



ANNUAL REPORT 2015-16
OF
ICAR-KVK, GADAG DISTRICT
KARNATAKA STATE



Submitted to
DIRECTOR
ICAR – AGRICULTURAL TECHNOLOGY
APPLICATION RESEARCH INSTITUTE,
ZONE VIII
BENGALURU - 560024

By
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HULKOTI, GADAG DISTRICT
KARNATAKA STATE

ANNUAL REPORT 2015-16 OF KVK, GADAG, KARNATAKA

(FOR THE PERIOD APRIL 2015 TO MARCH 2016)

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PART I –GENERAL INFORMATION ABOUT THE KVK**1.1. Name and address of KVK with phone, fax and e-mail**

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, Gadag dist.	(08372)289606 /289325	-	kvkhulkoti@gmail.com khpatil_kvkhulkoti@yahoo.com	www.khpkvk.org

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

Address	Telephone		E mail	Web Address
	Office	Fax		
Agricultural Science Foundation, Hulkoti Gadag dist.	(08372) 289069	-	asf_hulkoti@yahoo.co.in	www.asf.net.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. L.G. Hiregoudar	-	9448358772	laxs1961@gmail.com

1.4. Year of sanction :January 1985**1.5. Staff Position (as on 31st March 2016)**

Sl. No	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. L.G. Hiregoudar	Programme Coordinator	M	Crop Physiology	M.Sc (Agri), PhD	37400-67000+10000	60100	19.10.1985	P	OBC
2	SMS	Mr. S.K.Mudlapur	Subject Matter Specialist	M	Plant Protection	B.Sc (Agri)	15600-39100+6600	30290	22.07.1985	P	OBC
3	SMS	Mr. S.H.Adapur	Subject Matter Specialist	M	Ag. Extension	M.Sc (Agri)	15600-39100+6600	29210	22.11.1990	P	Others
4	SMS	Dr. Sudha. S.Rayanagoudar	Subject Matter Specialist	F	Home Science	M.H.Sc, PhD	15600-39100+6600	29210	20.07.1993	P	OBC
5	SMS	Mr. V.D.Vaikunthe	Subject Matter Specialist	M	Agronomy	B.Sc (Agri)	15600-39100+6600	29210	23.07.1985	P	OBC
6	SMS	Mr. K.T.Patil	Subject Matter Specialist	M	Horticulture	B.Sc (Agri)	15600-39100+6600	29210	25.07.1985	P	OBC
7	SMS	Mr. N.H.Bhandi	Subject Matter Specialist	M	Soil Science	M.Sc (Agri)	15600-39100+6000	22850	01.06.2005	P	OBC
8	Programme Assistant(Animal Science)/ T-4	Dr. B.M.Murgod	Programme Assistant	M	Animal Science	B.V. Sc	9300-34800+4200	14120	25.06.2007	P	Others

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)
9	Programme Assistant (Computer)/ T-4	Smt. L.S.Asuti	Computer Programmer	F	-	M.Sc (IT)	9300-34800 + 4600	15830	01.06.2005	P	OBC
10	Programme Assistant/ Farm Manager	Mr. Suresh L. Halemani	Farm Manager	M	-	B.Sc (Agri.)	9300-34800 + 4200	12060	01.02.2011	P	OBC
11	Assistant	Mr. M.B. Jakkanagoudar	Assistant	M	-	M.Com	9300-34800 +4200	14120	25.06.2007	P	OBC
12	Jr. Stenographer	Vacant									
13	Driver Cum Mechanic	Mr. N.L. Hadapad	Auxiliary staff	M	Driver-Cum-Mechanic	7 th Std.	5200-20200 + 2000	11480	03.09.1992	P	OBC
14	Driver Cum Mechanic	Mr. G.D. Madivalar	Auxiliary staff	M	Driver-Cum-Mechanic	7 th Std.	5200-20200 + 2000	10310	26.06.1995	P	OBC
15	Supporting staff: Clerk Cum Fieldman	Mr. S.B. Kotabagi	Supporting staff	M	Village work attendant	SSLC	5200-20200 + 1900	9100	18.07.1985	P	Others
16	Supporting staff: Village Work Attendant	Mr. V.R. Navalli	Supporting staff	M	Field Assistant	SSLC	5200-20200 + 1900	8900	20.07.1993	P	OBC

1.6. Total land with KVK (in ha) : 28.0 ha

S. No.	Item	Area (ha)
1	Under Buildings	1.5
2.	Under Demonstration Units	0.5
3.	Under Crops	12.0
4.	Orchard/Agro-forestry	14.0
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	1996	800	33.46	-	-	-
2.	Farmers Hostel	ICAR	1997	550	17.26	-	-	-
3.	Staff Quarters	ICAR	31-03-2006	400	25.82	-	-	-
	1							
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units							
	i) Dairy	ICAR	31-03-1997	50	4.00	-	-	-
	ii) Sheep & Goat	ICAR	31-03-1997	50	2.63	-	-	-
	iii) Organic input production unit	ICAR	31-03-2011	67	3.00			
5	Fencing	ICAR	31-03-2011		8.00			
6	Rain Water harvesting system	ICAR	31-03-2007	-	10.00	-	-	-
7	Threshing floor	ICAR	31-03-2011	278	2.00	-	-	-
8	Farm godown	ICAR	31-03-2011	70	3.00	-	-	-
9	Poly House	KSDH	31-03-2006	50	3.00	-	-	-
10	Vermi Compost	DDB	31-03-2002	100	3.50	-	-	-
11	Vehicle & implement shed	ICAR	31-03-2011	80	3.00	-	-	-
12	Bore well	ICAR	31-03-2011	2 Nos.	3.00	-	-	-
13	Irrigation system	ICAR	31-03-2011	1 No.	3.00	-	-	-
14	Farm pond	KSDA	25-01-2015	1 No.	1.50	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.in lakhs)	Total kms. Run	Present status
Jeep (Mahindra Bolero)	2009	6.00	139351 Kms	Good
Tractor	2003	5.00	8754 hours	Good
Motor cycle - I	2004	0.40	31149 Kms	Good
Motor cycle - II	2009	0.50	28320 Kms	Good

C) Equipments& AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer	2008	1.00	Good
Digital Amplifier with Public Address System	2013	0.36	Good
Fax	2009	0.15	Good
OHP	2004	0.25	Good
Motorised projection screen	2013	0.21	Good
White board	2013	0.14	Good
LED display board	2013	0.10	Good
Hipro lab model gin machine	2006	0.70	Good
Seed delinting machine	2006	0.18	Good
Cotton seed sorter	2007	0.50	Good
Seed treatment drum	2007	0.40	Good
Lap top Computer	2007	0.53	Good
LCD	2007	0.45	Good
Ceramic black board	2007	0.12	Good
Rotavator	2008	0.75	Good
Rotary weeder	2009	0.84	Good
Laser guided land leveler	2011	3.89	Good
Power tiller	2011	2.72	Good
Lab equipments for dairy and goatery	2011	0.50	Good
Generator	2011	1.00	Good
EPBAX system	2011	0.50	Good
Equipments of Plant health diagnostic unit	2011	10.00	Good
Xerox machine	2007	0.78	Good

1.8. Details SAC meeting conducted in 2015-16

Sl. No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1	19/02/2016	29	4	1) Advise farmers of Gadag district not to take up ratoon crop in Bt. Cotton and put refugee crops with Bt. Cotton to reduce incidence of pest and disease.	1) It will be followed in all trainings and extension activities to be carried out during Kharif 2016-17
				2) Layout demonstrations on Redgram & Redgram based intercropping in Gadag district.	2) During Kharif 2016-17, demonstrations will be laid out
				3) Create awareness about possibility of outbreak of pink boll worm in Bt. Cotton as observed during last year in Gadag district through training and extension literature in collaboration with Department of Agriculture.	3) It will be carried out during Kharif 2016-17
				4) Demonstrate transplanted Redgram crop in KVK Farm to show to district farmers as the yield and price of Redgram are high and remunerative respectively.	4) It will be taken up during Kharif 2016-17 in KVK farm
				5) Send SMSs to all farmers to take up precautionary measures to tackle foot & mouth disease in animals.	5) Messages have been sent during first week of March, 2016
				6) Encourage farmers to take up Tree Mulberry cultivation with V-1 variety which suits to dryland condition through trainings in collaboration with Sericulture Department.	6) This has been carried out during the trainings conducted in February, 2016.
				7) Add grazing Guinea grass, Hedge Lucerne and Multicut Sorghum under FLDs on fodder crops.	7) These crops have been added in the Action Plan for 2016-17
				8) Issue soil health cards to maximum numbers of farmers of 14 villages to be adopted by KVK for the year 2016-17.	8) It will be carried out during 2016-17 in collaboration with Karnataka State Department of Agriculture
				9) Enhance area under FLDs on Maize + Redgram as there is a need to increase the productivity of pulses.	9) Accordingly, the area under Maize + Redgram FLD is enhanced and depicted in the Action Plan
				10) Organise one day awareness programme about Pradhan Mantri Fasal Beema Yojana between 30th March to 5th April involving farmers of the district	10) This has been carried out on 04-04-2016.

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
Rainfed situation	
1	Agricultural crops + Dairy enterprise
2	Agricultural crops + Horticultural crops
3	Agriculture + Horticulture + Dairy enterprise
Irrigated situation	
1	Agriculture + Dairy enterprise
2	Agriculture + Horticulture + Dairy enterprise

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

S. No	Agro-climatic Zone	Characteristics
1	Northern Dry Zone-3 and Region-2 of the state	This zone comprises of Gadag, Ron, Mundaragi and Naragund blocks. Rainfall ranges from 450-600 mm with 30-35 rainy days mainly from June – September months. Maximum temperature ranges from 36-40° c. This zone is drought prone. Kharif crops grown: Greengram, Groundnut, Onion, Bt. Cotton Chilli, Sunflower, Maize etc Rabi crops grown: Bengalgram, Rabi Sorghum, wheat, sunflower etc
2	Northern Semi Transitional Zone-8 and Region-4 of the state	This zone comprises of Shirahatti block. Average rainfall is 619 mm. Gets rainfall from both South-West and North-East mansoons. Kharif crops grown: Greengram, Kharif Sorghum, Bt-cotton, Groundnut, Sunflower, Millets, Maize, Onion, Chilli etc Rabi crops grown: Rabi Sorghum, Sunflower, Bengal gram, Wheat etc

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Deep black clay soil	More water holding capacity with low infiltration rate of water & clay content is more than 35 percent	274285
2	Medium deep black soils	Moderate water holding capacity with high runoff and less infiltration	12000
3	Red clay soil	Medium water holding capacity and moderately drained soils. Clay content is less than 25 percent	27000
4	Red gravelly clay soils	Less water holding capacity. High infiltration rate and less runoff	67500
5	Red gravelly loam soils	Moderately deep & well drained soils	12500
Total			393285

2.4. Area, Production and Productivity of major crops cultivated in the district (Reference year: 2013-14)

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1	Hybrid Kharif Sorghum (R)	4803	19712	4000
2	Rabi Sorghum	43670	43233	800
3	Maize (Irrigated)	24014	137110	4500
4	Wheat	32351	15550	480
5	Greengram	55211	48828	700
6	Bengalgram	62294	48641	700
7	Groundnut	39721	4995	800
8	Sunflower	16390	10913	500
9	Bt. Cotton(K)	14510	26256	1800
10	Rabi Desi Cotton	11612	8709	750
12	Onion	39289	260028	10 tonnes

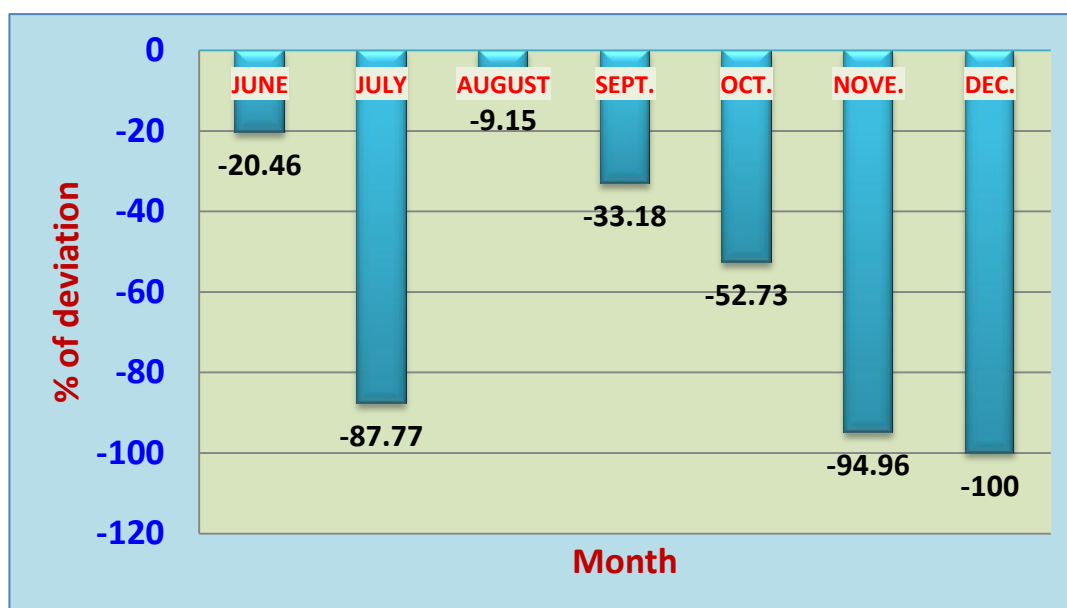
* Latest data is not available

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April, 2015	25.2	38.2	22.1	44
May, 2015	38.1	37.5	21.0	43
June, 2015	67.76	33.4	22.3	61
July, 2015	8.63	33.2	19.9	71
August, 2015	68.5	29.8	20.1	69
September, 2015	91.8	30.1	20.6	68
October, 2015	57.19	29.8	18.9	57
November, 2015	1.65	30.0	16.6	60
December, 2015	0.0	28.0	15.0	54
January, 2016	0.0	30.8	14.8	48
February, 2016	0.0	31.0	18.9	49
March, 2016	-	36.4	20.0	57

* Source: State Department of Agriculture. Data of temp and RH are of previous years.

Monthwise percent of deviation of rainfall for 2015



Normal Rainfall (mm)

June-85.2
 July-70.6
 August-75.4
 September-137.4
 October-121
 November-32.8

2.6. Production and Productivity of Livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	15418	25968 Lit. of milk/day	5.22 Kg/day
<i>Indigenous</i>	158588	45944 Lit of milk/day	2.40 Kg/day
Buffalo	80234	64088 Lit. of milk/day	2.80 Kg/day
Sheep			
<i>Crossbred</i>			
<i>Indigenous</i>	313459	158 tons/year (meat)	15 Kg/animal
Goats	172411	134 tons/year (meat)	16 Kg/animal
Pigs			
<i>Crossbred</i>			
<i>Indigenous</i>			
Rabbits			
Poultry birds (egg production)	158656	72 lakh/year	100 per year

Source: District Statistical Office Reference year: 2013-14

2.7 District profile has been **Updated** for 2015-16 Yes / No: **Yes**

2.8 Details of Operational area / Villages

Sl. No.	Taluk/ block	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 being practiced	Major problems identified	Identified thrust areas based on problems
1	Gadag	Gadag	Beladhadi	2 years	Rabi Sorghum	Decreasing productivity of M 35-1 variety	Assessment of new varieties for higher productivity
					Greengram	Low productivity in China Moong variety	ICM in Greengram (DGGV-2 & BGS-9 variety)
					Groundnut (Bunch)	Low productivity due to imbalanced nutrition & incidence of collar rot & leaf spot	ICM in Groundnut
					Little millet	Low productivity due to usage of local variety	ICM in little millet (Variety: Sukshema)
					Banana	Low productivity due to improper nutrition & incidence of Sigatoka disease	ICM in Banana
					Marigold	Low production in local variety	Introduction of improved variety "Arka Bangara"
					CB Cows & Buffaloes	Low productivity in milch animals due to non-feeding of green fodder and azolla	Demonstration of fodder crops and azolla production & feeding to animals
					Nutrition & reproductive health	Lack of awareness on personal hygiene & nutrition	Promotion of nutrition & reproductive health
					Soil fertility	Less soil fertility due to non-use of organic manures	Preparation & usage of organic inputs for enhancing crop productivity
					Drudgery in home	Smokey kitchen causes health hazards & drudgery in cooking	Introduction of smokeless chulhas

2	Naragund	Naragund	Arishinagodi	2 years	Maize	Low productivity due to imbalanced nutrition, high intensity of weeds and high incidence of stem borer & turcicum leaf blight	ICM in Maize
					Bt. Cotton	Low productivity due to imbalanced nutrition & high incidence of sucking pests	ICM in Bt. Cotton
					Bengalgram	Low productivity due to moisture stress, high incidence of wilt & pod borer	ICM in Bengalgram
					CB Cows & Buffaloes	Low productivity in milch animals due to non-feeding of green fodder & azolla	Demonstration of fodder crops and azolla production & feeding to animals
					Nutrition & reproductive health	Lack of awareness on personal hygiene & nutrition	Promotion of nutrition and reproductive health
					Soil fertility	Less soil fertility due to non-use of organic manures	Preparation & usage of organic inputs for enhancing crop productivity
					Drudgery in home	Smokey kitchen causes health hazards & drudgery in cooking	Introduction of smokeless chulhas
3	Ron	Ron	Kuradagi	3 years	Rabi Sorghum	Decreasing productivity of M 35-1 variety	Assessment of new varieties for higher productivity
					Greengram	Low productivity in China Moong variety	ICM in Greengram (DGGV-2 & BGS-9 variety)
					Bengalgram	Low productivity due to moisture stress, high incidence of wilt & pod borer	ICM in Bengalgram
					Safflower	Low yields due imbalanced nutrition & incidence of aphids	ICM in Safflower
					Onion	Low productivity in Bellary Red variety & its bulbs are having low keeping quality	ICM in Arka Kalyan variety of onion
					CB Cows & Buffaloes	Low productivity in milch animals due to non-feeding of green fodder & azolla	Demonstration of fodder crops and azolla production & feeding to animals
					Nutrition & reproductive health	Lack of awareness on personal hygiene & nutrition	Promotion of nutrition and reproductive health

					Soil fertility	Less soil fertility due to non-use of organic manures	Preparation & usage of organic inputs for enhancing crop productivity
					Drudgery in home	Smokey kitchen causes health hazards & drudgery in cooking	Introduction of smokeless chulhas
					Existing rainfed cropping system	Non-diversification in field crops resulting in income insecurity to the farmers	Introduction of Ashwagandha crop
4	Shirahatti	Shirahatti	Yalavatti	1 year	Rabi Sorghum	Decreasing productivity of M 35-1 variety	Assessment of new varieties for higher productivity
					Greengram	Low productivity in China Moong variety	ICM in Greengram (DGGV-2 & BGS-9 variety)
					Chilli	Low productivity due to high incidence of pest and diseases	ICM in chilli
					Groundnut (Bunch)	Low productivity due to imbalanced nutrition & incidence of collar rot & leaf spot	ICM in Groundnut
					Onion	Low productivity in Bellary Red variety & its bulbs are having low keeping quality	ICM in Arka Kalyan variety of onion
					CB Cows & Buffaloes	Low productivity in milch animals due to non-feeding of green fodder & azolla	Demonstration of fodder crops and azolla production & feeding to animals
					Nutrition & reproductive health	Lack of awareness on personal hygiene & nutrition	Promotion of nutrition and reproductive health
					Soil fertility	Less soil fertility due to non-use of organic manures	Preparation & usage of organic inputs for enhancing crop productivity
					Drudgery in home	Smokey kitchen causes health hazards & drudgery in cooking	Introduction of smokeless chulhas
5	Mundaragi	Mundaragi	Kakkur	2 years	Soil fertility	Less soil fertility due to non-use of organic manures	Preparation & usage of organic inputs for enhancing crop productivity
					CB Cows & Buffaloes	Low productivity in milch animals due to non-feeding of green fodder & azolla	Demonstration of fodder crops and azolla production & feeding to animals
					Nutrition & reproductive health	Lack of awareness on personal hygiene & nutrition	Promotion of nutrition and reproductive health
					Drudgery in home	Smokey kitchen causes health hazards & drudgery in cooking	Introduction of smokeless chulhas

S. No	Thrust area
1	Enhancing soil fertility through preparation and usage of organic inputs
2	Integrated crop management practices in Maize, Bt. Cotton, Bengalgram, Safflower, Bunch groundnut, Chilli & Banana for higher productivity
3	Introduction of new varieties in greengram, little millet, onion and marigold for higher productivity
4	Assessment of new varieties of Rabi Sorghum for higher productivity
5	Demonstration of Ashwagandha as an alternate profitable rabi crop
6	Promotion of grass and fodder crops along with azolla production for enhancing milk yield in milch animals
7	Reducing drudgery of farm women through introduction of smokeless chulha
8	Promotion of proper nutrition and reproductive health among young girls and farm women
9	Organisation of farmers in to FIG/CIG for transfer of specific technologies in group mode
10	Promotion of Farmers' Producers' organizations

PART III - TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
3	3	20	20	162	162	162	162

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
102	147	2830	5310	817	849	26670	45474

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
65.00	75.75	6500	44499

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	20400	20645

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions											
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products		
														No.	Kg
1	ICM	Bt. Cotton	Imbalanced nutrition & sucking pest	-	ICM practices in Bt. Cotton	2	-	-	39	-	-	-	-	-	-
2	ICM	Maize	Imbalanced nutrition & incidence of Turcicum leaf blight	-	ICM practices in Maize	1	-	-	17	-	-	-	-	-	-
3	ICM	Greengram	Incidence of pod borer & powdery mildew	-	ICM in Greengram (DGGV-2 variety)	4	-	-	14	5.00	-	-	-	-	-
4	Varietal assessment	Bengalgram	Wilt & low productivity	Assessment of GBM-2 variety	-	1	-	-	12	-	-	-	-	-	-
5	ICM	Bengalgram	Incidence of wilt & pod borer		ICM in Bengalgram (JAKI-9218 variety)	4	-	-	19	10.00	-	-	-	-	-
6	Varietal assessment	Rabi Sorghum	Low productivity of M 35-1 variety	Assessment of SPV-2217	-	1	-	-	6	-	-	-	-	-	-
7	ICM	Rabi Sorghum	Low productivity of M 35-1 variety	-	ICM in Rabi Sorghum (SPV-2217 variety)	1	-	-	9	2.00	-	-	-	-	-
8	Low soil fertility	Rabi Sorghum	Low yield due to less soil fertility	-	Organic input production	2	-	-	13	-	-	-	-	4	10
9	Varietal demonstration	Little millet	Low productivity of local variety	-	ICM in Little millet (Sukshema	1	-	-	4	-	-	-	-	-	-

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
10	ICM	Groundnut	Low productivity of TMV-2 variety	-	ICM practices in Groundnut	6	-	-	27	-	-	-	-	-	-
11	ICM	Sunflower	Imbalanced nutrition & incidence of head borer & powdery mildew	-	ICM practices in Sunflower	4	-	-	14	-	-	-	-	-	-
12	ICM	Safflower	Incidence of aphid & leaf spot	-	ICM practices	2	-	-	8	-	-	-	-	-	-
13	Thrips management	Onion	Incidence of thrips	Assessment of Thrips management technologies in Onion	-	1	-	-	10	-	-	-	-	-	-
14	ICM	Onion	Low productivity of local variety & low keeping quality of bulbs	-	ICM in Onion (Arka Kalyan variety)	1	-	-	7	10.00	-	-	-	-	-
15	ICM	Banana	Imbalanced nutrition & incidence of Sigatoka disease	-	ICM in Banana	2	-	-	9	-	-	-	-	-	-
16	Varietal demonstration	Marigold	Low yield in local Chrysanthemum variety	-	Demonstration of Arka Bangara variety in Marigold crop	1	-	-	4	-	-	-	-	-	-

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
17	Varietal demonstration	Ashwagandha	Low productivity of existing crops & high cost of cultivation	-	Demonstration of Jawahar variety	1	-	-	7	0.10	-	-	-	-	-
18	Nutritional management	Livestock	Low productivity of milk	-	Feeding of Azolla for enhancing milk productivity	1	-	-	8	0.44	-	-	-	-	-
19	Nutritional management	Livestock	Low productivity of milk	-	Feeding of green fodder for enhancing milk productivity	1	-	-	6	-	40000	-	-	-	-
20	Women & child care	Stimulatory toys	Lack of awareness on stimulatory toys and psychomotor and mental development in children	-	Stimulatory toys for psychomotor development and mental development in children and infants	2	0	0	1	0	0	0	0	0	0

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/ enterprise	No. of programmes conducted				No. of farmers covered															
				OFT	FLD	Trainin	Others (Extn. Activities)	OFT				FLD				Training				Extension Activities			
								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
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	ICM in Bt. Cotton	UAS, Dharwad	Bt. Cotton	-	1	2	39	-	-	-	-	2	-	18	-	47	25	2	0	116	37	50	8
2	ICM in Maize	UAS, Dharwad	Maize	-	1	1	17	-	-	-	-	6	-	4	-	10	0	7	7	187	25	6	23
3	ICM in Greengram	UAS, Dharwad	Greengram	-	1	1	14	-	-	-	-	7	3	7	3	17	4	42	0	110	5	25	10
4	ICM in Bengalgram	UAS, Dharwad	Bengalgram	-	1	4	19	-	-	-	-	34	7	9	-	195	4	65	0	438	36	28	13
5	Assessment of GBM-2 variety	UAS, Raichur	Bengalgram	1	-	1	12	5	0	0	0	-	-	-	-	13	0	1	0	85	0	0	0
6	Assessment of SPV-2217	UAS, Dharwad	Rabi Soghum	1	-	1	6	8	0	1	0	-	-	-	-	13	0	1	0	17	0	1	0
7	ICM in Sorghum	UAS, Dharwad	Rabi Sorghum	-	1	1	9	-	-	-	-	8	2	0	0	15	6	27	15	195	10	8	0
8	ICM in Groundnut	UAS, Dharwad	Groundnut	-	1	6	27	-	-	-	-	15	0	34	1	15	6	27	15	98	15	247	36
9	ICM in Sunflower	UAS, Dharwad	Sunflower	-	1	4	14	-	-	-	-	59	10	6	0	95	2	15	0	269	23	19	8
10	ICM in Safflower	UAS, Dharwad	Safflower	-	1	2	8	-	-	-	-	8	2	0	0	31	0	5	0	45	6	0	0
11	Assessment of Thrips management technologies	UHS, Bagalkot & IIHR, Bengaluru	Onion	1	-	1	10	5	0	1	0	-	-	-	-	10	0	5	0	4	0	18	0
12	ICM in Onion	UHS, Bagalkot & IIHR, Bengaluru	Onion	-	1	1	7	-	-	-	-	10	-	-	-	4	5	3	2	36	0	0	0
13	ICM in Banana	UHS, Bagalkot & IIHR, Bengaluru	Banana	-	1	2	9	-	-	-	-	5	0	5	0	13	0	9	0	40	0	30	0
14	Varietal demonstration	IIHR, Bengaluru	Marigold	-	1	1	10	-	-	-	-	3	0	1	0	10	0	0	0	4	0	18	0
15	New crop demonstration	IIHR, Bengaluru	Ashwagandha	-	1	1	7	-	-	-	-	10	0	0	0	10	0	0	0	150	5	28	0

S.No	Title of Technology	Source of technology	Crop/ enterprise	No.of programmes conducted				No. of farmers covered															
				OFT	FLD	Trainin	Others (Extn. Activities)	OFT				FLD				Training				Extension Activities			
								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
16	Organic input production	UAS, Dharwad	Rabi Sorghum	-	1	2	13	-	-	-	-	4	0	0	0	20	0	10	0	16	0	0	0
17	Varietal demonstration	UAS, Dharwad	Little millet	-	1	4	-	-	-	-	-	-	-	8	2	2	0	10	4	0	0	15	15
18	Fodder production	IGFRI, RRS Dharwad	Livestock	-	1	1	8	-	-	-	-	3	0	1	0	12	0	8	0	86	0	8	0
19	Azolla production	UAS, Dharwad	Livestock	-	1	1	6	-	-	-	-	3	0	7	0	3	0	7	0	31	0	14	0
20	Stimulatory toy kits for psychomotor development	RHSC, UAS, Dharwad	Women & Child care	-	1	2	1	-	-	-	-	1	11	3	5	-	24	-	4	-	45	-	35
21	Importance and value addition of millets	RHSC, UAS, Dharwad	Value addition, nutrition & health	-	-	2	-	-	-	-	-	-	-	-	-	10	-	18	-	-	-	-	
22	Balanced diet & nutrition	RHSC, UAS, Dharwad	Nutrition & health	-	-	5	-	-	-	-	-	-	-	-	-	25	-	77	-	-	-	-	
23	Less smoke producing chulhas		Drudgery	-	-	4	-	-	-	-	-	-	-	-	-	66	-	43	-	-	-	-	

PART IV - On Farm Trial**4.A1. Abstract on the number of technologies assessed in respect of crops**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	1		1							2
Integrated Pest Management					1					1
Total	1		1		1					3

4.A2. Abstract on the number of technologies refined in respect of crops : NIL**4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises : NIL****4.A4. Abstract on the number of technologies refined in respect of livestock enterprises : NIL****4.B. Achievements on technologies Assessed and Refined****4.B.1. Technologies Assessed under various Crops**

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Varietal Evaluation	Rabi Sorghum	Assessment of SPV-2217 variety	9	9	1.2
	Bengalgram	Assessment of GBM-2 variety	5	5	1.2
Integrated Pest Management	Onion	Thrips management technologies	6	6	1.2
Total			20	20	3.6

4.B.2. Technologies Refined under various Crops : NIL**4.B.3. Technologies assessed under Livestock and other enterprises : NIL****4.B.4. Technologies Refined under Livestock and other enterprises : NIL**

4.C1. Results of Technologies Assessed
Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the paramet er	Results of assessment	Feedback from the farmer	Any refineme nt needed	Justific ation for refine ment
1	2	3	4	5	6	7	8	9	10	11	12
Rabi Sorghum	Rainfed	Decrease in productivity of M 35-1 variety	Assessment of SPV-2217 variety for higher productivity	5	<u>Farmers' Practice :</u> • Cultivation of M 35-1 variety	• Grain yield (Q/ha)	10.48	Yield performance of SPV-2217 is 13% more than M 35-1 variety	• Lodging of plants in SPV-2217 is less compared to M 35-1 variety • Duration of SPV- 2217 is 10-12 days more compared to M 35-1 variety	-	-
						• Duration (days)	120				
						• Lodging of plant	12.3%				
					<u>Recommended Practice:</u> • Cultivation of BJV-44 variety	• Grain yield (Q/ha)	11.30				
						• Duration (days)	130				
						• Lodging of plant	7.3%				
					<u>Alternate practice-1</u> • Assessment of SPV-2217 variety	• Grain yield (Q/ha)	11.78				
						• Duration (days)	130				
						• Lodging of plant	6.2%				

Contd..

Technology Assessed	Source of Technology	Production	Unit (Q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
<u>Farmer's practice</u> : Cultivation of M 35-1 variety	-	• Grain yield	10.48	4718	1.31
<u>Recommended practice:</u> • Cultivation of BJV-44 variety	UAS, Dharwad	• Grain yield	11.30	6473	1.42
<u>Alternate practice 1:</u> • Assessment of SPV-2217 variety	UAS, Dharwad	• Grain yield	11.78	7195	1.47

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

1	Title of Technology Assessed	Assessment of SPV-2217 variety for higher productivity																																															
2	Problem Definition	Decrease in the productivity of M 35-1 variety																																															
3	Details of technologies selected for assessment	Alternate practice 1 (AP-1): SPV-2217 variety																																															
4	Source of technology	Alternate practice 1 (AP-1): UAS, Dharwad																																															
5	Production system and thematic area	i) Medium farmers production system under rainfed situation ii) Thematic area: Varietal assessment																																															
6	Performance of the Technology with performance indicators	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">Performance Indicator</th> </tr> <tr> <th>Grain yield (Q/ha)</th> <th>Net Return (Rs./ha)</th> <th>B.C Ratio</th> <th>% increase in yield</th> </tr> </thead> <tbody> <tr> <td>Farmers Practice: Cultivation of local M 35-1 variety</td> <td>10.48</td> <td>4718</td> <td>1.31</td> <td>-</td> </tr> <tr> <td>Recommended Practice: Cultivation of BJV-44 variety</td> <td>11.30</td> <td>6473</td> <td>1.42</td> <td>7.82</td> </tr> <tr> <td>Alternate Practice 1: Assessment of SPV-2217 variety</td> <td>11.78</td> <td>7195</td> <td>1.47</td> <td>12.40</td> </tr> </tbody> </table>					Performance Indicator				Grain yield (Q/ha)	Net Return (Rs./ha)	B.C Ratio	% increase in yield	Farmers Practice: Cultivation of local M 35-1 variety	10.48	4718	1.31	-	Recommended Practice: Cultivation of BJV-44 variety	11.30	6473	1.42	7.82	Alternate Practice 1: Assessment of SPV-2217 variety	11.78	7195	1.47	12.40																				
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Stickiness of dough	II	III	I																																														
Overall acceptability	I	II	I																																														
8	Final recommendation for micro level situation	SPV-2217 variety is accepted by the farmers of Arishinagodi, Yalavatti & Kuradagi cluster of villages. Hence it is recommended in these cluster of villages.																																															
9	Constraints identified and feedback for research	Nil																																															
10	Process of farmers participation and their reaction	Farmers were interested to know the performance of SPV-2217 variety under On-Farm Testing. They actively participated in different stages of crop growth. Farmers have good opinion about productivity & fodder quality and roti quality of SPV-2217 variety compared to other varieties																																															

4.C1. Results of Technologies Assessed
Results of On Farm Trial

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bengalgram	Rainfed	Decrease in the productivity due to incidence of wilt	Assessment of GBM-2 variety under rainfed condition for higher productivity	5	<p><u>Farmers' Practice :</u></p> <ul style="list-style-type: none"> • Cultivation of JG-11 variety <p><u>Recommended Practice:</u></p> <ul style="list-style-type: none"> • Cultivation of JAKI-9218 variety <p><u>Alternate practice-1</u></p> <ul style="list-style-type: none"> • Assessment of GBM-2 variety 	<ul style="list-style-type: none"> • Grain yield (Qtl/ha) • Height of plant (Cm) • Duration of the crop (days) 	<p>06.72</p> <p>32.64</p> <p>99.6</p>	Yield performance of GBM-2 is on par with JAKI-9218 variety	<ul style="list-style-type: none"> • Height of GBM-2 variety is more compared to JG-11 & JAKI-9218 varieties • Duration of GBM-2 is 20-22 days more compared to JG-11 & JAKI-9218 varieties 	-	-
					<ul style="list-style-type: none"> • Grain Yield (Qtl/ha) • Height of plant (Cm) • Duration of the crop (days) 	<p>07.50</p> <p>32.56</p> <p>100.00</p>					
					<ul style="list-style-type: none"> • Grain Yield (Qtl/ha) • Height of plant (Cm) • Duration of the crop (days) 	<p>07.44</p> <p>38.32</p> <p>122</p>					

Contd..

Technology Assessed	Source of Technology	Production	Unit (Q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
<u>Farmer's practice</u> : Cultivation of JG-11 variety	-	<ul style="list-style-type: none"> • Grain yield 	6.72	7153	1.32
<u>Recommended practice:</u> • Cultivation of JAKI-9218 variety	UAS, Dharwad	<ul style="list-style-type: none"> • Grain yield 	7.50	10663	1.47
<u>Alternate practice 1:</u> • Assessment of GBM-2 variety	UAS, Raichur	<ul style="list-style-type: none"> • Grain yield 	7.44	10393	1.46

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

1	Title of Technology Assessed	Assessment of GBM-2 variety under rainfed condition for higher productivity																												
2	Problem Definition	Decrease in the productivity in JG-11 variety grown locally																												
3	Details of technologies selected for assessment	<u>Alternate practice 1</u> (AP-1): GBM-2 variety																												
4	Source of technology	<u>Alternate practice 1</u> (AP-1): UAS, Raichur																												
5	Production system and thematic area	i) Big farmers production system under rainfed situation ii) Thematic area: Varietal assessment																												
6	Performance of the Technology with performance indicators	<table border="1"> <thead> <tr> <th></th> <th colspan="4">Performance Indicator</th> </tr> <tr> <th></th> <th>Grain yield (Q/ha)</th> <th>Net Return (Rs./ha)</th> <th>B.C Ratio</th> <th>% increase in yield</th> </tr> </thead> <tbody> <tr> <td>Farmers Practice: Cultivation of JG-11 variety</td> <td>6.72</td> <td>7153</td> <td>1.32</td> <td>-</td> </tr> <tr> <td>Recommended Practice: Cultivation of JAKI-9218 variety</td> <td>7.50</td> <td>10663</td> <td>1.47</td> <td>11.60</td> </tr> <tr> <td>Alternate Practice 1: Assessment of GBM-2 variety</td> <td>7.44</td> <td>10393</td> <td>1.46</td> <td>10.71</td> </tr> </tbody> </table>					Performance Indicator					Grain yield (Q/ha)	Net Return (Rs./ha)	B.C Ratio	% increase in yield	Farmers Practice: Cultivation of JG-11 variety	6.72	7153	1.32	-	Recommended Practice: Cultivation of JAKI-9218 variety	7.50	10663	1.47	11.60	Alternate Practice 1: Assessment of GBM-2 variety	7.44	10393	1.46	10.71
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Particulars	JG-11	JAKI-9218	GBM-2																											
Crop maturity in days	95-100	95-100	120-122																											
Height of the plant	III	II	I																											
Seed size	Medium	Bold	Bold																											
8	Final recommendation for micro level situation	Since the year 2015-16 has received less rainfall, it was not possible to conclude the experiment. As GBM-2 is long duration variety, it needs more moisture. Hence, the farmers decided to test GBM-2 once again in their fields during 2016-17 rabi season.																												
9	Constraints identified and feedback for research	Nil																												
10	Process of farmers participation and their reaction	The farmers actively participated in different stages of crop growth & provided their reactions & suggestions.																												

4.C1. Results of Technologies Assessed
Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessm ent	Feedback from the farmer	Any refinemen t needed	Justificati on for refinemen t
1	2	3	4	5	6	7	8	9	10	11	12
Onion	Rainfed	Low yield by 20-25% due to incidence of thrips	Assessment of Thrips management technologies in onion	6	<u>Farmers' Practice</u> <ul style="list-style-type: none"> Spraying of Lambda Cylthothrin @ 1ml/lit 	<ul style="list-style-type: none"> Yield (Q/ha) No. of thrips/plant Bulb weight (gms) 	30.03 01.55 50.23	With spray of Verticillium lecani & Nimbecidine 60% of thrips population was reduced compared to Farmers' Practice	Timely management of thrips with Verticillium lecani + Nimbecidine reduced the incidence of thrips and thereby reduced the spread of purple blotch disease in onion	-	-
				<u>Recommended Practice</u> <ul style="list-style-type: none"> Spraying of Dimethoate @ 1.75 ml/lit 	<ul style="list-style-type: none"> Yield (Q/ha) No. of thrips/plant Bulb weight (gms) 	29.95 1.50 50.27					
				<u>Alternate practice 1</u> <ul style="list-style-type: none"> Spraying of Verticillium lecani @ 2 gm + Nimbecidine @ 5 ml/lit 	<ul style="list-style-type: none"> Yield (Q/ha) No. of thrips/plant Bulb weight (gms) 	33.8 0.55 54.84					

Contd..

Technology Assessed	Source of Technology	Production	Unit (Qtl/ha)	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Farmer's practice : • Spraying of Lambda Cylthothrin @ 1ml/lit	-	• Yield	30.03	1557	1.04
<u>Recommended Practice :</u> • Spraying of Dimethoate @ 1.75 ml/lit	UAS, Dharwad	• Yield	29.95	1667	1.04
<u>Alternate Practice 1:</u> • Spraying of Verticillium lecani @ 2 gm + Nimbecidine @ 5 ml/lit	UAS, Dharwad	• Yield	33.8	6406	1.17

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

1	Title of Technology Assessed	Thrips management in onion crop					
2	Problem Definition	Thrips incidence in onion crop reduced the yield by 20-25%					
3	Details of technologies selected for assessment	<u>Farmers' Practice:</u> Spraying of Lambda Cylthothrin @ 1ml/lit <u>Recommended Practice :</u> Spraying of Dimethoate @ 1.75 ml/lit <u>Alternate Practice 1 :</u> Spraying of Verticillium lecani @ 2 gm + Nimbecidin @ 5 ml/lit					
4	Source of technology	UAS, Dharwad					
5	Production system and thematic area	i) One protective irrigation ii) Thrips management					
6	Performance of the Technology with performance indicators	Performance indicator					
			No. of thrips/3 leaves	Bulb weight (gms)	Net return	BCR	% increase in yield
		Farmers' practice: Spraying of Lambda Cylthothrin @ 1ml/lit	1.55	50.23	1557	1.04	-
		Recommended Practice : Spraying of Dimethoate @ 1.75 ml/lit	1.50	50.27	1667	1.04	- 0.26%
	Alternate Practice 1: Spraying of Verticillium lecani @ 2 gm + Nimbecidin @ 5 ml/lit	0.55	54.84	6406	1.17	12.55	

7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Parameters	Spraying of Lambda Cylhothrin @ 1ml/lit	Spraying of Dimethoate @ 1.75 ml/lit	Spraying of Verticillium lecani @ 2 gm + Nimbecidin 5 ml/lit
		Bulb weight	II	III	I
		Purple blotch disease incidence	II	I	III
		Yield (Qtl/ha)	II	III	I
8	Final recommendation for micro level situation	Application of Verticillium lecani + Nimbecidine for management of thrips in onion has increased the yield by 12.55% as compared to local practice. Hence this technology is recommended to farmers growing onion crop in the district			
9	Constraints identified and feedback for research	Verticillium lecani is not available at RSK or at Taluka level. Hence, UAS, Dharwad may make it available in RSKs.			
10	Process of farmers participation and their reaction	Timely management of thrips with Verticillium lecani reduces the incidence of thrips and thereby reduce the spread of the purple blotch disease.			

4.D1. Results of Technologies Refined : NIL

PART V - FRONTLINE DEMONSTRATIONS**5.A. Summary of FLDs implemented during 2014-15**

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1	Oilseeds	Rainfed	Kharif 2015	Groundnut	TMV-2	-	ICM practices	• FeSO ₄ -25 Kg/ha • ZnSO ₄ -25 Kg/ha • Gypsum-500 Kg/ha	4	4	10	0	10	-
2	Oilseeds	Rainfed	Rabi 2015-16	Safflower	Annigeri-1	-	ICM	• ICM practices	4	4	0	10	10	-
3	Pulses	Rainfed	Kharif 2015	Greengram	DGGV-2	-	ICM practices	• ICM practices in DGGV-2 variety	8	8	10	10	20	-
4	Pulses	Rainfed	Rabi 2015-16	Bengalgram	JAKI-9218	-	ICM	• ICM practices in JAKI-9218 variety	8	8	2	18	20	-
5	Cereals	Protective Irrigation	Rabi 2015-16	Maize	-	CP 818	ICM practices	• FeSO ₄ -25 Kg/ha • ZnSO ₄ -25 Kg/ha • Protective kit	4	4	4	6	10	-
6	Cereals	Rainfed	Rabi 2015-16	Rabi Sorghum	SPV-2217	-	Varietal demonstration	Demonstration of SPV-2217 variety	4	4	-	10	10	-
7	Millets	Rainfed	Kharif 2015	Little millet	Sukshema	-	Varietal demonstration	Demonstration of Sukshema variety	4	4	10	-	10	-
8	Vegetables	Rainfed	Kharif 2015-16	Onion	Arka Kalyan	-	ICM	ICM in Arka Kalyan variety	4	4	0	10	10	-
9	Flowers	Irrigated	Kharif 2015-16	Marigold	Arka Bangar	-	Varietal demonstration	Demonstration of Arka Bangar	0.4	0.4	1	3	4	-
10	Fruits	Irrigated	Kharif 2015	Banana	G-9	-	INM	ICM in Banana	4	4	5	5	10	-
11	Medicinal	Rainfed	Rabi 2015	Ashwagandha	Jawahar	-	Varietal introduction	Demonstration of Ashwagandha Jawahar variety	4	4	0	10	10	-

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
12	Fibre	Rainfed	Kharif 2014-15	Bt. Cotton	-	Kanaka - Dr. Brent Niraj	ICM practices	ICM practices in Bt. Cotton	8	8	11	9	20	-
13	Dairy	Irrigated	Kharif 2015-16	Cross bred cow	Jr/HF cross bred cow	-	Nutritional management	Fodder production	0.4	0.4	01	03	04	-
14	Dairy	Pond	Throughout the year	Cross bred cow	Jr/HF cross bred cow	-	Nutritional management	Azolla production	10	10	07	03	10	-
15	Vermicom post	Rainfed	Rabi 2015-16	Sorghum	M 35-1	-	Organic farming	Organic input preparation & usage of Sorghum crop	1.6	1.6	0	4	4	-

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
1	Oilseeds	Rainfed	Kharif 2015	Groundnut	TMV-2	-	ICM in Groundnut	<ul style="list-style-type: none"> • FeSO₄-25 Kg/ha • ZnSO₄-25 Kg/ha • Gypsum-500 Kg/ha 	L	M	M	Rabi Sorghum
2	Oilseeds	Rainfed	Rabi 2015-16	Safflower	Annigeri-1	-	ICM	ICM practices	L	M	H	Greengram/fallow
3	Pulses	Rainfed	Kharif 2015	Greengram	DGGV-2	-	ICM	ICM practices in DGGV-2 variety	L	M	M	Rabi Sorghum/ Onion
4	Pulses	Rainfed	Rabi 2015-16	Bengalgram	JAKI-9218	-	ICM	ICM practices in JAKI-9218	M	M	H	Greengram / fallow

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
								varieties				
5	Cereals	Protective irrigation	Rabi 2015	Maize	-	CP 818	ICM	<ul style="list-style-type: none"> • FeSO₄-25 Kg/ha • ZnSO₄-25 Kg/ha • Protective kit 	M	M	H	Rabi Sorghum
6	Millets	Rainfed	Kharif 2015	Little millet	Sukshe ma	-	Varietal demon stration	Demonstration of Sukshema variety	L	M	M	Spreading groundnut
7	Vegetables	Rainfed	2015-16	Onion	Arka Kalyan	-	ICM	ICM in Arka Kalyan	H	L	H	Rabi jowar
8	Flowers	Irrigated	2014-15	Marigold	Arka Bangar	-	Varietal demon stration	Demonstration of Arka Bangara	H	L	L	Vegetables
9	Fruit	Irrigated	Kharif 2015-16	Banana	G-9	-	ICM	ICM in Banana	H	L	L	Vegetables
10	Medicinal	Rainfed	2015-16	Ashwagan dha	Jawahar	-	Varietal introdu ction	Demonstration of Jawahar Ashwagandha	L	H	L	Rabi Sorghum
11	Fodder	Irrigated	2015-16	Cross bred cow	Jr/HF cross bred cow	-	Nutritional mangeme nt	Fodder production	L	M	H	
12	Fibre	Rainfed	Kharif 2015-16	Bt. Cotton	-	Kanaka Dr. Brent	ICM in Bt. Cotton	ICM practices in Bt. Cotton	L	M	L	Groundnut & Maize
13	Vermicom post (Rabi Sorghum)	Rainfed	Rabi 2015-16	Sorghum	M 35-1	-	Organic farming	• Organic input production and usage of Sorghum crop	L	L	H	Greengram & Sunflower

5.B. Results of Frontline Demonstrations

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)					% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check	Gross Cost		Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
							H	L	A											
Oilseeds	Safflower	Annigeri-1	-	Rainfed	10	4	6.25	4.50	5.41	4.40	22.95	18238	15148	-3090	0.83	17115	12320	-4831	0.72	
Pulses																				
Greengram	ICM practices in DGGV-2 variety	DGGV-2	-	Rainfed	10	4	4.358	2.50	3.45	2.87	20.21	23483	24150	667	1.03	21667	20090	-1577	0.93	
Bengalgram	ICM in Bengalgram varieties (JAKI-9218)	JAKI-9218	-	Rainfed	20	8	12.50	7.50	9.49	7.97	19.07	30466	42705	12239	1.40	29157	35865	6708	1.23	
Cereals																				
Maize	ICM in Maize	-	CP 818	Protective irrigation	10	4	24.75	16.50	18.98	15.32	23.89	17370	22782	5412	1.30	14655	18383	3731	1.25	
Rabi Sorghum	Demonstration of SPV-2217	SPV-2217	-	Rainfed	10	4	16.50	8.25	12.23	10.71	14.19	18495	23247	4752	1.26	17367	20349	2982	1.17	
Millets																				
Little millet	Demonstration of Sukshema variety	Sukshema	-	Rainfed	10	4	8.25	4.12	5.50	4.36	26.14	16350	13200	-3150	0.81	15762	10464	-5298	0.66	
Vegetables																				
Onion	ICM in Arka Kalyan	Arka Kalyan	-	Rainfed	10	4	Crop vitiated due to non receipt of rain													
Flowers	Demonstration of Arka Bangar variety	Arka Bangar	-	Irrigated	4	0.4	Crop vitiated due to high temperature & also due to supply of under-grown seedlings													
Fruit	Banana	G-9	-	Irrigated	10	4	125.3	105.7	110	96.5	14.76	270600	553075	282475	2.0	244180	481260	237080	1.97	

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Fibre crops like cotton																			
Bt. Cotton	ICM in Bt. Cotton	-	Kanaka, Dr. Brent, Niraj	Rainfed	20	8	13.75	3.25	8.45	7.36	14.96	20787	34522	13735	1.67	20266	29844	9578	1.48
Medicinal	Demonstration of Jawahar variety in Ashwagandha crop	Jawahar	-	Rainfed	10	4	4.50	2.15	2.50	-	-	21766	38040	16274	1.70	-	-	-	-

1) Data on additional parameters other than yield : ICM IN MAIZE

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Total number of grains per cob (Nos)	529	463
1000 grain weight (gms)	18.55	18.37

2) Data on additional parameters other than yield : ICM IN GEENGRAM

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Incidence of pod borer (Number/plant)	0.33	1.23
Incidence of powdery mildew (%)	4	13

3)Data on additional parameters other than yield : ICM IN BENGALGRAM

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Incidence of pod borer (Number/plant)	0.41	1.15
Incidence of wilt (%)	3.0	6.5

4)Data on additional parameters other than yield : DEMONSTRATION OF SPV-2217 IN RABI SORGHUM

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Percentage of lodging	9.78	16.54

5)Data on additional parameters other than yield : ICM IN SAFFLOWER

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Incidence of aphids/leaf (Nos.)	0.30	1.20
Incidence of leaf spot (%)	5.80	18.0

6)Data on additional parameters other than yield : ICM IN Bt. COTTON

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Incidence of jassids/3 leaves (Nos.)	1.60	0.75
Incidence of leaf spot (%)	8.50	16.33
No. of bolls / plant	26.97	24.47

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Milk yield in liters/day			Check if any	% Increase	*Economics of demonstration (Rs./unit)				*Economics of check (Rs./unit)			
					Demo					Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy																	
CB Cow	Fodder production	Jr/HF CB cow	4	4	6.5	5.5	6.0	4.88	24.06	21544	40819	19275	1.89	30681	32578	1897	1.06
CB Cow	Azolla production	Jr/HF CB cow	10	10	9.4	5.2	7.4	6.95	7.05	37242	47620	10378	1.27	35973	44306	8334	1.23

IMPROVED VARIETIES OF PERENNIAL GRASSES FOR FODDER PRODUCTION**Comparative analysis of perennial grasses**

Parameters recorded at 1 st harvesting stage	Hybrid Napier – DHN 6	Guinea grass	Rhodes grass	Signal grass	Lucerne
Average Bio-mass per 100 sq.ft.	30 Kg	20 Kg	3.5 Kg	4.5 Kg	4.0 Kg
Average No. of tillers /root stock	48	54	68	58	8
Average height of the grass (ft.)	5.8	1.9	4.0	2.6	2.0
Palatability (%) through quantity consumption test	75-85 % (Very good)	90-100% (Excellent)	90-100% (Excellent)	75-85 % (Very good)	90-100% (Excellent)
Feedback from farmers about salient features of perennial grasses					
Drought tolerance	No	Yes	Moderately Yes	Yes	No
Soil erosion control	Yes	Yes	Yes	Yes	Yes
Regeneration condition	Yes	Yes	Yes	Yes	Yes
Suitable to grow on the farm bunds	Yes	Yes	Yes	Yes	Yes

5.B.3. Fisheries : NIL

5.B.4. Other enterprises

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										
Vermicompost	Organic input preparation & usage in Rabi Sorghum crop	M 35-1	4	10'x3'x2' (2 units)	15.4	8.8	12.8	10.8	26.83	18483	38215	19731	2.05	15877	30797	14420	1.93
Stimulatory toys (women and child care)	Stimulatory toy kits for psychomotor development in infants and children	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Data on Additional parameters

1) Data on additional parameters other than yield : ORGANIC INPUT PRODUCTION AND USAGE IN RABI SORGHUM

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Fodder production (tons/ha)	2.93	2.55

2) Data on additional parameters : STIMULATORY TOYS FOR CHILDREN

Parameter with unit	Demo	Local
Psychomotor Development Index (PDI)	93	81
Mental Development Index (MDI)	87	79

The stimulatory toys helped to gain additional 12% increase in indices / units in psychomotor development and 8% (indices) in mental development.

Standard measure

Indices : Raw scores were converted to standard scores according to age of the children.

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

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

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	10	836	
2	Farmers Training	39	1141	
3	Media coverage	31	-	
4	Training for extension functionaries	2	45	
5	Exhibition	3	38645	

PART VI – DEMONSTRATIONS ON CROP HYBRIDS**Demonstration details on crop hybrids**

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Maize	ICM in Maize	CP-818	10	4	24.75	16.50	18.98	15.32	23.89	17370	22782	5412	1.30	14655	18386	3731	1.25
Bt. Cotton	ICM in Bt. Cotton	Kanaka, Dr. Brent, Niraj	20	8	19.50	11.25	14.40	11.50	25.21%	37780	58219	20439	1.54	37005	46474	9469	1.26

H-High L-Low, A-Average

PART VII. TRAINING**7.A. Training of Farmers and Farm Women including sponsored training programmes (On campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Fem ale	Total	Male	Fem ale	Total
Crop Production										
Integrated Crop Management	18	533	28	561	132	20	152	665	48	713
Soil and Water Conservation	4	89	87	176	14	10	24	103	97	200
Contingent crop planning	1	38	0	38	7	0	7	45	0	45
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	4	5	9	56	5	61	60	10	70
b) Fruits										
Layout and Management of Orchards	1	37	0	37	1	0	1	38	0	38
Cultivation of Fruit	2	21	0	21	53	3	56	74	3	77
g) Medicinal and Aromatic Plants										
Nursery management	1	10	0	10	0	0	0	10	0	10
Soil Health and Fertility Management										
Soil fertility management	14	456	155	611	95	28	123	551	183	734
Integrated water management	12	612	0	612	115	0	115	727	0	727
Management of Problematic soils	9	411	0	411	76	0	76	487	0	487
Livestock Production and Management										
Dairy Management	4	36	25	61	17	13	30	53	38	91
Feed and Fodder technology	2	0	0	0	0	58	58	0	58	58
Plant Protection										
Integrated Pest Management	4	104	15	119	9	0	9	113	15	128
Organic manures production	1	26	0	26	2	0	2	28	0	28
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	1	16	0	16	0	0	0	16	0	16
TOTAL	76	2393	315	2708	577	137	714	2960	452	3412

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Crop Diversification	1	0	0	0	23	0	23	23	0	23
Integrated Crop Management	12	226	13	239	79	13	92	305	26	331
Soil and Water Conservation	1	0	0	0	17	0	17	17	0	17
Others (pl.specify) Contingent crop planning	6	212	52	264	95	11	106	307	63	370
Horticulture										
a) Vegetable Crops										
Contingent crop planning	2	100	10	110	10	4	14	110	14	124
Soil Health and Fertility Management										
Integrated nutrient management	1	0	0	0	15	0	15	15	0	15
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	10	10	0	10	10
Processing and cooking	1	0	0	0	0	14	14	0	14	14
Value addition	3	12	48	60	2	33	35	14	81	95
Women empowerment	1	0	14	14	0	4	04	0	18	18
Location specific drudgery reduction	2	0	66	66	0	14	14	0	80	80
Women and child care	1	0	25	25	0	10	10	0	35	35
Others (pl.specify)										
Health & nutrition	1	0	0	0	0	15	15	0	15	15
Plant Protection										
Integrated Pest Management	18	400	56	456	181	9	190	581	65	646
Integrated Disease Management	1	16	0	16	2	0	2	18	0	18
Production of Inputs at site										
Organic manures production	1	69	0	69	8	0	8	77	0	77
Capacity Building and Group Dynamics										
Formation and Management of CIGs / FIGs	9	161	0	161	57	0	57	218	0	218
TOTAL	59	1196	284	1046	489	137	471	1254	277	1517

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Commercial fruit production	1	5	0	5	5	0	5	10	0	10
Dairying	5	96	38	134	31	2	33	127	40	167
Cultivation of flower crops	1	4	0	4	0	0	0	4	0	4
TOTAL	7	105	38	143	36	2	38	141	40	181

7.D. Training for Rural Youths 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
Dairying	2	35	30	65	1	2	3	36	32	68
TOTAL	2	35	30	65	1	2	3	36	32	68

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	2	85	0	85	12	0	12	97	0	97
Integrated Nutrient management	1	34	3	37	6	2	8	40	5	45
Total	3	119	3	122	18	2	20	137	5	142

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

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops	20	718	114	832	124	18	142	842	132	974
3.	Soil health and fertility management	30	1209	155	1364	255	28	283	1464	183	1647
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.e.	Others (pl.specify) Dairy management	3	66	31	97	32	5	37	98	36	134
	Sericulture	2	53	4	57	5	0	5	58	4	62
	Total	55	2046	304	2350	416	51	467	2462	355	2817

Details of sponsoring agencies involved

- | | |
|---|--------------------------------|
| i) CADA | iv) Reliance Foundation |
| ii) Karnataka State Department of Agriculture | v) Sericulture Department, GOK |
| iii) Department of Horticulture, GOK | |

7.H. Details of Vocational Training Programmes carried out by NGOs for rural youths : NIL

PART VIII – EXTENSION ACTIVITIES**Extension Programmes (including extension activities undertaken in FLD programmes)**

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	240	227	14	241
Field Day	10	812	24	836
Group discussions	10	513	6	519
Kisan Mela	1	-	-	
Exhibition	3	38100	545	38645
Scientists' visit to farmers field	195	912	0	912
Farmers' seminar/workshop	4	959	47	1006
Method Demonstrations	3	90	0	90
Celebration of important days	1	95	2	97
Special day celebration	2	365	10	375
Lectures delivered as resource persons	8	478	4	482
Farmers meeting	20	676	25	701
Farmers visit to KVK	348	1179	62	1241
Soil health camp	1	150	0	150
Meeting/Workshop with Extension Personnel	8	17	162	179
Total	859	44573	901	45474

Details of other extension programmes

Particulars	Number
Electronic Media	1
Extension Literature	6 (1200 copies)
News Letter	5 (7000 copies)
News paper coverage	31
Technical Bulletins	4 (20000 copies)
Radio Talks	3
Popular Articles	2
Total	52 (28200 copies)

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)	Rabi Sorghum	SPV-2217		1.25	5625	33
		BJV-44		0.27	1215	9
		M 35-1		0.60	2700	20
Oilseeds	Groundnut	G2-52		10.0	75000	15
		GPBD-4		15.0	112500	35
		Safflower	A-1	0.50	2750	10
Pulses	Bengalgram	JAKI-9218		8.0	49600	40
		GBM-2		3.2	19200	6
		JG-11		1.0	6200	5
		DGGV-2		23.85	201050	135
Commercial crops						
Vegetables	Onion	Arka-kalyan		11.98	958400	131

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Fodder crop seeds	Lucerne	-	-	0.0529	4058	12
	Perennial jowar	-	-	0.0475	2850	6
Total				75.75	1441145	457

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
Fruits	Mango	Alphonso		379	37900	5
	Jamun			50	5000	1
Fodder crop saplings						
	Guinea grass	-	-	8948	6626	10
	Congo signal	-	-	17281	11258	10
	Hybrid napier grass	-	-	4826	4826	7
	Rhodes grass	-	-	12015	7746	10
Forest Species	Teak	-	-	1000	7000	30
Total				44499	80356	73

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	Vermiwash	120 lit	3600	15
	Vermicompost	20400 Kgs	45800	53
Bio-Agents	Earthworms	201 Kgs	63100	47
Others (specify)	Azolla	44.5 Kgs	4450	31
Total		20645	116950	146

9.D. Production of livestock materials : NIL

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

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

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

Date of Start	Periodicity	No. of Copies distributed
English News Letters – January, 2003	Quarterly	2000
Krishi Darpana in Kannada language – October 2015	Quarterly	5000

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Integrated watershed management and people's participation – A case study of Ichalahalla watershed (Special publication of the Geological Society of India, No.5, 2016)	Dr. L.G.Hiregoudar, Programme Coordinator, Mr. N.H.Bhandi, SMS (Soil Science) & Mr. S.H.Adapur, SMS (Ag. Extension)	01
	Nutrition status of young girls of Gadag district (Asian Mirror – International Journal of Research, Vol:2(1), Feb, 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science)	01
	Parental involvement in dealing with reproductive health issues among young girls (International Journal of Interdisciplinary and Multi disciplinary Sciences, IJIMS, Vol:2(10), 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science)	01
	Impact of kisan mobile advisory services on Agricultural technology dissemination (KVK Symposium held at UAS, Dharwad)	Dr.L.G.Hiregoudar, Programme Coordinator, Mr. S.H.Adapur, SMS(Ag. Extension & Mrs. Lalita Asuti, Programme Assistant (Computers)	01
	Impact of skill upgradation trainings in dairy enterprise In Gadag district (KVK Symposium held at UAS, Dharwad)	Dr.L.G.Hiregoudar, Programme Coordinator, Mr. S.H.Adapur, SMS(Ag. Extension, Dr. B.M.Murgod, Programme Assistant (Animal Science)	01
Technical bulletin	Krishi Vigyan Patrike in Kannada language – Quarterly published bulletin	All staff members	20000
Popular articles	Success story of integrated farmer (Sharad Krishi – May, 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science) & Mr. S.K.Mudlapur, SMS (Plant protection)	01
	Dryland horticulture (Krishi Jagaran-December, 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science)	01
	Value addition in Rabi Sorghum (Krishi Kamadhenu – April, 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science)	01
	SAGY activities (Navodaya-July, 2015)	Dr. Sudha S. Rayanagoudar, SMS (Home Science)	01
Extension literature	ICM in Bt. Cotton	Mr. V.D.Vaikunthe, SMS (Agronomy) & Mr. S.K.Mudlapur, SMS (Plant Protection)	200

	Production technology in Bengalgram	Mr. V.D.Vaikunthe, SMS (Agronomy) & Mr. S.K.Mudlapur, SMS (Plant Protection)	300
	Production technology in Groundnut	Mr. V.D.Vaikunthe, SMS (Agronomy) & Mr. S.K.Mudlapur, SMS (Plant Protection)	200
	Production technology in Sunflower	Mr. V.D.Vaikunthe, SMS (Agronomy) & Mr. S.K.Mudlapur, SMS (Plant Protection)	200
	Production technology in Mango	Mr. K.T.Patil SMS (Horticulture) & Mr. S.K.Mudlapur, SMS (Plant Protection)	200
	Production technology in Ashwagandha	Mr. K.T.Patil, SMS (Horticulture)	100
TOTAL			22806

10.B. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
1	CD	Information system on Bengalgram	150

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).

I) MULTIPLE CROP AND ENTERPRISE PRODUCTION SYSTEM OF A SMALL FARMER

Age is never a binding factor for Shri Ningappa Parappa Kittali, sixty year old illiterate farmer from Hanganakatti village in Gadag block. He never said no to the innovative agriculture technologies. He came in contact with KVK, a decade ago during implementation of FLD programme of KVK. He used to cultivate foxtail millet, horsegram and spreading groundnut in his 2 acres and 8 guntas of land having red soil. The income from the land was not sufficient enough to feed his family of 5 members. He along with his family members used to work as daily wage labourers during most of part of the year.



During field visit, Shri Kittali requested KVK Experts to recommend him alternate method of farming techniques to enhance his farm income. KVK Experts examined the land and suggested him



to adopt sericulture based production system having sub component of coconut, dairy enterprise and vegetable cultivation. During 2009, Shri Kittali dug a borewell with the financial support from Karnataka Vikas Grameen Bank, Soratur. He planted Mulberry (V-1 variety) in one acre of land. During 2007, he constructed silkworm rearing shed with the support

from Department of Sericulture. He started rearing of silk worm. He used to take 4 crops in a year with average cocoon yield of 8 quintals per year. He started getting an average income of Rs. 2.5 to 3.0 lakhs per year. He repaid the loan taken from the Bank. During 2010, Shri Kittali planted 40

coconut plants all along his field's border. He started seed production activities of bitter gourd and ladies finger crops with technical support of KVK Experts. Shri Kittali owns 2 oxen and 2 cows and established vermicompost and Jeevamruta production units under the guidance of KVK Experts. The residual waste of sericulture enterprise and agriculture waste is being converted in to vermicompost. Since 2012, he has been using organic inputs to his farm and has stopped use of chemical fertilizers. During 2014-15, Shri Kittali has planted One acre of Banana under Comprehensive Horticulture



Development Scheme of Department of Horticulture and harvested 22 tons of Banana during 2015-16, earning an income of Rs.65000/-. Thus sericulture based production system under organic cultivation has ensured the livelihood for the farmer. He said that he is getting a net annual income of Rs.3 lakhs per year. He also says that he is

expecting first harvest of Coconut crop and his income is going to be increased hereafter. Out of the profit earned, he has invested on leasing of 20 acre land of other farmers, which fetches him Rs.1.5 - 2.0 lakh income per year

During 2011-12 the farmer has been recognized as Best Sericulturist by State Department of Sericulture and awarded a prize of Rs.15000/-.

Now Shri Kittali and his family members are no more working as daily wage labourers. Instead they work on their farm. He says that success of his farming is due to adoption of multiple income generating enterprises as recommended by KVK scientists. He also says that adoption of organic farming practices has substantially reduced the cost of cultivation and ensured steady income. He always remembers the farm advisory services rendered by the KVK Experts. His hard work coupled with support of Government Schemes and farm advisory services of KVK had made him a model farmer in the village.

II) SUCCESSFUL RAGI MALT ENTERPRISE

Mrs. Jyotikala aged 30 is a housewife residing in Gadag city. She is a graduate in Science and Education. She is married to Mr Rajbabu Deepali who is running a small business on provisional articles. The income from the business was not sufficient to run the family. Mrs. Jyotikala applied many times for the teachers job but she did not get it. She wanted to start home scale enterprise so as to earn some income for the family. During 2007-08, she contacted KVK to know about the various homescale enterprises. Among the various options, she decided to start home



scale ragi malt production unit as she has some knowledge on the production of ragi malt. During 2008-09, Mrs. Jyotikala attended training on Entrepreneurship Development in food



processing organized by KVK. During the training, she learnt preparation of ragi malt, packaging, branding and marketing. She learnt about requirement of licenses and permission to start the enterprise. After the training programme, she started home scale production as “Deepali Food Products”. She obtained license from City Municipality, Gadag to start the enterprise. She registered her firm with District Industry Centre (DIC), Gadag and obtained Provisional Registration Certificate. She also got license from Department of Weight and Measurements.

Initially Mrs. Jyotikala invested Rs. 15000/- towards purchase of weighing machines, sealing machine, tubs, big size bowls, strainers and stoves. She also invested Rs. 20000 towards purchase of Silver foil and packing material with attractive labels. Locally grown raw materials viz; ragi, greengram, wheat were procured and used for the preparation of ragi malt.

During the initial period of starting her enterprise in the year 2008, she produced 100 packets of ragimalt, each packet weighing 200 gms. The products were sold to local provisional stores, medical



shops, kirani shops and departmental stores. Within one week all the products were sold and there was lot of demand for her product. She raised the production to 200 packets per month and subsequently to 400-500 packets based on the demand in the market. Her products are also being sold through the KVK sales unit. She has fixed the Maximum Retail Price (MRP) @

Rs. 50 per 200 gms. Mrs. Jyotikala says that out of MRP price, sixty to seventy per cent cost is incurred towards production and marketing and 30 to 40 percent is the net profit. During first three years of initiation of enterprise, she was earning a net income of Rs. 4000 to 5000 per month. She observed that there was lot of demand for her products, but she was unable to meet that demand as hers was a home scale enterprises and finance was the main constraint. She needed a capital investment of Rs. 2.50 lakh to procure machines such as milling machine, pulveriser and roaster and wanted own or rented building. In this regard, during 2014, she approached the Syndicate Bank, Gadag for the financial support. By seeing Smt. Jyothikala's interest and the Bank Transactions she made, Bank Manager agreed to provide Rs.2.30 lakhs to expand her enterprises. Accordingly the loan was sanctioned in 2015. She contacted KVK and collected information on various machineries and manufacturer details. Many a times Smt. Jyothikala and her husband visited KVK and made use of the KVK Food Processing Unit for drying of sprouted Ragi, Greengram and Wheat especially during winter season.

Further, KVK Home Scientist advised Smt. Jyothikala to approach District Industries and Commerce



Flour sieve

Department. Accordingly she approached and submitted the application under bussiness loan category. By seeing the details of technical guidance taken by Smt. Jyotikala from KVK, the Official agreed to provide subsidy to the Ragi Malt Enterprise.

Then Mrs.Jyothikala got sanction letter for Rs.55000 as subsidy component to the total loan amount. The various machines like pulveriser, Cabinet Drier, Shifter cum Siever, Leg operated Sealing machine were purchased and installed



them in a rented shed. With the KVK guidance the FSSAI licence was also obtained with the Registration No. 21215081000151 under “Deepali Food Products” Brand name. The demand for the Ragi malt has increased day by day. The turnover during 2015-16 is more than Rs.6.0 lakhs and production has reached one quintal per day. Jyothikala’s husband is actively involved in production as well as taking care of marketing of Ragimalt. At present the product is marketed in all districts of Karnataka State. On an average Jyothikala earns Rs. 25000 to Rs 30000 per month. During discussion with Jyothikala, she remembers the days where she used to prepare 20 to 30 Kgs of Ragimalt per month and now it has been increased to a quintal per day. She happily said that her enterprise has grown into many folds with technical support and guidance of KVK Home Scientist.

Recently they purchased Motor Bike and are happy about the enterprise in which they are involved. With regard to future plans, Jyothikala says that she is thinking of adding some more food products in her industry which are having health benefits under the guidance from KVK.

III) MARKETING SKILLS OF A MANGO PRODUCER

How to do direct marketing of fruits?. Here is an answer with Mr.Ravi Ranganagoudar of Hulkoti village in Gadag block. If you ask a question on marketing immediately he takes a class for you because he is a MBA graduate. He has not only studied MBA, but implemented every principles of it in his agricultural profession.

During Mango season his marketing style is very special and different from others. Mr. Ravi has developed his brand of Mango i.e “Ananya Alphonso”. During the season when he travels in bus or train, he always carry a bag with fruits of Mango produced from his farm. He takes fruits from the bag, cut it and give it to fellow passengers to taste the fruit. People who taste his Mango never miss a chance to take visiting card from Mr. Ravi. This is how he develops rapport with the Mango lovers and based on their order he sends Mango parcel to the customers and the customers directly remit the amount to his Bank account. These customers are having continuous contact with Mr. Ravi throughout the Mango season. The customers also contact Mr. Ravi through e-mail and place the order.

Attraction of customers is not an issue unless we have a quality fruit of Mangoes, says Mr. Ravi.

Immediately after his completion of MBA, he never looked for jobs. He wanted to abreast agriculture as his profession. He approached KVK for the possible intervention in his profession. He had land of 5.5 Acres having red soil. During 2006, he planted 357 Alphonso variety of Mango in his farm based on the recommendation of KVK Scientists. Now the Mango orchard is 9 years old. He has been taking income from Mango since 4 years. During 2014-15, he harvested 15 tonnes of fruits, earning an income of Rs. 4 lakhs through direct marketing with his regular customers. This year (2015-16) he is expecting an income of Rs.10 lakhs.

Mr. Ravi takes care of Mango orchard in every aspect under the guidance of KVK Scientists. Soil and water management, application of organic nutrients and balanced dose of fertilizers, timely management of pest and disease and post harvest management are followed as per the advise of scientists, says Mr.Ravi. Further he says quality production is possible only through the adoption of above package of practices.

Mr. Ravi encourages his fellow Mango farmers to adopt the technologies for quality production. There are lot of customers in Malls of Bengaluru. His fruits are very popular among IT firms, because of its colour, aroma, uniform size and most important is that the fruits are ripened using natural ripening procedure. He is popularly known as Mango Ravi among Mango lovers.

Mr. Ravi says that farmers should not feel inferior in marketing of their produce. Farmer should produce marketable produce keeping in mind the customers' requirement. Emphasis should be given for direct marketing of produce.

Mr. Ravi appreciate the concept of "Mango Mela", an initiative of KVK for direct sale of fruits. This Mela has provided Producers-Consumers Forum which has benefited both the parties. The Mango Mela not only enhanced the profit but also made us to learn many marketing skills, says Mr. Ravi.

IV) INTEGRATED FARMING : SUCCESS STORY OF YOUNG FARMER

Kadacol is a small village 12 Km away from Shirahatti taluk of Gadag district. The village is interior and the transportation facilities are very meager.

Here lives a farmer named Sharanappa Basappa Navi, aged 30 years who has started experimenting in his own farm by cultivating variety of crops at the age of 15-16 years. He owns 5 acres and 25 guntas of irrigated land and studied up to 10th standard. At young age, during school holidays, he himself involved in all agricultural operations along with taking care of milch animals.



His father used to grow the traditional crops like Sunflower, Cotton, Hybrid Sorghum and foxtail millet. On an average the family used to get an income of Rs.20000 to 30000 per year. The income he got from agriculture was not sufficient to meet the family needs. During 2002, he convinced his father and for the first time Sharanappa introduced the Onion crop in 2.5 acres. Luckily the onion price has gone up and he got Rs.1800 to 2000 per quintal of Onion and he sold the onion in Bengaluru market. Totally, from the onion crop he got a profit of Rs.1.75 lakh. By seeing this, he discontinued the education and completely involved in agriculture.

He started thinking as to how to enhance the family income, what are the crops that can be grown etc.



At last Sharanappa decided to grow Tuberose and he was first farmer to introduce Tuberose in Kadakol village. He cultivated intercropping of Tuberose with curry leaves. During the same year, i.e 2013-14 ICAR-K.H.Patil KVK adopted the Kadakol village for implementation of various programmes. He participated in all technology transfer programmes

organized by KVK. He showed more interest in developing his farm into integrated farm. Accordingly, KVK identified Sharanappa as an IFS farmer and introduced all the relevant technologies in his farm.

With technical guidance of KVK Scientists, Sharanappa started four vermicompost production units with the pit size of 15' x 3' x 2' . On an average the unit produces 50-60 quintals of vermicompost and earn Rs.20000 to 30000 per year. In addition, he started production of Jeevamrutha in his farm. The organic inputs produced are being used by Sharanappa in his own farm for both agriculture and horticulture crops.



In 2014-15, Sharanappa received horticulture plants from KVK. He planted 300 rose plants, 50 drumstick and 200 coconut plants. In the same year he procured Arka Kalyan Onion seeds and got good yield and profit.



In addition to agriculture and horticulture

crops, he owns 2 Jersey Cows and utilize the cow dung for vermicompost production. With the technical support of KVK, he established Azolla unit and started cultivation of Napier, Guinea Grass and Rhodes grasses for his cows. In addition, he is supplying the grass slips to the farmers of his village and neighbouring villages. On an average from 5 acres of land, he is earning a net profit of Rs.161000. The details are furnished below.



Crop	Area / Number	Production	Income (Rs.)
Bt. Cotton	2 Ac	13 Quintals	45500
Curry leaf	1 Ac	7.5 Quintals	22500
Beetle leaf	15 Guntas	3 lakh leaves	30000
Jersey cow	2 Nos.	2200 liters of milk	60000
Onion	1 Ac	60 Quintals	42500
Rose	300 Nos.	4000 flowers	8000
Total			208000
Expenditure			40000



When asked “Is agriculture a profitable venture?”, he suddenly said “Yes, agriculture is profitable when it is integrated with horticulture and dairy farming”. Further he said that the farmers have to adopt new technologies and choose profitable crops under the guidance of KVK Scientists and make Farm diversification. Now Sharanappa has become a Model Farmer and a respectful Resource Person to the young farmers of his village and neighbouring clusters.

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

Innovative methodology of TOT developed and used during the year

1) Information system on Bengalgram



KVK Scientists and Programme Assistant (Computers) developed Information System on Bengalgram using ASP.net Platform. Then Compact Discs containing the information system were sent to all 107 Gram Panchayats in the district as well as to computer knowledgeable farmers and extension workers including NGOs in the district. Through this, farmers cultivating Bengalgram were able to get information and visuals through computer. This helped large number of farmers to take up timely control measures against pod borer in Bengalgram crop and to get higher productivity.

2) Krishi Vigyan Patrike



KVK is publishing quarterly technical bulletin named as Krishi Vigyan Patrike. In this, detailed information about package of practices of all the crops grown in every quarter are being published. Earlier the Patrike was sent to only 500 farmers. From this year, it is being sent to all villages and kept in Gram Panchayat libraries and additionally sent to ex-trainees of KVK. Through this methodology, the technologies are reaching nook and corner of the district and lot of enquiries are received by the Scientists of KVK for getting solutions to their field problems. In this way, it has become possible for KVK to reach large number of farmers in the district.

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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Crops	To reduce the infestation of weed i.e Cyprus rotundus, the farmers practice weekly harrowing throughout the end of rainy season i.e from April to	Every week harrowing with blade goes on cutting the fresh sprouting meristems of the weed Cyprus rotundus. This weekly cutting results in exhausting of the nutrients present in the bulbs of weeds and no chance for

		October. Then they will take up Rabi Sorghum crop.	photosynthesis by leaves. Hence, the roots get deprived of the fresh photosynthates on one hand and on other the stored energy gets lost due to growth of fresh meristems every week, but they get cut off with harrowing blade. Thus, the weed has no chance of re-growth when weekly harrowing is done regularly from April to October.
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10.F. Indicate the specific training need analysis tools/methodology followed for

➤ **Identification of courses for farmers/farm women**

Training of courses for farmers and farm women are identified based on the problem analysis of the crops/enterprises during focused group discussion with farmers before action plan preparation.

➤ **Rural Youth**

Training need analysis of rural youths is done in consultation with village leaders and youths in the adopted villages

➤ **In-service personnel**

Training for extension personnel of development departments are decided based on the thrust areas identified under SREP document.

10.G. Field activities

- i. Number of villages adopted : 5
- ii. No. of farm families selected : 200
- iii. No. of survey/PRA conducted : 1

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : 2005-06

- 1. Year of establishment : 01.07.2005
- 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
	A) Non-recurring contingency		
1	Spectrophotometer	1	0.60
2	Flame photometer	1	0.50
3	pH meter	1	0.10
4	Conductivity bridge	1	0.10
5	Physical balance	1	0.10
6	Chemical balance	1	1.00
7	Water distillation still	1	1.00
8	Orbital shaker	2	0.60
9	Shaker	2	0.50
10	Refrigerator	1	0.20
11	Oven with optional attachments	1	0.15
12	Hot plate with all models	1	0.25
13	Grinder with motor	1	0.30
14	Laboratory set up (all basic facilities)		3.20

Sl. No	Name of the Equipment	Qty.	Cost
	Total (A)		8.60
	A) Recurring contingency		
1	Chemical & glasswares		2.50
2	Miscellaneous items		0.20
3	Soil and plant sample processing and storage facility		0.50
	Total (B)		3.20
	Grand Total (A+B)		11.80

Details of samples analyzed so far since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	3995	3764	657	197045
Water Samples	2037	1989	565	121100
Plant samples	56	56	8	4200
Manure samples				
Others (specify)				
Total	6088	3764	657	322345

Details of samples analyzed during the 2015-16 :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	855	778	195	68495
Water Samples	573	553	163	51475
Plant samples				
Manure samples				
Others (specify)				
Total	1424	778	195	119970

10.I. Technology Week celebration during 2015-16 Yes/No, If Yes

Technology Week celebration during 2015-16 Yes/No, If Yes

Period of observing Technology Week: From 23-30, December, 2015 and 28-01-2016

Total number of farmers visited : 9413

Total number of agencies involved : 6

Number of demonstrations visited by the farmers within KVK campus : 10

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	2	248	Gosthies on Export Quality Chilli production & post harvest technology
Lectures organized	4	294	Production technology of Bengalgram, Banana, Chilli & other crops
Exhibition	1	8145	Agriculture technologies and farm implements
Film show	1	200	About KVK activities & programmes
Fair	1	132	Field day & exhibition in farmers' fair
Farm Visit	1	394	Visit to crop demonstrations
Supply of Literature (No.)	8	6000	Literature on Rabi crops, animal nutrition and Krishi Vigyan Patrike

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

PART XI. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Introduction of JAKI-9218 variety in Bengalgram	200	35	40000	50000
Introduction of DGGV-2 variety in Greengram	75	20	35000	45000
Management of Mirid bug & midge in Bt. Cotton	150	20	55000	65000
Management of Apion Beetle (Pod borer) in Greengram	200	25	30000	45000
Management of leaf minor in Groundnut	125	20	50000	65000
Introduction of Arka Kalyan variety in Onion	250	25	36000	55000

11.B. Cases of large scale adoption

1) Use of Spiral Separator for grading and cleaning of pulses

Pulses like Greengram and Bengalgram are grown in large area in Gadag district. The productivity of these two pulses depends on the rainfall and the incidence of pest and diseases during production stage. Due to these problems the farmers harvest grains mixed with small portion of broken seeds and uneven sized grains. These mixed grains are directly marketed by farmers without grading and it fetches lesser price. KVK demonstrated the spiral separator in adopted villages along with the supply of literature. More than 50% of farmers in adopted villages are using the spiral separator and are getting additional amount of Rs.300-400 per Quintal of Bengalgram & Greengram. By seeing the benefit of spiral separator, the Reliance Foundation, NGO operating in Gadag district under the technical support of KVK introduced Spiral Separators in 9 adopted villages where in more than 60% of farmers are using them for cleaning and grading of Bengalgram. These farmers opined that spiral separator is labour saving as well as enables in getting higher price for their produce as the dust, broken grain, small sized grains & waste particles are removed. This technology has spread in more than 20 villages of Gadag district in a span of three years.



2) Adoption of Cycle weeder

Small and marginal farmers constitute major farming population in Gadag district. Most of



these categories of farmers do not possess bullocks for agricultural operations. Agricultural operations are carried out on rental basis. Inter-cultivation is one of the important operation. Sometimes timely inter-cultivation is not possible due to non-availability of hired bullocks. KVK introduced Cycle Weeder technology through Front Line Demonstrations. The weeder is user-friendly and a woman covers one acre per day in crops like greengram, bengalgram, rabi sorghum and groundnut. The weeder not only removes the weed

but also conserves soil moisture by covering the cracks developed on the surface of soil. Farmers were very much impressed by the use of cycle weeder. KVK has given the cycle weeders to SHGs and the members are using these weeders on rotation basis.

About 50 percent of small and marginal farmers are using the cycle weeders in the adopted villages of KVK. By seeing the advantages of cycle weeder, Reliance Foundation, an NGO working in Gadag district provided 10 cycle weeders to each village in its 9 adopted villages in



Gadag district. The farmers of these nine villages were very happy about using these cycle weeders and opined that the Cycle Weeders helped to reduce the cost incurred for intercultivation operations.

Due to horizontal spread of the technology, there is lot of demand from the farmers in 11 Raitha Sampark Kendras operating in Gadag district. As a result in each RSK, about 50 Cycle Weeders were purchased by farmers on subsidy basis and still there is lot of demand as expressed by extension personnel of State Department of Agriculture. This shows the large scale adoption of this technology by the farmers.

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

IMPACT ANALYSIS OF VERMICOMPOST TECHNOLOGY

INTRODUCTION:

Increasing frequency of agricultural droughts coupled with high cost of chemical fertilizers has really created distress situation for the farming community of Gadag district. Unsustainable productivity of crops and income insecurity from agricultural profession has been the great concern. Looking in to this grave situation, KVK has made production and promotion of organic inputs especially vermicompost as one of the thrust areas for addressing issues concerning the farming community. KVK has been playing a significant role in promotion of vermicompost technology through sensitization programme, Front Line Demonstrations, training programmes, extension activities, production and sale of earthworms. KVK has been motivating farmers to adopt vermicompost technology as it not only conserves the soil moisture but reduces the cost of cultivation i.e cost incurred on purchase of chemical fertilizers. Keeping in mind the significance of the technology and its impact, a study has been conducted by KVK to know the impact of technology.

INTERVENTIONS OF KVK:

Decreasing productivity of crops due to moisture stress during critical stages of crop growth coupled with high cost of chemical fertilizers were the major issues. In this context KVK made thorough analysis of the situation and decided to promote vermicompost technology for sustainable crop production. The following interventions were made by KVK.

i) Sensitization programmes:

KVK organised sensitization camps in the villages to apprise the farmers about importance of vermicompost technology and its application for sustainable agricultural productivity. Farmers were sensitised through video shows, success stories and supply of extension literatures on vermicompost production technology. During the period from 2005-06 to 2014-15, KVK organised 232 sensitization camps in the villages.

ii) Capacity building training programmes:

The awareness programmes organised in the villages have created lot of impact among the farming community on production and application of vermicompost. Taking farmers interest in to consideration, KVK organised capacity building training programmes both on and off campus on vermicompost production technology. Farmers were exposed to various skills involved in the production of vermicompost. KVK collaborated with State Department of Agriculture and Khadi Village Industries Board for organising the training programme. Exposure visit to vermicompost production units of farmers were organised and experience sharing was facilitated. During the period from 2005-06 to 2014-15, KVK organised 109 skill trainings and 3221 farmers and farm women participated. The details of training programmes organised is presented in Table-1.

Table-1: Yearwise trainings organised

Year	No. of training courses	Number of farmers
2005-06	8	248
2006-07	14	402
2007-08	12	337
2008-09	14	378
2009-10	10	282
2010-11	12	348
2011-12	9	263
2012-13	6	182
2013-14	13	440
2014-15	11	341
Total	109	3221

Taluka wise details of farmers trained:

Taluka wise details of training programmes organised and the farmers participated is presented in Table-2.

Table-2: Taluka wise number of farmers trained

Name of taluka	Number of courses	Number of farmers
Gadag	29	973
Mundaragi	19	658
Shirahatti	22	610
Ron	25	620
Naragund	14	360
Total	111	3221

iii) Farm advisory services

After attending training programme at KVK, farmers started vermicompost production units. Post training advisory services were rendered to farmers who have started vermicompost units. There was continuous interaction between farmers and KVK experts during field visits and off campus programme. KVK rendered 1011 advisory services to farmers during 2005-06 to 2014-15. During the same period, KVK prepared and supplied 158 project proposals on vermicompost technology to farmers. Further, facilitated farmers to get loan from Banks and support from various schemes of Government of Karnataka.

iv) Sale of earthworm by KVK:

Sale of earthworm is another major intervention of KVK to support the farmers for establishment of vermicompost units. This intervention has played a major role in promotion of vermicompost technology in Gadag district. During the 10 years period from 2005-06 to 2014-15, KVK sold 1852 Kg of earthworm to farmers. Besides this, there was also sale of earthworms from farmer to farmer. The details of sale of earthworm by KVK is presented in Table-3.

Table-3 : Yearwise sale of earthworms by KVK

Year	Total sale (Kgs)
2005-06	120
2006-07	94
2007-08	127
2008-09	250
2009-10	180
2010-11	220
2011-12	310
2012-13	177
2013-14	200
2014-15	174
Total	1852

IMPACT STUDY DETAILS:

It is evident from the KVK intervention that there has been wide spread adoption of vermicompost technology by the farmers. In order to assess the impact of the technology on farming community, a study was conducted by KVK with following objectives.

Objectives:

- i) To know the quantum of production of vermicompost
- ii) To know the profit of farmers involved in vermicompost production
- iii) To know the spread of technology from farmer to farmer
- iv) To ascertain the area covered under application of vermicompost technologies
- v) To know the reduction in the cost incurred on chemical fertilisers
- vi) To know sale of earthworm and vermicompost

Methodology of study:

Out of total farmers trained by KVK on vermicompost production technology, one hundred farmers who have been Frontline Farmers and are closely associated with KVK have been purposefully selected for the study. Simple structured schedule was developed and information was collected during ex-trainee meet, on and off campus trainings and extension activities of KVK.

RESULTS OF THE IMPACT STUDY:

- (1) **Age of Farmers:** Out of one hundred farmers, 43 belonged to middle aged category followed by again 43 farmers under old age category (Table-1). Only 14 farmers were young.

Table-4: Classification of farmers based on age (N=100)

Particulars	Number
Young farmers (Less than 35 years)	14
Middle aged farmers (36-50 years)	43
Old aged farmers (More than 51 years)	43

- (2) **Type of Farmers:** Majority of the farmers belonged to small farmer category (No.44) followed by 42 big farmers. There were 13 farmers belonging to marginal farming category. One farmer belonged to landless category.

Table-5: Categorisation based on type of farmers (N=100)

Particulars	Numbers
Marginal farmers	13
Small farmers	44
Big farmers	42
Landless	1

(3) Caste of Farmers:

Majority of farmers belonged to backward community (57 Nos) followed by 27 other communities. There were 11 Scheduled Tribe and 5 Scheduled Caste farmers.

Table-6: Categorisation based on Caste (N=100)

Particulars	Numbers
Scheduled caste	5
Scheduled tribe	11
Backward community	57
Others	27

(4) Production Capacity of Vermicompost Units :

The perusal of Table-7 reveals that 36 farmers have produced vermicompost in below 50 tons annual production category. This is followed by 27 farmers in the category of 50-100 tons. About 25 farmers produced vermicompost in 101-150 ton annual production category. As many as 12 farmers fall in the category of more than 151 tons of vermicompost production per year.

**Table-7: Category wise production of vermicompost during 2014-15**

Particulars	Numbers			
	Less than 50 tons	50-100 tons	101-150 tons	More than 151 tons
Marginal farmers	6	6	1	0
Small farmers	12	9	14	7
Big farmers	17	12	10	5
Landless	1	0	0	0
Total	36	27	25	12

(5) Sale of Earthworm by Farmers:

During three years period from 2012-13 to 2014-15, farmers have sold 2088 Kgs of earthworms and earned an income of Rs.619800 (Table-8). Earthworms were sold to 761 farmers. There has been an increasing trend over the years with respect to sale of earthworms which can be implied that more number of farmers were inclined towards vermicompost production and application which has reduced dependency on chemical fertilisers.

**Table-8: Yearwise sale of earthworm by farmers**

Year	Quantity (Kgs)	Income earned (Rs.)	Sold to number of farmers
2012-13	383	113700	136
2013-14	745	222900	266
2014-15	960	283200	359
Total	2088	619800	761

(6) Sale of Vermicompost by Farmers:

It is revealed from the Table-9 that farmers have produced 2128 tons of vermicompost during 2012-13 to 2014-15. They have retained 1673 tons for their use and sold 455 tons of vermicompost to 673 farmers. From the sale of vermicompost, farmers have earned an income of Rs.17.99 lakhs. There has been an increasing trend over the years with respect to production and sale of vermicompost indicating increased interest in production and application of vermicompost for sustainable production and reduced dependency on chemical fertilisers.

Table-9 : Yearwise sale of vermicompost by farmers

Year	Total production (tons)	Quantity retained (tons)	Quantity sold (tons)	Income from sale (Lakhs)	Sold to number of farmers
2012-13	496	407.2	88.8	3.55	131
2013-14	678	511.8	166.2	6.44	253
2014-15	954	754.0	200.0	8.00	289
Total	2128	1673	455	17.99	673

(7) Quantity of Application of Vermicompost:

It is evident from the Table-10 that farmers have applied fair quantity of vermicompost to the crops cultivated by them. They have applied large quantities of vermicompost to commercial crops like Maize, Onion and Bt. Cotton. The table also reveals that 1991 hectare area was covered under vermicompost application in different crops during 2012-13 to 2014-15.

Table-10: Average quantity of application of vermicompost to different crops

Sl. No.	Crop	No. of farmers	Quantity applied (Qtl/ha)	Area applied (ha)
1	Bengalgram	11	8.72	338
2	Greengram	21	8.14	552
3	Chilli	3	10.66	25
4	Bt. Cotton	7	9.7	51
5	Groundnut	29	8.17	402
6	Maize	5	11.00	35
7	Sunflower	8	7.50	171
8	Onion	7	11.57	42
9	Rabi sorghum	20	7.00	275
10	Wheat	10	8.50	100
Total				1991

(8) Productivity, Net Returns and Reduced Cost of Cultivation:

Depending on the production capacity of vermicompost and the land holding farmers have applied vermicompost to various crops.

Table-11 depicts the productivity of crops, net returns gained and reduced cost through application of vermicompost by the farmers. The table reveals that there has been a good productivity of crops and net returns obtained even during drought years. This is the motivation factor for farmers to adopt vermicompost technology for sustainable productivity and income. Farmers here also saved considerable amount of money on cost of chemical fertilisers (Rs.65.76 lakhs). It clearly indicates that farmers have been largely benefited by the adoption of vermicompost technology.

Table- 11 : Details of productivity, net returns and reduced cost

Sl. No.	Crop	No. of farmers	Average yield (Qtl/ha)	Average net returns (Rs./ha)	Average reduced cost (Rs./ha)	Total reduced cost (Rs. In lakhs)
1	Bengalgram	11	11.58	15750	3175	10.73
2	Greengram	21	8.04	18511	3363	18.56
3	Bt. Cotton	7	12.78	23437	3606	1.83
4	Chilli	3	9.33	37500	4708	1.17
5	Groundnut	29	11.15	15062	3450	13.86
6	Sunflower	8	10.78	11665	3200	5.47
7	Maize	5	35.00	19168	3950	1.38
8	Onion	7	67.23	58076	4384	1.84
9	Rabi Sorghum	20	14.80	17050	3000	8.25
10	Wheat	10	08.30	11910	2670	2.67
Total						65.76

CONCLUSION:

The study conducted to know the impact of vermicompost technology revealed that there has been significant impact related to production of vermicompost and its application. The study reveals that the respondent farmers have sold earthworm worth of Rs.61 lakhs to 761 farmers. This has not only spread the technology but also provided income to farmers. The respondent farmers have also earned Rs.17 lakhs from the sale of vermicompost to other farmers. The impact study has clearly brought out the fact that there has been reduced average cost of cultivation to the tune of Rs.65.76 lakhs due to use of vermicompost technology in different crops. Further there has been production of sustainable yield in all crops and the farmers got good net returns even during agricultural drought years.

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State Department of Agriculture	➤ Organisation of KVK-ATMA interface meetings
	➤ Technological backstopping of ATMA staff
	➤ Organisation of training programmes under various schemes
	➤ Participation of KVK staff as Resource Person in programmes of Department
	➤ Joint publication of extension literature under ATMA
	➤ Joint organisation of technology week
	➤ Implementation of researchable issues
	➤ Joint field visit with ATMA staff
University of Agricultural Sciences, Dharwad	➤ Implementation of farm trials
	➤ Facilitation of placement of B.Sc.(Agri) and Home Science students under RAWWE programme
State Department of Horticulture	➤ Organisation of trainings programme under Comprehensive Horticulture Development Programme
Command Area Development Authority, Belgaum	➤ Organisation of trainings for Malaprabha Command area farmers
State Department of Sericulture	➤ Organisation of training programmes
Zilla Panchayat, Gadag	➤ Organisation of skill trainings for SHGs
Department of Animal Husbandry and Veterinary services	➤ Organisation of training programmes
Reliance Foundation, Gadag	➤ Technical facilitation to programmes
Spices Board, Haveri	➤ Organisation of seminar on Export Quality Chilli production

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

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district **Yes**

If yes, role of KVK in preparation of SREP of the district?: Participating as one of member in the Committee preparing SREP.

Coordination activities between KVK and ATMA during 2015-16

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	KVK-ATMA interface meetings	6	6	Meetings are organized by KVK
		ATMA steering committee	1	-	
02	Research projects	Assessment of Rabi Sorghum varieties	-	1	
03	Training programmes	IPM in Bengalgram	2	1	
04	Demonstrations	Seed treatment	2	-	
		Hand gloves for harvesting of Bengaglram	2	2	
05	Extension Programmes				
	Kisan Mela	Field day & farmers' fair	1	-	
	Technology Week	Joint organization	-	1	
	Exposure visit	Exposure visit of ATMA staff to KVK FLD fields	-	1	
	Exhibition	Joint organization during technology week celebrations	-	1	
	Soil health camps	Collection of soil samples and analysis	1	1	
	Farmers-scientist interaction	Interaction meeting	1	-	
06	Publications				
	Extension Literature	Joint publication of literature on Bengalgram crop	1	(Literature provided by KVK)	

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

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

12.F. Details of linkage with RKVY : NIL

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Fruits									
Tamarind			0.60	PKM-1 & DTS-1	Fruit	25.00	22500	82000	
Amla			0.60	Krishna, Kanchan	Fruit	26.45	10250	38800	
Mango			0.80	Alphonso	Fruit	12.00	21200	110000	
Guava			1.00	Lucknow-49	Fruit	9.00	4500	8100	
Sapota			1.00	Cricket ball	Fruit	10.00	4500	7260	
Vegetables									
Onion	10.07.15	15.11.15	0.80	Arka Kalyan	Bulb	21.0	11000	16000	
Onion	01.09.15	17.01.16	0.80	Arka Kalyan	Bulb	58.80	23875	25296	
Onion Seed production	01.12.15	06.04.16	0.80	Arka Kalyan	Seeds	1.40	61492	140000	
Others (specify)									

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermicompost	204 Qtl	18650	45800	
2	Earthworms	2.01 Qtl	7500	63100	
3	Azolla	0.44 Qtl	1200	4450	

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Buffaloes	Local	Milk	1938 lit	59773	62034	
2	Cow	Doeni X HF	Milk	1292 lit	29000	32308	
3	Sheep	Rambullet local cross	Lamb	1 lamb	800	4000	
4	Goat	Jamunapuri local cross	Kid	1 kid	760	3500	

13.E. Utilization of hostel facilities

Accommodation available (No. of beds): 50

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April, 2015	0	0	-
May, 2015	0	0	
June, 2015	0	0	
July, 2015	373	18	
August, 2015	26	8	
September, 2015	397	9	
October, 2015	343	7	
November, 2015	387	10	
December, 2015	539	11	
January, 2016	254	10	
February, 2016	177	12	
March, 2016	295	45	

13.F. Database management

S. No	Database target	Database created
1	OFT	Already maintained
2	FLD	Already maintained
3	Training database	Already maintained
4	Seeds & planting material	Already maintained
5	All Extension activities	Already maintained
6	Farmers visiting to KVK	Already maintained
7	Field visits	Already maintained
8	District database	Already maintained
9	Soil & water test details	Already maintained
10	Database on KVK (i.e regarding KVK details, host institute details, staff information, KVK land information, KVK infrastructure, demo units, vehicle, office, lab, farm equipment & library)	Already maintained
11	HRD of KVK staff (i.e training/seminar/workshop attended by KVK staff)	Already maintained
12	Publications of KVK activities in news papers	Already maintained
13	Villages covered by KVK since inception	Already maintained
14	Kisan mobile advisory services – Subscribers and messages sent	Already maintained
15	Farm implements	Already maintained
16	Citizen's Client Charter	Already maintained

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.		Activities conducted					Quantity of water harvested / in '000 litres	Area irrigate / utilization pattern
				No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
100000	100000	Graded bund construction	5054.68 cm	4	1	0	120	18	350	3
		Construction of waste weirs	5 Nos.							
		1) 1.52 feet crust length	7 Nos.							
		2) 1.83 feet crust length	4 Nos.							
		3) 2.44 feet crust length	3 Nos.							
		4) 2.74 feet crust length	3 Nos.							
		5) 3.00 feet crust length								
		Farm pond	2 Nos.							
		Infiltration wells								
		a) Infiltration Well	9 Nos.							
		b) Common tank	1 No.							
		Bore well recharge pit	1 No.							
		Sub surface dam	2 Nos.							
		Soak pits	147							
		Drip irrigation	5 Ha.							

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.		Activities conducted					Quantity of water harvested / in '000 litres	Area irrigated / utilization pattern
				No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
		system for Dry land Horticulture								
		Check dam	1							

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	SBI	Gadag	0838	KHP KVK Hulkoti	10824829153	582002002	SBIN0000838

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

S.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	136.19	136.19	136.19
2	Traveling allowances	1.00	1.00	0.999
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1.75	1.75	1.749
B	POL, repair of vehicles, tractor and equipments	1.75	1.75	1.749
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.81	0.81	0.810
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.16	0.16	0.159
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	2.79	2.79	2.789
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.14	0.14	0.139
G	Extension Activities	0.75	0.75	0.749
H	Library	0.05	0.05	0.050
TOTAL (A)		145.39	145.39	145.385
B. Non-Recurring Contingencies				
1	Works	0	0	0
2	Equipments including SWTL & Furniture	0	0	0
3	Vehicle (Four wheeler/Two wheeler, please specify)	0	0	0
4	Library (Purchase of assets like books & journals)	0	0	0
TOTAL (B)		0	0	0
C. REVOLVING FUND		0	0	0
GRAND TOTAL (A+B+C)		145.39	145.39	145.385

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2013 to March 2014	7.75	21.48	20.49	8.74
April 2014 to March 2015	8.74	13.65	25.17	1.22
April 2015 to March 2016	1.22	48.00	46.95	2.27

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Start date	End date
Dr. L.G.Hiregoudar	Programme coordinator	National conference of KVKs	ICAR Institute, Patna	26/07/2015	27/07/2015
		Review workshop of KVKs	UAHS, Shivamogga	20/05/2015	23/05/2015
Mr. N.H.Bhandi	Subject Matter Specialist	Orientation training on NICRA project	CIRDA, Hyderabad	30/04/2014	30/04/2014
		NICRA Review Cum Action Plan workshop	Zonal Project Directorate, Bengaluru	11/05/2015	12/05/2015
		Seminar on "Integrated and sustainable water management"	Geological society of India, Bengaluru	28/05/2015	28/05/2015
		Enabling processes for Livelihood Enhancement in Rainfed Agriculture	CRIDA, Hyderabad	24/06/2015	03/07/2015
Mr. V.D.Vaikunthe	Subject Matter Specialist	Orientation training on NICRA project	CIRDA, Hyderabad	30/04/2014	30/04/2014
		Contingent crop planning	GKVK, Bengaluru	19/05/2015	19/05/2015
		Workshop on rabi pulses & oilseeds under NFSM	UAS, Bengaluru	30/09/2015	01/10/2015
		Training on pulse production	KVK-Kalaburagi	21/12/2015	22/12/2015
Mr. S.H.Adapur	Subject Matter Specialist	Workshop on training need analysis & preparation of annual content under ATMA	STU, UAS, Dharwad	03/07/2015	03/07/2015
		Training on best practices / innovations in NeGP agriculture & allied sector	UAS, Dharwad	30/07/2015	31/07/2015
		International conference on innovative digital media development for sustainable development for sustainable agriculture development	UAS, Bengaluru	05/01/2016	07/01/2016

Name of the staff	Designation	Title of the training programme	Institute where attended	Start date	End date
		Awareness programme on equity grant, credit guarantee & ventury capital schemes for FPOs organised by SFAC, Bengaluru	Zilla Panchayat, Gadag	22/02/2016	22/02/2016
Dr. Sudha S. Rayanagoudar	Subject Matter Specialist	National conference on science and technology for reaching the unreached	UAS, RHSc, Dharwad	28/01/2016	30/01/2016
Dr. B.M. Murgod	Programme Assistant (Animal Science)	Production of designer milk, meat & egg by dietary manipulation	Department of Animal Nutiriton Veterinary college & Research Institute, Namakkal, TamilNadu	16/11/2015	25/11/2015
Mrs. Lalita S. Asuti	Programme Assistant (Computers)	Workshop on interaction of users and developers of OLRs	KVK, Mysore	19/01/2016	20/01/2016

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

I) EFFORTS MADE FOR UPSCALING / POPULARISATION

1) SPV-2217 VARIETY OF RABI SORGHUM

- 25 Qtls seed material is available from previous year OFT farmers & KVK farm and this shall be made available to other farmers in KVK adopted villages
- FLDs in 8 ha has been planned for implementation during 2016-17 in 4 villages
- KVK has planned to take up seed production in 5 ha area in it's farm during 2016-17

2) JAKI-9218 VARIETY OF BENGALGRAM

i) Efforts made during 2014-15

- Conducted FLDs in 6 ha area covering 15 farmers
- KSDA: Facilitation for conducting seed production in 18 ha covering 30 farmers
- Approx. seed material available : 180 Qtls.

Extension activities

- 12 trainings covering 300 farmers
- 16 field visits & 35 farm advisory services
- Supply of literature : 2
- Kissan mobile services : 10
- Field Days: 2
- Interaction with farmers: 3

ii) Efforts made during 2015-16

- Cluster FLDs under NFSM (KVK): Conducted FLDs in 12 ha area covering 30 farmers
- NFSM: Facilitation for conducting demonstration in 150 ha area covering 150 farmers through KSDA

iii) Plan for 2016-17

- Approx. seed material available : 1350 Qtls.
- Approx. area coverage: 2175 ha

3) ARKA KALYAN VARIETY IN ONION

i) Efforts made during 2014-15

- Conducted FLD in 125 ha area covering 250 farmers
- Organized 40 trainings covering 650 farmers
- 850 Farm Advisory services covering 1250 farmers
- Supplied 85 Qtls. of seeds covering 310 villages

Because of these efforts variety was spread in 5000 ha

ii) Efforts made during 2015-16

- Conducted FLD in 4 ha area covering 10 farmers
- Organized 3 trainings covering 90 farmers
- Farm Advisory services covering to farmers
- Supplied 40 Qtls. of seeds covering 20 villages

Seeds supplied to additional area of 1000 ha.

4) FODDER CROPS AND AZOLLA

i) Efforts made so far up to 2014-15

- FLD on Fodder production - Area: 3.6 ha Demonstrations: 36
- FLD on Azolla production - Demonstrations: 26
- Quantity of grass slips supplied by KVK: 132264 Nos
- Quantity of grass seeds supplied by KVK: 6 kg.
- Quantity of Azolla culture supplied by KVK: 160 kg
- Developed 1 Ac fodder bank at KVK farm
- Training programme on Fodder, Grass & Azolla production for 3600 farmers, farmwomen & rural youths.
- Supply of literature on fodder & Azolla production: 2500

ii) Efforts made during 2015-16

- FLD on Fodder production - Area: 0.4 ha Demonstrations: 4
- FLD on Azolla production - Demonstrations: 10
- Quantity of grass slips supplied by KVK: 19690 Nos
- Quantity of grass seeds supplied by KVK: 10 kg
- Quantity of Azolla culture supplied by KVK: 45 kg
- Training programme on Fodder, Grass & Azolla production for 954 farmers, farmwomen & rural youths.
- Supply of literature on fodder & Azolla production: 650

5) ORGANIC INPUT PREPARATION AND USAGE

i) Previous years' efforts

- 24 FLDs in organic input production (Vermicompost, Jeevamrutha & Azolla) were carried out in previous years.
- Organised 111 trainings for 3012 participants up to 2014-15
- 1100 farm advisory services were rendered to the trained farmers
- Supplied 1942 Kg of earth worms to trained farmers
- Also supplied 2000 Kg of Azolla culture to trained farmers
- As a result 642 vermicompost units were established by the trained farmers
- They also established 458 Jeevamrutha units
- 258 Azolla units for value addition to vermicompost have also been established by the trained farmers
- Their annual production is more than 10000 tons of Vermicompost per annum.

ii) Efforts during 2015-16

- 8 FLDs in Kuradagi, Beladhadi, Arishinagodi & Mahalingpur villages were carried out during the year.
- Organised 5 trainings (158 participants) on organic input production for these villages
- Supplied 201 Kg of earth worms to trainee farmers
- Supplied 45 Kg of Azolla culture to trainee farmers
- 358 farm advisory services were rendered to trained farmers
- Collaborated with Dept. of Agriculture (ATMA), Reliance Foundation, Reddy Foundation & KVK Frontline farmers for spread of technology through various demonstrations
- As a result, 28 organic input production units have been established during the year
- During 2015-16, these trained farmers produced 120 tons of Vermicompost, 280 Kg of Azolla & 8000 liters of Jeevamrutha and they applied this quantity to different crops during this year.

6) DRYLAND MANGO CULTIVATION

i) Efforts made so far up to 2014-15

- Conducted FLDs on dryland Mango in many villages in the district
- Organized 53 trainings on dryland Mango cultivation for 1460 farmers
- 360 Farm Advisory services were rendered to 830 trainee farmers
- Supplied required Mango grafts to trainee farmers
- As a result the Mango cultivation in dryland condition has spread in an area of 930 ha covering 28 villages in the district.
- Farmers are getting an attractive remuneration of Rs.25000 – 50000 / acre even during agricultural drought conditions. Hence, KVK has made this 930 ha of farmers land drought – proof.

ii) Efforts made during 2015-16

- Collaborated with Reliance Foundation and brought 60 hectares area under dryland Mango cultivation
- Collaborated with Sujala watershed and brought 45 hectares under Mango cultivation
- Collaborated with State Horticulture Department under NHM and brought 10 hectares under Mango cultivation
- Under NICRA project, Mango was planted in 5 hectares area under dryland situation.
- Hence these efforts have resulted in spread of Mango cultivation in an additional area of 120 ha.

II) COLLABORATIVE EFFORTS MADE WITH DEPARTMENTS AND OTHER AGENCIES

1) SOIL HEALTH MANAGEMENT

i) Efforts made so far up to 2014-15

- FLD on INM in major crops were conducted in an area of 34 ha with 85 demonstrations covering 85 number of farmers
- Capacity building trainings have been conducted for 6000 farmers on soil, crop & water management in command area.
- 37 Awareness programmes were carried out on Soil Health Management covering 2900 farmers.
- 25 Method Demonstrations on Soil sample collection covering 800 farmers have been organised.
- Trainings on Soil fertility management were organised for 2400 farmers & 290 Extension functionaries.
- 1995 Soil samples have been analysed and site specific nutrient recommendations have been made.
- 1335 Water samples were analysed & water management technologies were recommended to farmers
- 6 radio programmes on Soil Health Management were aired through All India Radio, Dharwad.

ii) Efforts made during 2015-16

- 8 Awareness programmes were conducted on Soil Health Management covering 650 farmers in 6 villages.
- Capacity building trainings were imparted to 1260 farmers on soil, crop & water management in command area.
- 855 Soil samples were analysed and 1950 Soil Health Cards issued to farmers
- 573 Water samples were analysed & water management technologies given to farmers
- 540 farmers & 60 Extension functionaries were trained on Soil Health Management
- 260 Extension persons were trained on Soil sample collection methodology on Grid basis
- World Soil Health day Programmes was organized on 05th December, 2015

2) RAIN WATER HARVESTING

i) Efforts made so far up to 2015-16

- 26 Awareness programmes conducted on Rain Water Harvesting covering 2400 farmers in 18 villages
- 1500 farmers & 290 Extension functionaries are trained on Rain Water Harvesting in collaboration with KSDA under Krishi Bhagya Yojane
- Model Farm Ponds are constructed in KVK land
- The trained farmers under Krishi Bhagya Yojane got 3800 farm ponds constructed during the year which can hold 96.82 lakh liters of water with one good rain. This has created lot of impact in the entire district which is prone to frequent drought and also this effort has motivated majority of the farmers to have one farm pond in each of their field.

III) SUPPORT TO FARMERS ORGANISATIONS

1) FIGS AND CIGS ORGANISED BY KVK DURING THE YEAR

Name	Numbers	No. of farmers	KVK Interventions
FIGs	61	1314	<ul style="list-style-type: none"> • Orientation training given to 17 FIGs • Training on soil fertility management and rabi crop production technology (15 Nos.) • Soil sample analysis (217 Nos.) • Supply of earthworms (62 Kg) • Supply of literature
CIGs on Chrysanthemum, Onion, Chilli, Pulses & Banana	7	167	<ul style="list-style-type: none"> • Orientation training given to 7 CIGs • Training on soil health management (6 Nos.) • Training on production technology (5 Nos.) • Soil sample analysis (72 Nos.) • Supply of literature



2) TECHNICAL SUPPORT TO FARMERS' PRODUCER ORGANISATION BY KVK

Name	No. of member farmers	KVK Interventions
Hulkoti Mango Producer's Association	83	<ul style="list-style-type: none"> • Training on Mango production technology (2 Nos.) • Training on soil health management • Soil sample analysis (52 Nos.) • Development of literature • Supply of Mango Special (developed by IIHR, Bengaluru)
Grameen Vikas FPO, Ron	60	<ul style="list-style-type: none"> • Orientation training facilitated on FPO concept for FPO Board Members
Pragati Mitra FPO, Naragund	60	<ul style="list-style-type: none"> • Orientation training given on Business Plan Development

