

# **Action Plan (2018-19)**

## **Krishi Vigyan Kendra, Katihar**

### **1. INTRODUCTION**

Krishi Vigyan Kendra, Katihar has been established in February, 2004 at Tingachhiya farm in Katihar district of Bihar. It is an innovative centre of Indian Council of Agricultural Research (ICAR), Pusa, New Delhi under the administrative control of Bihar Agricultural University, Sabour, Bhagalpur Bihar. The centre has the mandated activities of conducting on farm testing/trials (OFTs) with emerging advances in agricultural research for assessing, refining and demonstration of recently released technology to develop location specific sustainable production system and dedicated to organize vocational training in agriculture and allied fields for practicing farmers, farm women and rural youth. The Katihar district is quite suitable for cultivation of Jute, Makhana, Banana, Potato, Maize, Rice, Wheat, Oil seeds and Vegetables crops in different seasons of the year. The productivity enhancement of the field, fiber and horticultural crops with the concept of integrated farming system module are the major arena of thrust for development of agriculture in the district. The main mandates of the KVK, Katihar is:

- **Conduct on farm testing/trials (OFTs), for assessing, refining and documenting agricultural technologies to develop location specific sustainable production system.**
- **Conduct front line demonstration (FLDs) on cereals, oilseeds, pulses and, horticultural crops and for generating production data and feedback.**
- **Organize vocational training in agricultural and allied sector for practicing farmers, farm women and rural youth with emphasis on learning by doing for self employment and income generation.**
- **Organize training for in-service extension personnel for updating their knowledge status.**

## 2. STAFF POSITION

Name of Post	Sanctioned strength	Present position	Date of joining	Remarks
Senior Scientist & Head	1	Dr. Ramanand Singh	26.07.1980	
Subject Matter Specialist (Home Sc.)	1	Smt. Nandita Kumari	23.07.2001	
Subject Matter Specialist (Hort.)	1	Dr. Kameshwari Prasad Singh	10.06.2009	
Subject Matter Specialist (Agronomy)	1	Dr. Sushil Kumar Singh	15.06.2009	
Subject Matter Specialist (Ext. Edu.)	1	Sri Pankaj Kumar	18.11.2009	
Subject Matter Specialist (Soil Sc.)	1	Dr Rama Kant Singh	18.04.2012	
Subject Matter Specialist (Plant Prot.)	1	Vacant		
Programme Assistant (lab. Tech.)	1	Smt. Swarna Prabha Reddy	30.10.2012	
Programme Assistant (Computer)	1	Sri Amarendra Kumar Vikas	13.05.2013	
Farm Manager	1	Sri Om Prakash Bharti	05.11.2012	
Assistant	1	Sri Mukesh Kumar	09.04.2013	
Jr. Stenographer	1	Sri Biswajit Datta	21.06.2013	
Driver (Jeep )	1	Sri Manoj Kumar Prajapati	09.05.2015	
Driver (Tractor)	1	Sri Ram Jee	12.05.2015	
Supporting Staff	1	Sri Sanjay Yadav	01.02.2005	Contractual
Supporting Staff	1	Sri Ganesh Kumar	16.10.2017	Contractual

### 3. LAND WITH THE KVK

▪ Cultivable Land	6.00 ha
▪ Land under shed, Go-down, road threshing floor	2.00 ha
▪ Orchard /Agro forestry	5.0 ha
▪ Others	7.0 ha
<b>Total land</b>	<b>20.00 ha</b>

### 4. Location

Krishi Vigyan Kendra, Katihar is situated in the south-eastern portion of North Bihar plain. The district came in existence in 1973 carved out from Purnea. It is located on Tingachhiya farm in the district head quarter of Katihar about 3 KM away from the Katihar Railway Station. The nearest airport is Patna in Bihar and Bagdogra in West Bengal. It lies between Latitude 25'N to 26'N, Longitude 87' to 88'E with an altitude of 20 m above MSL

### 5. AGRO-CLIMATIC CONDITION

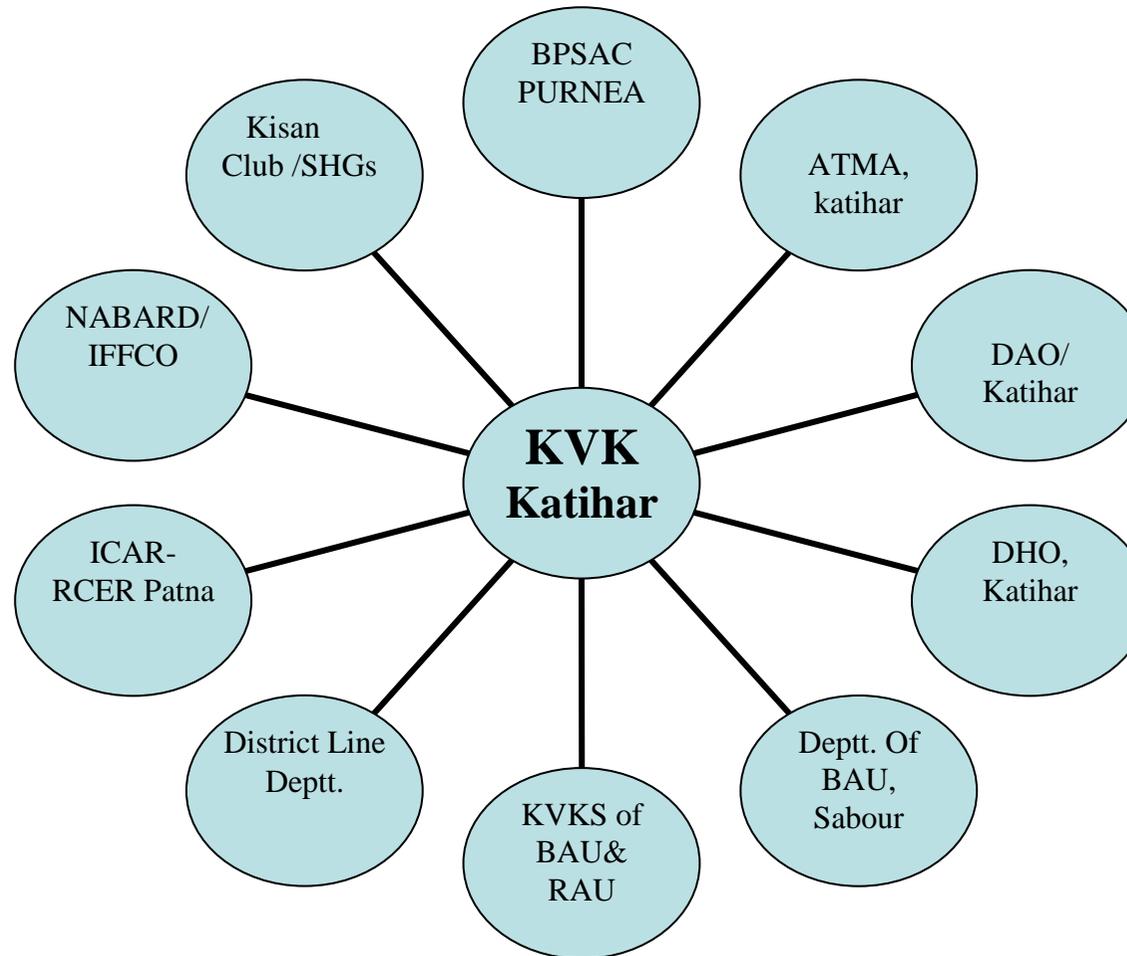
KVK Katihar falls in Agro-climatic Zone-II. The climate is sub-tropical and humid having mean maximum and minimum temperature between 46°C and 4.10°C respectively. The average annual rainfall of the district is about 1298 mm. The maximum rainfall occurs during monsoon period. The soil of the districts generally sandy to sandy loam having alluvial properties due to three major rivers Mahananda, Kosi and Ganga. Low lying areas have clay loam to clay soils. The soils of Katihar district are mostly coarse to medium textured, acidic to neutral in reaction and yellowish white to light gray in color. In basin shaped flood plains, soils are gray colored, medium fine textured and shallow to medium deep soils over sand. The up land coarse textured soils are poor in fertility status as compared to low land soils. The availability of Nitrogen, Phosphorus and Potash is generally low, medium and medium to high respectively. Soils are deficient in Zinc, Sulphar & Boron. The cropping system varies depending on rainfall, land situation and water accumulation in the locality. There are three distinct farming situations viz. Upland, Medium land, low land, Deepwater land having specific characteristic which determine crop sequence/cropping patterns in the district.

## **6. THRUST AREA**

- Crop diversification and intensification in Rice- Wheat cropping system.
- Promotion and adoption of Integrated farming system for the district
- Management of Jute, Banana and Makhana based cropping system
- Popularization of quality seed and planting materials production.
- Adoption of Integrated Nutrient Management for sustainable agriculture.
- Farm women empowerment and Income generation

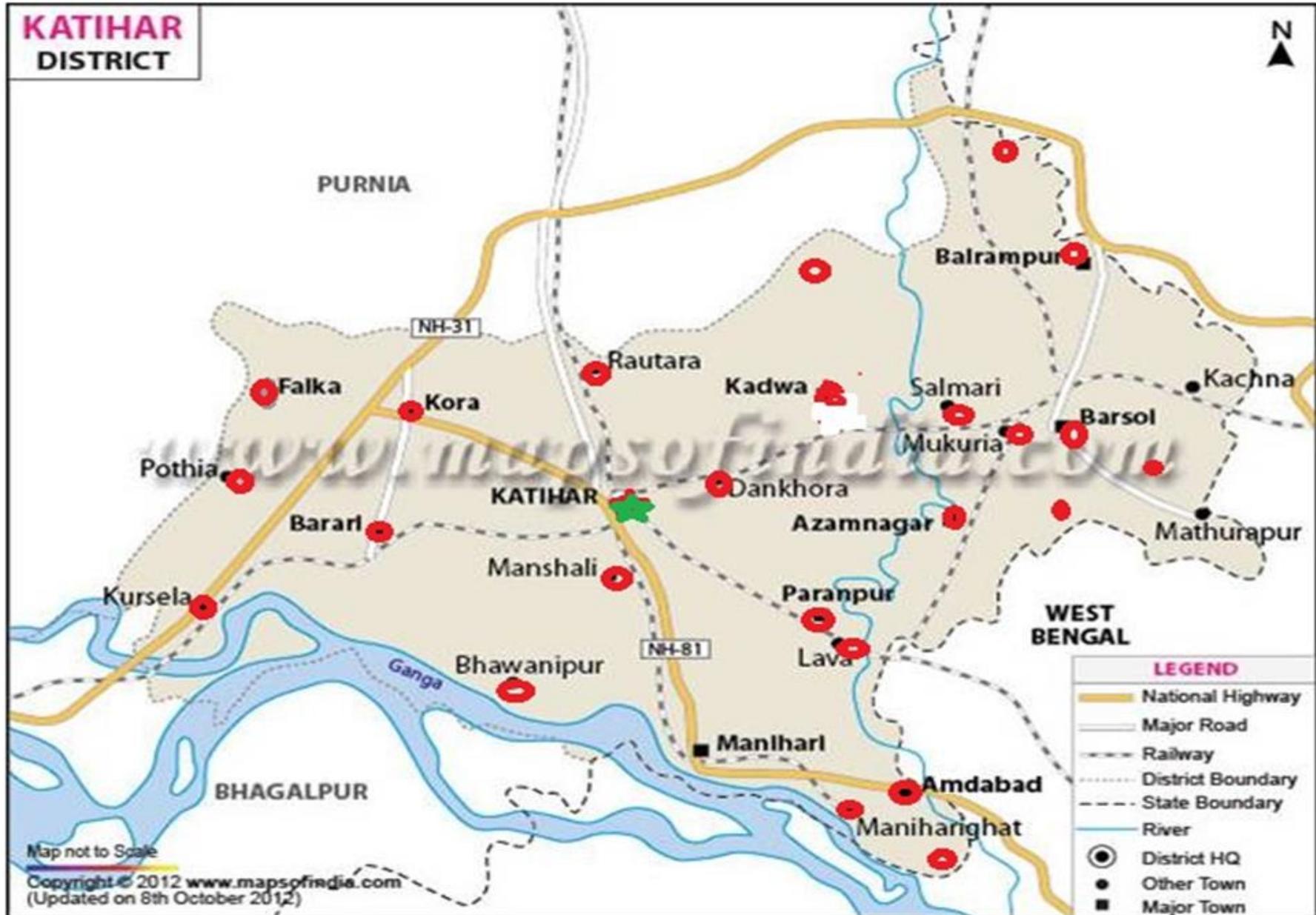
7.

## Linkages



8.

# MAP OF KATI HAR



## 9. Abstract of Training Programmes:

### Action Plan (2018-19)

Discipline	No of Courses	Participants		
		Male	Female	Total
<b>Practicing farmers</b>				
Home Science	16	000	400	400
Horticulture	18	450	000	450
Agronomy	14	241	109	350
Extension Education	15	262	113	375
Soil Science	11	202	073	275
<b>Total(A)</b>	<b>74</b>	<b>1155</b>	<b>695</b>	<b>1850</b>
<b>Rural Youth</b>				
Home Science	9	000	225	225
Horticulture	8	191	09	200
Agronomy	5	085	40	125
Extension Education	8	140	60	200
Soil Science	8	136	64	200
<b>Total(B)</b>	<b>38</b>	<b>552</b>	<b>398</b>	<b>950</b>
<b>Extension Functionaries</b>				
Home Science	4	000	100	100
Horticulture	4	78	42	120
Agronomy	5	97	53	120
Extension Education	4	78	42	120
Soil Science	4	78	42	120
<b>Total(C)</b>	<b>21</b>	<b>331</b>	<b>279</b>	<b>580</b>
<b>Grand Total (A+B+C) :</b>	<b>133</b>	<b>2038</b>	<b>1372</b>	<b>3380</b>

## **10. List of location specific thrust areas:**

### **Discipline: Agronomy**

1. Demonstrations on Seed treatment
2. Application of soil test reports
3. Introduction of new and improved varieties of pulses and oilseed
4. Soil moisture conservation practices, foliar spray of nutrients

### **Discipline: Horticulture**

1. Management of Banana
2. Balanced Nutrient Management in Horticultural Crops
3. Use of improved variety in Vegetables
4. Improvement in production of quality vegetables through nursery management & INM

### **Discipline: Extension Education**

1. Organization of farmers group and their capacity building
2. Promotion of micro financing, linkages with banks
3. Promotion of concept of 'farmer as resource person'
4. Secondary agriculture and Entrepreneurship development
5. Market intelligence
6. Promotion of agricultural insurance and subsidiary occupations
7. TOT for Knowledge dissemination and boosting rate of adoption of improved technology
8. Establishment, strengthening and utilization of linkages and Use of ICT

### **Discipline: Home Science**

1. To popularize organic nutritional gardening.
2. To aware about vegetable and fruits processing.
3. To reduced laborious work through drudgery reduction technologies.
4. Empowerment of rural women through employment/self employment.

### **Discipline: Soil Science**

1. Awareness & Motivation programme about soil & water testing
2. Promotion of soil test based fertilizer application for efficient nutrient utilization
3. Cost effective nutrient management
4. Soil Management for sustainable Agriculture
5. Converting crop waste into vermi compost

## 11. Training Need

The PRA and other survey methods were implemented in the adopted villages and other survey methods like use interview schedules, questionnaire, secondary data, and discussions with farmers' core group, following conclusions has been drawn

### List of location specific training needs

Sr. No.	Name of Training programme
1.	Crop management in Kharif & Rabi
2.	wheat cultivation
3.	Soil and water conservation
4.	Soil and water Testing
5.	Nutrient management in Crops
6.	Vermi compost Production
7.	Awareness and use of market intelligence
8.	Participatory Rural Appraisal techniques for extension functionaries
9.	Skill Development programmes
10.	Subsidiary occupations
11.	ICT in agriculture
12.	Training methods
13.	Public private partnership
14.	Role Performance of Women in Agriculture and Drudgery Reduction
15.	Importance of balance diet and preparation of low cost nutritious recopies
16.	Health and nutrition care of mother and child
17.	Technique of vegetable dehydration
18.	Oyster mushroom cultivation
19.	Storage of food grains
20.	Nursery management and production technology for Brinjal and Chilli.
21.	Women self help groups and income generating activity.
22.	Techniques of establishment of nutritional garden.
23.	Awareness on nutritional deficiency among children and growing girl.
24.	Energy saving devices for farm women
25.	Processing techniques and value addition in Fruit Crops
26.	Production technology for off season vegetables
27.	IPDM in wheat

### Details of Training Programme-(2018-19)

Discipline	Qrt No. & Month	Thematic area	Course Title	No of course	Venue off/on campus	Participants						
						SC		ST		Others		Total
						M	F	M	F	M	F	
<b>Home Science</b>	<b>Practicing Farmers &amp; Farm Women</b>											
	April to June 18	Income Generation	Preparation of potato chips, badi and papad	1	ON/OFF	-	3	-	2	-	20	25
		Nutritional Security	Nutritional Practices in Dietary pattern women & Children	1	ON/OFF	-	3	-	2	-	20	25
		Gender mainstreaming	Gender mainstreaming and formation of SHGs	1	ON/OFF	-	2	-	3	-	20	25
		Tailoring and Stitching	Cutting and stitching of garment and embroidery works/ Tie Die and Textile design	1	ON/OFF	-	3	-	2	-	20	25
	July to Sept.18	Drudgery reduction	Location specific drudgery reduction technologies in Agriculture	1	ON/OFF	-	3	-	2	-	20	25
		Value addition	Preservation of seasonal fruits pineapple and others	1	ON/OFF	-	2	-	3	-	20	25
		Women and child care	Importance and use of balanced diet for childrens and women.	1	ON/OFF	-	3	-	2	-	20	25
		Minimization of nutrient loss in processing	Preparation of energy efficient diet	1		-	3	-	2	-	20	25
	Oct to Dec 18	Mushroom Cultivation	Mushroom cultivation and its importance	1	ON/OFF	-	3	-	2	-	20	25
		Household food security by kitchen gardening	Importance of Nutritional Kitchen gardening and management	1	ON/OFF	-	3	-	2	-	20	25
		Design and development of low cost diet	Preparation of weaning food for better child growth	1	ON/OFF	-	3	-	2	-	20	25
		Drudgery Reduction	Introducing of farm implements & modern smokeless chulha	1	ON/OFF	-	3	-	2	-	20	25
	Jan to March 19	Mushroom Cultivation	Mushroom cultivation and its importance	1	ON/OFF	-	3	-	2	-	20	25
		Value addition	Preservation of seasonal location based vegetables	1	ON/OFF	-	3	-	2	-	20	25
		Design and development of low cost diet	Preparation of weaning food for better child and mother growth	1	ON/OFF	-	3	-	2	-	20	25
		Women and child care	Importance and use of balanced diet for childrens and women.	1	ON/OFF	-	3	-	2	-	20	25
	<b>TOTAL</b>			<b>16</b>	<b>-</b>	<b>46</b>	<b>34</b>	<b>320</b>	<b>400</b>			

Discipline	Qrt No. & Month	Thematic area	Course Title	No of course	Venue off/on campus	Participants							
						SC		ST		Others		Total	
						M	F	M	F	M	F		
<b>Practicing Farmers &amp; Farm Women</b>													
<b>Horticulture</b>	April to June 18	Seed production	Nursery raising and seed production of vegetable crops	1	ON/OFF	3	-	2	-	20	-	25	
		Training and Pruning	Training & pruning of Horticultural crop	1	ON/OFF	3	-	2	-	20	-	25	
		INM	INM in Fruit & vegetable crops	1	ON/OFF	2	-	3	-	20	-	25	
		Export potential Fruit	Scientific Cultivation of Broccole and Sproufig	1	ON/OFF	3	-	2	-	20	-	25	
		Plant Propagation	Different methods of propagation	1	ON/OFF	3	-	2	-	20	-	25	
	July to Sept.18	Layout and Management of Orchard	Establishment and management of new Orchard.	1	ON/OFF	3	-	2	-	20	-	25	
		Protected cultivation	Cultivation of Vegetable under shed net and poly tunnel.	1	ON/OFF	2	-	3	-	20	-	25	
		Cultivation of Vegetable	Scientific Cultivation of Brinjal and Bhindi	1	ON/OFF	3	-	2	-	20	-	25	
		Disease management	IDM of vegetables	1	ON/OFF	3	-	2	-	20	-	25	
		Cultivation of Fruits	Scientific cultivation of Tomato	1	ON/OFF	5	-	-	-	20	-	25	
	Oct to Dec 18	Production Technology	Production and management for Medicinal, aromatic plants.	1	ON/OFF	3	-	2	-	20	-	25	
		Seed production	Seed production techniques of potato	1	ON/OFF	3	-	2	-	20	-	25	
		Cultivation of Cole's Crops	Scientific Cultivation of Cauliflower and Cabbage.	1	ON/OFF	3	-	2	-	20	-	25	
		Low volume high value crop	Cultivation of flower for income generation	1	ON/OFF	3	-	2	-	20	-	25	
		Nursery Raising	Nursery raising for summer vegetable	1	ON/OFF	3	-	2	-	20	-	25	
	Jan to March 19	Production and management	Scientific cultivation of garlic and spices crops	1	ON/OFF	5	-	-	-	20	-	25	
		Production of crop	Scientific cultivation of summer vegetable	1	ON/OFF	5	-	-	-	20	-	25	
		Production of Medicinal and Aromatic Crops	Scientific cultivation of Medicinal and Aromatic Crops	1	ON/OFF	5	-	-	-	20	-	25	
	<b>TOTAL</b>				<b>18</b>	-	<b>60</b>	-	<b>10</b>	-	<b>360</b>	-	<b>450</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants								
						Practicing Farmers & Farm Women		SC		ST		Others		Total
						M	F	M	F	M	F			
<b>Agromony</b>	April to June 18	Nursery Management	Nursery Management of Paddy	1	ON/OFF	7	1	1	4	9	3	25		
		Cropping system	Management of Rice-wheat /maize cropping system	1	ON/OFF	9	1	1	4	8	2	25		
		ICM	Agronomic management practices of Jute	1	ON/OFF	7	2	1	4	8	3	25		
	July to Sept 18	Crop diversification	Diversification of Rice-Wheat Cropping system	1	ON/OFF	9	1	1	4	8	2	25		
		Resource conservation Technology	Cultivation of Direct Seeded Rice	1	ON/OFF	7	2	1	4	8	3	25		
		Weed management	Weed management in Kharif Crops	1	ON/OFF	8	2	1	4	8	2	25		
		Water Management	Water management in Paddy	1	ON/OFF	7	2	1	4	8	3	25		
	Oct. to Dec. 18	Seed Production	Seed Production of Wheat	1	ON/OFF	8	1	1	4	9	2	25		
		Weed management	Weed management in Rabi crops	1	ON/OFF	7	1	1	4	10	2	25		
		ICM	Scientific Cultivation of Rabi pulses	1	ON/OFF	9	1	1	4	8	2	25		
		Fodder management	Scientific Cultivation of fodder	1	ON/OFF	8	2	1	4	8	2	25		
	Jan to march, 19	Integrated crop Management	Agronomic management practices of Boro Paddy	1	ON/OFF	7	2	1	4	9	2	25		
		Weed Management	Weed Management on Boro Rice	1	ON/OFF	9	1	1	4	8	2	25		
		Integrated farming	Development integrated farming practices	1	ON/OFF	8	2	1	4	8	2	25		
	<b>TOTAL</b>				14	-	<b>110</b>	<b>21</b>	<b>14</b>	<b>56</b>	<b>117</b>	<b>32</b>	<b>350</b>	

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants						
						SC		ST		Others		Total
Practicing Farmers & Farm Women						M	F	M	F	M	F	
<b>Extension Education</b>	April - June, 18	Group Dynamics	Formation and management of SHGs/JIGS	1	ON/OFF	8	2	1	4	8	2	25
		Group Dynamics	Establishment and strengthening of Farmers Club	1	ON/OFF	9	1	1	4	8	2	25
		Leadership development	Leadership development for technology dissemination	1	ON/OFF	8	2	1	4	8	2	25
		Group Dynamics	Formation and management of SHGs/JIGS	1	ON/OFF	9	1	1	4	8	2	25
		PRA	Agro ecosystem analysis of adopted village	1	ON/OFF	8	2	1	4	8	2	25
		Group Dynamics	Formation and Management of SHGs/JIGS	1	ON/OFF	9	1	1	4	8	2	25
	July - Sept., 18	Mobilization of social capital	Income generation activities among group members	1	ON/OFF	8	2	1	4	8	2	25
		Entrepreneurial development of farmers/youths	Entrepreneurship Development though poultry	1	ON/OFF	9	1	1	4	8	2	25
		WTO and IPR issues	Awareness and use of market intelligence	1	ON/OFF	8	2	1	4	8	2	25
		Entrepreneurial development of farmers/youths	Entrepreneurship Development though poultry	1	ON/OFF	9	1	1	4	8	2	25
	Oct. - Dec,18	Leadership development	Leadership development for technology dissemination	1	ON/OFF	8	2	1	4	8	2	25
		Production technologies	Productivity enhancement of field crops	1	ON/OFF	8	2	1	4	8	2	25
		Group Dynamics	Formation and management of SHGs/JIGS	1	ON/OFF	9	1	1	4	8	2	25
	Jan. - March, 19	Group Dynamics	Formation and Management of SHGs/JIGS	1	ON/OFF	8	2	1	4	8	2	25
		Entrepreneurial development of farmers/youths	Entrepreneurship Development though poultry	1	ON/OFF	9	1	1	4	8	2	25
<b>TOTAL</b>				<b>15</b>	<b>-</b>	<b>127</b>	<b>23</b>	<b>15</b>	<b>60</b>	<b>120</b>	<b>30</b>	<b>375</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants							
						SC		ST		Others		Total	
<b>Practicing Farmers &amp; Farm Women</b>						M	F	M	F	M	F		
<b>Soil Science</b>	April to Jun18	Soil and water testing	Methods of soil sampling and analysis	1	ON/OFF	8	2	2	-	14	-	25	
		Production and use of organic inputs	Vermi compost Production techniques, and its use in crops and cropping system Technique	1	ON/OFF	8	2	1	4	8	2	25	
		Production and use of organic inputs	Methods of Bio fertilizer production and its use	1	ON/OFF	9	1	1	4	8	2	25	
	July to Sept18	Soil fertility management	Fertilizer management in Paddy	1	ON/OFF	9	1	1	4	8	2	25	
		Micro nutrient deficiency in crops	Micro nutrient deficiency symptoms and its management in crops	1	ON/OFF	8	2	1	4	8	2	25	
		INM	INM in Paddy	1	ON/OFF	9	1	1	4	8	2	25	
	Oct to DEC18	INM	INM in Maize	1	ON/OFF	9	1	1	4	8	2	25	
		Nutrient use efficiency	Soil & Crop management practices to increase NUE	1	ON/OFF	8	2	1	4	8	2	25	
	Jan to march 19	Organic farming	To develop knowledge and understanding of organic farming	1	ON/OFF	9	1	2	3	8	2	25	
		Soil and water testing	Soil health Management in crops on Soil test basis	1	ON/OFF	9	1	2	3	8	2	25	
		Soil fertility Management	Fertilizer management in Boro paddy	1	ON/OFF	8	2	1	4	8	2	25	
	<b>TOTAL</b>				<b>11</b>	<b>-</b>	<b>94</b>	<b>15</b>	<b>14</b>	<b>38</b>	<b>94</b>	<b>20</b>	<b>275</b>

## B. Training for Rural Youth

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)							
						SC		ST		Others		Total	
						M	F	M	F	M	F		
<b>Home Science</b>	April to June 18	Post Harvest Technology	Preparation of potato chips, papar and other products	1	ON/OFF	-	3	-	2	-	20	25	
		Rural Craft	Tie, dye & Fabric painting & cloth designing	1	ON/OFF	-	3	-	2	-	20	25	
	July to Sept 18	Value Addition	Preservation of seasonal fruits	1	ON/OFF	-	3	-	2	-	20	25	
		Tailoring and Stitching	Cutting,, stitching and embroidery of women garments	1	ON/OFF	-	3	-	2	-	20	25	
	Oct to Dec 18	Mushroom Production	Mushroom cultivation for income generation	1	ON/OFF	-	3	-	2	-	20	25	
		Rural Craft	Production of decorative items from locally available materials	1	ON/OFF	-	3	-	2	-	20	25	
		Value Addition	Preservation of seasonal vegetables	1	ON/OFF	-	3	-	2	-	20	25	
	Jan to March 19	House Hold Food Security	Importance of nutritional kitchen gardening and its management.	1	ON/OFF	-	3	-	2	-	20	25	
		Mushroom Production	Different mushroom type, production procedures, and Mushroom products	1	ON/OFF	-	3	-	2	-	20	25	
	<b>TOTAL</b>				<b>9</b>	-	-	<b>27</b>	-	<b>18</b>	-	<b>180</b>	<b>225</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)							
						SC		ST		Others		Total	
						M	F	M	F	M	F		
<b>Horticulture</b>	<b>Rural Youth</b>												
	April to June 18	Commercial fruit production	Scientific Cultivation of elephant fruit	1	ON/OFF	3	1	1	-	20	-	25	
		Commercial fruit production	Production, care and Management of Banana	1	ON/OFF	3	1	1	-	20	-	25	
		Nursery Management	Nursery management of vegetable crop and poly tunnel technology	1	ON/OFF	3	1	2	1	19	-	25	
	July to Sept 18	Planting Material Production	Plant Propagation techniques of fruit crops	1	ON/OFF	3	1	1	-	20	-	25	
	Oct to Dec 18	Protected cultivation	Protected cultivation of vegetable crops and Simla Mirch	1	ON/OFF	3	1	2	-	19	-	25	
		Seed Production	Seed Production of vegetables	1	ON/OFF	3	1	2	-	19	-	25	
		Training and pruning of orchards	Training and pruning of orchards	1	ON/OFF	3	1	2	-	19	-	25	
	Jan to March 19	Value Addition	Value Addition of Vegetable Crops	1	ON/OFF	3	1	2	-	19	-	25	
	<b>TOTAL</b>				<b>8</b>	<b>-</b>	<b>24</b>	<b>08</b>	<b>13</b>	<b>01</b>	<b>154</b>	<b>0</b>	<b>200</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		Total
<b>Rural Youth</b>						M	F	M	F	M	F	
<b>Agronomy</b>	April to June18	Crop diversification	Diversification of Rice Wheat Cropping system	1	ON/OFF	9	1	1	4	8	2	25
	July to Sept 18	Seed production	Seed Production of Paddy	1	ON/OFF	7	2	1	4	8	3	25
	Oct. to Dec. 18	Seed production	Seed Production of wheat	1	ON/OFF	7	2	1	4	8	3	25
		ICM	Agronomic management practices of Maize	1	ON/OFF	9	1	1	4	8	2	25
	Jan to March19	Integrated farming System	Integrated farming System	1	ON/OFF	8	2	1	4	8	2	25
<b>TOTAL</b>				5	-	40	08	05	20	40	12	125

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)							
						SC		ST		Others		Total	
<b>Rural Youth</b>						M	F	M	F	M	F		
<b>Extension Education</b>	April to June18	Entrepreneurial development of farmers/youths	Entrepreneurship Development through poultry	1	ON/OFF	9	1	1	4	8	2	25	
		Entrepreneurial development of farmers/youths	Entrepreneurship Development through fisheries	1	ON/OFF	8	2	1	4	8	2	25	
	July to Sept 18	Entrepreneurial development of farmers/youths	Entrepreneurship Development through dairy	1	ON/OFF	9	1	1	4	8	2	25	
		Entrepreneurial development of farmers/youths	Entrepreneurship Development through Beekeeping	1	ON/OFF	8	2	1	4	8	2	25	
	Oct to Dec18	Entrepreneurial development of farmers/youths	Entrepreneurship Development through Beekeeping	1	ON/OFF	8	2	1	4	8	2	25	
		Entrepreneurial development of farmers/youths	Entrepreneurship Development through Poultry	1	ON/OFF	9	1	1	4	8	2	25	
	Jan to March19	Entrepreneurial development of farmers/youths	Entrepreneurship Development through fisheries	1	ON/OFF	8	2	1	4	8	2	25	
		Entrepreneurial development of farmers/youths	Entrepreneurship Development through Poultry	1	ON/OFF	9	1	1	4	8	2	25	
	<b>TOTAL</b>				<b>8</b>	<b>-</b>	<b>68</b>	<b>12</b>	<b>8</b>	<b>32</b>	<b>64</b>	<b>16</b>	<b>200</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)							
						SC		ST		Others		Total	
<b>Rural Youth</b>						M	F	M	F	M	F		
<b>Soil Science</b>	April to June 18	Vermiculture	Vermi composting for income generation	1	ON/OFF	7	2	1	4	8	3	25	
		Organic manures production	Organic manures production techniques	1	ON/OFF	9	1	1	4	8	2	25	
	July to Sept. 18	Vermi-compost production	Vermi-compost production and marketing	1	ON/OFF	7	2	1	4	8	3	25	
		Bio-fertilizer production	Bio-fertilizer production marketing	1	ON/OFF	9	1	1	4	8	2	25	
	Oct. to Dec. 18	Vermi-compost production	Vermi-compost production and marketing	1	ON/OFF	7	2	1	4	8	3	25	
		Vermiculture	Vermi composting for income generation	1	ON/OFF	7	2	1	4	8	3	25	
	Jan to March 19	Bio-fertilizer production	Bio-fertilizer production marketing	1	ON/OFF	9	1	1	4	8	2	25	
		Organic manures production	Organic manures production techniques	1	ON/OFF	9	1	1	4	8	2	25	
	<b>TOTAL</b>				<b>8</b>	<b>-</b>	<b>64</b>	<b>12</b>	<b>08</b>	<b>32</b>	<b>64</b>	<b>20</b>	<b>200</b>

## C. Training for Extension Functionaries

Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		Total
<b>Extension Functionaries</b>						M	F	M	F	M	F	
<b>Horticulture</b>	April to July 18	Planting Material Production	Plant Propagation techniques in fruit crop	1	ON/OFF	-	1	2	-	22	-	25
	Aug to Sept 18	ICM	Package and practices of Jute	1	ON/OFF	2	1	2	-	20	-	25
		Crop Production	Scientific Cultivation of Cauliflower	1	ON/OFF	7	2	1	4	11	5	30
	Oct to Dec 18	Protected cultivation	Protected cultivation of Tomato, Simla mirch, cucumber, garden pea	1	ON/OFF	3	1	2	-	19	-	25
Jan to March 19	Care and manage fruit Orchard	Proper care and management of fruit Orchard	1	ON/OFF	3	1	2	-	19	-	25	
<b>TOTAL</b>				<b>5</b>	<b>-</b>	<b>15</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>91</b>	<b>5</b>	<b>130</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		Total
<b>Extension Functionaries</b>						M	F	M	F	M	F	
<b>Agronomy</b>	April to June 18	ICM	Agronomic Management practices of Jute	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept. 18	Productivity enhancement in field crops	Agronomic Management practices of paddy	1	ON/OFF	8	2	1	4	11	4	30
	Oct. to Dec. 18	RCT	Sowing of Wheat by technology	1	ON/OFF	7	2	1	4	11	5	30
	Jan. to March 19	Integrated farming system	Integrated farming system	1	ON/OFF	8	2	1	4	11	4	30

<b>TOTAL</b>	<b>4</b>	<b>-</b>	<b>30</b>	<b>8</b>	<b>4</b>	<b>16</b>	<b>44</b>	<b>18</b>	<b>120</b>
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Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		TOTAL
Extension Functionaries						M	F	M	F	M	F	
Extension Education	April to June 17	Formation and Management of SHGs	Formation and Management of kisan club and SHGs and JLGS	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept 17	Leadership development	Leadership development for Agro tech dissemination	1	ON/OFF	8	2	1	4	11	4	30
	Oct to Dec 17	Information networking among farmers	ICT practices for information and networking among farmers	1	ON/OFF	7	2	1	4	11	5	30
	Jan to March 18	Entrepreneurial development of farmers/youths	Entrepreneurial development of farmers/youths	1	ON/OFF	8	2	1	4	11	4	30
<b>TOTAL</b>				<b>4</b>	<b>-</b>	<b>30</b>	<b>8</b>	<b>4</b>	<b>16</b>	<b>44</b>	<b>18</b>	<b>120</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		TOTAL
Extension Functionaries						M	F	M	F	M	F	
Soil science	April to June 18	Soil and Water Testing	Methods of soil sampling and analysis	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept 18	INM	INM in crops and cropping system	1	ON/OFF	7	2	1	4	11	5	30
	Oct. to Dec. 18	INM	Green manuring and use of bio fertilizer	1	ON/OFF	8	2	1	4	11	4	30
	Jan. to March 19	Production and use of organic inputs	Methods of vermi compost Production and its use in crops	1	ON/OFF	8	2	1	4	11	4	30
<b>TOTAL</b>				<b>4</b>	<b>-</b>	<b>30</b>	<b>8</b>	<b>4</b>	<b>16</b>	<b>44</b>	<b>18</b>	<b>120</b>

Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
						SC		ST		Others		TOTAL
Extension Functionaries						M	F	M	F	M	F	
<b>Home Science</b>	April to June 17	Household food security	Nutritional backyard kitchen gardening.	1	ON/OFF	-	3	-	2	-	20	25
	July to Sept 17	Gender main streaming	Entrepreneurship development and women empowerment	1	ON/OFF	-	3	-	2	-	20	25
	Oct. to Dec. 17	Women and Child Care	Women and Child Care Practices	1	ON/OFF	-	3	-	2	-	20	25
	Jan. to March 18	Rural Craft	Training on different type of State Embroidery	1	ON/OFF	-	3	-	2	-	20	25
<b>TOTAL</b>				4	-	-	12	-	8	-	80	100
<b>Grand Total</b>				<b>21</b>	<b>-</b>	<b>105</b>	<b>42</b>	<b>21</b>	<b>60</b>	<b>223</b>	<b>139</b>	<b>590</b>

Thematic Area	Title	No of Courses	Venue	No. of Participants			
				SC	ST	Others	Total
<b>( D) Sponsored</b>							
Integrated crop management	Productivity enhancement through SRI	1	ON/OFF	5	2	23	30
Integrated crop management	Agronomic Managements Practices of oilseeds and pulses	1	ON/OFF	5	2	23	30
Integrated crop management	Agronomic Managements Practices of Jute	1	ON/OFF	5	2	23	30
Production of low vol high value crop	Cultivation of cool season vegetables	1	ON/OFF	5	2	23	30
Installation and maintenance of micro irrigation system	Use of low energy water application devices in horticultural crops for high profitability	1	ON/OFF	5	2	23	30
women Empowerment	Income generation activities though mushroom cultivation & value Addition	1	ON/OFF	5	2	23	30
Entrepreneurship Development	Entrepreneurship Development through poultry	1	ON/OFF	5	2	23	30
<b>Total</b>		<b>7</b>		<b>35</b>	<b>14</b>	<b>181</b>	<b>210</b>
<b>( E )Vocational</b>							
Seed Production	Seed production of paddy and Wheat	1	ON/OFF	5	2	23	30
Planting material Production	Techniques of Graft , gouty	1	ON/OFF	5	2	23	30
Seed Production	Seed Production technique of Potato	1	ON/OFF	5	2	23	30
Vermiculture	Vermicompost production	1	ON/OFF	5	2	23	30
Beekeeping	Entrepreneurship Development through Beekeeping	1	ON/OFF	5	2	23	30
Mushroom Production	Mushroom Production technology	1	ON/OFF	5	2	23	30
Repair &Maintenance	Repair and Maintenance of plant protection equipments	1	ON/OFF	5	2	23	30
Planting Material Production	Techniques of graft, gouty in propagation of fruit plants.	1	ON/OFF	5	2	23	30
Seed production	Seed production of vegetables	1	ON/OFF	5	2	23	30
Tailoring and Stitching	Women dress designing	1	ON/OFF	5	2	23	30
Value Addition	Preservation of seasonal fruits and vegetables	1	ON/OFF	5	2	23	30
<b>TOTAL</b>		<b>11</b>		<b>55</b>	<b>22</b>	<b>253</b>	<b>330</b>

## 12. Frontline Demonstration

<b>Crop/Enterprise</b>	<b>Component/Variety</b>	<b>No. of demonstration</b>	<b>No. of area (ha)</b>
<b>Kharif</b>			
Jute	JRO-204	30	12
Paddy	Seed (Swarna Sub-1) & Chemicals	15	6
Nutritional garden	Seed	12	
Fodder Maize	J-1006	25	10
Paddy	R. Sweta, Dhaincha, Chemical & CLCC	20	08
Paddy	Sahbhagi and biofertilizers	10	04
Poultry	Vanraja	30	500 chicks
<b>Crop/Enterprise</b>	<b>Component/Variety (Rabi)</b>	<b>No. of demonstration</b>	<b>No. of area (ha)</b>
Wheat	Seed ( HD-2967) & Bio-fertilizer	25	10
Wheat	Seed ( DBW-14)	20	8
Vermi composting	Worms	30	30

### 13. Seed and planting material production

Seed Production		
Crop	Variety	Area(ha)
Paddy	Swarna Sub-1	2.5
Paddy	RM-1	0.8
Arhar	NDA-1/Malviya	1.2
Wheat	HD-2967	3.3

### 14. Extension Activities

Name of Extension Activities	No.	Participants
Field Day	09	480
Kisan Mela	02	1200
Kisan Ghosthi	4	300
Kisan Chaupal	40	1200
Exhibition	1	200
Film Show	10	700
Farmers Seminar	2	150
Workshop	1	150
Group meetings	5	200

Scientific visit to farmers field	80	500
Farmers visit to KVK	1600	1600
Exposure visits	03	150
Ex-trainees Sammelan	02	100
Soil health Camp	05	300
Animal Health Camp	02	100
Self Help Group Conveners meetings	05	250
Celebration of important days	05	250
<b>Total</b>	<b>1776</b>	<b>7830</b>

**OFT-1****ON FARM TRIAL (Home Science)**

<b>SN</b>	<b>Particulars</b>	<b>Description</b>
1.	Intervention	Use of modified plastic rain coat for working women in rainy days for rice planting
2.	Title	Increase working efficiency in rainy days
3.	Micro farming situation	Rain fed
4.	Thematic area	Drudgery Reduction
5.	Problem	Due to working in direct rain it reduce the working efficiency of women and adversely affect on health
6.	Intervention Planned	Use of Modified Plastic rain coat
7.	Source of technology	KVK, Kosbad Hill
8.	Technology option	TO <sup>1</sup> - Farmer's Practice, do not plastic bag to protect form rain TO <sup>2</sup> - Use of simple plastic bag to protect from rain. TO <sup>3</sup> -Use of Modified plastic raincoat to be convenient while working in rainy days
9.	No of replication	10 Farm Women
10.	Perform indicator	A. Suitability & Convenient of rain coat B. Working efficiency C. Health
		<b>Farmers' reaction/ feedback</b> After getting Result

## OFT-2

## ON FARM TRIAL (Home Science)

SN	Particulars	Description
1.	Intervention	Home Science
2.	Title	Use of Bio fortified(Red ) Rice in daily consumption to overcome malnutrition for the women
3.	Micro farming situation	Home stead
4.	Objective	1) To create awareness of food & Nutrition requirement of the Aganvadi Mahila 2) To Prepare Bio- fortified rice recipes
5	Thematic area	Nutritional security
6.	Problem Diagnose	Under nourishment /malnourishment of infants adolescent girls in rural area. Due to lack of iron, Calcium, Protein rice food
7.	Potential solution	Enrichment of bio-fortified rice recepes Bengal gram+jaggary+leafvegetable(Drum Stick Leaves)+milk
8.	Source of technology	NAU, Navsari
9.	Technology option	TO <sup>1</sup> - Traditional Practice, existing dietary pattern TO <sup>2</sup> - Traditional Practice+Bio-fortified Rice recipes TO <sup>3</sup> -Bio-fortified Rice recipes+Bengal gram+jaggary+leafvegetable(Drum Stick Leaves)+milk
10.	No of farmer	9 women
11.	Critical input	Bio-fortified Rice recipes+Bengal gram+jaggary+leaf vegetable(Drum Stick Leaves)+milk
12.	Perform indicator	Weight Kg- 1. Initial Weight 2. Final Weight (3 months interval) Measure of the HB Level Before practice and after three months of practices
		<b>Farmers' reaction and feedback</b>

**OFT-1**

SN	Particulars	Description
1.	Intervention	Soil science
2.	Title	Assess the Effect of Azolla to Reduce Chemical NPK Consumption During Rice Cultivation
3.	Micro farming situation	Medium irrigated Land
4.	Production system	Rice- Wheat/Maize
5.	Thematic area	Integrated Nutrient management
6.	Problem	Higher cost of cultivation and hazardness impact on soil as well as environmental health due to chemical fertilizers
7.	Potential solution	Multi-locational field trial for save half of recommended NPK through green manuring of Azolla.
8.	Source of technology	BAU, Sabour
9.	Technology option	TO <sub>1</sub> – Farmer Practice (150: 20:10 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) TO <sub>2</sub> – RDF (100:40:20 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) TO <sub>3</sub> - RDF (50:20:10 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) + Azolla @ 10 t ha <sup>-1</sup>
10.	Plot Size	0.10 ha
11.	No of farmers	10
12.	Critical input	Seed , nutrients, chemicals & Azolla
13.	Performance indicator	<b>Technical observations</b> No. of tillers, plant height, no. grains/panicle, Grains & straw yield
		<b>Economic Indicator</b> Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

**ON FARM TRIAL (Soil Science)**



**OFT-2**

SN	Particulars	Description
1.	Intervention	Soil science
2.	Title	Assess the effect of Blue Green Algae (BGA) for Nitrogen Supplementation in Rice Crop
3.	Micro farming situation	Medium irrigated Land
4.	Production system	Rice-Wheat/Maize
5	Thematic area	Integrated Nutrient management
6.	Problem	Higher uses of Urea
7.	Potential solution	Multi-locational field trial for uses of BGA for Supplementations of Nitrogen in Rice Crop
8.	Source of technology	BAU Sabour
9.	Technology option	TO <sub>1</sub> – Farmer Practice (150:20:10 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) TO <sub>2</sub> – RDF (100:40:20 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) TO <sub>3</sub> - RDF (75:40:20 :: N:P:K kg <sup>ha</sup> <sup>-1</sup> ) + BGA Culture 10 kg ha <sup>-1</sup>
10.	Plot Size	0.10 ha
11	No of farmers	10
12.	Critical input	Seed , nutrients, chemicals & BGA
13.	Performance indicator	<b>Technical observations</b> No. of tillers, plant height, no. grains/panicle, Grains & straw yield
		<b>Economic Indicator</b> Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

### OFT-3

SN	Particulars	Description
1.	Intervention	Soil Science
2.	Title	Assess the effect of organic and bio fertilizer on growth and yield of maize and physico-chemical properties of soil
3.	Micro farming situation	Micro farming situation
4.	Production system	Paddy-maize/wheat
5	Thematic area	INM
6.	Problem	No uses of bio fertilizer and minimum uses of organic manure in maize due to that soil becomes sick and the production is affected.
7.	Potential solution	Application of required amount of bio fertilizer with organic manures to make soil sustainable with yield enhancement and there will be a necessity for sustainability
8.	Source of technology	UAS, GKVK, Bangalore, India
9.	Technology option	TO <sub>1</sub> – Farmer Practices (200:40:20 :: N:P:K) TO <sub>2</sub> – 75 % RDF (150:60:40 :: N:P:K) + 25 % through Vermicompost with Zn 25 kg and B 10 kg/ha) TO <sub>3</sub> – 75 % RDF (150:60:40 :: N:P:K) + 25 % through Vermicompost with Azotobactor and PSB) TO <sub>4</sub> – 100% RDF (150:60:40 :: N:P:K) + Zn 25 kg and B 10 kg/ha
10.	Plot Size	0.10 ha
11	No of farmer	10
12	Critical input	Seed, Organic and inorganic Fertilizers
13.	Performance indicator	<b>Technical observations</b> Initial and final soil analysis, Plant height, , No of grains per cob, grain and straw yield
		<b>Economic Indicator</b> Net return, B:C ratio
		<b>Farmers' reaction/ feedback</b>

**OFT -1****ON FARM TRIAL (Agronomy)**

<b>SN</b>	<b>Particulars</b>	<b>Description</b>
1.	Intervention	Agronomy
2.	Title	Integrated weed management in Green Gram
3.	Micro farming situation	Medium to Low land
4.	Production system	Rice-Wheat- Green Gram
5	Thematic area	Weed management
6.	Problem	Poor Weed management is an important reason for low productivity of green gram in Koshi region of Bihar
7.	Potential solution	Integrated weed management is an important key factor for enhancing the productivity of green gram as weeds compete for nutrients, Water, light and space with crop plants during early growth period.
8.	Source of technology	JAU, Junagarh
9.	Technology option	TO <sub>1</sub> Farmers Practice (Hand weeding at 35 DAS) TO <sub>2</sub> Pendimethaline 1.0 kg ai/ha(pre emergence) TO <sub>3</sub> Quizalofop-ethyl @40 gm a.i /ha at 20 DAS TO <sub>4</sub> Quizalofop-ethyl @50 gm a.i /ha at 30 DAS
10.	Plot Size	0.10 ha
11	No of farmer	10
12.	Critical input	Seed, Chemicals
13.	Performance indicator	Technical observations Seed yield(q/ha), Stover yield (q/ha) Economic Indicator Cost of cultivation (Rs/ha), Gross return(Rs/ha), Net return(Rs/ha),BC ratio Farmers' reaction/ feedback

**OFT -2**

<b>SN</b>	<b>Particulars</b>	<b>Description</b>
1.	Intervention	Agronomy
2.	Title	Effect of different types of spacing on fibre yield of Jute.
3.	Micro farming situation	Medium to Low land
4.	Production system	Jute- Maize
5.	Thematic area	ICM
6.	Problem	sowing of Jute seed by majority of farmers by broadcasting method restricts inter cultural operation which result in low fibre yield
7.	Potential solution	Plant density is an important yield contributing factors which can be manipulated in Jute to attain higher fibre production per unit area.
8.	Source of technology	JRS, Katihar
9.	Technology option	1 Farmers Practice (Broadcasting) 2 Sowing Jute seed at 25X7 cm spacing 3 Sowing Jute seed at 30X7 cm spacing 4 Sowing Jute seed at 35X7 cm spacing
10.	Plot Size	0.10 ha
11.	No of farmers	10
12.	Critical input	Seed
13.	Performance indicator	Technical observations Plant height, basal diameter, green weight, fibre weight, fiber yield
		Economic Indicator Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

**OFT -1****ON FARM TRIAL (Extension Education)**

<b>SN</b>	<b>Particulars</b>	<b>Description</b>
1.	Intervention	Extension Education
2.	Title	Evaluation of suitable wheat cultivar for late sown condition in paddy wheat cropping system
3.	Micro farming situation	Medium to Low land
4.	Production system	Rice-Wheat/Maize
5.	Thematic area	Crop Production
6.	Problem	Farmers of Katihar district were unaware about best suited variety of wheat under late sown condition which results in low productivity of wheat.
7.	Potential solution	In the view of above problem selection and cultivation of proper/ suitable varieties of prime importance.
8.	Source of technology	BAU,Sabour
9.	Technology option	TO <sub>1</sub> = Farmers practice (PBW-373) TO <sub>2</sub> = DBW-14 TO <sub>3</sub> = Sabour Shreshta
10.	Plot Size	0.10 ha
11.	No of farmers	10
12.	Critical input	Seed and chemicals
13.	Perform indicator	Yield(q/ha) Cost of cultivation(Rs/ha), Gross return(Rs/ha), Net return(Rs/ha)
		Farmers' reaction/ feedback
		.

## Field Study - 1

SN	Particulars	Description
1.	Intervention	Extension Education
2.	Title	Non availability of technical Know-how at critical time
3	Thematic area	ICT
4.	Name of Technology	Video Conferencing
5.	Source of technology	BAU,Sabour
6.	Technology Assessment	Farmers receiving information through Video Conferencing
7	No of video conferencing attend farmers	120
8.	Performance indicator	Percentage increase in Knowledge through Video Conferencing, Percentage increase in adoption through Video Conferencing

<b>OFT-2 Assessment of effectiveness of FFS on Paddy Production technology under KVK- ATMA Convergence</b>	
Problem Diagnose	Farmers not Participated in farmers field school
Thematic Area	KVK- ATMA Convergence
No. of technology	5
Farmers Practices( $T_1$ )	Farmers not Participated in farmers field school 60 farmers
Recommended Tech( $T_2$ )	Farmers Participated in farmers field school 60 farmers
Performance parameter	Extent of adoption, Knowledge level. Change in skill , Change in attitude , Feedback of FFS farmers

## 15. Scientific Advisory Committee

Date of SAC meeting held during 2018-19	Proposed date
8 <sup>th</sup> SAC meeting	08/08/2018

## 16. Soil and water testing

	No. of samples to be analyzed
Soil Testing	<b>1000</b>

## 17. Status of infrastructure

Infrastructure	Complete	Under construction	Not started	Reasons, if not started
Administrative building		✓		
Trainees' hostel	✓			
Staff quarter	✓			
Demonstrations: I) IFS II) Mushroom Cultivation Unit	✓			