

## **REVISED PROFORMA FOR ACTION PLAN 2019-2020**

**1. Name of the KVK:** Krishi Vigyan Kendra (ICAR-RCER, Patna), Buxar, Bihar

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**2.Name of host organization :**

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**3.Training programme to be organized (April 2019 to March 2020)**

**(a) Farmers and farmwomen**

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
Agronomy														
Nursery management	Community Rice Nursery Production	1	2	off	13-14/05/2019	4	1	-	-	18	2	22	3	25
Integrated crop management	Integrated crop management in pigeon pea	1	2	off	16-17/05/2019	4	1	-	-	18	2	22	3	25
crop production	Best management practices for Rice production	1	2	Off	03-04/06/2019	4	1	-	-	18	2	22	3	25
Crop production	Scientific cultivation of pearl millet, Finger millet and Kodo	1	2	Off	17-18/06/2019	4	1	-	-	18	2	22	3	25
Weed & Nutrient management	Integrated Weed and nutrient management for maize production	1	2	Off	08-09/07/2019	4	1	-	-	18	2	22	3	25
crop production	Scientific cultivation of rapeseed and mustard	1	2	Off	10-11/09/2019	4	1	-	-	18	2	22	3	25
crop production	Best management practices for chickpea and lentil production.	1	2	Off	25-26/09/2019	4	1	-	-	18	2	22	3	25
crop production	Scientific cultivation of potato	1	2	Off	14-15/10/2019	4	1	-	-	18	2	22	3	25
Integrated crop	Integrated production	1	2	Off	28-29/10/2019	4	1	-	-	18	2	22	3	25

management	management of wheat													
Weed & Nutrient management	Integrated Weed management and liquid foliar spray of micro nutrients (MO&B) in Chick pea & Lentil	1	2	Off	05-06/11/2019	4	1	-	-	18	2	22	3	25
Resource Conservation Technique	RCT in Rice-Wheat cropping System	1	2	Off	12-13/08/2019	4	1	-	-	18	2	22	3	25
Crop Diversification	Crop diversification for doubling farmers income	1	2	Off	20-21/08/2019	4	1	-	-	18	2	22	3	25
Integrated Farming System	Integrated Farming System techniques for doubling farmers income	1	2	Off	18-19/11/2019	4	1	-	-	18	2	22	3	25
Water & Nutrient Management	Water & Integrated Nutrient management techniques in Wheat	1	2	Off	03-04/12/2019	4	1	-	-	18	2	22	3	25
Integrated crop management	Linseed production for better health	1	2	Off	28-29/11/2019	4	1	-	-	18	2	22	3	25
Climate change	Risk management practices to combat the climate change in crops	1	2	Off	29-30/05/2019	4	1	-	-	18	2	22	3	25
Climate change	Annual Contingent crop planning	1	2	off	25-26/06/2019	4	1	-	-	18	2	22	3	25
Agricultural mechanization	Advancing wheat sowing by using Zero tillage	1	2	off	04-05/11/2019	4	1	-	-	18	2	22	3	25
Agricultural mechanization	Happy seeder use in wheat crop	1	2	On	14-15/11/2019	4	1	-	-	18	2	22	3	25
Organic farming	Organic farming for sustain production sustainability	1	2	Off	16-17/12/2019	4	1	-	-	18	2	22	3	25
Water management	Use micro irrigation in crop production	1	2	On	10-11/02/2020	4	1	-	-	18	2	22	3	25
Nutrient Management	Techniques for micro nutrient applications in pulses and Oilseed Crops.	1	2	On	17-18/02/2020	4	1	-	-	18	2	22	3	25
Integrated farming system	Integrated farming system for small & marginal farmers	1	2	On	02-03/03/2020	4	1	-	-	18	2	22	3	25

Crop intensification	Summer moong cultivation for crop intensification in rice-wheat cropping system	1	2	Off	19-20/03/2020	4	1	-	-	18	2	22	3	25
<b>Total (Agronomy)</b>		<b>24</b>	<b>48</b>			<b>96</b>	<b>24</b>	<b>-</b>	<b>-</b>	<b>432</b>	<b>48</b>	<b>528</b>	<b>72</b>	<b>600</b>
<b>Soil Science</b>														
Soil fertility management	In-situ crop residue management for sustainable soil health.	1	2	Off	24-25/05/2019	3	2	-	-	16	4	19	6	25
Soil and water management/c onservation.	Method of in-situ moisture conservation measures.	1	2	Off	03-04/06/2019	3	2	-	-	16	4	19	6	25
Soil and water Conservation.	Method of soil and water conservation.	1	2	Off	06-07/06/2019	3	2	-	-	16	4	19	6	25
Soil and water testing.	Scientific method of soil and water sample collection.	1	2	Off	11-12/06/2019	3	2	-	-	16	4	19	6	25
Soil and water conservation	Rain water harvesting methods for multifarious use of water.	1	2	Off	15-16/06/2019	3	2	-	-	16	4	19	6	25
Nutrient use efficiency.	Application technologies of bio-fertilizer (Rhizobium, PSB, BGA, Azatobactor) in crops, rice, chickpea , lentil and wheat and its role.	1	2	Off	25-26/06/2019	3	2	-	-	16	4	19	6	25
Production of organic inputs	Application of waste decomposer for composting of farm waste.	1	2	Off	02-03/07/2019	3	2	-	-	16	4	19	6	25
Integrated Nutrient Management.	Integrated Nutrient Management in rice.	1	2	Off	04-05/07/2019	3	2	-	-	16	4	19	6	25
Nutrient use efficiency	Nitrogen management in paddy crop by the Leaf colour chart (LCC).	1	2	Off	09-10/07/2019	3	2	-	-	16	4	19	6	25
Integrated nutrient management.	Integrated nutrient management technologies in potato.	1	2	Off	08-09/08/2019	3	2	-	-	16	4	19	6	25
Nutrient use efficiency	Application of sulphur in pulses and oilseed.	1	2	Off	21-22/08/2019	3	2	-	-	16	4	19	6	25
Integrated Nutrient management.	Integrated Nutrient Management in cauliflower	1	2	Off	05-06/09/2019	3	2	-	-	16	4	19	6	25

Integrated Nutrient management.	Integrated Nutrient Management in Wheat.	1	2	Off	19-20/09/2019	3	2	-	-	16	4	19	6	25
Production of organic inputs	Production of organic products (vermin compost, vermiwash, Punchgavya and Amrit pani)	1	2	Off	04-05/10/2019	3	2	-	-	16	4	19	6	25
Nutrient use efficiency	Foliar application of liquid NPK and micro-nutrients in pulses.	1	2	Off	17-18/10/2019	3	2	-	-	16	4	19	6	25
Micro nutrients deficiency	Method of foliar application of liquid NPK and micro- nutrients in fruits plant.	1	2	Off	05-06/11/2019	3	2	-	-	16	4	19	6	25
Soil and Water conservation.	Method of fertigation through micro irrigation system in horticultural crops.	1	2	Off	15-16/11/2019	3	2	-	-	16	4	19	6	25
Soil and Water conservation.	Water management during critical period in Rabi Pulses.	1	2	Off	03-04/12/2019	3	2	-	-	16	4	19	6	25
Integrated nutrient management	Integrated Nutrient Management in onion.	1	2	Off	10-11/12/2019	3	2	-	-	16	4	19	6	25
Soil and water Conservation.	Method of Water management in spring / summer vegetable.	1	2	Off	03-04/01/2020	3	2	-	-	16	4	19	6	25
Production of organic inputs	Production technologies of organic inputs Vermi compost and Vermi wash.	1	2	Off	09-10/01/2020	3	2	-	-	16	4	19	6	25
Soil and Water conservation.	Method of in- situ Crop residue management to check crop residue burning.	1	2	Off	05-06/02/2020	3	2	-	-	16	4	19	6	25
Production of organic inputs	Promotion of organic farming.	1	2	Off	13-14/02/2020	3	2	-	-	16	4	19	6	25
Integrated Nutrient management.	Integrated nutrient management in <i>Japani pudina</i> .	1	2	Off	12-13/03/2020	3	2	-	-	16	4	19	6	25
<b>Total (Soil Science)</b>		<b>24</b>	<b>48</b>	<b>-</b>	<b>-</b>	<b>72</b>	<b>48</b>	<b>-</b>	<b>-</b>	<b>384</b>	<b>96</b>	<b>456</b>	<b>144</b>	<b>600</b>

Plant Breeding														
Nursery management	Paddy: Nursery Management	1	2	On	22-23/05/2019	4	1	-	-	18	2	22	3	25
Seed Production	Urdbean: Quality seed production	1	2	On	28-29/05/2019	4	1	-	-	18	2	22	3	25
Seed Production	Wheat: Quality Seed production	1	2	On	03-04/06/2019	4	1	-	-	18	2	22	3	25
Seed Production	Mustard: Quality Seed production	1	2	On	10-11/06/2019	4	1	-	-	18	2	22	3	25
Weed Management	Weed Management in Paddy	1	2	Off	03-04/07/2019	4	1	-	-	18	2	22	3	25
Seed Production	Paddy Quality Seed Production	1	2	Off	29-30/07/2019	4	1	-	-	18	2	22	3	25
Seed Production	Maize Quality Seed Production techniques of	1	2	Off	12-13/08/2019	4	1	-	-	18	2	22	3	25
Seed Production	Pigeon Pea Quality Seed production of	1	2	Off	19-20/08/2019	4	1	-	-	18	2	22	3	25
Seed Production	Okra Quality seed production	1	2	Off	03-04/09/2019	4	1	-	-	18	2	22	3	25
Seed Production	Bajra Quality Seed production	1	2	Off	23-24/09/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Millet crop	1	2	Off	25-26/09/2019	4	1	-	-	18	2	22	3	25
Seed Production	Wheat Quality Seed production techniques	1	2	Off	09-10/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Onion	1	2	Off	13-14/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Brinjal	1	2	Off	18-19/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	fodder crop (Oats and Berseem) Quality Seed production techniques	1	2	Off	21-22/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	Potato Quality Seed production	1	2	Off	23-24/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	Lentil and ChickPea Quality Seed production	1	2	On	15-16/11/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Field pea	1	2	Off	18-19/11/2019	4	1	-	-	18	2	22	3	25
Seed Production	Lentil Quality Seed production	1	2	Off	11-12/12/2019	4	1	-	-	18	2	22	3	25
Seed Production	Greengram Quality seed production	1	2	Off	14-15/01/2020	4	1	-	-	18	2	22	3	25
Seed Production	Chickpea Quality seed production	1	2	Off	11-12/02/2020	4	1	-	-	18	2	22	3	25
Seed	Quality seed	1	2	Off	20-	4	1	-	-	18	2	22	3	25

Production	production of Okra				21/02/2019									
Seed Production	Urdbean: Quality seed production	1	2	Off	20-21/03/2020	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Tomato	1	2	Off	22-23/03/2020	4	1	-	-	18	2	22	3	25
<b>Total (Plant Breeding)</b>		<b>24</b>	<b>48</b>	<b>-</b>	<b>-</b>	<b>96</b>	<b>24</b>	<b>-</b>	<b>-</b>	<b>432</b>	<b>48</b>	<b>528</b>	<b>72</b>	<b>600</b>
<b>Plant Protection</b>														
Storage loss minimizing technique	Identification, nature of damage and control measure of storage insects and pests	1	2	Off	23-24/05/2019	5	-	-	-	17	3	22	3	25
Integrated Disease Management	Soil borne diseases, their symptoms and Management through summer ploughing & soil Solarization	1	2	Off	25-26/05/2019	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Insects and disease of summer vegetables and their management	1	2	Off	28-29/05/2019	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Application Method and precaution during uses of Chemical pesticides	1	2	Off	11.06.19	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Insects and diseases of rice nursery and control measures.	1	2	Off	20-21/06/2019	5	-	-	-	17	3	22	3	25
Integrated Disease management	Integrated disease management In rice	1	2	Off	27-28/06/2019	5	-	-	-	17	3	22	3	25
Integrated disease management	Disease caused by nutritional deficiencies and their management	1	2	Off	10-11/07/2019	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Seed borne diseases of cereals and pulses and their management	1	2	Off	23-24/07/2019	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Insect and Disease management in oil seed crop	1	2	Off	30-31/07/2019	5	-	-	-	17	3	22	3	25
Integrated pest Management	Ecofriendly management of pulses	1	2	Off	16-17/08/2019	5	-	-	-	17	3	22	3	25
Integrated pest Management	Damage caused by mammals and their management	1	2	Off	20-21/08/2019	5	-	-	-	17	3	22	3	25
Integrated insect pest management	Insects and pests of orchard and their management	1	4	ON	05-06/09/2019	5	-	-	-	17	3	22	3	25

Bio-control of pest and diseases	Application of Microbial pesticide for the management of insect pest	1	2	Off	17-18/09/2019	5	-	-	-	17	3	22	3	25
Production of bio control agents and bio pesticides (Bacteria, virus, fungi etc)	Conservation of Natural enemies in rice ecosystem	1	2	Off	24-25/09/2019	5	-	-	-	17	3	22	3	25
Application of bio control agents and bio pesticides (Bacteria, virus, fungi etc)	Production techniques of biocontrol agents	1	2	Off	07-08/10/2019	5	-	-	-	17	3	22	3	25
Bio-control of pest & disease	Identification and conservation of predators and parasitoids in agri ecosystem	1	2	ON	16-17/10/2019	5	-	-	-	17	3	22	3	25
Integrated Pest management	diseases of crops caused by Abiotic factors and their management	1	2	Off	24-25/10/2019	5	-	-	-	17	3	22	3	25
Storage loss minimization technique	Storage pest of Pulses and their control measure	1	2	Off	14-15/11/2019	5	-	-	-	17	3	22	3	25
Integrated disease management	Early and Late blight disease of tomato and potato and their management	1	2	Off	18-19/12/2019	5	-	-	-	17	3	22	3	25
Bio control Agent	Identification and utilization of bio-control agent in rabi season (Rai, mustard, cabbage, cauliflower, lentil, gram etc)	1	2	Off	13-14/02/2020	5	-	-	-	17	3	22	3	25
Integrated Pest Management	Insect and disease management in onion crop	1	2	Off	12-13/03/2020	5	-	-	-	17	3	22	3	25
<b>Total (Plant Protection)</b>		<b>21</b>	<b>44</b>			<b>105</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>357</b>	<b>63</b>	<b>462</b>	<b>63</b>	<b>525</b>
<b>GRAND TOTAL</b>		<b>86</b>	<b>174</b>	<b>-</b>	<b>-</b>	<b>341</b>	<b>89</b>	<b>-</b>	<b>-</b>	<b>1479</b>	<b>241</b>	<b>1820</b>	<b>330</b>	<b>2150</b>

**(b) Rural youths**

Thematic area	Title of Training	No .	Durat ion	Venue On/ Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Agronomy														
Crop diversification	Doubling farmers income through production of High value crops	1	5	ON	01-05/07/2019	4	1	-	-	18	2	22	3	25
Integrated Farming System	Doubling farmers income through Integrated farming system	1	5	ON	05-09/08/2019	4	1	-	-	18	2	22	3	25
Organic farming	Organic farming for sustainable production	1	5	ON	02-06/09/2019	4	1	-	-	18	2	22	3	25
Crop diversification	Doubling farmers income through production of High value crops	1	5	OFF	07-11/10/2019	4	1	-	-	18	2	22	3	25
Integrated Farming System	Doubling farmers income through Integrated farming system	1	5	OFF	09-13/12/2019	4	1	-	-	18	2	22	3	25
Organic farming	Organic farming for sustainable production	1	5	OFF	02-06/03/2020	4	1	-	-	18	2	22	3	25
Total (Agronomy)		6	30	-	-	24	6	-	-	108	12	132	18	150
Soil Science														
Production of organic inputs	Production technologies of organic inputs vermicompost, Panchgavay, and vermi wash	1	5	ON	18-23/06/2019	3	2	-	-	16	4	19	6	25
Production of organic inputs	Production technology of Bio product viz vermin wash, Punchgavya, and Amritpani by using of waste decomposer and cow dung.	1	5	ON	14-18/07/2019	3	2	-	-	16	4	19	6	25
Soil and water testing.	Method of Soil testing through mini soil testing kit and Soil test Fertilizer recommendation.	1	5	ON	19-23/10/2019	3	2	-	-	16	4	19	6	25
Production of organic inputs	Production technology of Azolla and its use .	1	5	ON	19-3/11/2019	3	2	-	-	16	4	19	6	25
Soil and water testing.	Method of Soil testing through mini soil testing kit and Soil test Fertilizer	1	5	ON	15-21/12/2019	3	2	-	-	16	4	19	6	25



	recommendation.													
Soil fertility management	In-situ crop residue management for sustainable soil health.	1	5	ON	18-22/02/2020	3	2	-	-	16	4	19	6	25
Total (Soil Science)		6	30	-		18	12	-	-	96	24	114	36	150
Plant Breeding														
Seed Production	Quality seed Production of Pigeon Pea	1	5	OFF	10-14/06/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality Seed Production of Tomato	1	5	ON	08-12/07/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality Seed Production of Maize (Popcorn)	1	5	OFF	22-26/07/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality Seed Production of Chick Pea and Lentil	1	5	OFF	14-18/10/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of vegetable Pea	1	5	ON	04-08/11/2019	4	1	-	-	18	2	22	3	25
Total (Plant Breeding)		5	25	-	-	20	5	-	-	90	10	110	15	125
Plant Protection														
Mushroom production	Mushroom production: A source of income generation	2	5	ON	15-19/10/2019	4	-	-	-	16	-	20	-	20
			5	ON	04-09/11/2019	4	-	-	-	16	-	20	-	20
Beekeeping	Bee keeping: A viable source of income generation to rural youth	2	5	ON	14-18/01/2020	4	-	-	-	16	-	20	-	20
			5	ON	21-25/01/2020	4	-	-	-	16	-	20	-	20
Total (Plant Protection)		4	20	-	-	16	-	-	-	64	-	80	-	80
Grand Total		21	105			78	23	-	-	358	46	436	69	505

(c) Extension functionaries

Thrust area/ Thematic area	Title of Training	No	Dura tion	Venue On/ Off	Tentative Date	No. of Participants								
						SC		ST		Other		Total		
						M	F	M	F	M	F	M	F	T
Agronomy														
Integrated farming systems	Integrated farming system modules	1	2	ON	11-12/07/2019	4	1	-	-	18	2	22	3	25
Organic farming	Organic farming	1	2	ON	19-20/08/2019	4	1	-	-	18	2	22	3	25
Crop production	Productivity enhancement in field crops	1	2	ON	16-17/10/2019	4	1	-	-	18	2	22	3	25
Crop intensification	Crop intensification for doubling farmers income	1	2	ON	10-11/02/2020	4	1	-	-	18	2	22	3	25
Total (Agronomy)		4	8	-	-	16	4	-	-	72	8	88	12	100
Soil Science														
Soil fertility management	Method of in- situ Crop residue management to check burning.	1	3	ON	23-25.07.2019	5	-	-	-	17	3	22	3	25
Soil and water management/c onservation.	Rain water harvesting methods for multifarious use of water.	1	3	ON	21-23.01.2020	5	-	-	-	17	3	22	3	25
Soil and water testing.	Method of Soil testing through mini soil testing kit and Fertilizer recommendation.	1	3	ON	24-26.12.2019	5	-	-	-	17	3	22	3	25
Production of organic inputs	Production technologies of organic inputs (vermin compost, Panchgavay, and vermi wash)	1	3	ON	25-27.02.2020	5	-	-	-	17	3	22	3	25
Total (Soil Science)		4	12	-	-	20	-	-	-	68	12	88	12	100
Plant Breeding														
Seed Production	Seed Production technique of Paddy	1	2	ON	06-07/08/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of Kharif pulses	1	2	ON	29-30/08/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of rabi pulses	1	2	ON	29-30/11/2019	4	1	-	-	18	2	22	3	25
Seed Production	Quality seed production of wheat	1	2	ON	03-04/12/2019	4	1	-	-	18	2	22	3	25
Total (Plant Breeding)		4	8	-	-	16	4	-	-	72	8	88	12	100
Plant Protection														

IPM	IPM: principles and practices	2	3	ON	25-27/05/2019	5	-	-	-	20	-	25	-	25
			3	ON	13-14/06/2019	5	-	-	-	20		25	-	25
Bio control of pest and diseases	Biological control: The need perspective in present scenario	2	3	ON	02-04/01/2020	5	-	-	-	20	-	25	-	25
			3	ON	16-18/01/2020	5	-	-	-	20	-	25	-	25
Total (Plant Protection)		4	12	-	-	20	-	-	-	80	-	100	-	100
GRAND TOTAL		16	40	-	-	72	8	-	-	<sup>292</sup>	28	364	36	400

## 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	3	54	6	60	12	3	15	-	-	-	66	9	75
Resource Conservation Technologies	1	18	2	20	4	1	5	-	-	-	22	3	25
Cropping Systems	1	18	2	20	4	1	5	-	-	-	22	3	25
Crop Diversification	1	18	2	20	4	1	5	-	-	-	22	3	25
Integrated Farming	2	36	4	40	8	2	10	-	-	-	44	6	50
Water management	2	36	4	40	8	2	10	-	-	-	44	6	50
Seed production	22	396	44	440	88	22	110	-	-	-	484	66	550
Nursery management	2	36	4	40	8	2	10	-	-	-	44	6	50
Integrated Crop Management	3	54	6	60	12	3	15	-	-	-	66	9	75
Fodder production													
Production of organic inputs	1	18	2	20	4	1	5	-	-	-	22	3	25
Others, (cultivation of crops )	5	90	10	100	20	5	25	-	-	-	110	15	125
Crop Production													
Nutrient Management	1	18	2	20	4	1	5	-	-	-	22	3	25
Climate Change	2	36	4	40	8	2	10	-	-	-	44	6	50
Agriculture Mechanization	2	36	4	40	8	2	10	-	-	-	44	6	50
III. Soil Health and Fertility Management													
Soil fertility management	1	16	4	20	3	2	5	-	-	-	19	6	25
Soil and Water Conservation	7	112	28	140	21	14	35	-	-	-	133	42	175
Integrated Nutrient Management	6	96	24	120	18	12	30	-	-	-	114	36	150
Production and use of organic inputs	4	64	16	80	12	8	20	-	-	-	76	24	100
Micro nutrient deficiency in crops	1	16	4	20	3	2	5	-	-	-	19	6	25
Nutrient Use Efficiency	4	64	16	80	12	8	20	-	-	-	76	24	100
Soil and Water Testing	1	16	4	20	3	2	5	-	-	-	19	6	25
VII. Plant Protection													
Integrated Pest Management	10	170	30	200	50	-	50	-	-	-	220	30	250
Integrated Disease Management	4	68	12	80	20	-	20	-	-	-	88	12	100
Bio-control of pests and diseases	2	34	6	40	10	-	10	-	-	-	44	6	50
Production of bio control agents and bio pesticides	3	51	9	60	15	-	15	-	-	-	66	9	75
Others, if any	2	34	6	40	10	-	10	-	-	-	44	6	50
Storage loss minimizing technique													
TOTAL	93	1605	255	1860	369	96	465				1974	351	2325

### 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	2	16	-	16	4	-	4	-	-	-	20	-	20
Bee-keeping	2	16	-	16	4	-	4	-	-	-	20	-	20
Integrated farming	2	36	4	40	8	2	10	-	-	-	44	6	50
Seed production	5	90	10	100	20	5	25	-	-	-	110	15	125

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
Organic Farming	2	36	4	40	8	2	10	-	-	-	44	6	50
Production of organic inputs	3	48	12	60	9	6	15	-	-	-	57	18	75
Bio control Agent	2	16	-	16	4	-	4	-	-	-	20	-	20
Crop diversification	2	36	4	40	8	2	10	-	-	-	44	6	50
Soil & water testing	2	32	8	40	6	4	10	-	-	-	38	12	50
Soil fertility management	1	16	4	20	3	2	5	-	-	-	19	6	25
TOTAL	23	342	46	388	74	23	97				416	69	485

### 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
Integrated Pest Management	2	40	-	40	10	-	10	-	-	-	50	-	50
Production and use of organic inputs	2	35	5	40	9	1	10	-	-	-	44	6	50
Crop intensification	1	18	2	20	4	1	5	-	-	-	22	3	25
Bio control of pest and diseases	2	40	-	40	10	-	10	-	-	-	50	-	50
Integrated farming systems	1	18	2	20	4	1	5	-	-	-	22	3	25
Crop production	1	18	2	20	4	1	5	-	-	-	22	3	25
Soil fertility management	1	17	3	20	5	-	5	-	-	-	22	3	25
Soil and water management/ Conservation	1	17	3	20	5	-	5	-	-	-	22	3	25
Soil and water testing	1	17	3	20	5	-	5	-	-	-	22	3	25
Seed Production	4	72	8	80	16	4	20	-	-	-	88	12	100
TOTAL	16	292	28	320	72	8	80				364	36	400

## Skill Development Training Programme

Thematic area	Topic	Duration	On/off	Duration (hrs)	No of participants									Grand total		
					Others			SC			ST					
					M	F	T	M	F	T	M	F	T	M	F	T
Organic farming	Organic growers	02/01/2019 to 05/02/2019	ON	200	15	2	17	3	-	3	-	-	-	18	2	20
Beekeeping	Bee Keepers	26/01/2020 to 10/03/2020	ON	200	15	2	17	3	-	3	-	-	-	18	2	20
Mushroom Production	Mushroom Grower	10/11/2019 to 20/12/2019	ON	200	15	2	17	3	-	3	-	-	-	18	2	20

### 4. Frontline demonstration to be conducted\*

**Crop** : Rice  
**Thrust Area** : Improved variety production  
**Thematic Area** : Crop production  
**Season** : Kharif  
**Farming Situation** : Rice-wheat

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	Rice var. Rajendra kasturi/ CR Dhan 909	10	Seed, seed treatment, foliar spray	No of panicles/m2, grains/panicle, 1000 grain weight, grain yield	Seed & fungicides	20000	-	4	1	-	-	18	2	22	3	25
<b>Total</b>		<b>10</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20000</b>	<b>-</b>	<b>4</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>18</b>	<b>2</b>	<b>22</b>	<b>3</b>	<b>25</b>

#### 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	
Training	BMP for rice production	2	Farmers	1	1 on and 1 off	4	1	-	-	18	2	22	3	25
Field day	Field day on rice	3	Farmers and extension workers	1	Off	30	15	-	-	225	30	255	45	300
Total		5		-	04 Off + 01 On	34	16	-	-	243	32	277	48	325

**Crop** : Wheat  
**Thrust Area** : Improved variety production  
**Thematic Area** : Crop production  
**Season** : Rabi  
**Farming Situation** : Rice-wheat

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.	Wheat var HD 2967 under ZT	10	Seed, seed treatment, post emergence herbicide (Carfentrazone+Sulfosulfuron)	No of panicles/m2, grains/panicle, 1000 grain weight, grain yield, Weed density and weed dry weight	Seed, fungicide, herbicide	48000	-	4	1	-	-	18	2	22	3	25
2.	Wheat var HD 3086 under ZT	5	Seed, seed treatment, post emergence herbicide (Carfentrazone+Sulfosulfuron)	No of panicles/m2, grains/panicle, 1000 grain weight, grain yield, Weed density and weed dry weight	Seed, fungicide, herbicide	25000	-	2	1	-	-	6	1	8	2	10
<b>Total</b>		<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>73000</b>	<b>-</b>	<b>6</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>24</b>	<b>3</b>	<b>30</b>	<b>5</b>	<b>35</b>

#### 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	
Training	BMP for wheat production	2	Farmers	1	1 on and 1 off	4	1	-	-	18	2	22	3	25
Field day	Field day on wheat	3	Farmers and extension workers	1	Off	30	15	-	-	225	30	255	45	300
Total		5	-	-	1 On + 4 Off	34	16	-	-	243	32	277	48	325



**Crop** : Waste D-composer  
**Thrust Area** : In-situ composting of crop residue  
**Thematic Area** : Organic Farming  
**Season** : Kharif & Rabi  
**Farming Situation** : Rice-Wheat/Vegetable

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.	Waste D-composer	1000 Nos.	Composting, Seed treatment	Composting, Seed treatment, folior spray	Waste D-composer	15000	-	100	100	-	-	700	100	800	200	1000
<b>Total</b>		<b>1000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15000</b>	<b>-</b>	100	100	-	-	700	100	800	200	1000

#### 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	
Training	Application of waste decomposer for composting of farm waste.	1	Farmers	2	1 off	3	2	-	-	16	4	19	6	25
Field day	Field day on paddy/ wheat/ vegetable	2	Farmers and extension workers	1	Off	30	15	-	-	225	30	255	45	300
Total		3	-	-	3 Off	33	17	-	-	241	34	244	51	325

### Cluster Front Line Demonstration

**Crop** : Chickpea  
**Thrust Area** : Demonstration of Improved variety  
**Thematic Area** : Crop production  
**Season** : Rabi  
**Farming Situation** : Rice-chickpea

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.	Chickpea	40	Seed, seed treatment, IPM (FIR, Pheromantrap) and foliar spray of micronutrient	No of pods/plant, branches/plant, 100 grain weight, grain yield,	Seed, fungicides, Rhizobium, micronutrient, Bio insecticide	360000	-	16	4	-	-	72	8	88	12	100
<b>Total</b>		<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>360000</b>	<b>-</b>	<b>16</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>72</b>	<b>8</b>	<b>88</b>	<b>12</b>	<b>100</b>

#### 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	
Training	BMP for chickpea production	2	Farmers	1	1 on and 1 off	16	4	-	-	72	8	88	12	100
Field day	Field day on chickpea	4	Farmers and extension workers	1	Off	40	20	-	-	300	40	340	60	400
Total		6	-	-	5 Off + 1 On	56	24	-	-	372	48	428	72	500

**Crop** : Lentil  
**Thrust Area** : Demonstration of improved variety  
**Thematic Area** : Crop production  
**Season** : Rabi  
**Farming Situation** : Kharif fallow-lentil

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.	Lentil	40	Seed, seed treatment, application of Trico derma before sowing and foliar spray of micronutrient	No of pods/plant, branches/plant, 100 grain weight, grain yield,	Seed, fungicides, Rhizobium, micronutrient	360000	-	16	4	-	-	72	8	88	12	100
<b>Total</b>		<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>360000</b>	<b>-</b>	<b>16</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>72</b>	<b>8</b>	<b>88</b>	<b>12</b>	<b>100</b>

#### 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	
Training	BMP for lentil production	2	Farmers	1	1 on and 1 off	16	4	-	-	72	8	88	12	100
Field day	Field day on lentil	4	Farmers and extension workers	1	Off	40	20	-	-	300	40	340	60	400
Total		6	-	-	1 On + 5 Off	56	24	-	-	372	48	428	72	500

**Crop:** Mustard

**Thrust Area:**

**Thematic Area:** Crop production

**Season:** Rabi

**Farming Situation:** Rice-Mustard

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.	Mustard	40	Seed, seed treatment, Neem Oil spray 1500 ppm and sulphur	No of pods/plant, branches/plant, 100 grain weight, grain yield,	Seed, fungicide, insecticid, sulphur	240000	-	16	4	-	-	72	8	88	12	100
<b>Total</b>		<b>40</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>240000</b>	<b>-</b>	<b>16</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>72</b>	<b>8</b>	<b>88</b>	<b>12</b>	<b>100</b>

#### 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	
Training	BMP for mustard production	2	Farmers	1	1 on and 1 off	16	4	-	-	72	8	88	12	100
Field day	Field day on mustard	4	Farmers and extension workers	1	Off	40	20	-	-	300	40	340	60	400
Total		6	-	-	1 On + 5 Off	56	24	-	-	372	48	428	72	500

**Crop:**  
**Thrust Area:**  
**Thematic Area:**  
**Season:**  
**Farming Situation:**

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.	Application of Zinc sulphate @ 25 kg/ha as basal dose and Potassium Chloride @1 gm/ water at panicle initiation stage in rice crop.	10	Zinc sulphate @ 25 kg/ha as basal dose and Potassium Chloride @1 gm/ water at panicle initiation stage in rice crop.	Grain & straw yield	Zinc sulphate & Potassium Chloride.	18500	-	6	3	-	-	25	6	31	9	40
2.	FLD of Bajra as a contingent crop.	10	PUSA Composite 612/ Hybrid HHB67 (ICAR)	Grain & straw yield	Seed HHB67	15000	-	6	3	-	-	25	6	31	9	40
3.	Demonstration of Happy seeder and waste decomposer for <i>in-situ</i> crop residue management & check crop burning .	5	Application of waste decomposer after harvesting of crop.	Pre & Post soil fertility status	Application of waste decomposer after harvesting of crop.	3500		6	3	-	-	25	6	31	9	40
<b>Total</b>		<b>25</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>37000</b>	<b>-</b>	<b>18</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>75</b>	<b>18</b>	<b>93</b>	<b>27</b>	<b>120</b>

**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	
Training	Scientific method of seed treatment / inoculation.	2	PF	1	OFF	6	3	-	-	25	6	31	9	40
Field day	1. Production of hybrid as a contingent crop . 2. Application of waste decomposer after harvesting of crop. 3. Application of Zinc sulphate @ 25 kg/ha as basal dose and Potassium Chloride in paddy.	3	PF	1	OFF	6	3	-	-	25	6	31	9	40
Total		5	-	-	5 Off	12	6	-	-	50	12	62	18	80

**Crop** : Chickpea  
**Thrust Area** : Crop Protection  
**Thematic Area** : Integrated Pest Management  
**Season** : Rabi 2019-20  
**Farming Situation** : Rainfed

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.	Biopesticide (bacillus thuringiensis)	5	Bt var. kurstaki formulation @ 1kg/ha at the time of flowering	Infestation of Pod borer , pod damage/m row, larvae/m row, yield	Bt. Powder formulation	10000	-	-	-	-	-	-	40	-	40	-	40
				<b>Total</b>	-	-	-	-	-	-	-	<b>40</b>	-	<b>40</b>	-	<b>40</b>	

#### 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	
	Management of chickpea pod borer through biopesticides	1	Practicing farmer	1 days	Off	5	-	-	-	15	5	20	5	25

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

**5. 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	June- Nov,	1.5	C/S	50	45000	150000	105000
	MTU 7029	June- Nov,	1	C/S	35	25000	90000	65000
	BPT 5204	June- Nov,	2	C/S	60	50000	160000	110000
	Rajendra Kasturi/ CR 909	June- Nov,	1	C/S	25	25000	100000	75000
	CO 51	June- Nov	0.25	C/S	10	12000	30000	18000
	Swarna Shreya	June- Nov	0.25	C/S	8	11000	24000	13000
Wheat	HD 2967	Nov – April,	2	F/S	60	50000	192000	142000
Chick Pea	GNG 1581/Pusa 3043	Nov- March	4	F/S	40	70000	280000	210000
Mustard	RH-749	Nov- March	0.25	C/S	4	10000	40000	30000
Lentil	PL- 8	Nov- March	0.5	C/S	4	10000	40000	30000
Fish	Rehu/Katla/M rigale	May- March	0.4	-	40	100000	400000	300000
Turmeric	Black Turmeric	March- December	0.001	C/S	0.05	20000	350000	330000
<b>Grand Total</b>			<b>13.151</b>		<b>336.05</b>	<b>428000</b>	<b>1856000</b>	<b>1428000</b>



**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.)
Chick Pea	GNG 1581/3043	Nov- March	10	7	F/S	175	80000	250000	170000
<b>Total</b>			<b>10</b>	<b>7</b>	<b>F/S</b>	<b>175</b>	<b>80000</b>	<b>250000</b>	<b>170000</b>

**6. Extension Activities**

Sl. No.	Activities/ Sub-activities	No. of activities proposed	Farmers				Extension Officials			Total		
			M	F	T	SC/ ST (% of total)	M	F	T	M	F	Total
1.	Field Day	7	600	100	700	20	50	-	50	650	100	750
2.	KisanMela	2	1200	200	1400	20	100	50	150	1300	250	1550
3.	KisanGhoshthi	4	100	50	150	20	40	10	50	140	60	200
4.	Exhibition	4	120	70	190	20	15	5	20	135	75	210
5.	Film Show	20	300	50	350	20	15	5	20	315	55	370
6.	Method Demonstrations	2	70	20	90	20	10	-	10	80	20	100
7.	Farmers Seminar	1	40	-	40	20	10	-	10	50	-	50
8.	Workshop	1	40	-	40	20	10	-	10	50	-	50
9.	Group meetings	2	80	5	85	20	10	5	15	90	20	110
10.	Lectures delivered as resource persons	35	7000	500	7500	20	100	40	140	7100	540	7640
11.	Advisory Services	1000	2500	500	3000	20	150	50	200	2650	550	3200
12.	Scientific visit to farmers field	500	1500	60	1560	20	20	-	20	1520	60	1580
13.	Farmers visit to KVK	500	1700	200	1900	20	-	-	-	1700	200	1900
14.	Diagnostic visits	250	500	100	600	20	50	-	50	550	100	650
15.	Exposure visits	4	120	30	150	20	10	-	10	130	30	160
16.	Ex-trainees Sammelan											
17.	Soil health Camp	2	150	50	200	20	12	2	14	162	64	226
18.	Animal Health Camp	2	120	70	190	20	20	5	25	140	75	215
19.	Agri mobile clinic											
20.	Soil test campaigns	2	120	70	190	20	20	10	30	140	80	220

21.	Farm Science Club Conveners meet											
22.	Self Help Group Conveners meetings	2	120	30	150	20	20	5	25	140	35	175
23.	Mahila Mandals Conveners meetings	2	120	30	150	20	20	5	25	140	35	175
24.	Celebration of important days World Earth Day 22/4/19 International Labour Day 1/5/19 World Environment Day 5/6/19 International Yoga Day 21/6/19 International Women Day 8/03/20 National Vigilance Week 30/10/19 to 4/11/19 Nationall Women Farmers Day 15/10/19 Kisan Diwas 23/12/19 World Soil Day 5/12/19 Constitutional Day 26/11/19 National Science Day 28/02/20	11	300	140	440	20	20	10	30	320	150	470
25.	Swatchta Hi Sewa 15/9/19 to 2/10/19	10	350	150	500	20	20	10	30	370	160	530
	Total	<b>2363</b>	<b>17150</b>	<b>2425</b>	<b>19575</b>	<b>440</b>	<b>722</b>	<b>212</b>	<b>934</b>	<b>17872</b>	<b>2659</b>	<b>20531</b>

## 7. Revolving Fund (in Rs.)

Opening balance of 2019-2020 (As on 01.04.2019)	Amount proposed to be invested during 2019-2020	Expected Return
Rs. 10.36909 Lakh	10.0 Lakh (approx)	15.0 Lakh (approx)

## 8. Expected fund from other sources and its proposed utilization

Project	Source	Amount to be received (Rs. in lakh)
CSISA	CIMMYT, INDIA	4.35
CRP on CA	ICAR-CIAE, Bhopal	2.0
CRP on FM & PF	ICAR-CIAE, Bhopal	2.0
<b>Total</b>		<b>8.35</b>

## 9. On-farm trials to be conducted\*

### OFT – 1 (Agronomy)

Season	Rabi
Title of the OFT	Assessment of different sowing schedule of ZT wheat on yield, yield attributes and economics of wheat
Thematic Area	Sowing Window of ZT Wheat
Problem diagnosed	Poor yield of wheat due to delayed sowing
Important Cause	Delayed sowing of wheat and poor initial plant stand under conventional sowing
Production system	Rice-wheat
Micro farming system	Rice-wheat
Technology for Testing	Zero tillage sowing of wheat
Existing Practice	conventional sowing of wheat up to last of December
Hypothesis	Sowing of wheat using ZT minimized the field preparation time and provides the option for advance sowing of wheat. ZT also save the cost of crop establishment and enhance the wheat yield
Objective(s)	<ol style="list-style-type: none"> <li>1. To close yield gaps by late sowing of wheat after rice harvest.</li> <li>2. To quantify the profit margins from no-till planting done at different times.</li> </ol>
Treatments:	Farmers practice- Sowing of wheat started in the month of November to end of December TO-1: 1-15 November wheat sowing by ZT TO-2: 16-30 November wheat sowing by ZT TO-3: 1-15 December wheat sowing by ZT TO-4: 15-31 December wheat sowing by ZT
Critical Inputs	Seed
Unit Size	0.2 ha
No of Replications	05
Unit Cost	Rs 2000
Total Cost	Rs 10000
Monitoring Indicator	Initial plant population, Plant height, No of shoots/m <sup>2</sup> , no of grains/spike, dry weight of wheat/m <sup>2</sup> , 1000 grain weight, Yield, Net return, B:C ratio
Source of Technology	ICAR-RCER, Patna and CSISA-CIMMYT,(India)

## OFT – 2 (Agronomy)

<b>Season</b>	Rabi
<b>Title of the OFT</b>	Effect of water and boron management on terminal heat of late sown wheat
<b>Thematic Area</b>	Water & Nutrient Management
<b>Problem diagnosed</b>	Poor yield of late sown wheat due to terminal heat stress at heading stage
<b>Important Cause</b>	Delayed sowing of wheat and no application of irrigation at heading stage
<b>Production system</b>	Rice-wheat
<b>Micro farming system</b>	Rice-wheat
<b>Technology for Testing</b>	Application of irrigation water and foliar spray of 05% borax
<b>Existing Practice</b>	No use of irrigation water and borax at heading stage
<b>Hypothesis</b>	Combination of irrigation and application of boron at before flowering increase the uptake of boron in crop resulting more wheat yield and availability of moisture fight against terminal heat stress
<b>Objective(s)</b>	<ol style="list-style-type: none"> <li>1. To understand the interaction of irrigation &amp; Boron and its effect on sterility in wheat.</li> <li>2. A trail with one set of three treatments with different numbers of irrigation will be conducted on multiple farmer's field.</li> </ol>
<b>Treatments:</b>	Farmers practice (No use of Boron+ 3 irrigation) TO1: 3 irrigation + 5% Borax at 75-80 DAS (5 g/liter) TO2: 4 irrigation + No use of Boron TO3: 4 irrigation + 5% Borax at 75-80 DAS (5 g/liter)
<b>Critical Inputs</b>	Seed and borex
<b>Unit Size</b>	0.2 ha
<b>No of Replications</b>	05
<b>Unit Cost</b>	Rs 2500
<b>Total Cost</b>	Rs 12500
<b>Monitoring Indicator</b>	Initial plant population, Plant height, No of shoots/m <sup>2</sup> , no of grains/spike, dry weight of wheat/m <sup>2</sup> , 1000 grain weight, Yield, Net return, B:C ratio
<b>Source of Technology</b>	ICAR-RCER, Patna and CSISA-CIMMYT,(India)

### OFT – 3 (Soil Science)

<b>Season</b>	Rabi
<b>Title of the OFT</b>	Assessment of conservation agriculture practice on yield of lentil in Rice-Lentil cropping system
<b>Thematic Area</b>	Soil and Water conservation
<b>Problem diagnosed</b>	Low yield of lentil crop due to no follow of proper cultivation sowing practice in rice- lentil cropping system.
<b>Important Cause</b>	No follow of proper cultivation sowing practice caused low yield of lentil in rice wheat cropping system .
<b>Production system</b>	<b>Rice- Lentil</b>
<b>Micro farming system</b>	<b>Lentil cropping system</b>
<b>Technology for Testing</b>	Assessment
<b>Existing Practice</b>	Para Cultivation
<b>Hypothesis</b>	The recommendation technology of the conservation agriculture practice zero tillage and one ploughing with line sowing may enhance the productivity of lentil in rice-lentil cropping system.
<b>Objective(s)</b>	<b>to assess conservation practice on yield of lentil in rice- lentil cropping system.</b>
<b>Treatments:</b>	Farmers Practice (FP): (Para cultivation.)  T1: One ploughing with line sowing practice.  T2: Zero tillage practice
<b>Critical Inputs</b>	<b>Seed, Zero tillage implements and plant protection chemical.</b>
<b>Unit Size</b>	<b>1000 m<sup>2</sup>.</b>
<b>No of Replications</b>	10
<b>Unit Cost</b>	Rs. 615/-
<b>Total Cost</b>	Rs. <b>6150/-</b>
<b>Monitoring Indicator</b>	<b>No. of plant population / m<sup>2</sup>, no of branches , plant height, biomass , yield grain and straw.</b>
<b>Source of Technology</b>	BAU Sabour, Bhagalpur.

### OFT – 4 (Soil Science)

<b>Season</b>	Rabi
<b>Title of the OFT</b>	Effect of zinc and bio fertilizer application on yield and yield attribute characters of chick pea
<b>Thematic Area</b>	Micro nutrients deficiency
<b>Problem diagnosed</b>	Low yield of chickpea due to imbalance use of nutrients because zinc sulphate and Rhizobium culture play a vital role to enhance nodule formation and pod formation
<b>Important Cause</b>	Improper application of NPK S, Zinc sulphate and bio- fertilizers .
<b>Production system</b>	<b>Rice –Chickpea cropping system.</b>
<b>Micro farming system</b>	<b>Rice –Chickpea cropping system.</b>
<b>Technology for Testing</b>	Assessment

<b>Existing Practice</b>	no application of Zinc sulphate and Rhizobium culture )
<b>Hypothesis</b>	The soil test based recommendation the manure and fertilizers use may enhance the productivity in Chickpea
<b>Objective(s)</b>	Effect of zinc and bio fertilizer application on yield and yield attribute characters of chick pea .
<b>Treatments:</b>	Farmers Practice: (no application of Zinc sulphate and Rhizobium culture ) T1: RDF(NPK18:40:20) Kg/ha+ 20 kg Zinc sulphate/ha .  T2: RDF(NPK18:40:20) Kg/ha+ 25 kg Zinc sulphate with Rhizobium/ha
<b>Critical Inputs</b>	<b>Seed, zinc sulphate , borax , Rhizobium culture and plant protection chemical.</b>
<b>Unit Size</b>	<b>1000 m<sup>2</sup>.</b>
<b>No of Replications</b>	10
<b>Unit Cost</b>	Rs. 615/-
<b>Total Cost</b>	Rs. <b>6150/-</b>
<b>Monitoring Indicator</b>	No of nodules, <b>no. of branches , plant height (cm), biomass , grain and straw yield , test weight (gm) .</b>
<b>Source of Technology</b>	IIPR, Kanpur.

#### **OFT – 5(Plant Breeding)**

<b>Season</b>	Rabi
<b>Title of the OFT</b>	Evaluation of chickpea late sown Variety in Buxar district
<b>Thematic Area</b>	Varietal evaluation
<b>Problem diagnosed</b>	Buxar is dominated in rice wheat cropping system. Farmer's practices get delayed in kharif due to late on set of monsoon. This delayed leads to delayed in sowing of rabi crops.Hence Chickpea yield is directly affected.
<b>Important Cause</b>	Low yield of chickpea
<b>Production system</b>	Agri Horti
<b>Micro farming system</b>	Agri Horti
<b>Technology for Testing</b>	For late condition varietal evaluation
<b>Existing Practice</b>	Farmers use old variety of chickpea
<b>Hypothesis</b>	Existing var. is found low yielding as will be evaluated with HYV of Pusa 362 and Pusa 547
<b>Objective(s)</b>	To replace the existing var. to HYV
<b>Treatments:</b>	Farmers practices – Pusa 362 T1- Pusa 547 T2- Pusa 3043
<b>Critical Inputs</b>	Seed, Seed treatment (FIR), Fertilizer
<b>Unit Size</b>	200m <sup>2</sup>
<b>No of Replications</b>	10
<b>Unit Cost</b>	800/-
<b>Total Cost</b>	8000/-
<b>Monitoring Indicator</b>	No. of Pods, Hundred grain weight, Net return & B:C ratio
<b>Source of Technology</b>	ICAR-IARI, New Delhi

### OFT – 6 (Plant Breeding)

<b>Season</b>	Kharif
<b>Title of the OFT</b>	Assessment of varietal & Nutrient management of Pigeon Pea in district Buxar.
<b>Thematic Area</b>	Nutrient management
<b>Problem diagnosed</b>	Flower dropping & grain filling problem in old variety of pigeon pea due to climate changes in buxar district.
<b>Important Cause</b>	Low yield of Pigeon Pea
<b>Production system</b>	Agri Horti
<b>Micro farming system</b>	Agri Horti
<b>Technology for Testing</b>	Nutrient Managment
<b>Existing Practice</b>	No use of micro nutrient managment
<b>Hypothesis</b>	Flower dropping and grain filling problem in existing var. will be replaced by the technology IPA 203 + Basal application of Micro nutrient (Molybdenum + Boron @1.0 kg/ha) and Foliar application of micro nutrient (Molybdenum + Boron @ 0.2%)
<b>Objective(s)</b>	Problem of the flower dropping will be checked y the trail.
<b>Treatments:</b>	<p>Farmers practice (Narendra Arhar 1)</p> <p>T<sub>1</sub> IPA 203 + Basal Application of Micro nutrient (Molybdenum and Boron @1.0 kg/ha)</p> <p>T<sub>2</sub> IPA 203 + Basal application of Micro nutrient (Molybdenum + Boron @1.0 kg/ha) + Foliar application of micro nutrient (Molybdenum + Boron @ 0.2%)</p>
<b>Critical Inputs</b>	Seed, Seed treatment (FIR), Fertilizer
<b>Unit Size</b>	200 m <sup>2</sup>
<b>No of Replications</b>	10
<b>Unit Cost</b>	1000/-
<b>Total Cost</b>	Rs. 10000/-
<b>Monitoring Indicator</b>	No of pod/ plant, No of grains/earhead, 1000 grain weight, Yield (kg/ha), Net return, B:C ratio
<b>Source of Technology</b>	ICAR- IIPR, Kanpur

### OFT – 7 (Plant Protection)

<b>Season</b>	Kharif
<b>Title of the OFT</b>	Assessment of new chemical molecules for the management of Rice Stem Borer ( <i>Scirpophya gaincertulas</i> )
<b>Thematic Area</b>	IPM
<b>Problem diagnosed</b>	Yellow stem borer is a serious pest of rice in the district. Stem borer occurs both in kharif and rabi seasons. Moderate to severe incidence is noticed in nursery, planting to mid-tillering and panicle initiation stages. Heavy infestation results in 40-60 per cent yield loss.
<b>Important Cause</b>	The larvae bore into the plant as a result of which the central shoot of the young plant dries up causing “dead hearts”. In older plants the whole earhead become whitish and chaffy. Loss caused to rice production by this very pest in different regions and seasons varies from 5-90%.
<b>Production system</b>	Irrigated
<b>Micro farming system</b>	
<b>Technology for Testing</b>	<b>New chemical molecule</b> Chlorantraniliprole + Thiamethoxam @2.5 kg/acre
<b>Existing Practice</b>	Application of Cartap hydrochloride 4 G
<b>Hypothesis</b>	Use of new and combination of formulation of chemical insecticide will help to check the damage severity
<b>Objective(s)</b>	<b>To minimize the pest population below the Economic Threshold Level to avoid economic damage and sustainable agriculture.</b>
<b>Treatments:</b>	Farmers Practice (FP): T1: Chlorantraniliprole + Thiamethoxam @2.5 kg/acre  T2: Fipronil 0.3 @ 8 kg/ acre  T3: Carbofuron 3 G @ 13 kg/acre
<b>Critical Inputs</b>	Chemical pesticides
<b>Unit Size</b>	1/4 acre 1000 m <sup>2</sup>
<b>No of Replications</b>	5
<b>Unit Cost</b>	Rs. 1500/-
<b>Total Cost</b>	Rs. 7500/-
<b>Monitoring Indicator</b>	Dead heart at tillering and panicle initiation stage, egg mass/m <sup>2</sup> , pest infestation, yield/ha and BC ratio.
<b>Source of Technology</b>	<b>(Indian Institute of Rice Research, Hyderabad)</b>



### OFT – 8 (Plant Protection)

<b>Season</b>	Rabi 2019-20
<b>Title of the OFT</b>	Assessment of new combination of insecticide against <i>Helicoverpa</i> in chickpea crop
<b>Thematic Area</b>	IPM
<b>Problem diagnosed</b>	Chickpea, ( <i>Cicer arietinum</i> L.) is an important pulse crop in the district and the <i>Helicoverpa armigera</i> , is the serious which causes both quantitative and qualitative losses.
<b>Important Cause</b>	On an average, 30 – 40% pods were found to be damaged by this pest and an average of 400 kg/ha grain was lost by the borer (Rahman, 1990). In favourable condition, pod damage goes upto 90-95 per cent (Shengal and Ujagir, 1990). Preference of insecticides depends on their easy availability and applicability, but their excessive and indiscriminate use has resulted in the development of insecticidal resistance in the pests and environmental pollution (Phokela et al., 1990)
<b>Production system</b>	Rainfed
<b>Micro farming system</b>	Rice-wheat cropping system
<b>Technology for Testing</b>	Efficacy of insecticides combination to control Gram Pod borer ( <i>H. armigera</i> ) in chickpea crop for Buxar district.
<b>Existing Practice</b>	Application of pesticides
<b>Hypothesis</b>	Use of new, safe chemical molecules will bring the pest population below ETL and also to check the development of insecticide resistance.
<b>Objective(s)</b>	To minimize the <i>H. armigera</i> population below the economic injury level.
<b>Treatments:</b>	Farmers Practice (FP): (Lambdacyhalothrin) T1: Emamectin benzoate 1.9 EC @232 ml/ acre T2: Emamectin benzoate 1.5 + Fipronil 3.5 SC @ 250 ml/acre T3: Flubendiamide 480 SC @ 40 g/acre
<b>Critical Inputs</b>	Chemical pesticides
<b>Unit Size</b>	1/4 acre 1000 m <sup>2</sup>
<b>No of Replications</b>	5
<b>Unit Cost</b>	Rs. 1500/-
<b>Total Cost</b>	Rs. 7500/-
<b>Monitoring Indicator</b>	Incidence of <i>H. armigera</i> , percent pod damage, Yield/ha, BC ratio
<b>Source of Technology</b>	IIPR Kanpur

### 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.)
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11. No. of success stories proposed to be developed with their tentative titles:- 05

### 12. Scientific Advisory Committee

Date of SAC meeting held during 2018-19	Proposed date during 2019-2020
25-July, 2018	25-July-2019



### 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	200	20	05	-	-	160	15	180	20	200	08	350
Water Samples	20	02	-	-	-	18	-	20	-	20	02	20
Other (Please specify)												
Total	220	22	05	-	-	178	15	200	20	220	10	370

### 14. Fund requirement and expenditure (Rs.)\*

Heads	Expenditure (last year) (Rs.) up to 31.03.2019	Expected fund requirement (Rs.)
Pay & Allowances	12185891	<b>14000000</b>
TA	47922	<b>250000</b>
Research & Operational Expenses		<b>200000</b>
A. Research Expenses	13200	
B. Operational Expenses	120099	
Administrative Expenses :-		<b>800000</b>
A. Infrastructure	136947	
B. Communication	516	
C. Repair & Maintenance	70037	
D. Others (excluding TA)	376515	
<b>Total Administrative Expenses</b>	<b>584015</b>	
Total General / Contingencies	850360	<b>1500000</b>
Capital Expenses	376986	<b>700000</b>
<b>Total</b>	<b>13413237</b>	<b>17450000</b>

\* 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

- Organic farming in vegetable growing area.
- Sowing of Wheat through ZT.
- Sowing of Wheat through Happy seeder.
- Varieties of Chickpea (Var.) & Lentil (Var.) crops accepted widely.
- Bee keeping 08 units established in the district.