Action Plan (2016-17)
Krishi Vigyan Kendra, Katihar

1. INTRODUCTION

Krishi Vigyan Kendra, Katihar has been established in March, 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
Programme Coordinator	1	**Dr. S.B.Singh**	17.03.1991	
Subject Matter Specialist (Home Science)	1	**Smt. Basanti Kumari**	20.11.2007	
Subject Matter Specialist (Agronomy)	1	**Dr. Sushil Kumar Singh**	15.06.2009	
Subject Matter Specialist (Hort.)	1	**Sri Ajay Kumar Das**	16.06.2009	
Subject Matter Specialist (Ext. Education)	1	**Sri Pankaj Kumar**	16.11.2009	
Subject Matter Specialist (Soil Science)	1	**Dr Rama Kant Singh**	16.04.2012	
Subject Matter Specialist (Plant Protection)	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 Abhay Kumar**	17.07.2013	
Driver (Jeep)	1	**Sri Manoj Kumar Prajapati**	09.05.2015	
Driver (Tractor)	1	**Sri Ram Jee**	12.05.2015	
Supporting Staff	1	**Sri Arun Kumar Mandal**	01.07.2005	Contractual
Supporting Staff	1	**Sri Sanjay Yadav**	01.02.2015	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
Total land	**20.00 ha**

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

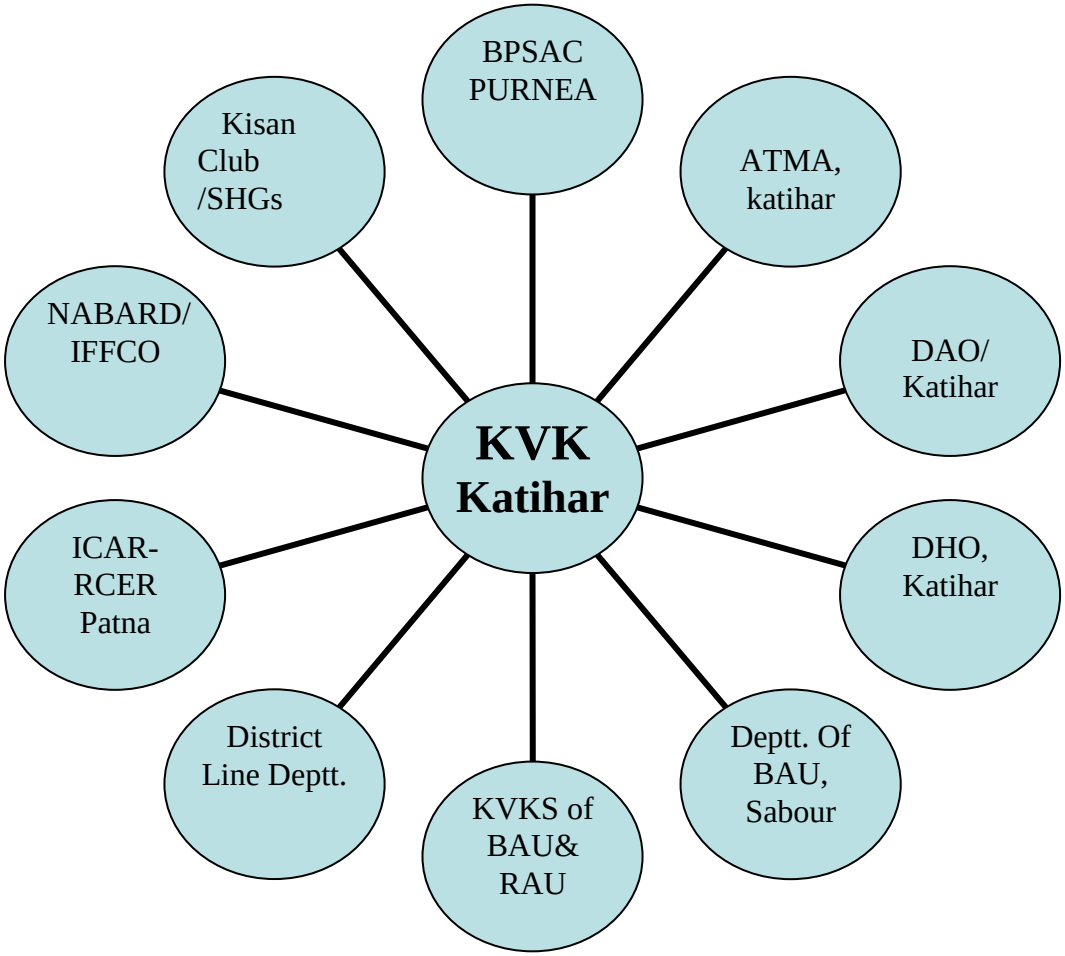
5. AGRO-CLIMATIC CONDITION

KVK Katihar falls in Agro-climatic Zone-II. The climate is sub-tropical and humid having mean maximum and minimum temperature between 46^{o}C and 4.10^{o}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**


BPSAC PURNEA
Kisan Club /SHGs
ATMA, katihar
NABARD/ IFFCO
DAO/ Katihar
KVK Katihar
ICAR-RCER Patna
DHO, Katihar
District Line Deptt.
KVKS of BAU& RAU
Deptt. Of BAU, Sabour

7. MAP OF KATIHAR

8. Abstract of Training Programme:

Action Plan (2016-17)

Discipline	No of Courses	Participants		
		Male	Female	Total
Practicing farmers				
Horticulture	18	450	000	450
Home Science	14	000	500	500
Agronomy	15	241	109	350
Extension Education	20	262	113	375
Soil Science	11	202	073	275
Total(A)	**78**	**1155**	**795**	**1950**
Rural Youth				
Horticulture	8	191	009	200
Home Science	5	000	200	200
Agronomy	8	085	040	125
Extension Education	8	068	032	100
Soil Science	8	066	034	100
Total(B)	**37**	**410**	**315**	**725**
Extension Functionaries				
Horticulture	4	96	4	100
Home Science	5	0	100	100
Agronomy	4	97	53	150
Extension Education	4	78	42	120
Soil Science	4	78	42	120
Total(C)	**21**	**349**	**241**	**590**
Grand Total (A+B+C) :	**136**	**1914**	**1351**	**3265**

9. 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

10. 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 recepies
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-(2016-17)

Disci-pline	Qrt No. & Month	Thematic area	Course Title	No of course	Venue off/on campus	Participants						
Practicing Farmers & Farm Women						SC		ST		Others		Total
						M	F	M	F	M	F	
Horticulture	April to June 16	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	Makhana production and processing	1	ON/OFF	3	-	2	-	20	-	25
		Plant Propagation	Different methods of propagation	1	ON/OFF	3	-	2	-	20	-	25
	July to Sept.16	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
		Plastic farming	Low cost poly house for small farmers.	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 Banana	1	ON/OFF	5	-	-	-	20	-	25
	Oct to Dec 16	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 Fruits	Scientific cultivation and protection of banana crops	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 17	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
		Layout and management of orchards	Management of Fruit Crops	1	ON/OFF	5	-	-	-	20	-	25
	TOTAL			**18**	ON/OFF	**60**	**-**	**30**	**-**	**360**	**-**	**450**

Disci-pline	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	
Agronomy	April to June 16	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 16	Crop diversification	Diversification of Rice Wheat Cropping system	1	ON/OFF	9	1	1	4	8	2	25
		ICM	Cultivation of Paddy by SRI	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. 16	Seed Production	Seed Production of Wheat	1	ON/OFF	8	1	1	4	9	2	25
		Weed management	Weed management in Rabi crop	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
		ICM	Scientific Cultivation of Maize	1	ON/OFF	8	2	1	4	8	2	25
	Jan to march, 17	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
	TOTAL			14		**110**	**21**	**14**	**56**	**117**	**32**	**350**

Disci-pline	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	
Extension Education	April - June, 16	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., 16	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,16	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, 17	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
	TOTAL			**15**		**127**	**23**	**15**	**60**	**120**	**30**	**375**

Disci-pline	Month	Thematic area	Course Title	No of Courses	Venue	Participants						
Practicing Farmers & Farm Women						SC		ST		Others		Total
						M	F	M	F	M	F	
Home Science	April – June, 16	Income generation activities for empowerment of rural women through value addition	To increase the knowledge and skill of rural women through Preparation of Potato chips, Badi & Papad	1	ON/OFF	-	5	-	2	-	18	25
		Tie & Dye	To increase the knowledge and skill regarding Tie and Dye Technology	1	ON/OFF	-	3	-	2	-	20	25
		Balance diet of family & Child	To increase the knowledge regarding Balance diet of family	1	ON/OFF	-	5	-	2	-	18	25
		Nutrition Security	Minimization of Nutrient loss in process	1	ON/OFF	-	5	-	2	-	18	25
		Farmers Club	To Increase the knowledge regarding farmers club and its function important.	1	ON/OFF		5	-	5	-	15	25
	July - Sept, 16	Household food security by kitchen gardening and nutrition gardening	Importance of Nutritional Kitchen gardening and management	1	ON/OFF	-	10	-	5	-	10	25
		Value Addition	To increase the knowledge Value addition of mango Products	1	ON/OFF	-	10	-	5	-	10	25
		Drudgery Reduction	Drudgery reduction technology for women in agriculture	1	ON/OFF	-	10	-	5	-	10	25
		Rural crafts	To increase the knowledge and skill Preparation of Soft toys	1	ON/OFF	-	10	-	5	-	10	25
		Income generation activities for empowerment of rural women	To increase the knowledge and skill of training stitching embrodidery for income generation	1	ON/OFF	-	5	-	2	-	18	25
	Oct. - Dec., 16	Mushroom Cultivation	Cultivation of different type of mushroon	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	-	5	-	5	-	15	25
		Income generation activities for empowerment of rural women	To increase the knowledge and skill regarding cutting Stitching, embroidery for Income generation	1	ON/OFF	-	5	-	5	-	15	25
		Preservation of Amla and seasonal vegetable	To increase the knowledge and skill regarding Preservation of Amala and seasonal vegetable	1	ON/OFF	-	2	-	1	-	22	25

		Nutrition security	Minimization of nutrient loss of processing of vegetable	1	ON/OFF	-	5	-	5	-	15	25
	Jan. - March, 17	Mushroom Cultivation	Cultivation of different type of mushroon and importance	1	ON/OFF	-	3	-	2	-	20	25
		Value addition	preservation Seasonal fruits and vegetables preparation	1	ON/OFF	-	3	-	2	-	20	25
		Storage loss minimization technique	To increase knowledge regarding storage of grain	1	ON/OFF	-	5	-	5	-	15	25
		Women and Child Care	To increase the knowledge and skill regarding Blaance diet if women and child for good health	1	ON/OFF	-	3	-	2	-	20	25
		Nutrition Security	Minization of Nutrient loss in processs of Vegetable	1	ON/OFF	-	5	-	10	-	10	25
		TOTAL		20	ON/OFF	-	107	-	74	-	319	500

Disci-pline	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	
Soil Science	April to Jun16	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 Sept16	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 DEC16	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 17	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
	TOTAL			**11**	ON/OFF	**94**	**15**	**14**	**38**	**94**	**20**	**275**

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	
Rural Youth												
Horticulture	April to June16	Commercial fruit production	Production, Management and processing of Makhana	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	18	-	25
	July to Sept 16	Planting Material Production	Plant Propagation techniques of fruit crops	1	ON/OFF	3	1	1	-	20	-	25
	Oct to Dec 16	Protected cultivation	Protected cultivation of vegetable and Fruit crops	1	ON/OFF	3	1	2	-	19	-	25
		Seed Production	Seed Production of vegetables	1	ON/OFF	3	1	2	-	19	-	25
		Rejuvenation of orchard	Rejuvenation of old mango orchard	1	ON/OFF	3	1	2	-	19	-	25
	Jan to March 17	Training and pruning of orchards	Training and pruning of orchards	1	ON/OFF	3	1	2	-	19	-	25
	TOTAL			**8**	ON/OFF	**24**	**08**	**13**	**01**	**154**	**0**	**200**

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)						
Rural Youth						SC		ST		Others		Total
						M	F	M	F	M	F	
Agronomy	April to June16	Crop diversification	Diversification of Rice Wheat Cropping system	1	ON/OFF	9	1	1	4	8	2	25
	July to Sept 16	Seed production	Seed Production of Paddy	1	ON/OFF	7	2	1	4	8	3	25
	Oct. to Dec. 16	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 March17	Integrated farming System	Integrated farming System	1	ON/OFF	8	2	1	4	8	2	25
	TOTAL			5	ON/OFF	40	08	05	20	40	12	125

Home Science	April to June16	Rural Craft	Preparation of decorative items from locally available materials	1	ON/OFF	-	5	-	3	-	17	25
		Tailoring & Stitching	To increase the knowledge and skill through cutting & Stitching of garments.	1	ON/OFF	-	5	-	2	-	18	25
	July to Sept16	House hold Food Security by kitchen gardening and Nutrition garden	Importance of Kitchen gardening and its management	1	ON/OFF	-	5	-	5	-	15	25
		Balance diet	Balance nutrients of women and child for good health	1	ON/OFF	-	3	-	2	-	20	25
	Oct. to Dec. 16	Mushroom Cultivation	Cultivation of different type of mushroon and importance	1	ON/OFF	-	5	-	5	-	15	25
		House hold food security by kitchen gardening and nutrition gardening	Importance of nutrition gardening Kitchen gardening and its Management	1	ON/OFF	-	5	-	5	-	15	25
	Jan to March 17	Tie & Dye	To increase the knowledge and skill regarding Tie and Dye Technology	1	ON/OFF	-	3	-	2	-	20	25
		Value Addtion	Preservation of seasonal fruits and vegetable	1	ON/OFF	-	5	-	4	-	16	25
	TOTAL			8	ON/OFF	-	36	-	28	-	136	200

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)						
Rural Youth						SC		ST		Others		Total
						M	F	M	F	M	F	
Extension Education	April to June16	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
	July to Sept 16	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 fisheries	1	ON/OFF	8	2	1	4	8	2	25
	Oct to Dec16	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 March17	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
	TOTAL			8	ON/OFF	68	12	8	32	64	16	200

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)						
Rural Youth						**SC**		**ST**		**Others**		Total
						M	F	M	F	M	F	
Soil Science	April to June 16	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. 16	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. 16	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 17	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
	TOTAL			8	ON/OFF	64	12	08	32	64	20	200

C. Training for Extension Functionaries

Discipline	Qrt No. & Month	Thematic area	Course Title	Duration (days)	Venue off/on campus	Participants trainees (Nos)						
Extension Functionaries						SC		ST		Others		Total
						M	F	M	F	M	F	
Horticulture	April to July16	Planting Material Production	Plant Propagation techniques in fruit crop	1	ON/OFF	2	1	2	-	22	-	25
	Aug to Sept 16	Layout and management of Orchard	Lay out and Management of High Density Orchard	1	ON/OFF	2	1	2	-	20	-	25
	Oct to Dec 16	Protected cultivation	Protected cultivation in horticulture	1	ON/OFF	3	1	2	-	19	-	25
	Jan to March 17	Rejuvenation of old Orchard	Rejuvenation of Orchard	1	ON/OFF	3	1	2	-	19	-	25
Agronomy	April to June 16	ICM	Agronomic management practices of Jute	1	ON/OFF	7	2	1	4	11	5	30
		Seed Production	Seed production of paddy	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept. 16	Integrated weed Management	Integrated weed Management in paddy	1	ON/OFF	8	2	1	4	11	4	30
	Oct. to Dec. 16	RCT	Sowing of Wheat by technology	1	ON/OFF	7	2	1	4	11	5	30
	Jan. to March 17	Integrated farming system	Integrated farming system	1	ON/OFF	8	2	1	4	11	4	30

Home Science	April to June 16	Household food security	Nutritional kitchen gardening.	1	ON/OFF	-	5	-	2	-	18	25
	July to Sept 16	Women and Child care	Balanced nutrition of women and child for good health	1	ON/OFF	-	5	-	2	-	18	25
	Oct to Dec 16	Design and development of high nutrient efficient diet	Preparation of quality diet and QPM products for balanced feeding	1	ON/OFF	-	5	-	2	-	18	25
	Jan to March 17	Preservation of seasonal fruit & vegetable	Entrepreneurial development through preservation of seasonal fruit and vegetable	1	ON/OFF	-	5	-	2	-	18	25
Extension Education	April to June 16	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 16	Leadership development	Leadership development for Agro tech dissemination	1	ON/OFF	8	2	1	4	11	4	30
	Oct to Dec 16	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 17	Entrepreneurial development of farmers/youths	Entrepreneurial development of farmers/youths	1	ON/OFF	8	2	1	4	11	4	30
Soil science	April to June 16	Soil and Water Testing	Methods of soil sampling and analysis	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept 16	INM	INM in crops and cropping system	1	ON/OFF	7	2	1	4	11	5	30
	. Oct. to Dec. 16	INM	Green mannuring and use of bio fertilizer	1	ON/OFF	8	2	1	4	11	4	30
	Jan. to March 17	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
Grand Total				22	ON/OFF	107	50	21	60	221	131	590

Thematic Area	Title	No of Courses	Venue	No. of Participants			
				SC	ST	Others	Total
(D) Sponsored							
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
Total		**7**		**35**	**14**	**161**	**210**
(E)Vocational							
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
TOTAL		**11**		**55**	**22**	**253**	**330**

11. Frontline demonstration

Season	Crop/Enterprise	Component/Variety	No. of demonstration	No. of area (ha)
Kharif	Paddy (DSR)	Prabhat	40	10
	Azotobactor & PSB	Culture	10	02
	Azolla	Azolla	30	05
	Vermicomposting	Verms	30	30 pits
	Wheat	HD2967	20	08
Rabi	Rizobium , Azotobactor & PSB	Culture	10	2
	Cauliflower	Sabour Agrim	10	01
	Bhindi	Kashi Pragati	10	01
Zaid	Poultry	Vanraja	20	20 Farmers
	Jute	Seed and micronutrients	50	20
	Jute	Seed and Weedicide	20	08
	Navin Sickle		20	20
	Vaibhv Sickle		20	20
	Maize Shelar		20	20

12. Seed and planting material production

Seed Production			Plantation Material production	
Crop	**Variety**	**Area(ha)**	**Crop**	**No. of graft gooty**
Paddy	Swarna Sab-1	3.5	Lemon	500
Sesamum	Krishna	1.5	Mango	500
Moong	Hum-16	2.0	Guava	500

13. Extension Activities

Name of Extension Activities	No.	Participants
Field Day	08	500
Kisan Mela	01	1000
Kisan Ghosthi	10	500
Kisan Chaupal	40	1000
Exhibition	1	200
Film Show	12	800
Method Demonstrations	2	150
Farmers Seminar	1	150
Workshop	1	150
Group meetings	5	200
Scientific visit to farmers field	72	500
Farmers visit to KVK	1500	1500
Diagnostic visits	30	300
Exposure visits	02	100
Ex-trainees Sammelan	01	50
Soil health Camp	05	300
Animal Health Camp	02	100
Self Help Group Conveners meetings	05	250
Celebration of important days	05	250
Total	**1703**	**8000**

OFT **(Agronomy)**

SN	Particulars	Description
1.	Intervention	Agronomy
2.	Title	Evolution of Rabi Maize Productivity under high fertility level and high plant density in Bihar
3.	Micro farming situation	Medium land
4.	Production system	Rice-Wheat/Maize
5	Thematic area	Crop Management under high fertility and plant density.
6.	Problem	Refining fertility level and plant population on Rabi Hybrid Maize
7.	Potential solution	Evaluation of multiplication trials on fertility level under high plant density on Rabi maize productivity in Bihar
8.	Source of technology	BAU, Sabour
9.	Technology option	Farmer Practices- General Cultivation at 60X20 Cm Spacing with 120:75: 50 kg N: P_2O_5:K_2O ha^{-1} TO_1 – Isobilateral leaf type maize hybrids with fertility level of 150:93.75: 62.5 N: P_2O_5:K_2O ha^{-1} at 50X20 Cm TO_2 – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P_2O_5:K_2O ha^{-1} at 50X20 Cm TO_3 – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P_2O_5:K_2O ha^{-1} at 50X20 Cm
10.	Plot Size	0.10 ha
11	No of farmer	06
12.	Critical input	Seed, Fertilizer
13.	Perform indicator	Technical observations No of Cobs/ plant, Grain Yield
		Economic Indicator Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

ON FARM TRIAL (Agronomy)

SN	Particulars	Description
1.	Intervention	Agronomy
2.	Title	Integrated weed management in Jute
3.	Micro farming situation	Medium to Low land
4.	Production system	Rice-Wheat
5	Thematic area	Weed management
6.	Problem	Jute crop is heavily infested with common weeds during the crop growth period resulting in to poor crop growth and loss in yield of crop.
7.	Potential solution	The integrated method of weed management practices through chemical and mechanical ways helps in reducing weed population and also reduces cost of cultivation.
8.	Source of technology	CRIJAF, Kolkata
9.	Technology option	1 Farmers Practice (Hand weeding at 30 DAS) 2 Hand weeding at 15 and 35 DAS 3 Pretilachlore @ 0.9 kg ai/ha pre emergence 4 Quizalofop ethyl @60 gm a.i /ha at 25 DAS
10.	Plot Size	0.10 ha
11	No of farmer	10
12.	Critical input	Seed, Chemicals
13.	Perform indicator	Technical observations Crop: Plant height, no of branches, fibre weight, yield Weed: No of weeds/m^2 ,weed flora,
		Economic Indicator Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

OFT on Maize (Rabi Maize)

SN	Particulars	Description
1.	Intervention	Agronomy
2.	Title	Evolution of Rabi Maize Productivity under high fertility level and high plant density in Bihar
3.	Micro farming situation	Medium land
4.	Production system	Rice-Wheat/Maize
5	Thematic area	Crop Management under high fertility and plant density.
6.	Problem	Refining fertility level and plant population on Rabi Hybrid Maize
7.	Potential solution	Evaluation of multiplication trials on fertility level under high plant density on Rabi maize productivity in Bihar
8.	Source of technology	BAU, Sabour
9.	Technology option	Farmer Practices- General Cultivation at 60X20 Cm Spacing with 120:75: 50 kg N: P_2O_5:K_2O ha^{-1} TO_1 – Isobilateral leaf type maize hybrids with fertility level of 150:93.75: 62.5 N: P_2O_5:K_2O ha^{-1} at 50X20 Cm TO_2 – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P_2O_5:K_2O ha^{-1} at 50X20 Cm TO_3 – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P_2O_5:K_2O ha^{-1} at 40X20 Cm
10.	Plot Size	0.10 ha
11	No of farmer	06
12.	Critical input	Seed, Fertilizer
13.	Perform indicator	Technical observations No of Cobs/ plant, Grain Yield
		Economic Indicator Gross return, Net return, BC ratio

		Farmers' reaction/ feedback

ON FARM TRIAL (Soil Science)

SN	Particulars	Description
1.	Intervention	Soil science
2.	Title	To Assess the fertilizer doses on Productivity and Profitability of Paddy through Crop Manager, NE and RDF in Paddy – Maize Cropping System
3.	Micro farming situation	Medium irrigated Land
4.	Production system	Rice-Wheat/Maize
5	Thematic area	Integrated Nutrient management
6.	Problem	Farmers are applying indiscriminate dose of nutrients which adversely affect paddy yield and soil health
7.	Potential solution	Proper dose of nutrients may improve paddy yield and soil health
8.	Source of technology	IRRI, Philippines
9.	Technology option	1. Farmers practice (Urea 8 bag, DAP 2 bag) 2. Fertilizer application as per RDF (120 : 60: 40) 3. Fertilizer application as per crop manager for rice based system recommendations (CMRS) 4. Fertilizer application as per Nutrient Expert
10.	Plot Size	0.10 ha
11	No of farmers	10
12.	Critical input	Seed , nutrients, chemicals
13.	Perform indicator	**Technical observations** No. of tillers, plant height, no. grains/panicle, Grains yield
		Economic Indicator Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

ON FARM TRIAL (Soil Science)

SN	Particulars	Description
1.	Intervention	Soil Science
2.	Title	**Assess the effect of Zn and application method of Fertilizers in Rabi maize**
3.	Micro farming situation	Micro farming situation
4.	Production system	Paddy-maize/wheat
5	Thematic area	INM
6.	Problem	Indiscriminate method of fertilizer application
7.	Potential solution	Application of required fertilizers at proper time
8.	Source of technology	SAUAST Jammu
9.	Technology option	TO_1 – Farmer Practices (60:0: 0 :: N:P:K Basal + 50:40:20 N:P:K at 30 DAS+ 30 kg N at 60 DAS) TO_2 –RDF (Basal 60:60:40 :: N:P:K + 40 kg N at 30 DAS+40 kg N at 60 DAS) TO_3 – RDF (Basal 60:60:40:25 :: N:P:K:Zn + 40 kg N at 30 DAS + 40 kg N at 60 DAS)
10.	Plot Size	0.10 ha
11	No of farmer	10
12	Critical input	Seed, Fertilizers
13.	Perform indicator	**Technical observations** Initial and final soil analysis, Plant height, No of grains per cob, grain and straw yield
		Economic Indicator Net return, B:C ratio
		Farmers' reaction/ feedback

ON FARM TRIAL (Soil Science)

SN	Particulars	Description
1.	**Intervention**	**Soil Science**
2.	Title	**Assess the Effect of Brown Manuring and real time nitrogen management in Paddy**
3.	Micro farming situation	Micro farming situation
4.	Production system	Paddy-wheat
5	Thematic area	INM
6.	Problem	Indiscriminate uses of fertilizer, No use of FYM
7.	Potential solution	Application of brown manuring (if standing water is not available), basal doses of fertilizers application and Use of Customized Leaf Colour Chart for real time nitrogen application
8.	Source of technology	CRRI, Cuttack (Odisa)
9.	Technology option	TO_1 – Farmer Practices (80:40: 20 :: N:P:K Basal + 50 kg N at 25 DAT+ 50 kg N at 50 DAT) TO_2 – RDF (Basal 60:60:40 kg N:P:K + 45 kg N at 30 DAT+ 45 kg N at 60 DAT) + knock down of Dhaincha by 2,4-D at 25-30 DAS. TO_3 – RDF (Basal 60:60:40 NPK + Real Time Application of balance N by using Customised Leaf Colour Chart) + knock down of Dhaincha by 2,4-D at 25-30 DAS.
10.	Plot Size	0.10 ha
11	No of farmer	10
12	Critical input	Seed, Fertilizers, chemical
13.	Perform indicator	Technical observations Initial and final soil analysis, Plant height, No of tiller, No of grains per panicle, grain and straw yield
		Economic Indicator Net return, B:C ratio
		Farmers' reaction/ feedback

ON FARM TRIAL (Home Science)

SN	Particulars	Description
1.	Intervention	Home Science
2.	Title	**Assessment of different artificial ripening on post harvest quality of Banana**
3.	Production system	Horticulture based
4.	Thematic area	Value addition
5	Problem	Health hazard due to use of calcium carbide as a ripening agent
6.	Potential solution	The process of hydro cooling and safe treatment may solve the problem concerned.
7.	Source of technology	BAU, Sabour
8.	Technology option	TO_1= Farmer practice (Use of calcium carbide) TO_2= Hydrocooling + etheral treatment 150 PPM TO_3= Etheral treatment (coating of Etheral solution on central steam)
9.	Plot Size	4(hand) bunch of Banana,
10.	No of farmer	10
11	Critical input	Chemicals , Raw material
12	Perform indicator	Days to change in Colour, Taste, Self life at room temperature , Days of ripening
13.	**Economic Indicator**	Net return, B:C ratio

ON FARM TRIAL (Home Science)

SN	Particulars	Description
1.	Intervention	**Home Science**
2.	Title	Performance of different bagging material for quality banana.
3.	Micro farming situation	Up and medium land
4.	Production system	Banana
5	Thematic area	Value addition and income generation
6.	Problem	Paddy crop is heavily infested with common weeds during the crop growth period and delayed hand weeding by manual labour resulting in poor crop growth and loss in yield of crop.
7.	Potential solution	The integrated method of weed management practices through chemical and mechanical ways helps in reducing weed population and also reduces cost of cultivation.
8.	Source of technology	DWSR, Jabalpur
9.	Technology option	To-1: Farmers Practice (Hand weeding at 35 DAT) To -2 Hand weeding at 20 DAT To -3: Pretilachlore @ 1kg ai/ha pre emergence To -4 Bispyribac sodium @25 a.i. gm /ha at 20 DAT
10.	Plot Size	0.10 ha
11	No of farmer	10
12.	Critical input	Seed, Chemicals
		Technical observations : Plant height, No of tillers/m^2 , Straw yield and Grain yield
		Economic Indicator : Gross return, Net return, BC ratio
		Farmers' reaction/ feedback

OFT (Horticulture)

SN	Particulars	Description
1.	Intervention	Horticulture
2.	Title	Effect of chemicals and PGR on pollination and fruit set for better yield on Mango.
3.	Micro farming situation	Medium and Up land
4.	Production system	Fruit Cultivation
5	Thematic area	Crop Improvement
6.	Problem	Excess fruit drop in initial steg
7.	Potential solution	To control the fruit drop percentage with the application of chemical and PGR.2.Increase the furit set % with the help of polliantion
8.	Source of technology	BAU,Sabour
9.	Technology option	Opt. I-Farmers practice(use insecticide) Opt. II- Calcium nitrate (0.06%)+Boric acid(0.02%). Opt.III- Calcium nitrate (0.06%)+Sorbitol(2.0%). Opt.IV- Boric acid(0.02%)+Sorbitol(2.0%). Opt.V- NAA 50 ppm
10.	Plot Size	25 (plant)
11	No of farmer	05
12	Critical input	Chemical & PGR
13	Performance indicator	1)Fruit sting 2) Fruit drop (at 15 day interval till maturity) 3) Fruit Weight 4) Fruit yield (q/Plant) 5) Size of Fruit (mm) 6) TSS and 7) Acidity
	Economic Indicator	B C ratio
		Farmers' reaction/ feedback

ON FARM TRIAL (Horticulture)

SN	Particulars	Description
1.	Intervention	Horticulture
2.	Title	**Management and economic analysis of shoot borer in Brinjal for koshi region in Bihar**
3.	Micro farming situation	Micro farming situation
4.	Production system	Vegetable-vegetable
5	Thematic area	Plant protection
6.	Problem	Fruit and shoot borer highly infested the crop and farmer faces marketable losses
7.	Potential solution	Uses of Insecticides
8.	Source of technology	BAU, Sabour
9.	Technology option	TO1 – Farmer Practices (Use of Rogar) TO2 – Trizophos + Delta methrin @ 2ml/l water TO3 - Emainmectin benzoate 5% @ 0.4 gm/lit TO4 – Spinosad 45 SC @ ½ ml/l water
10.	Plot Size	80 seq mt
11	No of farmer	6
12	Critical input	Seed, chemicals
13.	Perform indicator	**Technical observations** Initial and final soil analysis, shoot damage %, fruit damage on weight and number basis (%), marketable fruit yield.
		Economic Indicator Net return, B:C ratio
		Farmers' reaction/ feedback

Field Study (Extension Education)

Title	Impact of KVK Training Programme on knowledge and adoption of INM in Maize.
Specific Objective	To study the training effectiveness To study training satisfaction to study the impact of training
Locale	Katihar District
Research design	Exploratory and Diagnostic design of social research
sampling plan	Population study 100 trained farmers

Field Study(Extension Education)

Title	Impact of frontline Demonstration on farmer's adoption rate.
Specific Objectives	1. To study the perceived attributes of the technology intervened through FLD demonstrated by KVK, Katihar
	2. To study impact of the FLD demonstrated by KVK, Katihar
Locale	Katihar District
Research design	Exploratory and diagnostic
Sampling plan	Population study (100 beneficiaries of 10 FLD by KVK,Katihar

15. Scientific Advisory Committee

Date of SAC meeting held during 2016-17	Proposed date
	15/7/2016

16. Soil and water testing

	No. of samples to be analyzed
Soil	**1000**
Plant	-
Manure	-

17. Status of infrastructure

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