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KRISHI VIGYAN KENDRA

AGWANPUR, SAHARSA

ACTION PLAN

(January to December, 2021)

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 a unique scheme of ICAR oriented to serve the farmers by being the fountain head of agricultural technologies at the district level. KVKs are the agricultural knowledge and resource centers for farmers, farmwomen, rural youth and extension functionaries. 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 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, litchi, guava, banana and bamboos with 180 to 210 days length of growing period. The productivity enhancement of the field, fiber 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:

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 activities through mushroom production, vermi-composting and preservation of fruits and vegetables etc.
- 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.

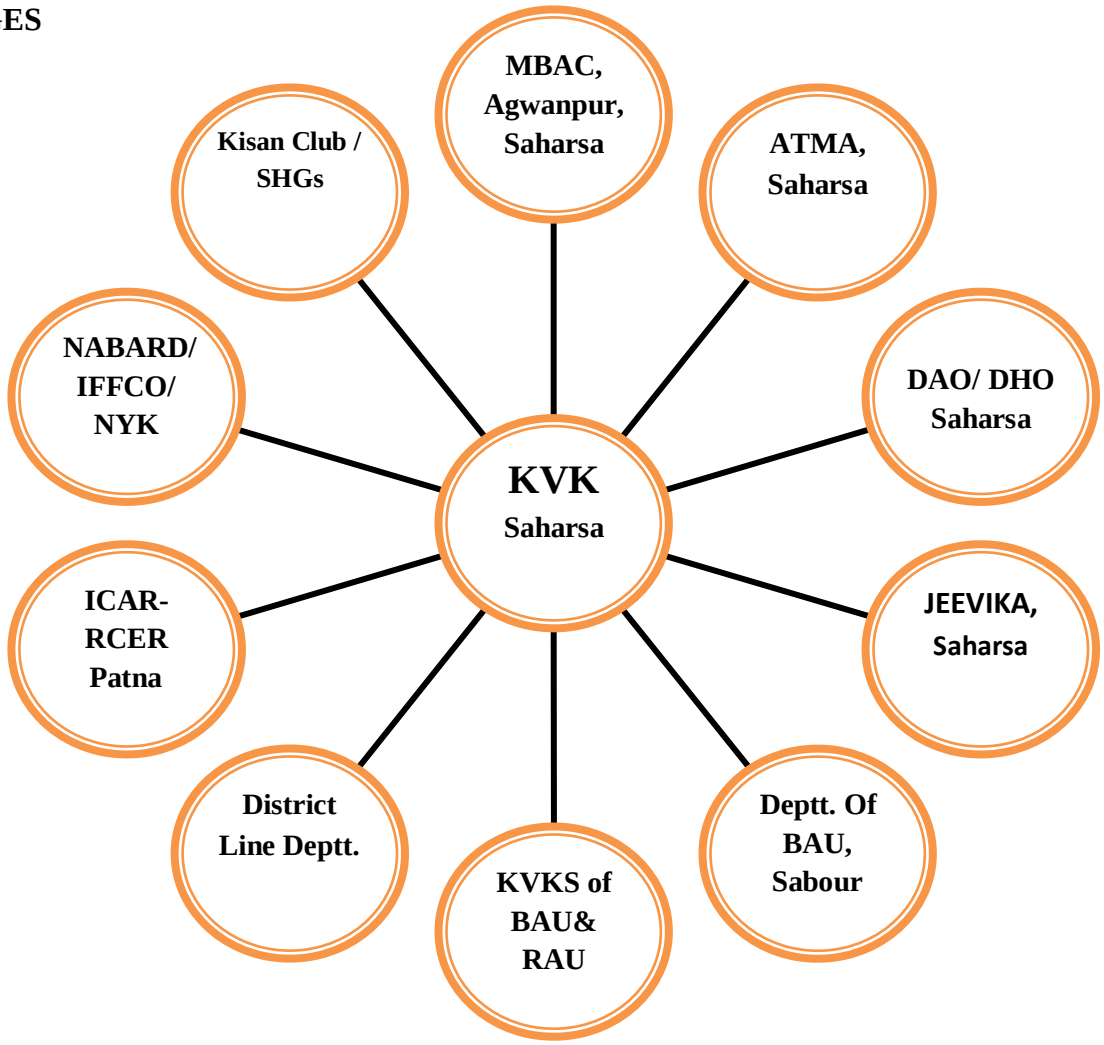
The soil is recognized with p^H 6.5 to 8, low in organic carbon, available N, P_2O_5 and medium in available K_2O. Soil is deficient in Zinc, Sulphur & Boron. The cropping system varies depending on rainfall, land situation and water accumulation in the locality. Saharsa district is surrounded on the 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

Sl No.	Crop	Area (ha)	Production (MT)	Productivity (Kg/ha)
1.	Rice	90320	166372	1842
2.	Wheat	50216	110990	2210
3.	Rabi maize	11939	50574	4236
4.	Mustard	1484	1920	1294
5.	Linseed	205	177	863
6.	Sesamum	2	2	1000
7.	Safflower	68	97	1426
8.	Lentil	547	276	505
9.	Pea	194	196	1010
10.	Summergreen gram	19277	4954	257

Source: Directorate of statistics and economics, Bihar 2014-15

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	Mr. Pankaj Kumar Ray	05.012015
7.	SMS (Soil Science/ Ag. Ext.)	1	Vacant	
8.	Prog. Asstt (lab.Tech.)	1	Mr. Ravi Ranjan Kumar	
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 2021

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. 2021)

(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. 2020	10	05			15		25	05	30
Integrated crop management	Agronomic management practices of summer Green Gram	01	2	Off/On	13-145Feb. 2020	10	05			15		25	05	30
Integrated crop management	Agronomic management practices of summer Green Gram	01	2	Off/On	02-03 March 2020	10	05			15		25	05	30
Resource Conservation Technique	Principles and technique for conservation of resources	01	2	Off/On	07-08 April 2020	10	05			15		25	05	30
Fodder Production	Quality fodder production for	01	04	Off/On	12-13 April	10	05			15		25	05	30

	Koshi region				2020									
Seed production	Precautions taken during harvesting & threshing of wheat seed.	01	2	Off/On	26-27 April 2020	10	05			15		25	05	30
Weed management	Weed management in paddy	01	2	On/ Off	04-05 May 2020	10	05			15		25	05	30
Water Management	Scheduling of irrigation in paddy	01	2	On/ Off	01-02 June 2020	10	05			15		25	05	30
Soil fertility management	Nutrient Management in paddy	01	2	On/ Off	02-03 July 2020	10	05			15		25	05	30
Integrated Crop Management	Integrated Crop Management in Pulses	01	03	On/ Off	04-05 Aug. 2020	10	05			15		25	05	30
Integrated Crop Management	Integrated Crop Management in Green Gram	01	02	On/ Off	01-02 Sept. 2020	10	05			15		25	05	30
Seed Production	Quality seed production of Oilseed	01	02	On/ Off	05-06 Oct. 2020	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. 2021	10	05			15		25	05	30
Integrated Pest Management	IPM in pulses	01	2	On/ Off	15-16 Jan. 2021	10	05			15		25	05	30
Integrated Pest Management	Integrated Pest Management in Mango & Litchi	01	2	On/ Off	04-05 Feb. 2021	10	05			15		25	05	30
Integrated Pest Management	IPM of Oilseed crop	01	2	On/ Off	07-08 Feb. 2021	10	05			15		25	05	30
Income Generation	Cultivation of Garma mushrooms	01	04	On/ Off	13-14 March 2021	10	05			15		25	05	30
Integrated Pest Management	Integrated Pest Management in Garma Green Gram	01	2	On/ Off	16-17 April 2021	10	05			15		25	05	30
Income Generation	Production technology and	01	2	On/	14-15 May	10	05			15		25	05	30

	management of Makhana insect pest and diseases			Off	2021									
Integrated Pest Management	Use of organic inputs for plant disease management	01	2	On/ Off	20-21 June2021	10	05			15		25	05	30
Biocontrol of pests and diseases	Biocontrol of pests and diseases	01	2	On/ Off	15-16 July 2021	10	05			15		25	05	30
Integrated Disease Management	Management of Paddy diseases	01	2	On/ Off	19-20 Aug. 2021	10	05			15		25	05	30
Integrated Pest Management	IPM in paddy	01	2	On/ Off	08-09 Sept. 2021	10	05			15		25	05	30
Integrated Pest Management	IPM in Cabbage & Cauliflower	01	2	On/ Off	07-08 Dec. 2021	10	05			15		25	05	30
HORTICULTURE												0	0	0
Plant Propagation techniques	Propagation techniques of fruit plants	01	2	On/ Off	01-02 Jan. 2021	10	05			15		25	05	30
Layout and Management of orchards	Lay out and Management of High Density Orchard	01	2	On/ Off	08-09 Jan. 2021	10	05			15		25	05	30
Vermicompo st Production	Vermicompost production and its uses in horticultural crops.	01	2	On/ Off	18-19 Jan. 2021	10	05			15		25	05	30
Nursery raising	Nursery raising & Management of vegetable crops	01	2	On/ Off	11-12 Feb. 2021	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 2021	10	05			15		25	05	30
Production & management technology	Scientific cultivation of Cole crops	01	2	On/ Off	15-16 April 2021	10	05			15		25	05	30
Production and Management Technology	Cultivation of Aromatic & Medicinal Plants	01	2	On/ Off	28-29 May 2021	10	05			15		25	05	30
Production and	Cultivation of tuber crops	01	2	On/	15-16 June	10	05			15		25	05	30

Management technology				Off	2021									
Yield increment	Scientific Cultivation of Turmeric and Ginger	01	2	On/ Off	8-9 July 2021	10	05			15		25	05	30
Production & Management technology	Production technology and management of summer season vegetable crops.	01	2	On/ Off	15-16 Sept. 2021	10	05			15		25	05	30
Production and Management technology	Package & Practices of spices	01	2	On/ Off	10-11 Nov. 2021	10	05			15		25	05	30
Organic cultivation	Organic vegetable production	01	2	On/ Off	17-18 Dec. 2021	10	05			15		25	05	30
Agriculture Engineering												0	0	0
Establishment of MIS	Application of Control Pressure Devices for achieving higher Irrigation Water Use Efficiency	01	02	On	14-15 Jan. 2021	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery & implements	Maintenance of centrifugal pump	01	02	Off	16-17 Jan. 2021	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery & implements	Internal Combustion Engine: Parts, operation, repair and maintenance	01	02	Off	30-31 Jan.2021	5	2			20	3	25	5	30
Use of small tools	Improved implements for Kharif paddy cultivation for increasing B:C ratio	01	02	Off	04-05 Feb. 2021	5	2			20	3	25	5	30
Repair and maintenance of farm implements	Sprayers/ Dusters: Troubles, causes and their remedies	01	02	On	25-26 March 2021	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	7-8 April 2021	5	2			20	3	25	5	30
Resource Conservation	Sowing of Rabi crops with Zero	01	02	On	4-5 May	5	2			20	3	25	5	30

Technique	Tillage Technique				2021									
Establishment of MIS	Installation, operation and maintenance for sprinkler irrigation in Rabi crops	01	02	Off	2-3 June 2021	5	2			20	3	25	5	30
Installation and maintenance of MIS	Fertigation by application of liquid fertilizers through drip irrigation system	01	02	Off	14-15 July 2021	5	2			20	3	25	5	30
Use of plastics in agriculture	Cultivation of cash crops in controlled environment: Cultivation in poly houses	01	03	On	17-18 Aug. 2021	5	2			20	3	25	5	30
Installation and maintenance of MIS	Installation, operation and maintenance of drip irrigation system with micro irrigation of horticultural crops	01	02	Off	21-22 Sept. 2021	5	2			20	3	25	5	30
Application of liquid fertilizers	Application of liquid fertilizers through drip irrigation system	01	02	Off	3-4 Nov. 2021	5	2			20	3	25	5	30
Home Science												0	0	0
Storage loss minimization techniques	Importance of post harvest technology(Grading Processing and marketing)	1	2	Off/On	22-23 Jan. 2021	-	10	-	05	-	10	0	25	25
Women and child care	Importance of family planning among rural women	1	2	Off/On	24-25 Jan. 2021	-	10	-	02	-	13	0	25	25
Value addition	Preservation of seasonal fruits	1	2	Off/On	30-31 Jan. 2021	-	10	-	00	-	15	0	25	25
Source of energy	Use of non-conventional source of energy smokeless chullah , solar cooker, solar light Bio-gas	1	2	Off/On	12-13 Feb. 2021	-	10	-	00	-	15	0	25	25

	etc													
Value addition	Preservation of seasonal vegetables	1	2	Off/On	25-26 Feb. 2021	-	10	-	00	-	15	0	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	Off/On	18-19 March 2021	-	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	16-17 April 2021	-	10	-	00	-	15	0	25	25
Income Generation	Techniques of Mushroom cultivation and post harvest management	1	2	Off/On	13-14 May 2021	-	10	-	05	-	10	0	25	25
Women and child care	Importance of family planning among rural women	1	2	Off/On	08-09 June 2021	-	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	13-14 July 2021	-	10	-	00	-	15	0	25	25
Housed food security by nutritional gardening	Layout & management of nutri. garden	1	2	Off/On	18-19 Aug. 2021	-	10	-	05	-	10	0	25	25
Women and child care	Care of lactating and pregnant women	1	2	Off/On	22-23 Sept. 2021	-	10	-	05	-	10	0	25	25
Location specific drudgery reduction	Location specific drudgery reduction technology for rural women	1	2	Off/On	12-13 Oct. 2021	-	10	-	05	-	10	0	25	25
Women and child care	Importance of balanced feeding in daily diet of	1	2	Off/On	11-12 Nov. 2021	-	10	-	00	-	15	0	25	25

	rural women													
Women and child care	Importance of family planning among rural women	1	2	Off/On	17-18 Dec. 2021	-	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 2021	10	-	02	-	13	-	25	0	25
Soil Fertility Management	Importance of balance use of fertilizer in vegetables	1	2	Off/On	29-30 June 2021	10	-	02	-	13	-	25	0	25
Integrated Nutrient Management	Integrated Nutrient Management in paddy	1	2	Off/On	21-22 Sept. 2021	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. 2021	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 maize.	01	03	On	15-17 Jan 2020	5	2			20	3	25	5	30
Seed Production	Seed production of pulses.	01	03	On	15-17 Feb 2020	5	2			20	3	25	5	30
Seed Production	Seed production of green gram.	01	03	On	15-17 Feb 2020	5	2			20	3	25	5	30
Seed Production	Seed production of Madua	01	03	On	15-17 April 2020	5	2			20	3	25	5	30
Seed Production	Quality seed production of Paddy	01	03	On	11-13 May 2020	5	2			20	3	25	5	30
Plant Protection														

Mushroom Production	Production technology of button Mushroom and Management of diseases and insect pests	01	07 days	On	10-14 Jan. 2021	5	2			20	3	25	5	30
IPM	Schedule spray in mango	01	04 days	On	22-25 Jan. 2021	5	2			20	3	25	5	30
Bee Keeping	Bee Keeping	01	04 days	On	25-28 Feb. 2021	5	2			20	3	25	5	30
Vermi-culture	Vermicompost Production technique	01	04 days	On	16-19 June 2021	5	2			20	3	25	5	30
Production of organic inputs	Production of Trichoderma Formulation at field level	01	04 days	On	08-11 June 2021	5	2			20	3	25	5	30
Mushroom Production	Production of Button Mushroom	01	04 days	On	12-15 Oct. 2021	5	2			20	3	25	5	30
Repair & Maintenance of farm machinery and implements	Handling & caring of plant protection equipments	01	04 days	On	15-18 Dec. 2021	5	2			20	3	25	5	30
Horticulture		0												0
Seed production	Seed production technology of vegetable corps	01	4	On	27-30 Jan. 2021	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. 2021	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 2021	5	2			20	3	25	5	30
Organic cultivation	Organic vegetable production	01	3	On	23-25 June 2021	5	2			20	3	25	5	30
Nursery Management	Nursery raising techniques and Management of	01	3	On	25-27 Aug. 2021	5	2			20	3	25	5	30

	horticultural crops													
Protected cultivation	Production technology for growing off season vegetables and flowers	01	3	On	22-24 Sept. 2021	5	2			20	3	25	5	30
Orchard management	Training and pruning of major horticultural plants	01	3	On	10-12 Nov. 2021	5	2			20	3	25	5	30
Agricultural Engineering		0												0
Repair and maintenance of farm machinery and implements	Operation & maintenance of Micro Irrigation System	01	03	On	27-29 Jan. 2021	5	2			20	3	25	5	30
Repair and maintenance of farm machinery and implements	Repair and maintenance of Internal Combustion engines	01	04	On	4-7 Aug. 2021	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. 2021	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	7-11 Dec. 2021	5	2			20	3	25	5	30
Home Sc.		0												0
Value addition	Preservation of seasonal fruits& vegetables	1	3	On	27-29 Jan. 2021	-	10	-	00	-	15	-	25	25
Enterprise development	Cultivation techniques of	1	03	On	27-29 Feb. 2021	-	10	-	05	-	10	-	25	25

	mushroom													
Poultry Management	Techniques of Backyard poultry farming	1	03	On	16-18 March 2021	-	10	-	00	-	15	-	25	25
Nursery Management of Horticulture crops	Cultivation and preparation of nutritional garden value added product	1	03	On	27-29 May 2021	-	10	-	05	-	10	-	25	25
Rural Craft	Technique of handicrafts from locally available materials	1	5	On	22-27 June 2021	-	10	-	05	-	10	-	25	25
Enterprise development	Techniques of hand embroideries on cloth	1	5	On	01-04 July 2021	-	10	-	05	-	10	-	25	25
Post harvest tech.	Post harvest management of seasonal vegetables	1	3	On	26-28 Aug. 2021	-	10	-	00	-	15	-	25	25
Mushroom production	Techniques of mushroom cultivation and preservation	1	3	on	28-30 Sept. 2021	-	10	-	02	-	13	-	25	25
Post harvest tech.	Food grain storage after harvesting.	1	3	On	21-23 Dec. 2021	-	10	-	02	-	13	-	25	25
Soil Health & Fertility Management		0												0
Production of organic inputs	Method of Bio-fertilizer preparation Azolla & BGA	01	3	On	4-6 May 2021	5	2			20	3	25	5	30
Production of organic inputs	Production of organic inputs	01	3	On	3-5 Dec. 2021	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	SRI method of Paddy cultivation	01	02	On	17-18 July 2020	5	2			20	3	25	5	30
Integrated Nutrient management	Nutrient Management in Rabi Cereals	01	02	On	14-15 Oct. 2020	5	2			20	3	25	5	30
Plant Pathology:														
Integrated Pest Management	Integrated Pest Management in rice	01	02	On/off	02-03 June 2021	05	02			20	3	25	5	30
Formation & Management of SHGs	Formation of Makhana Farmer Producer Organization	01	02	On/off	29-30 July 2021	05	02			20	3	25	5	30
Integrated Pest Management	Integrated Pest Management in Mango	01	02	On/off	25-26 Sept. 2021	05	02			20	3	25	5	30
Integrated Pest Management	Integrated Pest Management vegetables	01	02	On/off	02-03 Dec. 2021	05	02			20	3	25	5	30
HORTICULTURE														
Protected cultivation	Production technology for growing off season vegetables and flowers	01	2	On	30-31 July 2021	05	02			20	3	25	5	30
Production & management technology	Scientific cultivation of medicinal & aromatic plants	01	2	On	27-28 Aug. 2021	05	02			20	3	25	5	30

Integrated Nutrient management	Role of micro nutrient in horticultural crops	01	2	On	29-30 Sept. 2021	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. 2021	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. 2021	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.2021	5	2			20	3	25	5	30
Home Sc.														
Value addition	Cultivation techniques of mushroom	1	2	On	05-06 Aug. 2021	-	10	-	00	-	15	-	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	On	2-3 sept. 2021	-	10	-	02	-	13	-	25	25
Women & Child Care	Care of pregnant and lactating women	1	2	On	4-5 Nov. 2021	-	10	-	02	-	13	-	25	25
House hold food security	Scientific preparation and cultivation of nutritional garden	1	2	On	26-27 Nov. 2021	-	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*

Crop	**Thrust Area**	**Thematic Area**	**Season**:	**Farming Situation**:
Paddy sabour sampann	Promotion of HYV	ICM	Kharif	Lowland, Rainfed
Finger Millet	Promotion of HYV	ICM	Kharif	Upland, Rainfed
vegetables	Organic cultivation	IPM	Kharif	Upland irrigated
vegetables	Organic cultivation	IPM	Rabi	Upland irrigated
Okra	Promotion of HYV	ICM	Kharif	Medium Irrigated
Oyster Mushroom	Income Generation	Mushroom Production	Kharif	Homestead
Button Mushroom	Income Generation	Mushroom Production	Rabi	Homestead
Makhna (Sabour Makhana 1)	Promotion of HYV	Varietal evaluation	Rabi	Lowland waterlogged
Okra	Weed Management	Application of small tools and implements	Kharif	Medium irrigated
Brinjal	Water Management	Raised bed planting system with poly mulching	Kharif	Upland rainfed
Wheat	Farm Mechanization	Resource Conservation Technology	Rabi	Medium lowland Irrigated
Bottle Gourd	Achieving higher Irrigation Water Use Efficiency	Resource Conservation Technology	Summer	Me irrigateddium
Nutritional Garden	Malnutrition	Household food security	Round the year	Homestead

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.	Finger Millet	5.0	HYV	Yield Economics	Seed, chemicals			04	0	0	0	09	0	13	0	13
3.	Pheromone trap for mango fruit fly	2.0	Use of Pheromone trap	insect pest population, yield	Pheromone trap			03				07		10	0	10
4.	Tomato	2.0	*IDM pacakage for management of tomato diseases*	Yield Economics PDI	*Fungicides*			03				07		10	0	10
5.	Brinjal/ HYV	02	Raised bed planting system with poly mulching	Yield Economics Labour Saving	Seeds & Chemicals			1	1			4	2	5	3	8
6.	Wheat: Sabour Shreshtha	02	Zero Tillage Technology	Yield Economics Labour Saving	Seeds Chemicals			1				6	1	7	1	8
7.	Bottle Gourd Prolific Long/ Pusa Summer	02	Water Management	Yield Economics WUE	Seed Chemicals			2	2			4	2	6	4	10

8.	Okra (weeding tools)	2.0	Weed management	Yield ,Econ. ,Efficiency of implements weed popl	weeding tools			2	2			4	2	6	4	10
9.	Nutri-garden	10 unit	Balanced nutrition	Yield, Econ.	Seeds			-	4	-	2	-	4	0	10	10
10.	Button Mushroom	15 unit	Mushroom production	Yield, Econ.	Spawn			-	4	-	4	-	7	0	15	15
11.	Oyster Mushroom	20 unit	Mushroom production	Yield, Econ.	Spawn			0	10	0	05	0	5	0	20	20
12.	Makhana	2.0	ICM	Yield, Econ.	Seeds			1	0	0	0	3	1	4	1	5
13	Okra	1.0	ICM	Yield, Econ.	Seeds			2	2			4	2	6	4	10
														77	64	

Extension and Training activities under FLD:

Activity	**Title of Activity**	**No.**	**Clientele**	**Duration**	**Venue On/Off**	**No. of Participants**								
						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	1	PF, EF	1	Off	10	10			20	10	30	20	50

	saving method													
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 Sweta/ Fine non scented	Kharif,2021	5.0	CS	25 q/ha	30000/- per ha.	100000/-	70000/-
Paddy	Sabour Shree / non scented	Kharif,2021	5.0	CS	30 q/ha	30000/- per ha.	90000/-	60000/-
Wheat	Sabour Shreshta/ Late sown	Rabi 2021	3.0	FS	20q/ha	20000/- per ha.	92000/-	72000/-
Lentil	HUL 57/ Bold	Rabi 2021	2.0	FS	15q/ha	12000/- per ha.	100000/-	88000/-
Linseed	Sabour Tisi 1/ Bold	Rabi 2021	2.0	CS	6.0q/ha	5000/- per ha.	9000/-	4000/-
Pea	Prakash	Rabi 2021	1.0	TL	12q/ha			
Guava	L 49, Allahabad Sapheda	Kharif 2021	2500 no					
Mango	Maldah, Bombay, Amrpali	Kharif 2021	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,2021	2.0	05	CS	30 q/ha	30000/- per ha.	105000/-	75000/-
Wheat	Sabour Shreshta/ Late sown	Rabi 2020-21	2.0	05	CS	20q/ha	35000/- per ha.	92000/-	57000/-

Green Gram	IPM 2-14	Summer 2021	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 2019-2021 (As on 01.04.2020)	Amount proposed to be invested during 2021	Expected Return
502936	**10 lakh**	**14 lakh**

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:**	**2021**
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:**	**Summer 2021**
ii	**Title of the OFT**	Assessment of Weed Management Practices in Summer green gram
iii	**Thematic Area**	Integrated weed Management
iv	**Problem diagnosed**	Farmers generally realize low yield of grren gram in summer season particularly Physallis minima (Vanmakoi),Smell mellon (Ghurmi)
v	**Important Cause**	heavy weed infestation in field causing loss in yield to the level of over 50%.
vi	**Production system**	Rice-Wheat
vii	**Micro farming system**	Light textured alluvial soil
viii	**Technology for Testing**	Assessment of Weed Management Practices in Summer green gram
ix	**Existing Practice**	Use of local variety with no control measures for weed/initial one hand weeding by limited no of farmers.
x	**Hypothesis**	The adoption of HYV of Paddy and wheat with the concept of integrated nutrient management will result in better control over weeds.
xi	**Objective(s)**	To assess the weed management practices in green gram.
xii	**Treatments:**	.Farmers practice : Hand weeding(1) TO-I : Spray of Pendimethalin 30EC(PE) @ 1kg ai/ha at 0-3 DAS TO-II : Hand weeding(10DAS)+ Imazethaper (PoE) 40g ai./ha at 25-30 DAS. TO-III :Spray of Pendimethalin 30EC(PE) @ 1kg ai/ha at 0-3 DAS + Imazethaper (PoE) 40g ai./ha at 20-25 DAS.
xiii	**Critical Inputs**	Seed,chemicals, soil test charge, display board etc.
xiv	**Unit Size**	1600 m^2
xv	**No of Replications**	10
xvi	**Unit Cost**	1000.00
xvii	**Total Cost**	10,000.00
xviii	**Monitoring Indicator**	**Technological observations :** • Yield (q/ha) • Yield attributing characters. • Weed count and dry wt.WCE(%) • Soil analysis (Soil Health status before and after) **Economic indicators :** • Cost of cultivation Net return B:C Ratio
xix	**Source of Technology**	BAU,Sabour,

OFT 3: (PBG)

i.	**Season:**	**Rabi 2020-21**
ii.	**Title of the OFT**	Assessment of yield performance of improved wheat varieties for timely sowing.
iii.	**Thematic Area**	Varietal evaluation
iv.	**Problem diagnosed**	Regular practices of traditional timely sown varieties of wheat in Rabi season resulting lower productivity.
v.	**Important Cause**	Lack of high yielding varieties of wheat for timely sown condition.
vi.	**Production system**	Rice-Wheat
vii.	**Micro farming system**	Medium Low land
viii.	**Technology for Testing**	Sabour Samridhi high yielding variety released by BAU for timely sown condition
ix.	**Existing Practice**	Traditional low variety
x.	**Hypothesis**	Sabour Samridhi may be the possible variety under timely sown condition.
xi.	**Objective(s)**	To enhance the productivity of wheat under timely condition through suitable HYV.
xii.	**Treatments:**	Farmers practice (NL) TO1: HD 2824 TO2: Sabour Samridhi
xiii.	**Critical Inputs**	Seed, soil test charge,need based chemicals and display board etc.
xiv.	**Unit Size**	500 m^2
xv.	**No of Replications**	07
xvi.	**Unit Cost**	700.00
xvii.	**Total Cost**	5000.00
xviii.	**Monitoring Indicator**	Technological observations : • Yield (q/ha) • Yield attributing characters. • Soil analysis (Soil Health Status) Economic indicators : • Cost of cultivation • Net return • B:C Ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	BAU, Sabour

OFT 4: (PBG)

xx.	**Season:**	**Rabi 2020-21**
xxi.	**Title of the OFT**	Assessment of effect of herbicides to control *Stellaria media* weed in wheat plot of Koshi region.
xxii.	**Thematic Area**	Weed Management
xxiii.	**Problem diagnosed**	High infestation of weeds suppress the growth & yield of wheat in Koshi region (Yield loss 65-70%)
xxiv.	**Important Cause**	High infestation of weed suppress the growth and reduce yield of Wheat.
xxv.	**Production system**	Rice-Wheat
xxvi.	**Micro farming system**	Upland, Medium land
xxvii.	**Technology for Testing**	Application of Pre-emergence herbicide (Pendimethalin @1.0 kg a.i./ha)+Post-emergence herbicide (Carfentrazone+Sulfosulfuron 45% WG) 25-30 DAS
xviii.	**Existing Practice**	No any application of herbicides
xxix.	**Hypothesis**	Application of Pre & Post-emergence herbicides may be the possible option to control the weeds in wheat.
xxx.	**Objective(s)**	To increase the yield of wheat by controlling weed
xxxi.	**Treatments:**	Farmers practice : (weedy check) **TO1**: Application of Pendimethalin @1.0 kg a.i./ha as PE **TO2**: Application Pendimethalin @1.0 kg a.i./ha as PE+Carfen trazone+Sulfosulfuron 45% WG mas POE at 25-30 DAS
xxxii.	**Critical Inputs**	Seed, soil test charge,ned based chemicals and display board etc.
xxiii.	**Unit Size**	500 m^2
xxiv.	**No of Replications**	07
xxxv.	**Unit Cost**	1000/-
xxvi.	**Total Cost**	7000/-
xxvii.	**Monitoring Indicator**	**Technological observations :** • Yield (q/ha) • weed studies • Yield attributing characters. • Soil analysis (Soil Health Status) • **Economic indicators :** • Cost of cultivation • Net return B:C Ratio
xviii.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	**IRRI,** Varanasi

OFT 5 : (Plant Pathology)

i.	**Season:**	**Rabi 2021-22**
ii.	**Title of the OFT**	Assessment of management practices for Mango Fruit borer
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 orchard
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: 6 (Plant Pathology)

i.	**Season:**	**Kharif,2021**	
ii.	**Title of the OFT**	Management of Fall Armyworm (*Spodoptera frugiperda*) in maize	
iii.	**Thematic Area**	**IPM**	
iv.	**Problem diagnosed**	A severe attack were observed right from whorl formation to silk stage in maize results in complete failure of crop	
v.	**Important Cause**	Fall Armyworm insect, *Spodoptera frugiperda*	
vi.	**Production system**	**Rice-maize**	
vii.	**Micro farming system**	Upland medium land	
viii.	**Technology for Testing**	Use of proper insecticides and at different stages of maize targeting insect life stages	
ix.	**Existing Practice**	Improper use of insecticides	
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 fall armyworm insect pest.	
xi.	**Objective(s)**	Integrated Pest Management	
xii.	**Treatments:**	**T.O.I:** Farmers practice: (Application of Carbofuran) **T.O.II –** i. Application of sand (After whorl formation and at 5% damage symptoms appearance) ii. Spraying of Emamectin benzoate 5SG @ 0.4g/l of water at 5 days of application of sand iii. Spraying of Thiamethoxam 12.6% + Lambdacyhalothrin 9.5% @ 0.5ml/l at 15 days after 1st spray **T.O.III–** i. Application of soil (After whorl formation and at 5% damage symptoms appearance) ii. Spraying of Fipronil 5SC @ 1ml/l of water at 5 days of application ofsoil iii. Spraying of Spinosad @ 0.2 ml/l at 15 days after 1st spray	
xiii.	**Critical Inputs**	Insecticides	
xiv.	**Unit Size**	**500 sqm**	
xv.	**No of Replications**	**07**	
xvi.	**Unit Cost**	**1200/-**	
xvii.	**Total Cost**	**8400/-**	
xviii.	**Monitoring Indicator**	Larval Population (%)/sq.m Larval Population reduction over check (%) Yield (q/ha.)	**Economic indicators :** • Cost of cultivation • Net return B:C Ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	BAU,Sabour	

OFT 7 : (Horticulture)

i.	**Season:**	**Rabi 2021-22**
ii.	**Title of the OFT**	Assessment of proper doses of Paclobutrazol in mitigating irregular bearing in mango
iii.	**Thematic Area**	ICM
iv.	**Problem diagnosed**	Irregular flowering, low fruit set as well as retention leading to low yield and fruits of poor quality are also the prevalent problems in mango production.
v.	**Important Cause**	Irregular bearing in mango
vi.	**Production system**	Mango
vii.	**Micro farming system**	Medium land
viii.	**Technology for Testing**	Paclobutrazol
ix.	**Existing Practice**	No use of Paclobutrazol
x.	**Hypothesis**	Paclobutrazol may be the possible solution against irregular bearing in mango
xi.	**Objective(s)**	To assess the effect of Paclobutrazol on irregular bearing in mango plants
xii.	**Treatments:**	TO1-Farmers practices (No pruning and No paclobutrazol) TO2: Paclobutrazol @ 1.0g a.i./m effective canopy (20-30g/plant) in soil. TO3: Paclobutrazol @ 1.5g a.i./metre effective canopy (30-45g) in soil.
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) Fruit retention % ii) No.of fruits per plant iii) Av. fruit weight (g) 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)**	AICRP on Fruits, Bengaluru

OFT 8: (Horticulture)

i.	**Season:**	**Rabi 2021-22**
ii.	**Title of the OFT**	Assessment of integrated nutrient management in tomato
iii.	**Thematic Area**	INM
iv.	**Problem diagnosed**	Tomato is one of the important cash crops of the Saharsa district. Low productivity of tomato is of great concern which is mainly attributed to imbalance or non-judicious use of fertilizers.
v.	**Important Cause**	Integrated Nutrient Management
vi.	**Production system**	Vegetables- Tomato
vii.	**Micro farming system**	Upland
viii.	**Technology for Testing**	integrated nutrient management
ix.	**Existing Practice**	Mono fertilization is one of the reasons for low production of tomato in the area.
x.	**Hypothesis**	Combination of INM along with RDF may be the possible option against the problem.
xi.	**Objective(s)**	
xii.	**Treatments:**	TO1-Farmers practices (N:P:K= 250:75:40 kg/ ha) TO2: RDF (N:P:K=200:100:80 kg/ ha) + FYM (200 q/ha) TO3: RDF (N:P:K=200:100:80 kg/ ha) + FYM (200 q/ha) + Lime + Boric acid (1%) + Zinc sulphate (1%)
xiii.	**Critical Inputs**	Planting materials, Boron, Zinc and cost on soil testing charges, display board
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 9: (Agril. Engg.)

i.	**Season:**	Kharif 2021
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 10: (Agril. Engg.)

i.	**Season:**	**Summer 2021**
ii.	**Title of the OFT**	**Assessment of sowing methodologies against growth of weeds in summer green gram cultivation**
iii.	**Thematic Area**	Weed management
iv.	**Problem diagnosed**	Cultivation of green gram in Koshi Region suffers due to growth of various types of weeds during its cultivation period, resulted into reduction of yield
v.	**Important Cause**	The tillage operation for crop establishment also supports the growth of weeds in the fields.
vi.	**Production system**	Rice-wheat- green gram / rice- oilseed- green gram
vii.	**Micro farming system**	Light textured alluvium soil with hot humid climate
viii.	**Technology for Testing**	No tillage practices for crop establishment with drilling and dibbling methods of sowing will be tested
ix.	**Existing Practice**	Sowing of seeds after two to three times tillage operation and planking
x.	**Hypothesis**	Crop establishment with no tillage operation may be the possible solution against the growth of weeds.
xi.	**Objective(s)**	To observe the effect of no tillage operation on growth of weeds in green gram cultivation
xii.	**Treatments:**	Farmers Practice (FP): Broad casting of seeds @ 30 kg/ha after field preparation with two to three tillage operations and planking Technology option-I (TO-I): sowing by seed cum fertilizer drill with no till mode Technology option-II (TO-II): sowing by dibbling at 30 X 10cm spacing
xiii.	**Critical Inputs**	Seeds with chemicals for seed treatment, Display board and cost of soil testing
xiv.	**Unit Size**	1200 sq m
xv.	**No of Replications**	7
xvi.	**Unit Cost**	1500/-
xvii.	**Total Cost**	10500/-
xviii.	**Monitoring Indicator**	Weed population (No./sq. m) Field capacity (ha/hr) No. of branches/ plant No. of pods/ plant No. of grains/ pod Yield (q/ha) Cost of Cultivation (Rs/ha) Gross return (Rs/ha) Net Return (Rs/ha) BC Ratio
xix.	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	Pulse Research Station, Sardar Krushinagar (Gujrat) IARI, Pusa New Delhi

OFT 11: (Home Sc.)

i.	**Season:**	Rabi,2021
ii.	**Title of the OFT**	Assessment of preparation method of carrot jam for more shelf life, enhancement of nutrition & income
iii.	**Thematic Area**	Women & child care
iv.	**Problem diagnosed**	Wide prevalence of nutritional deficient health problem among rural farming communities due to lack of knowledge and awareness regarding the use of locally available resources in preparing supplementary nutritious product
v.	**Important Cause**	To overcome malnutrition
vi.	**Production system**	Homestead
vii.	**Micro farming system**	-
viii.	**Technology for Testing**	Cost Effective nutritious carrot jam
ix.	**Existing Practice**	Use of carrot as a salad, juice and halua.
x.	**Hypothesis**	The locally available carrot comprises minerals and vitamins, which may be helpful for the growth and development of rural farming communities
xi.	**Objective(s)**	• To promote carrot jam as a nutritious food supplement with locally available resources to improve the health of rural communities. • To introduce carrot jam among rural communities.
xii.	**Treatments:**	Farmers Practices: Local people consume fresh carrot as such as vegetables or juice. TO_1: Preparation of carrot Jam Formulation-Ingredients (Carrot-1.0 kg, Sugar-1.0 kg, water-100 ml, Citric acid-6.0 g, Pectin powder -10g, Sodium Benzoate-1.0g) TO_2: Preparation of carrot Jam with essence Formulation-Ingredients (Carrot-1.0 kg, Sugar-1.0 kg, water-200 ml, Citric acid-6.0 g, Pectin powder -10g, Sodium Benzoate-1.0g, Lemon essence-5ml)
xiii.	**Critical Inputs**	Carrot-1.0 kg, Sugar-1.0 kg, water-200 ml, Citric acid-6.0 g, Pectin powder -10g, Sodium Benzoate-1.0g, Lemon essence-5ml
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: Glass Jar 500g 5. Self life (0, 15, 30, 45, 60 and 75 days at ambient refrigerated condition)
xix.	**Source of Technology**	DRPCAU, Pusa Samastipur, Bihar

	(ICAR/ AICRP/ SAU/ Other, please specify)	

OFT 12: (Home Sc.)

I	**Season:**	Rabi 2021
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 13: (Agril. Engg.) (ATMA Fund)

xx.	**Season:**	Rabi 2021-22
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
xviii.	**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.
xxii.	**Critical Inputs**	Seeds, Herbicide, fuel for operation and transportation of implements
xxiii.	**Unit Size**	500 m^2 X 3
xxiv.	**No of Replications**	7
xxv.	**Unit Cost**	2000
xxvi.	**Total Cost**	14000
xxvii.	**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
xviii.	**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.		

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

12. Scientific Advisory Committee

Date of SAC meeting held during 2019-20	Proposed date during 2021-22
08.09.2020	**June 2021**

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.