KRISHI VIGYAN KENDRA, NARKATIAGANJ,

WEST CHAMPARAN

ANNUAL ACTION PLAN

(APRIL, 2023 to MARCH, 2024)

DR. RAJENDRA PRASAD CENTRAL AGRICULTURAL UNIVERSITY, PUSA, SAMASTIPUR (BIHAR)

A. Practicing farmer/Farm women training:

Month	Thematic area	Title	No of courses	Duration (days)	Venue On/Off	Tentative date	No of participants								Grand total
							SC		ST		Others		Total		
							M	F	M	F	M	F	M	F	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Discipline: Crop Production															
April, 2023 to June, 2023															
April	Crop Production	Summer mungbean production technology	1	1	On/Off	01/04/2023	4	0	0	0	22	4	26	4	30
	Farm mechanization	Leaser land leveling	1	1	On/Off	21/04/2023	6	4	0	0	20	0	26	4	30
May	Crop Production	Scientific rice cultivation technology	1	1	On/Off	12/05/2023	0	0	6	0	20	4	26	4	30
	Crop Production	Package and practices of direct seeded rice cultivation	1	1	On/Off	27/05/2023	4	0	0	0	22	4	26	4	30
June	INM	Integrated nutrient management in rice	1	1	On/Off	02/06/2023	0	0	6	2	18	4	24	6	30
	IWM	Integrated weed management in direct seeded rice	1	1	On/Off	16/06/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
July, 2023 to September, 2023															
July	INM	Micronutrient management in rice	1	1	On/Off	07/07/2023	4	0	0	0	22	4	26	4	30
	Crop Production	Direct seeded rice cultivation technology	1	1	On/Off	22/07/2023	6	4	0	0	20	0	26	4	30
August	Crop Production	Production technique of pigeon pea	1	1	On/Off	04/08/2023	0	0	6	0	20	4	26	4	30
	INM	Integrated nutrient management of pigeon pea	1	1	On/Off	18/08/2023	4	0	0	0	22	4	26	4	30

September	Composting	Scientific production techniques of organic manure	1	1	On/Off	02/09/2023	0	0	6	2	18	4	24	6	30
	Crop Production	Package and practices of mustard production	1	1	On/Off	15/09/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
October, 2023 to Dec, 2023															
October	Crop Production	Package and practices of lentil production	1	1	On/Off	13/10/2023	4	0	0	0	22	4	26	4	30
	Crop Production	Agronomic practices for chickpea production	1	1	On/Off	20/10/2023	6	4	0	0	20	0	26	4	30
November	Bio-fertilizer	Bio-fertilizer application on lentil	1	1	On/Off	10/11/2023	0	0	6	0	20	4	26	4	30
	IWM	Integrated weed management in mustard	1	1	On/Off	18/11/2023	4	0	0	0	22	4	26	4	30
December	IWM	Integrated weed management in mustard	1	1	On/Off	01/12/2023	0	0	6	2	18	4	24	6	30
	Crop Production	Production technology of potato	1	1	On/Off	22/12/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
January, 2024 to March, 2024															
January	INM	Integrated nutrient management in wheat crops	1	1	On/Off	06/01/2024	4	0	0	0	22	4	26	4	30
	IWM	Integrated weed management in wheat	1	1	On/Off	12/01/2024	6	4	0	0	20	0	26	4	30
February	Crop Production	Ratoon management in sugarcane	1	1	On/Off	02/03/2024	0	0	6	0	20	4	26	4	30
	Crop Production	Production techniques of minor millets	1	1	On/Off	23/02/2024	4	0	0	0	22	4	26	4	30

March	INM	Integrated nutrient management of sugarcane	1	1	On/Off	08/03/2024	0	0	6	2	18	4	24	6	30
	Crop Production	Agronomical practices of summer moongbean	1	1	On/Off	23/03/2024	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
		Grand Total	**24**	**24**			**76**	**24**	**48**	**8**	**488**	**76**	**612**	**108**	**720**
Discipline: Plant Protection															
April, 2023 to June, 2023															
April	Disease Management	Identification and management of important diseases in mango	1	1	On/Off	03/04/2023	4	0	0	0	22	4	26	4	30
	Biocontrol	Importance of *Trichoderma* sp. in sugarcane diseases management	1	1	On/Off	10/04/2023	6	4	0	0	20	0	26	4	30
May	Disease Management	Seed treatment in rice	1	1	On/Off	01/05/2023	0	0	6	0	20	4	26	4	30
	Disease Management	Diseases of rice and their management	1	1	On/Off	08/05/2023	4	0	0	0	22	4	26	4	30
June	Disease Management	Diseases of rice and their management	1	1	On/Off	05/06/2023	0	0	6	2	18	4	24	6	30
	Disease Management	Identification and management of important diseases in mango	1	1	On/Off	12/06/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
July, 2023 to September, 2023															
July	Disease Management	Identification and management of red rot in sugarcane	1	1	On/Off	03/07/2023	4	0	0	0	22	4	26	4	30
	Disease Management	Management of diseases in sugarcane	1	1	On/Off	10/07/2023	6	4	0	0	20	0	26	4	30
August	Disease Management	Integrated disease management in rice	1	1	On/Off	07/08/2023	0	0	6	0	20	4	26	4	30

	Disease Management	Bacterial blight of rice and their management	1	1	On/Off	14/08/2023	4	0	0	0	22	4	26	4	30
September	Disease Management	Wilt of pigeonpea and their management	1	1	On/Off	04/09/2023	0	0	6	2	18	4	24	6	30
	Insect Pest Management	Integrated insect pest management in sugarcane	1	1	On/Off	11/09/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
October, 2023 to Dec, 2023															
October	IDM	Insect pest management in vegetable crops through bio-pesticides	1	1	On/Off	09/10/2023	4	0	0	0	22	4	26	4	30
	IPM	Pod borer and Pod fly management in Arhar	1	1	On/Off	16/10/2023	6	4	0	0	20	0	26	4	30
November	IPM	Pod borer management in gram	1	1	On/Off	06/11/2023	0	0	6	0	20	4	26	4	30
	Disease Management	Blight identification in potato and their management	1	1	On/Off	13/11/2023	4	0	0	0	22	4	26	4	30
December	Disease Management	Disease management in wheat crop	1	1	On/Off	04/12/2023	0	0	6	2	18	4	24	6	30
	IPM	Pest management in wheat crop	1	1	On/Off	11/12/2023	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
January, 2024 to March, 2024															
January	IPDM	Disease and pest management in maize crop	1	1	On/Off	01/01/2024	4	0	0	0	22	4	26	4	30
	Biocontrol	Biocontrol agent and their use in management of plant diseases	1	1	On/Off	08/01/2024	6	4	0	0	20	0	26	4	30

February	IPDM	Disease and pest management in moong crop	1	1	On/Off	05/02/2024	0	0	6	0	20	4	26	4	30
	IPDM	Disease and pest management in oilseed crop	1	1	On/Off	12/02/2024	4	0	0	0	22	4	26	4	30
March	Disease Management	Sett treatment in sugarcane for soil and set borne diseases	1	1	On/Off	04/03/2024	0	0	6	2	18	4	24	6	30
	Biocontrol	Use of *Trichoderma* and *Pseudomonas* in management of sugarcane diseases	1	1	On/Off	11/03/2024	5	2	0	0	20	3	25	5	30
		Total	**6**	**6**			**19**	**6**	**12**	**2**	**122**	**19**	**153**	**27**	**180**
		Grand Total	**24**	**24**			**76**	**24**	**48**	**8**	**488**	**76**	**612**	**108**	**720**
Discipline: Farm Machinery and Power															
April, 2023 to June, 2023															
April	Crop-harvesting	Wheat harvesting technologies	1	1	On/Off	06/04/2023	4	3	0	0	22	1	26	4	30
	Micro-irrigation	Micro-irrigation techniques to save water resources	1	1	On/Off	20/04/2023	6	4	0	0	16	4	22	8	30
May	Others	Site selection and design criteria for farm pond construction	1	1	On/Off	11/05/2023	3	3	0	0	23	1	26	4	30
	Farm mechanization	Farm mechanization a sustainable and effective way to double farmers income	1	1	On/Off	25/05/2023	4	1	0	2	20	3	26	4	30
June	SPIS	Solar powered irrigation system (SPIS) introduction, merits/ demerits, installation location and its types.	1	1	On/Off	13/06/2023	10	0	0	0	20	0	30	0	30
	Direct sowing of rice techniques	Technologies for direct sowing of	1	1	On/Off	17/06/2023	4	0	5	0	21	0	25	0	30

		rice, its importance, merits and demerits													
		Total	**6**	**6**			**31**	**11**	**5**	**2**	**122**	**9**	**155**	**20**	**180**
July, 2023 to September, 2023															
July	Weed Management	Weed management in paddy crop for kharif season	1	1	On/Off	04/07/2023	5	0	0	0	26	0	31	0	31
	Weed management	Various weed management methods and it's various available technologies	1	1	On/Off	21/07/2023	0	0	24	0	6	0	30	0	30
August	Repair and Maintenance of farm machinery and implements	Calibration of different agricultural machineries	1	1	On/Off	25/08/2023	4	3	0	0	22	1	26	4	30
	Water management	Various micro irrigation techniques for water saving	1	1	On/Off	29/08/2023	2	2	0	0	26	0	28	2	30
September	Repair and Maintenance of farm machinery	Care and maintenance of Agricultural Equipment	1	1	On/Off	15/09/2023	6	4	0	0	16	4	22	8	30
	Others	Solar powered Irrigation system, a way to use green energy for agricultural purpose	1	1	On/Off	29/09/2023	4	3	0	0	22	1	26	4	30
		Total	**6**	**6**			**21**	**12**	**24**	**0**	**118**	**06**	**163**	**18**	**181**
October, 2023 to Dec, 2023															
October	Repair and Maintenance of farm machinery and implements	Technologies for sugarcane bud and node making to increase farm mechanization	1	1	On/Off	06/10/2023	2	0	0	0	26	2	28	2	30
	Others	Role and classification of different farm machineries and equipment's for	1	1	On/Off	13/10/2023	7	4	0	0	17	2	24	6	30

		Rabi crop production													
November	Others	Operation and maintenance of Zero Till machine for sowing of wheat	1	1	On/Off	03/11/2023	4	5	0	0	16	5	20	10	30
	Production of small tools and implements	Implements and Equipment's for Land levelling and shaping for better resource use	1	1	On/Off	10/11/2023	6	1	0	0	20	3	26	4	30
December	Others	Manual Rice- wheat seeder for direct wheat sowing, a low -cost method for wheat sowing	1	1	On/Off	08/12/2023	6	1	0	0	20	3	26	4	30
	Others	Selection criteria and Operation & Maintenance of Farm Tractor	1	1	On/Off	22/12/2023	4	3	0	0	22	1	26	4	30
		Total	**6**	**6**			**29**	**14**	**0**	**0**	**121**	**16**	**150**	**30**	**180**
January 2024, to March, 2024															
January	Others	Various weed management for wheat, how to select appropriate method based upon utility.	1	1	On/Off	05/01/2024	4	3	0	0	22	1	26	4	30
	Installation and maintenance of micro irrigation systems	Site specific based nutrient management techniques.	1	1	On/Off	19/01/2024	4	5	0	0	16	5	20	10	30
February	Water management	Maintenance of drip/sprinkler system	1	1	On/Off	02/02/2024	6	1	0	0	20	3	26	4	30
	Input management	Precision agriculture to optimize input resources	1	1	On/Off	16/02/2024	4	3	0	0	22	1	26	4	30
March	Erosion management	Technologies options available for	1	1	On/Off	- 16/03/2024	5	3	0	0	24	1	29	4	33

		land transformation: - Laser land levellor													
	Others	Various techniques to harness green energy and methods to reduce air/water/ land pollution	1	1	On/Off	23/03/2024	4	3	0	0	25	1	29	4	33
		Total	**6**	**6**			**27**	**18**	**0**	**0**	**123**	**12**	**150**	**30**	**180**
		Grand Total	**24**	**24**			**108**	**55**	**29**	**2**	**484**	**43**	**618**	**98**	**721**
Discipline: Animal Science (Veterinary Science)															
April, 2022 to June, 2022															
April	Dairy animal management	Management of dairy animals in summer season	1	1	Off	12/04/22	24	0	0	0	7	0	31	0	31
	Dairy animal management	Scientific dairy farming	1	1	Off	19/04/22	4	0	0	0	24	0	28	0	28
May	Disease Management	Health management in goat	1	1	Off	10/05/22	19	0	0	0	7	1	26	1	27
	Feeding Management	Feeding management of dairy cattle	1	1	Off	17/05/22	6	0	0	0	21	0	27	0	27
June	Dairy animal management	Clean milk production	1	1	On	07/06/22	5	0	0	0	29	1	34	1	35
	Feeding Management	Feeding management of dairy cattle	1	1	Off	14/06/22	21	7	0	0	2	1	23	8	31
	Dairy animal management	Scientific dairy farming	1	1	Off	21/06/22	5	0	0	0	38	0	43	0	43
		Total	**7**	**7**			**84**	**7**	**0**	**0**	**128**	**03**	**212**	**10**	**222**
July, 2023 to September, 2023															
July	Dairy animal management	Azolla production and use as animal feed	1	1	On	26/07/22	3	22	0	0	8	0	11	22	33
	Housing of goat	Different types of housing systems for goat	1	1	On/off	16/08/22	7	1	5	0	14	3	26	4	30
August	Feed management	Production and preservation of	1	1	On/off	23/08/22	7	1	5	0	14	3	26	4	30

		green fodder round the year													
	Disease management	Important bacterial, viral and parasitic diseases in goat	1	1	On/off	06/09/22	7	1	5	0	14	3	26	4	30
September	Layer Production	Important breed and its scope	1	1	On/off	20/09/22	7	1	5	0	14	3	26	4	30
		Total	**5**	**5**			**31**	**26**	**20**	**0**	**64**	**12**	**115**	**38**	**153**
October, 2023 to Dec, 2023															
October	Poultry rearing	Commercial broiler and layer farming	1	1	On/Off	11/10/22	7	1	5	0	14	3	26	4	30
	Housing management	Different types of housing system in poultry	1	1	On/Off	18/10/22	7	1	5	0	14	3	26	4	30
November	Feeding Management	Feeding schedule for poultry in different production system	1	1	On/Off	08/11/22	7	1	5	0	14	3	26	4	30
	Disease management in Chicken	Important bacterial, viral and parasitic diseases in poultry	1	1	On/Off	22/11/22	7	1	5	0	14	3	26	4	30
December	Milk hygiene	Clean milk production in dairy animals	1	1	On/Off	06/12/22	7	1	5	0	14	3	26	4	30
	Fodder management	Preservation of feeds and fodders	1	1	On/Off	20/12/22	7	1	5	0	14	3	26	4	30
		Total	**6**	**6**			**42**	**6**	**30**	**0**	**84**	**18**	**156**	**24**	**180**
January 2024, to March, 2024															
January	Dairy Animal Management	Management of dairy animals during different stages of production	1	1	On/Off	10/01/24	7	1	5	0	14	3	26	4	30
	Disease Management	Preventive and curative measures for different diseases in animals	1	1	On/Off	17/01/24	7	1	5	0	14	3	26	4	30
February	Feeding management	Scope and limitation of feeding balanced ration and total	1	1	On/Off	08/02/24	7	1	5	0	14	3	26	4	30

		mixed ration in animals													
	Housing management	Different types of housing system and its importance in animals	1	1	On/Off	22/02/24	2	1	5	0	14	3	21	4	25
March	Waste management	Different technique for management of animals waste in dairy farm	1	1	On/Off	13/03/24	2	1	5	0	14	3	21	4	25
	Animal health	Control measures of Ecto & Endo parasites in cattle	1	1	On/Off	20/03/24	2	1	5	0	14	3	21	4	25
		Total	**6**	**6**			**27**	**6**	**30**	**0**	**84**	**18**	**141**	**24**	**165**
		Grand Total	**24**	**24**			**184**	**45**	**80**	**0**	**360**	**59**	**624**	**96**	**720**

B. Rural Youth training:

Month	Thematic area	Title	No of courses	Duration (days)	Venue On/Off	Tentative date	No of participants								Grand total
							SC		ST		Others		Total		
							M	F	M	F	M	F	M	F	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Discipline: Crop Production															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
September	Crop production	Scientific techniques of sugarcane settling production	1	4	On	20 – 23/09/2022	4	0	0	0	19	2	23	2	25
October, 2023 to Dec, 2023															
January, 2024 to March, 2024															
January	Composting technique	Vermicompost preparation techniques	1	4	On	24 – 27/01/2024	4	0	0	0	19	2	23	2	25
		Total	**2**	**8**			**8**	**0**	**0**	**0**	**38**	**4**	**46**	**4**	**50**
Discipline: Plant Protection															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
August	Mushroom production	Mushroom production technique	1	4	On	08 – 11/08/2022	4	0	0	0	19	2	23	2	25
October, 2023 to Dec, 2023															
October	Beekeeping	Honey Bee Farming	1	4	On	10-13/10/2023	4	0	0	0	19	2	23	2	25
January, 2024 to March, 2024															
		Total	**2**	**8**			**8**	**0**	**0**	**0**	**38**	**4**	**46**	**4**	**50**
Discipline: Farm Machinery and Power															
April, 2023 to June, 2023															
July, 2023 to September, 2023															

October, 2023 to Dec, 2023															
October	Water Management	Installation, operation and maintenance of Solar powered irrigation system	1	4	On/Off	17-21/10/2023	10	1	0	0	15	4	25	5	30
January, 2024 to March, 2024															
February	Repair and maintenance of farm machinery and implements	Role, classification and use of different Farm tools, implements and machineries in agriculture	1	4	On/Off	20-24/02/2024	8	4	0	0	16	2	24	6	30
		Total	**2**	**8**			**18**	**5**	**0**	**0**	**31**	**6**	**49**	**11**	**60**
Discipline: Animal Science (Veterinary Science)															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
September	IFS	Livestock based IFS model	1	4	On/Off	13-16/09/2023	7	1	5	0	14	3	26	4	30
October, 2023 to Dec, 2023															
October	IFS	Commercial dairy farming	1	4	On/Off	16-19/10/2023	7	1	5	0	14	3	26	4	30
January, 2024 to March, 2024															
		Total	**2**	**8**	**0**	**0**	**14**	**2**	**10**	**0**	**28**	**6**	**52**	**8**	**60**

C. **Vocational training**:

Month	Thematic area	Title	No of courses	Duration (days)	Venue On/Off	Tentative date	No of participants								Grand total
							SC		ST		Others		Total		
							M	F	M	F	M	F	M	F	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Discipline: Crop Production															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
October	Crop production	Scientific cultivation of Rabi crops	1	5	On	03 – 07/10/2023	8	0	0	0	20	2	28	2	30
January, 2024 to March, 2024															
		Total	**1**	**5**			**8**	**0**	**0**	**0**	**20**	**2**	**28**	**2**	**30**
Discipline: Plant Protection															
April, 2023 to June, 2023															
April	Biocontrol	Biofortified FYM production with the use of Agriculturally important microbes	1	5	On	10 – 14/04/2023	8	0	0	0	20	2	28	2	30
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
January, 2024 to March, 2024															
		Total	**1**	**5**			**8**	**0**	**0**	**0**	**20**	**2**	**28**	**2**	**30**
Discipline: Farm Machinery and Power															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															

January, 2024 to March, 2024															
November	Renewable energy based irrigation	Solar powered irrigation system	1	5	On/Off	06-11/02/2024	9	2	0	0	11	8	20	10	30
		Total	**1**	**5**			**9**	**2**	**0**	**0**	**11**	**8**	**20**	**10**	**30**
Discipline: Animal Science (Veterinary Science)															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
January, 2024 to March, 2024															
March	Goat farming	Commercial goat farming and its management	1	5		11-15/03/2024	7	1	5	0	14	3	26	4	30
		Total	**1**	**5**			**7**	**1**	**5**	**0**	**14**	**3**	**26**	**4**	**30**

D. Extension Functionaries training:

Month	Thematic area	Title	No of courses	Duration (days)	Venue On/Off	Tentative date	No of participants								Grand total
							SC		ST		Others		Total		
							M	F	M	F	M	F	M	F	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Discipline: Crop Production															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
November	Crop production	Zero tillage wheat production techniques	1	1	On	03/11/2023	4	0	0	0	19	2	23	2	25
January, 2024 to March, 2024															
February	Crop production	Quality seed production in sugarcane	1	1	On	09/02/02024	4	0	0	0	19	2	23	2	25
	Total		**2**	**2**			**8**	**0**	**0**	**0**	**38**	**4**	**46**	**4**	**50**
Discipline: Plant Protection															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
November	Biocontrol	Biopesticide in management of plant diseases	1	1	On	09/11/2023	4	0	0	0	19	2	23	2	25
January, 2024 to March, 2024															
February	Crop production	Recent approaches in management of plant diseases	1	1	On	08/02/02024	4	0	0	0	19	2	23	2	25
		Total	**2**	**2**			**8**	**0**	**0**	**0**	**38**	**4**	**46**	**4**	**50**
Discipline: Farm Machinery and Power															
April, 2023 to June, 2023															

July, 2023 to September, 2023															
September	Care and Maintenance of Farm equipments and Machineries	Care & maintenance of tillage, sowing and intercultural equipment's and machines	1	1	On/Off	22/09/2023	2	0	0	0	21	0	23	2	25
October, 2023 to Dec, 2023															
October	Renewable Energy	Use of SPIS for increasing the use of green energy	1	1	On/Off	27/10/2023	4	0	0	0	19	2	23	2	25
January, 2024 to March, 2024															
		Total	**2**	**2**			**6**	**0**	**0**	**0**	**40**	**2**	**46**	**4**	**50**
Discipline: Animal Science (Veterinary Science)															
April, 2023 to June, 2023															
July, 2023 to September, 2023															
October, 2023 to Dec, 2023															
January, 2024 to March, 2024															
January	Scientific farming	Commercial cultivation of vegetable crops	1	1	On/Off	10/01/2024	5	3	2	0	13	3	20	5	25
March	Protective cultivation technology	Protective cultivation technique of high value vegetable crops.	1	1	On/Off	15/02/2024	3	3	0	0	18	1	21	4	25
		Total	**2**	**2**			**8**	**6**	**2**	**0**	**31**	**4**	**41**	**9**	**50**

E. Front Line Demonstrations:

Season	Crop/Enterprise	Technology/Variety	Area (ha)	No. of Beneficiaries
Discipline: Crop Production				
Kharif	Zinc application in rice	Foliar application of Zn at tillering, panicle initiation and pre-flowering stage @ 0.5% Zn	2.0	20
Rabi	Bio-fortified wheat variety	Wheat variety DBW–187/WB–02/others	2.0	10
		Total	**4.0**	**30**
Discipline: Plant Protection				
Autumn	Sugarcane settling transplanting technique	Rajendra Ganna 3 (500 settlings/farmer)	0.25	10
		Total	**0.25**	**10**
Discipline: Farm Machinery and Power				
Kharif	DSR with rice-wheat seeder	Paddy direct sowing using manual rice-wheat seeder	2.0	10
		Total	**2.0**	**10**
Discipline: Animal Science (Veterinary Science)				
	Combined vaccination for FMD, HS and BQ in dairy animal	Combined vaccination for FMD, HS and BQ @ 3 ml/animal	30 family	50 animals
	Deworming and PPR vaccination in goat	PPR @ 1.0 ml/animal and fenbendazole @ 5mg/kg body wt.	30 family	100 goats
		Total	**60 family**	**120**

F. Cluster Front Line Demonstrations:

Season	Crop	Technology/Variety	Area (ha)	No. of Beneficiaries
Discipline: Crop Production				
Rabi	Rapeseed/Mustard	Rajendra Sufhalam/Giriraj (DRMRIJ 31) (ZT, IPM, INM)	40	100
		Total	**40**	**100**
Discipline: Plant Protection				
Rabi	Lentil	IPL 316	20	50
Rabi	Chickpea	RVG 202	20	50
		Total	**40**	**100**

G. On Farm Trial (OFT) for the Year, 2023–2024:

Discipline: Crop Production

OFT: 01

1	**Title of On Farm Trial**	**Improvement of nitrogen use efficiency in wheat**
2	**Problem Diagnose**	Excessive use of chemical fertilizer and spiraling price of urea leads to increase in cost of cultivation
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** RDF (N:P:K :: 100:40:20 kg ha^{-1})
		TO-I: 50% of RDN and 100% PK + nano urea @ 4 ml lt^{-1} water (single spray at 35 DAS)
		TO-II: 50% of RDN and 100% PK + 2 sprays of nano urea at (35 DAS) and (60-65DAS) @ 4 ml lt^{-1} water
4	**Source of Technology**	Proceeding of OFT finalization workshop on Agronomy/Soil Science for KVKs Bihar and Jharkhand (Zone-IV) held during 01-03 September, 2022
5	**Replication**	06
6	**Plot size**	10 × 10 m^2 in each tech. options
7	**Production System & Thematic Area**	Nutrient use efficiency enhancement
8	**Performance of Technology with performance indicator**	• Soil data before and after (pH, EC, OC, NPK) • Yield data • No. of effective tillers m^{-2} • 1000 grain wt. • Panicle wt. • Straw yield • Economics

OFT: 02

1	**Title of On Farm Trial**	**Improvement of nitrogen use efficiency in rice**
2	**Problem Diagnose**	Excessive use of chemical fertilizer and spiraling price of urea leads to increase in cost of cultivation
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** RDF (N:P:K :: 100:40:20 kg ha^{-1})
		TO-I: 50% of RDN and 100% PK + nano urea @ 4ml lt^{-1} water (single spray at pre flowering stage)
		TO-II: 50% of RDN and 100% PK + 2 sprays of nano urea at (25 to 30 days) and (60-65 days) @ 4 ml lt^{-1} water
4	**Source of Technology**	Proceeding of OFT finalization workshop on Agronomy/Soil Science for KVKs Bihar and Jharkhand (Zone-IV) held during 01-03 September, 2022
5	**Replication**	06
6	**Plot size**	10×10 m^2 in each tech. options
7	**Production System & Thematic Area**	Nutrient use efficiency enhancement
8	**Performance of Technology with performance indicator**	• Soil data before and after (pH, EC, OC, NPK) • Yield data • No. of effective tillers m^{-2} • 1000 grain wt. • Panicle wt. • Straw yield • Economics

OFT: 03

1	**Title of On Farm Trial**	**Diversification of rice-based cropping systems**
2	**Problem Diagnose**	Low profitability of existing cropping system
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Rice – Wheat
		TO-I: Rice – Maize + Potato
		TO-II: Rice – Maize + Vegetable Pea
		TO-III: Rice – Wheat – Green gram
4	**Source of Technology**	Proceeding of OFT finalization workshop on Agronomy/Soil Science for KVKs Bihar and Jharkhand (Zone-IV) held during 01-03 September, 2022
5	**Replication**	06
6	**Plot size**	10×10 m^2 in each tech. options
7	**Production System & Thematic Area**	Crop diversification
8	**Performance of Technology with performance indicator**	• Soil data before and after (pH, EC, OC, NPK) • Rice equivalent yield qt ha^{-1} of all crops • Sole crop and intercropping cost of cultivation

Discipline: Plant Protection

OFT: 01

1	**Title of On Farm Trial**	**Improvement of nitrogen use efficiency in wheat**
2	**Problem Diagnose**	Lower yield and poor fruit establishment in mango due to severe incidence of red banded caterpillar
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Spray of chlorphyriphos as and when symptoms appear
		TO-I: > Collection and destruction of all fallen fruits. ➢ Spray deltamethrin 0.0028 % (deltamethrin 2.8 EC@ 1ml/lit) at marble size and repeat after two weeks.
		TO-II: Two sprays of thiacloprid 21.7 SC 0.04 % (@ 2ml/lit) at 25-30 days interval. **Note:** All spray during morning hours
4	**Source of Technology**	Proceeding of OFT finalization workshop on Agronomy/Soil Science for KVKs Bihar and Jharkhand (Zone-IV) held during 29-30 September, 2022
5	**Replication**	06
6	**Production System & Thematic Area**	Insect pest Management
7	**Performance of Technology with performance indicator**	• Reduction % in pest population • Number of damaged fruits/100 randomly selected shoot • Economics

OFT: 02

1	**Title of On Farm Trial**	**Assessment of technology for red rot management in sugarcane**
2	**Problem Diagnose**	Lower yield and poor crop establishment in sugarcane due to severe incidence of red rot
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Carbendazim 50% WP @ 2 g/lit of water spray on cane set
		TO-I: Sett treatment with *Trichoderma viride* (tv 1) @ 4 g/l and *Pseudomonas fluorescens* @ 10 g /lit of water for 10 minutes
		TO-II: Azoxystrobin 18.2%+Difenoconazole 11.4% SC @ 1 ml /lit of water 2-3 spray at 15 days interval from July
4	**Source of Technology**	Proceeding of OFT finalization workshop on Agronomy/Soil Science for KVKs Bihar and Jharkhand (Zone-IV) held during 29-30 September, 2022
5	**Replication**	06
7	**Production System & Thematic Area**	Sugarcane and integrated disease management (IDM)
8	**Performance of Technology with performance indicator**	1. % disease reduction 2. no. of tillers 3. no. of cane/10 sqm 3. wt. of per cane 4. length of cane 5. yield (q/ha) 6. BCR.

Discipline: Farm Machinery and Power

OFT: 01

1	**Title of On Farm Trial**	**Assessment of appropriate wheat harvest technology to farmers practice**
2	**Problem Diagnose**	Labour shortage during peak season and the high cost of harvesting
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Manual harvesting + threshing using thresher
		TO-I: Wheat cutting using Reaper cum binder + threshing using thresher
		TO-II: Complete harvesting using combine-harvester
4	**Source of Technology**	PAU Ludhiana
5	**Replication**	07
6	**Production System & Thematic Area**	Wheat crop mechanization
7	**Performance of Technology with performance indicator**	• Cost of operation (Rs/ha) • Field capacity in cutting/harvesting (ha/hr) • Field efficiency in cutting/harvesting (%) • Crop Yield (kg/ha) • B:C ratio
8	**Constraints identified and feedback for research**	Newly started.
9	**Process of farmers participation and their reaction**	I. Field visit II. Face to face conversation.

OFT: 02

1	**Title of On Farm Trial**	**Assessment of different methods of cutting sets of sugarcane for plantation**
2	**Problem Diagnose**	Labour shortage during peak season and the high cost of operation
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Set cutting by traditional chopper
		TO-I: Bud cutting by bud chipping machine
		TO-II: Single node cutting by node cutting machine
4	**Source of Technology**	RPCAU Pusa
5	**Replication**	07
6	**Production System & Thematic Area**	Sugarcane mechanization
7	**Performance of Technology with performance indicator**	• Set cutting per hour • Germination (%) • Crop Yield • B:C ratio • Ergonomics: - Heart rate (beats/min), Average energy expenditure(kJ/min), and Rest pause time
8	**Constraints identified and feedback for research**	Newly started.
9	**Process of farmers participation and their reaction**	I. Field visit II. Face to face conversation.

Discipline: Animal Science (Veterinary Science)

OFT: 01

1	**Title of On Farm Trial**	**Assessment of *Azolla* feeding on milk production in dairy cow**
2	**Problem Diagnose**	Low feeding of concentrate due to high cost and low availability
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Farmers Practice (feeding wheat and paddy straw with concentrate)
		TO-I: Use of *Azolla* @ 1.0 kg per animal per day + 80% of required quantity of concentrate with existing fodder
		TO-II: Use of *Azolla* @ 1.5 kg per animal per day + 70% of required quantity of concentrate with existing fodder
4	**Source of Technology**	NDRI Karnal (Eastern Regional Station, Kalyani)
5	**Replication**	10
6	**Production System & Thematic Area**	Feeding management in dairy cow
7	**Performance of Technology with performance indicator**	• Milk Yield • % increases in milk production • B:C ratio • Milk quality (Fat % & SNF)
8	**Constraints identified and feedback for research**	Newly started.
9	**Process of farmers participation and their reaction**	I. Field visit II. Face to face conversation

OFT: 02

1	**Title of On Farm Trial**	**Evaluation of area specific mineral mixture in dairy cattle**
2	**Problem Diagnose**	Low productivity in cow due to non feeding of mineral mixture
3	**Details of Technologies selected for assessment/refinement**	**Farmers Practice:** Feeding straw + concentrate + commercial mineral mixture @ 50 gm/day/cow
		TO-I: Feeding straw + concentrate + area specific mineral mixture (ICAR-RCER, Patna) @ 50 gm/day/cow
4	**Source of Technology**	ICAR-RCER, Patna
5	**Replication**	10
6	**Production System & Thematic Area**	Health Management in dairy cattle
7	**Performance of Technology with performance indicator**	• Milk Yield • % increases in milk production • B:C ratio • Milk quality (Fat % & SNF)
8	**Constraints identified and feedback for research**	Newly started.
9	**Process of farmers participation and their reaction**	I. Field visit II. Face to face conversation.