

Action Plan (2017-18)

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.K. Sinha	28.01.1988	
Subject Matter Specialist (Home Science)	1	Smt. Nandita Kumari		
Subject Matter Specialist (Hort.)	1	Dr. K.P. Singh	10.06.2009	
Subject Matter Specialist (Agronomy)	1	Dr. Sushil Kumar Singh	15.06.2009	
Subject Matter Specialist (Ext. Education)	1	Sri Pankaj Kumar	17.11.2009	
Subject Matter Specialist (Soil Science)	1	Dr Rama Kant Singh	17.04.2012	
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	18.07.2013	
Driver (Jeep)	1	Sri Manoj Kumar Prajapati	09.05.2015	
Driver (Tractor)	1	Sri Ram Jee	12.05.2015	
Supporting Staff	1	Sri Sanjay Yadav	01.02.2005	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

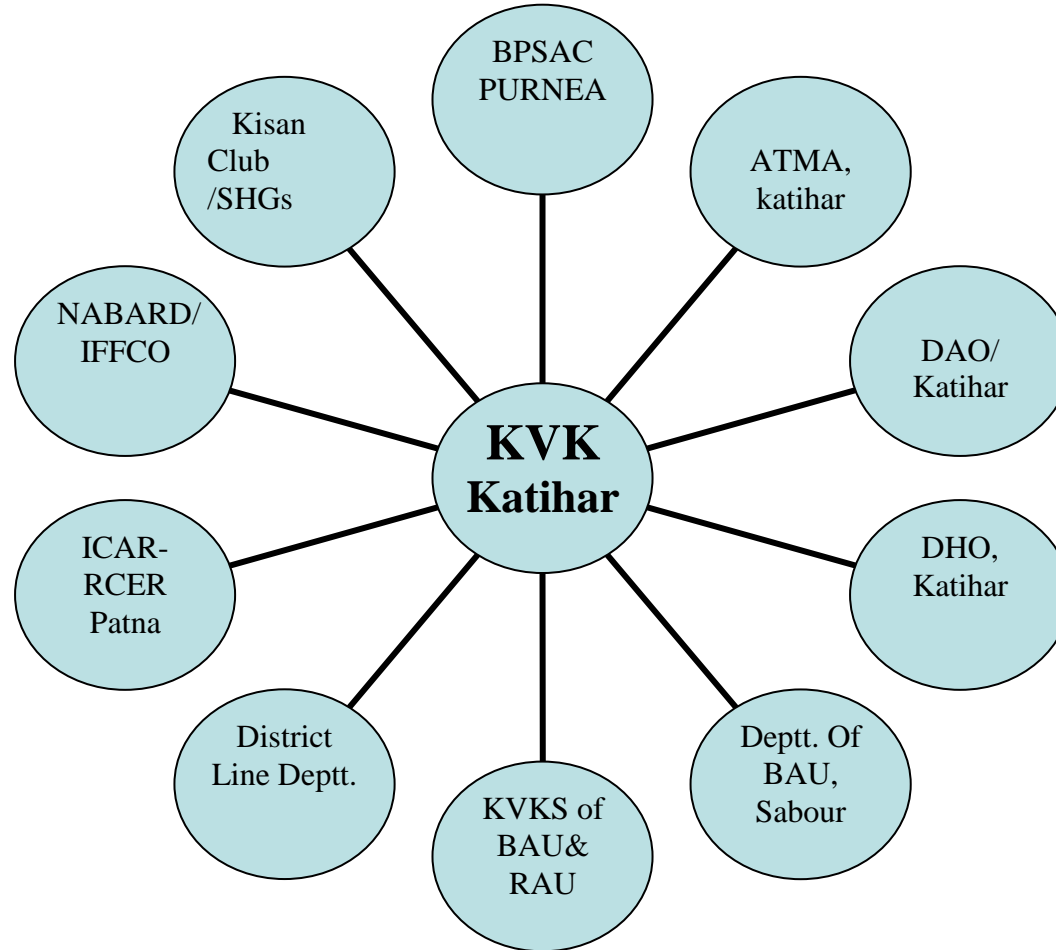
KVK Katihar falls in Agro-climatic Zone-II. The climate is sub-tropical and humid having mean maximum and minimum temperature between 46°C and 4.10°C respectively. The average annual rainfall of the district is about 1298 mm. The maximum rainfall occurs during monsoon period. The soil of the districts 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 (2017-18)**

Discipline	No of Courses	Participants		
		Male	Female	Total
Practicing farmers				
Horticulture	18	450	000	450
Agronomy	14	241	109	350
Extension Education	15	262	113	375
Soil Science	11	202	073	275
Total(A)	58	1155	295	1450
Rural Youth				
Horticulture	8	191	09	200
Agronomy	5	085	40	125
Extension Education	8	140	60	200
Soil Science	8	136	64	200
Total(B)	29	552	173	725
Extension Functionaries				
Horticulture	5	115	15	130
Agronomy	5	97	53	150
Extension Education	4	78	42	120
Soil Science	4	78	42	120
Total(C)	18	368	152	520
Grand Total (A+B+C) :	105	2075	620	2695

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 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-(2017-18)

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		
Home Science	Practicing Farmers & Farm Women												
	April to June 17	Income Generation	Preparation of potato chips, badi and papad	1	ON/OFF	-	3	-	2	-	20	25	
		Tailoring and Stitching	Tie die and textile designing	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	1	ON/OFF	-	3	-	2	-	20	25	
	July to Sept.17	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 17	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 18	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	
	TOTAL				16	ON/OFF		46		34		320	400

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		
Horticulture	Practicing Farmers & Farm Women												
	April to June 17	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.17	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 17	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 18	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	
	TOTAL				18	ON/OFF	60	-	30	-	360	-	450

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants							
						SC		ST		Others		Total	
						M	F	M	F	M	F		
Agromony	April to June 17	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 17	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. 17	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, 18	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

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		
Extension Education	April - June, 17	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., 17	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,17	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, 18	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	ON/OFF	127	23	15	60	120	30	375

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		
Soil Science	April to Jun17	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 Sept17	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 DEC17	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 18	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		
Home Science	April to June 17	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 designi ng	1	ON/OFF	-	3	-	2	-	20	25	
	July to Sept 17	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 17	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 18	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	
	TOTAL				9	ON/OFF	-	27	-	18	-	180	225

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		
Horticulture	Rural Youth												
	April to June 17	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	18	-	25	
	July to Sept 17	Planting Material Production	Plant Propagation techniques of fruit crops	1	ON/OFF	3	1	1	-	20	-	25	
	Oct to Dec 17	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 18	Value Addition	Value Addition of Vegetable Crops	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
						M	F	M	F	M	F	
Agronomy	April to June17	Crop diversification	Diversification of Rice Wheat Cropping system	1	ON/OFF	9	1	1	4	8	2	25
	July to Sept 17	Seed production	Seed Production of Paddy	1	ON/OFF	7	2	1	4	8	3	25
	Oct. to Dec. 17	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 March18	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

Discipline	Qrt No. & Month	Thematic area	Course Title	No of Courses	Venue off/on campus	Participants trainees (Nos)							
						SC		ST		Others		Total	
Rural Youth						M	F	M	F	M	F		
Extension Education	April to June17	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 17	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 Dec17	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 March18	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)							
						SC		ST		Others		Total	
Rural Youth						M	F	M	F	M	F		
Soil Science	April to June 17	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. 17	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. 17	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 18	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)						
						SC		ST		Others		Total
Extension Functionaries						M	F	M	F	M	F	
Horticulture	April to July 17	Planting Material Production	Plant Propagation techniques in fruit crop	1	ON/OFF	-	1	2	-	22	-	25
	Aug to Sept 17	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 17	Protected cultivation	Protected cultivation of Tomato, Simla mirch , cucumber, garden pea	1	ON/OFF	3	1	2	-	19	-	25
	Jan to March 18	Care and manage Orchard fruit	Proper care and management of fruit Orchard	1	ON/OFF	3	1	2	-	19	-	25
Agromony	April to June 17	ICM	Agromony 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. 17	Productivity enhancement in field crops	Agromony Management practices of paddy	1	ON/OFF	8	2	1	4	11	4	30
	Oct. to Dec. 17	RCT	Sowing of Wheat by technology	1	ON/OFF	7	2	1	4	11	5	30
	Jan. to March 18	Integrated farming system	Integrated farming system	1	ON/OFF	8	2	1	4	11	4	30

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
Soil science	April to June 17	Soil and Water Testing	Methods of soil sampling and analysis	1	ON/OFF	7	2	1	4	11	5	30
	July to Sept 17	INM	INM in crops and cropping system	1	ON/OFF	7	2	1	4	11	5	30
	Oct. to Dec. 17	INM	Green manuring and use of bio fertilizer	1	ON/OFF	8	2	1	4	11	4	30
	Jan. to March 18	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
Home Science	April to June 17	Household food security	Nutritional backyard kitchen gardening.	1	ON/OFF	-	3	-	2	-	20	25
	July to Sept 17	Gender mainstreaming	Entrepreneurship development and women empowerment	1	ON/OFF	-	3	-	2	-	20	25
	Oct. to Dec. 17	Formation and Management of SHGs	Formation and Management of SHGs	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
Grand Total				12	ON/OFF	112	44	22	64	234	144	620

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	171	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

12. Frontline Demonstration

Season	Crop/Enterprise	Component/Variety	No. of demonstration	No. of area (ha)
Kharif	Paddy	Seed (Swarna Sub-1) & Chemicals	25	10
	Paddy	Seed (RM-1) & Chemicals(Sansad Adarsh Village Programme)	25	10
	Azotobactor & PSB	Culture and Paddy Seed	25	10
	Azolla	Azolla	10	4
	Cauliflower	Seed (Sabour Agrim) & Chemicals	10	2
	Vermicomposting	Worms	30	30 pits
	Brown Mannuring	Seed (Dhaincha & Paddy) & Chemicals	25	10
	Spounge Guard	Seed (Rajendra Nenua -1)& Chemicals	5	1
	Brinjal	Seed (PH-6) & chemicals	20	2
	Chicks	Vanraja	30	750 chicks

Rabi	Wheat	Seed (HD-2967)& Chemicals	25	10
	Biofertiliser	Wheat seed ,Biofertiliser & Chemicals	25	10
	Zn and Bo	Wheat seed &Micronutrients	25	10
	Cauliflower	Rajendra Chamatkar	10	01
	Wheat	Seed (HD-2967)& Chemicals (Sansad Adarsh Village Programme)	25	10
	Tomato	Seed & chemicals	10	01
	Radish	Seed & chemicals	10	01
Zaid	Poultry	Vanraja	30	750 chicks
	Jute	Seed and chemicals	50	20
	Jute	Seed and chemicals	20	08
	Bottle Guard	Seed and chemicals	10	01
			240	

13. Seed and planting material production

Seed Production			Plantation Material production	
Crop	Variety	Area(ha)	Crop	No. of graft gooty
Paddy	Swarna Sub-1	2.5	Lemon	1000
Paddy	RM-1	0.8	Mango	1000
Arhar	NDA-1/Malviya	1.2	Guava	500
Wheat	HD-2967	3.3	Litchi	500

14. 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	1803	8000

ON FARM TRIAL

SN	Particulars	Description
1.	Intervention	Storage Loss Minization Technique
2.	Title	Assessment of method of oil less mango pickle
3.	Micro farming situation	Home stead
4.	Production system	Income generation
5	Thematic area	Nutritional security
6.	Problem	Spoilage in pickle during storage
7.	Potential solution	Mango is grown in abundance in this district and people are ignorant about value addition of mango (Oil less mango pickle)
8.	Source of technology	CISH Lucknow
9.	Technology option	T ₁ - Traditional/ Farmers method of Pickle making T ₂ - Oil less pickle+ Sodium Benzoate T ₃ - Oil less pickle+ Sodium Benzoate+ Vinegar
10	Plot Size	
11	No of farmer	05
12	Critical input	Mango +Spice + Preservative
13.	Perform indicator	Technical observations Durability, Taste and Color Storability
		Economic Indicator Cost, Net Return, B:C Ratio
		Farmers' reaction/ feedback After getting Result

ON FARM TRIAL

SN	Particulars	Description
1.	Intervention	Home Science
2.	Title	Acceptability of value added food from maize, Til and Jaggery for pre School children
3.	Micro farming situation	Home stead
4.	Production system	Designed and develop high acceptability
5	Thematic area	Nutritional security
6.	Problem	Mal nutrition in children
7.	Potential solution	Maize is grown in abundance in the district anf people are ignorant about value addition on maize product
8.	Source of technology	Deptt of Food and Nutrition CGS HAU Hisar
9.	Technology option	T ₁ - Farmer's Practice (MaizePowder or sattu + Jaggery) T ₂ - Maize Powder + til+Moong dal+ Jaggery T ₃ - Maize Powder + til + Moong dal +Moong Pali + Jaggery
10	Plot Size	
11	No of farmer	9
12	Critical input	Maize, til, Moong dal,Moong Pali, Jaggery
13.	Perform indicator	Technical observations Organoleptic Evaluation
		Economic Indicator Cost, Net Return, B:C Ratio
		Farmers' reaction/ feedback After getting Result

ON FARM TRIAL (Soil Science)

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 ₁ – Farmer Practice (150: 20:10 :: N:P:K kg ha ⁻¹) TO ₂ – RDF (100:40:20 :: N:P:K kg ha ⁻¹) TO ₃ - RDF (50:20:10 :: N:P:K kg ha ⁻¹) + Azolla @ 10 t ha ⁻¹
10.	Plot Size	0.10 ha
11	No of farmers	10
12.	Critical input	Seed , nutrients, chemicals & Azolla
13.	Performance indicator	Technical observations No. of tillers, plant height, no. grains/panicle, Grains & straw 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 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 ₁ – Farmer Practice (150:20:10 :: N:P:K kg ^{ha} ⁻¹) TO ₂ – RDF (100:40:20 :: N:P:K kg ^{ha} ⁻¹) TO ₃ - RDF (75:40:20 :: N:P:K kg ^{ha} ⁻¹) + BGA Culture 10 kg ha ⁻¹
10.	Plot Size	0.10 ha
11.	No of farmers	10
12.	Critical input	Seed , nutrients, chemicals & BGA
13.	Performance indicator	Technical observations No. of tillers, plant height, no. grains/panicle, Grains & straw 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 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 ₁ – Farmer Practices (200:40:20 :: N:P:K) TO ₂ – 75 % RDF (150:60:40 :: N:P:K) + 25 % through Vermicompost with Zn 25 kg and B 10 kg/ha) TO ₃ – 75 % RDF (150:60:40 :: N:P:K) + 25 % through Vermicompost with Azotobactor and PSB) TO ₄ – 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	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	Effect of Potash Application in Boosting Potato Productivity
3.	Micro farming situation	Medium irrigated Land
4.	Production system	Rice-Potato/Wheat/Maize
5.	Thematic area	Integrated Nutrient management
6.	Problem	Low Productivity of potato
7.	Potential solution	Multi-locational field trial for balance potash application on productivity of potato
8.	Source of technology	IARI, New Delhi
9.	Technology option	TO ₁ – Farmer Practice (150:90:90 :: N:P:K kg ha ⁻¹) TO ₂ – Farmer Practice + Potash 30 kg ha ⁻¹) TO ₃ - Farmer Practice + Potash 60 kg ha ⁻¹)
10.	Plot Size	0.10 ha
11.	No of farmers	6
12.	Critical input	Seed , nutrients, chemicals
13.	Performance indicator	Technical observations Tuber size and tuber 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 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 ₁ Farmers Practice (Hand weeding at 35 DAS) TO ₂ Pendimethaline 1.0 kg ai/ha(pre emergence) TO ₃ Quizalofop-ethyl @40 gm a.i /ha at 20 DAS TO ₄ 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 (Agronomy)

SN	Particulars	Description
1.	Intervention	Agronomy
2.	Title	Evaluation 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 ₂ O ₅ :K ₂ O ha ⁻¹ TO ₁ – Isobilateral leaf type maize hybrids with fertility level of 150:93.75: 62.5 N: P ₂ O ₅ :K ₂ O ha ⁻¹ at 50X20 Cm TO ₂ – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P ₂ O ₅ :K ₂ O ha ⁻¹ at 50X20 Cm TO ₃ – Isobilateral leaf type maize hybrids with fertility level of 180:112.5: 75 N: P ₂ O ₅ :K ₂ O ha ⁻¹ at 50X20 Cm
10.	Plot Size	0.10 ha
11.	No of farmer	06
12.	Critical input	Seed, & Chemicals
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 (Extension Education)

SN	Particulars	Description
1.	Intervention	Extension Education
2.	Title	Crop diversification for profitability in Jute
3.	Micro farming situation	Medium to Low land
4.	Production system	Jute-Paddy- Mustard
5.	Thematic area	Income generation
6.	Problem	Due to low income and high cost of cultivation of Jute, farmer's need to adopt crop diversification for improving profitability in Jute cultivation.
7.	Potential solution	Intercropping of Greengram in Jute for improving Productivity and Income of Jute Farmers
8.	Source of technology	JRS, Katihar
9.	Technology option	TO ₁ Farmers Practice (sole jute crop) TO ₂ Jute + Greengram (1:1) (50-50) TO ₃ Jute + Greengram (Mixed cropping) (70:30)
10.	Plot Size	0.10 ha
11.	No of farmer	10
12.	Critical input	Seed & Chemicals
13.	Perform indicator	Technical observations Jute: plant height, Basal diameter, Green Weight, Yield Green gram : No. of branches, Pods/plant, seed /pod,yield
		Economic Indicator Gross return, Net return, B:C ratio
		Farmers' reaction/ feedback
14.	Associated Scientist	Dr. Koneru Laxman Junior Scientist cum Asistant Professor, JRS,Katihar

ON FARM TRIAL (Extension Education)

SN	Particulars	Description
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 ₁ = Farmers practice (PBW-373) TO ₂ = DBW-14 TO ₃ = 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
		.

OFT(Horticulture)

1.	Title of On farm Trial	Assessment of performance of cowpea as influenced by organic manures in rainfed condition
2.	Problem identified	Low yield and poor quality of cowpea due to inadequate organic matter content of vegetable soils
3.	Hypothesis/Solution	Yield and quality may be improved significantly by improving organic matter status and balanced nutrients through different sources of organics.
4.	Spacing	60 x 40 cm, Plot Size = (12x4) = 480sqm, Net Area = 4800sqm
5.	Replication	10, Experimental design = RBD
6.	Details of technologies selected for assessment/refinement	T ₀ Farmer's practice-No use of organic manures. T ₁ –Karanj 7.5q/ha. T ₂ – Vermicompost 15q/ha. T ₃ –Poultry manure 15q/ha
7.	Critical inputs	Seed, Karanj cake, Vermicompost, Poultry manures
8.	Source of Technology	BAU Sabour, Bhagalpur
9.	Production system and thematic area	Paddy – Vegetable production system- INM
10.	Performance of the Technology with performance indicators	Technical observations Days to flowering, days to first harvest, no. of pickings, pod length (cm), pod yield/plot (kg), pod yield/ha (q), B:C ratio Economic Indicator Net return, B: C ratio

OFT(Horticulture)

SN	Particulars	Description
1.	Intervention	Horticulture
2.	Title	Performance of different fungicide and Trichoderma viridi against wilting in garden Pea var. Azad Pea-3 in Katihar district
3.	Micro farming situation	Medium irrigated Land
4.	Production system	Vegetable - Vegetable
5	Thematic area	Integrated Disease management
6.	Problem	In garden Pea wilting is a very serious problem in Katihar district which causes very low yield
7.	Potential solution	Suitable fungicide and trichoderma viridi a will reduce wilting in garden Pea which ultimately increase the yield and quality.
8.	Source of technology	BAU Sabour
9.	Technology option	TO ₁ – Farmer Practice TO ₂ – Seed Treatment with trichoderma viridi @ 10g /kg of seed T0 ₃ - Seed Treatment with Beristin @ 3g/kg of seed T0 ₄ - Seed Treatment with Agrosan C ₂ N/ Cereson / Tatkat @ 3g/kg of seed
10.	Plot Size/ unit	125 sqm
	Total Area	125X4X10= 500sqm=0.5 ha
11	No of farmers	10
	Design	RBD
12.	Critical input	Seed , Fungicide, Trichoderma viridi
13.	Perform indicator	<p>Technical observations No. of Branches/ plant, plant height, no. of Pods/Plant, pod length, Pod diameter, Pod Weight, Number of grains/pod, incidence of wilting (%), Shelling percentage , Yield(@/ha)</p> <p>Economic Indicator Net return, BC ratio</p> <p>Farmers' reaction/ feedback</p>

OFT(Horticulture)

SN	Particulars	Description
1.	Intervention	Horticulture
2.	Title	Performance of micronutrients on yield and quality of Mango
3.	Micro farming situation	Micro farming situation
4.	Production system	Vegetable - Vegetable
5	Thematic area	INM
6.	Problem	Due to deficiency of micronutrient maximum fruits drop just after flowering was observed and also fruits quality decorated interms of fruits cracking less attractive fruit skin roughness
7.	Potential solution	Spraying of micronutrient (Boric acid and Copper sulphate) checks fruits dropping and improved fruit quality like to attractive nesses skin color and minimizing fruit cracking ultimately yield and quality will be increased.
8.	Source of technology	BAU Sabour
9.	Technology option	TO ₁ – Farmer Practice TO ₂ – RDF(100 gm N, 500 gm P ₂ O ₅ , 500 gm K ₂ O/Plant) TO ₃ - RDF + 0.4 % Foliar spray ZnSO ₄ + 0.2%Foliar spray of Basic Acid. TO ₄ - RDF + 0.4 % Foliar spray ZnSO ₄ + 0.2%Foliar spray of Basic Acid+0.2%Foliar spray of CuSO ₄
11	No of farmers	10
	Design	RBD
12.	Critical input	Chemical fertilizers, Micronutrients.Refractometer-1
13.	Perform indicator	<p>Technical observations plant height(m), Plant girth (cm), Plant spread(East- Weat & North –South) (m), Canopy Volume (m³) no. of fruit/Plant, Average fruit weight(gm), Fruit Yield (kg/Plant) , Fruit Size (mm) length speath, TSS (%), Acidity(%).</p> <p>Economic Indicator Net return, BC ratio</p> <p>Farmers' reaction/ feedback</p>

SN	Particulars	Description
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OFT(Horticulture)

1.	Intervention	Horticulture
2.	Title	Performance Pactobutrazol on irregular or biennial cultivars for regular bearing of Mango in Bihar
3.	Farming situation	Micro farming situation
4.	Production system	Mango-Mango
5.	Thematic area	Orchards
6.	Problem	Many Cultivars have irregular, biennial behavior in fruiting like Langra, Zardulu, Himsagar, Fzli, Chausa etc. resulting yield is very poor.
7.	Potential solution	To improve the irregular, Biennial, old, senile and unproductive mango orchard into production, ultimately yield will be enhanced
8.	Source of technology	BAU, Sabour
9.	Technology option	TO ₁ – Farmer Practice TO ₂ –Application of full dose of recommended dose of fertilizers (1000:500:500g NPK with 25 to 30 kg FYM) TO ₃ - TO ₂ + Application of Pactobutrazol @ 1ml/m ² with sufficient water so that it should be drenched in the soil. TO ₄ - TO ₂ + Application of Pactobutrazol @ 2ml/m ² with sufficient water so that it should be drenched in the soil. TO ₅ - TO ₂ + Application of Pactobutrazol @ 3ml/m ² with sufficient water so that it should be drenched in the soil.
10	No of Plants/ Unit	5
11	Replication	10
12	Variety	Langra
13.	Critical input	Application of FYM, Vermi compost and Chemical fertilizers were applied before application Pactobutrazol.
14	Irrigation Method	Heavy irrigation should be given just after application of treatment in modified basin methods
15	Cultural Practices	Thining should done of unwanted and overcrowded branches
16	Additional Information	Pactobutrazol should be used in off- season and avoid in on season
17.	Performance indicator	Technical observations plant height(m), Plant girth (cm), Plant spread(East- West & North –South) (m), Canopy Volume (m ³) no. of fruit/Plant, Average fruit weight(gm), Fruit Yield (kg/Plant) , Fruit Size (mm)(length speath, TSS (%),

	Acidity(%).
	Economic Indicator Net return, BC ratio
	Farmers' reaction/ feedback

OFT (Horticultur -Second Year 2017-18)

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

OFT (Horticultur -Second Year 2017-18)

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	TO ₁ – Farmer Practices (Use of Rogar) TO ₂ – Trizophos + Delta methrin @ 2ml/l water TO ₃ - Emainmectin benzoate 5% @ 0.4 gm/lit TO ₄ – 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

15. Scientific Advisory Committee

Date of SAC meeting held during 2017-18	Proposed date
8 th SAC meeting	08/08/2017

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		✓		
Trainees' hostel	✓			
Staff quarter	✓			
Demonstrations: I) IFS II) Mushroom Cultivation Unit	✓			