3	12.90	2.0-3.1	26.70	2.42	13.52	5.7.5	33.80	2.12	14.62	1.89	41.91	2.98
Tech.- 4	14.01	1.0-1.08	30.17	2.65	15.90	1.1.10	39.75	2.36	13.52	2.01	45.32	3.18

Note:

Technology 1 : 150:75:150 NPK at 2 splits at the time of planting and 3 months after planting + recommended FYM

Technology 2 : Recommended NPK + 4 splits + recommended FYM

Technology 3 : Recommended NPK + recommended FYM +application of 2, 4-D at 20 ppm at full flowering stage **/** use of 3%.Panchagavya

Technology 4 : Recommended NPK + recommended FYM +Banana special 0.5 % foliar spray at 5, 6, 7, 8 months of the planting and 2 sprays on bunch

2) MUSHROOM - Unleashing Enterprise

Background :

- Inefficient use of abundant crop residues from paddy, maize, sugarcane, arecanut and coconut.
- Crop residues are inputs for mushroom enterprise.

Intervention by KVK :

- Trained *384 unemployeed youth through 5 on campus and 12 off campus trainings.*
- *Skill transformation on mushroom production techniques.*
- *Educated to use mushroom substates to enrich compost.*
- *Emphasis on value addition / marketing.*

Output :

- 146 participants growing and using mushroom as component in their daily diet.
- 5 entrepreneurs started mushroom production as an unleashing enterprise.

Successful entrepreneur :

Mr. Gangadhar N. H., Kumbara Gundi, Shimoga

- Selling 5 kgs. mushroom per day @ Rs.75/- per kg.
- Selling 3 kgs. of spwan @ Rs.60/- per kg.
- Daily income : Rs.550/-
- Monthly net income : Rs.16,500/-
- Developed marketing linkages with local market, HOPCOMS & super market in the dist.

Outcome :

- Demand is increased for training programme on mushroom production.
- Each entrepreneur has provided opportunity to 2 labours in each production unit.
- Demand for spawn is increased from 4-5 kgs. to 20-25 kgs. per month
- Need is cattered through the mushroom unit in the campus.

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

- NIL –

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.	Voluntary organization	- 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.	ATMA	Training Programmes, demonstration, field days
19.	AREF – Women and Child development, GOK	Training Programmes
20.	NHM	Financial assistance for construction of model nursery
21.	NFDB	Financial assistance for conducting of training programme
22.	Water technology Centre, Bhubaneshwar	Training Programme and demonstration unit
23.	CBTMPCS,GKVK,Bangalore	Training Programme
24.	IGMR,Hyderbad	Training Programme

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Integrated Farming System Demonstration	April, 2011	Government of Karnataka	1,00,00,000
FOCT Coconut Climbing and Plant Protection	March, 2013	Coconut Development Board, R.O. Bangalore	**1,44,000.00**

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

Coordination activities between KVK and ATMA during 2012-13

Sl. No.	Programme	Particu lars	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	Value addition, IFS	4	-	-
04	Demonstrations				
05	Extension Programmes				
	Kisan Mela	District Krishi Mela	-	1	-
	Technology Week	-	-	-	-
	Exposure visit	-	-	-	-
	Exhibition	-	-	-	-
	Soil health camps	-	-	-	-
	Animal Health Campaigns	-	-	-	-
	Others (Pl. specify)	Post Graduate Diploma in Agricultural Extension Management	1	-	4 scientists from KVK are pursuing PGDAEM under ATMA from MANAGE, Hyderabad
06	Publications	-	-	-	-
	Video Films	-	-	-	-
	Books	-	-	-	-
	Extension Literature	-	-	-	-
	Pamphlets	-	-	-	-
	Others (Pl. specify)	-	-	-	-
	Kisan Ghosti				
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

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

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 2012			
May-2012			
June -2012			
July -2012	8	250	
August-2012	8	200	
September -2012	0	0	
October -2012	6	240	
November-2012	9	234	
December-2012	14	234	
January 2013	5	230	
February -2013	3	117	
March-2013	11	249	

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.	Cost of inputs	Gross income	
1.									

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.	Cost of inputs	Gross income	
Cereals	29-07-2012	28-10-2012							
Maize			0.15	Nityashree, Hema	Bulk	500 kg	4,750.00	6,750.00	
Ragi	04-07-2012	19-11-2012	0.36	ML 365, GPU-48	Bulk/seed	700 kg	1,500.00	14,000.00	
Oilseeds	08-.7-2012	20-10-2012	1.8	GPBD-4, TMV-2	Seeds	923 kg	35,000.00	75,686.00	
Groundnut									
Cotton									
Floriculture									
Fruits									
Sapota grafts	-	-	-	Cricket ball	Grafts	295	5,900.00	11,800.00	
Lime seedlings	-	-	-		Seedlings	901	3,604.00	9,010.00	
Papaya	-	-	-	Taiwan 786 + Arka Surya	Seedlings	12422	57,985.00	1,44,964.00	
Vegetables : Drumstick				PKM-1	Seedlings	2933	11,892.00	29,730.00	
Chilli	-	-	-	Sitara + Brahma	Seedlings	14928	2,508.00	4,180.00	
Brinjal seedlings	-	-	-	Mohini + Arka Anand	Seedlings	5728	1,238.00	2,064.00	
Green Chilli									
Dry Chilli									
Redgram,		05-12-2012	0.5	BRG-1 and BRG-2	Bulk	200 kg	4,500.00	9,500.00	
Black Gram	01-07-2012		0.05	Rashmi	Bulk	8 kg	-	450.00	
Green Gram	01-07-2012		0.05	KKM-3	Bulk	8 kg	-	450.00	

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

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

13.E. Utilization of hostel facilities : Farmers hostel was completed during September, 2012 and is utilized during on-campus training.

13.F. Database management : Managing the data in MS-Office

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

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					-	-
With KVK	Canara Bank	S.M.Circle, Shimoga	524	Programme Co-ordinator	32710	-	CNRB 0000524
IFSD	Canara Bank	S.M.Circle, Shimoga	524	Programme Co-ordinator	44649		CNRB 0000524

14.B. Utilization of KVK funds during the year 2012-13 (Rs. in lakh)

Sl. No.	Particulars	Sanctioned	Expenditure	Balance
A. Recurring Contingencies				
1	**Pay & Allowances**	4800000.00	5672552.00	(-) 872552.00
2	**Traveling allowances**	120000.00	128756.00	(-) 8756.00
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	260000.00	259993.00	07.00
B	POL, repair of vehicles, tractor and equipments	160000.00	159978.00	22.00
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	60000.00	59950.00	50.00
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	70000.00	39948.00	52.00
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	285000.00	284949.00	51.00
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	50000.00	49995.00	5.00
G	Training of extension functionaries	18000.00	18131.00	(-) 131.00
H	Extension activities	25000.00	24997.00	3.00
I	Farmers Field School	25000.00	25000.00	0
J	Maintenance of buildings	-		-
K	Establishment of Soil, Plant & Water Testing Laboratory	-		-
L	Library	7000.00	4868.00	2132.00
	TOTAL (A)	**5850000.00**	**1851430.00**	**(-) 879117.00**
B. Non-Recurring Contingencies				
1	**Equipments & furniture**			
a	Tractor with equipments			
b	Generator			
c	EPABX system			
2	**Works**			
a.	Administrative Building			
b.	Farmers hostel (Final installment)	3333000.00		
3	**Library** (Purchase of assets like books & journals back volume)			
4.	**Vehicle**			
	TOTAL (B)	**3333000.00**		
C. REVOLVING FUND (Sanctioned on 2005)		**100000 (Sanctioned on 21-04-2005)**		
GRAND TOTAL (A+B+C)		**9183000.00**	**1851430.00**	**(-) 879117.00**

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 2010 to March 2011	1.87	1.34	0.83	2.38
April 2011 to March 2012	2.39	2.01	1.07	3.33
April 2012 to March 2013	3.33	4.79	3.34	4.78

15. Details of HRD activities attended by KVK staff during 2012-13

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Mr. Basavaraja Beerannavar	SMS (Agril. Extension)	Process documentation	MANAGE, Hyderabad	5 days (25.06.2012 to 29.06.2012)
Smt. B.S.Geetha	Programme Assistant (Computer)	Web designing	APTECH Computer Centre, Near CBI, Ganganagar, Bangalore-560 024	5 days (07-08-2012 to 11-08-2012)
Dr. Nagarajappa Adivappar	SMS (Horticulture)	Protected Cultivation	Hi-tech Horticulture Unit, UAS, Dharwad	21 days (04-12-2012 to 24-12-2012)
Dr. Ashok M.	SMS (Animal Science)	Intensive and semi intensive sheep rearing as a source of Rural employment & livelihood security	Veterinary college, Shimoga, Karnataka	8 days (10-12-2012 to 17-12-2012)
Mr. Basavaraja Beerannavar	SMS (Agril. Extension)	Millet Workshop	Centre for excellence on value addition and processing	2 days (26-12-2012 to 27-12-2012)
Mr. Basavaraja Beerannavar	SMS (Agril. Extension)	Orientation training programme on "Technology Assessment Refinement and Demonstration"	Krishi Vigyana Kendra, Tuticorin, Tamil Nadu	4 days (08.01.2013 to 11.01.2013)
Dr. B.C. Hanumanthaswamy	SMS (SS & AC)	Management development workshop on information and communication technologies for Farm women	NAARM, Hyderabad	7 days (18-01-2013 to 24-01-2013)
Dr. K. R. Shreenivasa	SMS (Plant Pathology)	Managing Plant Microbe Interactions for the Management of Soil-borne Plant Pathogens	Centre of Advanced Faculty Training in Plant Pathology G.B. Pant University of Agriculture & Technology, Pantnagar-263 145 (Dist. U.S.Nagar)	21 days (22-01-2013 to 11-02-2013)

Mr. Basavaraja Beerannavar	SMS (Agril. Extension)	Participatory impact monitoring and assessment (PIMA)	MIRADA KVK, Arepalyam, Erode District	6 days (28-01-2013 to 02-02-2013)
Smt. Sujatha K.	Accountant	Service and account matters	Staff Training University, UAS, Hebbal, Bangalore	3 days (11-02-2013 to 13-02-2013)

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

16. a) Farmers' field School :

Title : Clean Milk Production

Place : Maleshankara, Shimoga Taluk.

No. of farmers : 30

Topics Covered :

Group discussion, Introduction about FFS and KVK activities, clean milk production, infection disease of dairy animals, Mastitis and their control, control of diseases, nutritive value of milk, profitable dairy farming, scientific feeding, vaccination in dairy animals and demonstration, fodder cultivation technology, project report, farmers' scientists' interaction on soil test, disease of agricultural and horticultural crops, horticultural crops production.

SUMMARY FOR 2012-13

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Integrated Nutrient Management	Paddy	Assessment on use of boron in Paddy	5	5	1.0
	Maize	Assessment on foliar nutrition of Maize through maize maxim	5	5	1.0
	Coconut	Root feeding of Coconut to enhance palm yield	31	31	625 palms
	Banana	Yield enhancement in Banana through foliar application of micro nutrients.	5	5	2.0
Varietal Evaluation	Ginger	Introduction of disease tolerant and high yielding ginger varieties	4	4	0.4
	Turmeric	Introduction of high yielding varieties of turmeric	2	2	0.4
	French Bean	Introduction of high yielding French bean variety Arka Sharath and Arka Anoop	5	5	1.5
	Tomato	Introduction of high yielding F1 hybrid Arka Samrat and Arka Rakshak	4	4	1.0
	Amaranthus	Introduction of multi cut amaranth variety Arka Suguna	4	4	2.0
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			**65**	**65**	**8.3 + 625 palms**

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

Summary of technologies assessed under home science : NIL

II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops : NIL

Summary of technologies assessed under refinement of various livestock : NIL

Summary of technologies refined under various enterprises : NIL

Summary of technologies refined under home science : NIL

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)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oilseeds Groundnut	Varietal introduction	Demonstration of leaf spot resistant variety, GPBD 4		5	2	24.50	22.00	11.36	Tikka leaf spot (%)		18000	85750	67750	4.76	19000	77000	58000	4.05
									2	18								
Sunflower	Integrated Crop Management	Seed treatment with Imidacloprid @5g/kg. Sulphur nutrition through SSP @ 20 Kg/ha.		5	2	12.70	11.24	12.98	Necrosis incidence (%)		8000	38100	30100	4.76	8500	33720	25220	3.96
									4.5	12								
Pulses Green Gram	Varietal introduction	Efficient utilization of residual moisture		2	0.4	6.2	4.9	26.5	Pod borer (%)		4000	27900	23900	6.98	4700	22050	17350	4.69
									7.0	8.5								
Black Gram	Varietal Introduction	Demonstration of Black Gram variety (LBG-625)		10	4.0	4.00	3.00	33.3			7500	22000	14500	2.93	7000	16500	9500	2.35
Cereals Paddy	Nutrient management	Rec. FYM + RDF + Foliar spray of 1% 19:19:19 during tillering and foliar spray of 1% 13:0:46 during grain filling stage.		5	1	66.42	63.36	4.83	Blast Incidence (%)		26000	66704	40704	2.56	25000	61032	36032	2.44
									8	19								

Paddy	ICM in paddy	Seed treatment with 4 g/kg Carbendazim Weedicide : Londax power @ 4kg/ac and Plant protection measures,		10	4	64.5	59	9.32	Sheath blight (%)		36000	77400	37400	2.15	34000	70800	36800	2.08
									12	19								
Maize	Hybrid introduction	Demonstration of maize hybrid, NAH-1137 with Redgram intercropping		5	4.8	72.0	68.0	5.88	Downy Mildew incidence (%)		17000	75200	58200	4.42	18200	66800	48600	3.67
									6	14								
									Stem borer infestation (%)									
									10	22								
Ragi	Varietal introduction	Intercropping with Redgram BRG-1		10	4.0	30	24.50	22.44	Neck blast (%)		18000	45000	27000	2.5	15000	30000	15000	2.00
									2.5	9.0								
Horticulture Spices Ginger	IDM	Rhizome treatment with 0.2 % Curzate Mz + 0.05 % Streptocycline & drenching the same chemicals when diseases noticed.		5	2.0	290	225	28.89	Rhizome rot incidence (%)		340000	870000	530000	2.55	315000	675000	360000	1.87
									21.5	44.5								
Organic Ginger	IDM under organic farming	Rhizome treatment with Trichoderma + Pseudomonas fluorescens @ 10 gm. / kg.		5	2.0	240	185	29.73	Rhizome rot incidence (%)		325000	720000	395000	2.21	295000	555000	260000	1.88
									34	53.5								

Vegetables French bean	Varietal Introduction	Photo-insensitive, fiberless &High yielding varieties of French bean.		5	1.50	190.50	170.20	11.93	Duration (days)		56318	190500	134362	3.38	58510	170200	111690	2.90
						183.65	165.90	10.67	80	85-90	53816	165240	111424	3.07	58510	170200	111690	2.90
Tomato	Varietal Introduction	High yielding, disease tolerant and good keeping quality F_1hybrid tomato		4	1.0	760.0	655.00	16.03	Fruit weight (g) 100 g. Keeping quality (days) 8-10	Fruit weight (g) 85-90 g Keeping quality (days) 7-8	118690	456000	337310	3.84	126322	393000	266678	3.11
						713.3	632.00	12.86			109680	427000	317320	3.89	126322	393000	266678	3.11
Amaranthus	Varietal Introduction	Multicut Amaranthus variety		4	2.0	245	195	25.64	**Duration** 90 days **Leaves shape:** Broad **White Rust**: **Tolerant** No. of harvest: 5-6	**Duration** 80 days **Leaves shape:** Narrow **White rust:** Susceptible No. of harvest: 4-5	165210	425600	260390	2.57	173180	362350	189170	2.09
Fruit Banana	Correction of Micro nutrient deficiency	Micro nutrient formulation for enhance the yield		5	2.0	300	255	17.64	Finger cracking (%)		1458000	541590	395790	3.71	132400	408000	275600	3.08
									2.02	**8.23**								
Pineapple	IDM	Sucker treatment with 0.3% Metalaxyl Mz + soil application of Trichoderma enriched neem cake		5	2	495	340	45.59	Heart rot incidence (%)		185000	594000	409000	3.20	175000	480000	305000	2.80
									32	46								

Mango	ICM in mango	• Spraying of Mango special @ 0.5% • Carbendazim 0.1 % & Imidacloprid @ 0.05 % • Fruit fly pheromone traps		10	4	200	150	25.00	Powdery Mildew Incidence (%) 6 / 13 Fruit fly trapped per trap 13 / -		15000	40000	25000	2.60	20000	35000	15000	1075
Plantation Coconut	Nutrient Management	Root feeding of coconut tonic which contains macro, micro nutrients and growth regulators for increase yield.		31	625 palms	120	102	17.64	-	-	125	600	475	4.8	108	510	402	4.7
Arecanut	IPM	Management of root grub in Arecanut		10	4	10	6.75	32.5	Grubs per plant 2.5	7.0	65000	120000	55000	1.84	55000	81000	26000	1.47
Arecanut	IPM	Management of inflorescence die back & caterpillar in arecanut		10	4	IN PROGRESS												

Livestock

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
Poultry Chicken	Chicken production in rural area	Introduction of Swarnadhara bird in Malnad area		10	10 units (500 birds)	2.2 kg	1.3 kg	69.23	Mortality 5%	Mortality 42%	750 / unit	2000/ unit	1250/ unit	2.67	650/ unit	1000/ unit	350/ unit	1.54
Fodder Crop Fodder Sorghum	Fodder Production	Demonstration of Multi Cut Fodder Sorghum COFS-29		8	0.4 Ha	70 ton/ha	50 ton/ha	20	Milk yield 12 ltr/day/ animal	Milk yield 10 ltr/day/ animal								
									Cost of concentrate feed ; Rs. 48/day / animal	Cost of concentrate feed ; Rs. 56/day / animal	32000	94720	62720	2.96	29000	68060	39060	2.34
Dairy Cross bred cows	Infertility management	Ovu synch protocol in dairy cattle		16	20 units (20 animals)	Conceived 80 % at 1st AI=12 animals, Conceived at 2nd AI=03 animals, Conceived at 3rd AI=01, Total 16 out of 20	Conceived 35%	45%	-	-	Economics to be calculated after collecting data on calving.							

* **AI = Artificial Insemination**

Fisheries : NIL

Other enterprises : NIL

Women empowerment : NIL

Farm implements and machinery :

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 etc.)
						Demo	Check			
NIL										

Other enterprises : NIL

Demonstration details on crop hybrids : NIL

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	3	116	28	144	29	4	33	145	32	177
Micro Irrigation/Irrigation										
Seed production	1	13	6	19				13	6	19
Nursery management										
Integrated Crop Management	7	149	45	194	51	31	82	200	76	276
Soil and Water Conservation	1	20	1	21	4		4	24	1	25
Integrated Nutrient Management										
Production of organic inputs										
Others (Pl. specify)										
Demonstration on seed cum fertilizer drill	1	25		25	8	15	23	33	15	48
Safe use of pesticides	1	28	10	38	20	10	30	48	20	68
Training on Environment and agriculture for farm women and farm men										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	3	62	60	122	8	18	26	70	78	148
Off-season vegetables										

Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (Pl. specify)										
High-Tech Horticulture	1	34	5	39	13	3	16	47	8	55
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology	1	18	5	23	5	3	8	23	8	31
Processing and value addition										
Others (Pl. specify)										

e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (Pl. specify)										
f) Spices										
Production and Management technology	1	40	1	41	9		9	49	1	50
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) Crop insurance in agriculture and Horticulture crops										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	1	18	9	27		4	4	18	13	31
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)										
Farmer facilitator training under Bhoo Chetana										
Livestock Production and Management										
Dairy Management	1	21	10	31	71		71	92	10	102

Poultry Management	2	10	80	90		19	19	10	99	109
Piggery Management										
Rabbit Management										
Animal Nutrition Management- tech week										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (Pl. specify) Entrepreneurship development for SHG groups										
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										
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)										
Plant Protection										
Integrated Pest Management	1	25	15	40	10		10	35	15	50
Integrated Disease Management	2	40	15	55	20	5	25	60	20	80
Bio-control of pests and diseases	3	93	1	94	18		18	111	1	112
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										
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	1	10	8	18			0	10	8	18
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (Pl. specify)										
Orientation about KVK	2	40	35	75	15	25	40	55	60	115
Participatory Rural Appraisal and Documentation	1	15	11	26	7	4	11	22	15	37
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**34**	**777**	**345**	**1122**	**288**	**141**	**429**	**1065**	**486**	**1551**

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	2	37	6	43	8	1	9	45	7	52
Crop Diversification										
Integrated Farming	1	18	20	38	20	5	25	38	25	63
Micro Irrigation/Irrigation										
Seed production	1	25	5	30	5	1	6	30	6	36
Nursery management										
Integrated Crop Management	8	214	44	258	109	32	141	323	76	399
Soil and Water Conservation										
Integrated Nutrient Management	2	69		69	20		20	89		89
Production of organic inputs	1	16		16				16		16
Others (Pl. specify)										
Safe use of pesticide	1	20	10	30				20	10	30
Horticulture				0						
a) Vegetable Crops				0						
Production of low value and high volume crop	4	98	9	107	71	22	93	169	31	200
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										
Cultivation of Fruit	6	133	5	138	57		57	190	5	195
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
Demonstration of use of pheromone traps in mango	1	20		20				20	0	20
c) Ornamental Plants										
Nursery Management										
Management of potted plants	2	65	5	70	20	5	25	85	10	95
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology	7	190	4	194	106	4	110	296	8	304
Processing and value addition										
Others (Pl. specify)										
e) Tuber crops										
Production and Management technology	1	40		40	17		17	57	0	57
Processing and value addition										
Others (Pl. specify)										

f) Spices										
Production and Management technology	3	172	5	177	39	6	45	211	11	222
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) Crop insurance in agriculture and Horticulture crops										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	2	38	45	83	17	22	39	55	67	122
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	10		10	3		3	13	0	13
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	8	28	36	10	2	12	18	30	48
Others (Pl. specify)										
Livestock Production and Management										
Dairy Management	6	120	38	158	12	21	33	132	59	191
Poultry Management	3	42	19	61	68	25	93	110	44	154
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management	4	66	17	83	43	18	61	109	35	144

Feed and Fodder technology	1	16	4	20		2	2	16	6	22
Production of quality animal products										
Others (Pl. specify)										
FFS on Clean Milk Production	1	26	3	29		1	1	26	4	30
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	5	120	6	126	18	14	32	138	20	158
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)										
Demonstration on paddy transplanter										
Plant Protection										
Integrated Pest Management	6	167	47	214	93	29	122	260	76	336
Integrated Disease Management	11	385	133	518	154	80	234	539	213	752
Bio-control of pests and diseases	1	22		22	4		4	26	0	26
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	2	34	13	47	16	4	20	50	17	67
Vermi-compost production	1	40	5	45	21		21	61	5	66
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	3	107	33	140	24	20	44	131	53	184
Apiculture										
Others (Pl. specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	20	10	30	10		10	30	10	40
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (Pl. specify)										
Formation of Commodity Association	3	32	26	58	76	34	110	108	60	168
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**92**	**2370**	**540**	**2910**	**1041**	**348**	**1389**	**3411**	**888**	**4299**

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
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming	1	7	4	11	4	9	13	11	13	24
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (Pl. specify)										
Safe use of pesticide										
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										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (Pl. specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (Pl. specify)										
d) Plantation crops										
Production and Management technology										
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										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (Pl. specify) Crop insurance in agriculture and Horticulture crops										
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)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										

Production of quality animal products										
Others (Pl. specify)										
FFS on Clean Milk Production										
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										
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)										
Demonstration on paddy transplanter										
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (Pl. specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (Pl. specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										

Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
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)										
Formation of Commodity Association										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**1**	**7**	**4**	**11**	**4**	**9**	**13**	**11**	**13**	**24**

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

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	1	25		25				25		25
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization	1	15	11	26	7	4	11	22	15	37
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Organic Farming Training to Certification Agencies / Service Providers	1	16		16				16		16
High-Tech Horticulture	1	34	5	39	13	3	16	47	8	55
TOTAL	**4**	**90**	**16**	**106**	**20**	**7**	**27**	**110**	**23**	**133**

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

Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			M	F	TOT	M	F	TOT	M	F	TOT
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.	**FOCT Coconut Climbing and Plant Protection**	2	25	2	27	11	2	13	36	4	40
	Total	2	25	2	27	11	2	13	36	4	40

Details of sponsoring agencies involved : Coconut Development Board, Cochin

Details of Vocational Training Programmes carried out for rural youth :

Sl. 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)										
4.	**Income generation activities**										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts										

4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (Pl. specify)										
5	**Agricultural Extension**										
5.a.	Capacity building and group dynamics										
5.b.	**Agri. Engineering & Plant Protection**										
	FOCT Coconut Climbing and Plant Protection	2	25	2	27	11	2	13	36	4	40
	GRAND TOTAL	**2**	**25**	**2**	**27**	**11**	**2**	**13**	**36**	**4**	**40**

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	210			
Diagnostic visits	41			
Field Day	5	277		
Group discussions	16	195		
Kisan Ghosthi				
Film Show	27	1039		
Self -help groups				
Kisan Mela	3	786		
Exhibition	1	400		
Scientists' visit to farmers field	41			
Farmers' seminar/workshop	5	589		
Method Demonstrations	4	73		
Celebration of important days	3	252		
Special day celebration				
Exposure visits	3	72		
Others (Pl. specify)				
Lectures delivered as resource persons	58	6351		
TOTAL	**417**	**10034**		

Details of other extension programmes

Particulars	Number
Electronic Media	-
Extension Literature	12
News Letter	1500
News paper coverage	33
Technical Articles	
Technical Bulletins	1
Technical Reports	8
Radio Talks	8
TV Talks	
Animal health camps (Number of animals treated)	
Others (Pl. specify)	

VI PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Ragi	ML-365	7.00	16,100.00	
Oilseeds	Groundnut	GPBD-4/ TMV-2	10.00	73,000.00	
Pulses	Redgram	BRG-1 and BRG2	2.00	7,000.00	
	Green gram	KKM-3	0.08	600.00	
	Black gram	Rashmi	0.06	300.00	10
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds					
Fiber crops					
Forest Species					
Manure	Diancha		0.80	3,200.00	
TOTAL				**1,00,200.00**	

Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal seedlings	Mohini	5728	1603.00	3
	Chilli seedlings	Brahma, Sitara	14928	4180.00	2
	Drumstick seedlings	PKM-1, Bhagya	3135	31750.00	24
	Tomato Seedlings	JK seeds	4005	1122.00	1
	Curry leaf	Seedling Origin	3	30.00	1
Fruits	Papaya Seedlings	Taiwan-786, Surya	13064	152668.00	26
	Sapota grafts	Cricket ball	395	15800.00	13
	Lime seedlings	Seedling Origin	901	9010.00	15
	Mango grafts	Alphanso	669	26760.00	13
Ornamental plants	Chrysunthemum	Pot - mum	3	30.00	1
	Hibiscus cuttings (Rooted)		2	20.00	1
Medicinal and Aromatic	Aloe		1	10.00	1
Plantation	Cashew	Ullal-1	3	120.00	2
Spices					
Tuber					
Fodder crop saplings					
Forest Species	Tamarind grafts		3	75.00	1
Others					
TOTAL				**243178.00**	

Production of Bio-Products : NIL

Production of livestock and related enterprise materials : NIL

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2012-13

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	2455	1532	783	77,010.00
Water Samples	238			15,760.00
Plant samples	68			7,940.00
Manure samples				
Others (specify)	-	-	-	-
Total	**2761**	**1532**	**783**	**1,00,710.00**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	599	307	175	17,970.00
Water Samples	85			5,100.00
Plant samples	12			1,440.00
Manure samples				
Others (specify)				
TOTAL	**696**	**307**	**175**	**24,510.00**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted : ONE

IX. NEWSLETTER

Number of issues of newsletter published : 4 Nos.

X. RESEARCH PAPER PUBLISHED

Number of research paper published

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

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