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KRISHI VIGYAN KENDRA

AGWANPUR, SAHARSA

ACTION PLAN

(January to December, 2022)

BIHAR AGRICULTURAL UNIVERSITY

SABOUR, BHAGALPUR, (BIHAR)

CONTENTS

Krishi Vigyan Kendra, Saharsa

INTRODUCTION

Krishi Vigyan Kendra, Saharsa is an innovative centre of Indian Council of Agricultural Research (ICAR), Pusa, New Delhi sanctioned vides ICAR Sanction Order F.No. 21/100/84 dated 14th March 1984 under the administrative control of Bihar Agricultural University, Sabour, Bhagalpur Bihar. This KVK was established in 1985 at Agwanpur farm under Sattarkataiya Block of district Saharsa. It is an unique scheme of ICAR oriented to serve the farming community being the fountain head of agricultural technologies at the district level. KVKs are the Agricultural Knowledge and Resource Centre for farmers, farmwomen, rural youth and extension functionaries. The KVK has the mandated activities of conducting on farm testing/trials (OFTs) with emerging advances in agricultural research for assessing and demonstration of recently released technology to develop location specific sustainable land use production system and dedicated to organize vocational training in agriculture and allied fields for practicing farmers, farm women and rural youth. The Saharsa district is quite suitable for cultivation of rice, wheat, maize oilseeds, pulses and vegetables crops in different seasons of the year. The soil is also favorable for growing makhana, mango, guava, banana and bamboos with 180 to 210 days length of growing period. The productivity enhancement of the field and horticultural crops and livestock with the concept of integrated farming system module is the major arena of thrust for development of agriculture in the district. KVK Saharsa is working with following specific mandates and activities as per guidelines of ICAR :

MANDATE

Technology Assessment and Demonstration for its Application and Capacity Development

ACTIVITIES

a) On-farm testing to assess the location specificity of agricultural technologies under various farming systems.

b) Frontline demonstrations to establish production potential of various crops and enterprises on the farmers' fields.

c) Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies.

d) To work as Knowledge and Resource Centre of agricultural technology for supporting the initiative of public, private and voluntary sectors in improving the agricultural economy of the district.

e) Providing farm advisory using ICT and other media means on various subjects of interest to farmers.

f) Data documentation, characterization and strategic planning of farming practices.

g) Production of quality seeds, planting materials, livestock breeds, animal product bio-product etc as per the demand and supply the same to different clienteles.

THRUST AREA

- INM and IPM practices in crops and cropping system for sustainable agriculture.
- Productivity enhancement of field crops, vegetables and fruit plants
- Popularization of quality seed production.
- Income generation through mushroom production, vermi-composting and beekeeping activities
- Farm mechanization in Agriculture
- Farm women empowerment

TOTAL LAND WITH KVK

S. No.	**Item**	**Area (ha)**
1	Under Buildings	1.50
2.	Under Demonstration Units	0.50
3.	Under Crops	13.00
4.	Orchard/Agro-forestry	2.00
5.	Others with details water logged, road nala etc	3.00
	Total	**20.00**

MAP OF SAHARSA DISTRICT

LOCATION

Krishi Vigyan Kendra, Saharsa is situated at Agwanpur farm under Sattarkataiya Block of district Saharsa. The District came into existence on 1st April 1954 carved out from Bhagalpur and then another two districts Madhepura and Supaul also emerged from Saharsa. KVK is 250 km away from state capital Patna (Bihar) and 10 km far away from Saharsa railway station and district head quarter. Saharsa district occupies an area of 1,687 square kilometres. Saharsa district comprises of ten blocks and two sub-divisions: SaharasaSadar and SimriBakhtiyarpur having gram punchait 151 and villages 468.

AGRO-CLIMATIC CONDITION

KVK Saharsa falls in Agro-climatic Zone-II North East alluvial plain zone situated in middle gangetic plain. Saharsa district is located between 25^0 37' and 26^0 32' North latitudes, and 86^0 0' and 86^0 09' East longitudes with an altitude of 52.7 meter from MSL The climate is sub-tropical and sub-humid (moist) eco-region with hot-wet summer and cool-dry winter having mean maximum and minimum temperature between 33.8ºC and 8.8ºC respectively. The average annual rainfall of the district is about 1305 mm and mean annual potential evapo-transpiration (PET) demand of 1300 mm (Agro-Ecological Zone:O8 Cd/Cm6). The maximum rainfall occurs during monsoon period. The soil of the districts generally light textured having alluvial properties.

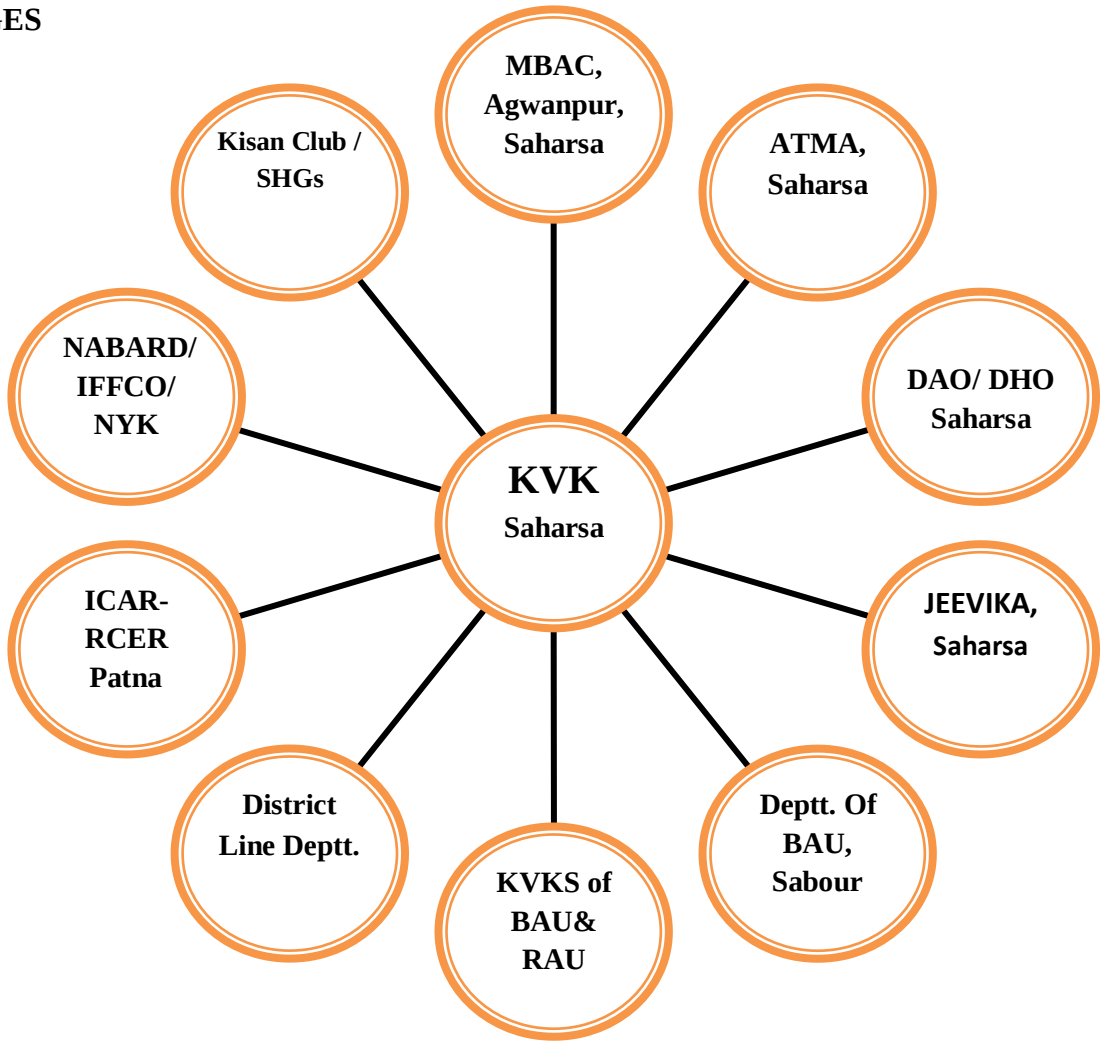
The soil is recognized with p^H 6.5 to 8, low in organic carbon, available N, P_2O_5 and medium in available K_2O. Soil is deficient in Zinc, Sulphur & Boron. The cropping system varies depending on rainfall, land situation and water accumulation in the locality. Saharsa district is surrounded on the west by the river Kosi, which boasts an abundance of fish and makhana. Saharsa is famous for its varieties of mangoes and litchis. There are four distinct farming situations viz. Upland, Medium land, low land and deep low land having specific characteristic which determine crop and cropping sequence/cropping patterns in the district.

Area production and yield of major crops in Saharsa district

Sl No.	Crop	Area (ha)	Production (MT)	Productivity (Kg/ha)
1.	Rice	79523	124878	1570
2.	Wheat	49020	97771	1995
3.	Rabi maize	27062	148874	5501
4.	Mustard	1359	1843	1356
5.	Linseed	202	170	843
6.	Sesame	3	3	1000
7.	Sunflower	128	183	1430
8.	Lentil	469	435	925
9.	Pea	196	201	1027
10.	Summer green gram	16296	10453	615

Source: Directorate of statistics and economics, Bihar 2019-20

LINKAGES



Staff Positions:

Sl. No.	Name of Post	Sanction Strength	Present Position	Date of Joining
1.	Senior Scientist & Head	1	Dr. K.M. Singh	24.04.2012
2.	SMS (Agrill. Engg.)	1	Er. Vimlesh Kumar Pandey	10.07.2007
3.	SMS (H.Sc)	1	Dr. Suneeta Paswan	22.06.2009
4.	SMS (Plant Pathology)	1	Md. NadeemAkhtar	17.10.2014
5.	SMS (Agronomy)	1	Mr. AnandChoudhary	21.10.2014
6.	SMS (Horti)	1	Dr. Pankaj Kumar Ray	05.012015
7.	SMS (Soil Science/ Ag. Ext.)	1	Vacant	
8.	Prog. Asstt (lab.Tech.)	1	Mr. Ravi Ranjan Kumar	17.11.2012
9.	Farm Manager	1	Vacant	
10.	Assistant	1	Mr. Mahendra Narayan Singh	08.04.2013
11.	Prog. Asstt. (Computer)	1	Mr. Ashwani Kumar	21.05.2013
12.	Jr. Stenographer	1	Mr. Mithilesh Kumar Mandal	15.06.2013
13.	Driver	1	Mr. Rajeev Kumar Bhagat	21.05.2015
14.	Driver	1	Mr. Dilip Kumar Dinkar	28.05.2015
15.	Supporting Staff	1	Vacant	
16.	Supporting Staff	1	Mr. Lalo Thakur	22.09.1990

REVISED PROFORMA FOR ACTION PLAN 2022

1. Name of the KVK: SAHARSA

Address	Telephone		E mail
Krishi Vigyan Kendra, Agwanpur, Saharsa, Pin-852201	9430613389		saharsakvk@gmail.com

2.Name of host organization :

Address	Telephone		E mail
	Office	FAX	
Bihar Agriculture University, Sabour, Bhagalpur	0641-2452606		deebausabour2019@gmail.com

3.Training programme to be organized (Jan. to Dec. 2022)

(a) Farmers and farm women

Thematic area	Title of Training	No.	Duration	Venue On/ Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
CROP PRODUCTION														
Integrated crop management	Scheduling of irrigation in wheat	01	2	Off/On	06-07 Jan. 2022	10	05			15		25	05	30
Integrated crop management	Agronomic management practices of summer Green Gram	01	2	Off/On	14-15 Feb. 2022	10	05			15		25	05	30
Integrated crop management	Agronomic management practices of summer Green Gram	01	2	Off/On	02-03 March 2022	10	05			15		25	05	30
Resource Conservation Technique	Principles and technique for conservation of resources	01	2	Off/On	07-08 April 2022	10	05			15		25	05	30
Fodder Production	Quality fodder production for Koshi region	01	04	Off/On	12-13 April 2022	10	05			15		25	05	30

Seed production	Precautions taken during harvesting & threshing of wheat seed.	01	2	Off/On	26-27 April 2022	10	05			15		25	05	30
Weed management	Weed management in paddy	01	2	On/ Off	04-05 May 2022	10	05			15		25	05	30
Water Management	Water management in paddy	01	2	On/ Off	01-02 June 2022	10	05			15		25	05	30
Soil fertility management	Nutrient Management in paddy	01	2	On/ Off	01-02 July 2022	10	05			15		25	05	30
Integrated Crop Management	Integrated Crop Management in paddy	01	03	On/ Off	04-05 Aug. 2022	10	05			15		25	05	30
Integrated Crop Management	Integrated Nutrient Management in Kharif crops	01	02	On/ Off	01-02 Sept. 2022	10	05			15		25	05	30
Seed Production	Quality seed production of Oilseed	01	02	On/ Off	07-08 Oct. 2022	10	05			15		25	05	30
Plant Protection												0	0	0
Integrated Pest Management	IPM of Oilseed crop	01	2	On/ Off	13-14 Jan. 2022	10	05			15		25	05	30
Integrated Pest Management	IPM in pulses	01	2	On/ Off	17-18 Jan. 2022	10	05			15		25	05	30
Integrated Pest Management	Integrated Pest Management in Mango & Litchi	01	2	On/ Off	03-04 Feb. 2022	10	05			15		25	05	30
Integrated Pest Management	IPM of Oilseed crop	01	2	On/ Off	07-08 Feb. 2022	10	05			15		25	05	30
Income Generation	Cultivation of Garma mushrooms	01	04	On/ Off	14-15 March 2022	10	05			15		25	05	30
Integrated Pest Management	Integrated Pest Management in Garma Green Gram	01	2	On/ Off	16-18 April 2022	10	05			15		25	05	30
Income Generation	Production technology and management of	01	2	On/ Off	17-18 May 2022	10	05			15		25	05	30

	Makhana insect pest and diseases													
Integrated Pest Management	Use of organic inputs for plant disease management	01	2	On/ Off	20-21 June 2022	10	05			15		25	05	30
Biocontrol of pests and diseases	Biocontrol of pests and diseases	01	2	On/ Off	15-16 July 2022	10	05			15		25	05	30
Integrated Disease Management	Management of Paddy diseases	01	2	On/ Off	17-18 Aug. 2022	10	05			15		25	05	30
Integrated Pest Management	IPM in paddy	01	2	On/ Off	08-09 Sept. 2022	10	05			15		25	05	30
Integrated Pest Management	IPM in Cabbage & Cauliflower	01	2	On/ Off	07-08 Dec. 2022	10	05			15		25	05	30
HORTICULTURE												0	0	0
Plant Propagation techniques	Propagation techniques of fruit plants	01	2	On/ Off	11-12 Jan. 2022	10	05			15		25	05	30
Layout and Management of orchards	Lay out and Management of High Density Orchard	01	2	On/ Off	20-21 Jan. 2022	10	05			15		25	05	30
Nursery raising	Nursery raising & Management of vegetable crops	01	2	On/ Off	10-11 Feb. 2022	10	05			15		25	05	30
Protected Cultivation	Low cost poly house for small farmers regarding off season Vegetable cultivation	01	2	On/ Off	30-31 March 2022	10	05			15		25	05	30
Production & management technology	Scientific cultivation of Cole crops	01	2	On/ Off	19-20 April 2022	10	05			15		25	05	30
Production and Management Technology	Cultivation of Aromatic & Medicinal Plants	01	2	On/ Off	30-31 May 2022	10	05			15		25	05	30
Production and Management technology	Cultivation of tuber crops	01	2	On/ Off	15-16 June 2022	10	05			15		25	05	30
Yield increment	Scientific Cultivation of Turmeric and Ginger	01	2	On/ Off	7-8 July 2022	10	05			15		25	05	30

Production & Management technology	Production technology and management of vegetable crops.	01	2	On/ Off	15-16 Sept. 2022	10	05			15		25	05	30
Production and Management technology	Package & Practices of spices	01	2	On/ Off	10-11 Nov. 2022	10	05			15		25	05	30
Organic cultivation	Organic vegetable production	01	2	On/ Off	17-19 Dec. 2022	10	05			15		25	05	30
Agriculture Engineering												0	0	0
Establishmen t of MIS	Application of Control Pressure Devices for achieving higher Irrigation Water Use Efficiency	01	02	On	14-15 Jan. 2022	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery & implements	Maintenance of centrifugal pump	01	02	Off	27-28 Jan. 2022	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery & implements	Internal Combustion Engine: Parts, operation, repair and maintenance	01	02	Off	03-04 Feb. 2022	5	2			20	3	25	5	30
Use of small tools	Improved implements for summer green gram cultivation	01	02	Off	24-25 March 2022	5	2			20	3	25	5	30
Repair and maintenance of farm implements	Sprayers/ Dusters: Troubles, causes and their remedies	01	02	On	7-8 April 2022	5	2			20	3	25	5	30
Use of plastics in agriculture for water conservation	Use of HDPE pipes for irrigation for achieving higher irrigation efficiency	01	02	Off	4-5 May 2022	5	2			20	3	25	5	30
Resource Conservation Technique	Application of DSR technique for rice cultivation	01	02	On	23-24 June 2022	5	2			20	3	25	5	30
Repair and maintenance of farm implements	Operation and maintenance of sprayer and duster	01	02	Off	28-29 July 2022	5	2			20	3	25	5	30
Installation and maintenance	Fertigation by application of liquid fertilizers	01	02	Off	17-18 Aug. 2022	5	2			20	3	25	5	30

of MIS	through drip irrigation system													
Installation and maintenance of MIS	Installation, operation and maintenance of drip irrigation system with micro irrigation of horticultural crops	01	03	On	21-22 Sept. 2022	5	2			20	3	25	5	30
Use of plastics in agriculture	Cultivation of cash crops in controlled environment: Cultivation in poly houses	01	02	Off	3-4 Nov. 2022	5	2			20	3	25	5	30
Application of liquid fertilizers	Application of liquid fertilizers through drip irrigation system	01	02	Off	14-15 Dec. 2022	5	2			20	3	25	5	30
Home Science												0	0	0
Storage loss minimization techniques	Importance of post harvest technology(Gradin g Processing and marketing)	1	2	Off/On	12-13 Jan. 2022	-	10	-	05	-	10	0	25	25
Women and child care	Importance of family planning among rural women	1	2	Off/On	20-21 Jan. 2022	-	10	-	02	-	13	0	25	25
Value addition	Preservation of seasonal fruits	1	2	Off/On	14-15 Feb. 2022	-	10	-	00	-	15	0	25	25
Source of energy	Use of non-conventional source of energy smokeless chullah , solar cooker, solar light Bio-gas etc	1	2	Off/On	24-25 Feb. 2022	-	10	-	00	-	15	0	25	25
Value addition	Preservation of seasonal vegetables	1	2	Off/On	28-29 March 2022	-	10	-	00	-	15	0	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	Off/On	18-19 April 2022	-	10	-	00	-	15	0	25	25

Designing and development for high nutrient efficiency diet	Importance of supplementary feeding in daily diet of rural women and children.	1	2	Off/On	12-13 May 2022	-	10	-	00	-	15	0	25	25
Income Generation	Techniques of Mushroom cultivation and post harvest management	1	2	Off/On	08-09 June 2022	-	10	-	05	-	10	0	25	25
Women and child care	Importance of family planning among rural women	1	2	Off/On	13-14 July 2022	-	10	-	02	-	13	0	25	25
Minimization of nutrient loss in processing	Important techniques of cooking to save fuel and nutrient	1	2	Off/On	17-18 Aug. 2022	-	10	-	00	-	15	0	25	25
Housed food security by nutritional gardening	Layout & management of nutri. Garden	1	2	Off/On	22-23 Sept. 2022	-	10	-	05	-	10	0	25	25
Women and child care	Care of lactating and pregnant women	1	2	Off/On	12-13 Oct. 2022	-	10	-	05	-	10	0	25	25
Location specific drudgery reduction	Location specific drudgery reduction technology for rural women	1	2	Off/On	10-11 Nov. 2022	-	10	-	05	-	10	0	25	25
Women and child care	Importance of balanced feeding in daily diet of rural women	1	2	Off/On	17-19 Dec. 2022	-	10	-	00	-	15	0	25	25
Women and child care	Importance of family planning among rural women	1	2	Off/On	22-23 Dec.2022	-	10	-	02	-	13	0	25	25
Soil Sc.												0	0	0
Soil and water testing	Technique of soil sample collection and its importance	1	2	Off/On	16-17 April 2022	10	-	02	-	13	-	25	0	25

Soil Fertility Management	Importance of balance use of fertilizer in vegetables	1	2	Off/On	29-30 June 2022	10	-	02	-	13	-	25	0	25
Integrated Nutrient Management	Integrated Nutrient Management in paddy	1	2	Off/On	21-22 Sept. 2022	10	-	02	-	13	-	25	0	25
Production & Use of organic Inputs	Method of vermi composting and its use in crops	1	2	Off/On	09-10 Nov. 2022	10	-	02	-	13	-	25	0	25

(b) Rural youth

Thematic area	**Title of Training**	**No.**	**Duration**	**Venue On/ Off**	**Tentative Date**	**No. of Participants**								
						SC		**ST**		**Other**		**Total**		
						M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**T**
Crop Production														
Seed Production	Seed production of Wheat.	01	03	On	15-18 Jan 2022	5	2			20	3	25	5	30
Seed Production	Seed production of green gram.	01	03	On	17-19 Feb 2022	5	2			20	3	25	5	30
Seed Production	Seed production Important procedures	01	03	On	15-17 March 2022	5	2			20	3	25	5	30
Seed Production	Quality seed production of Paddy	01	03	On	18-20 April 2022	5	2			20	3	25	5	30
Seed Production	Seed Production of Rabi pulses and wheat	01	03	On	28-30 Nov 2022	5	2			20	3	25	5	30
Plant Protection														
Mushroom Production	Production technology of button Mushroom and Management of diseases and insect pests	01	04 days	On	10-13 Jan. 2022	5	2			20	3	25	5	30
IPM	Schedule spray in mango	01	04 days	On	22-25 Jan. 2022	5	2			20	3	25	5	30
Bee Keeping	Bee Keeping	01	03	On	23-25 Feb.	5	2			20	3	25	5	30

			days		2022									
Vermi-culture	Vermicompost Production technique	01	04 days	On	20-23 June 2022	5	2			20	3	25	5	30
Production of organic inputs	Production of Trichoderma Formulation at field level	01	03 days	On	08-11 July 2022	5	2			20	3	25	5	30
Mushroom Production	Production of Button Mushroom	01	04 days	On	12-15 Oct. 2022	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery and implements	Handling & caring of plant protection equipments	01	03 days	On	15-17 Dec. 2022	5	2			20	3	25	5	30
Horticulture														0
Seed production	Seed production technology of vegetable corps	01	4	On	27-31 Jan. 2022	5	2			20	3	25	5	30
High density planting through production	High density planting system for fruit crops	01	3	On	24-26 Feb. 2022	5	2			20	3	25	5	30
Planting Material production	Techniques of Planting Material production of major Horticultural plants	01	3	On	28-30 April 2022	5	2			20	3	25	5	30
Organic cultivation	Organic vegetable production	01	3	On	22-24 June 2022	5	2			20	3	25	5	30
Nursery Management	Nursery raising techniques and Management of horticultural crops	01	3	On	24-26 Aug. 2022	5	2			20	3	25	5	30
Protected cultivation	Production technology for growing off season vegetables and flowers	01	3	On	21-23 Sept. 2022	5	2			20	3	25	5	30
Orchard	Training and pruning of major	01	3	On	09-11 Nov.	5	2			20	3	25	5	30

management	horticultural plants				2022									
Agricultural Engineering		0												0
Repair and maintenance of farm machinery and implements	Operation & maintenance of Micro Irrigation System	01	03	On	27-29 Jan. 2022	5	2			20	3	25	5	30
Repair and maintenance of farm machinery and implements	Repair and maintenance of Internal Combustion engines	01	03	On	4-6 Aug. 2022	5	2			20	3	25	5	30
Repair and maintenance of farm machinery and implements	Operation and Maintenance of sprayers & Dusters	01	03	0ff	21-23 Sept. 2022	5	2			20	3	25	5	30
Repair and maintenance of farm machinery and implements	Operation, care and maintenance of micro irrigation devices/sprinkler sets	01	03	On	7-09 Dec. 2022	5	2			20	3	25	5	30
Home Sc.		0												0
Value addition	Preservation of seasonal fruits& vegetables	1	3	On	27-29 Jan. 2022	-	10	-	00	-	15	-	25	25
Enterprise development	Cultivation techniques of mushroom	1	03	On	24-26 Feb. 2022	-	10	-	05	-	10	-	25	25
Poultry Management	Techniques of Backyard poultry farming	1	03	On	17-19 March 2022	-	10	-	00	-	15	-	25	25
Nursery Management of Horticulture crops	Cultivation and preparation of nutritional garden value added product	1	03	On	25-27 May 2022	-	10	-	05	-	10	-	25	25

Rural Craft	Technique of handicrafts from locally available materials	1	5	On	22-27 June 2022	-	10	-	05	-	10	-	25	25
Enterprise development	Techniques of hand embroideries on cloth	1	4	On	01-05 July 2022	-	10	-	05	-	10	-	25	25
Post harvest tech.	Post harvest management of seasonal vegetables	1	3	On	26-30 Aug. 2022	-	10	-	00	-	15	-	25	25
Mushroom production	Techniques of mushroom cultivation and preservation	1	3	on	28-30 Sept. 2022	-	10	-	02	-	13	-	25	25
Post harvest tech.	Food grain storage after harvesting.	1	3	On	21-23 Dec. 2022	-	10	-	02	-	13	-	25	25
Soil Health & Fertility Management		0												0
Production of organic inputs	Method of Bio-fertilizer preparation Azolla & BGA	01	2	On	4-6 May 2022	5	2			20	3	25	5	30
Production of organic inputs	Production of organic inputs	01	2	On	3-5 Dec. 2022	5	2			20	3	25	5	30
		34												975

(c) Extension functionaries

Thrust area/ Thematic area	Title of Training	No.	Duration	Venue On/Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Crop Production														
Productivity enhancement	Improved method of Paddy cultivation	01	02	On	18-19 July 2022	5	2			20	3	25	5	30
Integrated Nutrient management	Natural farming	01	02	On	14-15 Oct. 2022	5	2			20	3	25	5	30
Plant Pathology:														
Integrated Pest Management	Integrated Pest Management in rice	01	02	On/off	02-03 June 2022	05	02			20	3	25	5	30
Formation & Management of SHGs	Formation of Makhana Farmer Producer Organization	01	02	On/off	29-30 July 2022	05	02			20	3	25	5	30
Integrated Pest Management	Integrated Pest Management in Rabi crops	01	02	On/off	27-28 Sept. 2022	05	02			20	3	25	5	30
Integrated Pest Management	Integrated Pest Management vegetables	01	02	On/off	01-02 Dec. 2022	05	02			20	3	25	5	30
HORTICULTURE														
Protected cultivation	Production technology for growing off season vegetables and flowers	01	2	On	28-29 July 2022	05	02			20	3	25	5	30
Production & management technology	Scientific cultivation of medicinal & aromatic plants	01	2	On	25-26 Aug. 2022	05	02			20	3	25	5	30

Integrated Nutrient management	Role of micro nutrient in horticultural crops	01	2	On	29-30 Sept. 2022	05	02			20	3	25	5	30
Rejuvenation of old Orchard	Rejuvenation of old fruit Orchard like Mango & Litchi.	01	2	On	14-15 Oct. 2022	05	02			20	3	25	5	30
Agril. Engg.														
Care & maintenance of farm machinery & implements	Care and maintenance of Farm Implements for efficient use	01	02	On	24-25 Aug. 2022	5	2			20	3	25	5	30
Care & maintenance of farm machinery & implements	Care and maintenance of Controlled Pressure Irrigation Devices	01	02	On	21-22 Dec.2022	5	2			20	3	25	5	30
Home Sc.														
Value addition	Cultivation techniques of mushroom	1	2	On	05-06 Aug. 2022	-	10	-	00	-	15	-	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	On	2-3 Sept. 2022	-	10	-	02	-	13	-	25	25
Women & Child Care	Care of pregnant and lactating women	1	2	On	4-5 Nov. 2022	-	10	-	02	-	13	-	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	On	21-22 Nov. 2022	-	10	-	02	-	13	-	25	25

Abstract of Training: Consolidated table (ON and OFF Campus)

Farmers and Farm women

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
I. Crop Production													
Weed Management	01	15	0	15	10	05	15	0	0	0	25	05	30
Resource Conservation Technologies	01	15	0	15	10	05	15	0	0	0	25	05	30
Cropping Systems													
Crop Diversification													
Integrated Farming													
Water management	01	15	0	15	10	05	15	0	0	0	25	05	30
Seed production	02	30	0	30	20	10	30	0	0	0	50	10	60
Nursery management	01	15	0	15	10	05	15	0	0	0	25	05	30
Integrated Crop Management	04	60	0	60	40	20	60	0	0	0	100	20	120
Fodder production	01	15	0	15	10	05	15	0	0	0	25	05	30
Production of organic inputs													
Others, (cultivation of crops)													
TOTAL													
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management	01	15	0	15	10	05	15	0	0	0	25	05	30
Water management													
Enterprise development	01	15	0	15	10	05	15	0	0	0	25	05	30
Skill development													
Yield increment	01	15	0	15	10	05	15	0	0	0	25	05	30
Production of low volume and high value crops													
Off-season vegetables													
Nursery raising	01	15	0	15	10	05	15	0	0	0	25	05	30
Exotic vegetables like Broccoli													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)	01	15	0	15	10	05	15	0	0	0	25	05	30
Others, if any (Cultivation of Vegetable)													
TOTAL													
b) Fruits													
Training and Pruning													
Layout and Management of Orchards	01	15	0	15	10	05	15	0	0	0	25	05	30
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques	01	15	0	15	10	05	15	0	0	0	25	05	30
Others, if any(INM)													
TOTAL													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
c) Ornamental Plants													
Nursery Management													
Management of potted plants													
Export potential of ornamental plants													
Propagation techniques of Ornamental Plants													
Others, if any													
TOTAL													
d) Plantation crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
e) Tuber crops													
Production and Management technology													
Processing and value addition													
Others, if any													
TOTAL													
f) Spices													
Production and Management technology	01	15	0	15	10	05	15	0	0	0	25	05	30
Processing and value addition													
Others, if any													
TOTAL													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology	04	60	0	60	40	20	60	0	0	0	100	20	120
Post harvest technology and value addition													
Others, if any													
TOTAL													
III. Soil Health and Fertility Management													
Soil fertility management	01	13	0	13	10	0	10	2	0	2	25	0	25
Soil and Water Conservation													
Integrated Nutrient Management	02	28	0	28	20	05	25	2	0	2	50	5	55
Production and use of organic inputs	01	13	0	13	10	0	10	2	0	2	25	0	25
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing	01	13	0	13	10	0	10	2	0	2	25	0	25
Others, if any													
TOTAL													
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Rabbit Management													
Disease Management													
Feed management													
Production of quality animal products													
Others, if any (Goat farming)													
TOTAL													
V. Home Science/Women empowerment													
Household food security by kitchen gardening and nutrition gardening	02	0	25	25	0	20	20	0	05	05	0	50	50
Design and development of low/minimum cost diet													
Designing and development for high nutrient efficiency diet	01	0	15	15	0	10	10	0	0	0	0	25	25
Minimization of nutrient loss in processing	01	0	15	15	0	10	10	0	0	0	0	25	25
Gender mainstreaming through SHGs													
Storage loss minimization techniques	01	0	10	10	0	10	10	0	05	05	0	25	25
Enterprise development													
Value addition	02	0	30	30	0	20	20	0	0	0	0	50	50
Income generation activities for empowerment of rural Women	01	0	10	10	0	10	10	0	05	05	0	25	25
Location specific drudgery reduction technologies	01	0	10	10	0	10	10	0	05	05	0	25	25
Rural Crafts													
Capacity building													
Women and child care	05	0	64	64	0	50	50	0	11	11	0	125	125
Others, if any (Source of Energy)	01	0	15	15	0	10	10	0	0	0	0	25	25
TOTAL													
VI. Agril. Engineering													
Installation and maintenance of micro irrigation systems	04	80	12	92	20	8	28	0	0	0	100	20	120
Use of Plastics in farming practices	02	40	06	46	10	4	14	0	0	0	50	10	60
Production of small tools and implements													
Repair and maintenance of farm machinery and implements	03	60	09	69	15	6	21	0	0	0	75	15	90
Resource Conservation technique	01	20	03	23	5	2	7	0	0	0	25	05	30
Application of Liquid fertilizers	01	20	03	23	5	2	7	0	0	0	25	05	30
Small scale processing and value addition													
Post Harvest Technology													
Others, if any (Use of small tolls)	01	20	03	23	5	2	7	0	0	0	25	05	30
TOTAL													
VII. Plant Protection													
Integrated Pest Management	06	90	0	90	60	30	90	0	0	0	150	30	180

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Integrated Disease Management	02	30	0	30	20	10	30	0	0	0	50	10	60
Bio-control of pests and diseases	01	15	0	15	10	05	15	0	0	0	25	05	30
Production of bio control agents and bio pesticides													
Others, if any													
TOTAL													
VIII. Fisheries													
Integrated fish farming													
Carp breeding and hatchery management													
Carp fry and fingerling rearing													
Composite fish culture & fish disease													
Fish feed preparation & its application to fish pond, like nursery, rearing & stocking pond													
Hatchery management and culture of freshwater prawn													
Breeding and culture of ornamental fishes													
Portable plastic carp hatchery													
Pen culture of fish and prawn													
Shrimp farming													
Edible oyster farming													
Pearl culture													
Fish processing and value addition													
Others, if any													
TOTAL													
IX. Production of Inputs at site													
Seed Production													
Planting material production													
Bio-agents production													
Bio-pesticides production													
Bio-fertilizer production													
Vermi-compost production													
Organic manures production													
Production of fry and fingerlings													
Production of Bee-colonies and wax sheets													
Small tools and implements													
Production of livestock feed and fodder													
Production of Fish feed													
Others, if any													
TOTAL													
X. Capacity Building and Group Dynamics													
Leadership development													
Group dynamics													
Formation and Management of SHGs													
Mobilization of social capital													
Entrepreneurial development of	03	45	0	45	30	15	45	0	0	0	75	15	90

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
farmers/youths													
WTO and IPR issues													
Others, if any													
TOTAL													
XI Agro-forestry													
Production technologies													
Nursery management													
Integrated Farming Systems													
TOTAL													
XII. Others (Pl. Specify)													
TOTAL													

Rural youth

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Mushroom Production	04	60	22	82	15	16	31	0	02	02	75	40	115
Bee-keeping	01	20	3	23	5	2	7	0	0	0	25	5	30
Integrated farming	01	20	03	23	5	02	7	0	0	0	25	5	30
Seed production	06	120	18	138	30	12	42	0	0	0	150	30	180
Production of organic inputs	03	60	9	69	15	06	21	0	0	0	75	15	90
Planting material production													
Vermi-culture	01	20	03	23	05	02	07	0	0	0	25	05	30
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements	05	100	15	115	25	10	35	0	0	0	125	25	150
Nursery Management of Horticulture crops	01	0	10	10	0	10	10	0	05	05	0	25	25
Training and pruning of orchards													
Value addition	01	0	15	15	0	10	10	0	0	0	0	25	25
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production	01	0	15	15	0	10	10	0	0	0	0	25	25
Ornamental fisheries													

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology	02	0	26	26	0	20	20	0	04	04	0	50	50
Tailoring and Stitching													
Rural Crafts	01	0	10	10	0	10	10	0	05	05	0	25	25
Enterprise development	02	0	30	30	0	20	20	0	0	0	0	50	50
Others if any (ICT application in agriculture)	01	16	04	20	02	01	03	01	01	02	19	06	25
TOTAL													

Extension functionaries

Thematic Area	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST					
		M	F	T	M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	01	20	03	23	5	02	07	0	0	0	25	05	30
Integrated Pest Management	03	60	09	69	15	06	21	0	0	0	75	15	90
Integrated Nutrient management	02	40	06	46	10	04	14	0	0	0	50	10	60
Rejuvenation of old orchards	01	20	03	23	5	02	07	0	0	0	25	05	30
Value addition	01	0	15	15	0	10	10	0	0	0	0	25	25
Protected cultivation technology	01	20	03	23	5	02	07	0	0	0	25	05	30
Formation and Management of SHGs	01	20	03	23	5	02	07	0	0	0	25	05	30
Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													

Care and maintenance of farm machinery and implements	02	40	06	46	10	04	14	0	0	0	50	10	60
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security	02	0	26	26	0	20	20	0	04	04	0	50	50
Women and Child care	01	0	13	13	0	10	10	0	02	02	0	25	25
Low cost and nutrient efficient diet designing													
Production and use of organic inputs													
Gender mainstreaming through SHGs													
Crop intensification													
Others if any (Production & Management Technology of Aromatic plants)	01	20	03	23	5	02	07	0	0	0	25	05	30
TOTAL													

4. Frontline demonstration to be conducted*

Sl No.	Crop	variety	Thrust Area	Thematic Area	Season:	Farming Situation:
1.	Paddy	Sabour Sampann	Promotion of HYV	ICM	Kharif	Lowland, Rainfed
2	Paddy	Sabour Surbhit	Promotion of Scented Paddy	ICM	Kharif	Up/mid land
3	Okra	Kashi Kranti	Promotion of HYV	ICM	Kharif	Medium Irrigated
4	Mushroom	Oyster	Income Generation	Mushroom Production	Rabi	Homestead
5	Mushroom	Button	Income Generation	Mushroom Production	Rabi	Homestead
6	Mushroom	Oyster	Income Generation	Value addition in Mushroom	Rabi	Homestead
7	Makhana	Sabour Makhana 1	Promotion of HYV	Varietal evaluation	Rabi	Lowland waterlogged
8	Brinjal	PH6	Water Management	Raised bed planting system with mulching	Kharif	Upland rainfed
9.	Wheat	Sabour Shrestha	Farm Mechanization	Resource Conservation Technology	Rabi	Medium lowland Irrigated
10	Lentil	HUL 57	Productivity enhancement of lentil	ICM	Rabi	Medium land
11	Bottle Gourd	PSPL	Achieving higher Irrigation Water Use Efficiency	Resource Conservation Technology	Summer	Medium irrigated
12	Nutritional Garden	Vegetables	Malnutrition	Household food security	Round the year	Homestead
13	Maize	P3522	Management of Fall Army Worm	IPM	Rabi	Upland irrigated
14	Drum Stick				Round the year	Upland irrigated

Sl. No.	Crop & variety / Enterprises	Proposed Area (ha)/ Unit (No.)	Technology package for demonstration	Parameter (Data) in relation to technology demonstrated	Cost of Cultivation (Rs.)			No. of farmers / demonstration								
					Name of Inputs	Demo	Local	SC		ST		Other		Total		
								M	F	M	F	M	F	M	F	T
1.	Paddy Sabour Sampann	5.0	HYV	Yield Economics	Seed			**2**	**0**	**0**	**0**	**8**	**2**	**10**	**2**	**12**
2.	Paddy Sabour Surbhit	1.5	Scented paddy	Yield Economics	Seed							5				5
3.	Okra	1.0	ICM	Yield, Econ.	Seeds			2	2			4	2	6	4	10
4.	Button Mushroom	15 unit	Mushroom production	Yield, Econ.	Spawn			-	4	-	4	-	7	0	15	15
5.	Oyster Mushroom	20 unit	Mushroom production	Yield, Econ.	Spawn			0	10	0	05	0	5	0	20	20
6.	Value addition	20 unit	Value addition Mushroom production	Yield, Econ.	Spawn			0	10	0	05	0	5	0	20	20
7.	Makhana	2.0	ICM	Yield, Econ.	Seeds			1	0	0	0	3	1	4	1	5
8.	Brinjal/ HYV (Rabi 2022-23)	02	Raised bed planting system with mulching	Yield Economics Labour Saving	Seeds & Chemicals			1	1			4	2	5	3	8
9.	Bottle Gourd Prolific Long/ Pusa Summer 2022	02	Water Management	Yield Economics WUE	Seed Chemicals			2	2			4	2	6	4	10
10.	Nutri-garden	20 unit	Balanced nutrition	Yield, Econ.	Seeds			-	8	-	4	-	8	0	10	10
11.	Pheromone trap for mango fruit fly	2.0	Use of Pheromone trap	insect pest population, yield	Pheromone trap			03				07		10	0	10

12.	Tomato	2.0	*IDM pacakage for management of tomato diseases*	Yield Economics PDI	*Fungicides*			03				07		10	0	10
13.	Maize	1.0	HYV	Yield Economics	Pesticides			0	0	0	0	10	0	10	0	10

Extension and Training activities under FLD:

Activity	**Title of Activity**	**No.**	**Clientele**	**Duration**	**Venue**	**No. of Participants**								
					On/Off	**SC**		**ST**		**Other**		**Total**		
						M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**T**
Training	Scientific cultivation of Rice	01	Practicing farmers	02	On/ Off	4	2			18	6	22	08	30
Training	Hands on training for use of pheromone trap	01	Practicing farmers	01	Off	4	2			18	6	22	08	30
Monitoring	Monitoring evaluation of the demonstration	01	Practicing farmers	01	Off	03				07		10		10
Field Day	Organizing the field day for performance evaluation	01	PF,EF	01	Off	03				07		10		10
Training	Hands on training for use of Trichoderma powder	01	Practicing farmers	01	off	4	2			18	6	22	08	30
Monitoring	Monitoring evaluation of the demonstration	01	Practicing farmers	01	Off	03				07		10		10

Field Day	Organizing the field day for performance evaluation	01	PF,EF	01	Off	03				07		10		10
Training	Scientific cultivation of Okra	1	Practicing farmers	1	Off	4	2			18	6	22	08	30
Training	Production of Oyster Mushroom	1	Practicing farmers	2	On/Off	9	3	3	0	12	03	24	06	30
Training	Scientist cultivation of Makhana	1	Practicing farmers	2	On/Off	9	3	3	0	12	03	24	06	30
Training	Application of twin wheel hoe for weed management in okra	1	Practicing farmers	2	On/Off	9	3	3	0	12	03	24	06	30
Training	Rice cultivation by DSR method	1	Practicing farmers	1	Off	4	2			18	6	22	08	30
Training	Application of Zero Tillage Technique for sowing of wheat	1	Practicing farmers	1	Off	4	2			18	6	22	08	30
Training	Improved Irrigation Practices for achieving higher water use efficiency	1	Practicing farmers	1	Off	4	2			18	6	22	08	30
Field Day	DSR technology of Cultivation as labour saving method	1	PF, EF	1	Off	10	10			20	10	30	20	50
Field Day	ZTT in Wheat sowing	1	PF, EF	1	Off	10	10			20	10	30	20	50
Field Visit	Observation of crop status	01	Practicing farmers	1	Off	3	1	1	0	4	1	8	2	10

Field Day	Organizing the field day for performance evaluation	01	Practicing farmers	1	off	9	3	3	0	12	03	24	06	30
Training	Importance of nutritional garden	01	Practicing farm women	1	Off	9	3	3	0	12	03	24	06	30
Field Day	Nutritional garden	01	Practicing farm women, EF	1	off	9	3	3	0	12	03	24	06	30
Training	Production of button Mushroom	02	Practicing farmers & farm women	3	On/Off	9	3	3	0	12	03	24	06	30
Field Day	Organizing field day on application of weeding tools on Okra Cultivation	01	PF,EF	1	Off	9	3	3	0	12	03	24	06	30

* Repeat the above tables and information in Point no. 4 for EACH FLD being proposed.

1. **a) Seed and planting material production by utilization of instructional farm (Crops / Enterprises)**

Name of the Crop / Enterprise	Variety / Type	Period From…… to ……..	Area (ha.)	Details of Production				
				Type of Produce	Expected Production (quintals)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Paddy	Rajendra Sweeta/ Fine non scented	Kharif,2022	5.0	CS	25 q/ha	30000/- per ha.	100000/-	70000/-
Paddy	Sabour Shree / non scented	Kharif,2022	5.0	CS	30 q/ha	30000/- per ha.	90000/-	60000/-
Wheat	Sabour Shreshta/ Late sown	Rabi 2022-23	3.0	FS	20q/ha	20000/- per ha.	92000/-	72000/-
Lentil	HUL 57/ Bold	Rabi 2022-23	2.0	FS	15q/ha	12000/- per ha.	100000/-	88000/-
Linseed	Sabour Tisi 1/ Bold	Rabi 2022-23	2.0	CS	6.0q/ha	5000/- per ha.	9000/-	4000/-
Pea	Prakash	Rabi 2022-23	1.0	TL	12q/ha			
Guava	L 49, Allahabad Sapheda	Kharif 2022	2500 no					
Mango	Maldah, Bombay, Amrpali	Kharif 2022	5000 no					
Green Veg. Seedling	Green Veg. Seedling	Rabi/ Kharif	5000 no					

b) Village Seed Production Programme

Name of the Crop / Enterprise	Variety / Type	Period From…… to ……..	Area (ha.)	No. of farmers	Details of Production				
					Type of Produce	Expected Production(q)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Paddy	Sabour Shree / medium	Kharif,2022	2.0	05	CS	30 q/ha	30000/- per ha.	105000/-	75000/-
Wheat	Sabour Shreshta/ Late sown	Rabi 2022-21	2.0	05	CS	20q/ha	35000/- per ha.	92000/-	57000/-
Green Gram	IPM 2-14	Summer 2022	2.0	10	CS				

Extension Activities

Sl. No	Activities/ Sub-activities	No. of activities proposed	Farmers				Extension Officials			Total		
			M	F	T	SC/ ST (% of total)	Male	Female	Total	Male	Female	Total
1.	Field Day	05	170	30	200	10	10	02	12	180	32	212
2.	KisanMela	02	450	50	500	10	90	10	100	540	60	600
3.	Kisan Ghosthi	05	200	50	250	10	40	10	50	240	60	300
4.	Exhibition	02	200	50	250	10	40	10	50	240	60	300
5.	Film Show	05	200	50	250	10	40	10	50	240	60	300
6.	Method Demonstrations	08	45	36	81	30	16	03	19	61	39	100
7.	Farmers Seminar	03	250	50	300	20	90	10	100	340	60	400
8.	Workshop	02	50	10	60	10	07	03	10	57	13	70
9.	Group meetings	05	200	50	250	10	40	10	50	240	60	300
10.	Lectures delivered as resource persons	10	200	50	250	10	40	10	50	240	60	300
11.	Advisory Services	500	400	100	500	20	90	10	100	490	110	600
12.	Scientific visit to farmers field	60	45	15	60	10	05	05	10	50	20	70
13.	Farmers visit to KVK	500	400	100	500	20	90	10	100	490	110	600
14.	Diagnostic visits	40	35	05	40	10	15	05	20	50	10	60

15.	Exposure visits	01	45	05	50	10	02	01	03	47	06	53
16.	Ex-trainees Sammelan	01	45	05	50	10	02	01	03	47	06	53
17.	Soil health Camp	01	250	50	300	10	40	10	50	290	60	350
18.	Animal Health Camp	0	0	0	0	0	0	0	0	0	0	0
19.	Agri mobile clinic	0	0	0	0	0	0	0	0	0	0	0
20.	Soil test campaigns	02	250	50	300	10	40	10	50	290	60	350
21.	Farm Science Club Conveners meet	01	25	05	30	10	08	02	10	33	07	40
22.	Self Help Group Conveners meetings	02	50	10	60	10	16	04	20	66	14	80
23.	Mahila Mandals Conveners meetings	02	0	100	100	20	05	15	20	05	115	120
24.	Celebration of important days (World food day, Yoga Diwas)	02	70	10	80	10	15	05	20	85	15	100
25.	Sankalp Se Siddhi****	01	60	20	80	10	16	04	20	76	24	100
26.	Swatchta Hi Sewa?Pakhwara	02	200	50	250	10	40	10	50	240	60	300
27.	Mahila Kisan Diwas	01	0	100	100	20	0	10	10	0	110	110
	Total	1163	3840	1051	4891	320	797	180	977	4637	1231	5868

2. **Revolving Fund (in Rs.)**

Opening balance of 2021-2022 (As on 01.04.2021)	Amount proposed to be invested during 2022	Expected Return

3. **Expected fund from other sources and its proposed utilization**

Project	Source	Amount to be received (Rs. in lakh)

4. On-farm trials to be conducted*

OFT 1: Agronomy

I	**Season:**	**2022**
Ii	**Title of the OFT**	Productivity enhancement in Rice –Wheat cropping system
Iii	**Thematic Area**	Integrated Crop Management
Iv	**Problem diagnosed**	Farmers generally realize low productivity of Rice –Wheat cropping system due to inadequate nutrient and crop geometry management coupled with poor fertility status of soil
V	**Important Cause**	Use of poor yielding variety with unbalanced nutrient use and crop density management in Rice - Wheat
Vi	**Production system**	Rice-Wheat
Vii	**Micro farming system**	Light textured alluvium soil
Viii	**Technology for Testing**	Productivity enhancement through efficient nutrient and crop geometry management in Rice –Wheat cropping system.
Ix	**Existing Practice**	Use of local variety with poor nutrient and crop geometry management
X	**Hypothesis**	The adoption of HYV of Paddy and wheat with the concept of efficient nutrient and plant population management will result in higher yield of paddy and wheat crops
Xi	**Objective(s)**	To enhance the productivity of Rice –Wheat cropping system.
Xii	**Treatments:**	1.Farmers practice: Unbalanced nutrient and irregular plant popln 2.TO-I: 100% NPK/ha +100% Plant Density(R-W) followed by GM 3.TO-II :FYM+125% NPK/ha+ 125% Plant Density (R-W) followed by GM TO-III :FYM+150% NP K/ha+ 150% Plant Density (R-W) followed by GM Rice Fert :8 0: 40: 20 kg NPK/ha Spacing :*15 cm FYM: 10 t/ha Wheat Fert : 120:60:40 kg NPK/ha Seed rate : 20 cm
Xiii	**Critical Inputs**	Seed,Feretiliser,org manure soil test charge, need based plant protection chemicals, display board etc.
Xiv	**Unit Size**	1600 m^2
Xv	**No of Replications**	10
Xvi	**Unit Cost**	2000.00
Xvii	**Total Cost**	20,000.00
Xviii	**Monitoring Indicator**	**Technological observations :** • Equivalent Yield (q/ha) • Yield attributing characters. • Soil analysis (Soil Health status before and after) **Economic indicators :** • Cost of cultivation • Net return • B:C Ratio
Xix	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	CSR,Modipuram

OFT2: Agronomy

I	**Season:**	**Rabi 2022-23**
Ii	**Title of the OFT**	Title: Improvement of Nitrogen use efficiency in wheat
Iii	**Thematic Area**	Integrated Nutrient management
Iv	**Problem diagnosed**	Excessive use of chemical fertilizer and Spiraling price of urea leads to increase in cost of cultivation
V	**Important Cause**	
Vi	**Production system**	Early Rice-Mustard
Vii	**Micro farming system**	Medium/ Upland
Viii	**Technology for testing**	Integrated Nutrient Management in Mustard.
Ix	**Existing Practice**	Use of local variety with poor nutrient management
X	**Hypothesis**	The adoption of HYV of Mustard with the concept of integrated nutrient management will result in good production of crop
Xi	**Objective(s)**	To enhance the productivity of lentil
Xii	**Treatments:**	**Farmer Practice**: RDF (100:40:20) Kg/ha **Technological Option 1:** 50% of RDN & 100% PK + nano urea @4ml/lt. water (Single spray at 35 DAS). **Technological Option 2**: 50% of RDN & 100% PK + 2 sprays of Nano Urea at (35 DAS) and (60-65DAS) @ 4 ml/lt water.
Xiii	**Critical Inputs**	Seed, Fertilizers, soil test charge, need based plant protection chemicals, display board etc.
Xiv	**Unit Size**	10x10 m2
Xv	**No of Replications**	10
Xvi	**Unit Cost**	1500.00
Xvii	**Total Cost**	15,000.00
Xviii	**Monitoring Indicator**	**Technological observations :** • Yield (q/ha) • Yield attributing characters. • Soil analysis (pH, EC, OC, NPK,) **Economic indicators :** • Cost of cultivation • Net return • B:C Ratio
Xix	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	**BAU Ranchi and RPCAU, Pusa, ICAR RCER, Patna**)
xx	**Scientists**	Dr K M Singh, Senior Scientist & Head Md.Nadeem Akhatar,SMS(PP)

OFT 3: (Plant Pathology)

i.	**Season:**	**Rabi 2022-22**
ii.	**Title of the OFT**	**Assessment of management practices for Red banded caterpillar in Mango**
iii.	**Thematic Area**	**IPM**
iv.	**Problem diagnosed**	Insect caterpillars bore in to the immature fruits nd feeds inside reaching kernels. Entrance holes are plugged with excreta. Affected fruits rot and fall prematurely.
v.	**Important Cause**	Mango fruit borer insect in view of previous year severe attack in mango orchard of Saharsa district
vi.	**Production system**	Mango
vii.	**Micro farming system**	Upland
viii.	**Technology for Testing**	Schedule spray of insecticides targeting mango fruit borer
ix.	**Existing Practice**	Spray with chlorpyriphos @3ml/litre of water) when symptoms appear
x.	**Hypothesis**	IPM practices targeting right from hatching stage of insects pest to adult stage with different insecticide may be the possible management solution for fruit borer pest.
xi.	**Objective(s)**	To minimize the possible loss in view of previous year attacked by mango fruit borer in Saharsa district
xii.	**Treatments:**	Technology option-I: Farmers Practice (FP): Spray with chlorpyriphos when symptoms appear @3ml/litre of water) Technology option-II : 1. Swabbing of chlorpyriphos 50% + cypermethrin 5% EC @3 ml/lit. of water on tree trunk would kill the prepupae/ pupae population under the bark and helps in reduction of fruit damage. 2. Spraying of Profenofos 50EC @ 3 ml/lit. of water in the second fortnight of January coinciding with the moth emergence/hatching of eggs of first brood in the gardens where the pest incidence was severe in previous year. Technology option-III : Technology option I + Spray of neem oil 1500ppm @3ml /litre of water at stage of marble size fruit with again repeating at 15 days interval (2-3 spray)
xiii.	**Critical Inputs**	chlorpyriphos 50% + cypermethrin 5% EC, Profenofos 50EC, neem oil 1500ppm
xiv.	**Unit Size**	1000m^2
xv.	**No of Replications**	07
xvi.	**Unit Cost**	1500
xvii.	**Total Cost**	10500
xviii.	**Monitoring Indicator**	i) Average no. of damaged fruits/plant ii) Percentage disease control over farmers practice iii) Total yield iv) Cost of cultivation (Rs./ha) v) Gross return (Rs./ha) vi) Net return (Rs./ha) vii) B: C ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	NCIPM, NewDelhi

OFT: 4 (Plant Pathology)

i.	**Season:**	**Rabi 2021-22**
ii.	**Title of the OFT**	Assessment of different fungicides for management of spot blotch disease of wheat in Koshi region of Bihar
iii.	**Thematic Area**	**IDM**
iv.	**Problem diagnosed**	
v.	**Important Cause**	
vi.	**Production system**	
vii.	**Micro farming system**	Upland
viii.	**Technology for Testing**	Efficacy of different fungicides against spot blotch pathogen
ix.	**Existing Practice**	Farmers are not aware of this pathogen
x.	**Hypothesis**	Spraying of effective chemical fungicides at right stage and time may manage the pathogen below ETL.
xi.	**Objective(s)**	To minimize the possible loss in view of previous year infection of spot blotch pathogen in Saharsa district
xii.	**Treatments:**	**Technology option-I**: Farmers Practice (FP): Spray with Carbendazim+Mancozeb **Technology option-II** : Seed Treatment with Vitavax 200WS@2.5g/kg seed +Foliar Spray of Propiconazole @ 1ml/litre water first at boot leaf stage and second spray after 20 days of first spray **Technology option-III** : Seed Treatment with Vitavax 200 WS@2.5g/kg seed +Foliar Spray of Tebuconazole @ 1ml/litre water first at boot leaf stage and second spray after 20 days of first spray
xiii.	**Critical Inputs**	Vitavax 200 WS, Propiconazole, Tebuconazole
xiv.	**Unit Size**	1000m^2
xv.	**No of Replications**	07
xvi.	**Unit Cost**	1500
xvii.	**Total Cost**	10500
xviii.	**Monitoring Indicator**	i) disease severity % ii) Percentage disease control over farmers practice iii) Total yield iv) Cost of cultivation (Rs./ha) v) Gross return (Rs./ha) vi) Net return (Rs./ha) vii) B: C ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	UBKV, West Bengal

OFT 5: (Horticulture)

i.	**Season:**	**Rabi 2022-22**
ii.	**Title of the OFT**	Assessment of bio control agent for management of Panama wilt in Banana
iii.	**Thematic Area**	IDM
iv.	**Problem diagnosed**	
v.	**Important Cause**	Panama wilt in Banana
vi.	**Production system**	Banana
vii.	**Micro farming system**	Medium land
viii.	**Technology for Testing**	
ix.	**Existing Practice**	
x.	**Hypothesis**	
xi.	**Objective(s)**	
xii.	**Treatments:**	FP: Tissue Culture plant TO_1: ICAR Fusicont TO_2: Sabour Trichoderma
xiii.	**Critical Inputs**	Paclobutrazol
xiv.	**Unit Size**	**1000 m2**
xv.	**No of Replications**	**7**
xvi.	**Unit Cost**	**Rs. 1000/Unit**
xvii.	**Total Cost**	**Rs. 7000/-**
xviii.	**Monitoring Indicator**	i) Initial plant population ii) First wilt incidence iii) Wilting percentage iv) Fruit yield (t/ha) v) T.S.S. (^{O}B) vi) Cost of cultivation (Rs/ha) Vii) Gross return (Rs/ha) viii) Net return (Rs./ha) ix) B:C ratio (Rs./ha)
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	

OFT 6: (Horticulture)

i.	**Season:**	**Rabi 2022-22**
ii.	**Title of the OFT**	Ex situ residue management of potato
iii.	**Thematic Area**	Residue Management
iv.	**Problem diagnosed**	
v.	**Important Cause**	
vi.	**Production system**	Vegetables- Potato
vii.	**Micro farming system**	Upland
viii.	**Technology for Testing**	FP: Sowing in ridge and furrow method TO_1: Sowing of potato seed with FYM and paddy straw 15 cm TO_2: Sowing of potato seed with FYM and water hyacinth
ix.	**Existing Practice**	
x.	**Hypothesis**	
xi.	**Objective(s)**	
xii.	**Treatments:**	
xiii.	**Critical Inputs**	
xiv.	**Unit Size**	**500**
xv.	**No of Replications**	**6**
xvi.	**Unit Cost**	**Rs. 1500/Unit**
xvii.	**Total Cost**	**Rs. 9000**
xviii.	**Monitoring Indicator**	i) Plant height (cm) ii) Fruit yield per plant (kg) iii) Avg. no. of fruit/ plant iv) Avg. Weight of fruit (g) V) Yield/plant (kg) v) Yield q/ha vi) Cost of cultivation vii) Gross return viii) Net return ix) B: C ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	DRPCAU, Pusa, Bihar

OFT 7: (Agril. Engg.)

i.	**Season:**	Kharif 2022
ii.	**Title of the OFT**	Assessment of performance of different DSR implements in cultivation of Kharif paddy cultivation
iii.	**Thematic Area**	Application of small tools/ implements
iv.	**Problem diagnosed**	Transplanting method in paddy cultivation is costly affair and labour and time consuming resulted into low benefit cost ratio.
v.	**Important Cause**	Un availability of labour during the peak period of transplanting
vi.	**Production system**	Paddy-wheat
vii.	**Micro farming system**	Medium to upland
viii.	**Technology for Testing**	Direct seeding rice with a paddy wheat seeder in dry field condition and with a paddy wheat drum seeder
ix.	**Existing Practice**	Transplanting of paddy seedlings
x.	**Hypothesis**	DSR may be the best possible option for enhancing B:C ratio
xi.	**Objective(s)**	To assess the performance of the two implements for DSR in Koshi region
xii.	**Treatments:**	FP: Transplanting of paddy seedlings TO I: Application of DSR Technology with a paddy drum seeder in wet field condition TO II: Application of DSR Technology with a paddy –wheat seeder in dry field condition.
xiii.	**Critical Inputs**	Paddy seeds
xiv.	**Unit Size**	500 m^2
xv.	**No of Replications**	8
xvi.	**Unit Cost**	1000
xvii.	**Total Cost**	8000
xviii.	**Monitoring Indicator**	i. Field Capacity ii. Number of effective tillers per hill iii. No of grains per panicles iv. 100 grain weight (g) v. Yield (q/ha) vi. Cost of cultivation (Rs./ha.) vii. Gross Return (Rs./ha.) viii. Net return (Rs./ha.) ix. B:C ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	CRRI, Cuttack & CAE, Pusa (Bihar)

OFT 8: (Agril. Engg.)

i.	**Season:**	Summer 2022
ii.	**Title of the OFT**	Assessment of performance of weeding implements in cultivation of Okra
iii.	**Thematic Area**	Application of small tools and implements
iv.	**Problem diagnosed**	Weeding operation with a traditional spade does not control the problem of weed infestation in cultivation of Okra properly and affect the productivity of the crop
v.	**Important Cause**	It is felt that frequent application of spade in very tough to apply for weed control in the okra fields.
vi.	**Production system**	Green vegetables-cabbage/cauliflower-okra
vii.	**Micro farming system**	Upland
viii.	**Technology for Testing**	Application of a twin wheel hoe or a grubber may be the better option for weed control as it is easy to operate in the field
ix.	**Existing Practice**	Use of spade for eradication of weeds
x.	**Hypothesis**	Application of any push type or pull type implements may be the better option
xi.	**Objective(s)**	To find out the best solution for mechanical control of weeds infestation in okra fields
xii.	**Treatments:**	FP: Weed management in okra field by a spade. TOI: Weed management in okra field by application of a twin wheel hoe. TOII: Weed management in okra field by application of a grubber
xiii.	**Critical Inputs**	Seeds, a twin wheel hoe and a grubber for application in the fields
xiv.	**Unit Size**	200 sq. meter
xv.	**No of Replications**	07
xvi.	**Unit Cost**	1000
xvii.	**Total Cost**	7000
xviii.	**Monitoring Indicator**	i. Field capacity (m^2/hr) ii. No. of fruits per plant. iii. Fruit weight (g) iv. Yield (q/ha.). v. cost of cultivation(Rs./ha.) vi. Gross return (Rs./ha.) vii. Net return (Rs./ha.) viii. B:C ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	Central Institute of Agricultural Engineering Bhopal, MP

OFT 9: Agrill. Engg. (Rabi 2022-23)

i.	**Season:**	Rabi 2022-23
ii.	**Title of the OFT**	Assessment of Cut Off ratio in wheat irrigation
iii.	**Thematic Area**	Water Management
iv	**Problem diagnosed**	Excess water during irrigation affects the plant growth resulted into decrease in productivity, yield and benefit cost ratio
v	**Important Cause**	Ponding of excess water during irrigation
vi	**Production system**	Paddy-Wheat-Green Gram
vii	**Micro farming system**	Medium to Upland
viii	**Technology for Testing**	Cut off irrigation stream before reach of water at the tail end of the plot
ix	**Existing Practice**	Irrigation with 100 % length
x	**Hypothesis**	Cut off the irrigation stream before ponding of water at the tail end of the plot
xi	**Objective(s)**	To assess the cut off length of irrigation stream with respect to yield/productivity
xii	**Treatments:**	FP: 100 % Irrigation TO1: Irrigation at 90% cut off TO2: Irrigation at 80 % cut off
xiii	**Critical Inputs**	Seeds
xiv	**Unit Size**	200 sq. meter
xv	**No of Replications**	07
xvi	**Unit Cost**	1200
xvii	**Total Cost**	8400
xviii	**Monitoring Indicator**	i. No. of Irrigation. ii. Water applied (cubic metre/ha.) iii. Water Saving (cubic metre/ha.) iv. No. of effective tillers v. No. of grains per earhead vi. Sample weight (g) vii. Yield (q/ha.). viii. cost of cultivation(Rs./ha.) ix. Gross return (Rs./ha.) x. Net return (Rs./ha.) xi. B:C ratio
xix	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	DRRPCAU, Pusa

OFT 9: (Home Sc.)

i.	**Season:**	Rabi,2022
ii.	**Title of the OFT**	Value Addition in Ragi and their quality evaluation
iii.	**Thematic Area**	Women & child care
iv.	**Problem diagnosed**	
v.	**Important Cause**	To overcome malnutrition
vi.	**Production system**	Homestead
vii.	**Micro farming system**	-
viii.	**Technology for Testing**	Value addition in Ragi
ix.	**Existing Practice**	
x.	**Hypothesis**	
xi.	**Objective(s)**	
xii.	**Treatments:**	Farmers Practices: Consuming as a chapatti. TO_1: Ragi Noodles (Refined wheat flour- 70g. Ragi- 30 g, water 30 ml, Salt 2g) TO2: Ragi vermicelli (Refined wheat flour- 30g, Whole wheat flour-40 g , Ragi- 30 g, water 30 ml, Salt 2g)
xiii.	**Critical Inputs**	Refined wheat flour, Whole wheat flour, Ragi, water, Salt
xiv.	**Unit Size**	10
xv.	**No of Replications**	10 farm families
xvi.	**Unit Cost**	**1000**
xvii.	**Total Cost**	10000/-
xviii.	**Monitoring Indicator**	Technological observations 1. TSS(%) 2. Acidity (%) 3. Sensory Analysis i. Taste ii. Colour iii.Flavour iv.Texture v. Overall Acceptability 4. Packaging Material: 5. Self life (0, 15, 30, 45, 60 and 75 days at ambient refrigerated condition)
	Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)	DRPCAU, Pusa Samastipur, Bihar

OFT 10: (Home Sc.)

I	**Season:**	Rabi 2022
Ii	**Title of the OFT**	Assessment of preparation methods of Potato Flakes for more self shelf life and enhancement of income
Iii	**Thematic Area**	Value addition
Iv	**Problem diagnosed**	Lack of proper knowledge regarding the Potato Flakes
V	**Important Cause**	Lack of standard quality
Vi	**Production system**	Homestead
Vii	**Micro farming system**	-
viii	**Technology for Testing**	Potato Flakes for more self shelf life and enhancement of income
ix	**Existing Practice**	Using as a vegetable
x	**Hypothesis**	It may be available throughout the year with the help of processing
xi	**Objective(s)**	To use Potato Flakes for more shelf life and enhancement of income all round the year
xii	**Treatments:**	Farmers Practices: Local people consume fresh potatoes as such as vegetables. TO_1: Preparation of Potato Flakes Formulation-Ingredients(Sliced potatoes (3-5 mm) -5kg, Salt-50g, water-7.5 liter, KMS-6.0 g) TO_2: Preparation of Potato Flakes with sour taste. Formulation-Ingredients(Sliced potatoes (3-5 mm) -5kg, Salt-50g, water-7.5 liter, KMS-6.0 g, Glacial Ascetic acid-50.0ml)
xiii	**Critical Inputs**	Sliced potatoes (3-5 mm) -5kg, Salt-50g, water-7.5 liter, KMS-6.0 g, Glacial Ascetic acid-50.0ml
xiv	**Unit Size**	10
xv	**No of Replications**	10 farm families
xvi	**Unit Cost**	250
xvii	**Total Cost**	2500
xviii	**Monitoring Indicator**	Technological observations 1. Sensory Analysis (Fried in edible refined oil) vi. Taste vii. Colour viii. Flavour ix. Texture (Crispness) x. Overall Acceptability 4. Packaging Material: Metalized poly ester (200 gauge) 5. Self life (0, 15, 30, 45, 60 and 75 days at ambient condition)
xix	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	DRPCAU, Pusa Samastipur, Bihar

OFT 11: (Agril. Engg.) ATMA Head

xx.	**Season:**	Rabi 2022-22
xxi.	**Title of the OFT**	Assessment of seeds sowing implements in cultivation of wheat
xxii.	**Thematic Area**	Resource Conservation Technology
xxiii.	**Problem diagnosed**	Traditional method of sowing in wheat cultivation requires more critical inputs with their proper /efficient utilization resulted into low productivity and benefit.
xxiv.	**Important Cause**	Uneven placement of seeds and fertilizers(basal) during the sowing period resulted into low productivity
xxv.	**Production system**	Paddy-wheat
xxvi.	**Micro farming system**	Medium to upland
xxvii.	**Technology for Testing**	Two sowing implements: Paddy wheat seeder and a seed cum ferti. drill
xxviii.	**Existing Practice**	Broadcasting method of seeds placement at uneven depths
xxix.	**Hypothesis**	The placement of seeds and basal fertilizers at proper depth range: 3 to 5 cm may be the best possible solution
xxx.	**Objective(s)**	To assess the performance of the two sowing implements in Koshi region
xxxi.	**Treatments:**	**FP:** Seeds placement by broadcasting process after field preparation. TOI: Seeds placement by application of a paddy- wheat seeder after field preparation. TO II: Seeds placement by application of a Seed cum ferti. Drill with zero till mode.
xxxii.	**Critical Inputs**	Seeds, Herbicide, fuel for operation and transportation of implements
xxxiii.	**Unit Size**	500 m^2 X 3
xxxiv.	**No of Replications**	7
xxxv.	**Unit Cost**	2000
xxxvi.	**Total Cost**	14000
xxxvii.	**Monitoring Indicator**	i. Field Capacity (m^2/ha.) ii. Number of effective tillers per hill iii. 100 grain weight (g) iv. Yield (q/ha) v. Cost of cultivation (Rs./ha.) vi. Gross Return (Rs./ha.) vii. Net return (Rs./ha.) viii. B:C ratio
xxxviii.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	CAE, Pusa (Bihar) & GUPA&T, Pant Nagar (Uttarakhand)

*Repeat the same format for EACH OFT being proposed

10. List of Projects to be implemented by funding from other sources (other than KVK fund)

Sl. No.	Name of the project	Fund expected (Rs.)
1.	CRA Programme	
2.	Makhana Development Scheme	
3.	Quality Spawn production	

11. No. of success stories proposed to be developed with their tentative titles

12. Scientific Advisory Committee

Date of SAC meeting held during 2021	Proposed date during 2022
18.06.2021	10 June 2022

13. Soil and water testing

Details	No. of Samples	No. of Farmers									No. of Villages	No. of SHC distributed
		SC		ST		Other		Total				
		M	F	M	F	M	F	M	F	T		
Soil Samples	1040	102	16	12	23	800	88	913	127	1040	25	1040
Water Samples												
Other (Please specify)												
Total												

14. Fund requirement and expenditure (Rs.)*

Heads	Expenditure (last year) (Rs.) up to 31.03.2019	Expected fund requirement (Rs.)
Total		

* Any additional requirement may be suitably justified.

15. Every KVK should bring a brief write-up supported by quality photographs about the technology having wide acceptability among the farming community of the district with factual data

1 Application of Zero tillage technology sowing for Resource Conservation

Sowing of seeds without tillage in the field is basically known as Zero Tillage Technology. Application of this technology not only reduces the cost of field preparation but also it reduces the quantity of irrigation water, the number of weed population along with environment friendly method of sowing due to less burning of fuel. As far as critical inputs like seeds and fertilizers are concerned, this method applies these inputs at proper depth and hence beneficial for better germination. This technology also supports timely sowing of Rabi crops particularly wheat specifically in late sown conditions, although this technology is also beneficial for sowing of timely sown wheat. Work on implementation of practicing Zero Tillage Technology in wheat sowing has been implemented by KVK, Saharsa since 2009 through front line demonstration programme. By introducing ZTT in wheat crop there was a saving of 45 litres per hectare diesel had been observed which resulted in reduction of cost of sowing Rs. 3500 per hectare. An average increase in the yield by 18 per cent had been observed during demonstration. BC ratio with introduction of this technology in wheat had been found as 2.57 Due to this fact nearly 10 per cent annual horizontal spread has been observed for practicing ZTT in wheat sowing within the district.

2 Application of DSR Technique in rice cultivation for reduction in cost of cultivation:


The practice of following transplanting after growing of seedlings is very common among farmers for rice cultivation. It requires huge number of labours and during the peak period of transplanting in Kharif season there is excessive expenditure on labour for the purpose has been observed . Thus it has been observed that the cost of cultivation of rice has been increased and resulted into low benefit cost ratio.

In such circumstances the practice of Direct seeding technology has been followed by the farming communities with application of a paddy drum seeder in the district. It has been observed that with the onset of early precipitation during Kharif season in the last week of May, the wet method of Direct Seeding of rice has been found easily adoptable in the locality. It has also been observed that as a paddy drum seeder is low in cost and could be easily operated by a person is very suitable for DSR practice. This technology reduces the total cost of transplanting with nearly sustainable yield of rice with 2.57 benefit ratio.

3. Rejuvenation of age old mango plants for enhancing productivity:


30 per cent of mango orchards have been found less productive due to 40 to 45 years old. The unwanted branches of these trees may be the major causes of reduction in productivity. Application of removal of these branches with proper technique and application of fungicide and recommended doses of fertilizer are found suitable option for solving this problem as it is observed that after 2 years of rejuvenation process 64 kg of fruits per plant has been picked.

4. Establishment of high density orchard of mango:

Canopy management in larger trees planted with plant geometry10 X 10 metre is a tough task resulted in less productivity particularly in mango orchard in the district. For enhancing productivity of mango orchard dwarf varieties have been established with plant geometry 2.5 X 2.5 metre for proper management of Canopy and thus by increased plant population 25 per cent increase in BC ratio has been observed in compare to traditional orchard.

5. Soil health and fertility management through green manuring

By continues application of inorganic/chemical fertilizers particularly unbalanced doses of urea during the cultivation of various crops, it has been seen the fertility of soil is decreasing. In such circumstances, the option to support the soil health through green manuring of fields is the best option as possibility of organic compost/vermicompost in huge quantity may not be fulfilled due to cattle population in the area. It is observed that green manuring through leguminous crops like Sisbanea, Green gram, Cow Pea in salty and water logging areas proves to be the best source of green manuring. It has been observed that by overturning of 50 days old Sisbanea plants increases 90 kg available nitrogen per hectare.

6. Application of Trichoderma Viridae for control of soil borne diseases in vegetables:

Vegetables seedling at transplanting stage may be attacked by many soil borne fungi viz. Fusarium, Rhizoctonia, sclerotiuns that damage up to 40-70 % through wilting & fruit rot diseases. A combination of seed treatment with Trichoderma viride @ 5g/kg of seed, soil application of 1kg Trichoderma viride per 10 quintal of vermin compost per hectare and seedling treatment with Trichoderma viride @ 10g/ litre of water have been observed the best option for controlling these diseases.

7. Application of Blue Green Algae in rice cultivation:

Application of higher/ unbalanced doses of urea by farmers in area attracts the insect population causes reduction in the productivity of rice as well as affects the soil fertility. Application of blue green algae @ 10 kg per hectare reduces the demand of nitrogen by 25 Kilogram per hectare and beneficial for saving of available nitrogen in the soil.

8. Management of agricultural waste materials for preparation of vermi compost:

Effect of chemical fertilizers on soil fertility is in question by several years. In the beginning of green revolution the productivity of crops has been increased due to application of these chemical fertilizers but during the decades after 1990 the bad effects of chemical fertilizers have been observed. In such circumstances preparation of vermi compost by special worm Eiseniafoetita and application of the compost has been observed. KVK Saharsa has introduced application of vermin compost in vegetable crops through On Farm Trials.