

**KRISHI VIGYAN KENDRA UTTARA KANNADA**

**ANNUAL REPORT- 2018-19**

**(FOR THE PERIOD FROM 01 APRIL 2018 TO 31 MARCH 2019)**

**University of Agricultural Sciences, Dharwad  
ICAR-Krishi Vigyan Kendra, Uttara Kannada  
Banavasi Road, Sirsi-581401**

## PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
Krishi Vigyan Kendra Banavasi Road, Sirsi-581 401 District : Uttara Kannada State : Karnataka	Office (08384) 228411	FAX (08384) 228411	kvkuks@gmail.com kvk.Uttarakannada@icar.gov.in	www.kvkuttarkannada.org

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

Address	Telephone		E mail	Web Address
	Office	Fax		
University of Agricultural Sciences, Krishi Nagar Dharwad -580 005	(0836) 2448512, 2447494	(0836) 2748199	deuasd@rediffmail.com	www.uasd.edu

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Manju M J.	-	9448495345	manjumjm@yahoo.co.uk

### 1.4. Year of sanction: 2004

### 1.5. Staff position as on 31 March 2019

Sl. No	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category
1.	Senior Scientist and Head	Dr.Manju M.J.	Senior Scientist and Head	M	Plant Pathology	Ph.D.	37000-67000	9000	23.10.17	P	SC
2.	Scientist	Dr.Roopa S.Patil	Scientist	F	Agri. Entomology	Ph.D.	15600-39100	7000	03.12.08	P	Others
3.	Scientist	Shri.Shivashenkarmurthy M.	Scientist	M	Agronomy	M.Sc	15600-39100	6000	28.11.11	P	SC
4.	Scientist	Shri.Venkatesh . L.	Scientist	M	Agroforestry	MSc.	15600-39100	6000	05.05.16	P	SC
5	Scientist	Dr.Shweta Biradar	Scientist	F	Home Science	Ph.D.	15600-39100	6000	17.02.17	P	Others
6	Scientist	Dr.Santhosha H.M.	Scientist	M	Horticulture	PhD	15600-39100	6000	23.05.17	P	Others

8	Scientist	Dr.Ranganath G. J.	Scientist	M	Animal Science	Ph.D.	15600-39100	6000	18.07.18	P	Others
9	Programme Assistant (Lab)	Shri.Siddappa Kannur	Technical Officer	M	Agro forestry	M.Sc	9300-34800	4600	02.08.013	P	Others
10	Programme Assistant (comp)	Smt.Annapurna F. Neeralagi	Technical Officer	F	Computer Science	M.Sc	9300-34800	4600	29.03.10	P	SC
11	Farm Manager	Dr. Krishna K. S.	Farm Manager	M	Sericulture	Ph.D.	9300-34800	4200	14.02.18	P	Others
12	Assistant	Smt.Sumalatha S.P.	Assistant	F			16000-29600	-	05.09.15	P	SC
13	Stenographer	Vacant	-	-	-	-	-	-	-	-	-
14	Driver 1	Shri Balappa Taragar	Driver (L.V)	M	-	-	11600-21000	-	03.04.18	P	Others
15	Driver 2	Vacant	-	-	-	-	-	-	-	-	-
16	S. staff	Shri. Hajarath A Nadaf	Asst.cook cum .care taker	M			10400-16400	-	-	P	OBC
16	S. staff 2	Vacant	-	-	-	-	--	-	-	-	-

### 1.6. Total land with KVK (in ha): 7 ha

S. No.	Item	Area (ha)
1	Under Buildings	0.4
2.	Under Demonstration Units	0.4
3.	Under Crops	4.65
4.	Orchard/Agro-forestry	1.15
5.	Others(Uncultivable)	0.4

### 1.7. Infrastructural Development:

#### A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR				19.12.2017	611	Slab Level
2.	Farmers Hostel	NATP	2003	395.81	-	-	-	-
3.	Staff Quarters	Nil						
	1							
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units	Nil						
	1							
	2							
	3							
	4							
5	Fencing	Nil						
6	Rain Water harvesting system	Nil						
7	Threshing floor	Nil						
8	Farm godawn	Nil						

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Bolero	2017-18	800000.00	36036	Good condition
Hero Honda passion	2009-10	60000.00	846	Good condition
Tractor	2016-17	400000.00	0	Under repair
Mini Tractor	2011-12	750000.00	198.8 hrs	Good condition
Power Tiller	2015-16	255700.00	49.75 hrs	Good Condition
VST Power Tiller	2010-11	121000.00	68.0 hrs	Good Condition

**C) Equipment & AV aids:**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Godrej copier	30-03-2001	80,234	Good condition
Stabilizer	30-03-2001	6,000	"
Portable OHP	31-03-2001	23,920	"
Honda make EBK 2000 generator	31-03-2001	32,800	"
EB 833 Altimeter	25-02-2002	10,990	"
Thomson TV 29" monitor	30-03-2002	28,700	Under repair
Thomson CD player	30-03-2002	6,500	Under repair
Sharp VCR	30-03-2002	12,300	"
Computer and accessories	30-03-2003	72,513	"
Public address system	26-02-2003	10,500	Under repair
Nikon Camera	29-09-2003	28,350	"
Air Conditioner for computer hall	27-09-2003	10,500	"
Photo display frame	27-09-2003	17,000	"
Exhibition showcase	27-09-2003	14,000	"
Scanner	27-09-2003	3,500	"
Sony Digital Camera	2006	13,000	Under repair
Computer HP- with accessories	31.3.2007	36,000	Good condition
Motorized screen	2008	24,000	"
Lexmark Printer	March 2008	15,043	"
Printer (4 in one)	31.3.2009	13,950	"
Sony DV cam – Portable camera	Jan-2010	1,84,000	"
Computer and accessories-HP DC-7000 series (2 Nos)	April-2010	77690	"
Lenovo s10-3s Idea pad	4.02.2011	21600	"
Printer- HP 1007	30-03-2011	4900	"
Oven - Bajaj	March 2011	2,800	"
Pepper Diconing	March 2011	18,500	"
Generator 7.5 KVA, KIRLOSKER	January 2012	81,057	"
Power Sprayer Single Piston	March 2012	28,000	"
Digital Cameras Canon A 810	September 2012	5,995	"
Canon SX 150	September 2012	9,995	"
Digital Cameras Canon A 810	December 2012	4,900	"
Canon SX 150	January 2013	4,900	"
UPS V-Guard	January 2013	6,540	"
Grinder	January 2013	4,500	"
Coco Butter Extractor	January 2013	44,885	"
Ground nut Stripper (3)	January 2013	3,350	"
Hand Refractometer	January 2013	3,807	"
Banjo- Power operated groundnut stripper	March 2013	19474	"
HP Laptop	Jan-2014	52000	"
Sugarcane eye bud chipper	March 2014	4000	"
Power Safe UPS	March-2014	2250	"
Printer	July-2014	18500	"
Projector	July-2014	45000	"
Digital copier	July-2014	162518	"

UPS 650 VA	September 2014	1600	"
Iball baton Model	December - 2014	2150	"
UPS 1.5 KV	January 2015	31122	"
Portable bag sticher	December 2014	4800	"
Biometric	January 2015	14533	"
Laser Printer	January 2015	8600	"
Laser Printer	March 2015	8600	"
UPS 650 VA	March 2015	2250	"
KVA Stabilizer	2016	4537	Good condition
LG Air conditioners	2016	34253	Good condition
V Guard Stabilizer	2016	2000	Good condition
Sukum 2kva 24v UPS	2016	15,000	Good condition
150AH Hi-Power tabular battery	2016	13,800	Good condition
Logitech R400 Presenter	2016	4400	Good condition
16 GB H.P. Pen drive	2017	500	Good condition
Pocket projector	2017	42937	Good condition
SMPS Unit	2017	11450	Good condition
1.0 T.B. Seagate Hard disc	2017	49000	Good condition
HP LaserJet 128FN Printer	2017	17650	Good condition
Canon lide 120 scanner	2017	4500	Good condition
Double Stevenson screen box	2017	21250	Good condition
Exide MRed 700 L	2017	5900	Good condition
Acer Veriton Computer	2017	1,19,100	Good condition
Shedder	2017	49,820	Good condition
Exide XP 800 Battery	2017	5,900	Good condition
Bolero Vehicle (SLE 2WD 7 SEATER AC & PS BS45K)	12.05.2017	6,61,543	Good condition
External DVD writer I Ball Multimedia Speaker	30.06.2017	2,500	Good condition
1000 GB Seagate External Hard disk	30.06.2017	4,900	Good condition
HP Laptop i 7	17.01.2018	74,180	Good condition
HP Laptop i 7	17.01.2018	74,180	Good condition
HP Laptop i 7	17.01.2018	74,180	Good condition
HP Laptop i 7	17.01.2018	74,180	Good condition
32 GB pen drive	31.01.2018	950	Good condition
HP Laserjet Printer (pro MFP m227sdn)	05.02.2018	25,390	Good condition
HP Laserjet Printer (pro MFP m227sdn)	05.02.2018	25,390	Good condition
1 TB Seagat External Hand disk	16.02.2018	3,898	Good condition
HP All in one Laserjet Printer	27.02.2018	15,500	Good condition
RICOH laser printer (Model SPIII)	05.03.2018	4,799	Good condition
Automatic Macro (250 ml) Black Digestion System (Brand: Tulin equipments)	18.03.2018	1,08,500	Good condition
EDSON Printer (380 colour ink tank printer (print/scan/copy)	19.03.2018	11,600	Good condition (GKMS)
Automatic Distillation System, (Brand: Tulin equipments)	20.03.2018	1,88,550	Good condition
Steam Sterilizer (Horizontal Autoclave) (Band: Heat control)	26.03.2018	4,22,440	Good condition
HP LaserJet Printer (Pro MEP M2275dn)	27.03.2018	24,800	Good condition
Mechanical Shakar (HSN # 85143090) (sl. No-LI-17-221)	27.03.2018	49,880	Good condition
HP BR 106 TX Laptop	28.03.2018	58,528	Good condition (GKMS)
HP Laptop	28.03.2018	77,526	Good condition

Laminar Air flow Chamber	31.03.2018	90,000	Good condition
Digital Balance	31.03.2018	81,479	Good condition
1 Tb hard Disk	28.06.2018	3363	Good condition
Height measuring rod and Weighing machine	23.08.2018	4900	Good condition
Nikon Camera with lens	15.10.2018	35488	Good condition
V Guard Ceiling Fan	13.10.2018	1295	Good condition
HP laser Printer	30.01.2019	15500	Good condition
PH Meter	06.02.2018	46988	Good condition
Refrigerator	14.02.2019	22850	Good condition
Nikon D3 400 DSLR camera with lens	22.02.2019	40775	Good condition
HP laser Printer	30.01.2019	15500	Good condition
Wooden Revolving Chair and Peacock Chair	15.03.2019	35000	Good condition
Wall Fan	16.03.2019	1850	Good condition

### 1.8. Details of SAC meeting conducted during 2018-19

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
18.06.2018	28	Each scientist should publish at least one agriculture related publication every month for the benefit of farming community	Details of publications during the year: Popular Articles : 14 Review Papers : 06 Folders : 10	
		Technical backstopping should be provided to the FPOs in the district	Technical back stopping to the FPOs: 1. <b>Madhukeshwar Horticulture Producers Company, Andagi, Banavasi :</b> <ul style="list-style-type: none"> <li>• FLDs on ICM in ginger, pineapple and banana were taken up in 1 ha each under CHMID Scheme of Dept. of Horticulture</li> <li>• Interstate Tour for 50 FPO members was organized to Tamilnadu and Mysore.</li> <li>• Trainings and demonstrations were organized.</li> </ul> 2. <b>Dhan Foundations Sirsi:</b> <ul style="list-style-type: none"> <li>• FLD on ICM in paddy</li> <li>• Diagnostic visits</li> <li>• Collaborative extension activities</li> </ul> 3. <b>Madhukeshwar Bhatta Utpadakar Company:</b> <ul style="list-style-type: none"> <li>• Diagnostic visits</li> <li>• Collaborative extension activities</li> </ul> 4. <b>Pragatimitra</b> <ul style="list-style-type: none"> <li>• Diagnostic visits</li> <li>• Collaborative extension activities</li> </ul>	
		Impact analysis of activities conducted by KVK is to be carried out, if necessary PG students may be involved to take up the study.	Request submitted to DE, UASD	

		Organize more training programmes on grafting techniques and document them	Training programme on Grafting techniques in plantation crops was organized on 25.08.2018, 30 farmers/farm women participated.	
		KVK should form Paddy Green Force in the same line with KVK Mallapuram Kerala. If necessary KVK Team may visit the Mallapuram KVK	Submitted proposal for budget	
		Success story on impact of KMP-105 introduction in the district should be documented and upload it to the KVK Portal and KVK Website	The information on success of KMP-105 is uploaded to the KVK Portal.	
		Quality breed of livestock should be included in the dairy unit and make the dairy unit a model for the farmers.	Two cows of HF Cross breed are added to the dairy unit.	
		Send the SAC agenda items to the SAC members through email.	Action will be taken during forth coming SAC 19-20.	
		Activity calendar of the KVK should be sent to line departments and other farmer groups.	Activity calendar for Kharif activities are sent to line departments.	
		To address the labour problem in arecanut harvesting formulate an OFT.	Training cum demonstration on mechanized harvesting of arecanut is conducted at Puttanamane on 31.01.2019 . 20 participants were present.	
		Provide the information on banned chemicals and pesticides to the farming community with the help of KSDA	The information on banned chemicals and pesticides are provided to pesticide and fertilizer dealers, Dept. of Agriculture and Horticulture.	
		Organize programmes on value addition of cashew apple and management of fruit fly in mango.	Value addition of cashew apply will be taken up in coming days.  Diagnostic field Visits were conducted to the mango fruit fly affected plots in Joida and Haliyal talukas along with officials of Horticulture Dept. Knowledge on management of fruitfly imparted to the farmers.	
		Most of the KVK activities are concentrated around Sirsi, Siddapur, Yellapur and Mundagod talukas. It is suggested to extended the activities to other talukas of the district and invite the farmers of coastal talukas to SAC meeting.	KVK has organized many extension activities in Bhatkal(FLD, Seminar, DV, FV), Haliyal (Krishi Abhiyan, DV, FV, Guest Lecutres), Yellapur(FLD, FV, DV, Guest Lecture) , Ankola(FLD, CFLD, DV, FV, Krishi Abhiyan, Guest lectures) and Kumta(FLD, CFLD, DV, FV, Krishi Abhiyan, Guest lectures) , Joida talukas also along with Sirsi,Siddapur, Yellapur	

			and Mundagod talukas.	
		Organize the programmes on management of foot and mouth disease in collaboration with Dept of AHVS	6 guest lectures , 02 training programmes were organized and information on Foot and Mouth disease management. KVK co-organized Cattle Exhibition on 10.12.2018 at Dasanakoppa village in collaboration with AHVS, Sirsi.	
		Organize programmes in collaboration with Fisheries department.	Farmers are encouraged to utilize the farm ponds for fish culture	
		Organize SAC before the Action Plan meeting and before onset of monsoon.	-	
		Organize programmes on value addition of bamboo.	Programmes will be planned in 2019-20	
		Organize training programmes to extension personnel, interaction with scientists are to be organized. The pretest and post test evaluation are to be taken up.	2 programmes for Extension personnel is organized.	
		There is ample opportunity for apiculture in the district. KVK should develop apiculture demonstration unit and organize trainings.	Organized ASCI Sponsored skill Development Training programme on Bee Keeper for 25 days (11.2.2019 to 7.3.2019) for 20 farmers/farm women. Two bee boxes with colonies are established in the KVK premises.	



## PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	<p><b>Rainfed area</b> : Paddy- Pulses/Ground nut, Maize- Pulses, Areca nut and Coconut based multi cropping system</p> <p><b>Irrigation</b>: Paddy –Paddy, Sugarcane, Paddy –Maize, Areca nut and Coconut based multi cropping system</p>
2	Non Timber Forest Produce, Fisheries and Dairy

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

S. No	Agro-climatic Zone	Characteristics
1	Zone – 9	Hill Zone Rainfall : 2500 mm Soils : sandy loam, laterite, clay loam & medium black Major crops : Paddy, Maize & pulses cotton, areca nut based mixed crops of spices.
2	Zone – 10	Coastal Zone Rainfall : 3500 mm. Soils : Sandy soils, laterite, costal alluvial, sandy loam. Major crops : paddy, groundnut, pulses and arecanut based cropping system.

S. No	Agro ecological situation	Characteristics
1	Coastal ecosystem	High to very high rainfall more than 3500 mm, hot and humidity climate with highly leached sandy soils with low & high pH (Sodium salts).
2	Hill zone ecosystem	Rainfall ranges from 2500 to 3000 mm, with valleys and low hills. Major area covered is forest and dominated by laterite soils.
3	Transitional ecosystem	Rainfall ranges from 800-1500 mm. dominated by plains and rolling hills. Soils vary from red loam to medium black soils.

**2.3 Soil type/s**

S. No	Soil type	Characteristics	Area in ha
1	Lateritic soils	Deep, well drained to excessively drained, yellowish red to dark reddish brown, sandy loam to sandy clay and clay surface soils and clay subsoil's, moderate to severely eroded with surface crusting.	36332
2	Coastal laterite soil	Deep, well drained to excessively drained, dark brown to yellowish red and dark reddish brown, sandy clay loam to clay loam surface soils and sandy clay to clay subsurface soils, moderately to severely eroded with surface crusting.	
3	Coastal alluvial soils	Deep, well drained and poorly drained, pale brown to dark yellowish brown, sand, sandy loam to loam surface soils and sand to loam subsurface soils.	
4	Red gravelly clay soils	Deep and shallow, well drained to excessively drained, yellowish brown dark red to reddish brown, gravelly sandy loam to sandy clay loam and loamy sand surface soils and no calcareous cracking clay to silty clay soils, moderately to severely eroded.	144589
5	Red clay soils	Deep to moderately deep and hallow, well drained, brown to yellowish red to reddish brown, sandy loam and sandy clay to clay subsurface soils, moderately to severely eroded.	552877
6	Forest soils (Brown forest soil)	Deep to moderately, Deep, well drained to excessively drained, dark brown to dark yellowish brown and black sandy clay to sandy clay loam, humus rich surface soils and clay to sandy clay, gravelly sandy clay to clay sub surface soils, moderately to severely eroded.	291679
7	Medium black soils	Shallow, well drained grey to dark grey and brown clay loam and silty clay loam.	

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

S. No	Crop	Area (ha)	Production (tons)	Productivity (kg /ha)
1	Paddy	66147	188895	3006
2	Maize	4576	24692	5680
3	Blackgram	3844	204	555
4	Greengram	451	106	244
5	Groundnut	1950	3065	1655
6	Cotton (Bales)	960	1652	308
7	Sugarcane	6519	693621	112
8	Arecanut	17912	43864.88	2450
9	Coconut (lakh nuts)	7784	1365	0.18 (lakh nuts)
10	Blackpepper	774	325	420
12	Ginger	372	9672	2600
13	Cardamom	528	132	250
14	Cashew	3380	7364	2182
15	Banana	2911	90297	31020
16	Mango	2514	46540	18510
17	Pineapple	441	32820	74420

\* Source : Statistical Dept, Karwar & DoH, Sirsi

## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January	0.4	30.9	12.8	72.7
February	0.3	32.7	13.5	67.9
March	16	34.9	16.6	131.5
April	20	34.6	20.5	133.0
May	149	32.8	21.1	146.0
June	759	28.5	21.4	161.0
July	1025	26.3	21.0	173.0
August	778	25.7	20.7	174.0
September	95	29.0	20.2	163.0
October	98	31.3	19.3	146.3
November	11	31.1	18.3	139.5
December	0	30.4	15.2	143.2

Sources :

\* Rainfall Data : KSDA Karwar

\* Temperature &amp; RH : AAS Unit, Sirsi

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	47167	59679 thousand ltrs	
<i>Indigenous</i>	289788		
<b>Buffalo</b>	87816		
<b>Sheep</b>			
<i>Crossbred</i>	234	2491 tonnes (Meat)	
<i>Indigenous</i>	4549		
<b>Goats</b>	8961		
<b>Pigs</b>			
<i>Crossbred</i>	469		
<i>Indigenous</i>	1022		
<b>Rabbits</b>	508		
<b>Poultry</b>			
Hens	537037	287.31 lakh eggs	
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

\*Uttara Kannada at a Glance 2013-14 by Statistical Department , Karwar

Category	Area	Production	Productivity
Fish		109818.28 Tones	
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

\*Uttara Kannada at a Glance 2015-16 by Statistical Department, Karwar

2.7 District profile has been **Updated** for 2018-19 : **Yes**

## 2.8 Details of Operational area / Villages

Sl.No	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Sirsi	Sirsi	Badangod Kupagadde, Malangi, Andagi, Hebbatti, Kalakaradi, Bankanala, Ajjarani Kandaragi Kiruvatti Kayagudde Gonnur Kannalli Honnegadde Koppa Halasinkai Gotagitota Ekkambi Mastigadde Sonda Lingadakona Neernalli Hulemane Onikeri Kanagod Ugremane Javalagundi Hebballi Kenchagadde Kansor Ajjibala Horle Jaganalli Bisalakoppa Bapat Mavinakoppa Jaddimane Sannakki Balegadde Kesinamane Sambemane Kubarkuli	3 1 2 8 3 2 1 5 1 1 1 1 1 3 1 1 3 1 1 2 1 5 1 4 4 2 2 1 5 2 4 2 2 3 3 1 1 1 1 1	Paddy, Arecanut, Black pepper, Pineapple, Ginger, Dairy, Agroforestry	<b>Paddy:</b> Poor soil, insect pests (stem borer, ear head bug,BPH) Blast disease  <b>Arecanut:</b> Low yield, un scientific drainage, nutdrop and splitting, kole roga  <b>Black pepper:</b> Sucking insects, foot rot disease, berry drop, micronutrient deficiency alternate non availability of pepper standards other than arecanut  <b>Pineapple :</b> Heart rot disease  <b>Ginger:</b> Rhizome rot disease, shoot borer  <b>Dairy :</b> Repeat breeding, anestrus, fodder scarcity during summer  <b>Agroforestry:</b> Under utilized bettalands, loss of bio-diversity  <b>Fodder Scarcity:</b>  <b>Poor Nutrition</b>	Integrated Crop management  Integrated Crop management  Integrated Crop management , MPTs as pepper standards  Integrated Disease Management  Integrated Disease Management  Use of advanced PG protocol and CIDR Synch technology  Silvi Pastoral System, NTFPs and TBOs  Enrichment of dry fodder, Introduction of COFS-31 and Stylo Hamata grasses  Promotion of Nutri farms

2	Mundagod	Mundagod	Malagi Hanumanti Haraganalli Kalakoppa	6 2 4 4	Paddy, Maize, Blackgram Greengram Sugarcane Arecanut Black pepper Dairy	<b>Paddy:</b> Poor soil, insect pests (stem boer, ear head bug, BPH) Blast disease  <b>Maize :</b> Rootrot, Weed, low yield, Fall army worm  <b>Arecanut:</b> Low yield, unscientific drainage, nutdrop and splitting, kole roga, weeds & soil erosion  <b>Fodder Scarcity</b>	ICM in Paddy  ICM in maize with Special emphasis on weed management  Introduction of mulch crop, ICM in arecanut  Enrichment of dry fodder, Introduction of COFS-31 and Stylo Hamata grasses
3	Yellapur	Manchikeri	Kanakodlu Heggapur Belagundli, Bidralli, Bharani	8 1 1 1 1	Arecanut Black pepper Paddy Cotton Dairy	<b>Arecanut:</b> Low yield, unscientific drainage, nutdrop and splitting, kole roga, weeds & soil erosion  <b>Cotton:</b> Sucking pests, poor yield, boll & square drop, leaf reddening, black arm  <b>Black pepper:</b> Sucking insects, foot rot disease, berry drop, micronutrient deficiency	Integrated Crop Management  Integrated Pest Management  Integrated Crop Management, Ecofriendly management of sucking insects
4	Kumta	Gokarna	Gokarna Saraguppa, Devanalli	2 1 1	Arecanut, Coconut, Cashew, Dairy	<b>Dairy:</b> Repeat breeding, anestrus, fodder scarcity during summer	Use of advanced PG protocol and CIDR Synchron technology
5	Ankola	Ankola	Tenkanakeri, Sakalabena	1 2	Cashew, Arecanut, Coconut, Groundnut	<b>Cashew :</b> CSRB, TMB <b>Coconut :</b> RSW, nutdrop  <b>Groundnut:</b> Insect pest, tikka disease, soil acidity, low yield	Integrated Pest Management  Integrated Crop Management
6	Bhatkal	Mavalli	Mallari	1	Jasmine	<b>Jasmine :</b> Leaf spot, eriophyid mite, low yield	Integrated Crop Management

## 2.9 Priority thrust areas

S. No	Thrust area
1	Integrated Crop Management
2	Integrated Nutrient Management
3	Integrated Pest Management
4	Farm Mechanization
5	Integrated Disease Management
6	Integrated Weed Management
7	Soil and Water conservation
8	Integrated Farming system
9	Income Generating activities
10	Nutrition
11	Agro forestry

**PART III - TECHNICAL ACHIEVEMENTS (2018-19)****3.A. Target and Achievements of mandatory activities**

OFT				FLD			
1				2			
OFTs (No.)		Farmers (No.)		FLDs (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
03	03	21	18	16	16	121	116

Training				Extension Programmes			
3				4			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
50	58	1618	2291	778	853	5861	119734

Seed Production (Q)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
0	136 q	17000	25248

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
0	0	5 kg (IBA)	1.05 kg

### 3.B1. Abstract of interventions undertaken

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	
01	Integrated Crop Management	Paddy	Poor soil fertility, Deficiency of nutrients, Weeds, Incidence of stem borer, leaf folder, ear head bug, BPH and blast leading to low yield	-	Advanced Production Technologies for Profitable Paddy Cultivation	05	0	0	FV : 32 Farmer Scientist Interaction : 4	Sunhemp /Diancha: 1 Paddy : 2.5	-	-	No.	Kg
		Maize	Low yield, poor fertility, weeds, stem borer, Leaf Blight	-	ICM in Maize with Special Emphasis on Weed and Nutrient Management	01	0	0	FV: 03 Method demo:01	-	-	-	-	-
		Watermelon	Low yield, mal formed fruits, poor pollination, bud necrosis, nutrient deficiency, sucking pests		ICM in watermelon	02	0	0	FV:06	-	-	-	-	-
		Black pepper	Foot rot disease, Berry drop, Sucking insect, Micronutrient deficiency		ICM in blackpepper	03			FV:14 Method Demo:02	-	-	-	-	-
		Jasmine	Leaf spot, Eriophyid Mites, no pruning, improper nutrient management, Low yield		ICM in Jasmine	02	0	0	FV:06 Method demo: 02	-	-	-	-	-
02	Weed Management	Arecanut	Soil erosion, Weed menace, High labour cost, Low yield	Evaluation of suitable mulch material for arecanut plantation	-	03	0	0	FV:16	-	-	-	-	-
03	Pest	Black pepper	Sucking pests	Eco friendly	-								Neem	10 kg

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										Supply of bio products	
				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.)			
	Management			management of sucking insects in blackpepper										soap Pongamia soap. Neem oil	10 kg 10 l
		<i>Bt.</i> cotton	Low yield, Sucking insects, Boll and square drop, Black arm, leaf reddening	-	IPM in <i>Bt.</i> Cotton	02	-	-	FV: 02	Bhendi: 0.025	-	-	-	-	-
		Cashew	Low yield, Tea Mosquito Bug(TMB) & Cashew Stem & Root Borer (CSRB)	-	IPM in Cashew	01	-	-	FV:01	-	-	-	-	-	-
04	Fodder Production	Fodder Trees	Green Fodder Scarcity, mproper utilization of Betta lands and loss of species diversity	-	Efficient utilization of bettalands through silvipastoral system for sustainable land use	0	-	-	FV:02	-	Fodder trees& legume grasses: 750	-	-	-	-
		COFS-31 & Stylo grass	Poor nutrition supplement leading to low conception rate, Anestrus, RB and other health problems	-	Popularization of multicut sorghum and Stylo grasses	01	-	-	FV:6	COFS-31: 0.135 Stylosanthus haemata: 0.135	-	-	-	-	-
		Dry areca sheath	Scarcity of fodder, High cost of feed, wastage of locally available fodder.	-	Demonstration on feeding of enriched dry areca sheath for cows	01	-	-	FV: 03	-	-	-	-	-	-
05	Livestock production and	Livestock	Poor Nutrition supplement, Deficiency of		Demonstration of modified PG protocol in RB	04	01	01	FV: 28	-	-	-	-	-	



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	
	Management		major minerals, Low conception rate leading to repeat breeding		cows									
		Livestock	Poor Nutrition supplement, Deficiency of major minerals, absence of heat signs, Loss of milk yield		Demonstration of CIDR synch in anoestrus animals	04	01	01	FV:18	-	-	-	-	-
06	Agroforestry	Tree Borne Oilseeds	Improper utilization of Betta lands and loss of species diversity		Efficient utilization of betta lands through cultivation of TBO's for sustainable land use (Continued )	0	0	0	FV: 02	-	Various NTFPs: 1000	-	-	-
		Non Timber Forest Produce	Improper utilization of Betta lands and loss of species diversity		Efficient utilization of betta lands through cultivation of NTFPs for sustainable land use (Continued )	0	0	0	FV:02	-	Various TBOs: 1000	-	-	-
		Scheme bamboo	Improper utilization of farm bunds, Low income, Poor soil fertility, soil erosion		Cultivation of <i>Dendrocalamus stocksii</i> (Scheme Bamboo) on bunds/boundaries of farm land : A additional source to the farm income	0	0	0	FV:03	-	Scheme bamboo:300	-	-	-
		MPTs	Lack of alternate fast growing native MPTs			0	0	0	FV:05	-	Black pepper:500	-	-	-

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	
7	Nutritional Security	Nutri Farms	Poor nutritional status of the adolescents and lack of knowledge regarding importance of nutrients		Nutritional Garden for Schools and farming community	0	0	0	FV: 05	0.1775	-	-	Neem oil	3 litre
8	Enterprise Development	EDP - Up scaling the marketing of Garments	Low Marketing of Garments due to poor finishing and lack of surface enrichment	-	-	-	01	-	-	-	-	-	-	-

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

S.No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Advanced Production Technologies for Profitable Paddy Cultivation	UAS, Dharwad	Paddy	-	1	05	Field Day : 03
2	ICM in Maize with Special Emphasis on Weed and Nutrient Management	UAS, Dharwad	Maize	-	1	01	-
3	ICM in watermelon	UHS, Bagalkot	Watermelon	-	1	02	-
4	IPM in <i>Bt.</i> Cotton	UAS, Dharwad	<i>Bt.</i> Cotton	-	1	02	-
5	IPM in Cashew	DCR, Puttur	Cashew	-	1	02	-
6	ICM in Black pepper	IISR and KAU	Black pepper	-	1	04	Field Day:01
7	ICM in Jasmine	UHS, Bagalkot	Jasmine	-	1	02	Field Day: 01
8	Efficient utilization of betta lands through cultivation of TBO's for sustainable land use (Continued)	KAU, Thrissur	TBOs	-	1	0	-
9	Efficient utilization of betta lands through cultivation of NTFPs for sustainable land use (Continued)	KAU, Thrissur	NTFPs	-	1	0	-
10	Cultivation of <i>Dendrocalamus stocksii</i> (Sheme Bamboo) on bunds/boundaries of farm land : A additional source to the farm income	UAS, Dharwad & BSKKV,Dapoli	Sheme bamboo	--	1	0	World Bamboo Day: 01
11	Efficient utilization of bettalands through silvipastoral system for sustainable land use	KAU, Thrissur	Silvipastoral system	-	1	0	-
12	Nutritional Garden for Schools and farming community	-	Nutritional garden	-	1		-
13	Demonstration of modified PG protocol in RB cows	KVAFSU, Bidar	Dairy	-	1	4	-
14	Demonstration of CIDR synch in anoestrus animals	KVAFSU, Bidar	Dairy	-	1	4	-
15	Popularization of multicut sorghum and Stylo grasses	NIANP, Bangalore	Multicut sorghum and Stylo grasses	-	1	01	-
16	Demonstration on feeding of enriched dry areca sheath for cows	NIANP, Bangalore	Dry areca sheath	-	1	01	-
17	Evaluation of suitable mulch material for arecanut plantation	IIHR Bengaluru, UHS, Bagalkot	Cowpea, mucuna, stylo grass	1	-	0	-
18	Evaluation of Multi Purpose Trees (MPT) as pepper standards (Continued)	IIHR Bengaluru, KAU, Thrissur	MPTs	1	-	0	-
19	Eco friendly management of sucking insects in blackpepper	IIHR, Bengaluru & IISR, Calicut	Black pepper	1	-	0	-



## **PART IV - On Farm Trial (2018-19)**

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

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

**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**

<b>Thematic areas</b>	<b>Crop</b>	<b>Name of the technology assessed</b>	<b>No. of trials</b>	<b>Number of farmers</b>	<b>Area in ha (Per trial covering all the Technological Options)</b>
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management	Black Pepper	Eco friendly management of sucking insects in blackpepper	05	05	0.1

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management	Arecanut	Evaluation of suitable mulch material for arecanut plantation	08	08	0.2
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System	MPTs	Evaluation of Multi Purpose Trees (MPT) as pepper standards (Continued)	05	05	0.1
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
<b>Total</b>	<b>03</b>		<b>21</b>	<b>21</b>	<b>0.5</b>

**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	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Arecanut	Irrigated	Weed Menace	Evaluation of suitable mulch material for arecanut plantation	08	T.O.1: Litter	ITK	32.93	q/ha	-	6,88,375	2.88	
					T.O.2: Mucuna Cultivation	IIHR	34.5	q/ha	Mucuna Yield: 5.25 q/ha	7,56,234	3.02	
					T.O.3: Cowpea	IIHR	34.25	q/ha	Cowpea Yield : 3.95 q/ha	7,44,534	2.98	
					TO4: <i>Stylosanthes hemata</i>	UHS(B)	32.25	q/ha	-	6,60,985	2.78	
Multi Purpose Trees	Rainfed/Irrigated	Lack of alternate fast growing native MPTs	Evaluation of Multi Purpose Trees (MPT) as pepper standards	05	TO1: Arecanut	UHS (B)		q/ha	-	-	-	On going
					TO2: Silver Oak	UHS(B)		q/ha	-	-	-	
					TO3: <i>Melia dubia</i>	KAU, Thrissur		q/ha	-	-	-	
Black Pepper	Irrigated	Sucking insects	Eco friendly management of sucking insects in blackpepper	05	TO1: Dimethoate	-	19.8	q/ha	Sucking Insects(%): 0.96 Coccinellid Population(%): 0.04	4,01,050	3.62	
					TO2: Neem soap	IIHR, Bengaluru	15.85	q/ha	Sucking Insects(%): 2.27 Coccinellid Population(%):0.56	3,06,760	3.23	
					TO3: <i>Pongamia soap</i>	IIHR, Bengaluru	17.45	q/ha	Sucking Insects(%): 2.11 Coccinellid Population(%):1.16	3,51,460	3.55	
					TO4: Neem oil	IISR, Calicut	17.85	q/ha	Sucking Insects(%): 1.86 Coccinellid Population(%):1.02	3,60,250	3.58	

#### **4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)**

##### **OFT:1:**

- 1. Title of Technology Assessed** : Evaluation of suitable mulch material for arecanut plantation
- 2. Performance of the Technology on specific indicators:** Best treatment (TO2) resulted higher B:C ratio (3.02) compared to farmer practice(2.88)
- 3. Specific Feedback from farmers** : Weeds were big menace in arecanut plantation. Sowing of mucuna and cowpea in between areca trees was more effective to control weed growth and these cover crops also provide additional income.
- 4. Specific Feedback from Extension personnel and other stakeholders** : On farm Trial to manage weeds, soil erosion by growing cover crops in arecanut plantation was greatly helped in convincing the farmers regarding use of cover crops for weed management
- 5. Feedback to Research System based on results and feedback received:** Mucuna crop performed best under arecanut trees, however short duration type are more preferred than long duration ones.

##### **OFT:2:**

- 1. Title of Technology Assessed** : Evaluation of Multi Purpose Trees (MPT) as pepper standards : **Ongoing**

##### **OFT:3:**

- 1. Title of Technology Assessed** : Eco friendly management of sucking insects in blackpepper
- 2. Performance of the Technology on specific indicators** : Commercial neem formulation performed better compared to neem and pongamia soap in management of sucking insects especially mealy bugs and scales.
- 3. Specific Feedback from farmers** : Among ecofriendly methods, commercial neem is best. Noticed activity of predatory beetles in all the plant based treatments. Management measures should be initiated in the early stage of infestation by mealy bugs and scales, otherwise difficult to control. Leaf thrips is common menace doesn't cause much damage on pepper yield.
- 4. Specific Feedback from Extension personnel and other stakeholders** : Management against sucking insects especially scales and mealy bugs needs to be initiated in the early stage itself.
- 5. Feedback to Research System based on results and feedback received** : Systematic research on loss estimation and management of sucking insects mainly scales and mealy bugs needs to be studied.

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

#### **4.D.2. Details of Technologies refined: NIL**







Sl. No.	Category	Farming Situation	Season	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
	Piggery													
	Sheep and goat													
	Duckery													
	Common carps													
	Mussels													
	Ornamental fishes													
	Oyster mushroom													
	Button mushroom													
	Vermicompost													
	Sericulture													
	Apiculture													
	Implements													
	Others : Agroforestry													
		Rainfed	Kharif	TBOs (Tree borne Oilseed)	-	-	Production technology	Planting of TBOs in betta land	0.2	0.2	0	10	10	0
		Rainfed	Kharif	NTFPs (Non Timber Forest Product )	-	-	Production technology	Planting of NTFPs in betta land	0.2	0.2	0	10	10	0
		Rainfed	Kharif	Sheme bamboo	<i>Dendrocalumus stocksii</i>		Production technology	Cultivation of Sheme bamboo on bunds and	0.5	0.5	0	3	3	0

Sl. No.	Category	Farming Situation	Season	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
								boundaries of farm land						



## 5.B. Results of FLDs

### 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																			
Pulses																			
Cereals	ICM in paddy	PSB-68	-	Rainfed	10	4	100.8	60.2	75.44	54.74	27.0	50,202.3	1,16,617.5	66,415	2.32	46,370	84,829	38,450	1.83
	ICM in Maize	-	NK-6240	Rainfed	10	4	79	45	65.6	43.8	33.26	41,200	98,400	57200	2.38	42500	65,700	23200	1.54
Millets																			
Vegetables	Nutrifarms	Various vegetable varieties		Irrigated	10	0.01	76	56.75	64.26	-	-	1216000	3125200	1909200	2.57	-	-	-	-
Flowers	ICM in Jasmine	Bhatkal Mallige	-	Irrigated	5	1	53	46	49.92	42.90	16.36	7,81,161	27,73,306	19,92,145	3.55	7,56,161	23,83,310	16,27,149	3.15
Ornamental																			
Fruit	ICM in Water Melon	Naamdari		Irrigated	5	2	268.7	225	242.5	193.8	200.8	95,750	2,42,500	1,46,750	2.58	88,250	1,93,750	1,05,500	2.25
Spices and condiments	ICM in Black pepper	Paniyur-1	-	Irrigated	5	1	19.80	15	16.80	13.60	23.52	1,76,235	5,88,420	4,12,185	3.34	1,50,310	4,76,000	3,25,690	3.16
Commercial	IPM in Cashew	Local	-	Rainfed	10	4	12.50	8.75	10.50	5.94	43.42	42,600	1,15,500	72,900.0	2.71	39,575	65,312	25,737	1.65
Fibre crops like cotton	IPM in Bt. Cotton	-	BG-II	Rainfed	5	2	22.50	18.50	20.50	17.75	15.49	42,850	1,39,400	96,550	3.25	42,300	1,20,700	78,400	2.85

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											
Medicinal and aromatic																				
Fodder	***Fodder tree crops	-	-	Rainfed	5	0.2														
	Multicut sorgam & Stylo grasses	COFs-31 *Stylosanhus haemata	-	Rainfed/Irrigated	9	0.9	1300	1200	1240	430	65%	166150	373625	207475	2.24	194590	328790	134200	1.68	
	Aareca sheath**	-	-	-	5	-	7.65	7.20	7.29	6.03	17.2%	8420	15120	6700	1.77	8480	13104	4624	1.50	
Plantation																				
Fibre																				
Others Agroforestry	***TBOs (Tree borne Oilseed)	-	-	Rainfed	10	0.2														
	***NTFPs (Non Timber Forest Product)	-	-	Rainfed	10	0.2														
	***Sheme bamboo	<i>Dendrocalumus stocksii</i>	-	Rainfed	3	0.5														

\**Stylosanthus haemata*: Germination was good but crop was unable to grow well to its vegetative farm above 5-8 cm

\*\* Difference of dry fodder and enriched dry fodder intake for 90 days

\*\*\* The crop is under vegetative stage

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

- ICM in paddy

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Plant Height (Cm)	139.5	130.4
No. of tillers/hill	15.6	8.2
Panicle Height (cms)	20.62	15.46
No. of Grains/ panicle	155.9	130.58
Stem borer incidence	0	5.2
Stem borer control (%)	100	-
Leaf folder incidence	3.5	25
Leaf folder control (%)	86	
Earheadbug incidence	3.2	20.7
Earheadbug control (%)	84.54	
BPH incidence	2.75	17.6
BPH control (%)	84.38	
Blast incidence	0.87	19.10
Blast control (%)	95.45	
Grain discoloration	5.5	28.96
Grain discoloration control (%)	79.97	
Smut disease	0.5	0

- ICM in Maize

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Plant Height (cm)	125.5	117.8
Cob length (cm)	20.80	15.50
Cob Diameter	4.77	4.60
Cost on weed Management	1850	6680
Cost save on weed Management	4830	-
Labour Requirement for weed Management	4	35
% Labour save for weed Management	88.57	-
Stem borer infested plant per m2	1.0	5.2
% control	80.08	
% Leaf blight incidence	3.8	25.7
% control	85.21	



- **Nutri Farms**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo(After intervention)</b>	<b>Check (Before intervention)</b>
Change in knowledge regarding nutrition (%) (Pre Test)	69	-
Change in knowledge regarding nutrition (%) (Post Test)	85	-

- **ICM in Jasmine**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Incidence of Leafspot(%)	18	34
Percent leaf incidence by Eriophyd mite	6.4	37.50

- **ICM in Water melon**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Fusarium wilt(%)	1.4	3.85
% Malformed fruits	0.9	3.8

- **IPM in Cashew**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
TMB damage (0-4 scale)	0.39	2.53
Recovery of CSRB affected trees(%)	1.5	0.2

- **ICM in Black pepper**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Death of vines-PDT	4.08	4.90
Reduction in sucking pest incidence(%)	68.11	-
Percent reduction in berry drop	13.80	-

- **ICM in Bt. Cotton**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Aphid Count : DBS	24.60	28.40
Aphid Count : 7 DAS	3.60	18.12
Leaf hoppers(nos/3 leaves) DBS	7.92	8.4
Leaf hoppers(nos/3 leaves) 7 DAS	1.0	3.52
Thrips(nos/3 leaves) DBS	15.20	12.60
Thrips (nos/3 leaves) 7 DAS	2.80	10.0
PBW moths trapped	Nil	-

- **Multicut sorgam & Stylo grasses**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Lactation Milk yield	3335.938	2935.625

- **Enrichment of dry areca sheath&dry fodder**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
Milk yield (3 months) Ltrs	540	468
Decrease in Feed wastage %	24.4	-
Increase in dry fodder intake (%)	1.4	-

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

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (l/animal)			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	**
					H	L	A										
Dairy	Assessment of modified PG protocol for treating repeat breeding cows	Cross bred	14	14	720	600	535.71	317.14	40.80	7412.14	15000.00	7587.86	1.95	8820.32	8880.00	59.68	1.10
	Demonstration of CIDR synch in anoestrus animals	Cross bred	10	10	On going												
Poultry																	
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	
Others (pl.specify)																	

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

\*\* BCR= GROSS RETURN/GROSS COST

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

- Assessment of modified PG protocol for treating repeat breeding cows

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check if any</b>
<b>Number of animals shown heat and duration of estrous and conception rate</b>		
Up to 18-24 Hr	5	2
24-48 Hr	9	4
>48 hours	0	8
Conception rate	85.70%	28.5

- CIDR Synch protocol

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check if any</b>
<b>Number of animals shown heat and duration of estrous and conception rate</b>		
No of animals shown heat	10(10)	3(10)
Up to 18-24 Hr	6	0
24-48 Hr	4	2
>48 hours	0	1
Conception rate	Some results are pending	



Others (pl.specify)																	
<b>Total</b>																	
<b>Commercial crops</b>																	
Sugarcane																	
Coconut																	
Others (pl.specify)																	
<b>Total</b>																	
<b>Fodder crops</b>																	
Maize (Fodder)																	
Sorghum (Fodder)																	
Others (pl.specify)																	
<b>Total</b>																	

H-High L-Low, A-Average

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









Others (pl.specify)										
<b>Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
<b>CapacityBuilding and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths	2	31	7	38	1	1	2	32	8	40
Others: KVK Activities	1	27	8	35	6	2	8	33	10	43
Others: Vigilance Awareness	1	35	6	41	7	1	8	42	7	49
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
<b>TOTAL</b>	<b>19</b>	<b>657</b>	<b>200</b>	<b>857</b>	<b>120</b>	<b>68</b>	<b>188</b>	<b>764</b>	<b>246</b>	<b>1010</b>







<b>Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production	1	10	22	32	6	4	10	16	26	42
Apiculture	1	14	0	14	0	0	0	14	0	14
Others (pl.specify)										
<b>CapacityBuilding and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
<b>TOTAL</b>	<b>33</b>	<b>632</b>	<b>291</b>	<b>923</b>	<b>94</b>	<b>62</b>	<b>156</b>	<b>726</b>	<b>353</b>	<b>1079</b>

**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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying	1	27	8	35	3	2	5	30	10	40
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>	<b>1</b>	<b>27</b>	<b>8</b>	<b>35</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>30</b>	<b>10</b>	<b>40</b>

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other : Entrepreneur Development	1	20	0	0	0	0	0	20	0	20
<b>TOTAL</b>	<b>1</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>20</b>



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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	1	10	14	24	4	4	8	14	18	32
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production	1	21	1	22	9	1	10	30	2	32
Household food security										
Any other (pl. specify)										
<b>Total</b>	<b>2</b>	<b>31</b>	<b>15</b>	<b>46</b>	<b>13</b>	<b>5</b>	<b>18</b>	<b>44</b>	<b>20</b>	<b>64</b>



**7.G. Sponsored training programmes conducted**

S.No	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	Increasing production and productivity of crops	1	48	1	49	1	0	1	49	1	50
1.b.	Commercial production of vegetables										
<b>2</b>	<b>Production and value addition</b>										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops	2	224	66	290	34	22	56	258	88	346
<b>3.</b>	<b>Soil health and fertility management</b>										
<b>4</b>	<b>Production of Inputs at site</b>										
<b>5</b>	<b>Methods of protective cultivation</b>										
<b>6</b>	<b>Others (pl.specify)</b>										
<b>7</b>	<b>Post harvest technology and value addition</b>										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
<b>8</b>	<b>Farm machinery</b>										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
<b>9.</b>	<b>Livestock and fisheries</b>										
<b>10</b>	<b>Livestock production and management</b>										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others (pl.specify)										
<b>11.</b>	<b>Home Science</b>										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
<b>12</b>	<b>Agricultural Extension</b>										
12.a.	CapacityBuilding and Group Dynamics	3	51	7	58	1	1	2	52	8	60
12.b.	Others (pl.specify)										
	<b>Total</b>	<b>6</b>	<b>323</b>	<b>74</b>	<b>397</b>	<b>36</b>	<b>23</b>	<b>59</b>	<b>359</b>	<b>97</b>	<b>456</b>

**Details of sponsoring agencies involved**

- CSS-MIDH NHM
- AgricultureSkill Council of India
- Coconut Board, Bengaluru

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

S.No.	Area of training	No. of Courses	No. of Participants										
			General			SC/ST			Grand Total				
			Male	Female	Total	Male	Female	Total	Male	Female	Total		
<b>1</b>	<b>Crop production and management</b>												
1.a.	Commercial floriculture												
1.b.	Commercial fruit production												
1.c.	Commercial vegetable production												
1.d.	Integrated crop management												
1.e.	Organic farming												
1.f.	Others (pl.specify)												
<b>2</b>	<b>Post harvest technology and value addition</b>												
2.a.	Value addition												
2.b.	Others (pl.specify)												
<b>3.</b>	<b>Livestock and fisheries</b>												
3.a.	Dairy farming												
3.b.	Composite fish culture												
3.c.	Sheep and goat rearing												
3.d.	Piggery												
3.e.	Poultry farming												
3.f.	Others (pl.specify)												
<b>4.</b>	<b>Income generation activities</b>												
4.a.	Vermi-composting												
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.												
4.c.	Repair and maintenance of farm machinery and implements												
4.d.	Rural Crafts												
4.e.	Seed production												
4.f.	Sericulture												
4.g.	Mushroom cultivation												
4.h.	Nursery, grafting etc.												
4.i.	Tailoring, stitching, embroidery, dyeing etc.	1	0	27	0	0	0	0	0	0	27	27	
4.j.	Agril. para-workers, para-vet training												
4.k.	Bakery Product Preparation	1	0	16	0	0	0	0	0	0	16	16	
<b>5</b>	<b>Agricultural Extension</b>												
5.a.	Capacity building and group dynamics												
5.b.	Others (pl.specify)												
	<b>Grand Total</b>	<b>2</b>	<b>0</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>43</b>	

### 7.F. Details of Skill Training Programmes carried out by KVKs under ASCI

S. No.	Name of Job Role	Date of Start	Date of Assessment	Total Expenditure (Rs.)	No. of Participants									No of Participants passed assessment
					General			SC/ST			Grand Total			
					Male	Female	Total	Male	Female	Total	Male	Female	Total	
1	Bee Keeper	11.02.2019	18.03.19	1,40,663.00	14	1	15	4	1	5	18	2	20	19
2.	Organic Grower	11.02.2019	18.03.19	1,65,164.00	17	0	17	3	0	3	17	03	20	18

**PART VIII – EXTENSION ACTIVITIES (2018-19)****Extension Programmes (including extension activities undertaken in FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	5	155	114	269	29	12	41	10	4	14
Kisan Mela	01	20	25	45	40	70	110	5	4	9
Kisan Ghosthi	0	0	0	0	0	0	0	0	0	0
Exhibition	6	46658	30937	77595	20435	10239	30674	355	235	590
Film Show	8	65	30	95	15	12	27	0	0	0
Method Demonstrations	20	237	62	299	48	14	62	30	17	47
Farmers Seminar	01	60	10	70	10	6	16	8	2	10
Workshop	8	177	217	394	63	89	152	16	6	22
Group meetings										
Lectures delivered as resource persons	66	3482	941	4423	1312	409	1712	503	259	762
Newspaper coverage	38									
Radio talks	8									
TV talks	8									
Popular articles	14									
Extension Literature	4									
Advisory Services(Over phone)	169									
Scientific visit to farmers field	201	371	91	462	70	19	89	83	18	101
Farmers visit to KVK	197	105	15	120	57	10	67	10	10	20
Diagnostic visits	78	172	23	195	20	2	22	45	14	59
Exposure visits	18	40	8	48	25	4	29	0	0	0
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0
Soil health Camp	0	0	0	0	0	0	0	0	0	0
Animal Health Camp	01	50	7	57	10	0	10	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	0	0	0	0	0	0	0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0
Self Help Group Conveners meetings	0	0	0	0	0	0	0	0	0	0
Mahila Mandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important days (specify)	8	300	200	500	100	91	191	0	0	0
Any Other (Specify) Awareness Programmes	3	75	315	390	32	130	162	40	20	60
<b>Total</b>	<b>862</b>	<b>51967</b>	<b>32995</b>	<b>84962</b>	<b>22266</b>	<b>11107</b>	<b>33364</b>	<b>1105</b>	<b>589</b>	<b>1694</b>

**PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIAL (2018-19)****9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Name of the Variety	Name of the Hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy*	Abhilash	-	135		
Oilseeds						
Pulses	Black gram*	DU-1		1		
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (specify)						
<b>Total</b>				<b>136</b>		

\* Produce not yet sold

**9.B. Production of planting material by the KVKs**

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial						
Vegetable seedlings	Drumstick	PKM-1		600	9,000.0	48
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation	Arecanut	SAS-1		3400	51,000.0	13
Spices	Black Pepper	Paniyur-1	--	20000	3,50,000.00	75
	Cardamom	Mudigere-1		1100	16,500.00	16
	Venilla	Local		148	8,880.00	6
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
<b>Total</b>				<b>25248</b>	<b>4,35,380.00</b>	<b>158</b>

**9.C. Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity (q)	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others (specify) Root Hormone	IBA	0.015	1,225.0	10
<b>Total</b>				

**9.D. Production of livestock : NIL**

**PART X – PUBLICATIONS, SUCCESS STORY, INNOVATIVE METHODOLOGY, ITK,  
TECHNOLOGY WEEK**

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

(A) KVK Newsletter:

Date of start: April 2018    Periodicity:Quarterly    Copies printed in each issue:100

(B) Literature developed/published

Item	Number
Research papers- International	4
Research papers- National	1
Technical reports	
Technical bulletins/short communications/Abstract	12
Popular articles - English	
Popular articles – Local language	19
Extension literature	5
Others (Pl. specify)	
<b>TOTAL</b>	<b>41</b>

**10.B. Details of Electronic Media Produced**

S. No.	Type of media	Title	Details
1	CD / DVD	Enrichment of Trichoderma with Neem cake	In house Video development
2	Mobile Apps	Nil	-
3	Social media groups with KVK as Admin	DAESI Trainees Whatsapp Group	Regular exchange for information and answers to the queries.
4	Facebook account name	kvkuks@gmail.com	-
5	Instagram account name	Nil	-
6	Digital Library	Digital Library	Nearly 70 technological CDs are collected from different institutes like GKVK, UASD, IIHR etc. They are being used during trainings for dissemination of technology

**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).**

**Title : Berry Drop Management in Black Pepper**

**Background :** Black pepper (*Piper nigrum* L.) is a major export oriented spice crop of India. It is a native of the monsoon forests along Malabar Coast of south western India. In India, it is cultivated in an area of 1.35 lakh ha with the production of 64000 tonnes and the export has been 16,840 tonnes. Karnataka, Kerala and Tamilnadu are major spice growing states in India. Uttara Kannada is one of the major black pepper growing districts in Karnataka. In Uttara Kannada, it is cultivated in an area of 1117 ha with the production of 517tonnes.The major setback in the cultivation of black pepper in the district is berry drop leading to loss in yield. Spike shedding and berry drop are serious malady that affects the yield of pepper to an extent of 29.0 per cent and 40.0 per cent. Abiotic stress like drought, high temperature, nutritional imbalance and biotic stress are the reasons for berry drop in black pepper. These stresses may create a physiological imbalance within the

plant, leading to shedding of spikes that adversely affects the productivity of the vines. Auxins are organic compounds which play a vital role in regulating various physiological processes of plants. Hence an investigation was carried out with growth regulator and nutrient spray to enhance the productivity of pepper vines by reducing berry drop from spikes

### Interventions

**Process :** On farm testing of available technology options was undertaken at Kenchagadde village of Uttara Kannada district during 2016-17 and 2017- 2018 by Krishi Vigyan Kendra, Sirsi. The OFT was conducted at 5 farmer's field. The observation on per cent berries per spike at the time of first harvest, per cent reduction in berry drop and yield were recorded. Per cent berries per spike was calculated based on the observations like total number of berries set/ spike and berries drop/ spike.

**Technology :** TO1: The treatments were farmers practice (no spray), TO2: Di-Ammonium Phosphate (DAP) 1.5 per cent and 25 ppm Naphthalene Acetic Acid (NAA) spray at berry set and fruit development stage and TO3:NAA @ 40 ppm spray at berry set and fruit development stage. The recommended package of practices were followed to raise the crop.



**Berry set and fruit development under different treatments**



**Spraying and harvesting operations in black pepper**



**Impact:** Number of berries per spike were found to be highest in the treatment where 1.5 per cent DAP and 25 ppm NAA were sprayed at berry set and fruit development stage respectively. Further, application of NAA @ 40 ppm at berry set and fruit development stage also showed significantly more number of berries per spike at the time of first harvest as compared to farmers practice.

**Horizontal Spread:** Initially in five farmers field (250 vines in each farmer field) treatments were induced under FLD. Due to the increased berry set per cent and total yield surrounding farmers started to use the same treatments and the technology reached to more than 45 farmers. The information related to management of berry drop in black pepper was spread via original farmers in whose field KVK initially introduced the technology and trainings. Further, the berry drop management by DAP and NAA spray is still expanding to surrounding blocks of Uttar Kannada district.

**Economic gains:** Application of 1.5 per cent DAP and 25 ppm NAA spray fetches the significantly highest net return and B:C ratio (Rs.4,19,256 /ha and 3.34) followed by NAA @ 40 ppm spray treatment. The lowest B:C ratio was observed under farmers practice.

**Employment Generation:** NIL

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

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

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

10 F. Technology Week celebration during 2018-19: NIL

Period of observing Technology Week: From \_\_\_\_\_ to \_\_\_\_\_  
 Total number of farmers visited : \_\_\_\_\_  
 Total number of agencies involved : \_\_\_\_\_  
 Number of demonstrations visited by the farmers within KVK campus :

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies			
Lectures organized			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Supply of Literature (No.)			

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)			
Bio Fertilizers (q)			
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week			

## PART XI – SOIL AND WATER TEST

### 11.1 Soil and Water Testing Laboratory

**A. Status of establishment of Lab : Running**

1. Year of establishment : 2005
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1	pH meter	1	19250
2	EC meter	1	20,570
3	Microjeldahl N distillation Unit	2	2,88,550
4	Plant Sample digestion Unit (Kjeldahl)	1	137350
5a	Distillation Unit (Glass double)-5 l/ hr	1	43050
5b	Distillation Unit (Glass double)-1 l/hr	2	43050
6	Spectrophotometer	1	40050
7	Flame photometer	2	1,22,040
8	Hot Air Oven	1	17228
9	Willey mill (Plant sample Grinder)	1	15,435
10	Hot plate	1	3046
11	Horizontal Shaker	2	96905
12	Weighing Balance (Cap 500 g, Acc 0.1 g)	1	10890
13	Weighing Balance (Cap 100 g, Acc 0.001 g)	2	138479
14	Whirlpool Refrigerator	1	22850
15	Atomic absorption spectro photometer	1	14,49,352
	Total	<b>21</b>	<b>24,68,095.00</b>

**B. Details of samples analyzed since establishment of SWTL:**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
<b>Soil Samples</b>	11651	11543	6805
<b>Water Samples</b>	6721	6666	4534
<b>Plant samples</b>	0	0	0
<b>Manure samples</b>	0	0	0
<b>Others (specify)</b>	0	0	0
<b>Total</b>	<b>18372</b>	<b>18209</b>	<b>11339</b>

**C. Details of samples analyzed during the 2018-19:**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	1812	1725	1648
Water Samples	1536	1502	1441
Plant samples			
Manure samples			
Others (specify)			
<b>Total</b>	<b>3348</b>	<b>3227</b>	<b>3089</b>

**11.2 Mobile Soil Testing Kit : NIL**

**A. Date of purchase and current status: NIL**

Mobile Kits	Date of purchase	Current status
1.		
2.		

**B. Details of soil samples analyzed during 2018-19 and since establishment with Mobile Soil Testing Kit: : NIL**

	Progress during 2018-19	Cumulative progress
Samples analyzed (No.)		
Farmers benefited (No.)		
Villages covered (No.)		

**11.3 Details of soil health cards issued based on SWTL & Mobile Soil Testing Kit during 2018-19: : NIL**

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL					
Mobile Soil Testing Ki					

**11.4 World Soil Health Day celebration**

Sl. No.	Farmers participated (No.)	Soil health cards issued (No.)	VIPs (MP/ Minister/MLA attended (No.)	Other Public Representatives participated	Officials participated (No.)	Media coverage (No.)
01	152	48	01	03	20	04 Dailies

## PART XII. IMPACT

### 12.A. Impact of KVK activities (Not 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)
Use of green manure crops(diancha, sunhemp) in paddy	150	45	Net profit: 23000/ha	Net profit: 38000/ha
Seed treatment (Fungicides) in paddy				
Bio-fertilizer application in paddy				
Lime application in paddy				
Micronutrient application(Zn, B)	50	85	Net profit: 275000/ha	Net profit: 450000/ha
Rhizome rot management in ginger				
Heart rot management in pineapple	35	60	Net profit: 615000/ha	Net profit: 425000/ha

### 12.B. Cases of large scale adoption (Please furnish detailed information for each case with suitable photographs)

- **Modified PG protocol for management of repeat breeding in cows**

The technology was transferred through front line demonstration during 2017-18 and 2018-19, to the cows which are not conceiving even after 3 consecutive inseminations. The technology involves correction of nutritional deficiency by supplementation of multivitamin and minerals with heat synchronization by double dose of Prostaglandin and fixed inseminations with a dose of GnRH. This has resulted in increased conception rate to the tune of 85% in single insemination and getting a calf a year, increase milk yield by 40% and cost reduction to the tune of 17%. This technology is adapted to 50 % of affected population by field Veterinary Doctors, Artificial Insemination workers and veterinary livestock inspectors.



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

### PART XIII - LINKAGES

#### 13A. Functional linkage with different organizations

Name of organization	Nature of linkage
IINRG Ranchi	Projects
ASCI	Skill Trainings
State Dept. of Agriculture	Trainings, demonstrations, seminars and field days, ATMA
State Dept. of Horticulture	Training programmes, demonstrations, seminars and field days, soil testing, CHD Scheme
Department of Women and Child Development	<b>Primary data collection on women and children</b>
Thotagar's Service Society, Sirsi	Trainings, input procurement, seminars.
State Dept. of Animal husbandry & Veterinary Sciences	Animal Health Camps, trainings.
Grameen Banks	Guidance to beneficiaries about schemes in Trainings
Water shed department	Trainings.
All India Radio, E-TV, Udaya, Chetan TV and Door Darshan	Publicity and transfer of technology
Kadamba charitable trust, Sirsi	Trainings, method demonstration, meetings , Seminars.
Kadamba Marketing & Co-operative Society, Sirsi	Trainings, Melas, SHGs, Marketing
Snehakunja Charitable Trust, Honnavar	Training & method demonstration.
Farmers clubs	Trainings, demonstrations, seminars and field days.
Sri Kshetra Dharmastala Grameenabhivrudhi Yojane (SKDRDP)	Seminar, Field day.
SRIJAN NGO	Trainings and Field Visit and Field days
MANU VIKAS NGO	Field days and Field visits
Canarabank Deshpande Rudeset , Haliyal	Trainings, field visits, meetings
Jnana Joythi Financial Literacy Centre, Sirsi	Trainings
The Agricultural Service and Development Cooperative Society Ltd.	Trainings, Services(supply of inputs)
GGSSS, Ltd Nanikatta, Siddapur tq.	Trainings, FLDs, Method demos
Madhukeshwar FPO, Banavasi	Technical backstopping
Pragati FPO, Banavasi	Technical backstopping
Karnataka Forest Department	Trainings, Field visits
KMF	Trainings, Demonstrations
Department of Women and Child Development	Primary data collection on women and children
RUDSETI	Organizing training programmes for women SHG's,
Line departments(Fisheries, Dept. of Animal Husbandry)	Organizing training programmes, income generating activities for women for women, participation as recourse person
BAIF, Institute for rural development	Trainings, field day, field visit, workshop

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

#### 13B. List of special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Testing chemical project : Bioefficacy and phytotoxicity of IKI 3106 80 SL against insect pests on Rice (as PI)	2 seasons ( Rabi 2018 and Kharif 2019)	ISK Biosciences India Pvt. Ltd., New Delhi	1,41,600 (R) +2,00,600 (K)
KVK Sirsi as Voluntary /cooperating center for ICAR funded Network project on Conservation of Lac genetic resources (as PI)	December, 2018	ICAR, New Delhi IINRG Ranchi	5,50,000.00(2018-19)
Studies on wilting of Mangroove plantations of Honnavar forest division(as PI)	February 2019	KFD, Honnavar	2,50,000.00
Evaluation and Assessment of Traditional and Farmer's rice varieties in Karnataka (as Co-PI)	June, 2018	National Innovation Foundation, Gandhinagar	13,20,000.00

Staff Research Project (UASD): Status of physical and mental health of women labours working in wakaries	August 2018	UAS Dharwad	1,00,000.00
Staff Research Project : Study of flowering behavior and standardization of soft wood cutting propagation technique in Jasmine ( <i>Jasminum sambac var Bhatkal Jasmine</i> )	2017-18	UAS, Dharwad	1,25,000.00

### 13C. Details of linkage with ATMA

#### Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	1. Discussion meeting on implementation of ATMA programme 2018-19 on 22.9.18 2. District level meeting on demos to be conducted under ATMA on 12.07.18	02	Nil	1. Discussion meeting on implementation of ATMA programme 2018-19 on 22.9.18 2. District level meeting on demos to be conducted under ATMA on 12.07.18
02	Research projects	Studies on Agronomic aspects of Teff crop. Funded under ATMA Outlay 3.0 lakhs	-	-	-
03	Training programmes	Technical information in horticultural/Agricultural crops	16	01	Organized district level Scientist-Farmer Interaction Meet at KVK Sirsi
04	Demonstrations	1. Seed treatment in Paddy at Mundagod 2. Safe handling of pesticides at Mogadde and Tenkanakeri	02	-	-
05	Extension Programmes				
	Kisan Mela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps	Soil health camp at Bairumbe	10	01	World Soil Health Day in association with ATMA Sirsi
	Animal Health Campaigns				
	Diagnostic Field Visits	Daignostic FV	13		
06	Publications				
	Video Films				
	Books				

	Extension Literature	1. Extension folder - on Role of Pheromone traps in management of YSB in Paddy, 2018-19, 1500 copies 2. Extension folder - Production technology of Azolla - as an animal feed, 2018-19, 1500 copies 3. Extension Folder: Fall Army Worm , Copies: 3000			
	Pamphlets				
	Others (Pl. specify)				
07	Other Activities Corporate Activities	Member in selection of District & Taluka Level Best Farmer Awards	15		
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

**13D. Give details of programmes implemented under National Horticultural Mission**

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
01	CSS-MIDH	Production of planting material and training programme	1,60,000.00	1,58,070.00	Nil

**13E. Nature of linkage with National Fisheries Development Board : NIL**

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

**13F. Details of linkage with RKVY : NIL**

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





**14C. 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	

**14D. 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	
01	Cows	Crossbred	Milk	6789 l	1,41,026	1,69,731.25	

**14E. Utilization of hostel facilities**

Accommodation available (No. of beds): 25

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	3	3	
May	5	5	
June	5	4	
July	4	4	
August	5	5	
September	4	4	
October	3	3	
November	4	7	
December	6	8	
January 2019	17	56	
February	5	5	
March	3	3	

**14F. Database management**

S.No	Database target	Database created
01		Trainings
02		FLD Details
03		OFT Details
04		Field Visits
05		Method Demonstrations
06		Farmer Visits to KVK
07		Phone Calls
08		Seminars/Workshops Organized
09		Seminars/Trainings/Workshops attended
10		Special Programmes
11		KMAS
12		Guest Lectures
13		Field Days
14		Electronic Media
15		Publications
16		Seeds/Planting Material

**14G. Details on Rain Water Harvesting Structure and micro-irrigation system : NIL**

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.)		

**PART XV - FINANCIAL PERFORMANCE****15A. 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, Sirsi	SIRSI	917	Programme Coordinator, KVK UK	30157809532	581002401	SBIN0000917
		SIRSI	917	KVK Revolving Fund	10816617558		
		SIRSI	917	Group Leader, UAS Diary	10816629030		
		SIRSI	917	EXTN.LEADER,EXTN.EDU TN.UNIT	10816617296		
Current A/c NO.		SIRSI	917	Programme Coordinator KVK	36527784252		

**15B. Utilization of KVK funds during the year 2018-2019(Rs. in lakh)**

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	108.12	108.12	90.75
2	<b>Traveling allowances</b>	2.75	2.75	2.52
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.35	2.35	2.24
B	POL, repair of vehicles, tractor and equipments	2.30	2.30	2.30
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.00	1.00	0.96
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.50	0.50	0.49
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	3.03	3.03	2.90
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.58	0.58	0.30
G	Training of extension functionaries	0.10	0.10	0.10
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory	0.10	0.10	0.10
J	Library	0.04	0.04	0.03
K	ORD/EDP/Innv.Activities,Soil and water testing and issue of Soil health cards	0.60	0.60	0.15
L	Extension Activities	0.40	0.40	0.39
<b>TOTAL (A)</b>		<b>121.87</b>	<b>121.87</b>	<b>103.24</b>
<b>B. Non-Recurring Contingencies</b>				
			0.00	0.00
1	<b>Works</b>	47.00	47.00	31.55
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>		<b>47.00</b>	<b>47.00</b>	<b>31.55</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>168.87</b>	<b>168.87</b>	<b>134.78</b>

**15C. Status of revolving fund (Rs. in lakh) for the last three years**

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
<b>April 2016 to March 2017</b>	575405.52	1934128.50	1546874.00	962660.02
<b>April 2017 to March 2018</b>	962660.02	1068409.00	999962.00	1031107.02
<b>April 2018 to March 2019</b>	1031107.02	1561052.50	799870.50	1792305.02

## 16. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Roopa S. Patil	Scientist (Agril. Entomology)	International Conference on Doubling Farmers Income through Innovative Approaches	KVK Baramati (Pune)	9-11 April, 2018
Dr. Roopa S. Patil	Scientist (Agril. Entomology)	Management Development Programme on Management of training	MANAGE, Hyderabad	27-30, August, 2018
Dr. Roopa S. Patil	Scientist (Agril. Entomology)	Training of Trainers programme	GKVK, Bengaluru	24-29, Sept, 2018
Dr. Roopa S. Patil	Scientist (Agril. Entomology)	9 <sup>th</sup> National Extension Education Congress-2018 on Climate Smart Agricultural Technologies ; Innovations and Interventions	CAEPHT, Ranipool	15-17, Nov, 2018
Dr. Shweta Biradar	Scientist – Home Science	Jack conclave	COH, Kolar	1.06.2018 to 2.06.2018
Dr. Shweta Biradar	Scientist – Home Science	Participation and paper presentation in International Conference on Doubling the Income of Farmers of SAARC Countries: Extension Strategies and Approaches	Department of Agriculture, Agriculture Information and Training Center. Kathmandu Nepal	20.09.2018 to 23.09.2018
Dr. Shweta Biradar	Scientist – Home Science	9 <sup>th</sup> Extension Education Congress “ Climate Smart Agricultural Technologies Innovations and Interventions”	Central Agricultural University, Imphal - College of Agricultural Engineering and Post Harvest Technology, Ranipool, Sikkim	15.11.2018 to 17.11.2018
Dr. Shweta Biradar	Scientist – Home Science	Doubling Farmers Income: A Family Approach	UASD	16.01.2019 to 05.02.2018
Dr. Santosh H M	Scientist (Horticulture)	ASCI Training of Trainers programme	GKVK UAS Bengaluru	24. 9. 2018 to 26. 9. 2018
Dr. Santosh H M	Scientist (Horticulture)	9 <sup>th</sup> National Extension Education Congress, 2018	CAU, Imphal	15.11.2018 to 17.11.2018
Dr. Santosh H M	Scientist (Horticulture)	CAFT training on ‘Conservation and utilization of plant genetic resources in medicinal and aromatic plants’	COH,Sirsi	03.12.2018-23.12.2018
Smt Annapurna F Neeralgi	Technical Officer(Computers)	9 <sup>th</sup> Extension Education Congress “ Climate Smart Agricultural Technologies Innovations and Interventions”	Central Agricultural University, Imphal - College of Agricultural Engineering and Post Harvest Technology, Ranipool, Sikkim	15.11.2018 to 17.11.2018
Smt Annapurna F Neeralgi	Technical Officer(Computers)	PFMS	UAS Dharwad	10.01.2019
Smt Annapurna F Neeralgi	Technical Officer(Computers)	PFMS	UAS Dharwad	19.02.2019 to 20.02.2019

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

**I. Linkage with FPO under CHD scheme of Dept. of Horticulture**

**Name and address of FPO :**

**Madhukeshwar Totagarike Raita Utpadakar Company Ltd., Andagi, Tq: Sirsi.**

**Date of Estashliment** : 09.03.2016

**No. of Members** : 1000

**Major Crops** : Banana, Ginger, Pineapple

Different Activities conducted:

FLDs Under FPO			
1	Heart rot management in Pineapple	1 ha	10demos
2	Rhizome rot management in Ginger	1 ha	10 demos
3	Demonstration of bunch care technologies to maximize yield in banana	1 ha	12 demos
Field Visits : 15			
Trainings : 03			
Method Demonstration : 03			
Interstate Exposure visit to Mysore(Raita Mitra FPO) and Udagamandalam was organized for 50 FPO members			

**Results of FLDs conducted :**

**1. Title of the Technology : Heart rot management in Pineapple**

Particulars	Demo	Check
Percent disease Incidence of Heart rot (PDI)	4.25	5.20
Yield (tons/ha)	82.61	73.69
B:C ratio	2.65	2.44
% increase in yield :10.79		

**2. Title of the Technology : Rhizome rot management in Ginger**

Particulars	Demo	Check
Incidence of rhizome rot (%)	11.74	19.71
Yield (tons/ha)	27.45	23.19
B:C ratio	3.41	3.12
% increase in yield :15.51		

**3. Title of the Technology : Rhizome rot management in Ginger**

Particulars	Demo	Check
Days to harvest	378.1	392.2
Weight of Bunch (Kg)	15.27	12.35
Finger length (cm)	9.32	8.80
Finger girth (cm)	9.15	8.23
Yield (t/ha)	34.58	27.97
B:C ratio	2.59	2.30
% increase in yield :19.11		

## II. Introduction New Crop “TEFF:

As per the suggestion of Shri. Anant Kumar Hegde, Hon’ble Central Minister for Skill Development, Teff Super Food crop is introduced in Uttara Kannada District during Kharif 2018-19. The CFTRI technology was demonstrated in 2 guntas through the feeler trial in farmers field at Kapageri village of Sirsi Taluka. The farmer harvest 4 kg teff seeds from 20 gram seeds. The produced seeds were re distributed to farmers of Haliyal, Sirsi Talukas through ATMA Research project for further research. Shri. Anant Kumar Hegde, Hon’ble Central Minister appreciated the efforts of KVK Uttara Kannada in introduction of valuable crop in the district and has given assurance for providing the market linkage for the produce.

## III. Up scaling and Marketing of Garments in EDP Mode:

**Organizer** : Dr. Shweta Biradar, Scintist Home Science

**Village** : Kumta

**Participants** : 27 SHG Members (2 SHGs)

**Collaborative Agency** : RUDSETI, Kumta

**Product Prepared** : Saree blouse, Salwar Kameez, Designer blouses, Designer Sarees.

### Out come

- Very promising with the stellar percentage of 100.
- All the 27 trainees are up scaled with tailoring and embroidery skill.
- 12 women have taken up tailoring as their enterprise along with their domestic activities and earning on an average Rs. 1500/- to Rs. 2000/- per month.
- Remaining 15 women stitch the garments for themselves and their family members. Yet they are planning to take up their skill as an entrepreneurship

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