

ANNUAL REPORT 2010-11

(FOR THE PERIOD APRIL 2010 TO MARCH 2011)

KRISHI VIGYAN KENDRA, DAKSHINA KANNADA DISTRICT



UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE
KRISHI VIGYAN KENDRA (D.K)



P.B. No.515, Kankanady, Mangalore -575002

☎: 0824: 2431872

e-mail: kvdkd@rediffmail.com

No. KVK (D.K.)/ Annual Report/2010 -11.

Date: 25-04-2011

To,

The Director of Extension,
 University of Agriculture Sciences,
 Hebbal,
 Bangalore – 560 0024.

Sir,

Sub: Submission of Annual Report for 2010-11 of Krishi Vigyan Kendra (D.K),
 Kankanady, Mangalore-reg.

Ref: 1. F. No. ARM 2010-11 / ZPD VIII/ 15th March 2011.

2. F.No. 27/ZPD-VIII/2011 Dt. 18-04-2011

With reference to the above subject, I am herewith submitting Annual Report for the period from April 2010 to March 2011 of Krishi Vigyan Kendra (D.K), Kankanady, Mangalore for your kind information and needful.

Thanking you,

Yours faithfully,

Programme Coordinator

PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
Krishi Vigyan Kendra (D.K), Kankanady, Mangalore-575002.	Office: 0824- 2431872	Fax: 0824- 2430060	kvkdk@rediffmail.com	-

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

Address	Telephone		E mail	Web Address
	Office	Fax		
Vice Chancellor University of Agricultural Sciences, G.K.V.K. Bangalore	080- 23332442	080- 23330277	vcuasbangalore_2007@rediffmail.com	www.uasbangalore.edu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. H. Hanumanthappa	0824-2430716	9449866934	hhanumanthappa@rediffmail.com

1.4. Year of sanction: 2004

1.5. Staff Position (as 31st March 2011)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. H. Hanumanthappa	Fisheries	M	Fisheries	Ph D	37400-67000		21-01-2006	Permanent	SC
2	SMS	Dr. Jayashree S.	Home Science	F	Home Science	Ph D	15600-39100		02-03-2007	Permanent	OBC
3	SMS	Dr. G. Nagesha	Agril. Extension	M	Agril. Extension	Ph D	15600-39100		10-03-2007	Permanent	SC
4	SMS	Dr. Rajesh K.M.	Fisheries	M	Fisheries	Ph D	15600-39100		07-11-2008	Permanent	General
5	SMS	Dr. Sharanabasappa	Agricultural Entomology	M	Agricultural Entomology	Ph D	15600-39100		30-07-2009	Permanent	General
6	SMS	-	-	-	-	-	-	-	-	Vacant	-
7	SMS	-	-	-	-	-	-	-	-	Vacant	-
8	Programme Assistant(Lab Tech.)/T-4	Mr. Harish Shenoy	-	M	-	M.sc. (Agri.)	5500-9000	5500	11-11-2010	Permanent	General
9	Programme Assistant (Computer)/ T-4	Mr. Sathisha Naik K.	-	M	-	B.Com.(ADCST)	5500-9000	5500	24-01-2011	Permanent	ST
10	Programme Assistant/ Farm Manager	Mrs. Sujata Bhat		F	-	M.Sc.(Agri.)	9300	-	09-01-2011	Work contract basis	General
11	Assistant	Mr. Dayanada G.N.	-	M	-	-	8000	-	-	Work contract basis	-
12	Jr. Stenographer	Mrs. Nalinakshi	-	F	-	MA (ADCA)	7200	-	27-01-2011	Work contract basis	OBC
13	Driver	Mr. Keshava	-	M	-	S.S.L.C	5800	-	27-11-2010	Work contract basis	II B
14	Driver	Mr. C. Santhosh	-	M	-	9 th	7100	-	08-11-2010	Work contract basis	-
15	Supporting staff	Ms. Chandrakala B.C.	-	F	-	P.U.C.	4700	-	15-03-2011	Work contract basis	OBC
16	Supporting staff	Mr. Vamana	-	M	-	4 th Std	5200-8200	6125.00	23-11-2009	Permanent	SC

1.6. Total land with KVK (in ha) : 9 ha.

S. No.	Item	Area (ha)
1	Under Buildings	2.0
2.	Under Demonstration Units	0.11
3.	Under Crops	6.89
4.	Orchard/Agro-forestry	-
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.in lakhs)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	24-11-2007	550	42.25	-	-	-
2.	Farmers Hostel	ICAR	24-11-2007	300	35.72	-	-	-
3.	Staff Quarters	ICAR	24-11-2007	400	32.35	-	-	-
	1							
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units							
	1. Fisheries	ICAR	20-02-2007	80	1.75	-	-	-
	2. Horticulture	ICAR	12-05-2008	260	2.0	-	-	-
	3							
	4							
5	Fencing							
6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown							
9								
10								

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero DI Jeep	2004	5,00,000	175194 kms.	Good condition
M.F. Tractor 1035	2005	5,00,000	223.1 hrs.	Good condition
Hero Honda (Bike)	2006	40,000	22549 kms.	Good condition
Aviator	2009	50,000	7302 kms.	Good condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Sprayers	2005	2,640.00	Good
Power sprayer	2008	4,800.00	Good
Drum Seeder & Cona weeder	2005	2,600.00	Good
Paddy Planting Marker	2005	1,350.00	Good
Xerox Machine	2006	75,000.00	Good
Computer & Accessories	2006-07	98,890.00	Good
Weed cutter	2008	13,000.00	Good
Generator	2011	99,955.00	Good
EPBX	2011	49,455.00	Good
Power tiller	2011	1,50,000.00	Good
AV aids			
Digital Camera	2006	20,000.00	Good
Magnetic White Board	2008	3,800.00	Good
Desktop HP-Pavilion 6710in INTEL DUAL CORE	2011	30,900.00	Good
LAPTOP HP PAVILION DV6-3120TX	2011	37500.00	Good
UPS Frontech 800 Va.	2011	3000.00	Good

1.8. Details SAC meeting conducted in 2010-11: Nil

Sl.No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.					
2.					

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1.	Cereals : Paddy Pulses : Black gram, Green gram, Cowpea and Horse gram Oil Seeds : Sesamum Vegetables : Brinjal, Bhendi, Vegetable cowpea, Ash gourd, Basella, Amarpophilous, Sweet potato and cucumber Fruits : Banana, Pineapple, Jackfruit and Mango Plantation Crops : Arecanut, Coconut, Cashew, Pepper, Rubber, Vanilla and Cocoa Flower Crops : Jasmine Animal Husbandry : Dairy, Piggery, Poultry and Fisheries

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

S. No	Agro-climatic Zone	Characteristics
1	Coastal Zone, Zone 10	Krishi Vigyan Kendra, Dakshina Kannada, Kankanady, Mangalore is situated in the Coastal Zone No-10 with an operational area of five Taluks viz., Mangalore, Bantwal, Belthangady, Puttur and Sullya. The total Geographical area of the district is 4866 sq. km. The district has 134246 ha of net cultivable area mainly dependent on rainfall.

S. No	Agro ecological situation	Characteristics
1	Coastal Zone, Zone 10	The annual average rainfall is 3592.8 mm. This district receives rainfall between May and October with heavy rainfall during the month of June, July, and August. Recorded maximum temperature of 34 ^o C during the months of April and May and minimum temperature of 21.5 ^o C during the month of January. The soil in the major portions of the district consists of three types, viz. coastal sand, alluvial, laterite and red loamy soil. Apart from this, coastal saline soil is also noticed in some parts of the district owing to the proximity to sea or backwater. Soils are low in CEC and acidic in condition. The PH of the soil ranges from 4.5 to 5.9 with content of low soluble salt. The major nutrient status of the soil is varying from medium to low. The major crops grown in the districts are Paddy, Arecanut, Coconut, Cashew, Rubber, Pepper, Cocoa and Banana. In some parts of the district, pulses like Black gram, Green gram, oilseeds like Sesamum and vegetables like cucumber, Bhendi, Chilli, Brinjal Bitter gourd, Ash gourd, Little gourd and Spinach are grown during Rabi/ Summer season.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Coastal sands, alluvial, Laterite and red loamy soil	Soils are low in CEC and acidic in condition. The P ^h of the soil ranges from 4.5 to 5.9 with low soluble salt content. The major nutrient status of the soils is varying from medium to low.	1,72,445

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1.	Paddy	54948	151501	2757
2.	Black gram	1914	1172	612
3.	Green gram	716	329	459
4.	Cowpea	585	287	490
5.	Arecanut	27532	4923	179
6.	Coconut	16122	207	13
7.	Pepper	2008.31	3600	1827
8.	Cashew	30591	24419	798.24
9.	Cocoa	901	34480	39406
10.	Vanilla	232.86	8.87	38
11.	Mango	1572	1323	841
12.	Sapota	184	201	1095
13.	Banana	3146	606282	193700
14.	Pine apple	-	-	-
15.	Jack Fruit	996	258960	260000
16.	Ginger	313.95	359.34	1145
17.	Vegetables	2983	302880	101535
18.	Jasmine	66	153	-
19.	Rubber	10302	-	-

* Source: Statistical Department, Dakshina Kannada (Year: April 2010-March 2011)

2.5. Weather data (Year: April 2010-March 2011)

Month	Rainfall (mm)	Temperature ⁰ C		Relative Humidity (%)
		Maximum	Minimum	
April	16.80	32.33	23.00	77.00
May	129.80	32.17	22.97	76.23
June	1074.81	30.32	22.32	85.41
July	1599.80	30.65	25.33	80.12
August	751.00	31.41	22.45	82.42
September	681.20	32.19	24.26	76.67
October	585.0	30.02	25.65	76.25
November	332.20	31.32	23.13	74.68
December	40.20	32.65	21.56	56.65
January	-	32.68	20.18	57.88
February	-	31.80	21.40	62.72
March	-	34.16	23.14	78.46

Source: HRS, Ullal, Mangalore

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	166771	-	-
<i>Indigenous</i>	229838	-	-
Buffalo	15119	-	-
Sheep			
<i>Crossbred</i>	-		
<i>Indigenous</i>	307	-	-
Goats	25749	-	-
Pigs			
<i>Crossbred</i>	5332	-	-
<i>Indigenous</i>	-	-	-
Rabbits	-	-	-
Poultry	1322880		
Hens	-	-	-
<i>Desi</i>	-	-	-
<i>Improved</i>	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-

Category	Area	Production	Productivity
Fish	-	-	-
Marine	-	139573.00 Metric tons	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	9578.0 Metric tons	-

* Source: Statistical Department, Dakshina Kannada

2.7 District profile has been prepared and submitted : No

2.8 Details of Operational area / Villages

Sl.No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Mangalore	-	Puttige	2008-2010	Paddy, Arecanut, Coconut, Pepper, Cashew, Banana, Vegetables, Jasmine	<ul style="list-style-type: none"> • Soil acidity • Imbalanced nutrient application • Non adoption of high yielding varieties 	<ul style="list-style-type: none"> • Introduction of high yielding varieties • Organic farming • Integrated Nutrient Management Approaches • Soil reclamation • Integrated Pest & disease Management

2.	Bantwal	-	Meramajalu	2009-2010	Paddy, Arecanut, Coconut, Pepper, Banana, Vegetables, Jasmine	<ul style="list-style-type: none"> • Imbalanced nutrient application • Soil acidity • Lack of knowledge on management of pest and diseases 	<ul style="list-style-type: none"> • Integrated Nutrient Management Approaches • Soil reclamation • Integrated pest management approaches • Employment generation activities • Value addition
3.	Puttur	-	Panaje	2007-2010	Paddy, Arecanut, Coconut, Pepper, Banana, Vegetables, Jasmine, Cashew, Cocoa, Rubber, Vanilla	<ul style="list-style-type: none"> • Soil acidity • Imbalanced nutrient application • Non adoption of high yielding varieties • Untimely application of pesticides 	<ul style="list-style-type: none"> • Soil reclamation • Introduction of high yielding varieties • Organic farming • Integrated Nutrient Management Approaches • Plant protection
4.	Belthangady	-	Machhina	2007-2010	Paddy, Arecanut, Coconut, Pepper, Banana, Vegetables, Jasmine, Cashew, Cocoa, Rubber, Vanilla	<ul style="list-style-type: none"> • Imbalanced nutrient application • Soil acidity • Lack of knowledge on management of pest and diseases 	<ul style="list-style-type: none"> • Introduction of high yielding varieties • Organic farming • Integrated Nutrient Management Approaches • Soil reclamation • Plant protection

5.	Sullya	-	Ajjavara	2007-2010	Paddy, Arecanut, Coconut, Pepper, Banana, Vegetables, Jasmine, Cashew, Cocoa, Rubber, Vanilla	<ul style="list-style-type: none"> • Imbalanced nutrient application • Soil acidity • Lack of knowledge on management of pest and diseases 	<ul style="list-style-type: none"> • Integrated Nutrient Management Approaches • Soil reclamation • Integrated pest management approaches • Employment generation activities • Value addition
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2.9 Priority thrust areas

S. No	Thrust area
1.	Mechanization in Agriculture
2.	Integrated nutrient management approaches
3.	Integrated pest and disease management approaches
4.	Soil reclamation
5.	Introduction of high yielding Varieties
6.	Rice based cropping system
7.	Plant Protection
8.	Weed Management
9.	Value addition to Agriculture and Horticulture produce
10.	Employment generation activities
11.	Water management
12.	Soil and water conservation
13.	Fish culture in farm ponds / Clay pits
14.	Organic farming

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
7	7	63	63	18	18	152	152

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
56	56	1853	1853	551	551	3421	3421

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
42.53 (Paddy)	42.53 (Paddy)	10500 Jasmine Plant	10500 Jasmine Plant

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	Piglets-6	98 Kg. Trichoderma	98 Kg. Trichoderma
-	Goat-4		

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

Abstract of interventions undertaken based on thrust areas identified for the district as given in SN 0127														
S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg.
1	<ul style="list-style-type: none">ICM in pulses & Oil seeds	<ul style="list-style-type: none">SesamumBlackgram	<ul style="list-style-type: none">Lack of knowledge on use of residual moisture	-	<ul style="list-style-type: none">Production technology of sesamumProduction technology of blackgram	1	-	-	-	Under Progress				
2	<ul style="list-style-type: none">Nutrient ManagementWater ManagementIPM in paddySeed Material	Paddy	<ul style="list-style-type: none">Loss of nutrient through leachingLack of knowledge on storage methodsLack of knowledge on pest and disease management	<ul style="list-style-type: none">Split application of potassium in paddy	<ul style="list-style-type: none">INM in paddy through STCR approachSRI method of paddy cultivationStorage of Paddy for seed purpose using METAL BINS and LDPE/HDP E Bags.Integrated pest and disease management in paddy	6	-	-	Field Days-02 Seminar-01	55.75	-	-	-	-

10.	<ul style="list-style-type: none"> Poor Nutrient Management 	Ash gourd	<ul style="list-style-type: none"> Low productivity 	-	<ul style="list-style-type: none"> Nutrient management in Ash gourd 	-	-	-	-	-	-	-	-	-
11.	<ul style="list-style-type: none"> Poor Nutrient Management 	Bitter gourd	<ul style="list-style-type: none"> Poor nutrient management practices 	<ul style="list-style-type: none"> Potash Management in bitter gourd 	-	-	-	-	-	-	-	-	-	-
12.	<ul style="list-style-type: none"> Pest & Disease Management 	Bhendi	<ul style="list-style-type: none"> Lack of knowledge on disease management 	<ul style="list-style-type: none"> Management of yellow vein mosaic in bhendi 	-	-	-	-	-	-	-	-	-	-
13.	<ul style="list-style-type: none"> Culture of cat fish carps Utilization of highly productive clay pits for fish culture Poly culture of fish and fresh water prawn 	Fisheries	<ul style="list-style-type: none"> Catfish culture is not being practiced in Dakshina Kannada Clay pits are not being used for fish culture Lack of knowledge on polyculture of fish and prawn 	<ul style="list-style-type: none"> Polyculture of fish with different stocking densities 	<ul style="list-style-type: none"> Culture of cat fish Claries batracus with carps used Polyculture system . Utilization of clay pits for fish culture Polyculture of fish and prawn in farm ponds/irrigation tanks 	04	-	-	-	-	-	-	-	-
14.	Less acceptance of Giriraja due to high fat content in older birds	Poultry	Popularization of variety	-	<ul style="list-style-type: none"> Rearing of Swaranadhara Poultry birds 	03	-	-	Field day-02	-	-	-	-	-

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Storage of Paddy for seed purpose using METAL BINS and LDPE/HDPE Bags.	UAS, Bangalore	Paddy	-	5	-	-
2	Integrated crop management in Jasmine	UAS, Bangalore	Jasmine	-	25	4	-
3	Processing of pepper using solarization technique	UAS, Dharwad	Pepper	-	10	-	-
4	Management of yellow vein mosaic in bhendi	UAS, Dharwad	Bhendi	10	-	-	-
5	Management of inflorescence die back disease in Arecanut	CPCRI, Kasaragod	Arecanut	10	-	-	-
6	Integrated pest and disease management of paddy	UAS, Bangalore	Paddy	-	10	-	-
7	Koleroga disease management in arecanut	UAS, Bangalore	Arecanut	-	06	2	-
8	Root grub management in arecanut	UAS Bangalore	Arecanut	-	05	1	-
9	Management of quick wilt disease in pepper	UAS Bangalore	Pepper	-	10	1	-
10	Management of tea mosquito bug in cashew	UAS Bangalore	Cashew	-	12	1	-
11	Production technology of blackgram	UAS Bangalore	Blackgram	-	10	1	-
12	Production technology of sesame	UAS Bangalore	Sesame	-	10	-	-
13	Integrated crop management in Arecanut	UAS Bangalore	Arecanut	-	05	2	-
14	Integrated crop management in Banana	UAS Bangalore	Banana	-	05	2	-
15	Integrated Nutrient management in Coconut	UAS Bangalore	Coconut	-	05	-	-
16	Nutrient management in Ash gourd	UAS Bangalore	Ash gourd	-	10	-	-
17	Spilt application of potassium in Arecanut	UAS Bangalore	Arecanut	20	-	-	-
18	Potash management in Ridge gourd	UAS Bangalore	Ridge gourd	05	-	-	-
19	Potash management in bitter gourd	UAS Bangalore	Bitter gourd	10	-	-	-
20	Split application of potassium in paddy	UAS Bangalore	Paddy	12	-	1	-
21	SRI method of paddy cultivation	UAS Bangalore	Paddy	-	12	1	-
22	Polyculture of fish with different stocking densities	American soybean Association	Fisheries	03	-	2	-
23	Polyculture of fish and prawn	UAS Bangalore	Fisheries	-	5	2	-
24	Culture of cat fish, clarius batracus with carps under growout polyculture farming system	UAS Bangalore	Fisheries	-	5	-	-
25	Utilization of clay pits for fish culture	UAS Bangalore	Fisheries	-	5	-	-
26	INM in paddy through STCR approach	UAS Bangalore	Paddy	-	12	1	-
27	Rearing of Swarnadhara poultry birds in backyards	KVAFSU, Bidar	Poultry	-	20	5	Field days -2

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
09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
-	-	-	-	05	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	13	12	-	-	31	112	05	29	-	-	-	-
-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-
06	01	03	-	-	-	-	-	-	-	-	-	-	-	-	-
05	01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	07	03	-	-	-	-	-	-	-	-	-	-
-	-	-	-	07	01	02	-	59	8	9	8	-	-	-	-
-	-	-	-	04	-	04	-	20	-	7	-	-	-	-	-
-	-	-	-	05	-	-	-	3	28	9	2	-	-	-	-
-	-	-	-	05	-	-	-	46	12	11	6	-	-	-	-
-	-	-	-	10	-	-	-	37	08	4	-	-	-	-	-
-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	05	-	-	-	26	02	04	01	-	-	-	-
-	-	-	-	05	-	-	-	39	05	08	02	-	-	-	-
-	-	-	-	05	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	09	01	-	-	-	-	-	-	-	-	-	-
17	03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	01	01	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	0	02	-	-	-	-	32	04	02	02	-	-	-	-
-	-	-	-	09	-	02	01	23	08	02	01	-	-	-	-
03	-	-	-	-	-	-	-	54	01	06	-	-	-	-	-
-	-	-	-	05	-	-	-	62	04	07	02	-	-	-	-
-	-	-	-	03	-	02	-	-	-	-	-	-	-	-	-
-	-	-	-	05	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	08	0	04	0	20	09	02	-	-	-	-	-
-	-	-	-	12	04	02	02	189	27	14	06	40	15	04	04

PART IV - On Farm Trial

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	-	-	-	-	02	-	-	01	-	03
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management	-	-	-	-	01	-	-	01	-	02
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total	-	-	-	-	03	-	-	02	-	05

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

[illegible]

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management	-	-	-	-	01	01
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL	-	-	-	-	01	01

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

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

4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Integrated Nutrient Management	Arecanut	Split application of potassium in Arecanut	10	10	2 ha.
	Ridge gourd	Potash management in Ridge gourd	10	10	0.5 ha.
	Bitter gourd	Potash management in Bitter gourd	10	10	0.5 ha.
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management	Arecanut	Management of inflorescence die back disease in Arecanut	10	10	2.5ha
	Bhendi	Management of yellow vein mosaic in bhendi	9	9	2 ha
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			49	49	7.5 ha.

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

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Integrated Nutrient Management	Paddy	Split application of potassium in paddy	10	10	06
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			10	10	06

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

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

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

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

4. C1. Results of Technologies Assessed

Results of On Farm Trial

1. Split application of potassium in Arecanut

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Arecanut	Rain fed / Protective irrigation	Leaching loss of potassium due to heavy rain fall affects the crop growth & yield	Split application of potassium in Arecanut	20	T ₁ = FYM 10 kg, Suphala 1.0 kg/plant	Chali yield	T ₁ =16.08	85.50% increase in yield over farmers practice	Spilt application of potassium resulted in higher yield and reduced in nut dropping	-	-
					T ₂ =FYM 20kg NPK=150:60:210 grams/plant for improved varieties NPK-100:40:140 grams/plant for local varieties	B:C ratio	T ₂ =25.16 T ₃ =29.83				
					T ₃ =NPK=120:40:160 gram plant(local variety) NPK= 170:60:230 gram/plant (improved variety) Potassium given in 3 doses April-May, June-july and September- October						

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Farmer's practice	1.61	t/ha	83640	2.85
Technology option 2	UAS, Bangalore	2.52	t/ha	156280	4.47
Technology option 3	UAS, Bangalore	2.98	t/ha	193640	5.30

2. Potash Management in Bitter gourd

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 refineme nt needed	Justificatio n for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bitter gourd	Rain fed / Protective irrigation	Poor Nutrient management	Nutrient Managem ent in Bitter gourd	05	T ₁ = FYM 1.5-2 t/ha, DAP 25 kg/ha as basal dose, urea 50 kg/ha as top dressing	• Weight of fruits	T ₁ =0.21 T ₂ =0.38 T ₃ =0.45	51.79% increase in yield over farmers practice	Application of potassium resulted in higher yield and fruit size	-	-
					T ₂ = FYM 18 t/ha., NPK 63:50:0 kg/ha.	• No. of fruits/pla nt	T ₁ =13.5 T ₂ =14.8 T ₃ =15.8				
					T ₃ = FYM 20 t/ha, NPK 70:25:25 kg/ha. in two splits	• Yield (t./ha.)	T ₁ =0.59 T ₂ =0.78 T ₃ =0.89				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Farmer's practice	0.59	t/ha	42750	1.95
Technology option 2	UAS, Bangalore	0.78	t/ha	71400	2.58
Technology option 3	KAU	0.89	t/ha	82200	2.96

3. Potash Management in Ridge gourd

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Ridge gourd	Rain fed / Protective irrigation	Poor Nutrient management	Nutrient Managem ent in Ridge gourd	05	T ₁ = Application of DAP 100 kg/ha at the time of sowing and 50 kg urea after 35 days	• Weight of fruits	T ₁ =0.58 T ₂ =0.71 T ₃ =0.72	57.07% increase in yield over farmers practice	Application of potassium resulted in higher yield and fruit size	-	-
					T ₂ = NPK 50:50:0 kg/ha in 2 splits + FYM 25 t/ha	• No. of fruits/plan t	T ₁ =14.8 T ₂ =16.3 T ₃ =18.5				
					T ₃ = NPK: 75:25:25 kg/ha in 2 splits+FYM 25 t/ha.	• Yield (t./ha.)	T ₁ =0.64 T ₂ =0.82 T ₃ =1.01				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Farmer's practice	0.64	t/ha	32160	1.71
Technology option 2	UAS, Bangalore	0.82	t/ha	53160	2.18
Technology option 3	KAU	1.01	t/ha	76200	2.69

4. Management of inflorescence dieback disease in Arecanut

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 refineme nt needed	Justificatio n for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Arecanut	Rain fed / Protective irrigation	Inflorescenc e die back is a major disease which causes 30-40% yield loss	Management of Inflorescence die back disease in Arecanut	05	T ₁ = No management has been followed	No. of infloresce nce infected/ pl % disease incidence	T ₃ =0.6	38.52 percent increase in yield over farmers practice	Spraying of Zineb 4gm/l. reduces the disease incidence	-	-
					T ₂ = Spraying of Mancozeb 2.5 gm/ltr. at the time of opening of female flower		T ₃ =26.00				
					T ₃ = Sanitation and Spraying of Zineb 4 gm/ltr at the time of opening of female flower	Yield (qtl/ha)	T ₃ =24.40				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	1.50	t/ha	58160	2.98
Technology option 2	UAS, Bangalore	2.18	t/ha	95490	3.92
Technology option 3	CPCRI, Kasaragod	2.44	t/ha	115515	4.41

5. Management of yellow vein mosaic in Bhendi

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bhendi	Rain fed / Protective irrigation	Yellow vein mosaic disease causes 20-30% yield loss	Management of yellow vein mosaic in bhendi	05	T ₁ = No management has been followed	% disease incidence Yield(qlt/ha)	T ₃ =12.00	27.27% increase in yield over farmers practice	Resulted in increased in yield	-	-
					T ₂ = Spraying of imidacloprid 17.80SL @ 0.5 ml per lit		T ₃ =42.00				
					T ₃ = Sanitation and seed treatment with imidacloprid 5 ml per kg, Spraying of imidacloprid 17.80SL @ 0.5 ml per lit						

Contd...

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	3.30	t/ha	99000	4.95
Technology option 2	UAS, Bangalore	3.85	t/ha	115500	5.02
Technology option 3	UAS, Dharwad	4.20	t/ha	126000	5.40

6. Polyculture of fish with different stocking densities

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessme nt	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Fisheries	Rainfed/ Protective irrigation	Production of fish without taking in to account of consumer preference and fish growth	Polyculture of fish with different stocking densities	3	T ₁ = Stocking of one/ two species of fish	Yield and B.C. Ratio	Under Progress			-	-
					T ₂ = Stocking recommended species (catla:Rohu:Common carp 4:3:3) Stocking 5000/ha.						
					T ₃ =Stocking of catla, Rohu and Silvar carp @ 4:4:2 stocking-7500/ha						

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Farmer practice	Under progress	t/ha	-	-
Technology option 2	POP (UASB)		t/ha	-	-
Technology option 3	American soybean Association		t/ha	-	-

4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

01. Split application of potassium in Arecanut

1.	Title of Technology Assessed	Split application of potassium in Arecanut
2.	Problem Definition	Leaching loss of potassium due to high rainfall. Hence deficiency of potassium was observed in Arecanut gardens. Majority of the farmers are applying fertilizer without knowing nutrient supply capacity of soil and nutrient requirement of crop thus results in imbalanced nutrient application which causes early nut drop that results in lower yield.
3.	Details of technologies selected for assessment	T ₁ = FYM 10 kg, Suphala 1.0 kg/plant T ₂ =FYM 20kg NPK=150:60:210 grams/plant for improved varieties NPK-100:40:140 grams/plant for local varieties T ₃ =NPK=120:40:160 gram/ plant(local variety) NPK= 170:60:230 gram/plant (improved variety) Potassium given in 3 doses April-May, June-july and September- October
4.	Source of technology	T ₁ = Farmer's practice, T ₂ = POP T ₃ =UAS Bangalore
5.	Production system and thematic area	Rainfed /irrigated : Nutrient management
6.	Performance of the Technology with performance indicator	85.50% increase in yield over farmers practice
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Spilt application of potassium resulted in higher yield and reduced in nut dropping
8.	Final recommendation for micro level situation	Spilt application of potassium in three doses
9.	Constraints identified and feedback for research	-
10.	Process of farmers participation and their reaction	Farmers appreciated the technology and desired to adopt the same

2. Potash Management in bittergourd

1.	Title of Technology Assessed	Potash Management in bittergourd
2.	Problem Definition	Improper and imbalanced nutrition management
3.	Details of technologies selected for assessment	T ₁ = FYM 1.5-2 t/ha, DAP 25 kg/ha as basal dose, urea 50 kg/ha as top dressing T ₂ = FYM 18 t/ha.,NPK 63:50:0 kg/ha. T ₃ = FYM 20 t/ha, NPK 70:25:25 kg/ha. in two splits
4.	Source of technology	T ₁ = Farmer's practice, T ₂ =UAS, Bangalore, T ₃ = KAU
5.	Production system and thematic area	Management of potash
6.	Performance of the Technology with performance indicator	51.79% increase in yield over farmers practice
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Application of potassium resulted in higher yield and fruit size
8.	Final recommendation for micro level situation	Application of potassium @ 25 kg./ha. in two splits along with N & P
9.	Constraints identified and feedback for research	-
10.	Process of farmers participation and their reaction	Farmers appreciated the technology and desired to adopt the same

03. Potash Management in Ridge gourd

1.	Title of Technology Assessed	Potash Management in Ridge gourd
2.	Problem Definition	Low yield, Improper / Imbalanced nutrition management & lack of knowledge on use of potassium and about the advantages of potash management in Ridge gourd
3.	Details of technologies selected for assessment	T ₁ = Application of DAP 100 kg/ha at the time of sowing and 50 kg urea after 35 days T ₂ = NPK 50:50:0 kg/ha in 2 splits + FYM 25 t/ha T ₃ = NPK: 75:25:25 kg/ha in 2 splits+FYM 25 t/ha.
4.	Source of technology	T ₁ = Farmer's practice, T ₂ =UAS, Bangalore, T ₃ = KAU
5.	Production system and thematic area	Irrigated (Paddy fallows)
6.	Performance of the Technology with performance indicator	57.07% increase in yield over farmers practice
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Application of potassium resulted in higher yield and fruit size
8.	Final recommendation for micro level situation	Application of potassium in ridge gourd
9.	Constraints identified and feedback for research	-
10.	Process of farmers participation and their reaction	Farmers appreciated the technology and desired to adopt the same

04. Management of inflorescence dieback in Arecanut

1.	Title of Technology Assessed	Management of inflorescence die back in Arecanut
2.	Problem Definition	Inflorescence die back is a major disease causes 30-40% yield loss
3.	Details of technologies selected for assessment	T ₁ = No management has been followed T ₂ = Spraying of Mancozeb 2.5 gm/ltr. at the time of opening of female flower T ₃ = Sanitation and Spraying of Zineb 4 gm/ltr at the time of opening of female flower
4.	Source of technology	T ₁ =Farmers practice, T ₂ =UAS, Bangalore, T ₃ =CPCRI, Kasaragod
5.	Production system and thematic area	Rain fed / Protective irrigation
6.	Performance of the Technology with performance indicator	Recorded 38.52% increase in yield over farmers practice
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Timely spraying of Zineb 4gm/l. reduces the disease incidence
8.	Final recommendation for micro level situation	Spraying of Zineb 4gm/l.
9.	Constraints identified and feedback for research	Spraying is the main Constraints
10.	Process of farmers participation and their reaction	Farmers appreciated the technology and desired to adopt the same

05. Management of yellow vein mosaic in Bhendi

1.	Title of Technology Assessed	Management of yellow vein mosaic in bhendi
2.	Problem Definition	Yellow vein mosaic disease causes 20-30% yield loss
3.	Details of technologies selected for assessment	T ₁ = No management has been followed T ₂ = Spraying of imidacloprid 17.80SL @ 0.5 ml per lit T ₃ = Sanitation, seed treatment with imidacloprid 5 ml per kg, Spraying of imidacloprid 17.80SL @ 0.5 ml per lit
4.	Source of technology	T ₁ =Farmers practice, T ₂ =UAS, Bangalore, T ₃ =UAS, Dharwad
5.	Production system and thematic area	Rainfed, Disease Management
6.	Performance of the Technology with performance indicator	Recorded 27.27 increase in yield over farmers practice
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Recorded a yield of 42.20 q/ha.
8.	Final recommendation for micro level situation	Sanitation, seed treatment with imidacloprid 5 ml per kg, Spraying of imidacloprid 17.8SL @ 0.5 ml per lit
9.	Constraints identified and feedback for research	-
10.	Process of farmers participation and their reaction	Farmers appreciated the technology and desired to adopt the same

06. Polyculture of fish with different stocking densities

1.	Title of Technology Assessed	Polyculture of fish with different stocking densities
2.	Problem Definition	Production of fish without taking in to account of consumer preference and fish growth
3.	Details of technologies selected for assessment	T ₁ = Stocking of one/ two species of fish T ₂ = Stocking of recommended species (catla:Rohu:Common carp 4:3:3) Stocking 5000/ha. T ₃ =Stocking of catla, Rohu and Silver carp @ 4:4:2 stocking-7500/ha
4.	Source of technology	T ₁ = Farmer practice, T ₂ = POP (UASB) , T ₃ =American soybean Association
5.	Production system and thematic area	Rainfed/Protective irrigation: Selection of fish species for stocking and their stocking ratio
6.	Performance of the Technology with performance indicator	Under Progress
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	-
8.	Final recommendation for micro level situation	-
9.	Constraints identified and feedback for research	-
10.	Process of farmers participation and their reaction	-

4. D1. Results of Technologies Refined

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined t	Data on the parameter	Results of refinement	Feedback from the farmer	Details of refinement done
1	2	3	4	5	6	7	8	9	10	11
Paddy	Rainfed	Lack of knowledge on Nutrient manageme nt	Spilt application of potassium in paddy	10	Application of potassium in 3 doses in paddy	Grain /Panicke	T ₁ =140	T ₁ =3.65	<ul style="list-style-type: none"> Heavy rain during harvesting period reduced yield in both check and trails plots Less chaffy grains were observed 	Three doses of potassium application result to better than two doses in paddy
							T ₂ =148	T ₂ =4.00		
							T ₃ =156	T ₃ =4.20		

Contd..

Justification for refinement	Technology Refined	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
12	13		14	15	16	17
Average annual rainfall of 3800 mm leaches out nutrients from the soil and thereby affects crop growth and yield	Technology Option 1 (best performing Technology Option in assessment)	T ₁ = Farmers practice	3.65	36.50 t/ha,	10200.00	1.36
	Technology Option 2 (Modification over Technology Option 1)	T ₂ =UAS, Bangalore	4.00	40.0 t/ha,	12580.00	1.48
	Technology Option 3 (Another Modification over Technology Option 1)	T ₃ = Modification over Technology Option 2	4.20	42.00 t/ha,	15200.00	1.60

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

1. Spilt application of Potassium in paddy

1.	Title of Technology refined	Spilt application of Potassium in paddy
2.	Problem Definition	Lack of knowledge on Nutrient management
3.	Details of technologies selected for refinement	T ₁ = FYM: 2.0 t/ha. 125-150 kg complex fertilizer/ha. T ₂ = FYM: 5.0 t/ha.N:P:K:: 60:30:45kg/ha (Potassium given in 2 doses – 50% as basal dose and 50% as top dressing after one month along with nitrogen) T ₃ = FYM: 5.0 t/ha. N:P:K:: 60:30:45 kg/ha (Potassium given in 3 doses – 50% as basal dose and 25% top dressing after one month and remaining during panicle initiation stage)
4.	Source of technology	UAS, Bangalore
5.	Production system and thematic area	Rainfed, Integrated Nutrient Management
6.	Performance of the Technology with performance indicator	Grains/panicle
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Farmers felt that the proportion of chaffyness of grains in T ₃ is less than T ₁ and T ₂
8.	Final recommendation for micro level situation	Application of Potassium in 3 doses can be recommended for micro level situation
9.	Constraints identified and feedback for research	Heavy rain during grain filling stage & harvesting stage reduce crop yield. Hence Flood resistant varieties need to be developed.
10.	Process of farmers participation and their reaction	Farmers participated in training programme, field visit & communicated through the telephone calls.

	Flowers	Protective irrigation	Rabi 2010-11	Jasmine	Udupi malege	-	Nutrient management & pest & Disease Management	Integrated crop management in Jasmine	0.5 ha.	0.5 ha.	-	25	25	-
	Ornamental													
	Fruit	Protective irrigation	Kharief 2010-11	Banana	G-9		Crop management	ICM in banana	1 ha.	1 ha	-	5	5	-
	Spices and condiments	-	Summer 2010-11	Pepper	Panniyur	-	Post harvest processing	Processing of pepper using solarization technique	-	-	-	10	10	-
	Commercial													
	Medicinal and aromatic													
	Fodder													
	Plantation	Rainfed/protective irrigation	Kharif/Rabi-2010-11	Arecanut	Sumangala/Mangala	-	Disease management	Koleroga management in Arecanut	2.5	2.5	00	6	6	-
		Rainfed/protective irrigation	Kharif/Rabi-2010-11	Arecanut	Sumangala/Mangala	-	Pest management	Root grub management in Arecanut	2.8	2.8	01	6	7	-
		Rainfed with protective irrigation	Kharif – 2010-11	Pepper	Penniyur	-	Disease management	Quick wilt management in pepper	200 vines	200 vines	01	9	10	-
		Rainfed with protective irrigation	Kharif/Rabi-2010-11	Cashew	Ullal-1	-	Insect management	Integrated crop management in Cashew	4	4.0	00	10	10	-
		Rainfed with protective irrigation	Kharif/Rabi-2010-11	Arecanut	Sumangala	-	Nutrient management	Integrated crop management in Arecanut	2	2.0	00	05	05	-

	Quick wilt management	Panniyur 1	-	Rainfed / protective irrigation	10	200 vines	1.82 kg /pt	1.25 kg /pt	1.82 kg /pt	1.21 kg /pt	50.41	12500	76440	63940	6.10	11000	50820	39820	4.62
Commercial																			
Medicinal and aromatic																			
Fodder																			
Plantation	ICM in Arecanut	Sumangala	-	Rainfed / protective irrigation	5	0.5	26.60	20.89	23.40	17.4	34.48	40000	187200	147200	4.68	37000	139200	102200	3.76
	ICM in coconut	WCT	-	Rainfed / protective irrigation	5	2.5	18720 Nos./ha.	17900 Nos./ha.	18224 Nos./ha.	13144 Nos./ha.	38.64	35000 Nos.	109344 Nos.	74344 Nos.	3.12	30000	78864	48864	2.62
Arecanut	Koleroga management in areca nut	Sumangala/ mangala		Rainfed / protective irrigation	6	2.5	32.0	24.0	27.66	20.0	38.30	40000	221280	181280	5.53	46000	160000	114000	3.47
	Root grub management	Sumangala/ mangala		Rainfed / protective irrigation	7	2.8	14	8.0	9.80	6.14	59.60	35000	78400	43400	2.24	30000	49120	19120	1.63
Cashew	Tea mosquito bug management	Ullal 1		Rainfed / protective irrigation	10	4.00	10.50	7.00	8.90	4.80	46.06	19500	71200	51700	3.65	14500	38400	23900	2.60
Fibre																			
Others (pl.specify)																			

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

** BCR= GROSS RETURN/GROSS COST

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

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

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

5.B.2. Livestock and related enterprises

3.3.2: Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)			% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)				
					Demo				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy																	
Poultry	Rearing of swarnadhara poultry birds	Swarnadhara	20	-	3.8	1.8	2.95	0.9	277.7	Rs. 90/bird	Rs. 290/bird	Rs. 200/bird	3.22	Rs. 40/bird	Rs. 110/bird	Rs. 70/bird	2.75
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others (pl.specify)																	

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

** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)

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

5.B.3. Fisheries

3.3.3. Fisheries																
Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Yield (q/ha)			% Increase	*Economics of demonstration Rs./unit) or (Rs./m2)				*Economics of check Rs./unit) or (Rs./m2)			
					Demo				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return
					H	L	A									
Common carps	Utilization of clay pits for fish culture	Catla, Rohu & Common carp	05	5000	4.9	3.45	3.95	-	-	9500	22000	12500	2.32	Fish culture was dame for the first time in clay pits		
	Polyculture of fish & prawn	Catla, Rohu & fresh water prawn	05	1000	Under progress (Harvesting during April-May 2011)											
Mussels	Culture of cat fish with carps under polyculture farming system	Catla, Rohu, Silver carp, common carps & cat fish	05	1000	Under progress (Harvesting during April-May 2011)											
Ornamental fishes																
Others (pl.specify)																

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

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.)

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

5.B.4. Other enterprises: Nil

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

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

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.) : Nil

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

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

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

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

** BCR= GROSS RETURN/GROSS COST

5.B.6. Cotton: Nil

5.B.6.1.Summary of demonstrations conducted under FLD cotton : Nil

5.B.6.2 Production technology demonstrations: Nil

Performance of demonstrations : Nil

[illegible]

5.B.6.4 Demonstrations on farm implements : Nil

Name of the implement	Area (Ha)	No. of Demo.	Name of the technology demonstrated	Labour requirement for operation (Rs./ha)		
				Demo	Local check	% change
Total						

5.B.6.5 Extension Programmes organized in Cotton Demonstration Plots : Nil

Extension activity	No. of Programmes	Participants			SC/ST		
		Male	Female	Total	Male	Female	Total
Consultancy							
Conventions							
Demonstrations							
Diagnostic surveys							
Exhibition							
Farmer study tours							
Farmers Field school							
Field Days							
Field visits							
Gram sabha							
Group discussions							
Kisan Gosthi							
Kisan Mela							
Training for Extension Functionaries							
Training for farmers							
Viedo show							
Newspaper coverage							
Popular articles							
Publication							
Radio talks							
T.V. Programme							
Others (Pl.specify)							
TOTAL							

5.B.6.6 Technical Feedback on the demonstrated technologies on all crops / enterprise :

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Paddy	SRI-Method of Paddy cultivation	Under SRI method of paddy cultivation grain and straw yield are better than the traditional method. Recorded higher number of tillers in SRI method which resulted in higher yield with water savings than the normal method of paddy cultivation.
2.	Paddy	Integrated Crop Management in Paddy	Adoption of ICM practices gave higher yield over traditional method. In long run ICM practice will help to maintain the soil health and sustain the yield.
3.	Arecanut	Integrated root grub management in Arecanut	Timely application of Imidacloprid 0.5ml/lit. during May-June and during September reduced root grub incidence and increase the vigour of the plant
4.	Arecanut	Koleroga management in Arecanut	Scientific way of preparation and spraying of 1% Bordeaux mixture before 1 st rain and at the interval of 15-20 days reduces disease incidence.
5.	Fisheries	Utilization of clay pits for fish culture	Clay pits can be effectively utilized for fish culture if they are properly shaped and managed
6.	Poultry	Rearing of swarnadhar poultry birds in backyards	Rearing of swarnadhar poultry birds gives 3-4 time higher growth and income compare to native poultry birds
7	Jasmine	ICM in jasmine	Adoption of ICM practices increases the jasmine yield

5.B.6.7 Farmers' reactions on specific technologies :

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Sesamum	Production technology	Farmers felt that the new variety Navile-1 and scientific cultivation practices has increased the yield of Sesamum over the local variety and traditional methods. Farmers agreed to adopt the variety and cultivation practices and disseminate the same to the neighbouring farmers.
2.	Black gram	Production technology	Farmers felt the scientific cultivation of black gram can increase the yield over traditional method. Further the farmer willing to continue the scientific cultivation practices in black gram in future.
3.	Green gram	Production technology	Farmers felt the scientific cultivation of green gram can increase the yield over traditional method. Further the farmer willing to continue the scientific cultivation practices in green gram in future.
4.	Paddy	SRI-Method of Paddy cultivation	Farmers felt that the yield in SRI-method of paddy cultivation is better over traditional practice. Due to prolonged flowering stage, ripened seeds fell down before harvesting. Experienced labour and weed management is major problem in this method, which can be overcome by use of conoweeder. The farmers are willing to adopt it and agree to disseminate the same to the neighbouring farmers.
5.	Paddy	Integrated Crop Management in Paddy	Farmers felt the ICM technology in paddy cultivation has helped to increase the grain and straw yield. Farmers wish to continue the same technology in future and disseminate it to the neighbouring farmers.
6.	Arecanut	Integrated root grub management in Arecanut	Farmers opined that timely application reduced root grub incidence and plant may regain the vigour and yield.
7.	Arecanut	Koleroga management in Arecanut	Farmers felt that 1% Bordeaux mixture is the cheapest and effective chemical for controlling Koleroga disease. Scientific way of preparation and taking care in spraying will enhances the effectiveness of chemical.
8.	Fisheries	Utilization of clay pits for fish culture	Farmers felt that proper management in utilizing clay pits generates more income compare to normal ponds
9.	Poultry	Rearing of swarnadhar poultry birds in backyards	Farmers opined that rearing of swarnadhara poultry birds is useful in giving higher meat and eggs compare to native poultry birds
10.	Jasmine	ICM Jasmine	Farmers opined that INM Practices followed plot yielded flower throughout the year and quantity also increased compared to traditional method

5.B.6.8 Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	02	84	-
2	Farmers Training	26	1018	-
3	Media coverage	60	-	-
4	Training for extension functionaries	-	-	-

PART VI – DEMONSTRATIONS ON CROP HYBRIDS : Nil

Demonstration details on crop hybrids

[illegible]

Coconut																	
Others (pl.specify)																	
Total																	
Fodder crops																	
Maize (Fodder)																	
Sorghum (Fodder)																	
Others (pl.specify)																	
Total																	

H-High L-Low, A-Average

*Please ensure that the name of the hybrid is correct pertaining to the crop specified

Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	12	260	115	375	26	10	36	286	125	411

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

[illegible]

Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	29	496	467	963	68	88	156	564	555	1119

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)- Value addition	1	-	29	29	-	3	3	-	32	32
Any other (pl.specify)- Extension methodologies for transfer of technologies	1	30	-	30	-	-	-	30	-	30
Total	2	30	29	59	-	3	3	30	32	62

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										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other : Value addition	1	-	29	29	-	5	5	-	34	34
Total	1	-	29	29	-	5	5	-	34	34

7.G. Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	Production and value addition										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	Soil health and fertility management										
4	Production of Inputs at site										
5	Methods of protective cultivation										
6	Others (pl.specify)										
7	Post harvest technology and value addition										
7.a.	Processing and value addition(sponsored by DCCD, Cochin)	7	-	175	175	-	-	-	-	175	175
7.b.	Others : RKVY	2	1	93	94	-	11	11	1	104	105
8	Farm machinery										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others : Ornamental fish breeding and rearing (Sponsored by MPEDA)	2	40	3	43	6	1	7	46	4	50
11.	Home Science										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	Agricultural Extension										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others: Scaling up of water productivity in agriculture	1	42	5	47	1	2	3	43	7	50
	Total	12	83	276	359	7	14	21	90	290	380

Details of sponsoring agencies involved

1. DCCD, Kochi, Kerala
2. RKVY, UAS, Bangalore
- 3.MPEDA, Mangalore
4. Technology centre for Water resources, Bhuvaneshwar

[illegible]

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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	2	51	12	63	18	3	21	-	-	-
Kisan Mela	1							-	-	-
Kisan Ghosthi	-	-	-	-	-	-	-	-	-	-
Exhibition	2	1450	550	2000	-	-	-	-	-	-
Film Show	4	-	-	-	-	-	-	-	-	-
Method Demonstrations	18	4	378	382	-	40	40	-	66	66
Farmers Seminar	2	62	52	114	2	1	3	-	-	-
Workshop	-	-	-	-	-	-	-	-	-	-
Group meetings	-	-	-	-	-	-	-	-	-	-
Lectures delivered as resource persons	10	16	-	16	3	-	3	-	-	-
Newspaper coverage	34	-	-	-	-	-	-	-	-	-
Radio talks	4	-	-	-	-	-	-	-	-	-
TV talks	-	-	-	-	-	-	-	-	-	-
Popular articles	14	-	-	-	-	-	-	-	-	-
Extension Literature	3									
Advisory Services(Telephone calls)	370	236	67	303	-	-	-	48	19	37
Scientific visit to farmers field	147	136	11	147	-	-	-	-	-	-
Farmers visit to KVK	28	480	44	524	-	-	-	-	-	-
Diagnostic visits	3									
Exposure visits	-	-	-	-	-	-	-	-	-	-
Ex-trainees Sammelan	-	-	-	-	-	-	-	-	-	-
Soil health Camp	-	-	-	-	-	-	-	-	-	-
Animal Health Camp	-	-	-	-	-	-	-	-	-	-
Agri mobile clinic	-	-	-	-	-	-	-	-	-	-
Soil test campaigns	-	-	-	-	-	-	-	-	-	-
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-
Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days (specify)	-	-	-	-	-	-	-	-	-	-
World food day	01	-	29	29	-	3	3	-	32	32
Nutrition week	01	1	40	41	-	3	3	1	43	44
Any Other (Specify)	-	-	-	-	-	-	-	-	-	-
Total	644	2436	1183	3619	23	50	73	49	160	179

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy- Seed	MO4	-	28.25	70620.00	12
	Paddy Bulk	MO4	-	14.28	14280.00	-
Oilseeds						
Pulses						
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (specify)						
Total	-	-	-	28.25	84900.00	12

9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	Jasmine	Udupi mallige	-	10500	179325.00	Supplied to Dept. of Horticulture D.K. Mangalore
Vegetable seedlings						
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
Total	-	-	-	10500	179325.00	

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	-			
Bio-pesticide	-			
Bio-fungicide	Trichoderma	47 kg.	4700.00	26
Bio Agents	-			
Others (specify)	-			
Total	-	47 kg.	4700.00	26

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others : Goat kids	Cross bread	3	3600.00	2
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet	Yorkshire	6	14000.00	3
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total		9	17600.00	5

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

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

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Farmers Field School-A Successful Approach for Reaching Farmers.	Nagesh G.	1
Technical reports			
News letters			
Technical bulletins	Jack fruit cultivation and preparation of value added products	Jayashree S.	1
Popular articles	Poushtika aahaara – motte	Jayashree S.	1
	Balasidare bahumukhi halasu-aarogya hulusu.	Jayashree S.	1
	Krishiyinda varshavidi aadaaya padeda maadari raita	Nagesh G.	1
	Swarnadhaara koli saakaanikeya raitara kshetra paatha shaale: yashogaathe.	Nagesh G.	1
	Dehakke atyagatya neeru	Jayashree S.	1
	Baalalu baale	Jayashree S.	1
	Adike beruhulada hatothi hege?	Sharana basappa	1
	Masale rajanige kuttu tantu katte	Sharana basappa	1
	Kalumenasu beleyalli soragu rogada nirvahane	Sharana basappa	1
	Adike beruhulu haavalige parihara	Sharana basappa	1
	Krishiyalli vamshavahini vargayitha belegala pramukyathe	Raviraj Shetty G.	1
	Sihineeru sigadi krishi hagu meenu mattu sigadi mishra palane	Rajesh K.M.	1
	Ave mannina kolagalalli meenu krishi	Rajesh K.M.	1
	Swarnadhara koli sakane, grameena raithara ashakirana	Rajesh K.M.	1
	Shresta taliya bijadinda utkrusta bele.2010. Krushi munnade.	Sujata Bhat,	1
	Krishiyalli vamshavahi vargayita belegala pramukhyate. Krushi munnade.	Sujata Bhat,	1
Extension literature			
Training manual	Krishiyalli neerina utpadakate hecchisuva taantrikatgalu.	H.Hanumanthappa	1
	Aquarium nirmana, nirvahane hagu Alankarika meenu mari utpadane mathu palane	Rajesh K.M.	1
	Swarnadhara Koli Sakanike	Nagesh	20
	Thotagarika belegala samagra besaya kramagalu	Raviraj Shetty G.	1
Others (Pl. specify)			
TOTAL	22		

10.B. Details of Electronic Media Produced: Nil

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

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

The Broad outline for the case study may be

Title

Background

Interventions

Process

Technology

Impact

Horizontal Spread

Economic gains

Employment Generation

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

FFS programme on Swarnadhara poultry birds rearing for SHG women

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

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

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

- Identification of courses for farmers/farm women
- Rural Youth
- Inservice personnel

10.G. Field activities

- i. Number of villages adopted : 11 Villages covering 5 taluks
- ii. No. of farm families selected : -
- iii. No. of survey/PRA conducted : Group discussion with contact

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

Status of establishment of Lab : Under Progress

- 1. Year of establishment : 2011
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1	Single Quartz distillation unit 2.5 liter with water softner & automatic cutoff	1	54877.00
2	Flame photometer	1	43817.00
3	P.H. Meter	1	19530.00
4	Digital Conductivity	1	20844.00
5	Visible Spectrophotometer	1	50340.00
6	Hot Air oven	1	17933.00
7	L.G.350 Fraist free Refrigerator	1	23490.00
8.	Rotary shaker	1	22473.00
9.	Ultra centrifuge machine	1	55170.00
10.	Hot plate rectangular	1	7264.00
11.	Electronic Balance	1	53913.00
12.	Fume Exhaust hood	1	60155.00
Total			429806.00

Details of samples analyzed so far since establishment of SWTL: Nil

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples				
Water Samples				
Plant samples				
Manure samples				
Others (specify)				
Total				

Details of samples analyzed during the 2010-11 : Nil

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples				
Water Samples				
Plant samples				
Manure samples				
Others (specify)				
Total				

10.I. Technology Week celebration

Period of observing Technology Week: From 01-02-2011 to 05-02-2011

Total number of farmers visited : 197

Total number of agencies involved : 6

Number of demonstrations visited by the farmers within KVK campus : 6

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies			
Lectures organized	13	197	INM in Horticulture crops, Cashew varieties and production technologies, Jasmine cultivation, Pest and disease management in Arecanut and Importance of bio fungicides in Horticulture crops, Pest & disease management in Jasmine & vegetable crops, Vermi compost production technologies, Demonstration on mixed fruits jam preparation, Demonstration on preparation on value added products from Pineapple, Paddy varieties for coastal zone and its characteristic Chapeneji method of nursery preparation of paddy, Facilities available in agriculture Dept.
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Supply of Literature (No.)			
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)			
Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week	13	197	

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

A. Introduction of alternate crops/varieties Nil

State	Crops/cultivars	Area (ha)	Number of beneficiaries

B. Major area coverage under alternate crops/varieties: Nil

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

C. Farmers-scientists interaction on livestock management : Nil

State	Livestock components	Number of interactions	No.of participants
Total			

D. Animal health camps organized : Nil

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

PART XI. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

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

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

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State Department Department of Agriculture, Horticulture Animal Husbandry and Veterinary services, Fisheries, Child and women welfare development	<ul style="list-style-type: none"> • Training and demonstrations. • Providing technical information to the Extension functionaries during bi-monthly workshops • Diagnostic survey and forecasting of pest and disease management of different crops. • Field days, Farmers day, World Food day etc. • Field visit to problematic crops in the District.
Non-Governmental Organization Shree Kshetra Dharmasthala Rural Development Project, Nagarika Seva Trust, Cooperative Societies and Vijaya Rural Developmental Foundation	<ul style="list-style-type: none"> • Training programmes and demonstrations • Participation in meeting • Farmers selection, FLD, OFT implementation • Training need assessment
Bank Co-operative Agri. Bank	<ul style="list-style-type: none"> • Training Programmes for the farmers/Self Help Groups/OFT/FLD implementation.
All India Radio	<ul style="list-style-type: none"> • Transfer of technology through radio talks, radio script (Nataka). Announcing of messages to the farmers and KVK training Programme schedules. • Pest and Disease forecasting of different crops.

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

If yes, role of KVK in preparation of SREP of the district?

KVK has taken lead in collaborating different development departments of DK District and provided necessary technical support for the preparation of SREP of the district.

Coordination activities between KVK and ATMA during 2010-11

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings				
02	Research projects				
03	Training programmes	Management of saline soil in D.K. District	7	-	Participated as resource person and provided technical guidance
		Nutrient Management in paddy			
		Nutrient Management in paddy			
		ICT & its utilization in agricultural marketing			
		Integrated Fish culture			
		Integrated Fish culture			
		Integrated Fish culture			
04	Demonstrations				
05	Extension Programmes				
	Kisan Mela	Taluk level Krishi utsav programme	1	-	Participated as resource person and provided technical guidance
	Technology Week				
	Exposure visit				

	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	Publications				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	Other Activities (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

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

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

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

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

12.F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	Crop protection demonstration	Organized five demonstrations in farmers field	2000.00	1881.00	-
2	Training programme for farmers	Organized eight OFF campus training programme for farmers	21000.00	19488.00	-
3	Exposure visit to farmers	Organized Exposure visit of 22 farm women to different agriculture institutes in Shivmoga and Dharwad districts	30000.00	29959.00	-
4	Field days	Organized field day on swarnadhara poultry birds rearing	22585.00	16982.00	-

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (in Qtl)	Cost of inputs	Gross income	
Cereals									
Paddy	15.07.2010	22-11-2010	3.5	MO4	Seed purpose	28.25	70625.00	84905.00	-
				MO4	Bulk	14.28	14280.00	14280.00	-
Pulses									
Oilseeds									
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									

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

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

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	-	-	-	-	-	-	-
With KVK	Canara Bank	Fisheries College Branch, Mangalore	8520101100857 8520101100918 (RF)	SB	8520101100857 8520101100918 (RF)		

14.B. Utilization of funds under FLD on Cotton (*Rs. in Lakh*) : Nil

S. No	Items / Head	Opening balance if any	Remittance by ZPD VIII Bangalore	Actual expenditure dubitable to Council A/C	Closing balance if any	Remarks
1	Production Technology – 50 ha					
	a. Essential inputs					
	b. POL, hiring vehicle, Kisan melas, printed materials, reports, demonstration boards					
	Total					
2.	Farm Implements – 75 ha					
	a. New equipments					
	b. Contingencies					
	Total					

14.C. Utilization of KVK funds during the year 2010-11 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	35.00+41.34	76.34	44.86892
2	Traveling allowances	0.50	0.50	0.96782
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.40	2.40	2.39921
B	POL, repair of vehicles, tractor and equipments	1.65	1.65	1.58829
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.00	1.00	0.99896
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.35	0.35	0.34438
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.75	1.75	1.58331
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.80	0.80	0.61966
G	Training of extension functionaries	0.25	0.25	0.24926
H	Maintenance of buildings	0.25	0.25	0.24850
L	Establishment of Soil, Plant & Water Testing Laboratory	0.50	0.50	0.50000
J	Library	0.05	0.05	0.48180
K	Extension activities	0.25	0.25	0.24930
L	Farmers Field School	0.25	0.25	0.22325
M	Chemicals and glassware's for soil and water testing lbs	2.50	2.50	2.48523
N	Petty items-such as pestleand mortar, cloth bag, plastic jar, tray, gas connection for flame photometer and other use,	1.00	1.00	1.00000
TOTAL (A)		89.84	89.84	58.80789
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
a.	Power tiller	1.50	1.50	1.50000
b.	Computer & accessories	0.75	0.75	0.74970
c.	Portable Carp Hatchery	2.25	2.25	2.25000
d.	SWTL	10.00	10.00	4.29806
e.	Generator	1.00	1.00	0.99955
f.	EPABX System	0.50	0.50	0.49455
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	0.10	0.10	0.10000
TOTAL (B)		16.10	16.10	10.39186
C. REVOLVING FUND		1.00	1.00+ 0.60987 (O.B.)	1.22512
GRAND TOTAL (A+B+C)		106.94	108.54987	70.42487

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2008 to March 2009	19600.00	161627.00	175946.00	5281.00
April 2009 to March 2010	5281.00	151334.00	95628.00	60987.00
April 2010 to March 2011	60987.00	134375.00	122512.00	72850.00

15. Details of HRD activities attended by KVK staff during 2010-11

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. G. Negesha	SMS (Agril. Extension)	Winter school on “ICT mediated Agricultural Extension, Basics to advances	BHU, Varanasi	15th December 2010 to 5th January 2011
Dr. Rajesh K.M	SMS(Fisheries)	Fish culture in Integrated farming system	STU, Hebbal	11th January 2011 to 13th January 2011
Dr. Sharanabasappa	SMS(Entomology)	Technology demonstration for harnessing oilseeds & pulses productivity	FTU-Dharwad	26th July 2010 to 30th july 2010
Dr. Jayashree S.	SMS Home Science(F&N)	Winter school on “ Nutraceuticals challenges and opportunities in 21st century”	UAS, Bangalore	29th November 2010 to 19th December 2010

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

SUMMARY FOR 2010-11

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management	Arecanut	Split application of potassium in Arecanut	10
	Ridge gourd	Potash management in Ridge gourd	10
	Bitter gourd	Potash management in Bitter gourd	10
Varietal Evaluation			
Integrated Pest Management			
Integrated Crop Management			
Integrated Disease Management	Arecanut	Management of inflorescence die back disease in Arecanut	10
	Bhendi	Management of yellow vein mosaic in bhendi	9
Small Scale Income Generation Enterprises			
Weed Management			
Resource Conservation Technology			
Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique			
Others (Pl. specify)			
Total			49

Summary of technologies assessed under home science: Nil

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

II. TECHNOLOGY REFINEMENT**Summary of technologies refined under various crops**

Thematic areas	Crop	Name of the technology refined	No. of trials
Integrated Nutrient Management	Paddy	Split application of potassium in paddy	10
Varietal Evaluation			
Integrated Pest Management			
Integrated Crop Management			
Integrated Disease Management			
Small Scale Income Generation Enterprises			
Weed Management			
Resource Conservation Technology			

Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique			
Others (Pl. specify)			
Total			10

Summary of technologies assessed under refinement of various livestock : Nil

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

[illegible]

Summary of technologies refined under home science : Nil

[illegible]

** BCR= GROSS RETURN/GROSS COST

Women empowerment: Nil

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

Farm implements and machinery : Nil

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

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

** BCR= GROSS RETURN/GROSS COST

[illegible]

Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	12	260	115	375	26	10	36	286	125	411

[illegible]

Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	8	3	265	268	-	28	28	3	293	296
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others : Use of ICT in Agriculture marketing (Sponsored)	1	16	-	16	3	-	3	19	-	19
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture	03	77	07	84	11	02	13	88	09	97

[illegible]

[illegible]

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other : Value addition	1	-	29	29	-	3	3	-	32	32
Any other: Extension methodologies for transfer of technologies	1	30	-	30	-	-	-	30	-	30
Total	2	30	29	59	-	3	3	30	32	62

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other : Value addition	1	-	29	29	-	5	5	-	34	34
Total	1	-	29	29	-	5	5	-	34	34

Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	Production and value addition										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	Soil health and fertility management										
4	Production of Inputs at site										
5	Methods of protective cultivation										
6	Others (pl.specify)										
7	Post harvest technology and value addition										
7.a.	Processing and value addition(sponsored by DCCD, Cochin)	7	-	175	175	-	-	-	-	175	175
7.b.	Others : RKVY	2	1	93	94	-	11	11	1	104	105
8	Farm machinery										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others : Ornamental fish breeding and rearing (Sponsored by MPEDA)	2	40	3	43	6	1	7	46	4	50
11.	Home Science										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	Agricultural Extension										
12.a.	Capacity Building and Group Dynamics										
12.b.	Others: Scaling up of water productivity in agriculture	1	42	5	47	1	2	3	43	7	50
	Total	12	83	276	359	7	14	21	90	283	380

[illegible]

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Telephone calls)	370	303	37	340
Diagnostic visits	3	6	2	8
Field Day	2	84	2	86
Group discussions	-	-	-	-
Kisan Ghosthi	-	-	-	-
Film Show	4	137	-	137
Self -help groups	-	-	-	-
Kisan Mela	-	-	-	-
Exhibition	2	2000	-	2000
Scientists' visit to farmers field	147	147	-	147
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	2	117	-	117
Method Demonstrations	18	422	66	488
Celebration of important days (World food day)	01	32	-	32
Special day celebration (Nutrition week)	01	41	3	44
Exposure visits	01	22	-	22
Others : Farmers visit to KVK	-	-	-	-
Total	551	3311	110	3421

Details of other extension programmes

Particulars	Number
Electronic Media	-
Extension Literature	3
News Letter	-
News paper coverage	34
Technical Articles	1
Technical Bulletins	4
Technical Reports	0
Radio Talks	8
TV Talks	-
Animal health amps (Number of animals treated)	-
Others (pl.specify)	-
Total	50

VI. PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Paddy-Seed	MO-4	28.25	70625.00	12
	Paddy-Bulk	MO-4	14.28	14280.00	-
Oilseeds					
Pulses					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds					
Fiber crops					
Forest Species					
Others					
Total	-	-	42.53	84900.00	12

Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Commercial	-	-	-	-	-
Vegetable seedlings	-	-	-	-	-
Fruits	-	-	-	-	-
Ornamental plants	-	-	-	-	-
Medicinal and Aromatic	-	-	-	-	-
Plantation	Jasmine	Udupi Mallige	10500	179325	Supplied to Dept. of Horticulture D.K. Mangalore
Spices	-	-	-	-	-
Tuber	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-
Forest Species	-	-	-	-	-
Others	-	-	-	-	-
Total	-	-	-	-	-

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	Trichoderma	47	4700.00	26
Bio Agents	-	-	-	-
Others	-	-	-	-
Total		47	4700.00	26

Production of livestock and related enterprise materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others : Goat kids	Cross breed	3	3600	3
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery	Yorkshire	6	14000	3
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total		9	17600	5

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2010-11: Nil

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil				
Water				
Plant				
Manure				
Others (pl.specify)				
Total				

VIII. SCIENTIFIC ADVISORY COMMITTEE : Nil

Number of SACs conducted

IX. NEWSLETTER : Nil

Number of issues of newsletter published

X. RESEARCH PAPER PUBLISHED

Number of research paper published
Farmers field school-A Successful Approach for Reaching Farmers

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

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

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