

University of Agricultural Sciences, Bangalore

**ICAR-Krishi Vigyan Kendra**  
Navile, Shimoga

**ANNUAL REPORT 2014-15**

(for the period April 2014 to March 2015)

**ICAR-KRISHI VIGYAN KENDRA**

Navile, Abbalagere Post, Shimoga – 577225  
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# Annual Report-2014-15

(01-04-2014 to 31-03-2015)

## PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
Krishi Vigyan Kendra Savalanga Road, Navile, Shivamogga - 577 204 Karnataka	08182- 295516, 267017	-	shimogakvk@gmail.com	-

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

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

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

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

### 1.4. Year of sanction: 2000

### 1.5. Staff Position (as on 31<sup>st</sup> March 2015)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M /F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/Others)
1	Programme Coordinator	Dr. B.C.Hanumantha swamy	Programme Coordinator	M	Agril. Entomology	M.Sc.,(Agri. Entomology) Ph.D., PGDBA, PGDPP, PGDAEM	37400-67000	57400	22.12.2011	Permanent	General
2	SMS	Dr. Basavaraj Beerannavar	SMS (Agril. Extn.)	M	Agril. Extension	M.Sc. (Agri.) in Agril. Extension, PGDAEM	15600-39100	21380	03.12.2011	Permanent	SC
3	SMS	Dr. B.C. Dhananjaya	SMS (SS & AC)	M	Soil Science & Agril. Chemistry	M.Sc.,(Soil Science and Agricultural Chemistry), Ph.D.	15600-39100	20560	19.02.2007	Permanent	OBC
4	SMS	Mrs.Jyoti M.Rathod <sup>1</sup>	SMS (Home Science)	F	Home Science	M.H.Sc. (Food and Nutrition)	15600-39100	19810	12.03.2007	Permanent	SC
5	SMS	Dr. M. Ashok <sup>2</sup>	SMS (Animal Science)	M	Animal Science	M.VSc., PGDAEM	15600-39100	19810	18.05.2007	Permanent	OBC
6	SMS	Dr. Nagarajappa Adivappar	SMS (Horticulture)	M	Horticulture	M.Sc.,(Horticulture) Ph.D., PGDIPR, PGDAEM	15600-39100	18370	17.07.2009	Permanent	General
7	SMS	Dr. T.M.Soumya	SMS (Agronomy)	F	Agronomy	M.Sc.(Agronomy), Ph.D.	15600-39100	18370	22.10.2014	Permanent	General
8	Programme Assistant (Lab Tech.)/T-4	Mr. R. Nagaraja	Programme Assistant (Lab Tech)	M	Agril. Microbiology	M.Sc.(Agri.) in Agricultural Microbiology, PGDAEM	9300-34800	10560	23.10.2010	Permanent	OBC
9	Programme Assistant (Computer)/ T-4	Smt. Geetha B.S.	Programme Assistant (Computer)	F	Computer	M.Com., PGDCA, PGDHR	9300-34800	10560	22.01.2011	Permanent	General
10	Programme Assistant/ Farm Manager	Dr. P.R. Somashekharappa	Farm Manager	M	Agronomy	M.Sc.(Agri.) in Agronomy, Ph.D.(Agronomy), PGDPP	9300-34800	9300	23.12.2014	Permanent	General
11	Assistant	Smt. Sujatha, K <sup>3</sup>	Assistant	F	Assistant	B.A.	16000-29600	17650	27.08.2009	Permanent	OBC
12	Jr. Stenographer	Smt. Usha, K <sup>5</sup>	Typist cum computer operator	F	Typist cum computer operator	M.A.	14550-24700	14350	13.08.2007	Temporary	Others
13	Driver	Mr. N. Gopala	Driver (LV)	M	Driver (Jeep)	SSLC	11600-21000	11800	16.08.2012	Permanent	OBC
14	Driver	Mr. K.H. Mohan	Driver (Tractor)	M	Driver (Tractor)	7th Std.,	14550-26700	15600	20.10.2008	Permanent	OBC
15	Supporting staff	Mr. H Manjunatha <sup>4</sup>	Messenger	M	Messenger	SSLC	9600-14550	12500	03.03.2008	Permanent	SC
16	Supporting staff	Mr. T. Chikkaiah	Assistant Cook cum Caretaker	M	Cook cum caretaker	SSLC	10400-16400	11200	22.11.2008	Permanent	OBC

1. On study leave for three years. (From 3-8-2014 to 2-8-2015 to pursue her Ph.D. degree in the subject of Home Science at UAS, Dharwad)

2. Deputed for Ph.D. for three years (From 09.02.2015 to 10.02.2018)

3. Promoted as *Senior Assistant* and relieved on 26-03-2015 at forenoon

4. Promoted as *Attender* and relieved on 26-03-2015 at forenoon

5. 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. In lakhs)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	Oct. 2009	550	55	-	-	-
2.	Farmers Hostel	ICAR	Sept. 2012	305	33.33	-	-	-
3.	Staff Quarters	-	-	-	-	-	-	-
4.	Demonstration Units	-	-	-	-	-	-	-
	1. Vermi Compost Unit	NCOF Ghazibad	2008	-	1.25	-	-	-
	2. Poultry Unit	RKVY	2012	100 sq.m.	1.20	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor with Trailer	2001	3,71,892.00	4190	Good condition
Jeep (Mahindra Bolero)	2005	4,40,000.00	175297	Good condition
Hero Honda Splendor+	2009	39,350.00	33400	Good condition
Honda Activa	2009	46,102.00	24300	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 3½ 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
UPS – (CBTMPCS)	2010	26,000.00	Good
Canon Printer-2900B	2010	5,524.00	Good
HP Laser Printer	2010	19,864.00	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
Panasonic Fax Machine (Sl. No.91CBA004235)	2010	8,736.00	Good
Generator (Genset-EXK-28005)	2011	59,850.00	Good
UPS	2011	38,587.00	Good
Incubator	2011	24,425.00	Good
Desk Top Computers (2 Nos.) HCL	2011	38,600.00	Good
Desk Top Computers (2 Nos.) HCL	2011	38,169.00	Good
21” Black Onida CTV-21	2011	8,990.00	Good
Bosch Gas Geyser	2011	7,600.00	Good
<b>Public Address System</b> –Amplifier SSP-1 No. Cardless microphone-2 Nos., Cardless microphone 630 vc-1 No., wall mounting speakers – 2 Nos.	2014	36,600.00	Good

<b>Farm Equipments &amp; Implements</b>				
<b>Name of the equipment</b>	<b>Date of purchase</b>	<b>Cost of equipments (Rs.)</b>	<b>Source of fund</b>	<b>Present status</b>
Shakthi Power Tiller and accessories	31.03.2010	1,31,500.00	ICAR	Good
5 HP diesel engine pump and accessories	03.06.2010	18,030.00	ICAR	Good
Portable agri sprayer	03.06.2010	9,975.00	ICAR	Good
Tractor drawn implements – Trencher, ridger, marker	26.03.2011	86,500.00	ICAR	Good
Tractor drawn 2 ferrow MB plough & Tractor drawn disk harrow	28.03.2011	88,000.00	ICAR	Good
Power Tiller trailer	28.03.2011	48,048.00	ICAR	Good
Tractor drawn water tanker – Chassis mounted 3500 ltr. Capacity, Water tank with resole tyre and heavy axel, Water Tanker	22.06.2011	99,250.00	ICAR	Good
Hand operated 'C' type areca leaf plate making machine.	21.06.2011	38,850.00	ICAR	Good
Tractor mounted water pully	02.07.2011	32,500.00	ICAR	Good
Tractor operated winnover	30.06.2011	20,500.00	ICAR	Good
Chaff cutter with 2 HP ISI	26.08.2011	20,500.00	NHM	Good
Tractor drawn 5 furrow opener	26.08.2011	31,000.00	ICAR	Good
Disk harrow	22.06.2014	1,455.00	ICAR	Good
Pruning saw - 'OM'	12.09.2014	18,723.00	NHM	Good
Iron plough - 1 wing	19.12.2012	1,600.00	Revolving fund	Good
Iron plough - 2 wings	19.12.2012	1,900.00	Revolving fund	Good

### 1.8. Details of SAC meeting conducted in 2014-15 : 11<sup>th</sup> SAC conducted on 12/08/2014

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	12/08/2014	35	NIL	<p>1. Popularization of areca climbing equipment developed by Sri Kirankumar of Thirthahalli through method demonstration.</p> <p>2. To document the production of seeds and planting materials produced by KVK</p> <p>3. Suggested for seed production of green gram variety KKM-3 in an area of 5 ha. in the university campus and also in collaboration with the Department of Agriculture.</p> <p>4. Suggested to organize awareness programmes on soil test to motivate maximum number of farmers to take up soil tests.</p> <p>5. To develop a model Kitchen Garden in KVK farm</p> <p>6. Publication of leaflets or folders before Foundation day of UAHS, Shivamogga (21-09-2014)</p> <p>7. To develop fodder crops demonstration plots.</p> <p>8. Production and value addition of "Appemidi" mango</p> <p>9. Organizing training on terrace gardening</p> <p>10. Suggested to organize training and visit to High density orcharding plots in Horticultural crops.</p> <p>11. To conduct on campus trainings by involving progressive farmers to share their farming experiences and involving NGOs.</p>	<p>1. Demonstration will be organized on Areca Climbing equipment for arecanut growers.</p> <p>2. Documented the production of seeds and planting materials produced by KVK</p> <p>3. Seed production of green gram and black gram is initiated in an area of 3.6 ha each under paddy fallows in HaleMugalagere village of Shikaripura taluk and Hunsodu village of Shivamogga Taluk. Also 0.4 ha each in both the crops is sown for seed production in the campus.</p> <p>4. Training was held on 11-02-2015 at Vodeyarkoppa and on 20-02-2015 at Choradi. Also awareness on soil testing is being informed to farmers in the off-campus trainings.</p> <p>5. Established Model Kitchen Garden in KVK Farm.</p> <p>6. Published three leaflets and one technical bulletin.</p> <p>7. Developed fodder demonstration plot at KVK farm.</p> <p>8. Training will be organized by involving interested participants.</p> <p>9. Training will be organized by involving interested participants.</p> <p>10. The training and visit will be conducted to farmers who are interested in High density orcharding plots in Horticultural crops.</p> <p>11. Progressive farmers'™ experience was shared and various NGO'™s were involved during on campus training programmes.</p>

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
				<p>12. To conduct the OFTs, FLDs based on the needs and discussion with farmers.</p> <p>13. Soil testing compulsory for all the OFT and FLD plots and provide the results to Programme Assistant (Computer) for database management.</p> <p>14. To document the photographs in all stages for OFT &amp; FLDs.</p> <p>15. Informed to organize trainings on foliar nutrition in maize and paddy.</p> <p>16. Suggested to conduct awareness programme on cultivation of short duration vegetable crops in rice fallows.</p> <p>17. Suggested to conduct demonstrations on cultivation of vegetables in poly house.</p> <p>18. Suggested to disseminate knowledge on improved production technology of Nutmeg and pepper.</p> <p>19. Awareness programme to enhance the seed production in high yielding turmeric varieties.</p> <p>20. Suggested to present the OFT and FLDs during ZREP workshop.</p> <p>21. Suggested to provide information on vaccination against Raniket disease in backyard poultry during training programmes</p> <p>22. Suggested to create awareness on growing of fodder trees.</p>	<p>12. OFT and FLD™s are being conducted based on the location specific needs of the farmers of the district.</p> <p>13. Soil testing of OFT and FLD plots is being done. All the data pertaining to soil and water testing will be given to Programme Assistant (Computer) for database management.</p> <p>14. Documenting the photographs of all stages OFT and FLDs.</p> <p>15. Organizing training on Foliar application of nutrients in maize and paddy as part of OFT. Information is also delivered through on / off campus trainings.</p> <p>16. Conducted training programme on production of French bean in rice fallows on 14.08.2014 further also trainings will be conducted.</p> <p>17. Cultivation of vegetables in poly-house is demonstrated in the campus.</p> <p>18. Participated as a resource person in three training programmes in which improved production technologies of pepper and nutmeg were covered by involving 260 farmers in Shivamogga district on 28.08.2014, 18.09.2014 and 30.09.2014</p> <p>19. From 2014-15, 2014-15 on-farm testings (OFTs) and training programmes were conducted to enhance seed production of high yielding varieties</p> <p>20. Presented the results of OFT and FLDs during ZREP workshop.</p> <p>21. Information will be provided during the training programmes.</p> <p>22. Awareness programme on growing of fodder trees will be conducted by involving farmers.</p>



Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
				<p>23. To conduct training programme on value addition in milk.</p> <p>24. To conduct training on Kitchen Gardening and Value addition to Anganavadi Workers.</p> <p>25. Under promotion of Agro-Forestry Project farmers will be provided with fodder tree seedlings on priority basis. This information need to be disseminated to farmers.</p> <p>26. Arranging training on Agro-Forestry.</p> <p>27. Inform to utilize programme on Agriculture broadcast by AIR, Bhadravathi everyday at 6:50 p.m.</p> <p>28. Providing information on multipurpose agricultural equipments to farmers.</p> <p>29. Awareness cum training programmes on marketing and soil testing.</p> <p>30. Suggested to organize trainings on management of Koleroga of arecanut at Taluk level.</p> <p>31. Suggested to provide information through mobile message services regarding KVK training programmes.</p> <p>32. Suggested to provide information on Organic farming for reduction of use of chemical pesticides.</p> <p>33. To provide information on disease of banana.</p>	<p>23. Programmes will be conducted by involving dairy farmers</p> <p>24. Programmes will be conducted for Anganavadi workers on Kitchen Gardening &amp; Value addition.</p> <p>25. Information will be provided during various KVK training programmes.</p> <p>26. Training will be planned on "Agro Forestry"</p> <p>27. Information is given to farmers to utilize programme on Agriculture broadcast by AIR, Bhadravathi.</p> <p>28. Information will be provided on mechanization in general and use of multipurpose agricultural equipments in particular.</p> <p>29. Awareness and training will be organized on marketing and soil testing</p> <p>30. Trainings will be organized on Koleroga of arecanut at Taluk level.</p> <p>31. Providing information through mobile message services regarding KVK training programmes.</p> <p>32. Information is provided during organic farming trainings.</p> <p>33. Information on disease management in banana will be provided in training programmes.</p>

## PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Rice based cropping system
2	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)	<ul style="list-style-type: none"> <li>The total geographical area of Southern Transition Zone (STZ) (Zone-7) is 13.09 lakh ha. Shivamogga, Bhadravathi and Shikaripur taluks of Shivamogga District comes under this zone. KVK, Navile, Shivamogga is located in this zone.</li> <li>The zone 7 has varying altitude ranging from as low as 547 m. in the North to as high as 1050 m. in the South.</li> <li>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.</li> <li>The climate of the zone is basically tropical benefited by the two monsoons accounting for major part of the rainfall. The zone receives an average annual rainfall of 961.6 mm with minimum of 220.0 mm and maximum of 3089.0 mm. The lowest minimum temperature ranges from 14.7°C (January) to 20.3°C (May) while the maximum temperature ranges from 24.8 °C (July) to 40 °C (April).</li> </ul>
2.	Hilly Zone (Zone - 9)	<ul style="list-style-type: none"> <li>The total geographical area of hilly Zone (Zone-9) is 22.90 lakh ha. Soraba, Sagara, Thirthahally and Hosanagara taluks of Shivamogga District comes under this zone.</li> <li>The zone - 9 has varying altitude ranging from as low as 700 to as high as 1050 m. above mean sea level.</li> <li>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.</li> <li>The climate of the zone is basically tropical benefited by the two monsoons accounting for major part of the rainfall. The zone receives and average annual rainfall of 2308 mm with a minimum of 922 mm and maximum of 3695 mm. The lowest minimum temperature of 100 °C will be observed during winter.</li> </ul>

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

### 2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
1	Red Sandy	Red sandy soils are derived from acidic rock materials, reddish brown to dark reddish brown in colour and gravelly loamy sand to sandy loam in texture. They are neutral to acidic in reaction with low cation exchange capacity, low base saturation and low water holding capacity. The soils are well drained and respond well to irrigation, manuring and other management practices. These soils are found in the eastern parts of Shikaripur and entire Shivamogga and Bhadravathi Taluks.	Red gravelly loam – 61546 Red loamy – 22819 Red gravelly clay – 6357 Red gravelly mixed with deep black – 58849 Red clayey – 33904 Red gravelly clay – 14491 Red clayey – 14167 Laterite gravelly clay – 13524 Laterite clayey – 118301
2	Mixed Red and Black Soils	The soils are derived from igneous rocks and montmorillonite clay with high fertility status, high in water holding capacity and cation exchange capacity. The soils are deep and sufficient in micronutrients except in some patches. These soils are found in the eastern parts of Shikaripur and entire Shivamogga and Bhadravathi Taluks.	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
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 igneous 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)
<b>Field Crops</b>				
1.	Paddy	110177	388948	3530
2.	Jowar (hybrid)	309	600	1942
3.	Ragi	440	500	1137
4.	Maize	60593	227549	3755
5.	Redgram	525	362	690
6.	Blackgram	7	3	450
7.	Greengram	37	18	475
8.	Cowpea	105	53	500
9.	Avare	14	5	550
10.	Groundnut	120	108	900
11.	Castor	16	15	950
12.	Niger	13	3	200
13.	Sugarcane	5901	587300	100
14.	Tobacco	4	3	725
15.	Cotton (Bales)	610	4296	390

Source: Department of Agriculture, Shivamogga (2013-14)

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

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

## 2.5. Weather data

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)	
		Maximum	Minimum	At 0830 hours	At 1730 hours
April-2014	42.8	37.1	21.7	85.8	46.6
May-2014	184.8	35.6	21.9	85.7	49.1
June-2014	106.4	32.9	22.5	85.5	56.1
July-2014	429.2	30.2	19.1	87.0	67.0
Aug-2014	480.2	29.1	18.0	85.6	71.8
Sept-2014	148.6	30.5	19.5	86.3	71.2
Oct-2014	288.8	30.9	20.1	84.7	67.9
Nov-2014	37	30.6	18.8	84.6	71.0
Dec-2014	19.6	30.5	18.9	85.9	71.8
Jan-2015	0	31.1	17.2	87.6	67.6
Feb-2015	0	33.2	17.7	82.8	56.0
March-2015	58.4	35.1	21.1	85.5	50.2
<b>TOTAL</b>	<b>1795.8</b>				

Source: Agromet advisory services CoA/ZAHRS, Shivamogga

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

Category	Population	Production
<b>Cattle</b>		
Crossbred	111344	94 (in '000 tonnes)
Indigenous	455190	81 (in '000 tonnes)
Buffalo	149343	58 (in '000 tonnes)
<b>Sheep</b>	36687	1205 (in tonnes)
<b>Goats</b>	58009	621 (in tonnes)
<b>Pigs</b>	4005	48 (in tonnes)
<b>Poultry</b>		
Desi	211400	97100000 (in lakhs)
Improved	296400	1237 (in tonnes)

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

**2.7 District profile has been Updated for 2014-15 Yes / No: YES**

## 2.8 Details of Operational area / Village

Sl. No.	Name of the Taluk /block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problems identified	Identified thrust areas
1.	Shivamogga	Chikkamarasa	5 Years	Paddy, Ginger, Maize	Stem Borer, Rhizome Rot	Integrated Pest Management
2.	Shivamogga	Hunasod	1 Year	Paddy, Maize	Stem borer, blast	Integrated Pest Management
3.	Shivamogga	Mallapura	2 Years	Vegetables	Low adoption of high yielding varieties / hybrids	Varietal Evaluation
4.	Shivamogga	V.Benavalli	2 Years	Vegetables	Low adoption of high yielding varieties / hybrids	Varietal Evaluation
5.	Shivamogga	Abbalagere	2 Years	Vegetables	Low adoption of high yielding varieties / hybrids	Varietal Evaluation
6.	Shivamogga	Konagavalli	4 Years	Maize, Fingermillet	Low yield, mono cropping	Integrated Crop Management
7.	Shivamogga	Muduvala	4 Years	Maize, Fingermillet	Low yield, mono cropping	Integrated Crop Management
8.	Shivamogga	Hunsodu	1 Year	Paddy, Maize	Nutrient losses	Integrated Nutrient Management
9.	Bhadravathi	Baranduru	1 Year	Vegetables / fruit crops	Low adoption of high yielding varieties / hybrids	Varietal Evaluation
10.	Bhadravathi	Vishweshwara Nagar	1 Year	Sugarcane, Paddy	High cost of cultivation	Integrated Crop Management
11.	Shikaripura	Nimbegondi	3 Years	Vegetables, spices, maize, paddy	Lower yields in spices	Varietal Evaluation
12.	Shikaripura	Halemugalagere	2 Years	Maize, sunflower, Groundnut, pulses	Soil acidity, low productivity	Integrated Crop Management
13.	Shikaripura	Halemugalagere	2 Years	Maize, Sunflower, Pulses	Soil acidity, sulphur deficiency	Integrated Crop Management
14.	Sagar	Shiruvala	1 Year	Arecanut, Pineapple	Root Grub, Heart Rot	Integrated Disease Management
15.	Sagar	Saidur	1 Year	Arecanut, Pineapple	Root Grub, Heart Rot	Integrated Disease Management
16.	Sagar	Toragodu	1 Year	Arecanut, Pineapple	Root Grub, Heart Rot	Integrated Disease Management
17.	Sagar	Kagodu	1 Year	Arecanut, Pineapple,	Root grub, Heart rot	Integrated Disease Management
18.	Sagar	Kouthi	2 Years	Arecanut	Root grub	Integrated Pest Management

## 2.9 Priority thrust areas

Sl.#	Thrust Area
1.	Soil reclamation
2.	Integrated nutrient management
3.	Integrated pest and disease management
4.	Variety / hybrid introduction
5.	Farm mechanization
6.	Quality seed / seedling production
7.	Nutrient and disease management in livestock
8.	Fodder production and enrichment of dry fodder crops
9.	Infertility management in dairy animals
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
2	2	5	5	22	15	176	123

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
30	46	1000	1678	20	28	200000	308115

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
15.0	20.5	20000	29650

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

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
				Assessment of Improved methods of sugarcane planting	-	1				3	Setts : 1.35 the	Seedlings : 7500	-	
1.	Varietal evaluation	Turmeric	Non adoption of high yielding varieties	Evaluation of high yielding varieties of turmeric								Rhizomes - 2.5 q.		
2.	INM	Paddy	Nutrient deficiency		Foliar nutrition in paddy through water soluble fertilizers	1				Field day (1)	-	-	-	DAP 100 kg Urea 140 kg MOP 64 kg ZnSO <sub>4</sub> 70 kg 19-19-19 21 kg 13-0-45 21 kg
3.	IPM	Paddy	Blast and stem borer		Management of stem borer and blast in paddy	1				-				Carbendazim 12 kg Chloropyrifos 24 lt. Fipronil 120 kg Tricyclozole 2.8 kg
4.	Crop management	Sunflower	Improper nutrient and residue management		ICM in sunflower									<i>Trichoderma</i> 12 kg SSP 6 q Borax 0.6 kg
5.	Crop management	Groundnut	Soil acidity, Zinc & Boron Deficiency, Low shelling percentage, Incidence of leaf spot disease		ICM in groundnut						Groundnut Pods : 210 kg			



S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
6.	Cropping system	Finger millet	Mono-cropping, lack of awareness on new ragi varieties		Demonstration on intercropping in Finger millet	1					Finger millet seeds: 50 kg, Pigeon pea seeds : 50kg, Rhizobium: 2.6 kg, PSB:2.6 kg			
7.	Cropping system	Maize	Mono-cropping, stem borer		Demonstration on intercropping in Maize	1			1		Pigeon pea seeds:60 kg, ZnSO <sub>4</sub> :50 kg, PSB:2.4 kg, Rhizobium: 2.4 kg			
8.	Resource management	Green gram	Lack of short duration pulse varieties for paddy fallows		Short duration green gram variety KKM-3 in rice fallows	1					Seeds : 50 kg.			
9.	Resource management	Black gram	Lack of short duration pulse varieties for paddy fallows		Short duration black gram variety LBG-625 in rice fallows	1					Seeds : 50 kg.			

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of FLD if any	Interventions							Supply of bio products	
						Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)		
10.	Varietal evaluation	Tomato	Improper crop management		Demonstration of high yielding, disease tolerant tomato hybrid – Arka Rakshak	1				Seeds - 20 gm	Seedlings- 5000	-	-	-
11.	Varietal evaluation	Drumstick	Non availability of new variety		Introduction of high yielding drumstick variety – Bhagya as a profitable perennial vegetable crop						Seedlings-250/ demo			
12.	IDM	Ginger	Shoot borer and rhizome rot		Management of Shoot borer and rhizome rot in ginger	1			2	-	-	-	Lambda Cyhalothrin	10 Lt
													Curzate	9 kg
													Streptocycline	240 gm
13.	IPM	Arecanut	Root grub		Management of root grub in arecanut	1			1	-	-	-	Neem cake	500 kg
													Imidacloprid	10 lt.
14.	IDM	Pineapple	Heart rot		Integrated management of heart rot disease in pineapple	1			1	-	-	-	Neem cake	500 kg
													Trichoderma	20 kg
													Metalaxyl MZ	15 kg
15.	Nutrition management	Dairy	Imbalanced nutrition and high cost of commercial cattle feed		Cattle feed preparation by using local ingredients	1			1	-	-	-	Groundnut cake	30 kg
													Mineral mixture	4 kg
16.	Fodder production	Fodder Sorghum	Single cut varieties, less palatability		Demonstration of Multi Cut Fodder Sorghum variety COFS-29	1	-	-	1	CoFS-29 (20 kg)	-	-		

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

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment of Improved methods of sugarcane planting	UAS, B'lore, SBI, Coimbatore	Sugarcane	3	-	1	Method demo -3
2.	Evaluation of high yielding varieties of turmeric	UAS, Dharwad, IISR, Calicut, KAU, Thrissur, KAU, Thrissur, OUTA, Bhuvaneshwar	Turmeric	2	-	-	-
3.	Foliar nutrition in paddy through water soluble fertilizers	UAS, B'lore, DRR Hyderabad	Paddy	-	14	2	Field day ( 1No.)
4.	Management of stem borer and blast in paddy	UAS, B'lore	Paddy	-	12	1	-
5.	ICM in sunflower	UAS, B'lore	Sunflower	-	6	-	-
6.	ICM in groundnut	UAS, Dharwad	Groundnut	-	5	-	-
7.	Demonstration on intercropping in Finger millet	UAS, B'lore	Finger millet	-	13	1	-
8.	Demonstration on intercropping in Maize	UAS, B'lore	Maize	-	16	1	Method Demo -1
9.	Short duration green gram variety KKM-3 in rice fallows	UAS, B'lore	Green gram	-	10	1	-
10.	Short duration black gram variety LBG-625 in rice fallows	UAS, B'lore	Black gram	-	10	1	-
11.	Demonstration of high yielding, disease tolerant tomato hybrid – Arka Samrat	IIHR, B'lore	Tomato	-	4	-	-
12.	Introduction of high yielding drumstick variety – <i>Bhagya</i> as a profitable perennial vegetable crop	IIHR, B'lore	Drumstick	-	8	-	-
13.	Management of Shoot borer and rhizome rot in ginger	UAS, B'lore	Ginger	-	10	1	-
14.	Management of root grub in arecanut	UAS, B'lore	Arecanut	-	5	-	-
15.	Integrated management of heart rot disease in pineapple	UAS, Dharwad	Pineapple	-	5	-	-
16.	Cattle feed preparation by using local ingredients	KVAFSU Bidar	Dairy	-	5	1	-
17.	Demonstration of Multi Cut Fodder Sorghum variety COFS-29	IGFRI, Dharwad	Fodder production	-	20	1	-

3.B2 contd..

Sl. No.	No. of farmers covered															
	OFT				FLD				Training				Others (Specify)			
	General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1.	3	-	-	-												
2.	2	-	-	-												
3.	-				1	5	3	5					12	3	4	18
4.																
5.	-	-	-	-	6	-	-	-								
6.	-	-	-	-	5	-	-									
7.																
8.																
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21.																
22.																
23.																
24.																

## **PART IV - On Farm Trial**

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

<b>Thematic areas</b>	<b>Cereals</b>	<b>Oilseeds</b>	<b>Pulses</b>	<b>Commercial Crops</b>	<b>Vegetables</b>	<b>Fruits</b>	<b>Flower</b>	<b>Plantation crops</b>	<b>Tuber Crops</b>	<b>TOTAL</b>
Integrated Nutrient Management										
Varietal Evaluation				1						1
Integrated Pest Management										
Integrated Crop Management				1						1
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										
<b>TOTAL</b>				<b>2</b>						<b>2</b>

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

<b>Thematic areas</b>	<b>Cereals</b>	<b>Oilseeds</b>	<b>Pulses</b>	<b>Commercial Crops</b>	<b>Vegetables</b>	<b>Fruits</b>	<b>Flower</b>	<b>Plantation crops</b>	<b>Tuber Crops</b>	<b>TOTAL</b>
Integrated Nutrient Management										
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										

Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
<b>Total</b>										

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

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

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

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

**4.B. Achievements on technologies Assessed and Refined**

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

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation	Turmeric	Assessment of high yielding turmeric varieties	2	2	0.20
Integrated Pest Management					
Integrated Crop Management	Sugarcane	Assessment of improved methods of sugarcane planting	3	3	0.90
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					
<b>Total</b>					

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

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

**4.B.3. Technologies assessed under Livestock and other enterprises : NIL**

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

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

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



#### 4.C1. Results of Technologies Assessed

##### Results of On Farm Trial : 1) Improved methods of sugarcane planting

Crop	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter			Results of assessment	Feedback from the farmer
							8				
1	2	3	4	5	6	7	Tech.opt.1	Tech.opt.2	Tech.opt.3	9	10
Sugar cane	Irrigated	High sett rate, Less germination (%), High cost of seed material, Higher drudgery	Improved methods of sugarcane planting	8	Planting of single eye budded sett (3- 3.5 t/ha.)	Germination %	65-68	72-75	92-93	In progress	
						No. of tillers	5-6	12-14	18-20		

##### Contd..

Any refinement needed	Justification for refinement	Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16	17	18
-	-	<b>Technology. Option 1:</b> Planting 25 to 30 thousand 3 eye budded setts / ha at 3 ft. row spacing (8.5-10 t/ha). <b>Technology. Option 2:</b> Planting of 25-30 thousand single eye budded setts at 3 ft. row spacing (3-3.5 t/ha.) <b>Technology. Option 3:</b> Planting of sugarcane seedlings (bud chipping) (25000 seedlings/ha)	Farmer practice UAS, B'lore SBI, Coimbatore				In progress

- 1) **Title of Technology Assessed** : Assessment of Improved methods of sugarcane planting
- 2) **Problem Definition:** High sett rate, lesser germination and 20% of cost of cultivation for seed material. Higher drudgery
- 3) **Details of technologies selected for assessment**

Sl. No.	Technological Options	Details of Technology
1.	Farmer's Practice	Planting 25 to 30 thousand 3 eye budded setts / ha at 3 ft. row spacing (8.5-10 t/ha).
2.	Technological Option 2	Planting of 25-30 thousand single eye budded setts at 3 ft. row spacing (3-3.5 t/ha.)
3.	Technological Option 3	Planting of sugarcane seedlings (bud chipping) (25000 seedlings/ha)

- 4) **Source of technology:** UAS, Bengaluru, SBI, Coimbatore
- 5) **Production system and thematic area** : Irrigated, ICM
- 6) **Performance of the Technology with performance indicators:**
- 7) **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :**
- 8) **Final recommendation for micro level situation:**
- 9) **Constraints identified and feedback for research:**
- 10) **Process of farmers' participation and their reaction:**

## 2. Results of On Farm Trial : Evaluation of high yielding varieties of turmeric

Crop	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter			Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8			9	10	11	12
Turmeric	Irrigated	Low yield and disease susceptibility	Evaluation of high yielding varieties of turmeric	2	Assessment of high yielding turmeric varieties : Salem, Kadapa, Prathibha, Suguna, PTS-24	Fresh weight, dry weight, No. of secondary rhizomes, recovery per cent	Variety	% recovery	No. of secondary rhizomes.	Higher no. of secondary and tertiary rhizomes were observed in PTS-24 and Rajapuri. Higher fresh weight and B:C recorded in PTS-24 and Prathibha	Varieties PTS-24 and Prathibha were found to be promising.	-	-
							Salem	20.00	4.56				
							Kadapa	18.00	5.21				
							Prathibha	18.50	4.95				
							Prabha	19.50	5.24				
							Suguna	12.00	5.48				
PTS-24	19.00	5.63											

Contd..

Technology Assessed	Source of Technology	Production Rhizome fresh weight / ha (t/ha)	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1: Salem	Farmers practice	31.85	t/ha	1,55,130	2.22
Technology option 2: Kadapa	UAS, Dharwad	24.93	t/ha	1,68,703	2.43
Technology option 3: Prathibha	IISR, Calicut	42.38	t/ha	3,34,938	3.55
Technology option 4: Prabha	KAU, Thrissur	40.74	t/ha	3,24,657	3.54
Technology option 5: Suguna	KAU, Thrissur	37.20	t/ha	2,48,643	3.01
Technology option 6: PTS-24	OUTA, Bhuvaneshwar	40.45	t/ha	3,20,389	3.57

1. **Title of Technology Assessed** : Evaluation 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	Salem
2.	Technology option 2	Kadapa
3.	Technology option 3	Prathibha
4.	Technology option 4	Prabha
5.	Technology option 5	Suguna
6.	Technology option 6:	PTS-24

4. **Source of technology** : UAS, Dharwad, IISR, Calicut , KAU, Thrissur, OUTA, Bhuvaneshwar
5. **Production system and thematic area** : Irrigated, Varietal evaluation
6. **Performance of the Technology with performance indicators:** Higher numbers of secondary rhizomes were recorded in PTS-24. Suguna and Prabha whereas highest percent recovery was recorded in Salem (20%) and Prabha (19.50%). Highest B:C was recorded in PTS-24 (3.57) and Prathibha (3.55)
7. **Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques** : Varieties Kadapa and Prathibha found to be less tolerant to pests of turmeric.
8. **Final recommendation for micro level situation:** Varieties, PTS-24 and Prathibha 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.

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

##### Results of On Farm Trial

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

Contd..

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

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

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

## PART V - FRONTLINE DEMONSTRATIONS

### 5.A. Summary of FLDs implemented during 2014-15

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1.	Oilseeds	Rain fed	Kharif, 2014	Groundnut	GPBD-4	-	Crop management	<ul style="list-style-type: none"> <li>• ICM in Groundnut</li> <li>• Variety GPBD-4</li> <li>• Lime application based on soil test</li> <li>• Seed treatment with <i>Rhizobium</i>, PSB &amp; <i>Trichoderma</i></li> <li>• Gypsum application @ 500 kg / ha</li> <li>• Foliar application of borax @ 0.2%</li> </ul>	2.0	1.0	0	5	5	-
		Irrigated	Summer, 2014	Sunflower	-	Cargill hybrid (SH3859)	Crop management	<ul style="list-style-type: none"> <li>• Lime application based on soil test</li> <li>• Sulphur application @ 20 kg/ha.</li> <li>• Spray with Imidacloprid @ 0.5 ml/ltr.</li> <li>• Use of <i>Trichoderma</i></li> </ul>	4.0	2.4	0	6	6	Non availability of KBSH-53 sunflower seeds and other inputs.
2.	Pulses	Rainfed	Rabi/ summer, 2014	Green gram	KKM-3	-	Varietal evaluation	Short duration green gram variety KKM-3 in rice fallows	4.0	4.0	2	8	10	-
		Rainfed	Rabi/ summer, 2014	Black gram	LBG-625	-	Varietal evaluation	Short duration black gram variety LBG - 625 in rice fallows	4.0	4.0	1	9	10	-

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
3	Cereals	Irrigated	Kharif-2014	Paddy	JGL 1798	-	IPM in paddy	<ul style="list-style-type: none"> <li>Seed treatment with Carbendazim @ 4 gm/kg</li> <li>Spraying of Chloropyriphos @ 0.2%</li> <li>Soil application of Fipronil 0.3 G @ 10 kg/ac</li> <li>Spraying of Tricyclozole @ 0.06 %</li> </ul>	5.0	5.0	9	3	12	-
		Irrigated	Kharif-2014	Paddy	JGL-1798, MTS 1010, Jyothi	-	INM in paddy	<ul style="list-style-type: none"> <li>Recommended NPK + foliar application of 1% 19:19:19 at maximum tillering stage + foliar application of 1% 13:0:46 at grain filling stage.</li> </ul>	2.0	2.8	8	6	14	-
		Rainfed	Kharif-14	Maize	-	Private hybrid	Crop management	Maize + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4, Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping	5.0	6.2	14	2	16	-
4	Millets	Rainfed	Kharif-14	Finger millet	ML-365	-	Crop management	Finger millet + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4,	4.0	4.8	4	9	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	
								Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping						
5	Vegetables	Irrigated	Kharif-2014	Tomato	-	Arka Rakshak	Varietal evaluation	Pro-tray nursery technique, Disease tolerant hybrid, Good keeping quality fruits, High yielding hybrid	1.0	1.0	0	4	4	-
		Rainfed	Kharif-2014	Drumstick	Bhagya	-		Varietal evaluation	Drumstick as a profitable sole / intercrop, Nipping technique	3.0	3.0	0	5	5
6	Flowers													
7	Ornamental													
8	Fruit	Irrigated	Kharif 2014	Pineapple	Kew	-	Management of heart rot	• Soil application of Neem enriched Trichoderma @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%	2.0	2.0	0	5	5	-
9	Spices and condiments	Irrigated	Kharif-2014	Ginger	Riode geniro	-	Management of shoot borer and rhizome rot	Spraying of Lambda cyhalothrin @ 1 ml/L, Application of Curzate @ 2 gm/L and Streptocycline @ 0.5 gm/L	4.0	4.0	0	10	10	-
10	Commercial													
11	Medicinal and aromatic													



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	
12	Fodder													
13	Plantation	Irrigated	Kharif-2014	Arecanut	Sagar local	-	Management of Root grub	Application of neem cake @ 2kg/plant and Imidachloprid @ 0.5 ml/ltr.	2.0	2.0	0	5	5	-
14	Fibre													
15	Dairy	-	2014	-	-	-	Nutrition management	Cattle feed preparation by using local ingredients, Selection of ingredients, Feed formulation, Feed mixing and Scientific feeding	5 animal	5 animal	0	5	5	-
16	Poultry													
17	Rabbitry													
18	Pigerry													
19	Sheep and goat													
20	Duckery													
21	Common carps													
22	Mussels													
23	Ornamental fishes													
24	Oyster mushroom													
25	Button mushroom													
26	Vermicompost													
27	Sericulture													
28	Apiculture													
29	Implements													
	Others (specify) Fodder production	Irrigated	Kharif, 2014	Fodder Sorghum	COFS-29	-	Fodder production	Demonstration of Multi Cut Fodder Sorghum variety COFS-29	8.0	8.0	4	16	20	-

5.A. 1. Soil fertility status of FLDs plots during 2014-15

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	Rain fed	Kharif, 2014	Groundnut	GPBD-4	-	Crop management	ICM in Groundnut <ul style="list-style-type: none"> <li>• Variety GPBD-4</li> <li>• Lime application based on soil test</li> <li>• Seed treatment with <i>Rhizobium</i>, PSB &amp; <i>Trichoderma</i></li> <li>• Gypsum application @ 500 kg / ha.</li> <li>• Foliar application of borax @ 0.2 %</li> </ul>	Kharif, 2014	L	H	M	Maize
		Irrigated	Summer, 2014	Sunflower	-	Cargill hybrid (Shivamogga-3859)	Crop management	<ul style="list-style-type: none"> <li>• Lime application based on soil test</li> <li>• Sulphur application @ 20 kg/ha.</li> <li>• Spray with Imidacloprid @ 0.5 ml/ltr.</li> <li>• Use of <i>Trichoderma</i></li> </ul>	Summer, 2014	L	H	M	Maize
2	Pulses	Rainfed	Rabi /Summer, 2014	Green gram	KKM-3	-	Varietal evaluation	Short duration green gram variety KKM-3 in rice fallows	Rabi/Summer, 2014	L	H	M	Paddy

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	
		Rainfed	Rabi/ summer, 2014	Black gram	LBS-625	-	Varietal evaluation	Short duration black gram variety LBG - 625 in rice fallows	Rabi/ Summer, 2014	L	H	M	Paddy
3	Cereals	Irrigated	Kharif- 2014	Paddy	JGL-1798	-		<ul style="list-style-type: none"> <li>Seed treatment with Carbendazim @ 4 gm/kg</li> <li>Spraying of Chloropyriphos @ 0.2%</li> <li>Soil application of Fipronil 0.3 G @ 10 kg/ac</li> <li>Spraying of Tricyclozole @ 0.06 %</li> </ul>	Kharif- 2014	L	H	M	Paddy
		Irrigated	Kharif-2014	Paddy	JGL-1798 MTU-1010, Jyothi	-	INM	Reccd. NPK + Foliar application of 1 % 19-19-19 at maximum tillering stage + foliar application of 1% 13-0-46 at grain filling stage	Kharif-2014	L	H	M	Paddy
		Rainfed	<i>Kharif-14</i>	Maize	-	Private hybrid	Crop management	Maize + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4, Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping	<i>Kharif-14</i>	L	H	M	Maize, sunflower

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	
4	Millets	Rainfed	Kharif-14	Finger millet	ML-365	-	Crop management	Finger millet + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4, Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping	Kharif-14	L	H	M	Finger millet, maize, paddy
5	Vegetables	Irrigated	Kharif & Rabi – 2014	Tomato	-	Arka Rakshak	Varietal evaluation	Pro-tray nursery technique, Disease tolerant hybrid, Good keeping quality fruits, High yielding hybrid	Kharif & Rabi – 2014	L	H	M	Ridge gourd
		Rainfed	Kharif-2014	Drumstick	Bhagya	-		Varietal evaluation	Drumstick as a profitable sole / intercrop Nipping technique	Kharif-2014	L	H	M
6	Flowers												
7	Ornamental												
8	Fruit	Irrigated	Kharif-2014	Pineapple	Kew	-	Disease management	<b>Management of heart rot</b> • Soil application of Neem enriched <i>Trichoderma</i> @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%	Kharif-2014	H	M	L	Pineapple

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	
9	Spices and condiments	Irrigated	Kharif-2014	Ginger	Riode geniro	-	Pest management	Management of shoot borer and rhizome rot, Spraying of insecticide, Lambda Cyhalothrin @ 1.0 ml/L. Application of curzate @ 2 gm/L and Streptocycline @ 0.5 gm/L	Kharif-2014	H	M	L	Maize
10	Commercial												
11	Medicinal and aromatic												
12	Fodder												
13	Plantation	Irrigated	Throughout the year	Arecanut	Sagar local	-	Pest management	<b>Management of Root grub:</b> Application of neem cake 0.2 kg/plant and Imidachloprid @ 0.5 ml/ltr.	Throughout the year	H	M	L	Arecanut
14	Fibre												

## 5.B. Results of Frontline Demonstrations

### 5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Oilseeds	ICM in groundnut	GPBD-4	-	Rain fed	5	2.0	21.00	18.00	19.00	17.30	9.83	21350	81660	60310	3.82	19950	74360	54410	3.73
	ICM in sunflower	-	Cargill hybrid (SH-3859)	Irrigated	6	25.0	25.00	16.25	20.63	18.75	10.03	17400	66771	49371	3.83	16850	60725	43875	3.60
Pulses	Short duration green gram variety KKM-3 in rice fallows	KKM-3	-	Paddy fallow	10	3.55	2.98	1.89	2.60	2.10	23.81	12115	23906	11791	1.98	12980	21845	8865	1.69
	Short duration black gram variety LBG - 625 in rice fallows	LBG-625	-	Paddy fallow	10	4.0	3.55	2.08	2.81	2.57	9.34	12035	22092	10057	1.80	12.035	17740	5705	1.50
Cereals	Foliar nutrition in paddy through water soluble fertilizers	JGL 1798, MTU 1010, Jyothi	-	Irrigated	14	2.8	64.00	56.20	59.77	58.66	1.89	28110	77440	49329	2.75	27707	75990	48283	2.74
	Management of stem borer & blast in paddy	JGL-1798	-	Irrigated	12	5.0	58.00	54.00	55.25	47.42	16.51	37000	71825	34825	1.94	42583	61642	19059	1.45
	Demonstration of Maize + Pigeon pea intercropping	-BRG-4	Private hybrid	Rainfed	12	5.0	58.50	44.5	52.3	54.6		25009	55961	30952	2.29	26025	28419	32394	2.24
Millets	Intercropping finger millet with pigeon pea	ML-365		Rainfed	10	4.0	13.25	11.50	12.0	13.0	-	17879	23333	5454	1.30	17708	24692	6984	1.39
		BRG-4					2.0	0	-	-	-								
Vegetables	Introduction of high yielding, disease tolerant F <sub>1</sub> hybrid tomato – Arka Rakshak	--	Arka Rakshak	Irrigated	4	1.0	774.50	621.60	748.10	647.30	15.57	119772	373987	254215	3.12	121855	323637	201782	2.65

	Introduction of high yielding drumstick variety – <i>Bhagya</i> as a profitable perennial vegetable crop	<i>Bhagya</i>	-	Rainfed	8	3.0	In progress												
Flowers																			
Ornamental																			
Fruit	Management of heart rot disease in pineapple	Kew	-	Irrigated	5	2.0	518	495	505.40	435.00	16.18	182600	606960	423400	3.32	175000	522000	347000	2.98
Spices and condiments	Management of Shoot Borer & Rhizome rot in Ginger	Riode geniro	-	Irrigated	10	4.0	345	330	338	275.50	22.69	337500	946400	608900	2.80	375200	771400	396200	2.05
Commercial																			
Fibre crops like cotton																			
Medicinal and aromatic																			
Fodder	Demonstration of Multi Cut Fodder Sorghum variety COFS-29	fodder sorghum COFS-29			20	8.0	In progress												
Plantation	Management of root grub in arecanut	Sagar local	-	Irrigated	5	2.0	12.0	9.0	10.8	8.50	27.06	62200	388800	326600	6.25	52600	306000	253400	5.82
Fibre																			
Others (pl.specify)																			
Nutritional Management	Cattle feed preparation by using local ingredients				5	5 animal	In progress												

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

\*\* BCR= GROSS RETURN/GROSS COST

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

### Data on additional parameters other than yield

<b>ICM in ground nut</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Leaf Spot incidence (%)</b>	7.70	15.60
<b>Shelling percentage</b>	69.60	67.20
<b>Initial soil test values</b>	pH-5.94, OC(%)-0.39%, Exch-Ca (Cmol/kg)-4.28	
<b>Final soil test values</b>	pH-6.90, OC(%)-0.46%, Exch-Ca (cmol/kg)-9.28	pH-6.30, OC(%)-0.42%, Exch-Ca (cmol/kg)-3.12

<b>ICM in sunflower</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Bud necrosis incidence (%)</b>	5.25	12.75
<b>Initial soil test values</b>	pH-6.25, OC-0.42 %, N-165 kg/ha, P <sub>2</sub> O <sub>5</sub> -88 kg/ha, K <sub>2</sub> O-158 kg/ha, S-7.55 ppm	
<b>Final soil test values</b>	pH-7.10, OC-0.45 %, N-212 kg/ha, P <sub>2</sub> O <sub>5</sub> -112 kg/ha, K <sub>2</sub> O-240 kg/ha, Avail.S-19.9 ppm	pH-6.50, OC-0.42 %, N-200 kg/ha, P <sub>2</sub> O <sub>5</sub> -135 kg/ha, K <sub>2</sub> O-220 kg/ha, S-9.5 ppm

<b>Short duration green gram variety, KKM – 3 in rice fallows</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>No. of pods / plant</b>	18	13
<b>Pod length</b>	8.7	6.4
<b>Initial soil test values</b>	N-165 kg/ha, P <sub>2</sub> O <sub>5</sub> -88 kg/ha, K <sub>2</sub> O-158 kg/ha	
<b>Final soil test values</b>	N-285.5 kg/ha, P <sub>2</sub> O <sub>5</sub> – 122.5 kg/ha, K <sub>2</sub> O-203 kg/ha	N-256.4 kg/ha, P <sub>2</sub> O <sub>5</sub> – 108.3 kg/ha, K <sub>2</sub> O-185.5 kg/ha

<b>Short duration black gram variety LBG-625 in rice fallows</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>No. of pods / plant</b>	16	12
<b>Pod length</b>	7.1	5.9
<b>Initial soil test values</b>	N-183 kg/ha, P <sub>2</sub> O <sub>5</sub> - 96 kg/ha, K <sub>2</sub> O- 145 kg/ha	
<b>Final soil test values</b>	N-312.5 kg/ha, P <sub>2</sub> O <sub>5</sub> -139.0 kg/ha, K <sub>2</sub> O-218.0 kg/ha	N-286.0 kg/ha, P <sub>2</sub> O <sub>5</sub> -112.5 kg/ha, K <sub>2</sub> O-193.0 kg/ha

<b>Foliar nutrition in paddy through water soluble fertilizers</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>No. of tillers / plant</b>	72.00	65.00
<b>Stem borer incidence (%)</b>	7.92	14.14
<b>Blast incidence (%)</b>	7.93	16.43
<b>Initial soil test values</b>	pH-6.70, N-192.86 kg/ha, P <sub>2</sub> O <sub>5</sub> -105.87 kg/ha, K <sub>2</sub> O-181.72 kg/ha	
<b>Final soil test values</b>	pH-7.10, N-280.85 kg/ha, P <sub>2</sub> O <sub>5</sub> -110.92 kg/ha, K <sub>2</sub> O-212.15 kg/ha	pH-6.58, N-213.45 kg/ha, P <sub>2</sub> O <sub>5</sub> -126.95 kg/ha, K <sub>2</sub> O-278.35 kg/ha

<b>Management of stem borer and blast in paddy</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Stem borer incidence (% dead heart)</b>	9.58	18.96
<b>Blast incidence (%)</b>	8.45	14.21



<b>Demonstration on Maize + Pigeon pea intercropping</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Initial Soil test value (kg/ha)</b>	N = 269.8; P <sub>2 5</sub> O = 59.3; K <sub>2</sub> O = 120.6	
<b>Final soil test value (kg/ha)</b>	N = 320.5; P <sub>2 5</sub> O = 67.5; K <sub>2</sub> O = 162.4	N = 285.0; P <sub>2 5</sub> O = 71.0; K <sub>2</sub> O = 161.0

<b>Demonstration on intercropping in Finger millet</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Initial Soil test value (kg/ha)</b>	Avail. N = 197.5; P <sub>2 5</sub> O = 80.6; K <sub>2</sub> O = 162.6	
<b>Final soil test value (kg/ha)</b>	N = 212.50; P <sub>2 5</sub> O = 95.50; K <sub>2</sub> O = 212.50	N=190.50; P <sub>2 5</sub> O = 98.50; K <sub>2</sub> O = 200.50

<b>Demonstration of high yielding, disease tolerant tomato hybrid – Arka Rakshak</b>		
<b>Parameter with unit</b>	<b>Demonstration (Arka Rakshak)</b>	<b>Local</b>
<b>Fruit Weight (g)</b>	97.25	90.75
<b>Disease incidence</b>	Tolerant to Leaf curl, Bacterial wilt, and Early blight	Not tolerant to Leaf curl, Bacterial wilt, and Early blight
<b>Keeping quality of fruits (days)</b>	8-10	7-8

<b>Management of heart rot disease in pineapple</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Heart rot disease incidence (%)</b>	11.40	22.40

<b>Management of shoot borer and rhizome rot in ginger</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>Shoot borer incidence (% dead heart)</b>	14.00	25.45
<b>Rhizome rot incidence (%)</b>	9.50	28.35

<b>Management of root grub in arecanut</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>No. of grubs per plant</b>	1.8	8.5

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

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)			% Increase	*Economics of demonstration (Rs./unit)				*Economics of check (Rs./unit)				
					Demonstration				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy																	
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others (pl.specify)																	
Nutrient management	Cattle feed preparation by using local ingredients		5	5	In progress												
Fodder production	Demonstration of Multi Cut Fodder Sorghum variety COFS-29		20	8.0 ha	In progress												

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

\*\* BCR= GROSS RETURN/GROSS COST

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

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m <sup>2</sup> )	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m <sup>2</sup> )				*Economics of check (Rs./unit) or (Rs./m <sup>2</sup> )				
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
					H	L	A											
Common carps																		
Mussels																		
Ornamental fishes																		
Others (pl.specify)																		

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

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

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

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

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

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

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

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

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

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

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

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

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

\*\* BCR= GROSS RETURN/GROSS COST

**Data on additional parameters other than labour saved : NIL**

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

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

Sl. No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	4	219	
2	Farmers Training	11	-	
3	Media coverage (TV)	-	-	-
4	Training for extension functionaries	-	-	-
5	Others (Please specify) Method demonstrations	4	-	-

## PART VI – DEMONSTRATIONS ON CROP HYBRIDS

### Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)				
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
					H	L	A											
<b>Cereals</b>																		
Bajra																		
Maize																		
Paddy																		
Sorghum																		
Wheat																		
Others (pl.specify)																		
<b>Total</b>																		
<b>Oilseeds</b>																		
Castor																		
Mustard																		
Safflower																		
Sesame																		
Sunflower																		
Groundnut																		
Soybean																		
Others (pl.specify)																		
<b>Total</b>																		
<b>Pulses</b>																		
Greengram																		
Blackgram																		
Bengalgram																		
Redgram																		
Others (pl.specify)																		
<b>Total</b>																		
<b>Vegetable crops</b>																		
Bottle gourd																		
Capsicum																		

Others (pl.specify)																	
<b>Total</b>																	
Cucumber																	
Tomato	High yielding and triple disease tolerant F1 hybrid tomato Arka Rakshak	Arka Rakshak	4	1.0	774.50	621.60	748.10	647.30	15.57	119772	373987	254215	3.12	121855	323637	201782	2.65
Brinjal																	
Okra																	
Onion																	
Potato																	
Field bean																	
Others (pl.specify)																	
<b>Total</b>																	
<b>Commercial crops</b>																	
Sugarcane																	
Coconut																	
Others (pl.specify)																	
<b>Total</b>																	
Fodder crops																	
Maize (Fodder)																	
Sorghum (Fodder)																	
Others (pl.specify)																	
<b>Total</b>																	

H-High L-Low, A-Average

## PART VII. TRAINING

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	3	53	1	54	38		38	91	1	92
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management	2	16		16				16	-	16
Production of organic inputs	1		8	8	-	3	3		11	11
PPV&FRA-2001	1	32	50	82	8	10	18	40	60	100
Others (pl.specify)										
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	2	39		39	11	-	11	50	-	50
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify)										
<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	20	24	44	18	22	40	38	46	84
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>f) Spices</b>										
Production and Management technology	1	12	2	14	7	7	14	19	9	28



Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Processing and value addition										
Others (pl.specify)										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
<b>Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated nutrient management	2	9	11	20	3	5	8	12	16	28
Production and use of organic inputs	1	5	12	17	3	8	11	8	20	28
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
<b>Livestock Production and Management</b>										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	14	2	16	4	1	5	18	3	22
Animal Disease Management	1	9	3	12	40	10	50	49	13	62
Feed and Fodder technology	1	20		20	1		1	21		21
Production of quality animal products										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl.specify) Scientific sheep rearing	2	40	6	46	54	14	68	94	20	114
<b>Home Science/Women empowerment</b>										
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)										
<b>Agril. Engineering</b>										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
<b>Plant Protection</b>										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated Pest Management	1	8	7	15	6	4	10	14	11	25
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify) Safe use of pesticides										
<b>Fisheries</b>										
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)										
<b>Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of 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	1	7	20	27		12	12	7	32	39
Apiculture										
Others (Pl.specify)										
<b>Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	7		7	5		5	12		12
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems	3	86	10	96	20	3	23	106	13	119
Others (Pl. specify)										
Lac cultivation	1	1	14	15	22	7	29	23	21	44
<b>TOTAL</b>	<b>26</b>	<b>378</b>	<b>170</b>	<b>548</b>	<b>240</b>	<b>106</b>	<b>346</b>	<b>618</b>	<b>276</b>	<b>895</b>

### 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
<b>Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	1	12	4	16	7	3	10	19	7	26
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	3	101			41			142		142
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	26	23	49	20	22	42	46	45	91
Management of young plants/orchards										
Rejuvenation of old orchards										

Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
Flower Crops	1									74
Protected cultivation	1	40		20						60
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Sandal wood cultivation	1	34	1	35	14		14	48	1	49
<b>Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated nutrient management	1	15	10	25	15	4	19	30	14	44

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	2		18	12	30			18	12	30
Others (pl.specify) Use of biofertilizers										
<b>Livestock Production and Management</b>										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology	1									55
Production of quality animal products										
Others (pl.specify)										
<b>Home Science/Women empowerment</b>										
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)										
<b>Agril. Engineering</b>										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
<b>Plant Protection</b>										
Integrated Pest Management	1	10	-	10						10
Integrated Disease Management	2	11	7	12	13	3	30	24	24	48
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
<b>Fisheries</b>										
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)										
<b>Production of Inputs at site</b>										
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	1	4	15	19		7	7	4	22	26
Apiculture										
Others (pl.specify)										
<b>Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify) Coconut Palm climbing – skill development training										
<b>TOTAL</b>	<b>16</b>	<b>253</b>	<b>78</b>	<b>198</b>	<b>140</b>	<b>39</b>	<b>122</b>	<b>331</b>	<b>125</b>	<b>655</b>

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

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

Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

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

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

Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

**7.E. Training programmes for Extension Personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	1	22	7	29				22	7	29
Integrated Nutrient management	1	34		34				34		34
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										

Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Nutritional and landscape gardening	1	20		20				20		20
<b>Total</b>	<b>3</b>	<b>76</b>	<b>7</b>	<b>83</b>				<b>76</b>	<b>7</b>	<b>83</b>

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

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

### 7.G. Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b>1</b>	<b>Crop production and management</b>											
1.a.	Increasing production and productivity of crops											
1.b.	Commercial production of vegetables											
<b>2</b>	<b>Production and value addition</b>											
2.a.	Fruit Plants											
2.b.	Ornamental plants											
2.c.	Spices crops											
<b>3.</b>	<b>Soil health and fertility management</b>											
<b>4</b>	<b>Production of Inputs at site</b>											
<b>5</b>	<b>Methods of protective cultivation</b>											
<b>6</b>	<b>Others (pl.specify)</b>											
<b>7</b>	<b>Post harvest technology and value addition</b>											
7.a.	Processing and value addition											
7.b.	Others (pl.specify)											
<b>8</b>	<b>Farm machinery</b>											
8.a.	Farm machinery, tools and implements	1	16	4	20				16	4	20	
8.b.	Others (pl.specify)											
<b>9.</b>	<b>Livestock and fisheries</b>											
<b>10</b>	<b>Livestock production and management</b>											
10.a.	Animal Nutrition Management											
10.b.	Animal Disease Management											
10.c.	Fisheries Nutrition											
10.d.	Fisheries Management											
10.e.	Others (pl.specify)											
<b>11.</b>	<b>Home Science</b>											
11.a.	Household nutritional security											
11.b.	Economic empowerment of women											

11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
<b>12</b>	<b>Agricultural Extension</b>										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others (pl.specify)										
	<b>Total</b>	1	16	4	20				16	4	20

### Details of sponsoring agencies involved

1. Coconut development board, Hulimavu, Bengaluru

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

S.No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b>1</b>	<b>Crop production and management</b>											
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)											
<b>2</b>	<b>Post harvest technology and value addition</b>											
2.a.	Value addition											
2.b.	Others (pl.specify)											
<b>3.</b>	<b>Livestock and fisheries</b>											
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)											
<b>4.</b>	<b>Income generation activities</b>											
4.a.	Vermi-composting											
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.											

S.No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
4.c.	Repair and maintenance of farm machinery & implements											
4.d.	Rural Crafts											
4.e.	Seed production											
4.f.	Sericulture											
4.g.	Mushroom cultivation											
4.h.	Nursery, grafting etc.											
4.i.	Tailoring, stitching, embroidery, dying etc.											
4.j.	Agril. para-workers, para-vet training											
4.k.	Others (pl.specify)											
<b>5</b>	<b>Agricultural Extension</b>											
5.a.	Capacity building and group dynamics											
5.b.	Others (pl.specify)											
	Coconut palm climbing – skill development training	1	16	4	20				16	4	20	
	<b>Grand Total</b>	1	16	4	20				16	4	20	



## **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	4	132	49	181	27	11	38			
Kisan Mela										
Kisan Ghosthi										
Exhibition	3			300700						39
Film Show	18	540	108	648	54	18	72	8	2	10
Method Demonstrations	6	48	12	60	5	3	8			
Farmers Seminar / Workshop	1	115	17	132	20	10	30			
Group meetings	16	65	7	72	12	8	20			
Lectures delivered as resource persons	77	1942	578	2520	631	180	811	383	37	420
Newspaper coverage	13									
Radio talks	5									
TV talks	5									
Popular articles	6									
Extension Literature	3									
Advisory Services	207	130	51	181	22	8	30			
Scientific visit to farmers field	179	160	30	190	30	13	43			
Farmers visit to KVK	207	185	5	190	15	2	17			
Diagnostic visits	1	2								
Exposure visits	2			32						

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
Ex-trainees Sammelan										
Soil health Camp										
Animal Health Camp										
Agri mobile clinic										
Soil test campaigns										
Farm Science Club Conveners meet										
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify)										
World Food Day	1	37	12	49	21	11	32	8	3	11
Women in Agriculture Day	1	-	39	39	-	20	20	1	1	2
Kisan Day		60	7	67	24	-	24	10	8	18
Technology Week-2014	1	309	12	321	10	8	18	-	-	-
Any Other (Specify)										
Conducted Cluster Level workshop on IFSD for the staff of IFSD/ CBA implementing centres – KVK, Shivamogga and Udipi districts on 27-03-2014 at KVK, Shivamogga.	1							20	4	24
Conducted workshop on IFS for all heads and professors on 05-04-2014 at KVK, Shivamogga in collaboration UAHS, Shivamogga	1							70	9	79
SMS Messages	65	1165	412	1577	271	12	283	31	9	40
Messages related to 'Swachh Bharath Abhiyan'	8	1165	412	1577	271	12	283	31	9	40
<b>Total</b>	<b>819</b>	<b>5527</b>	<b>1646</b>	<b>307903</b>	<b>1359</b>	<b>303</b>	<b>1662</b>	<b>554</b>	<b>80</b>	<b>673</b>

## 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 (crop wise)						
Oilseeds						
Pulses	Horse Gram	PHG-9		5.0	22500	
Millets	Ragi	GPU-28		3.5	8050	
	Ragi	KMR-301		3.5	8050	
	Ragi	ML-365		3.5	8050	
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds	Fodder Sorghum	CoFS-29		5.0	2000	
Fiber crops						
Forest Species						
Others (specify)						
<b>Total</b>				<b>20.5</b>	<b>48650</b>	

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

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial						
Vegetable seedlings	<b>Drumstick</b>	Bhagya		3179	31790	16
	<b>Brinjal</b>	Local		1500	1650	1
	<b>Chilli</b>	Local		1500	1650	1
	<b>Tomato</b>	Arka Rakshak		9500	9500	2
Fruits	<b>Papaya</b>	Taiwan-786		13650	163800	51
	<b>Lime</b>	Local		42	420	8
	<b>Mango</b>	Badami		8	320	
	<b>Sapota</b>	Cricket Ball		11	440	4
Ornamental plants						
Medicinal and Aromatic Plantation						
Spices	<b>Curry leaf</b>	<b>Local</b>		<b>260</b>	<b>2600</b>	10
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
Flower						
<b>TOTAL</b>				<b>20150</b>	<b>212320</b>	

### 9.C. Production of Bio-Products : NIL

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

### 9.D. Production of livestock materials: NIL

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
<b>Dairy animals</b>				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl. specify)				
<b>Fisheries</b>				
Fingerlings				
Fish	Gowri, Rohu	65 kg	6500	-
Others (Pl. specify)				
<b>Total</b>				

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

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

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.) :  
**December, - 2006, Quarterly – 1000**

## (B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Keeta mattu rogakala nirvahane	B.C.Hanumanthaswamy, Nagarajappa Adivappar, T.H.Gowda. NAgaraja R., Somashekharappa P.R.	1
Technical reports	1. Monthly Progress Report 2. Quarterly Progress Report 3. ZREP Report 4. EPCB Report 5. EEC Report 6. Citizen's-Client's Charter Report 7. Information on Agricultural Ecological Situation 8. Significant Achievements 9. Annual Progress Report 10. Action Plan	B.C.Hanumanthaswamy, Basavaraj Beerannavar, B.C.Dhananjaya, Ashok M., Nagarajappa Adivappar, T.M.Soumya, Nagaraja R. P.R.Somashekharappa	12 4 1 1 1 12 12 12 1 1
News letters	'Spandana' – Quarterly farmers' news letter	B.C.Hanumanthaswamy, Basavaraj Beerannavar, B.C.Dhananjaya, Ashok M., Nagarajappa Adivappar, T.M.Soumya, Nagaraja R. P.R.Somashekharappa	4
Technical bulletins	Sasya Taligala Samrakshane mathu Raitara Hakkugala Kayide- 2001	B.C.Hanumanthaswamy, B.C., Baavaraj Beerannavar, Dhananjaya, B.C., Ashok, M., Nagarajappa Adivappar and Soumya T. M.	1
Popular articles	Abaleya Sabaleekaranakkiruva preranegalu, Samagra Krushi Paddati – Swavalambi Krushikana Sustirateya Sanketa Mekke Jolada Samagra Bele Nirvahane. Dravarupada Gobbaragalu Melu Mahile – Sadhanega Sanda Mannane Bala Vana – Baby Corn. Samsthe-Campco Chavadi Charche – Saraku Vinimaya Kendra (Commodity Exchange). Chavadi Charche – Saraku Vinimaya Kendra (Commodity Exchange) Chavadi Charche – Saraku Vinimaya Kendra (Commodity Exchange)	T.M.Soumya, Ashok, M., B.C.Dhananjaya T.M.Soumya, Ashok, M., Kavera Biradar T.M.Soumya, B.C.Dhananjaya T.M.Soumya, Ashok, M. T.M.Soumya T.M.Soumya T.M.Soumya T.M.Soumya T.M.Soumya T.M.Soumya	1 1 1 1 1 1 1 1 1 1

Item	Title	Authors name	Number
	Bannada Broiler Koli	Ashok M.	1
	Hainugarana Kechalu Bavu-Shathru	Ashok M.	1
	Cocoa Hannina Sippe Uthama Pashu Aahara	Ashok M.	1
	Anuradha Male Nakshathra kuritha gaadegalalu	T.M.Soumya	1
	Pranijanya Sankramika Rogagla Thadege bekide jaagruthi	Ashok M.,	1
	Bale beleyallina keetagalu haagu avugala nirvahane	T.M.Soumya	1
	Bale beleyallina keetagalu haagu avugala nirvahane	B.C.Hanumanthaswamy, Nagarajappa Adivappan, T.H.Gowda	1
	Evaluation and cost benefit analysis of IPM module for pod borer	B.C.Hanumanthaswamy	1
	Neeravari jolada keetagalu haagu avugala nirvahane	B.C.Hanumanthaswamy	1
	Bevu : Keetagalige kantaka praya	B.C.Hanumanthaswamy, Nagarajappa Adivappan	1
	Keetanashakagala surakshita blake	B.C.Hanumanthaswamy, Nagarajappa Adivappan	1
Extension literature			
Others (Pl. Specify)			
Abstracts	Extension approaches for rural poultry entrepreneurship: a success story.	Ashok M., T.M.Soumya	1
	Empowerment of rural poultry entrepreneurship through contract poultry farming: A success story.	Ashok M., T.M.Soumya, Umesh B.U.	1
Training manual			1
Chapters in manual			1
Folder	Management of Koleroga in arecanut	H. Narayanaswamy, K.S.Sheshagiri Nagarajappa Adivappan, A.S.Sachin, Raju J.	1
	Management of Ganoderma in arecanut	H. Narayanaswamy, K.S.Sheshagiri, Nagarajappa Adivappan, V. K. Bhojanaik, Raju J.	1
	Management of Hedimundige	H. Narayanaswamy, K.S.Sheshagiri, Nagarajappa Adivappan, A.S.Sachin, Raju J.	1
	Management of inflorescence dieback	H. Narayanaswamy, K.S.Sheshagiri, Nagarajappa Adivappan, A.S.Sachin, Raju J.	1
	Nutrient management in arecanut	H. Narayanaswamy, K.S.Sheshagiri V. K. Bhojanaik, Nagarajappa Adivappan, A.S.Sachin	1
	Plant protection and inter-cropping in arecanut	K.S.Sheshagiri, Chidanandappa H.M., Mohankumar H. D., Nagarajappa Adivappan, Sunil C.	1
	Multistoried cropping system in arecanut	K.S.Sheshagiri, Nagarajappa Adivappan, S. Shivanna	
<b>TOTAL</b>			<b>95</b>

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

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

#### 10.C. Success Stories / Case studies.

##### 1. Success Story of KVK Nursery

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

For successful horticulture crop production, supply of elite planting material and training to growers are very essential. In this regard, from 2010-11 to 2014-15 KVK conducted 10 training programmes on topics related to "Improved production technologies of papaya and drumstick". During the training programmes about 350 farmers/farm women / rural youth were trained. By realizing the immense scope and potentiality of growing papaya and drumstick as a sole / intercrop farmers purchased quality planting material from KVK, Shivamogga. Totally, 37,250 drumstick (PKM-1 & Bhagya) seedlings of worth Rs. 3,72,500/- were sold to 80 farmers by covering an area of 80 ha as sole crop or intercrop in younger arecanut gardens. Similarly, 58,835 papaya seedlings (Arka Surya and Taiwan-786) of worth Rs.7,06,020/- were sold to 110 farmers by covering in area of 45 ha as intercrop in younger areanut gardens. By growing papaya and drumstick as intercrops farmers have obtained Rs. 1,60,000/- and Rs. 1,35,000/- per ha respectively as a additional income in arecanut apart from protecting younger arecanut plants from scorching sun, reducing weed menace and creating better micro climate for areca growth. Due to concerted efforts of KVK intercropping of papaya and drumstick in younger areca gardens has spread to more than 510 ha in the district with an additional income of Rs. 8.0 to 10.0 crores.

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

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

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

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

### **Objectives**

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

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

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

### **Activities carried out under IFSD project.**

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

### **Critical inputs supplied**

#### **I. Crop Component**

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



## **II. Horticulture component**

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

## **III. Animal component**

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

## **IV. Other components**

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

**V. Initiation of Commodity Based Associations (CBAs) / Agro Service Centres (ASCs)** In order to provide inputs at desired level and also interlink the sale of produce two CBAs/ ASCs were started in two villages of the project area. Each CBA is having 15 members and the members contributed Rs.1.00 lakh. Seed money of Rs. 1.00 is contributed from the project to each of the CBA.

## **Impact of the IFSD project**

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

## **3. Integrated management of Rhizome borne diseases in banana- a CASE STUDY**

**Background :** Banana is one of the important fruit crop of Shivamogga 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 Shivamogga 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 Shivamogga 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.

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

**10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs) : NIL**

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

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

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

**10.G. Field activities**

- i. Number of villages adopted : 14
- ii. No. of farm families selected : 1400
- iii. No. of survey/PRA conducted : 14

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

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

Sl. No	Name of the Equipment	Qty.	Cost
1	pH Meter	1 No.	8,550
2	Conductivity meter	1 No.	7,400
3	Physical balance (KROY)	1 No.	12,000
4	Chemical balance (Shimadzu)	1 No.	48,900
5	Water distillation still	1 No.	48,850
6	Shaker	1 No.	27,600
7	Hot air oven	1 No.	20,000
8	Magnetic stirrer with hot plate	1 No.	5,500
9	Spectrophotometer	1 No.	42,000
10	Flame photometer	1 No.	35,200
11	Macro digestion system	1 No.	52,118
12	Automatic distillation system	1 No.	85,232
13	Electronic Acid neutralizer scrubber	1 No.	23,909
14	Hot plate Rectangular	1 No.	9,600
15	Ind. & Comml.	1 No.	26,400
16	F & P Fume cupboard	1 No.	41,625
17	FRP ducting with FRP blower	1 No.	18,000
18	Refrigerator	1 No.	18,133
19	Khaitan Heavy duty fan	1 No.	3,777
20	Flame Burner	1 No.	1,146
21	Digital Micro pipette set	1 No.	21,180
22	pH Meter	1 No.	6,600
22	Chemicals		30,055
23	Glassware		1,35,417

**Details of samples analyzed so far since establishment of SWTL**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	3260	938	924	100800
Water Samples	525			32420
Plant samples	-			-
Manure samples	70			8190
Lime	6			600
<b>Total</b>	<b>3861</b>	<b>938</b>	<b>924</b>	<b>142010</b>

**Details of samples analyzed during 2014-15**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	580	264	250	17400.00
Water Samples	141			8460.00
Plant samples				
Manure samples	02			240.00
Others (specify) Lime	01			100.00
<b>Total</b>	<b>724</b>	<b>264</b>	<b>250</b>	<b>26200.00</b>

**10.I. Technology Week celebration during 2014-15 : YES**

Period of observing Technology Week : From 18-11-2014 to 22-11-2014

Total number of farmers visited : 319

Total number of agencies involved : 7

Number of demonstrations visited by the farmers within KVK campus : 20

**Other Details**

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosties	-	-	-
Lectures organized	10	319	Paddy, maize, groundnut, cotton, arecanut, ginger, Turmeric, flower crops, dairy, poultry, value addition, marketing
Exhibition	1		
Film show	5		
Fair			
Farm Visit	5	319	Maize, Hebbal Avare, chilli, groundnut, ragi, papaya, drumstick, bird of paradise, cowpea, redgram, fodder crop, farm machineries, implements, sprayers, green gram, black gram, French bean, brinjal
Diagnostic Practical's	3	319	Soil and water testing laboratory, Disease diagnostic lab.
Supply of Literature (No.)	3	319	
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)			
Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week		319	

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

**A. Introduction of alternate crops/varieties**

State	Crops/cultivars	Area (ha)	Number of beneficiaries

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

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
<b>Total</b>		

**C. Farmers-scientists interaction on livestock management : NIL**

State	Livestock components	Number of interactions	No. of participants
<b>Total</b>			

**D. Animal health camps organized : NIL**

State	Number of camps	No. of animals	No. of farmers
<b>Total</b>			

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

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
<b>Total</b>				

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

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

**G. Awareness campaign : NIL**

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Karnataka												
<b>TOTAL</b>												

## **PART XI. IMPACT**

### **11.A. Impact of KVK activities**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Oyster mushroom production	65	15	Rs.5,000/-	Rs.7,500/-
Climbing of coconut palm by using coconut climber	40	100	Rs.10,000/-	Rs.12,500/-
Foliar nutrition of water soluble fertilizer	14	10	Rs.35,000/ha	Rs.38,000/ha
Introduction of leafspot resistant variety	5	10	Rs.38,000/ha	Rs.43,000/ha
Use of sulphur fertilizers for oilseeds	6	20	Rs.44,000/ha	Rs.49,000/ha

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

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

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

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

#### **The programme:**

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

#### **The process**

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

#### **Intervention**

KVK, Shivamogga conducted frontline demonstration on groundnut variety GPBD - 4 during the years 2005-06 to 2014-15 in summer / Kharif seasons involving 79 farmers in 8 years. Totally 79 demonstrations on groundnut crop in an area of 32.8 hectares by involving 79 farmers in all the eight years of demonstration were conducted in 3 taluks of Shivamogga district (Soraba, Shikaripura and Shivamogga taluks).

#### **Output / results**

FLD results showed that GPBD-4 performed consistently better as the average pod yield of 79 demonstrations in an area of 32.8 ha. ranged from 23.55 to 28.94 q/ha. There was 17.60 % increase in pod yield in demonstrated groundnut GPBD - 4 variety which was found economically superior with higher BC ratio of 3.52 against the lower BC ratio of 2.86 in TMV-2.

Incidence of leaf spot disease was not noticed in GPBD-4 as compared to severe incidence of 60 % in local check (TMV-2)

### Outcome

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

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

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

By summer 2014, the variety has spread to 48 villages extending over an area of 1550 acres. It is very appreciable to note the sustained performance of GPBD - 4 groundnut variety even in adverse conditions and the increasing demand for the seed.

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

Year	Name of the block / village	Variety	No. of demonstration	Area (ha)	Pod Yield			
					Demonstration		Check	% increase in yield
					Maximum	Average	Average	Average
2005-06	Bedarahosally, Shivamogga Tq	GPBD - 4	12	4.80	31.80	28.94	23.38	23.78
2006-07	Devikoppa, Soraba Tq.	GPBD - 4	12	4.80	37.50	26.25	22.25	17.97
2007-08	Tumarikoppa, Soraba Tq	GPBD - 4	12	4.80	30.00	24.75	19.87	24.55
2008-09	Mallapura, Soraba Tq.	GPBD - 4	12	4.80	27.50	23.55	19.37	21.57
2009-10	Begur, Shikaripura Tq.	GPBD - 4	12	4.80	29.12	26.08	22.27	17.10
2010-11	Haramghatta, Shivamogga Tq.	GPBD - 4	7	4.00	27.25	25.57	22.76	12.35
2011-12	Nimbegondi, Shikaripura Tq.	GPBD - 4	7	2.80	25.00	23.39	20.86	12.13
2012-13	Hirakasavi, Soraba Tq.	GPBD - 4	5	2.00	27.00	24.50	22.00	11.36
<b>Total</b>			<b>79</b>	<b>32.80</b>	<b>29.40</b>	<b>25.38</b>	<b>21.60</b>	<b>17.60</b>

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

Years	Demonstration			Control / check			B:C ratio	
	Total cost (Rs/ha)	Gross return (Rs/ha)	Net income (Rs/ha)	Total cost (Rs/ha)	Gross return (Rs/ha)	Net income (Rs/ha)	Demonstration	Check
2005-06	19000	54986	35986	19500	44422	24922	2.89	2.27
2006-07	19500	52500	33000	19750	44500	24750	2.69	2.25
2007-08	18150	53213	35062	19750	42720	22970	2.93	2.16

2008-09	18500	58875	40375	21500	48425	26925	3.14	2.21
2009-10	19560	69200	45700	17775	55675	37900	3.34	3.13
2010-11	17000	56254	39254	19000	50072	31072	3.30	2.63
2011-12	16000	81865	65865	17500	73010	55510	5.12	4.17
2012-13	18000	85750	67750	19000	77000	58000	4.76	4.05
<b>Total</b>	<b>18213</b>	<b>64080</b>	<b>45374</b>	<b>19222</b>	<b>54478</b>	<b>35256</b>	<b>3.52</b>	<b>2.86</b>

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

Shivamogga 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	1.1-1.10	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



### 3) 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, Shivamogga

- 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	<ul style="list-style-type: none"> <li>- Joint diagnostic survey</li> <li>- Joint implementation of FLD's</li> <li>- Bi-monthly workshops</li> <li>- Collaborative training programme under ATMA</li> <li>- Joint field visits</li> <li>- Demonstration under ATMA</li> </ul>
2.	Karnataka State Dept. of Horticulture	<ul style="list-style-type: none"> <li>- Joint diagnostic survey</li> <li>- Collaborative training under NHM project</li> <li>- Field visits</li> <li>- Technology Demonstration</li> </ul>
3.	Karnataka state Dept. of Animal Health & Veterinary Sciences	<ul style="list-style-type: none"> <li>- Collaborative training</li> <li>- Joint implementation of animal health camps, vaccination camps, mass deworming and nutrition management of dairy stock and calf management</li> <li>- Technology demonstration of Feed formulation etc.,</li> </ul>
4.	Karnataka State Sericulture Dept.	- Collaborative training ; technology demonstration
5.	Karnataka State Dept. of Fisheries	- Technology demonstration and training under NFDB
6.	Dept. of Industries and commerce	- Collaborative training
7.	All India Radio	- Technology dissemination
8.	Doordarshan & Private TV Channels	- Technology dissemination
9.	Information and Broadcasting Dept.	- Technology dissemination & publicity
10.	Financial institutions like NABARD & Nationalized co-operative banks	<ul style="list-style-type: none"> <li>- Formation of self help groups</li> <li>- Collaborative training programme</li> </ul>
11.	Input agencies	<ul style="list-style-type: none"> <li>- Collaborative farmers training programme</li> <li>- Technology dissemination</li> </ul>
12.	Self Help Group	- Technology dissemination & organizing training
13.	Non-Governmental Organisations	- Training programme
14.	Local village level youth clubs	- Organizing training programme & field demonstration
15.	Co-operative sectors viz., milk producers, co-operative society, water users co-operative society etc.,	- Health camps and training programmes
16.	College of Agriculture	Involving RAWEP in conducting <ul style="list-style-type: none"> <li>- Training Programme</li> <li>- Method demonstration</li> <li>- Group meeting &amp; field visits</li> </ul>
17.	Dept. of marketing and Co-operation	- Awareness & training programme on go down schemes
18.	Department of Panchayath raj and rural development	Training
19.	Coconut development Board	Training
20.	Protection of Plant Varieties and Farmers' Rights Authority, New Delhi	Training
21.	UAHS, Shivamogga	Interaction Meet, Krishi Mela, Training, Seminar, Workshop

**12.B. List Externally Funded Projects / schemes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies**

Name of the scheme	Date/ Month of initiation	Funding agency	Amount
Farmers participatory approach for demonstration on Integrated Crop Management techniques in fruit and vegetable production in Shivamogga District	9/17/2014	ATMA, Department of Agriculture, Shivamogga	78800

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

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

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

**Coordination activities between KVK and ATMA during 2014-15**

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings				
02	Research projects				
03	Training programmes		3	3	
	<b>Field day</b>	Cashew	1	1	-
		French bean	1	1	-
<b>04</b>	<b>Demonstrations</b>	Drumstick	3	3	-
		Papaya	3	3	-
		French bean	2	2	-
<b>05</b>	<b>Extension Programmes</b>				
	Kisan Mela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
<b>06</b>	<b>Publications</b>				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
<b>07</b>	<b>Other Activities</b> (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

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

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

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

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

**12.F. Details of linkage with RKVY : NIL**

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

**12.G Kisan Mobile Advisory Services**

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2014	1	1258	
May 2014	3	1900	6
June 2014	7	142	
July 2014	5	157	9
August 2014	13	1524	
September 2014	11	1525	8
October 2014	1	1600	
November 2014	9	1615	5
December 2014	1	1900	
January 2014	1	1477	3
February 2014	4	1900	
March 2014	11	1900	3
<b>Total for the year 2014-15</b>	<b>67</b>	<b>1900*</b>	<b>34</b>

\* In our farmers' data base we have only 1900 farmers upto March-2015.

## PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of Establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty. (kg./Nos.)	Cost of inputs	Gross income (Rs.)	
1.	Horticulture crop demonstration unit	2014	0.20	Leafy Vegetable	Bulk	3203		6406.00	
				Bhendi		82.50		1650.00	
				Drumstick pods		79.00		1580.00	
				Radish		130.00		1300.00	
				Field Bean (Green pods)		47.50		1370.00	
				Brinjal		33.00		660.00	
				Curry leaves		280		560.00	
				Chilli		19		380.00	
				Cucumber		12		120.00	
				Carrot		7		140.00	
				Cauliflower		10		100.00	
				Ridge Gourd		3		45.00	
				Flower pockets		20		100.00	
				<b>TOTAL</b>					

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income	
Cereal : Ragi	30.07.2014	15.11.2014	0.10	GPU-28	Seeds	3.5	5350	8050	
Ragi	30.07.2014	15.11.2014	0.10	KMR-301	Seeds	3.5	5350	8050	
Ragi	30.07.2014	15.11.2014	0.12	ML-365	Seeds	3.5	5350	8050	
Pulses: Horse Gram	09.10.2014	03.01.2015	1.00	PHG-9	Seeds	5.0	10350	22500	
Oil seed :									
Fibre									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									
Fodder Sorghum	06.06.2014	15.08.2014	0.05	CoFS-29	Seeds	5.0	1560	2000	

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

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

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

Sl. No.	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty. (kg)	Cost of inputs	Gross income	
1.	Fish	Gowri, Rohu	Bulk	65	2500	6500	

**13.E. Utilization of hostel facilities**

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

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2014	5	2	Funds are not given for hostel furnishing
May 2014	87	9	
June 2014	70	7	
July 2014	26	2	
August 2014	12	1	
September 2014	100	10	
October 2014	23	7	
November 2014	31	1	
December 2014	33	2	
January 2014	61	8	
February 2014	-	0	
March 2014	20	1	
<b>TOTAL</b>	<b>468</b>	<b>50</b>	

**13.F. Database management :**

S. No.	Database target	Database created
1.		Managing the data in MS-Office other than Online Reporting system developed exclusively for KVKs by ZPD, Bengaluru.

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

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

## **PART XIV - FINANCIAL PERFORMANCE**

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

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	Canara Bank	S.M.Circle, Shivamogga	524	SB A/c	0524101038350	577015205	CNRB 0000524
With KVK	Canara Bank	S.M.Circle, Shivamogga	524	SB A/c	0524101032710	577015205	CNRB 0000524

### 14.B. Utilization of KVK funds during the year 2014-15 (Rs. in lakh)

S.#	Particulars	Released	Expenditure	Balance
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	6700000	6700000	6788238
2	Traveling allowances	51000	51000	80271
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	40000	40000	219126
B	POL, repair of vehicles, tractor and equipments	40000	40000	177890
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	20000	20000	73425
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	20000	20000	88504
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demo in a year)	245000	245000	282978
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	35000	35000	27814
G	Training of extension functionaries	10000	10000	13510
H	Maintenance of buildings	10000	10000	24966
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Integrated farming system	10000	10000	-
K	Extension Activities	10000	10000	28044
L	Farmers' Field School	10000	10000	13316
M	Library	-	-	2594
<b>TOTAL (A)</b>		<b>7201000</b>	<b>7201000</b>	<b>7820676</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>7201000</b>	<b>7201000</b>	<b>7820676</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2012 to March 2013	3.33	4.80	3.35	4.78
April 2013 to March 2014	4.78	8.00	5.30	7.49
April 2014 to March 2015	7.49	4.19	5.03	6.64

### 15. Details of HRD activities attended by KVK staff during 2014-15

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Nagarajappa Adivappar	SMS (Horticulture)	International symposium on jack fruit and bread fruit for tropics : Genetic diversity, management, value addition and marketing.	GKVK, UAS, Bangalore	15-05-2014 to 16-05-2015
Dr. B.C.Hanumanthaswamy	Programme Coordinator	Integrated Pest Management	NCIPM, New Delhi	23-07-2014 to 25-07-2014
Dr. Ashok M.	SMS (Animal Science)	Harnessing intellectual property in animal science in the changing global scenario	NIANP, Bangalore	27-08-2014 to 27-08-2014
Dr. Nagarajappa Adivappar	SMS (Horticulture)	Brain storming session on 'Nematodes problems under protected cultivation' National meeting of stakeholders and business meet	IIHR, Bangalore	08-09-2014
Dr. Nagarajappa Adivappar	SMS (Horticulture)	Asian solanaceous vegetable round table meet-2014	APSA, IIHR, ICAR and Society for promotion of Horticulture	09-09-2014 to 10-09-2014
Dr. T.M.Soumya	SMS (Agronomy)	Innovation management and IPR in Agriculture / Horticulture	UAHS, Shivamogga and VTTC, GoK, Bengaluru	28-10-2014
Dr. Ashok M.	SMS (Animal Science)	Innovation management and IPR in Agriculture / Horticulture	UAHS, Shivamogga and VTTC, Gok, Bengaluru	28-10-2014
Dr. B.C.Hanumanthaswamy	Programme Coordinator	Participatory impact	KVK, Suttur, Mysore district	01-12-2014 to 06-12-2014
Dr. Nagarajappa Adivappar	SMS (Horticulture)	International symposium on plantation crops	ICAR/IISR Calicut, Kerala	10-12-2014 to 12-12-2014
Smt. B.S.Geetha	Programme Assistant (Computer)	Database Management	KVK, Suttur, Mysore District	16-12-2014 to 17-12-2014
Dr. B.C.Dhananjaya	SMS (SS & AC)	Attracting External Fund for research projects	UAHS, Shivamogga	17-01-2015 to 18-01-2015
Dr. Nagarajappa Adivappar	SMS (Horticulture)	Attracting External Fund for research projects	UAHS, Shivamogga	17-01-2015 to 18-01-2015



Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. T.M.Soumya	SMS (Agronomy)	Attracting External Fund for research projects	UAHS, Shivamogga	17-01-2015 to 18-01-2015
Dr. Ashok M.	SMS (Animal Science)	National Bio-diversity Act-2002	UAHS, Shivamogga	21-1-2015
Dr. Nagarajappa Adivappar	SMS (Horticulture)	National Bio-diversity Act-2002	UAHS, Shivamogga	21-1-2015
Dr. Nagarajappa Adivappar	SMS (Horticulture)	National Seminar on Plant protection and inter cropping in arecanut	UAHS, Shivamogga	09-05-2015 to 10-05-2015
Dr. Nagarajappa Adivappar	SMS (Horticulture)	National seminar " cocoa	UAHS, Shivamogga, DCCD, Cochin	30-01-2015 to 31-01-2015
Dr. B.C.Dhananjaya	SMS (SS & AC)	Advances in land resource inventory for enhancing productivity through agro technology transfer	ICAR-National Bureau of soil survey and land use planning (ICAR-NBSS & IUP), Nagpur, Maharashtra	02-02-2015 to 23-02-2015
Dr. Nagarajappa Adivappar	SMS (Horticulture)	National Seminar on Cashew	Directorate of Agriculture, Goa, DCCD, Cochin, ICAR, Research complex for coastal agriculture at institute of Menzes Braganza	13-03-2015 to 14-03-2015
Dr. T.M.Soumya	SMS (Agronomy)	National seminar " cocoa	UAHS, Shivamogga, DCCD, Cochin	30-01-2015 to 31-01-2015

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

# SUMMARY FOR 2014-15

## I. TECHNOLOGY ASSESSMENT

### Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management			
Varietal Evaluation	1	Assessment of high yielding turmeric varieties	2
Integrated Pest Management			
Integrated Crop Management	1	Assessment of improved methods of sugarcane planting	3
Integrated Disease Management			
Small Scale Income Generation Enterprises			
Weed Management			
Resource Conservation Technology			
Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique			
Others (Pl. specify)			
<b>Total</b>			

### 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)			
<b>Total</b>			

**Summary of technologies assessed under various enterprises : NIL**

<b>Thematic areas</b>	<b>Enterprise</b>	<b>Name of the technology assessed</b>	<b>No. of trials</b>

**Summary of technologies assessed under home science : NIL**


## II. TECHNOLOGY REFINEMENT

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

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

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

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials
Disease Management			
Evaluation of Breeds			
Feed and Fodder management			
Nutrition Management			
Production and Management			
Others (Pl. specify)			
<b>Total</b>			

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

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

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

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

### III. FRONTLINE DEMONSTRATION

#### Crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oil seeds Groundnut	Crop management	ICM in Groundnut • Variety GPBD-4 • Lime application based on soil test • Seed treatment with <i>Rhizobium</i> , PSB & <i>Trichoderma</i> • Gypsum application @ 500 kg / ha • Foliar application of borax @ 0.2 %		5	1.0	19.00	17.30	9.83	Leaf Spot incidence (%)		21350	81660	60310	3.82	19950	74360	54410	3.73
									7.70	15.60								
									Shelling percentage									
									69.60	67.20								
Oil seeds : Sunflower	Crop management	• Lime application based on soil test • Sulphur application @ 20 kg/ha. • Spray with Imidacloprid @ 0.5 ml/ltr. • Use of <i>Trichoderma</i>		6	2.4	19.79	18.75	5.55	Bud necrosis incidence (%)		17400	66771	49371	3.83	16850	60725	43875	3.60
									5.25	12.75								
Pulses Green Gram	Varietal Evaluation	Short duration green gram variety KKM-3 in rice fallows		10	4.0	2.8	2.6	7.14	No. of pods / plant		12115	23906	11791	1.98	12980	21845	8865	1.69
									18	13								
									Pod length (cm)									
									8.7	6.4								

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Pulses Black Gram	Varietal Evaluation	Short duration black gram variety LBG-625 in rice fallows		10	4.0	2.6	2.1	19.23	No. of pods / plant		12035	22092	10057	1.80	12035	17740	5705	1.50
									16	12								
									Pod length (cm)									
									7.1	5.9								
Cereals : Paddy	IPM in paddy	<ul style="list-style-type: none"> <li>Seed treatment with Carbendazim @ 4 gm/kg</li> <li>Spraying of Chloropyriphos @ 0.2%</li> <li>Soil application of Fipronil 0.3 G @ 10 kg/ac</li> <li>Spraying of Tricyclozole @ 0.06 %</li> </ul>		12	5.0	55.25	47.42	16.51	Stem borer incidence (% dead heart)		37000	71825	34825	1.94	42583	61642	19059	1.45
									9.58	18.96								
									Blast incidence (%)									
									8.45	14.21								
Cereals : Paddy	INM in paddy	Recommended NPK + foliar application of 1% 19:19:19 at maximum tillering stage + foliar application of 1% 13:0:46 at grain filling stage.		14	2.8	60.00	58.80	2.04	No. of tillers / plant		28110	77440	49329	2.75	27707	75990	48283	2.74
									72.00	65.00								
									Stem borer incidence (%)									
									7.92	14.14								
									Blast incidence (%)									
									7.93	16.43								

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals : Maize	Crop management	Maize + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4, Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping		6.2	16	Maize: 52.30  Pigeon pea: 1.2	Maize: 54.6				25009	55961	30952	2.29	26025	28419	32394	2.24
Millets: Finger millet	Crop management	Finger millet + Pigeon pea intercropping (8:2), Pigeon pea : Wilt resistant variety, BRG-4, Seed treatment with bio-fertilizers, Dead furrow in between pigeon pea rows, Nipping		13	4.8	Finger millet : 4.80  Pigeon pea : 0.8	Finger millet :5.2				17879	23333	5454	1.30	17708	24692	6984	1.39
Vegetables: Tomato	Varietal evaluation	Pro-tray nursery technique, Disease tolerant hybrid, Good keeping quality fruits, High yielding hybrid		4	1.0	748.10	647.30	15.57	Fruit weight (g)		119772	373987	254215	3.12	121855	323637	201782	2.65
				97.25	90.75	Disease incidence												
				Tolerant to Leaf curl, Bacterial wilt, and Early blight	Not tolerant to Leaf curl, Bacterial wilt, and Early blight													
				Keeping quality of fruits (days)														
				8-10	7-8													



Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Vegetable : Drumstick	Varietal evaluation	Drumstick as a profitable sole / intercrop Nipping technique		8	2.0	In progress												
Fruit : Pineapple	Management of Heart rot	Soil application of Neem enriched Trichoderma @ 20 gm/hill + Sucker treatment with Metalaxyl MZ @ 0.3%		5	2.0	505.40	435.00	16.18	Heart rot disease incidence (%)		182600	606960	423400	3.32	175000	522000	347000	2.98
									11.40	22.40								
Spices and condiments : Ginger	Management of shoot borer and rhizome rot	Spraying of Lambda cyhalothrin @ 1 ml/L, Application of Curzate @ 2 gm/L and Streptocycline @ 0.5 gm/L		10	4.0	338.00	275.50	22.69	Shoot borer incidence (% dead heart)		337500	946400	608900	2.80	375200	771400	396200	2.05
									14.00	25.45								
									Rhizome rot incidence (%)									
								9.50	28.35									
Plantation : arecanut	Management of Root grub	Application of neem cake @ 2kg/plant and Imidachloprid @ 0.5 ml/ltr.		5	2.0	10.8	8.50	27.06	No. of grubs per plant		62200	388800	326600	6.25	52600	306000	253400	5.82
									1.8	8.5								
Fodder crop : Fodder Sorghum	Fodder production	Demonstration of Multi Cut Fodder Sorghum variety COFS-29		20	8.0	In progress												
<b>Total</b>																		

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

\*\* BCR= GROSS RETURN/GROSS COST

## Livestock

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy																		
Poultry																		
Rabbitry																		
Pigerry																		
Sheep and goat																		
Duckery																		
Others (pl.specify)																		
<b>Total</b>																		

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

\*\* BCR= GROSS RETURN/GROSS COST

## Fisheries : NIL

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																		
Mussels																		
Ornamental fishes																		
Others (pl.specify)																		
<b>Total</b>																		

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

\*\* BCR= GROSS RETURN/GROSS COST

**Other enterprises : NIL**

Category	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit				
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Oyster mushroom																		
Button mushroom																		
Vermicompost																		
Sericulture																		
Apiculture																		
Others (pl. specify)																		
<b>Total</b>																		

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

\*\* BCR= GROSS RETURN/GROSS COST

**Women empowerment : NIL**

Category	Name of technology	No. of KVKs	No. of demonstrations	Name of observations	Demonstration	Check
<b>Women</b>						
Pregnant women						
Adolescent Girl						
Other women						
<b>Children</b>						
Neonats						
Infants						
Children						

**Farm implements and machinery : NIL**

Name of the implement	Crop	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit ect.)				
						Demonstration	Check										

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

\*\* BCR= GROSS RETURN/GROSS COST

**Other enterprises : NIL**

**Demonstration details on crop hybrids**

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

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonstration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Sesame										
Sunflower										
Groundnut										
Soybean										
Others (pl.specify)										
<b>Total</b>										
<b>Pulses</b>										
Greengram										
Blackgram										
Bengalgram										
Redgram										
Others (pl.specify)										
<b>Total</b>										
<b>Vegetable crops</b>										
Bottle gourd										
Capsicum										
Others (pl.specify)										
<b>Total</b>										
Cucumber										
Tomato	High yielding and triple disease tolerant F1 hybrid tomato Arka Rakshak	4	1.0	748.10	647.30	15.57	119772	373987	254215	3.12

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonstration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Brinjal										
Okra										
Onion										
Potato										
Field bean										
Others (pl.specify)										
<b>Total</b>										
<b>Commercial crops</b>										
Sugarcane										
Coconut										
Others (pl.specify)										
<b>Total</b>										
<b>Fodder crops</b>										
Maize (Fodder)										
Sorghum (Fodder)										
Others (pl.specify)										
<b>Total</b>										

## IV. TRAINING PROGRAMME

Training for 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
<b>Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	3	53	1	54	38		38	91	1	92
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management	2	16		16				16	-	16
Production of organic inputs	1		8	8	-	3	3		11	11
Others (pl.specify)	1	32	50	82	8	10	18	40	60	100
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop										
Off-season vegetables	2	39		39	11	-	11	50	-	50
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<b>b) Fruits</b>										

Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	20	24	44	18	22	40	38	46	84
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>f) Spices</b>										
Production and Management technology	1	12	2	14	7	7	14	19	9	28
Processing and value addition										
Others (pl.specify)										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										



Others (pl.specify)										
<b>Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated nutrient management	2	9	11	20	3	5	8	12	16	28
Production and use of organic inputs	1	5	12	17	3	8	11	8	20	28
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
<b>Livestock Production and Management</b>										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	14	2	16	4	1	5	18	3	22
Animal Disease Management	1	9	3	12	40	10	50	49	13	62
Feed and Fodder technology	1	20		20	1		1	21		21
Production of quality animal products										
Others (pl.specify)	2	40	6	46	54	14	68	94	20	114
<b>Home Science/Women empowerment</b>										
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)										
<b>Agril. Engineering</b>										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
<b>Plant Protection</b>										
Integrated Pest Management	1	8	7	15	6	4	10	14	11	25
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
<b>Fisheries</b>										
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)										
<b>Production of Inputs at site</b>										
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	1	7	20	27		12	12	7	32	39
Apiculture										
Others (pl.specify)										
<b>Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	7		7	5		5	12		12
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										

Nursery management										
Integrated Farming Systems	3	86	10	96	20	3	23	106	13	119
Others (Pl. specify)										
Lac cultivation	1	1	14	15	22	7	29	23	21	44
<b>TOTAL</b>										

**Training for 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
<b>Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	1	12	4	16	7	3	10	19	7	26
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	3	101			41			142		142
Off-season vegetables										
Nursery raising										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<b>b) Fruits</b>										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	26	23	49	20	22	42	46	45	91
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
Flower Crops	1									74
Protected cultivation	1	40		20						60
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>e) Tuber crops</b>										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Sandal wood cultivation	1	34	1	35	14		14	48	1	49
<b>Soil Health and Fertility Management</b>										
Soil fertility management										
Integrated water management										
Integrated nutrient management	1	15	10	25	15	4	19	30	14	44
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	2		18	12	30			18	12	30
Others (pl.specify)										
<b>Livestock Production and Management</b>										
Dairy Management										
Poultry Management										
Piggery Management										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology	1									55
Production of quality animal products										
Others (pl.specify)										
<b>Home Science/Women empowerment</b>										
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)										
<b>Agril. Engineering</b>										
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
<b>Plant Protection</b>										
Integrated Pest Management	1	10	-	10						10
Integrated Disease Management	2	11	7	12	13	3	30	24	24	48
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
<b>Fisheries</b>										
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)										
<b>Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										



Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
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	1	4	15	19		7	7	4	22	26
Apiculture										
Others (pl.specify)										
<b>Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify) Coconut Palm climbing – skill development training										
<b>TOTAL</b>										

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

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

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

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

Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	1	22	7	29				22	7	29
Integrated Nutrient management	1	34		34				34		34
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										

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Nutritional and landscape gardening	1	20		20				20		20
<b>Total</b>										

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

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

**Sponsored training programmes**

S. No.	Area of training	No. of Courses	No. of Participants											
			General			SC/ST			Grand Total					
			Male	Female	Total	Male	Female	Total	Male	Female	Total			
<b>1</b>	<b>Crop production and management</b>													
1.a.	Increasing production and productivity of crops													
1.b.	Commercial production of vegetables													
<b>2</b>	<b>Production and value addition</b>													
2.a.	Fruit Plants													
2.b.	Ornamental plants													
2.c.	Spices crops													
<b>3.</b>	<b>Soil health and fertility management</b>													
<b>4</b>	<b>Production of Inputs at site</b>													
<b>5</b>	<b>Methods of protective cultivation</b>													
<b>6</b>	<b>Others (pl.specify)</b>													
<b>7</b>	<b>Post harvest technology and value addition</b>													
7.a.	Processing and value addition													
7.b.	Others (pl.specify)													
<b>8</b>	<b>Farm machinery</b>													
8.a.	Farm machinery, tools and implements	1	16	4	20				16	4	20			
8.b.	Others (pl.specify)													
<b>9.</b>	<b>Livestock and fisheries</b>													
<b>10</b>	<b>Livestock production and management</b>													
10.a.	Animal Nutrition Management													
10.b.	Animal Disease Management													
10.c.	Fisheries Nutrition													
10.d.	Fisheries Management													
10.e.	Others (pl.specify)													
<b>11.</b>	<b>Home Science</b>													
11.a.	Household nutritional security													
11.b.	Economic empowerment of women													

S. No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
11.c.	Drudgery reduction of women											
11.d.	Others (pl.specify)											
<b>12</b>	<b>Agricultural Extension</b>											
12.a.	Capacity Building and Group Dynamics											
12.b.	Others (pl.specify)											
	Protection of plant varieties and farmers' right act-2001											
	<b>Total</b>											

#### Details of Vocational Training Programmes carried out for rural youth

S. No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b>1</b>	<b>Crop production and management</b>											
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)											
<b>2</b>	<b>Post harvest technology and value addition</b>											
2.a.	Value addition											
2.b.	Others (pl.specify)											
<b>3.</b>	<b>Livestock and fisheries</b>											
3.a.	Dairy farming											
3.b.	Composite fish culture											
3.c.	Sheep and goat rearing											
3.d.	Piggery											
3.e.	Poultry farming											



S. No.	Area of training	No. of Courses	No. of Participants									
			General			SC/ST			Grand Total			
			Male	Female	Total	Male	Female	Total	Male	Female	Total	
3.f.	Others (pl.specify)											
<b>4.</b>	<b>Income generation activities</b>											
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)											
<b>5</b>	<b>Agricultural Extension</b>											
5.a.	Capacity building and group dynamics											
5.b.	Others (pl.specify)											
	Coconut palm climbing – skill development training	1	16	4	20							20
	<b>Grand Total</b>											

## V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	207	211	0	211
Diagnostic visits	1	2	0	2
Field Day	4	219	0	219
Group discussions	16	92	0	92
Kisan Ghosthi	-	-	-	-
Film Show	6	20	0	20
Self -help groups				
Kisan Mela				
Exhibition	3	300700*	39	300739
Scientists' visit to farmers field	179	233	0	233
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	1	162	-	-
Method Demonstrations	6	68	-	68
Celebration of important days				
Special day celebration	3	220	24	244
Exposure visits	2	32	0	32
Others (pl.specify)				
Conducted Cluster Level workshop on IFSD for the staff of IFSD/ CBA implementing centres – KVK, Shivamogga and Udupi districts on 27-03-2014 at KVK, Shivamogga.	1	0	24	24
Conducted workshop on IFS for all heads and professors on 05-04-2014 at KVK, Shivamogga in collaboration UAHS, Shivamogga	1	0	79	79
SMS Messages	65	1860	40	1900
Messages related to 'Swachh Bharath Abhiyaan'	8	1860	40	1900
<b>TOTAL</b>	<b>503</b>	<b>303819</b>	<b>246</b>	<b>303863</b>

\* Exhibitions organised during Krishimela-2014 at UAHS, Shivamogga + Technology Week-2014, Foundation

### Details of other extension programmes

Particulars	Number
Electronic Media	-
Extension Literature	-
News Letter	1
News paper coverage	13
Technical Articles	6
Technical Bulletins	3
Technical Reports	57
Radio Talks	5
TV Talks	5
Animal health camps (Number of animals treated)	0
Others (pl.specify)	-
Abstracts	21
Awareness Campaign	0
<b>TOTAL</b>	<b>111</b>



## VI PRODUCTION OF SEED/PLANTING MATERIAL

### Production of seeds by the KVKs

Crop category	Name of the crop	Name of the variety	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals					
Oilseeds					
Pulses	Horse Gram	PHG-9	5.0	22500	
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder Sorghum	CoFS-29	5.0	2000	
Fiber crops					
Forest Species					
Others					
Millet	Ragi	GPU-28	3.5	8050	
	Ragi	KMR-301	3.5	8050	
	Ragi	ML-365	3.5	8050	
<b>Total</b>			<b>20.5</b>	<b>48650</b>	

### Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety	Number	Value (Rs.)	Number of farmers
Commercial					
Vegetable seedlings	Drumstick	Bhagya	3179	31790	16
	Brinjal	Local	1500	1650	1
	Chilli	Local	1500	1650	1
	Tomato	Arka Rakshak	9500	9500	2
Fruits	Papaya	Taiwan-786	13650	163800	51
	Lime	Local	42	420	8
	Mango	Badami	8	320	
	Sapota	Cricket Ball	11	440	4
Ornamental plants					
Medicinal and Aromatic					
Plantation					
Spices	Curry leaf	Local	260	2600	10
Tuber					
Fodder crop saplings					
Forest Species					
Others					
Flower					

Total			20150	212170	
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**Production of Bio-Products : NIL**

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

**Production of livestock and related enterprise materials :**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl. specify)				
<b>Fisheries</b>				
Fingerlings				
Others (Pl. specify)				
Fish	Gowri, Rohu	65 kg	6500	
<b>Total</b>				

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2014-15

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	580	264	250	17400.00
Water Samples	141			8460.00
Plant samples				
Manure samples	02			240.00
Others (specify) Lime	01			100.00
<b>Total</b>	<b>724</b>	<b>264</b>	<b>250</b>	<b>26200.00</b>

## VIII. SCIENTIFIC ADVISORY COMMITTEE

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

<b>Number of issues of newsletter published : 1 No.</b>

## X. RESEARCH PAPER PUBLISHED :

<b>Number of research paper published : 1 No.</b>

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

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

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