

ANNUAL REPORT 2009-10

(APRIL 2009 TO MARCH 2010)

KRISHI VIGYAN KENDRA (HAVERI)

CONTENTS

Item. No.	Particulars	Page No.
I.	General Information	01
II.	Details of District	05
III.	Technical Achievements	12
IV.	On Farm Trial	19
V.	Front Line Demonstration	29
VI.	Demonstrations on crop Hybrids	42
VII.	Training	43
VIII.	Extension Activities	47
IX.	Production of Seed, plant and Livestock materials	49
X.	Publication, Success Story, SWTL	50
XI.	Impact	57
XII.	Linkages	58
XIII.	Performance of Infrastructure in KVK	59
XIV.	Financial Performance	62
XV.	Additional Information	64

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 Hanumanamatti Tq: Ranebennur Dist: Haveri	08373- 253524	08373- 253524	kvk_haveri@rediffmail.com	www.kvkhaveri.org

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

Address	Telephone		E mail	Web Address
	Office	FAX		
University of Agricultural Sciences, Yattinaguda campus, Krishinagar, Dharwad-580005	0836- 2447783	0836- 2745276	vc_uasd@rediffmail.com	www.uasd.edu

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. M.V. Nagaraja	-	9448495338	mvnagaraja2007@rediffmail.com

1.4. Year of sanction: 1977

1.5. Staff Position (as 31st March 2010)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category
1	Programme Coordinator	Dr. M.V. Nagaraja	PC	M	Ag. Extn. Edu.	Ph.D (Ag.Extn.Edu.)	12000-16500	17880	01.08.07	Permanent	Others
2	SMS	Dr. K.B. Yadahalli	SMS	M	Plant Pathology	Ph.D (Plant Pathology)	12000-16500	14520	03.10.03	Permanent	OBC
3	SMS	Dr. B.C. H. Swamy	SMS	M	Ag. Entomology	Ph.D (Entomology)	8000-13500	10200	03.03.06	Permanent	OBC
4	SMS	Dr. T.M. Soumya	SMS	F	Agronomy	Ph.D (Agronomy)	8000-13500	9100	05.12.08	Permanent	OBC
5	SMS	Mrs. Geeta Kalakanavar	SMS	F	Home Science	M.Sc. (Home Sci. Extn.)	8000-13500	8000	01.07.09	Permanent	OBC
6	SMS	Dr. S.Y. Mukartal	SMS	F	Animal Science	M.V.Sc.	8000-13500	8000	06.07.09	Permanent	others
7	SMS	Mr. V.D. Rathod	SMS	M	Horticulture	M. Sc. (Horticulture)	8000-13500	8000	01.09.09	Permanent	SC
8	Progr.Asst. (Lab Tech.)	Mr. M.A. Gaddanakeri	Prog.Asst.	M	Soli Science	M.Sc. (Pathology)	5500-9000	5500	26.02.09	Permanent	OBC
9	Prog. Asst. (Computer)	Ms. Rekha K.N.	Prog. Asstt.	F	Computer Science	M.Sc. (I.T)	5500-9000	5500	12.11.09	Permanent	OBC
10	arm Manager	Ms. Sairabanu Muganur	Prog. Asstt	F	Farm Manager	B.Sc. (Agriculture)	5500-9000	5500	02.07.09.	Permanent	OBC
11	Assistant	Mr. V.S. Kalakai,	Superintendent (General)	M	Superintendent (General)	B.A	10800-25000	13700	07.01.09	Permanent	others
12	Jr. Stenographer	Smt. Saroja Talawar	Typist	F	Typist	B.A	8000-14800	8000	07.11.09	Permanent	ST
13	Driver	Mr. Mahesh L.M.	Driver	M	Driver	-	5800-10500	6125	12.07.06	Permanent	Others
14	Driver	Mr. P.C. Kunbevin	Driver	M	Driver	-	5800-10500	9500	07.06.98	Permanent	OBC
15	Supporting staff	Mr. K.B. Belakeri	Supporting staff	M	Supporting staff	-	5200-8200	6650	02.11.98	Permanent	OBC
16	Supporting staff	Mr. C. V. Nelogal	Supporting staff	M	Supporting staff	-	5200-8200	6650	01.07.02	Permanent	Others

1.6. Total land with KVK (in ha)**: 21.2 ha**

S. No.	Item	Area (ha)
1	Under Buildings	1.1
2.	Under Demonstration Units	-
3.	Under Crops	20
4.	Orchard/Agro-forestry	0.1
5.	Others	-

1.7. Infrastructural Development:**A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	1999	400	27.93	-	-	-
2.	Farmers Hostel		2004	305	22.63	-	-	-
3	Staff Quarters		2007	399	39.68	-	-	-
4	Rain Water harvesting system		2009		9.98	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tempo trax Judo	2002	4.50	171650	Major repair
Motor cycle Bajaj CT-100	2005	0.40		Good
Tractor and Trailer New Holland Ford 3230	2005	5.00	327 hr.	Good
Motor cycle Bajaj CT-100	2006	0.40		Good

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Spectrophotometer	31.03.2005	40,050	Good
Flame photometer	31.03.2005	32,040	Good
pH meter	31.03.2005	8,900 (850)	Good
Conductivity bridge	31.03.2005	9,790(1000)	Good
Physical balance	31.03.2005	10,890	Good
Chemical balance	31.03.2005	57,000	Good
Water distillation still	31.03.2005	62,444	Good
Kjeldahl digestion and distillation (2 sets)	31.03.2005	1,42,844	Good
Shaker	31.03.2005	47,025	Good
Refrigerator	31.03.2005	12,285	Good
Oven	31.03.2005	17,228	Good
Hot plate	31.03.2005	3,046	Good
Grinder	31.03.2005	15,635	Good
Fax machine	18.03.2004	24,900	Good
Xerox machine	30.11.2004	52,000	Good
HP Computer with accessories	11.11.2006	39,216	Good
Multi media projector (LCD)	16.12.2006	58,488	Good
Power weeder	31.03.2008	36,220	Good
Mist blower	31.03.2008	35,110	Good
Toshiba E-Studio Xerox	3.06.2008	55,120	Good
Laser printer	20.08.2008	15043	Good
LCD Motorized screen	20.08.2008	27,000	Good
Toshiba E-Studio Xerox	24.12.2008	55,120	Good
Computer with accessories	29.01.09	300000	Good
HP printer			
Scanner			
Server with accessories			

1.8. A). Details SAC meeting conducted in 2009-10 – Nil

PART II - DETAILS OF DISTRICT

2.1 Major farming systems/enterprises

S. No	Farming system/enterprise
1	Maize, Cotton, Minor millets, Sorghum, Groundnut, Sunflower, Soybean, Greengram, Horticulture crops , Animal husbandry, Integrated farming system, Small scale enterprises etc.,

2.2 Description of Agro-climatic Zone & major agro ecological situations

S. No	Agro-climatic Zone	Characteristics
1.	Northern Transition Zone (Zone-8)	<ul style="list-style-type: none"> Northern transition zone is a narrow strip stretching from chikodi taluk in Belgaum district to Hirekerur taluk in Haveri district and has a total geographical area of 12.11 lakh ha with a cultivated area of 9.45 lakh ha with irrigated area of 0.82 lakh. The soils of Northern transition zone are broadly classified into red sandy, red sandy loams, red loams, mixed red and black, medium deep to deep black soils and lateritic soils. It receives rainfall both through south west (SW) and north east (NE) monsoon and the average rainfall is about 750 mm. Soil properties: Shallow to medium black in major area and red sandy loam in almost equal portion. The soil has 7.23, 9.12, 26.38 and 57.27% coarse sand, fine sand, silt and clay content. The MWHC is 55.10% with a BD of 1.39 g/cc. The pH of soil ranges from 6.72 to 7.85. Nutrient availability is good. The organic carbon content is 0.64 with total soluble salts of 0.06 dS/m and CEC of 64 cmhos. Land holding pattern of the district is < 1 ha (32,719), 1-2 ha (60,095), 2-4 ha (48,885), 2-10 ha (19,613) and > 10 ha (2,649).

Sl. No	Agro ecological situation	Characteristics
1.	Rainfed double cropping on medium to deep black soils (Haveri, Ranebennur, Byadgi & Shiggaon)	Medium to deep black soils
2.	Rainfed single and intercropping on light red and shallow soils (Savanur, Ranebennur, Shiggaon, Hirekerur and Haveri)	Red, Sandy loam, Sandy clay loam and shallow soils
3.	Kharif rainfed cropping situation (Haveri & Byadgi)	Medium black soils and red sandy soils
4.	Sugarcane growing situation (Byadgi, Haveri, Hirekerur, Ranebennur and Shiggaon)	Red loamy soils moderately deep to deep shallow to medium deep black soils
5.	Rainfed drilled paddy growing situation (All taluks)	Shallow red, gravelly, eroded red soils and black soils
6.	Rainfed hybrid cotton growing situation (Byadgi, Haver, Shiggaon, Ranebennur and Hirekerur)	Red loamy soils, shallow moderately deep, light grey, yellowish red, strong brown gravelly, sandy loam to sandy, loam and loam to clay loam soils
7.	Horticulture crop situation (All taluks)	Varied types of soils (Hill slopes having light red soils , well drained soils and sandy loam soils)

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Red soil	Sandy soil with high infiltration rate	2.53 lakh
2	Black soil	Medium to deep black soil	1.33 lakh

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

Sl. No.	Crop	ANNUAL (KHARIF+RABI+SUMMER)								
		Irrigated			Rainfed			Total		
		Area	Prod.	Yield	Area	Prod.	Yield	Area	Prod.	Yield
1	Rice	18100	66980	3.70	13100	39300	3.00	31200	165687	5.31
2	Jowar	1700	4010	2.36	55700	75110	1.35	57400	128524	2.24
3	Ragi	0	0	-	1500	1200	0.80	1500	5000	3.33
4	Maize	21900	68820	3.14	118425	331440	2.80	140325	675616	4.81
5	Bajra	0	0	-	0	0	-	0	0	-
6	Wheat	100	100	1.00	1400	630	0.45	1500	730	0.49
7	M.Millets	0	0	-	10000	2000	0.20	10000	22000	2.20
I	Total Cereals:	41800	139910		200125	449680		241925	997557	
1	Redgram	0	0	-	9500	5225	0.55	9500	5225	0.55
2	Bengalgram	500	350	0.70	3000	900	0.30	3500	1250	0.36
3	Horsegram	0	0	-	10700	4070	0.38	10700	4070	0.38
4	Blackgram	500	250	0.50	1300	870	0.67	1800	1120	0.62
5	Greengram	1000	500	0.50	9400	6505	0.69	10400	7005	0.67
6	Cowpea & other	2000	960	0.48	5000	525	0.11	7000	1485	0.21
7	Avare	25	11	0.45	25	3	0.10	50	14	0.28
8	Mothbean (Madake)	0	0	-	0	0	-	0	0	-
II	Total Pulses:	4025	2071		38925	18098		42950	20169	
	Total Foodgrains:	45825	13741	0.30	239050	32293	0.14	284875	46034	0.16
1	Groundnut	10500	26250	2.50	14200	17040	1.20	24700	43290	1.75
2	Sesamum	0	0	-	1650	413	0.25	1650	413	0.25
3	Sunflower	8000	7700	0.96	22400	15840	0.71	30400	23540	0.77
4	Castor	0	0	-	1100	385	0.35	1100	385	0.35
5	Niger	0	0	-	3500	1225	0.35	3500	1225	0.35
6	Mustard	0	0	-	475	108	0.23	475	108	0.23
7	Soyabean	0	0	-	17500	28000	1.60	17500	28000	1.60
8	Safflower	0	0	-	1500	900	0.60	1500	900	0.60
9	Linseed	0	0	-	0	0	-	0	0	-
III	Total Oilseeds:	64325	47691		301375	96203		365700	143894	
IV	Commercial Crops:			-			-			-
1	Cotton	8500	17000	2.00	68095	63143	0.93	76595	80143	1.05
2	Sugarcane Planted	250	18	0.07	0	0	-	250	18	0.07
2a	Sugarcane Ratoon	2000	100	0.05	0	0	-	2000	100	0.05
3	Tobacco (VFC)	0	0	-	0	0	-	0	0	-
3a	Tobacco (Beedi)	0	0	-	0	0	-	0	0	-
	TOTAL	10750	17118		68095	63143		78845	80260	
	GRAND TOTAL	120900	206790		608520	627123		729420	1241880	

Unit: Area in Hects., Prod. in Tonnes, Cotton prodn. in bales of 170 Kg lint, Yield in Kgs/hect.

S.cane yield in Tonnes/hect

Source: Department of Agriculture, Haveri

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)	
		Maximum	Minimum	Morning	Evening
April -09	22.2	36.46	22.52	70.1	42.14
May-09	100.4	35.60	22.30	78.00	49.30
June-09	42.80	31.70	21.50	83.60	65.40
July-09	281.20	26.73	21.32	88.77	87.45
August-09	88.80	28.95	20.99	89	79.74
September-09	135.0	28.55	20.97	89.53	82.76
October-09	122.4	30.26	23.94	78.58	60.58
November-09	69.70	29.69	18.89	82.80	64.50
December-09	50.20	29.88	16.60	79.22	55.70
January-10	25.20	29.55	15.59	75.67	46.22
February-10	0.00	33.47	16.88	76.60	37.39
March-10	0.00	36.36	19.71	71.74	27.77

* JDA, Haveri

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	56747	24000 tones	5.63 kg milk
<i>Indigenous</i>	235402	26000 tones	2.1 kg milk
Buffalo	113847	32000 tones	Meat 95 kg/animal 2.5 kg /animal/day
Sheep			
<i>Crossbred</i>	282	287 tones	Meat 14.63 kg/animal
<i>Indigenous</i>	317902		
Goats	150650	158 tones	Meat 14.24 kg/animal
Pigs			Meat 62.5 kg/animal
<i>Crossbred</i>	-	-	
<i>Indigenous</i>	6827	2 tones	
Rabbits	250		
Poultry			
Hens	698296	Eggs 436 lakh Meat 247 tones	Egg 238 /bird/year Egg 97 /Desi bird/year
Category	Area	Production	Productivity
Fish	5605 ha WSA	6581.6 metric tone/ 4000ha	1.6 metric tone/ha

Department of Animal Husbandry, Haveri

2.6 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	2	3	4	5	6	7	8
1.	Haveri	Guttal	Guttal Havanur Timmapur	2 years	Maize	Turcicum leaf blight Low yield, poor nutrient management	Management of Turcicum leaf blight Production technology & Value addition techniques.
					Sorghum	Shoot fly, Grain mould, Poor Nutrient management & use of local varieties	Promotion of recent varieties, Integrated nutrient & pest management.
					Cotton	Leaf reddening, bad boll opening & Bollworms in cotton	ICM technology
					Sunflower	Necrosis, Black hairy caterpillar	Necrosis & BHC management & IDM.
					Groundnut	Low yield & improper water management High cost of cultivation & low yield potential	Production technology Yield and cost assessment in Groundnut crop
					Minor millets	Poor Nutrient management & use of local varieties	Introduction of new varieties & Nutrient Management
					Chilli	Powdery mildew Dieback ,Fruit borer & Murda complex.	Management of Powdery Mildew in Chilli INM, Management of murda complex, Fruit borer & Dieback.
					Onion	Low yield, purple blotch & Poor Nutrient management	INM & Management of purple blotch.
					Tomato	Fruit borer & Alternaria Leaf blight	Management of fruit borer & Alternaria Leaf blight.
					Brinjal	Brinjal shoot and fruit borer	Integrated management of shoot and fruit borer
					Banana	Rhizome weevil , panama wilt & bunchy top	Integrated pest management
					Soil	Salinity	Reclamation of Saline soils
Sheep rearing, Dairying & Poultry	FMD, improper management of live stock	Scientific dairy farming, poultry management, Sheep management & cultivation & enrichment of fodder.					

1	2	3	4	5	6	7	8
2.	Savanur	Hattimatur	Hattimatur Jallapura Huralikuppi	3 years	Groundnut	Low yield & improper water management	INM in Oil seeds
					Greengram	Shattering & Powdery mildew	Introduction of non shattering variety & Management of Powdery mildew
					Sorghum	Shoot fly, Poor Nutrient management & use of local varieties	Integrated management of nutrients & pests.
					Minor millets	Poor Nutrient management & use of local varieties.	Introduction of new varieties & Nutrient Management
					Chilli	Powdery mildew Dieback, Fruit borer & Murda complex.	Management of Powdery Mildew of Chilli INM, Management of murda complex, fruit borer & Dieback.
					Tomato	Fruit borer & Alternaria Leaf blight	Integrated Management of fruit borer & Alternaria Leaf blight
					Flowers	Alternaria leaf blight of Chrysanthemum & damping off diseases	Integrated disease management & use of GR.
					Soybean	Leaf eating Caterpillar & rust.	Integrated management of pest & Diseases.
					Cotton	Leaf reddening bad boll opening and Boll worms.	ICM technology
					Soil	Calcareous soils	Management of Calcareous soils
3.	Shiggaon	Dundasi	Dundasi Kunnur Hosur	2 years	Maize	Turcicum leaf blight Low yield, poor nutrient management	Management of Turcicum leaf blight of Maize Production technology & Value addition techniques
					Cotton	Leaf reddening, bad boll opening and Boll worms.	ICM technology
					Sorghum	Shoot fly, Poor Nutrient management & use of local varieties	Integrated pest & disease management.
					Tomato	Fruit borer & Alternaria blight.	Management of fruit borer & Alternaria blight.
					Cowpea	Poor nutrient management	Production technology.
					Minor millets	Poor Nutrient management & use of local varieties	Introduction of new varieties & Nutrient Management
					Soybean	Spodoptera & other Leaf eating Caterpillars.	Management of pests.
					Chilli	Powdery mildew Dieback, Fruit borer & Murda complex.	Management of Powdery Mildew of Chilli INM, Management of murda complex, fruit borer & Dieback.
					Greengarm	Stem fly Powdery mildew & Shattering	Management of Greengram stem fly Use of non shattering HYV & IDM.
					Redgram	Pod borer & wilt	Management of Pod borer & Fusarium wilt.
Groundnut	Leaf spot and rust	Production technology					
Soils	Problematic soils	Management of Vertiosols					

1	2	3	4	5	6	7	8
4.	Hangal	Akkialur	Akkialur Kallpura Balambid	2 years	Maize	Turcicum leaf blight Low yield, poor nutrient management	Management of Turcicum leaf blight of Maize Production technology & Value addition techniques
					Cotton	Leaf reddening, bad boll opening and Boll worms.	ICM technology
					Mango	Fruit fly & Dieback.	Integrated pest & disease management
					Banana	Rhizome weevil , panama wilt & bunchy top	Integrated pest & disease management
					Greengarm	Stem fly Powdery mildew & Shattering	Management of Greengram stem fly Use of non shattering HYV & IDM.
					Paddy	Lack of awareness in water management	Water Management (SRI Method)
					Soybean	Leaf eating Caterpillar & rust.	Management of pest & disease.
					Redgram	Pod borer & Wilt	Management of Pod borer & Fusarium wilt.
					Sugarcane	Sett rot & wooly aphids	Management of pest & disease.
					Soils	Soil Acidity	Management of Acidic soils
	Soil & Water	Soil & water erosion & Depletion of under ground water due to heavy exploitation	Rain water harvesting & Ground water recharge				
5.	Hirekerur	Rattihalli	Rattihalli Kadur Kudapali	3 years	Maize	Turcicum leaf blight Low yield, poor nutrient management	Management of Turcicum leaf blight of Maize Production technology & Value addition techniques
					Cotton	Leaf reddening, bad boll opening & Bollworms.	ICM technology
					Sunflower	Necrosis, BHC	Necrosis & BHC management & IDM.
					Groundnut	Low yield & improper water management	Production technology
					Redgram	Pod borer & wilt.	Management of Pod borer & Fusarium wilt.
					Finger millets	Stem borer & neck blast	Introduction of resistant variety & Stem borer management
					Brinjal	Brinjal shoot and fruit borer	Integrated management of shoot and fruit borer
					Paddy	Poor water management	Water Management (SRI Method)
					Tomato	Fruit borer & Alternaria blight	Management of fruit borer & Alternaria blight
Soils	Soil Acidity	Management of Acidic soils					

1	2	3	4	5	6	7	8
6.	Ranebennur	Medleri	Medleri Belur Aremallapur	3 years	Sorghum	Shoot fly, Poor Nutrient management & use of local varieties	Integrated nutrient management & pests.
					Cotton	Leaf reddening, bad boll opening & Bollworms in cotton	ICM technology
					Sunflower	Necrosis, BHC	Necrosis , BHC management & IDM.
					Groundnut	Low yield & improper water management High cost of cultivation & low yield potential	Production technology Yield and cost assessment in Groundnut crop
					Minor millets	Poor Nutrient management & use of local varieties	Introduction of new varieties & Nutrient Management
					Onion	Purple blotch, Twisting and Crinkling & Onion thrips	INM, Management of purple blotch & Twisting and Crinkling in onion.
					Garlic	Poor nutrient & weed management	Integrated crop management
					Brinjal	Brinjal shoot and fruit borer	Integrated management of shoot and fruit borer
					Cole crops	Cabbage aphids, Black rot and DBM	Integrated pest & disease management
					Banana	Rhizome weevil , panama wilt & bunchy top	Integrated pest management
					Paddy	Poor water management	Water Management (SRI Method)
					Soil	Salinity & Sodicity	Reclamation of problematic soils
					Soil & Water	Soil & water erosion & Depletion of under ground water due to heavy exploitation	Scientific method of rain water harvesting & under ground water recharge
7.	Byadagi	Kaginele	Kaginele Hedigorda Hirebasur	2 years	Maize	Turcicum leaf blight Low yield, poor nutrient management	Management of Turcicum leaf blight of Maize Production technology & Value addition techniques
					Cotton	Leaf reddening, bad boll opening & Bollworms.	ICM technology
					Sunflower	Necrosis, BHC	Necrosis, BHC management & IDM.
					Groundnut	Low yield & improper water management	Production technology
					Redgram	Pod borer & wilt	Management of Pod borer & Fusarium wilt
					Chilli	Powdery mildew Dieback, Fruit borer & Murda complex.	Management of Powdery Mildew in Chilli INM, Management of murda complex, fruit borer & Dieback.
					Onion	Low yield, purple blotch & Poor Nutrient management	INM & Management of purple blotch.
					Brinjal	Brinjal shoot and fruit borer	Integrated management of shoot and fruit borer
					Cabbage	Aphids, Black rot and DBM	Integrated pest & disease management
					Soil & Water	Soil & water erosion , Depletion of under ground water due to heavy exploitation	Rain water harvesting & Ground water recharge Use of improved agricultural implements in watershed area

2.7 Priority thrust areas

S. No	Thrust area
1.	Integrated pest / disease management in Brinjal, Onion , Chilli & Cotton
2.	Integrated weed management in Cabbage
3.	Integrated crop management in Brinjal, Foxtail millet & Little millet
4.	Integrated disease management in Sunflower & Groundnut
5.	Varietal evaluation in Maize, Onion Tomato, Chilli & Aster
6.	Drudgery reduction & value addition

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
08	07	50	50	21	19	400	331

Training				Extension Activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
150	112	2000	1839	3000	1746	14000	10688

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
60	18.5	10000	1722

Livestock (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	1500	2000

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									
				Title of OFT	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	
												No.	Kg
1.	Pest Management	Brinjal	Shoot and fruit borer	Management of shoot and fruit borer in Brinjal	02	01	-	03	-	-	-	1	5 lit.
2.	Pest Management	Onion	Thrips	Thrips management in onion	02	02	-	03	-	-	-	2	2 lit.
3.	Pest Management	Cotton	Sucking pests	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	03	02	-	04	-	-	-	1	5
4.	ICM	Onion	Evaluation of Onion Varieties	Assessment of onion variety Agri found dark red over Arka Kalyan	02	01	-	-	0.0014	-	-	-	-
5.	Wider spacing	Brinjal	Difficulty in harvesting and other cultural operations	Assessment of crop geometry in Brinjal	02	01	-	-	0.004	-	-	-	-
6.	Disease management	Sunflower	Powdery mildew	Management of powdery mildew in Sunflower	02	01	-	03	-	-	-	-	-
7.	Disease management	Groundnut	Collar rot	Management of Collar rot in groundnut	02	01	-	03	-	-	-		03

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of FLD	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		
												No.	Kg	
8.	ICM	Little millet	Low yield	ICM in Little millet variety Sukshema	02	-	-	-	-	0.06	-	-	-	-
9.	ICM	Foxtail millet	Low yield	ICM in Foxtail millet variety HMT-100-1	02	-	-	-	-	0.375	-	-	-	-
10.	Varital demonstration	Maize	TLB	Varietal demonstration of DMH-2	03	-	-	-	-	0.72	-	-	-	-
11.	IPM	Chilli	Low yield	IPM in Chilli	02	02	-	8	-	-	-	-	-	-
12.	ICM	Onion	Lower yields	Introduction of high yielding onion variety Arka kalyan	02	01	-	1	0.029	-	-	-	-	-
13.	ICM	Tomato	Lower yields	Introduction of HYV DMT-2 in tomato	02	01	-	-	0.01050	-	-	-	-	-
14.	ICM	Dry chilli	Lower yields	Popularization of purified Byadgi Kaddi/Dabbi chilli variety	02	01	-	-	0.01275	-	-	-	-	-
15.	ICM	Aster	Lower yields	Introduction of High yielding variety	03	01	-	01	0.00375	-	-	-	-	-
16.	ICM	Groundnut	Nutrients, pest and diseases	ICM in Groundnut (GPBD-4)	03	01	-	04	-	-	-	-	-	-
17.	ICM	Sunflower	Low yield	ICM in Sunflower (KBSH-41)	03	02	02	03	0.50	-	-	-	-	-
18.	ICM	Soybean	Low yield	ICM in Soybean (JS-335 & Dsb-1)	03	02	02	03	5.75	-	-	-	-	-
19.	ICM	Sesamum	Low yield	Integrated crop management in Sesamum(DSS-9)	02	01	01	02	0.012	-	-	-	-	-
20.	ICM	Niger	Low yield	Integrated crop management in Niger(RCR-18)	02	01	01	02	0.012	-	-	-	-	-

21.	ICM	Summer Groundnut	Low yield	ICM in Summer Groundnut	02	01	-	02	3.50	-	-	-	-
22.	ICM	Redgram	Nutrients, pest and diseases	IPM in Redgram	03	02	-	6	1.25	-	-	3	52.5 lit
23.	ICM	Green gram	Pest and diseases	ICM in Green gram	02	01	-	01	1.25	-	-	-	-
24.	ICM	Blackgram	Nutrients & diseases	ICM in Blackgram	02	01	-						
25.	ICM	Bengalgram	Nutrients , pest and diseases	ICM in Bengalgram (Rabi)	04	01	-	03	6.25	-	-	-	-
26.	ICM	Bt-cotton	Nutrients , pest and diseases	ICM in Bt-cotton	08	04	03	16	0.23	-	-	3	15 lit

3.B2. Details of technology used during reporting period

Sl. No	Title of Technology	Source of technology	Crop/ enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others
1	2	3	4	5	6	7	8
1.	Management of shoot and fruit borer in Brinjal	IIHR, Bangalore	Brinjal	05	-	02	Result Demonstration -01
2.	Thrips management in onion	NRC on onion & garlic	Onion	05	-	02	Result Demonstration -01
3.	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	CICR, Nagapur	Cotton	05	-	02	Result Demonstration -04
4.	Assessment of onion variety Agri found dark red over Arka Kalyan	IIHR, Bangalore	Onion	05	-	02	Result Demonstration -03
5.	Assessment of crop geometry in Brinjal	UAS, Dharwad	Brinjal	05	-	03	Result Demonstration -01
6.	Management of powdery mildew in Sunflower	Staff research UAS, Dharwad	Sunflower	06	-	02	Result Demonstration -01

7.	Management of Collar rot in groundnut	Staff research UAS, Dharwad	Groundnut	05	-	03	Result Demonstration -01
8.	ICM in Little millet variety Sukshema	UAS, Dharwad	Little millet	-	03	02	Method Demonstration -01
9.	ICM in Foxtail millet variety HMT-100-1	UAS, Dharwad	Foxtail millet	-	15	02	Method Demonstration -05
10.	Varietal demonstration of DMH-2	UAS, Dharwad	Maize	-	12	03	Method Demonstration -04
11.	IPM in Chilli	UAS, Dharwad	Chilli	-	12	01	Result Demonstration -01
12.	Introduction of high yielding onion variety Arka kalyan	IIHR, Bangalore	Onion	-	10	01	Field day-01
13.	Introduction of HYV DMT-2 in tomato	UAS, Dharwad	Tomato	-	10	01	Result Demonstration -01
14.	Popularization of purified Byadgi Kaddi/Dabbi chilli variety	UAS, Dharwad	Chilli	-	15	01	Result Demonstration -01
15.	Introduction of High yielding variety in Aster		Aster	-	15	01	Field day -01
16.	ICM in Groundnut (GPBD-4)	UAS, Dharwad	Groundnut	-	10	01	Field day -01 Method Demonstration -01
17.	ICM in Sunflower (KBSH-41)	UAS, Bangalore	Sunflower	-	25	01	Method Demonstration -01 Result Demonstration -01
18.	ICM in Soybean (JS-9305), Dsb-1	UAS, Dharwad	Soybean	-	25	01	Result Demonstration -01
19.	ICM in Sesamum(DSS-9)	UAS, Dharwad	Seasmum	-	12	01	Field Demonstration -01
20.	ICM in Niger	UAS, Dharwad	Niger	-	12	01	Field Demonstration -01
21.	ICM in Summer Groundnut	UAS, Dharwad	Groundnut	-	05	01	Field Demonstration -01
22.	IPM in Redgram	UAS, Dharwad	Redgram	-	25	01	Result Demonstration -01 Field day -01
23.	ICM in Green gram	UAS, Dharwad	Greengram	-	25	04	Method Demonstration -01 Field day -01
24.	ICM in Blackgram	UAS, Dharwad	Blackgram	-	25	01	Method Demonstration -03
25.	ICM in Bengalgram (<i>Rabi</i>)	UAS Dharwad	Bengalgram	-	25	01	Result Demonstration -01
26.	ICM in Bt-cotton	Rasi	Bt-Cotton	-	50	10	Method demonstration -01 Result Demonstration -01 Field day -01

3.B2 contd..

No. of farmers covered																
OFT				FLD				Training				Others (Specify)				
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST		
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Brinjal	2	1	2	-	-	-	-	31	12	9	7	-	-	-	-	
Onion	3	-	2	-	-	-	-	48	8	16	5	-	-	-	-	
Cotton	3	1	-	1	-	-	-	52	11	24	8	-	-	-	-	
Onion	0	-	-	-	16	-	-	25	10	12	9	-	-	-	-	
Brinjal	6	-	2	-	-	-	-	30	10	10	8	-	-	-	-	
Sunflower	2	2	1	-	-	-	-	02	02	1	0	-	-	-	-	
Little millet	-	-	-	-	03	-	-	03	-	-	-	-	-	-	-	
Foxtail millet	-	-	-	-	11	-	4	11	-	4	-	-	-	-	-	
Maize	-	-	-	-	9	-	3	-	-	-	-	-	-	-	-	
Chilli	-	-	-	-	6	2	2	52	12	22	9	-	-	-	-	
Onion	-	-	-	-	08	-	02	-	-	-	-	-	-	-	-	
Tomato	-	-	-	-	11	-	2	35	10	18	12	-	-	-	-	
Chilli	-	-	-	-	13	-	-	51	15	25	5	-	-	-	-	
Aster	-	-	-	-	15	-	2	55	10	20	15	-	-	-	-	
Groundnut	-	-	-	-	4	2	3	4	2	3	1	-	-	-	-	
Sunflower	-	-	-	-	4	2	1	4	2	1	2	-	-	-	-	
Soybean	-	-	-	-	3	4	2	3	4	2	1	-	-	-	-	
Sesamum	-	-	-	-	2	2	1	2	2	1	2	-	-	-	-	
Niger	-	-	-	-	1	2	1	1	2	1	2	-	-	-	-	
Groundnut	-	-	-	-	4	-	1	4	-	1	-	-	-	-	-	
Redgram	-	-	-	-	12	4	6	72	12	24	8	24	8	12	4	
Greengram	-	-	-	-	16	5	03	16	5	03	01	32	10	8	6	
Blackgram	-	-	-	-	18	4	3	18	4	3	-	-	-	-	-	
Bengalgram	-	-	-	-	17	4	4	17	4	4	-	-	-	-	-	
Bt-Cotton	-	-	-	-	26	12	10	140	16	60	12	41	4	8	-	

PART IV - On Farm Trial

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	-	-	01	-	-	-	-	01
Integrated Pest Management	-	-	-	01	02	-	-	-	-	03
Integrated Crop Management	-	-	-	-	01	-	-	-	-	01
Integrated Disease Management	-	02	-	-	-	-	-	-	-	02
Total	-	02	-	01	04	-	-	-	-	07

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

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

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

4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Area (ha)
Varietal Evaluation	Onion	Assessment of onion variety Agri found dark red over Arka Kalyan	05	3.0
IPM	Brinjal	Management of shoot and fruit borer	05	0.5
	Onion	Thrips management	05	0.5
	Cotton	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	05	0.5
ICM	Brinjal	Assessment of crop geometry	05	2.5
IDM	Sunflower	Management of powdery mildew	06	1.0
	Groundnut	Management of Collar rot	05	1.0
Total			39	9

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

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

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

4.C1. Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinem ent done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Brinjal	Rainfed	Shoot and fruit borer reduce the yield upto 75%	Management of shoot and fruit borer	5	Management of shoot and fruit borer	Pest incidence (%) Yield (q/ha)	No. of infested shoots & fruits Fruit weight	Pest incidence & yield	Carbosulfan results in lesser pest incidence & higher yield	-	Carbosulfan (2.0 ml/ l) is contact insecticide having some fumigant action also.
Onion	Rainfed	Severe thrips infestation reducing the yield	Thrips management	5	Thrips management	Pest incidence (%) Yield (q/ha)	No. of infested plants Bulb weight	Pest incidence & yield	λ- cythothrin @ 0.5ml/l results in lesser pest incidence & higher yield	-	λ - cythothrin is broad spectrum synthetic pyrethroids having both contact and fumigant action

Cotton	Rainfed	Chemical pesticides are lethal to natural enemy till 60 days of crop growth	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton.	5	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton.	Pest incidence (%) Yield (q/ha)	No. of infested leaves Seed cotton yield	Pest incidence & yield	<i>Verticillium lecanii</i> results in lesser pest incidence & higher yield	-	Spray of <i>V. lecanii</i> as an alternative to chemical insecticide in controlling sucking pests and it is safer to Natural enemies
Onion	Rainfed	Lower yield	Assessment of onion variety Agri found dark red over Arka Kalyan	05	Assessment of onion variety Agri found dark red over Arka Kalyan	Yield (t/ha)	Yield Economics Quality	Yield Quality Maintenances	Higher yield	-	-
Brinjal	Irrigated	Wider spacing	Assessment of crop geometry	05	Assessment of crop geometry	Yield (t/ha)	Yield Economics Quality	Yield Quality Maintenances	Higher yield	-	-
Sunflower	Rainfed	Powdery mildew	Management of powdery mildew	06	Management of powdery mildew	Yield (q/ha) PDI (%)	Yield Disease incidence (%)	Yield Disease incidence (%)	Two sprays helps to manage the disease & getting higher yield	-	Effective management of Foliar diseases
Groundnut	Rainfed	Collar rot	Management of Collar rot	05	Management of Collar rot	Yield (q/ha) PDI (%)	Yield Disease incidence (%)	Yield Disease incidence (%)	Drenching & soil application helps to manage the disease & getting higher yield	-	Soil application of neem cake and bio agents helps to reduce the inoculum level

Contd..

Crop/ enterprise	Technology Assessed	Production	Please give the unit	Net Return (Rs. / unit	BC Ratio
	13	14	15	16	17
Brinjal	Technology option 1 (Farmer's practice) -Mixture of minimum two insecticides every spray (Yield loss: 25%)	220.5	q/ha	46150	3.31
	Technology option 2 Carbaryl (2g/lt)- 4 sprays	275.0	q/ha	62500	4.13
	Technology option 3 Carbosulfan (2.0 ml / l)	286.5	q/ha	65950	4.30
Onion	Technology option 1 (Farmer's practice)- Dimethoate (1.75 ml / lt – Two spray)	186.0	q/ha	126800	6.76
	Technology option 2 - Dimethoate (1.75 ml / l)	238.5	q/ha	168800	8.67
	Technology option 3- λ- cyhalothrin (0.5ml / l)	244.0	q/ha	173200	8.87
Cotton	Technology option 1 (Farmer's practice)- Spray of monocrotophos @ 1ml/lit or imidacloprid @ 0.5 ml/lit or metasystox @ 1ml/lit or phosphamidon @ 0.5ml/lit	15.10	q/ha	36320	4.03
	Technology option 2- Spray of imidacloprid @ 0.5 ml/lit or phosphamidon @ 0.5 ml/lit	19.20	q/ha	49440	5.12
	Technology option 3- Foliar spray of <i>V. lecanii</i> @ 2 ml/lit based on ETL two times	19.80	q/ha	51360	5.28
Onion	Technology option 1 (Farmer's practice)- Local / Nasik Red	12	t/ha	69000	4.2
	Technology option 2 - Araka kalyan	18	t/ha	112000	5.8
	Technology option 3 - Agri found Dark red	25	t/ha	164000	7.9
Brinjal	Farmer's Practice -Closer spacing (60 x 45 cm)	17.8	t/ha	34900	2.8
	Technological Option 1- Recommended spacing (75 x 60 cm)	22.0	t/ha	49400	3.9
	Technological Option 2 - Wider Spacing (90 x 60 cm)	19.5	t/ha	42800	3.5
Sunflower	Technology option 1 (Farmer's practice)	13.80	q/ha	21860	3.57
	Technology option 2 - Spraying of Carbendazim @ 1 gm/lit	15.60	q/ha	26750	4.52
	Technology option 3 - Spraying of Difenconazole @ 1 ml/lit	17.30	q/ha	30060	4.76
Groundnut	Technology option 1 (Farmer's practice)- Captan @ 2.5g/kg	22.30	q/ha	40750	3.09
	Technology option 2 - ST with <i>Trichoderma</i> @ 4g/kg.	26.62	q/ha	49050	3.32
	Technology option 3 - ST with <i>Pseudomonas flouroscense</i> @4g/kg seeds & soil treatment with <i>Pseudomonas</i> @ 2.5kg & neemcake @ 2.5q with FYM 5 tons/ha.	28.20	q/ha	52000	3.44

4.C2. Details of each On Farm Trial for assessment

1. Title of Technology Assessed	:	Management of shoot and fruit borer in brinjal	
2. Problem Definition	:	Shoot and fruit borer reduces the yield upto 75%	
3. Details of technologies selected for assessment	:	Technology option 1	Mixture of minimum two insecticides every spray Yield loss: 25%
	:	Technology option 2	Carbaryl (4 g/l)
	:	Technology option 3	Carbosulfan (2.0 ml / l)
4. Source of technology	:	IIHR, Bangalore	
5. Production system and thematic area	:	Rainfed system & pest management	
6. Performance of the Technology with performance indicators	:	Application of suitable insecticides helps for proper management of pest and higher yield	
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Percent damage by insect was less and fruit yield was higher in carbosulfan treated plants	
8. Final recommendation for micro level situation	:	Spraying of carbosulfan @ 2.0 ml / l or Carbaryl @ 4 g/l reduces the shoot and fruit borer incidence and increases the yield	
9. Constraints identified and feedback for research	:	Nil & suitable management practices are required for pest control	
10. Process of farmers participation and their reaction	:	Farmers were actively involved in implementing the above OFT treatments. Farmers opined that by spraying carbosulfan reduces the pest incidence and increases the yield. This technology was widely accepted by the brinjal farmers.	

1. Title of Technology Assessed	:	Thrips management in onion	
2. Problem Definition	:	Severe thrips infestation reducing the yield	
3. Details of technologies selected for assessment	:	Technology option 1 (Farmer's practice)	Dimethoate (1.75 ml / lt – Two spray)
	:	Technology option 2	Dimethoate (1.75 ml / l)

		Technology option 3	λ - cylothrin (0.5ml / l)
4. Source of technology	:	Farmers & NRC for Onion and Garlic	
5. Production system and thematic area	:	Rainfed & pest management	
6. Performance of the Technology with performance indicators	:	Application of suitable insecticides helps for proper management of pest and higher yield	
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Percent damage by insect was less and bulb yield was higher in λ - cylothrin (0.5ml / l) treated plants	
8. Final recommendation for micro level situation	:	Spraying of λ - cylothrin (0.5ml / l) reduces the thrips incidence and increases the yield	
9. Constraints identified and feedback for research	:	Nil & suitable management practices are required for pest control	
10. Process of farmers participation and their reaction	:	Farmers were actively involved in implementing the above OFT treatments. Farmers opined that by spraying λ - cylothrin (0.5ml / l) reduces the pest incidence and increases the yield. This technology was widely accepted by the onion farmers.	

1. Title of Technology Assessed	:	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton.	
2. Problem Definition	:	Chemical pesticides are lethal to natural enemy till 60 days of crop growth, sucking pests develop resistance to various chemical insecticides	
3. Details of technologies selected for assessment	:	Technology option 1 (Farmer's practice)	Mixture of two or more chemicals
		Technology option 2	Imidachlopid @ 0.5 ml./ltr.
		Technology option 3	<i>Verticillium lecanii</i> @ 2 gm./ltr
4. Source of technology	:	CICR, Nagapur	
5. Production system and thematic area	:	Rainfed and pest management	
6. Performance of the Technology with performance indicators	:	Application of suitable bio-pesticides helps for proper management of pest and higher yield and build up of various natural enemy population	
7. Feedback, matrix scoring of various technology parameters	:	Sucking pests damage was less, natural enemy population and yield were higher in	

done through farmer's participation / other scoring techniques		<i>Verticillium lecani</i> treated plants
8. Final recommendation for micro level situation	:	Spraying of <i>Verticillium lecani</i> @ 2.0 gm / l or Imidachloprid @ 0.5 ml./ltr. reduces the sucking pests incidence and increases the yield
9. Constraints identified and feedback for research	:	Nil & suitable bio-control methods are required for pest control
10. Process of farmers participation and their reaction	:	Farmers were actively involved in implementing the above OFT treatments. Farmers opined that by spraying <i>Verticillium lecani</i> reduces the pest incidence, increases the natural enemy population and yield. This technology was widely accepted by the cotton farmers.

1. Title of Technology Assessed	:	Assessment of onion variety Agri found dark red over Arka Kalyan	
2. Problem Definition	:	Lower yield of onion due to low genetic potentiality of existing Nasik red and Arka Kalyan for yield.	
3. Details of technologies selected for assessment	:	Technology option 1 (Farmer's practice)	Farmers practices
		Technology option 2	UAS, Dharwad/ IIHR, Bangalore
		Technology option 3	NHRDF, Nasik
4. Source of technology	:	UAS, Dharwad/ IIHR, Bangalore	
5. Production system and thematic area	:	Onion is mainly grown in rainfed system. The farmers are mainly growing local cultivars and they are low yielding variety. Recent Arka Kalyan variety of onion is acquiring the onion area of this district. The yield of both local (Nasik red) and Arka Kalyan are lower than agri found dark red.	
6. Performance of the Technology with performance indicators	:	Agri found dark red yields 40 tons/ha against 30 ton/ha of Arka Kalyan	
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Size of the bulbs and disease incidence.	
8. Final recommendation for micro level situation	:	By growing onion variety Agri found dark red yields higher than Arka Kalyan variety	
9. Constraints identified and feedback for research	:	This year due to heavy rain the results were not upto mark for recommendation	
10. Process of farmers participation and their reaction	:	Farmers were actively involved in implementing the above OFT treatments. Farmers opined that during early cropping stage of Agri found dark red growth become good and they are excepted higher yield but due to heavy rain the yield gets affected.	

1	Title of Technology Assessed	:	Wider row Spacing in Brinjal	
2	Problem Definition	:	Inconvenience in intercultivation and maintenance	
3	Details of technologies selected for assessment	:	Farmer's Practice	Closer spacing (60 x 45 cm)
			Technological Option 1	Recommended spacing (75 x 60 cm)
			Technological Option 2	Wider Spacing (90 x 60 cm)
4	Source of technology	:	IIHR, Bangalore	
5	Production system and thematic area	:	Brinjal is mainly grown in fertile soils under irrigated conditions. Farmers are growing HYV & hybrids but the yield levels are not encouraging. Many reasons for lower yield in brinjal is adoption of closer spacing by the farmer. By adopting the closer spacing plants compete for nutrients, light and water resulting in increased vegetative growth rather than the reproductive growth causing poor aeration and increased pest and disease incidence which inturn results in flower and fruit drop which ultimately leads to decreased yield.	
6	Performance of the Technology with performance indicators	:	Wider row spacing helps for better growth & management practices	
7	Final recommendation for micro level situation	:	By adopting wider spacing plants grow luxuriantly resulting in better vegetative and reproductive growth due to good aeration and decreased pest and disease incidence.	
8	Constraints identified and feedback for research	:	Nil and HYV & hybrids need wider spacing	
9	Process of farmers participation and their reaction	:	Farmers were actively involved in implementing the above OFT treatments. Farmers opined that by adopting wider spacing plants grow luxuriantly resulting in better growth (vegetative and reproductive) due to good aeration and decreased pest and disease incidence. This technology was widely accepted by the OFT beneficiaries and brinjal growers.	

1. Title of Technology Assessed	:	Management of powdery mildew in Sunflower	
2. Problem Definition	:	Powdery mildew	
3. Details of technologies selected for assessment	:	Technology option 1 (Farmer's practice)	
		Technology option 2	Spraying of Carbendazim @ 1 gm/lit
		Technology option 3	Spraying of Difenconazole @ 1 ml/lit
4. Source of technology	:	Staff Research of UAS, Dharwad	
5. Production system and thematic area	:	Integrated management & powdery mildew disease management	
6. Performance of the Technology with performance indicators	:	Excellent management of the disease up to 80-90%	
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Better disease management by spraying of Difenconazole @ 1 ml/lit getting higher yield .	
8. Final recommendation for micro level situation	:	Spray of Difenconazole @ 1 ml/lit 2 sprays at an interval 10-15 days.	
9. Constraints identified and feedback for research	:	Once the disease outbreak (> 50%) it is difficult to manage because it is air borne disease	
10. Process of farmers participation and their reaction	:	Training & group meetings, Expressed good opinion about the technology and same practice will be continued in future if disease occurred.	

1. Title of Technology Assessed	:	Management of collar rot in groundnut	
2. Problem Definition	:	Collar rot	
3. Details of technologies selected for assessment	:	Technology option 1	Capton @ 2.5g/kg
		Technology option 2	ST with <i>Trichoderma</i> @ 4g/kg.
		Technology option 3	ST with <i>Pseudomonas flourosense</i> @4g/kg seeds & soil treatment with <i>Pseudomonas</i> @ 2.5kg & neemcake @ 2.5q with FYM 5 tons/ha.

4. Source of technology	:	PDBC, Bangalore
5. Production system and thematic area	:	Integrated management & Collar rot disease management
6. Performance of the Technology with performance indicators	:	Excellent management of the disease up to 60-70%
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Better disease management through ST with <i>Pseudomonas flouroscense</i> @ 4g/kg seeds & soil treatment with <i>Pseudomonas</i> @ 2.5kg & neemcake @ 2.5q with FYM 5 tons/ha and getting higher yield .
8. Final recommendation for micro level situation	:	ST with <i>Pseudomonas flouroscense</i> @ 4g/kg seeds & soil treatment with <i>Pseudomonas</i> @ 2.5kg & neemcake @ 2.5q with FYM 5 tons/ha
9. Constraints identified and feedback for research	:	Once the disease outbreak (> 50%) it is difficult to manage since it is soil borne disease
10. Process of farmers participation and their reaction	:	Training & group meetings, good opinion about the technology and same practice will be continued in future if disease outbreak.

4.D1. Results of Technologies Refined – Nil

4.D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the proforma below –Nil

PART V - FRONTLINE DEMONSTRATIONS

5.A. Summary of FLDs implemented during 2009-10

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	
1.	Oilseeds	Rainfed	Kharif 2009	Groundnut	GPBD-4	-	ICM	Varietal Evaluation	10	10	04	06	10	-
2.		Rainfed	Kharif 2009	Soybean	JS-9305	-	ICM	Varietal Evaluation	10	06	02	23	25	-
			Dsb-1		04					-				
3.		Rainfed	Kharif 2009	Sunflower	-	KBSH-41	ICM	Varietal Evaluation	10	10	11	14	25	-
4.		Rainfed	Kharif 2009	Niger	RCR-18	-	ICM	Varietal Evaluation	05	05	02	10	12	-
5.		Rainfed	Kharif 2009	Sesamum	DSS-9	-	ICM	Varietal Evaluation	05	05	01	11	12	-
6.		Rainfed	Rabi 2009	Groundnut	GPBD-4	-	ICM	Varietal Evaluation	05	05	01	04	05	-
7.	Pulses	Rainfed	Kharif 2009	Redgram	Asha	-	ICM	Varietal Evaluation	10	10	9	16	25	-
8.		Rainfed	Kharif 2009	Greengram	S-4	-	ICM	Varietal Evaluation	10	10	5	20	25	-
9.		Rainfed	Kharif 2009	Blackgram	DU-1	-	ICM	Varietal Evaluation	10	10	3	22	25	-
10.		Rainfed	Rabi 2009	Bengalgram	Bheema	-	ICM	Varietal Evaluation	10	10	10	15	25	-
11.	Cereals	Rainfed	Kharif 2009	Maize	-	DMH-2	ICM	Varietal demonstration	05	05	03	09	12	-
12.	Millets	Rainfed	Kharif 2009	Little millet	Suskshema	-	ICM	Varietal Evaluation	10	1.2	0	03	03	Non availability of seeds
13.		Rainfed	Kharif 2009	Foxtail millet	HMT-100-1	-	ICM	Varietal Evaluation	10	10	04	11	15	-
14.	Vegetables	Irrigated	Kharif 2009	Chilli	Byadgi Kaddi	-	IPM	IPM	05	05	04	08	12	-
15.		Rainfed	Kharif 2009	Onion	Arka kalian	-	ICM	Introduction of HYV	10	10	02	08	10	-

16.		Rainfed	Kharif 2009	Tomato	DMT-2	-	ICM	Introduction of HYV	06	06	0	10	10	
17.		Rainfed	Kharif 2009	Dry Chilli	Byadgi kaddi	-	ICM	Introduction of HYV	10	10	4	11	15	-
18.	Flowers	Irrigated	Kharif 2009	Aster	Kamini	-	ICM	Introduction of HYV	10	10	3	12	15	-
19.	Commercial	Rainfed	Kharif 2009	Cotton	-	RCH-20-Bt	ICM	Production technology	20	20	24	26	50	-

5.A. 1. Soil fertility status of FLDs plots during 2009-10

Sl. No.	Category	Farming Situation	Season & Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season & year	Status of soil			Previous crop grown
										N	P	K	
1.	Oilseeds	Rainfed	Kharif 2009	Groundnut	GPBD-4	-	ICM	Varietal Evaluation	Kharif 2009	M	M	H	Cotton, Jowar, Sunflower, Maize
2.		Rainfed	Kharif 2009	Soybean	JS-9305 Dsb-1	-	ICM	Varietal Evaluation	Kharif 2009	L	M	M	Jowar, Maize, Cotton, Sunflower, Chilli
3.		Rainfed	Kharif 2009	Sunflower	-	KBSH-41	ICM	Varietal Evaluation	Kharif 2009	M	M	M	Maize, Chilli, Groundnut, Soybean
4.		Rainfed	Kharif 2009	Niger	RCR-18	-	ICM	Varietal Evaluation	Kharif 2009	M	M	M	Cotton, Jowar, Maize
5.		Rainfed	Kharif 2009	Sesamum	DSS-9	-	ICM	Varietal Evaluation	Kharif 2009	M	H	M	Maize, Bengalgram, Groundnut, Cotton, Jowar, Onion
6.		Rainfed	Rabi 2009	Groundnut	GPBD-4	-	ICM	Varietal Evaluation	Rabi 2009	L	H	M	Maize, Chilli, Groundnut, Soybean
7.	Pulses	Rainfed	Kharif 2009	Redgram	Asha	-	ICM	Varietal Evaluation	Kharif 2009	L	M	M	Cotton, Maize, Sunflower
8.		Rainfed	Kharif 2009	Greengram	S-4	-	ICM	Varietal Evaluation	Kharif 2009	M	H	M	Cotton, Chilli, Maize, Sunflower, Tomato, Jowar, Groundnut, Bajjara
9.		Rainfed	Kharif 2009	Blackgram	DU-1	-	ICM	Varietal Evaluation	Kharif 2009	M	M	H	Sunflower, Jowar, Maize, Save, Bt-cotton
10.		Rainfed	Rabi 2009	Bengalgram	Bheema	-	ICM	Varietal Evaluation	Rabi 2009	M	M	H	Cotton, Maize, Onion, Sunflower Groundnut

11.	Cereals	Rainfed	Kharif 2009	Maize	-	DMH-2	ICM	Varietal Demonstration	Kharif 2009	L	M	H	Cotton, Maize
12.	Millets	Rainfed	Kharif 2009	Little millet	Suskshema	-	ICM	Varietal Evaluation	Kharif 2009	L	M	M	Sunflower, Cotton
13.		Rainfed	Kharif 2009	Foxtail millet	HMT-100-1	-	ICM	Varietal Evaluation	Kharif 2009	L	M	H	Jowar, Cotton, Sunflower, Ragi
14.	Vegetables	Irrigated	Kharif 2009	Chilli	Byadgi Kaddi	-	IPM	IPM	Kharif 2009	L	M	H	Maize, Groundnut, Sunflower, Bengalgram, Jowar
15.		Rainfed	Kharif 2009	Onion	Arka kalyan	-	ICM	Introduction of HYV	Kharif 2009	M	M	H	Cotton, Maize, Sunflower
16.		Rainfed	Kharif 2009	Tomato	DMT-2	-	ICM	Introduction of HYV	Kharif 2009	L	M	M	Cotton, Chilli, Maize, Sunflower, Tomato, Jowar, Groundnut, Bajjara
17.		Rainfed	Kharif 2009	Dry Chilli	Byadgi kaddi	-	ICM	Introduction of HYV	Kharif 2009	M	M	H	Cotton, Maize, Sunflower
18.	Flowers	Irrigated	Kharif 2009	Aster	Kamini	-	ICM	Introduction of HYV	Kharif 2009	M	H	H	Jowar, Maize, Cotton, Sunflower, Chilli
19.	Commercial	Rainfed	Kharif 2009	Cotton	-	RCH-20-Bt	ICM	Production technology	Kharif 2009	M	H	H	Maize, Groundnut, Sunflower, Bengalgram, Jowar

* H=High, M= Medium, L-Low

5.B. Results of Frontline Demonstrations

5.B.1. Oilseeds:

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Groundnut	Varietal Evaluation	GPBD-4	-	Rainfed	10	10	30.00	24.00	27.0	18.0	52.22	18500	70200	51700	3.80	15000	46800	31800	3.12
Soybean	Varietal Evaluation	JS9305	-	Rainfed	25	10	12.80	10.60	11.57	8.83	31.03	5580	20826	15246	3.73	5087	15894	10807	3.12
		Dsb-1					12.60	10.80	11.77	8.66	35.91	5650	21186	15536	3.75	4995	14598	9603	2.92
Sunflower	ICM	-	KBSH-41	Rainfed	25	10	14.6	13.1	13.70	11.55	18.61	7006	32880	25874	4.69	7126	27720	23594	3.89
Sesemum	ICM	DSS-9	-	Rainfed	12	05	2.90	2.40	2.64	2.18	21.10	1787	13200	11413	7.39	1683	10900	9217	6.47
Niger	ICM	RCR-18	-	Rainfed	12	05	2.1	1.7	1.91	1.43	33.57	1896	11460	9564	6.04	1954	8580	6626	4.39
Groundnut	Varietal Evaluation	GPBD-4	-	Irrigated	05	05	15.50	14.60	14.93	12.85	16.00	6800	38818	32018	5.70	7500	33280	25780	4.45
	Total				89	45	90.5	77.2	83.52	63.5	208.44	47219	208570	161351	35.1	43345	157772	117427	28.36

Data on additional parameters other than yield

Data on other parameters in relation to technology demonstrated			
Crops	Parameter with unit	Demo	Local
Groundnut	Hairy cater pillar incidence (%)	10	18
Soybean	Spodoptera incidence (%)	12	23
	Rust (%)	40	10
Sunflower	Hairy cater pillar incidence (%)	12	21
	Powdery mildew incidence (%)	05	30
	Necrosis incidence (%)	08	20
Sesemum	Alternaria leaf spot (%)	10.20	13
Niger	Alternaria leaf spot (%)	12	23
	Cercospora leaf spot (%)	10	20
Groundnut	Hairy cater pillar incidence (%)	12	22
	Peanut bud necrosis (%)	15	25

5.B.2. Pulses

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										
Redgram	ICM	BSMR-736	-	Rainfed	25	10	14.0	11.0	12.78	10.3	23.88	9846	45936	36090	4.66	9281	37080	27799	3.99
Greengram	ICM	S-4	-	Rainfed	25	10	8.3	6.3	7.3	6.2	17.7	12473	32850	20377	2.63	11546	27900	16354	2.4
Blackgram	Varietal Evaluation	DU-1	-	Rainfed	25	10	8.5	7.5	8.0	6.1	31.14	12634	38400	25766	3.04	11500	29280	17780	2.55
Bengalgram	Varietal Evaluation	Bheema	-	Borewell	25	10	9.40	7.20	8.72	6.55	33.13	4000	21800	18300	5.45	4400	16375	11975	3.72
Total					100	40	40.2	32	36.8	29.15	105.85	38953	138986	100533	15.78	36727	110635	73908	12.66

Data on additional parameters other than yield

Crops	Data on other parameters in relation to technology demonstrated		
	Parameter with unit	Demo	Local
Redgram	% pod borer	12	24
Greengram	% pod weevil	14	33
	% powdery mildew incidence	12	25
Blackgram	Incidence of aphids (No.s)	10 per leaf	22 per leaf
	% powdery mildew incidence	14	28
Bengalgram	% pod borer	08	20
	% wilt incidence	08	12

5.B.3. Other crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farmin g situation	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
							Demo			Chec k		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
							H	L	A										
Cereals																			
Maize	ICM	-	DM H-2	Rainfed	12	05	56.00	49.0	52.5	46.00	14.1	14500	42000	27500	2.9	16500	36800	20300	2.2
Millets																			
Little millet	ICM	Sukshema	-	Rainfed	03	1.2	16.0	11.0	13.5	10.5	28.6	7500	24300	16800	3.2	7000	18900	11900	2.7
Foxtail millet	Varietal Evaluation	HMT 100-1	-	Rainfed	15	10	17.0	13.0	15.0	12.0	25.0	7500	16500	9000	2.2	7000	13200	6700	1.9
Vegetables																			
Tomato	HYV-DMT-2 : Tomato	DMT-2	-	Rainfed	10	05	138	98	118	102	15.7	167580	66078	40900	3.92	15200	56100	40900	3.70
Onion	Onion HYV - Arka kalyan	Arka kalyan	-	Rainfed	10	10	180	96	138	108	27.7	23130	130435	109205	5.53	22100	102600	80500	4.6
Brinjal																			
Flowers																			
Aster	Aster - HYV Kamini	Kamini	-	Irrigated	15	06	300	180	240	180	33.3	25120	231400	206300	805	23000	180000	157000	7.8
Spices and condiments																			
Chilli	IPM in Chilli	Byadgi kaddi	-	Irrigated	12	05	10.6	8.5	9.46	7.02	34.76	23508	113500	89991	4.84	22400	84240	61840	3.76
Dry chilli	Production technology	Byadgi kaddi	-	Rainfed	15	10	7	2.5	4.20	3.2	31.25	16833	50400	33580	2.94	15800	36800	21000	2.33

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

Crops	Data on other parameters in relation to technology demonstrated		
	Parameter with unit	Demo	Local
Cereals			
Maize	% reduction of Turicum Leaf blight incidence	20-25	35-40
Vegetables			
Tomato	% Fruit borer incidence	8	22
Onion	Thrips incidence (No. / leaf)	6.00	12.50
Flowers			
Aster	% Root rot disease	10	22
Spices and condiments			
Chilli	Thrips incidence (No./leaf)	4	11

5.B.4. Livestock - Nil

5.B.5. Fisheries : Nil

5.B.6. Other enterprises : Nil

5.B.7. Farm implements and machinery : Nil

5.B.8. Cotton

Summary of demonstrations conducted under FLD cotton

Sl. No.	Category	Technology Demonstrated	Variety	Hybrid	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
						Proposed	Actual	SC/ST	Others	Total	
1	Production Technology	ICM	-	Rasi-20 Bt	Kharif-2009	20	20	24	26	50	-

Production technology demonstrations

Performance of demonstrations

Farming situation	Technology Demonstrated	Area (ha)	No.of demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
						Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Rainfed	ICM	20	50	-	Rasi-20Bt	14.30	11.61	23.13	11753	45772	34019	3.93	15249	37376	22127	2.46

Performance of Bt hybrids, Desi hybrids, non-Bt hybrids and Varieties in Front Line Demonstrations in cotton during 2009-10

Category	Farming situation	Technology Demonstrated	Area (ha)	No.of demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
							Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Bt hybrids	Rainfed	ICM	20	50	-	Rasi-20Bt	14.30	11.61	23.13	11753	45772	34019	3.93	15249	37376	22127	2.46

Integrated pest management demonstrations : Nil

Demonstrations on farm implements : Nil

Extension Programmes organized in Cotton Demonstration Plots

Extension activity	No. of Programmes	Participants			SC/ST		
		Male	Female	Total	Male	Female	Total
Consultancy	165	280	110	390	40	10	50
Conventions	82	220	115	335	25	08	33
Demonstrations	50	230	45	275	20	12	32
Diagnostic surveys	28	140	50	190	20	10	30
Exhibition	02	190	20	210	25	15	40
Farmer study tours	0	00	00	00	00	00	00
Farmers Field school	0	00	00	00	20	10	30
Field Days	01	290	30	320	20	05	25
Field visits	86	330	40	370	30	08	38
Gram sabha	08	210	30	240	10	05	15
Group discussions	13	210	45	255	20	15	35
Kisan Gosthi	02	230	20	250	10	05	15
Kisan Mela	01	120	20	140	20	08	28
Training for Extension Functionaries	03	140	10	150	10	05	15
Training for farmers	12	340	45	385	40	15	55
Video show	02	230	15	245	10	04	14
Newspaper coverage	07	00	00	00	00	00	00
Popular articles	08	00	00	00	00	00	00
Publication	03	00	00	00	00	00	00
Radio talks	02	00	00	00	00	00	00
T.V. Programme	02	00	00	00	00	00	00
TOTAL	477	3160	595	3755	320	135	455

Technical Feedback on the demonstrated technologies on all crops / enterprise

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Brinjal	Management of shoot and fruit borer in Brinjal	Lesser shoot and fruit borer incidence and higher yield
2.	Onion	Thrips management in onion	Lesser thrips incidence and higher yield
3.	Cotton	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	Lesser sucking pest incidence and higher yield Higher natural enemies population
4.	Onion	Assessment of onion variety Agri found dark red over Arka Kalyan	Farmers getting higher yields compared to local varieties
5.	Sunflower	Management of powdery mildew in Sunflower	Lesser incidence of disease getting higher yield
6.	Groundnut	Management of Collar rot in groundnut	Lesser incidence of disease getting higher yield
7.	Little millet	ICM in Little millet variety Sukshema	Accepted the variety due to high yield
8.	Foxtail millet	ICM in Foxtail millet variety HMT-100-1	Accepted the variety due to high yield
9.	Maize	Varietal demonstration of DMH-2	Moderately Resistant to TLB but yield levels are low compared to local check
10.	Chilli	IPM in Chilli	Higher yield and lesser pest population
11.	Onion	Introduction of high yielding onion variety Arka kalyan	Farmers getting higher yields compared to local varieties
12.	Tomato	Introduction of HYV DMT-2 in tomato	Farmers getting higher yields compared to local varieties
13.	Chilli	Popularization of purified Byadgi Kaddi/Dabbi chilli variety	Farmers getting higher yields compared to local varieties
14.	Aster	Introduction of High yielding variety	Farmers getting higher yields and getting good price in market
15.	Groundnut	ICM in Groundnut (GPBD-4)	Higher yield and lower leaf spot disease
16.	Sunflower	ICM in Sunflower (KBSH-41)	Accepted the hybrid due to higher yield
17.	Soybean	ICM in Soybean (JS-335)	Accepted the variety due to higher yield
18.	Seasumum	ICM in Sesamum(DSS-9)	Accepted the variety due to higher yield
19.	Niger	ICM in Niger (RCR-18)	Accepted the variety due to higher yield
20.	Groundnut	ICM in Summer Groundnut	Higher yield

21.	Redgram	IPM in Redgram	Higher yield, lesser pod borer, wilt and SMD incidence
22.	Greengram	ICM in Green gram	Accepted the variety due to non shattering nature
23.	Blackgram	ICM in Blackgram	Higher yield and lesser pest and disease
24.	Bengalgram	ICM in Bengalgram (<i>Rabi</i>)	Higher yield and lesser incidence pod borer & wilt
25.	Bt-Cotton	ICM in Bt-cotton	Higher yield and lesser pest & diseases

Farmers' reactions on specific technologies

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Brinjal	Management of shoot and fruit borer in Brinjal	Lesser shoot and fruit borer incidence and higher yield
2.	Onion	Thrips management in onion	Lesser thrips incidence and higher yield
3.	Cotton	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	Lesser sucking pest incidence and higher yield
4.	Onion	Assessment of onion variety Agri found dark red over Arka Kalyan	Farmers getting higher yields compared to local varieties
5.	Sunflower	Management of powdery mildew in Sunflower	Lesser disease incidence & higher yield
6.	Groundnut	Management of Collar rot in groundnut	Lesser disease incidence & higher yield
7.	Little millet	ICM in Little millet variety Sukshema	Farmers getting higher yields compared to local varieties
8.	Foxtail millet	ICM in Foxtail millet variety HMT-100-1	Farmers getting higher yields compared to local varieties
9.	Maize	Varietal demonstration of DMH-2	Farmers getting higher yields compared to local varieties
10.	Chilli	IPM in Chilli	Farmers getting higher yields compared to local varieties
11.	Onion	Introduction of high yielding onion variety Arka kalyan	Farmers getting higher yields compared to local varieties
12.	Tomato	Introduction of HYV DMT-2 in tomato	Farmers getting higher yields compared to local varieties
13.	Chilli	Popularization of purified Byadgi Kaddi/Dabbi chilli variety	Farmers getting higher yields compared to local varieties
14.	Aster	Introduction of High yielding variety	Farmers getting higher yields and getting good price in market
15.	Groundnut	ICM in Groundnut (GPBD-4)	High yielding, plants are greenish upto harvesting stage

16.	Sunflower	ICM in Sunflower (KBSH-41)	Higher yield due to better hybrid
17.	Soybean	ICM in Soybean (JS-335 & Dsb-1)	Higher yield due to good variety
18.	Seasumum	ICM in Sesamum(DSS-9)	Higher yield due to good variety & lesser disease incidence
19.	Niger	ICM in Niger (RCR-18)	Higher yield due to good variety & lesser disease incidence
20.	Groundnut	ICM in Summer Groundnut	Higher yield
21.	Redgram	IPM in Redgram	Higher yield, lesser pod borer, wilt and SMD incidence
22.	Greengram	ICM in Green gram	Seeds are small but shiny and attractive. Shattering is not noticed
23.	Blackgram	ICM in Blackgram	High yielding and lesser pest and disease
24.	Bengalgram	ICM in Bengalgram (<i>Rabi</i>)	Higher yield and lesser pest & diseases
25.	Bt-Cotton	ICM in Bt-cotton	Higher yield and lesser pest & diseases

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants
1	Field days	08	241
2	Farmers Training	75	180
3	Media coverage (Press note)	02	-
4	Training for extension functionaries	19	100

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Cereals																	
Maize	ICM	DMH-2	12	05	56	49	52.5	46	14.1	14500	42000	27500	2.9	16500	36800	20300	2.2
Total			12	05	56	49	52.5	46	14.1	14500	42000	27500	2.9	16500	36800	20300	2.2
Oilseeds																	
Sunflower	ICM	KBSH-41	25	10	14.6	13.1	13.70	11.55	18.61	7006	32880	25874	4.69	7126	27720	23594	3.89
Total			25	10	14.6	13.1	13.70	11.55	18.61	7006	32880	25874	4.69	7126	27720	23594	3.89

PART VII. TRAINING

7.A.. Farmers' Training including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Crop Production										
Integrated Crop Management	3	110	0	110	12	0	12	122	0	122
Soil and Water Conservation	2	20	0	20	0	0	0	20	0	20
INM	1	6	0	6	5	0	5	11	0	11
Others (pl.specify)	2	28	0	28	4	0	4	32	0	32
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	1	7	0	7	0	0	0	7	0	7
Others (pl.specify)	3	59	10	69	18	2	20	77	7	89
b) Fruits										
c) Ornamental Plants										
Others (pl.specify)	1	9	0	9	2	0	2	11	0	11
d) Plantation crops										
e) Tuber crops										
Production and Management technology	3	28	0	28	1	0	1	29	0	29
f) Spices										
Production and Management technology	1	10	0	10	0	0	0	10	0	10
g) Medicinal and Aromatic Plants										
Soil Health and Fertility Management										
Livestock Production and Management										
Dairy Management	5	70	14	84	23	0	23	93	14	107
Poultry Management	5	82	0	82	6	0	6	88	0	88
Others (pl.specify)	1	25	0	25	0	0	0	25	0	25
Home Science/Women empowerment										
Value addition	1	19	0	19	0	0	0	19	0	19
Location specific drudgery production	2	9	37	46	0	7	7	9	38	53
Women and child care	1	0	18	18	0	2	2	0	17	20
Others (pl.specify)	3	8	57	65	0	25	25	8	52	90
Agril. Engineering										
Plant Protection										
Integrated Pest Management	2	22	0	22	4	0	4	26	0	26
Integrated Disease Management	4	19	4	23	38	5	43	57	8	66
Production of bio control agents and bio pesticides	1	25	0	25	1	0	1	26	0	26
Fisheries										
Production of Inputs at site										
Vermi-compost production	12	179	17	196	33	0	33	212	17	229

Capacity Building and Group Dynamics										
Formation and Management of SHGs	1	0	26	26	0	0	0	0	26	26
Entrepreneurial development of farmers/youths	3	24	49	73	0	0	0	24	36	73
Agro-forestry										
TOTAL	58	768	232	1000	150	41	191	918	215	1191

7.B.. Farmers' Training including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
ICM	9	151	24	175	39	9	48	190	28	223
Soil and Water Conservation	4	99	5	104	35	3	38	134	5	142
Others (pl.specify)	1	0	32	32	0	3	3	0	20	35
Horticulture										
a) Vegetable Crops										
Protective cultivation	1	21	0	21	3	0	3	24	0	24
Others (pl. specify)	2	53	7	60	18	2	20	71	7	80
b) Fruits										
Plant propagation techniques	1	41	0	41	9	0	9	50	0	50
Others (pl.specify)	3	244	1	245	68	0	68	312	1	313
c) Ornamental Plants										
	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	1	12	0	12	3	0	3	15	0	15
Others (pl.specify)	1	34	0	34	2	0	2	36	0	36
e) Tuber crops										
Production and Management technology	1	34	0	34	6	0	6	40	0	40
Processing and value addition	1	17	11	28	2	2	4	19	6	32
f) Spices										
Production and Management technology	1	17	6	23	3	2	5	20	5	28
Processing and value addition	1	16	3	19	6	0	6	22	3	25
g) Medicinal and Aromatic Plants										
	0	0	0	0	0	0	0	0	0	0
Livestock Production and Management										
Dairy Management	3	96	0	96	29	0	29	125	0	125

Poultry Management	1	18	0	18	12	0	12	30	0	30
Animal Nutrition Management	1	34	0	34	6	0	6	40	0	40
Animal Disease Management	2	50	0	50	20	0	20	70	0	70
Others (pl.specify)	3	142	0	142	33	0	33	175	0	175
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	5	5	0	19	25
Value addition	4	0	179	179	0	80	80	0	219	259
Women empowerment	1	0	20	20	0	0	0	0	20	20
Location specific drudgery production	1	0	25	25	0	15	15	0	20	40
Rural Crafts	1	0	30	30	0	10	10	0	20	40
Women and child care	3	0	93	93	0	67	67	0	86	160
Others (pl.specify)	4	4	227	231	0	29	29	4	156	260
Agril. Engineering	0	0	0	0	0	0	0	0	0	0
Plant Protection										
Integrated Pest Management	12	428	19	447	74	4	78	502	23	525
Integrated Disease Management	18	687	17	704	139	11	150	826	20	854
Bio-control of pests and diseases	2	129	1	130	58	0	58	187	1	188
Production of bio control agents and bio pesticides	1	52	0	52	8	0	8	60	0	60
Fisheries	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site										
Vermi-compost production	1	16	5	21	5	1	6	21	3	27
Capacity Building and Group Dynamics										
Formation and Management of SHGs	3	0	50	50	0	0	20	20	0	70
Entrepreneurial development of farmers/youths	3	20	30	50	10	0	10	30	30	60
Others (pl.specify)	1	35	0	35	5	0	5	40	0	40
Agro-forestry										
TOTAL	93	2450	805	3255	593	243	856	3063	692	4111

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

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

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Capacity building for ICT application	1	0	28	28	0	4	4	0	21	32
Total	1	0	28	28	0	4	4	0	21	32

7.F. 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	1	35	30	65	0	0	0	35	30	65
Integrated Pest Management	1	68	2	70	15	0	15	83	2	85
Integrated Nutrient management	1	35	30	65	0	0	0	35	30	65
Low cost and nutrient efficient diet designing	1	35	30	65	0	0	0	35	30	65
Any other (pl.specify)	1	35	30	65	0	0	0	35	30	65
Total	5	208	122	330	15	0	15	223	122	345

7.G. Sponsored training programmes - Nil

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		
			M	F	T	M	F	T	M	F	Total
2	Post harvest technology and value addition										
2.b.	Others (Bakery)	01	00	21	21	-	9	9	-	30	30
	Grand Total	01	00	21	21	-	9	9	-	30	30

PART VIII – EXTENSION ACTIVITIES

Extension Programmes (including activities of FLD programmes)

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		M	F	T	M	F	T	M	F	T
Field Day										
Green gram	01	15	05	20	03	03	06	00	00	00
Aster	01	18	10	28	05	02	07	00	00	00
Foxtail millet	01	20	05	25	10	04	14	00	00	00
Cotton	01	25	11	36	12	08	20	00	00	00
Redgram	01	15	13	28	20	05	25	00	00	00
Groundnut	02	32	16	48	15	05	20	00	00	00
Kisan Mela	00	00	00	00	00	00	00	00	00	00
Kisan Ghosthi	01	40	00	40	20	05	25	05	00	05
Exhibition	01	85	55	140	56	32	88	25	15	30
Film Show	02	50	00	50	14	21	35	10	02	12
Method Demonstrations										
Trichoderma Seed treatment	20	78	22	100	23	34	57	00	00	00
Installation of pheromone traps and yellow sticky traps in Cotton	20	75	20	95	21	12	33	00	00	00
Rhizobium Seed treatment	10	32	20	52	15	14	29	00	00	00
Clean milk production methods	03	15	10	25	12	10	22	00	00	00
Enrichment of fodder	02	10	15	25	12	13	25	00	00	00
Multiplication of plants	01	10	10	20	05	02	07	00	00	00
Use of Plano fix for enhancing fruit set	00	00	00	00	00	00	00	00	00	00
Introduction of Chrysanthemum cultivars	05	42	34	76	18	20	38	00	00	00
Value addition to minor millets	10	00	110	110	00	85	85	00	00	00
Preparation of nutrition food	05	00	72	72	00	73	73	00	00	00
Weaning foods	03	00	25	25	00	30	30	00	00	00
Hand embroidery	02	00	20	20	00	10	10	00	00	00
Farmers Seminar	04	75	10	85	20	12	32	00	00	00
Workshop	00	00	00	00	00	00	00	00	00	00
Group meetings	30	210	120	330	75	30	105	10	5	15
Lectures delivered as resource persons	17	327	60	387	95	25	120	13	4	17

Newspaper coverage	14	00	00	00	00	00	00	00	00	00
Radio talks	02	00	00	00	00	00	00	00	00	00
TV talks	00	00	00	00	00	00	00	00	00	00
Popular articles	05	00	00	00	00	00	00	00	00	00
Extension Literature	10	00	00	00	00	00	00	00	00	00
Advisory Services	78	20	30	50	18	10	28	00	00	00
Scientific visit to farmers field	110	45	30	75	25	10	35	09	01	10
Farmers visit to KVK	525	250	110	360	100	65	165	02	00	02
Diagnostic visits	217	100	15	115	80	22	102	29	05	34
Exposure visits	01	00	00	00	00	00	00	30	10	40
Ex-trainees Sammelan	00	00	00	00	00	00	00	00	00	00
Soil health Camp	02	20	10	30	25	12	37	00	00	00
Animal Health Camp	05	523	25	548	102	30	132	10	00	10
Agri mobile clinic	00	00	00	00	00	00	00	00	00	00
Soil test campaigns	00	00	00	00	00	00	00	00	00	00
Farm Science Club Conveners meet	00	00	00	00	00	00	00	00	00	00
Self Help Group Conveners meetings	18	40	255	295	55	45	100	05	15	20
Mahila Mandals Conveners meetings	10	00	82	82	00	60	60	00	00	00
Celebration of important days										
Breast feeding week	01	00	00	00	00	00	00	00	20	20
Parthenium awareness week	01	10	00	10	08	00	08	00	00	00
Horticulture day	01	32	20	52	10	15	25	00	00	00
World food day	01	05	25	30	05	05	10	00	00	00
Women in agriculture day	01	02	25	27	00	10	10	00	00	00
International Women's day	01	0	20	20	00	15	15	00	00	00
Total	1146	2221	1310	3531	879	754	1633	1118	567	1675

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
Pulses	Soybean	JS-335	-	2.5	6500.00	Handed over to BSP/NSP , UASD
		JS-9305	-	2	6000.00	
		DSb-1	-	1	3000.00	
	Redgram	BSMR-736	-	3	11100.00	50
		Asha	-	1	3700.00	15
		Maruti	-	4	14800.00	25
Others	Sunhemp	Local	-	5	8500.00	20
Total				18.5	53600.00	-

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
Vegetable seedlings	Drumstick	Local	-	18	90.00	10
Fruits	Guava	L-49	-	267	5340.00	30
	Sapota	-	DHS-1	442	22100.00	25
		-	DHS-2	247	12550.00	10
	Tamarind		-	06	120.00	1
	Lime	Local	-	04	20.00	1
Medicinal and Aromatic	Chakramuni	-	-	22	110.00	20
Spices	Curryleaf	Suhasini	-	706	35300.00	75
Total				1722	75930.00	174

9.C. Production of Bio-Products : Nil

9.D. Production of livestock materials : Nil

PART X – PUBLICATION, SUCCESS STORY, SWTL

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

(A) KVK News Letter

Date of start	Periodicity	Number of copies distributed
2005	Quarterly	300

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Studies on Clonal variation of Sugarcane varieties	Kiran V.B. ,Yadahalli K.B.	15
	Effect of culture filtrate of <i>Colletotrichum falcatum</i> on callus growth of different Sugarcane varieties	V.B. Kiran ,K.B. Yadahalli	
	Bio Efficacy of Systemic and Non systemic fungicides against sett rot in sugarcane causing <i>Ceratocystis parodaxa</i> .	Vijaya, H.K. K.B. Yadahalli	
	Evaluation of New Chemical Molecules for the management of <i>Scirpophaga incertulas</i> , walker, in Aerobic rice	Hugar, S.V., Venkatesh Hosamani, Pradeep, S. and Hanumantha Swamy, B.C	
	Influence of weather factors on the infestation of yellow stem borer, <i>scirpophaga incertulas</i> walker in aerobic rice.	Hugar S.V., Venkatesh Hosamani, Hanumanthaswamy B.C. and Pradeep S.	
	Investigation on parasitoids, Predators and Pathogens of Greater Waxmoth <i>Galleria mellonella</i> Linnaeus on Honey bees.	Hanumanthaswamy B.C., Rajgopal D. and Sunil C.	
	Evaluation of Bio intensive IPM module in Redgram	Hanumanthswamy B.C., Yadahalli K.B. and Nagaraj M.V.	
	Comparative Effect of Pollen Supplement and substitute on population, Growth and Development of honey bees <i>Apis cerana Fab</i>	Prakash, S., Bhat, N.S., Naik, M.I. and Hanumantha Swamy, B.C	
	Occurrence of Non-insect enemies infesting honey bee colonies	Hanumantha Swamy, B.C., Rajagopal, D. and Sunil, C	
	Influence of different spices of honey bee comb on the life stages and biological parameters of greaterwax moth <i>Galleria mellonella</i> L	Hanumantha Swamy, B.C., Venkatesh Hosamani and Nagaraj, M.V	
	Rice grain damage and its impact on germination by rice earhead bug, <i>Leptocorisa oratorius</i> (Hemiptera : Alydidae) in Bhadra command Area, Shimoga Karnataka	Venkatesh Hosamani, Pradeep, S., Doddabasappa, B., Sridhar, S. and Hanumantha Swamy, B.C.	
	Monitoring of Rice earhead bug, <i>Leptocorisa oratorius</i> (Hemiptera : Alydidae) using light traps	Venkatesh Hosamani, Pradeep, S., Doddabasappa, B., Sridhar, S. and Hanumantha Swamy, B.C	
	Economization of drip irrigation by optimizing the irrigation levels and planting methods in green chilli	B.K. Ramachandrappa, H.V. Nanjappa, B.N. Prabhakara and T.M. Soumya	
	Effect of fertigation with different sources and levels of fertilizer on growth and yield of tomato	T.M. Soumya, B.K. Ramachandrappa and H.V. Nanjappa	
	Planting geometry: an option for economization of investment on drip system in green chilli	B.K. Ramachandrappa, H.V. Nanjappa, T.M. Soumya and B.N. Prabhakara	
Technical reports			

News letters	April-June	KVK Staff	04
	July-August		
	Oct-Dec		
	Jan-March		
Popular articles	Savayava krishiyalli rogakala nirvahane	K.B.Yadahalli & B.C. Hanumanthaswamy	06
	Savayava krishiyalli rogakala nirvahane	B.C. Hanumanthaswamy & K.B.Yadahalli	
	Hatti Beleyalli yele kempu rogak nirvahan	K.B.Yadahalli, S.S. Udikeri, Venkatesh Hosamani, B.C. Hanumanthaswamy	
	Chinnada kyathiya hatti belege hattu kuttagalalu – mirid bug	S.S. Udikeri, B.C. Hanumanthaswamy, Venkatesh Hosamani, K.B.Yadahalli,	
	Arogyadayaka Anabe	Mrs. Geeta Kalakanavar, T.M. Soumya and V.D. Rathod	
	Mirid thigane: Hathiya rasa heeruva pramuka nuthana keeta badheya samasye mattu parihara	Udikeri, S.S., Hanumantha Swamy, B.C., Venkatesh Hosamani. and Yadahalli, K.B.	
Extension literature			
Abstract Papers	Effect of Organic Amendments on the incidence of sett rot in pot culture	K.B. Yadahalli	14
	Effect of Pre- sett treatment with Carbendazim and <i>Trichoderma harzianum</i> on sett rot development	K.B. Yadahalli	
	Management of purple blotch of onion	K.B. Yadahalli, Shamarao Jahagirdar	
	Management of Pythium root rot of Papaya	K.B. Yadahalli, Shamarao Jahagirdar	
	In vitro studies on sugarcane sett rot incidence in sterile and unsterile soil	K.B. Yadahalli	
	Sett rot development as influenced by different sugarcane planting materials	K.B. Yadahalli	
	Management of Leaf spot of Zinnia	K.B. Yadahalli	
	Management of Bud worm in Chrysanthemum	B.C.H. Swamy, K.B. Yadahalli	
	Complexity of insect pests on Sarpagandha, a medicinal plant	Hanumantha Swamy, B.C., Venkatesh Hosamani. and Nagaraj, M.V	
	Influence of different species of honey bee combs on the life stages and biological parameters of greater wax moth, <i>Galleria mellonella</i> L. Ibid	Hanumantha Swamy, B.C., Venkatesh Hosamani. and Nagaraj, M.V	
	Diversity and foraging efficiency of pollinators in onion	Hanumantha Swamy, B.C. and Venkatesh Hosamani	
	Foraging Activity of <i>Apis cerana</i> in onion (<i>Allium cepa</i>) crop. Ibid	Venkatesh Hosamani, Reddy, M.S. and Hanumantha Swamy, B.C	
	Pollen and Nectar Foraging Activity of Indian honey bee, <i>Apis cerana</i> . Ibid	Venkatesh Hosamani, Reddy, M.S. and Hanumantha Swamy, B.C	
	Adoption of insect pest resistance management strategies in Bt cotton in Karnataka	Udikeri, S.S., Venkateshalu, Hanumantha Swamy, B.C., Yadahalli, K.B., Chougala, D.C., Venkatesh Hosamani, Matti, P.V., Shaila, H.M., Patil, S.B., Nagaraj, M.V., Shashikumar, S. and Khadi, B.M	

Technical bulletins	Battada beleyalli sassya samrakshane	K.B. Yadahalli, B.C. Hanumanthaswamy, Venkatesh Hosamani	04
	Dwidala dhanya beleyelli sassya samrakshane	K.B. Yadahalli, B.C. Hanumanthaswamy, Venkatesh Hosamani	
	Totagarikayalli Savayava krishi	Yadahalli, K.B., Hanumantha Swamy, B.C., Nagaraj, M.V., Hiremath, S. M. and Venkatesh Hosamani	
	Bale beleya adhunika Utpadane Tantrikate	Hiremath, S. M., Nagaraj, M.V., Yadahalli, K.B., Hanumantha Swamy, B.C., Soumya, T.M., Ratod, V.D. and Venkatesh Hosamani	
Folders	Mannu pareekshe mattu adara mahathva	Gaddanakeri M. Soumya T.M., Hiremath S.M., Yadahalli K.B. and Hanumanthaswamy B.C.H	07
	Baragu	Nagappa Harijan, F.M. Durgannavar, G. Shanthakumar, Y.B. Palled, Geeta Kalakanavar	
	Navane	Nagappa Harijan, F.M. Durgannavar, G. Shanthakumar, Y.B. Palled, Geeta Kalakanavar	
	Hirigunada kirikalalu save	Nagappa Harijan, F.M. Durgannavar, G. Shanthakumar, Y.B. Palled, Geeta Kalakanavar	
	Kirudhanya belegala aadhunika besaya kramagalu	Nagappa Harijan, , Y.B. Palled, F. M. Durgannavar, Geeta Kalakanavar	
	Soya Avare Sudharitha Besaya	Soumya, T.M., Hiremath, S.M., Hanumantha Swamy, B.C., Yadahalli, K.B. and Gaddanakeri, M.A.,	
	Hesaru Beleya Uthpadana Thantrikathe	Soumya, T.M., Yadahalli, K.B., Hiremath, S.M., Hanumantha Swamy, B.C. and Gaddanakeri, M.A.,	
		TOTAL	50

10.B. Details of Electronic Media Produced :

S. No.	Type of media	Title of the programme	Number
1.	DVD	Hi-tech Nursery	01
2.	DVD	Integrated faring system	01

10.C. Success Stories / Case studies :

Title : Vermiculture and vermicompost production :

Earthworms are extremely important in soil formation principally through their activities in consuming organic matter, fragmenting it, mixing it with mineral particles to form aggregates. The application of vermicompost at field crops would definitely substitute requirement of inorganic fertilizers to the extent of 50-75 percent.

Mr. Hemanna Barangi is an enthusiastic farmer with a small holding of 1.5 acre land and he had a plan to go for vermicompost production. Upon seeing his interest in vermiculture, Krishi Vigyana Kendra Scientists briefed him about the effective way of rearing earth worms and production of vermicompost. He was given the required training for a week by Krishi Vigyana Kendra and at the end of the day he could realize that all the available organic waste material can be converted in to vermicompost by using “earthworm.” With this backup knowledge he procured two kg. of earthworms and straight away got in to vermicompost enterprise. At this point KVK introduced him to various state departments for necessary financial assistance required. Today he is using vermicompost in his crop production programmes and mainly built his venture into a commercial one. This venture not only brought his a name but also fetching his income. The enterprise is five year old and attracting many visitors also. Seeing his progress many other farmers are now started approaching him to learn the trade secret.

Presently he is selling 200 qt. of vermicompost per year at a cost of Rs. 400/- per qt. and about 150 kg. of worms at a cost of Rs. 200/- per kg which totally fetches his an income of Rs. 1.10 lakhs per year. As per KVK recommendation he planted little guard / Ivy guard (*Coccinia indica*) around the vermicompost pits for natural shade and he getting an additional income of Rs. 500/- per week by selling the little guard fruits. Indirectly he is getting organically grown produce and on his way to maintain sustainability not only in crop production but also achieved self sufficiency with respect to organic manure production, thus keeping away the inorganic fertilizers out of his farm.

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

- Experiences of ex – trainees
- Local fertilizer and pesticide vendors
- Self help groups, Transfer of Technology clubs and Rural youth clubs.
- Use of successful entrepreneurs/ progressive farmers/Awardees as a resource persons
- The paraprofessionals are fine tuned for their skills and utilized for Transfer of Technology.
- Agri-clinic entrepreneurs trained by MANAGE.

10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Vermicompost	Planting <i>Cocciinia</i> all around the vermicompost pits	Gives natural shade and raw material with the additional income
2	Household	Use of neem leaves and ash	Storage of grains
3		Use of <i>Lantana</i> camera leaves	Mosquito repellent
4	Dairy	Feeding Ashoka tree leaves	Foot and mouth disease
5		Feeding sprouted grains	For heat induction in animals

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

Identification of courses for farmers/farm women & Rural Youth

- Participatory Rural Appraisal method .
- Field visits
- Linkage with developmental departments and NGO's.
- Survey method.

Rural Youth

- Participatory Rural Appraisal method .
- Group discussion / meetings
- Linkage with developmental departments and NGO's.
- Survey method.
- Feedback

In-service personnel

- Bimonthly workshops
- NARP workshops
- Extension workshops

10.G. Field activities

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

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Laboratory has been instituted with all the requisite infrastructure analysis is being taken up

1. **Year of establishment** : 01.04.2005

2. **List of equipments purchased with amount** :

Sl. No.	Name of Equipments	Qty (No's)	Rate	Cost
1.	Electronics weighing scale with battery Back up, (Physical Balance)	1	10471.00	10471.00
2.	Electronic Weighing Machine	1	57000.00	57000.00
3.	Elico Microprocessor based pH Analyser.	1	8900.00	8900.00
	Accessories			
	Combined Electrode type CL 51B for pH Meter Model : LI612	1	850.00	850.00
4.	Elico Microprocessor based EC TDS Analyser with CC-03B and ATC Probe.	1	9790.00	9790.00
	Accessories			
	Conductivity cell	1	1000.00	1000.00
5.	Elico Microprocessor based Flame photometer (SS),	1	32040.00	32040.00
	Accessories			
	Calcium filter	1	2200.00	2200.00
6.	Elico Microprocessor based Scanning Visible Spectro photometer. Model : SL 177	1	40050.00	40050.00
	Accessories			
	Software and interfacing accessories for Spectrophotometer One Pair of Quartz Cuvettes, 100 nos. of Plastic Cuvettes, Tungsten Halogen lamp for Spectrophotometer		20000.00	20000.00
7.	Double Distillation water still (Glass)Silica Sheathed heater, CAP : 2 L/hr	1	16000.00	16000.00
	Accessories			
	Spare Silica Heater for Double Distillation Water Still (Glass) Cap: 2 ltr/hr (One set –Two Nos. for Boiler I & II)	1 Set	2837.00	2837.00
8.	Double Distillation water still (Quartz)4 L./hr. Silica Sheathed heater, CAP:4 L/hr.	1	43050.00	43050.00
	Accessories			
	Spare Silica Heater for Double Distillation Water Still (Quartz) Cap:4 L/hr (One set –Two Nos. for Boiler I & II)	1 Set	5201.00	5201.00
9.	Water softner	1	3250.00	3250.00
10.	Shaking Machine	1	47025.00	47025.00
11.	Voltas Make 220 L. Capacity Refrigerator	1	10765.00	10765.00
	V-Guard Make 500 VA Stabilizer	1	1220.00	1220.00
	Refrigerator Stand	1	300.00	300.00
12.	Microprocessor based Block Digestion system	1	137350.00	142844.00

	Microprocessor based Automatic Nitrogen Distillation system	1	5494.00	
	Accessories			
	Electronic Acid Neutralizer Scrubber. Model: KEL VAC.	1	30400.00	30400.00
	S S Insert Rack. Model: KES 06 L.	1	6300.00	6300.00
	Exhaust Manifold System with Teflon Adaptors. Model: KES 06 LEM.	1	7160.00	7160.00
	Viton Tube for Triacid and Diacid Digestion. Model: KES VT.	3	3250.00	9750.00
13.	Hot air oven	1	16471.00	16471.00
14.	Hot plate	1	3046.00	3046.00
15.	Grinder	1	15435.00	15435.00
16.	Water Softener "Bhanu" Make Aqua Soft water softener (Model: AS- 600)	1	9752.00	9752.00
17.	Post Hole Augar Head Size: 3"	1	1200.00	1200.00
18.	Screw type Augar Head size :1.5 "	1	980.00	980.00
19.	Sieve Brass Frame	04	650.00	2860.00
20.	Laboratory wares			
	Laboratory tables	03	16931.00	118517.00
		04	18944.00	75776.00
	Slotted angular iron racks	05	1421.00	7105.00
	Steel cabinet	9	5326.00	47934.00
	Wash basin	3	1500.00	45000.00
	Exhaust fa	3	1500.00	1500.00
	Laboratory racks	06	1026.00	6156.00
	Water tap with swan neck	3	785.00	2355.00
21.	Gas burner	01	1500.00	1500.00
22.	Laboratory stools	05	828.00	4140.00
23.	Laboratory Chemicals	-	-	85346.00
24.	Glassware	-	-	91357.00
Total				10,44,833.00

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	650	650	07	32500.00
Water Samples	624	620	07	31200.00
Manure samples	01	01	01	500.00
Total	1275	1271	15	64200.00

Details of samples analyzed during the reporting period :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized
Soil Samples	152	152	25	7600.00
Water Samples	148	148	38	7400.00
Total	300	300	63	15000.00

PART XII IMPACT

11.A. Impact of KVK activities :

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./ha/Animal)	After (Rs./ha/Animal)
Redgram (BSMR-736) transplanting technique	50	30	52875.00	94000.00
Improved Groundnut variety (GPBD-4)	40	60	49000.00	63175.00
Improved Horse gram variety (GPM-6)	20	25	11250.00	18000.00
Azolla supplementary feed for dairy animals	20	50	42000.00	58000.00

11.B. Cases of large scale adoption : Nil

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

Soybean :

Introduction of soybean varieties like JS-9305 and Dsb-1 with improved varieties like JS-335. The area under soybean cultivation in Haveri district is about 17500 ha with production of 2800 metric tons. On and off campus training programmes and group meetings were conducted for popularizing the cropping system in soybean. During kharif 2009-10 soybean was grown by farmers in Aladakatti and Devagondanakatti villages and got 11.57 and 11.77 qt/ha. The impact of popularization of soybean varieties were documented.

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State Dept. of Agriculture	Training programmes, joint diagnostic survey and participation in meetings, seminars and field days.
State Dept. of Horticulture	Training programmes, joint diagnostic survey and participation in meetings, seminars and field days.
Rural Development Institutes (Zilla & Taluk Panchayats)	Training programmes, joint diagnostic survey and participation in meetings, seminars and field days.
State Dept. of Animal husbandry & Veterinary Services	Training programmes, joint diagnostic survey and participation in meetings, seminars and field days.
Karnataka Milk Federation	Training programmes.
Women and Child Development Department	Training programmes.
Karnataka Oil Seeds Federation	Supply of inputs
NABARD, Vijaya Bank, State Bank of India, M.G. Bank and Syndicate Bank.	Participation in meeting, conducting training programmes and promotion of TTC.
Bharath Agro Industries Foundation, Haveri	Conducting training programmes
GRASIM Janakalyan Trust, Kumar Pattanum	Conducting training programmes.
Sheep and Wool Development Board	Conducting trainings.
State Dept. of Watershed	Conducting training programmes, IFS Demonstration, Seminars and Field days.
JSYS	Conducting training programmes, Demonstration, Seminars and Field days.
National Horticultural Research and Development Federation	Joint implementation and participation in meeting/Training Programme
Spice Board	Joint implementation and participation in meeting/Training Programme
Different private firms dealing with Medicinal and Aromatic crops	Training Programmes
IIHR, Bangalore	Technical consultancy
NGO's	Trainings, Demonstration & programme implements
Sri Skeshtra Dharmasthala Rural Development project	Conducting training demonstration
Mahila Mandals and Youth Clubs	Joint implementation and participation in meeting.
Sugar Factories	Joint diagnostic survey and participation in meeting
Karnataka Sugar Institute, Belgaum	Joint diagnostic survey and participation in meeting and Training
Successful Entrepreneurs	Conducting Training Programme/ Technical Advice
Vijaya Bank Sponsored Employment Training Institute	Joint implementation participation in meeting and conducting in Training Programme.

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

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	Remarks
1	Demonstration	Joint implementation with Dept. of Animal Husbandry	Balanced feed formulation
2	Training and method Demonstration	Joint implementation with KVK ,Mandya	Gall wasp resistant Erythrina Sp. in betel vine garden

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

S. No.	Programme	Nature of linkage	Constraints if any
1	Production technology in Chilli and Onion	Training & Demonstration	-
2	Quality production of marigold and Aster	Training & Demonstration	Shortage of fund for conducting Aster demonstration

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

S. No.	Programme	Nature of linkage	Remarks
1	Training	Dept. of Fisheries	Culture of indigenous spices viz., Rho and Catla

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

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.)	
				Variety	Type of Produce	Qty. (q)	Cost of inputs	Gross income
Cereals								
Maize	07.07.09	15.10.09	1.2	DMH-2	Grain	26	14000	20545
Jowar	15.09.09	20.01.10	1.9	M-35-1	Grain	4	1000	4000
Pulses								
Greengram	10.06.09	20.09.09	0.95	S-4	Grain	1.5	5000	6000
Soybean	12.07.09	16.10.09	2.5	JS-335	Grain	5.5	22000	16500
Horsegram	20.07.09	15.11.09	1.5	GPM-6	Grain	6	1000	30000
Oilseeds								
Sunflower	28.11.09	02.03.09	2.4	KBSH-41	Grain	3.34	5000	9100
Safflower	25.11.09	05.03.09	0.5	A-1	Grain	0.5	1000	4500
Groundnut	22.07.09	23.10.09	0.6	GPBD-4	Pods	1.3	10000	18648
Fibers								
Cotton	25.07.09	02.01.10	3.3	Banni –Bt	Lint	19.94	45000	57000
Spices & Plantation crops								
Curry leaf				Suhasini		200 no.		1000
Fruits								
Sapota						0.2	-	1000
Guava						0.05	-	250
Others (specify)								
Sunhemp	20.07.09	25.12.09	1.3	Local	Seed	5	1000	10000

13.C. Performance of production Units

Sl. No.	Name of the Product	Qty	Amount (Rs.)	
			Cost of inputs	Gross income
1	Vermicompost	20 q	2000	6000

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

13.E. Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)
April 2009	-	-
May 2009	-	-
June 2009	-	-
July 2009	-	-
Aug. 2009	-	-
Sept. 2009	-	-
Oct. 2009	-	-
Nov. 2009	-	-
Dec. 2009	-	-
Jan. 2010	43	1
Feb. 2010	-	-
March 2010	60	3

13.F. Database management

S. No	Database target	Database created
1.	Training Database	Completed
2.	Soil Analysis Data Base	Completed
3.	Water Analysis Data Base	Completed
4.	KVK Inventory of Assets	Database in ATK (on line) is in progress, ICAR web site
5.	Database of Extension Programmes	
6.	Seeds and Planting Material Database	
7.	Resource inventory of the District	
8.	Farmers Database	
9.	KVK Accounts Database	
10.	Frontline Demonstrations Database	
11.	Technology Inventory for the District	
12.	Database for Technologies assessed and Refined	

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted				Quantity of water harvested in '000 litres	Area irrigated / utilization pattern	
			No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)			Visit by officials (No.)
998000.00	998000.00	<ul style="list-style-type: none"> ➤ Percolation tanks ➤ Percolation ponds ➤ Construction of bunds ➤ Strengthening of existing bunds ➤ Construction of drains / deepening including water ways ➤ Laying of pipe line for conveying harvested water ➤ Pump sets ➤ Vermicompost production unit ➤ Apiculture colonies ➤ Fodder unit (Guinea grass) 	05	03	-	30	05	-	-

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	SBI, Dharwad	Dharwad			-		
With KVK	SBI RNR	RNR	600909	Savings Bank	10811387955	KVK Main	SBIN-0000909
					10811389160	ICAR RF	
					10811388951	Training RF	

14.B. Utilization of funds under FLD on Oilseed (Rs. in Lakh)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	1.40	0.35	0.90	0.17	0.67
Extension activities	0.20	0.025	0.02	0.02	0.19
TA/DA/POL etc.	0.30	0.038	0.21	0.02	0.11
TOTAL	1.90	0.41	1.14	0.21	0.97

14.C. Utilization of funds under FLD on Pulses (Rs. in Lakh)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	1.05	0.35	0.28	0.76	0.84
Extension activities	0.15	0.05	0.04	0.11	0.16
TA/DA/POL etc.	0.17	0.52	0.09	0.08	0.56
TOTAL	1.37	0.92	0.42	0.95	1.56

14.D. Utilization of funds under FLD on Cotton (Rs. in Lakh)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	0.70	0.00	0.67	0	0.03
Extension activities TA/DA/POL etc.	0.25	0.00	0.23	0	0.02
TOTAL	0.95	0.00	0.90	0	0.05

14.E. Utilization of KVK funds during the year 2009-10 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	32.50	32.50	33.84
2	Traveling allowances	0.90	0.90	0.90
3	Contingencies			
<i>A</i>	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	0.90	0.90	0.90
<i>B</i>	POL, repair of vehicles, tractor and equipments	0.65	0.65	0.65
<i>C</i>	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.60	0.60	0.58
<i>D</i>	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.40	0.40	0.35
<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.09	1.09	0.56
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.61	0.61	0.20
<i>G</i>	Training of extension functionaries	0.10	0.10	0.00
<i>H</i>	Maintenance of buildings	0.15	0.15	0.14
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory	0.00	0.00	0.00
<i>J</i>	Library	0.10	0.10	0.04
TOTAL (A)		38.00	38.00	38.41
B. Non-Recurring Contingencies				
1	Works	0.00	0.00	0.00
2	Equipments including SWTL & Furniture	0.00	0.00	0.00
3	Vehicle (Four wheeler/Two wheeler, please specify)	0.00	0.00	0.00
4	Library (Purchase of assets like books & journals)	0.00	0.00	0.00
TOTAL (B)		0.00	0.00	0.00
C. REVOLVING FUND		0.00	0.00	0.00
GRAND TOTAL (A+B+C)		38.00	38.00	38.41

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
ICAR				
April 2007 to March 2008	1.89	10.72	10.84	1.76
April 2008 to March 2009	1.76	4.75	3.74	2.77
April 2009 to March 2010	2.77	0.64	2.95	0.46
Training				
April 2007 to March 2008	1.19	5.36	2.12	4.43
April 2008 to March 2009	4.43	1.55	1.92	4.06
April 2009 to March 2010	4.06	1.37	0.62	4.81

ADDITIONAL INFORMATION

I. MOBILE ADVISORY SERVICES

Name of KVK	No. of SMSs sent	No. of farmers benefited
Hanumanamatti	45	5442

II. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Gosthies	1	25	Cotton
Lectures organised	3	100	Cotton, maize, dairy, poultry
Exhibition	-	-	-
Film show	2	72	Parthenimum management, cotton production
Fair	-	-	-
Farm Visit	30	400	Cotton, sunflower, groundnut, redgram
Diagnostic Practicals	20	200	Cotton, soybean, groundnut
Distribution of Literature (No.)	-	510	Soybean, greengram, Importance of soil & water analysis, cotton, maize, bioagents, biofertilizer, organic farming
Distribution of Seed (q)	-	350 kg	Sunhemp, groundnut, redgram
Distribution of Planting materials (No.)			
Bio Product distribution (Kg)	10	300	Trichoderma harzianum
Bio Fertilizers (q)	-	-	-
Distribution of fingerlings	-	-	-
Distribution of Livestock specimen (No.)	-	-	-
Total number of farmers visited the technology week	7	350	Cotton, maize, sunflower, groundnut production technology

III. INTERVENTIONS ON DROUGHT MITIGATION - NIL

Summary of Annual Report

(APRIL 2009 TO MARCH 2010)

**KRISHI VIGYAN KENDRA
(HAVERI)**

SUMMARY FOR 2009-10

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Area (ha)
Varietal Evaluation	Onion	Assessment of onion variety Agri found dark red over Arka Kalyan	05	3.0
Integrated Pest Management	Brinjal	Management of shoot and fruit borer	05	0.5
	Onion	Thrips management	05	0.5
	Cotton	Assessment of the efficacy of <i>Verticillium lecanii</i> as an alternative in managing sucking pests of cotton	05	0.5
Integrated Crop Management	Brinjal	Assessment of crop geometry	05	2.5
Integrated Disease Management	Sunflower	Management of powdery mildew	06	1.0
	Groundnut	Management of Collar rot	05	1.0
Total			39	9

Summary of technologies assessed under livestock Nil

Summary of technologies assessed under various enterprises : Nil

Summary of technologies assessed under home science : Nil

II. TECHNOLOGY REFINEMENT – Nil

Summary of technologies refined under various crops – Nil

Summary of technologies assessed under refinement of various livestock -Nil

Summary of technologies refined under various enterprises : Nil

Summary of technologies refined under home science : Nil

III. FRONTLINE DEMONSTRATION

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of KVKs	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Groundnut	ICM	Varietal Evaluation		10	10	27.0	18.0	52.22	18500	70200	51700	3.80	15000	46800	31800	3.12
Soybean	ICM	Varietal Evaluation		25	10	11.57	8.83	31.03	5580	20826	15246	3.73	5087	15894	10807	3.12
	ICM					11.77	8.66	35.91	5650	21186	15536	3.75	4995	14598	9603	2.92
Sunflower	ICM	Varietal Evaluation		25	10	13.70	11.55	18.61	7006	32880	25874	4.69	7126	27720	23594	3.89
Sesemum	ICM	Varietal Evaluation		12	05	2.64	2.18	21.10	1787	13200	11413	7.39	1683	10900	9217	6.47
Niger	ICM	Varietal Evaluation		12	05	1.91	1.43	33.57	1896	11460	9564	6.04	1954	8580	6626	4.39
Groundnut	ICM	Varietal Evaluation		05	05	14.93	12.85	16	6800	38818	32018	5.70	7500	33280	25780	4.45
Total				89	45	83.52	63.5	208.44	47219	208570	161351	35.1	43345	157772	117427	28.36

Pulses

Frontline demonstration on pulse crops

Crop	Thematic Area	Name of the technology demonstrated	No. of KVKs	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Redgram	ICM	Varietal Evaluation		25	10	12.78	10.3	23.88	9846	45936	36090	4.66	9281	37080	27799	3.99
Greengram	ICM	Varietal Evaluation		25	10	7.3	6.2	17.7	12473	32850	20377	2.63	11546	27900	16354	2.4
Blackgram	ICM	Varietal Evaluation		25	10	8.0	6.1	31.14	12634	38400	25766	3.04	11500	29280	17780	2.55
Bengalgram	ICM	Varietal Evaluation		25	10	8.72	6.55	33.13	4000	21800	18300	5.45	4400	16375	11975	3.72
Total				100	40	36.8	29.15	105.85	38953	138986	100533	15.78	36727	110635	73908	12.66

Cotton

Frontline demonstration on cotton

Crop	Thematic Area	Name of the technology demonstrated	No. of KVKs	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cotton	ICM	Production technology		25	10	14.30	11.61	23.13	11753	45772	34019	3.93	15249	37376	22127	2.46
Total				25	10	14.30	11.61	23.13	11753	45772	34019	3.93	15249	37376	22127	2.46

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals																		
Maize	ICM	Varietal Evaluation		12	05	52.5	46.00	14.1	20-25	-	14500	42000	27500	2.9	16500	36800	20300	2.2
Millets																		
Little millet	ICM	Varietal Evaluation		03	1.2	13.5	10.5	28.6	-	-	7500	24300	16800	3.2	7000	18900	11900	2.7
Foxtail millet	ICM	Varietal Evaluation		15	10	15.0	12.0	25.0	-	-	7500	16500	9000	2.2	7000	13200	6700	1.9
Vegetables																		
Tomato	ICM	Introduction of HYV		10	05	118	102	15.7	8	22	167580	66078	40900	3.92	15200	56100	40900	3.70
Onion	ICM	Introduction of HYV		10	10	138	108	27.7	6.00	12.50	23130	130435	109205	5.53	22100	102600	80500	4.6
Flowers																		
Aster	ICM	Introduction of HYV		15	06	240	180	33.3	10	22	25120	231400	206300	805	23000	180000	157000	7.8
Spices and condiments																		
Chilli	IPM	IPM in Chilli		12	05	9.46	7.02	34.76	4	11	23508	113500	89991	4.84	22400	84240	61840	3.76
Dry chilli	ICM	Introduction of HYV		15	10	4.20	3.2	31.25	-	-	16833	50400	33580	2.94	15800	36800	21000	2.33
Total				92	52.2													

Livestock : Nil

Fisheries : Nil

Other enterprises : Nil

Women empowerment : Nil

Farm implements and machinery : Nil

Other enterprises :

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (qa) / major parameter			Economics (Rs./ha)			
				Demonstration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals										
Maize	Arjun	12	05	52.5	46	14.1	14500	42000	27500	2.9
Total		12	05	52.5	46	14.1	14500	42000	27500	2.9
Oilseeds										
Sunflower	KBSH-41	25	10	13.70	11.55	18.61	7006	32880	25874	4.69
Total		25	10	13.70	11.55	18.61	7006	32880	25874	4.69

IV. Training Programme

Farmers' Training including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Crop Production										
Integrated Crop Management	3	110	0	110	12	0	12	122	0	122
Soil and Water Conservation	2	20	0	20	0	0	0	20	0	20
Integrated Nutrient Management	1	6	0	6	5	0	5	11	0	11
Production of organic inputs										
Others (pl.specify)	2	28	0	28	4	0	4	32	0	32
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	1	7	0	7	0	0	0	7	0	7
Others (pl.specify)	3	59	10	69	18	2	20	77	7	89
b) Fruits										
c) Ornamental Plants										
Others (pl.specify)	1	9	0	9	2	0	2	11	0	11
d) Plantation crops										
e) Tuber crops										
Production and Management technology	3	28	0	28	1	0	1	29	0	29

f) Spices										
Production and Management technology	1	10	0	10	0	0	0	10	0	10
g) Medicinal and Aromatic Plants										
Soil Health and Fertility Management										
Livestock Production and Management										
Dairy Management	5	70	14	84	23	0	23	93	14	107
Poultry Management	5	82	0	82	6	0	6	88	0	88
Others (pl.specify)	1	25	0	25	0	0	0	25	0	25
Home Science/Women empowerment										
Value addition	1	19	0	19	0	0	0	19	0	19
Location specific drudgery production	2	9	37	46	0	7	7	9	38	53
Women and child care	1	0	18	18	0	2	2	0	17	20
Others (pl.specify)	3	8	57	65	0	25	25	8	52	90
Agril. Engineering										
Plant Protection										
Integrated Pest Management	2	22	0	22	4	0	4	26	0	26
Integrated Disease Management	4	19	4	23	38	5	43	57	8	66
Production of bio control agents and bio pesticides	1	25	0	25	1	0	1	26	0	26
Fisheries										
Production of Inputs at site										
Vermi-compost production	12	179	17	196	33	0	33	212	17	229
Capacity Building and Group Dynamics										
Formation and Management of SHGs	3	0	50	50	0	0	20	20	0	70
Entrepreneurial development of farmers/youths	3	24	49	73	0	0	0	24	36	73
Agro-forestry										
TOTAL	93	2450	805	3255	593	243	856	3063	722	5011

Farmers' Training including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Integrated Crop Management	9	151	24	175	39	9	48	190	28	223
Soil and Water Conservation	4	99	5	104	35	3	38	134	5	142
Production of organic inputs										
Others (pl.specify)	1	0	32	32	0	3	3	0	20	35
Horticulture										
a) Vegetable Crops										

Protective cultivation	1	21	0	21	3	0	3	24	0	24
Others (pl. specify)	2	53	7	60	18	2	20	71	7	80
b) Fruits										
Plant propagation techniques	1	41	0	41	9	0	9	50	0	50
Others (pl.specify)	3	244	1	245	68	0	68	312	1	313
c) Ornamental Plants	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	1	12	0	12	3	0	3	15	0	15
Others (pl.specify)	1	34	0	34	2	0	2	36	0	36
e) Tuber crops										
Production and Management technology	1	34	0	34	6	0	6	40	0	40
Processing and value addition	1	17	11	28	2	2	4	19	6	32
f) Spices										
Production and Management technology	1	17	6	23	3	2	5	20	5	28
Processing and value addition	1	16	3	19	6	0	6	22	3	25
g) Medicinal and Aromatic Plants	0	0	0	0	0	0	0	0	0	0
Soil Health and Fertility Management	0	0	0	0	0	0	0	0	0	0
Livestock Production and Management										
Dairy Management	3	96	0	96	29	0	29	125	0	125
Poultry Management	1	18	0	18	12	0	12	30	0	30
Animal Nutrition Management	1	34	0	34	6	0	6	40	0	40
Animal Disease Management	2	50	0	50	20	0	20	70	0	70
Others (pl.specify)	3	142	0	142	33	0	33	175	0	175
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	5	5	0	19	25
Value addition	4	0	179	179	0	80	80	0	219	259
Women empowerment	1	0	20	20	0	0	0	0	20	20
Location specific drudgery production	1	0	25	25	0	15	15	0	20	40
Rural Crafts	1	0	30	30	0	10	10	0	20	40
Women and child care	3	0	93	93	0	67	67	0	86	160
Others (pl.specify)	4	4	227	231	0	29	29	4	156	260
Agril. Engineering	0	0	0	0	0	0	0	0	0	0
Plant Protection										
Integrated Pest Management	12	428	19	447	74	4	78	502	23	525
Integrated Disease Management	18	687	17	704	139	11	150	826	20	854
Bio-control of pests and diseases	2	129	1	130	58	0	58	187	1	188
Production of bio control agents and bio pesticides	1	52	0	52	8	0	8	60	0	60
Fisheries	0	0	0	0	0	0	0	0	0	0

Production of Inputs at site										
Vermi-compost production	1	16	5	21	5	1	6	21	3	27
Capacity Building and Group Dynamics										
Formation and Management of SHGs	1	0	30	30	0	0	0	0	30	30
Entrepreneurial development of farmers/youths	3	20	30	50	10	0	10	30	30	60
Others (pl.specify)	1	35	0	35	5	0	5	40	0	40
Agro-forestry										
TOTAL	91	2450	785	3235	593	243	836	3043	722	4071

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

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

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Capacity building for ICT application	1	0	28	28	0	4	4	0	21	32
Total	1	0	28	28	0	4	4	0	21	32

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	1	35	30	65	0	0	0	35	30	65
Integrated Pest Management	1	68	2	70	15	0	15	83	2	85
Integrated Nutrient management	1	35	30	65	0	0	0	35	30	65
Low cost and nutrient efficient diet designing	1	35	30	65	0	0	0	35	30	65
Any other (pl.specify)	1	35	30	65	0	0	0	35	30	65
Total	5	208	122	330	15	0	15	223	122	345

Sponsored training programmes : Nil

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		
			M	F	T	M	F	T	M	F	Total
2	Post harvest technology and value addition										
2.b.	Others (Bakery)	01	00	21	21	-	9	9	-	30	30
	Grand Total	01	00	21	21	-	9	9	-	30	30

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	78	156	0	156
Diagnostic visits	217	434	34	468
Field Day	11	1310	47	1357
Group discussions	30	870	15	885
Self -help groups	18	790	20	810
Scientists' visit to farmers field	110	220	10	230
Soil health camps	2	134	0	134
Animal health camps	5	1360	10	1370
Mahila Mandals Conveners meetings	10	284	0	284
Farmers' seminar/workshop	4	234	0	234
Method Demonstrations	81	2058	0	2058
Celebration of important days	6	414	20	434
Lectures delivered as resource persons	17	1014	17	1031
Total	589	9278	173	4968

Details of other extension programmes

Particulars	Number
Electronic Media	
Extension Literature	07
News Letter	02
News paper coverage	14
Technical Articles	06
Technical Bulletins	04
Technical Reports	00
Radio Talks	02
Animal health camps (Number of animals treated)	05
Abstract	14
Total	54

VI. PRODUCTION OF SEED/PLANTING MATERIAL

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	Sunflower	-	KBSH-41	0.75	11250.00	-
Pulses	Soybean	JS-335	-	2.5	6500.00	-
		JS-9301	-	2	6000.00	-
		DSB-1	-	1	3000.00	-
	Horsegram	GPM-6	-	6	30000.00	-
	Redgram	BSMR-736	-	3	11100.00	-
		Asha	-	1	3700.00	-
Maruti		-	4	14800.00	-	
Others (specify)	Sunhemp	Local	-	5	10000.00	-
Total				19.75	96350.00	-

Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Vegetable seedlings	Drumstick	Local		18	90.00	10
Fruits	Guava	L-49		267	5340.00	30
	Sapota		DSH-1	442	22100.00	25
			DSH-2	247	12550.00	10
	Tamarind			06	120.00	1
	Lime	Local		04	20.00	1
Ornamental plants						
Medicinal and Aromatic	Chakramuni	-		22	110.00	20
Spices	Curryleaf	Suhasini		706	35300.00	75
Total				1722	75930.00	174

Production of Bio-Products : Nil

Production of livestock materials :Nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

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	650	650	07	32500.00
Water Samples	624	620	07	31200.00
Manure samples	01	01	01	500.00
Total	1275	1271	15	64200.00

Details of samples analyzed during the reporting period :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized
Soil Samples	152	152	25	7600.00
Water Samples	148	148	38	7400.00
Total	300	300	63	15000.00

VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted
00

IX. NEWSLETTER

Number of issues of newsletter published
04

X. RESEARCH PAPER PUBLISHED

Number of research paper published
15

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

Activities conducted				
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
05	03	-	30	05

XII. DETAILS ON HRD ACTIVITIES- Nil

A. HRD activities attended by KVK staff – Nil

Additional

Information

I. MOBILE ADVISORY SERVICES

Name of KVK	No. of SMSs sent	No. of farmers benefited
Hanumanamatti	45	5442

II. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organised Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies	1	25	Cotton
	Lectures organised	3	100	Cotton, maize, dairy, poultry
	Exhibition	-	-	-
	Film show	2	72	Parthenimum management, cotton production
	Fair	-	-	-
	Farm Visit	30	400	Cotton, sunflower, groundnut, redgram
	Diagnostic Practicals	20	200	Cotton, soybean,groundnut
	Distribution of Literature (No.)	-	510	Soybean,greengram, Importance of soil & water analysis,cotton,maize,bioagents, biofertilzer, organic farming
	Distribution of Seed (q)	-	350 kg	Sunhemp, groundnut, redgram
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)	10	300	Trichoderma harzianum
	Bio Fertilizers (q)	-	-	-
	Distribution of fingerlings	-	-	-
	Distribution of Livestock specimen (No.)	-	-	-
	Total number of farmers visited the technology week	7	350	Cotton,maize,sunflower,ground nut production technology

III. INTERVENTIONS ON DROUGHT MITIGATION - NIL