ACTION PLAN
2023

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3. Capacity building:

Thrust area: Capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies (Thrust area 5)

(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
I. Crop Production														
Production technology	Improved production technology of jute in jute based cropping system	2	3	Off	April 4th week, 2023 & May 1st Week, 2023	40	20	0	0	0	0	40	20	60
Post harvest management	Awareness camp on Improved retting methodology of jute	2	1	Off	August 2nd and 3rd week, 2023	40	20	0	0	0	0	40	20	60
Resource Conservation Technologies	Rice cultivation through SRI in jute-rice cropping system	2	3	Off	June 1st week and December 3rd week, 2023	40	20	0	0	0	0	40	20	60
Conservation agriculture	Sustainable crop production through conservation agriculture in jute based cropping system	1	3	Off	May 3rd week, 2023	20	10	0	0	0	0	20	10	30
Production technology	Improved production technology of millets in jute – Millet cropping	4	3	Off	June 1st and 3rd week, October 1st	120	0	0	0	0	0	120	0	120

	system				week and December 2nd week, 2023									
Production technology	Organic farming and natural farming in jute based cropping system	3	3	Off	July 2nd week, August 1st September 2nd week 2023	80	10	0	0	0	0	80	10	90
II. Horticulture														
Nutrient management	Role of plant nutrients and deficiency symptoms in horticultural crops	1	2	On	18.01.23-19.01.23	15	15	0	0	0	0	15	15	30
Production and Management technology	Improved production technology of kharif onion in jute based cropping system	1	2	Off	18.04.23-19.04.23	15	15	0	0	0	0	15	15	30
Nutrient management	Role of plant nutrients and deficiency symptoms in horticultural crops	1	2	Off	06.05.2023 to 07.05.2023	15	15	0	0	0	0	15	15	30
Water management	Micro irrigation technology in jute based cropping system	1	2	On	08.06. 23 to 10.06.23	15	15	0	0	0	0	15	15	30
Plant propagation techniques	Plant propagation techniques of sub-tropical fruit crops	1	2	On	22.07. 23 to 24.07.23	15	15	0	0	0	0	15	15	30
Nursery management	Nursery management of vegetable crops in jute based cropping system	1	2	On	15.09.23 to17.09.23	15	15	0	0	0	0	15	15	30
Vegetable cultivation	Cultivation techniques of solanaceous vegetables in jute based cropping system	1	2	Off	20.10.23 to 22.10.23	15	15	0	0	0	0	15	15	30
Production and Management technology	Improved production technology of potato in jute based cropping system	1	2	Off	10.11. 23 to 12.11.23	15	15	0	0	0	0	15	15	30
Seed production	Seed production of Vegetable crops in jute based cropping system	1	2	On	15.12.23 to 17.12.23	15	15	0	0	0	0	15	15	30
III. Soil Health and Fertility Management														

Soil fertility management	Role of nutrient vis-à-vis crop production in jute based cropping system	1	3	Off	July 1st week, 2023	20	10	0	0	0	0	20	10	30
Integrated Nutrient Management	Benefits of INM in field crops in jute based cropping system	1	3	Off	November 2nd week, 2023	20	10	0	0	0	0	20	10	30
Production and use of organic inputs	Need for composting and different types of compost preparation	1	3	Off	April 3rd week, 2023	20	10	0	0	0	0	20	10	30
Micro nutrient deficiency in crops	Role of macro and micronutrient in soil and crop health in jute based cropping system	4	3	Off	May 2nd and 4th week, June 1st and September 3rd week, 2023	120	0	0	0	0	0	120	0	120
IV. Crop Protection														
Crop protection	Seed treatment in Rice	1	2	Off	20.06.2023-21.06.2023	20	10	0	0	0	0	20	10	30
Crop protection	IDM in Rice in Integrated Farming System	1	3	On	11.07.2023-13.07.2023	25	05	0	0	0	0	25	05	30
Crop protection	Disease management in Brinjal	1	2	Off	10.08.2023-11.08.2023	20	10	0	0	0	0	20	10	30
Crop protection	Disease management in Mustard	1	2	Off	06.11.2023-07.11.2023	22	08	0	0	0	0	22	08	30
Crop protection	Disease management in Cole crops	1	3	On	22.11.2023-24.11.2023	20	10	0	0	0	0	20	10	30
Integrated pest management	Integrated pest management in aman paddy in Integrated Farming System	1	2	On	05.07.2023 06.07.2023	18	12	0	0	0	0	18	12	30
Integrated pest management	Integrated pest management in aman paddy in Integrated Farming System	1	2	Off	22.06.2023, 23.06.2023	18	12	0	0	0	0	18	12	30
Integrated pest management	Integrated pest management in boro paddy in Integrated Farming System	1	2	Off	06.12.2023 07.12.2023	19	11	0	0	0	0	19	11	30
Pest management in crops	Insect pest management in Solanaceous crop in Jute Based Farming System	1	2	Off	15..11.2023 16.11.2023	15	15	0	0	0	0	15	15	30
Pest management in crops	Insect pest management in cucurbitaceous crop in Jute Based Farming System	1	2	On	07.09.2023-08.09.2023	15	15	0	0	0	0	15	15	30

Pest management in crops	Insect pest management in oil seed crop in Jute Based Farming System	1	2	Off	12.12.2023 - 13.12.2023	15	15	0	0	0	0	15	15	30
V. Agro meteorology														
Others	Awareness cum training Programme on “Introduction of Agromet Advisory Service at block levels and Popularization of Meghdoot application in dissemination of weather forecast”	1	1	Off	10.03.2023	25	5	0	0	0	0	25	5	30
Others	Awareness cum training Programme on “Climate smart agricultural techniques and familiarization with various climatic normals affecting crop productions”	1	1	On	12.06.2023	22	8	0	0	0	0	22	8	30
Others	Awareness Cum Training programme on “Different Abiotic & biotic stresses and their mitigation using AAS Bulletins for achieving sustainable productivity“	1	1	On	21.07.2023	17	13	0	0	0	0	17	13	30
Others	Farmers' Awareness Programme cum training programme on the “Ill effects of stubble burning and possible ways for mitigation and Popularization of MAUSAM and DAMINI application among farming community	1	1	Off	17.08.2023	22	8	0	0	0	0	22	8	30
Others	Awareness cum training Programme on “Crop weather pest interaction and Importance of weather forecasting in managing pest-disease infestation in crops”	1	1	On	22.09.2023	17	13	0	0	0	0	17	13	30
Others	Awareness programme on “Drought management and its implications in weather related crop pests and diseases and brief lecture on role of	1	1	On	26.10.2023	17	13	0	0	0	0	17	13	30

	microclimate modification in reducing yield loss"													
Others	Awareness cum training Programme on "Role of Agromet Advisory bulletins in income generation of farmers under changing climatic conditions and Popularization of DAMINI App"	1	1	Off	16.11.2023	19	11	0	0	0	0	19	11	30
Others	Awareness cum Training programme on "Different microclimate modification techniques for input management in agriculture under climate change and Popularization of Mausam App among farmers"	1	1	Off	20.12.2023	20	10	0	0	0	0	20	10	30
TOTAL		**49**	**78**			**1021**	**449**	**0**	**0**	**0**	**0**	**1021**	**449**	**1470**

(b) Rural youths

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**
Production and use of organic inputs	Vermicompost production at farmers level	2	3	On	July 3rd+ and August 1st week, 2023	40	20	0	0	0	0	40	20	60
Seed production	Seed production of different field crops in jute based cropping system	1	3	Off	November 2nd week, 2023	20	10	0	0	0	0	20	10	30
Soil testing	Need for soil testing and soi test based fertilizer application vis-à-vis jute based farming systems	1	3	On	November 4th week, 2023	20	10	0	0	0	0	20	10	30
Production of bio control agents and bio pesticides	Bio-pesticides and its role in organic farming and zero budget natural farming in jute based cropping system	1	2	Off	28.04.23 - 30.04.23	15	15	0	0	0	0	15	15	30
Mushroom Production	Improved Production Technology of Oyster mushroom	2	3	On	(18.03.2023-20.03.2023)* and	40	20	0	0	0	0	40	20	60

					(27.11.2023, 29.11.2023)									
Bee-keeping	Bee-keeping for better pollination and alternative livelihood	2	3	On	(21.03.2023, 23.03.2023)* and (13.12.2023, 15.12.2023)	44	16	0	0	0	0	44	16	60
ICT in Agriculture	ICT in Agriculture	3	1	On	July, September, December, 2023	60	30	0	0	0	0	60	30	90
TOTAL		**12**	**18**			**239**	**121**	**0**	**0**	**0**	**0**	**239**	**121**	**360**

(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**
Production of bio control agents and bio pesticides	Bio-pesticides and its role in organic farming and zero budget natural farming in jute based cropping system	1	2	On	24.08.22 to 26.08.22	15	15	0	0	0	0	15	15	30
Others	Climate change and effect on agriculture and adaptation through integrated farming system approach	1	3	Off	December 1st week	20	10	0	0	0	0	20	10	30
TOTAL		2	5			**35**	**25**	**0**	**0**	**0**	**0**	**35**	**25**	**60**

(d) Vocational training

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**
Rural Crafts	Preparation of Jute Handicrafts	2	7	On	17.02.23 to 24.02.23, 1st week of October, 2023	0	40	0	0	0	0	0	40	40
Women empowerment	Making of jute handicrafts	3	15	On	2nd week of July 2023, 1st week of September and 4th week of November 2023	0	60	0	0	0	0	0	60	60

TOTAL	**5**	**22**			**0**	**100**	**0**	**0**	**0**	**0**	**0**	**100**	**100**

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													
Resource Conservation Technologies	1	30	0	30	10	0	10	0	0	0	40	0	40
Cropping Systems	1	0	0	0	20	10	30	0	0	0	20	10	30
Crop Diversification													
Integrated Farming													
Water management													
Seed production													
Nursery management													
Integrated Crop Management	3	0	0	0	60	30	90	0	0	0	60	30	90
Fodder production													
Production of organic inputs													
Others, (cultivation of crops)	4	76	40	116	24	0	24	0	0	0	100	40	140
TOTAL	9	106	40	146	114	40	154	0	0	0	220	80	300
II. Horticulture													
a) Vegetable Crops													
Integrated nutrient management	2	0	0	0	30	30	60	0	0	0	30	30	60
Water management	1	0	0	0	15	15	30	0	0	0	15	15	30
Enterprise development													
Skill development													
Yield increment													
Production of low volume and high value crops													
Off-season vegetables	1	0	0	0	15	15	30	0	0	0	15	15	30
Nursery raising	1	0	0	0	15	15	30	0	0	0	15	15	30
Exotic vegetables like Broccoli													
Export potential vegetables													
Grading and standardization													
Protective cultivation (Green Houses, Shade Net etc.)													

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
Others, if any (Cultivation of Vegetable)	3	0	0	0	45	45	90	0	0	0	45	45	90
TOTAL	8	0	0	0	120	120	240	0	0	0	120	120	240
b) Fruits													
Training and Pruning													
Layout and Management of Orchards													
Cultivation of Fruit													
Management of young plants/orchards													
Rejuvenation of old orchards													
Export potential fruits													
Micro irrigation systems of orchards													
Plant propagation techniques	1	0	0	0	15	15	30	0	0	0	15	15	30
Others, if any(INM)													
TOTAL	1	0	0	0	15	15	30	0	0	0	15	15	30
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													
Processing and value addition													

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
Others, if any													
TOTAL													
g) Medicinal and Aromatic Plants													
Nursery management													
Production and management technology													
Post harvest technology and value addition													
Others, if any													
TOTAL													
III. Soil Health and Fertility Management													
Soil fertility management	1	20	0	20	10	0	10	0	0	0	30	0	30
Soil and Water Conservation													
Integrated Nutrient Management	2	20	0	20	30	10	40	0	0	0	50	10	60
Production and use of organic inputs	2	0	0	0	40	20	60	0	0	0	40	20	60
Management of Problematic soils													
Micro nutrient deficiency in crops													
Nutrient Use Efficiency													
Soil and Water Testing													
Others, if any													
TOTAL	**5**	**40**	**0**	**40**	**80**	**30**	**110**	**0**	**0**	**0**	**120**	**30**	**150**
IV. Livestock Production and Management													
Dairy Management													
Poultry Management													
Piggery Management													
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													
Design and development of low/minimum cost													

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
diet													
Designing and development for high nutrient efficiency diet													
Minimization of nutrient loss in processing													
Gender mainstreaming through SHGs													
Storage loss minimization techniques													
Enterprise development													
Value addition													
Income generation activities for empowerment of rural Women													
Location specific drudgery reduction technologies													
Rural Crafts													
Capacity building													
Women and child care													
Others, if any													
TOTAL													
VI.Agril. Engineering													
Installation and maintenance of micro irrigation systems													
Use of Plastics in farming practices													
Production of small tools and implements													
Repair and maintenance of farm machinery and implements													
Small scale processing and value addition													
Post Harvest Technology													
Others, if any													
TOTAL													
VII. Plant Protection													
Integrated Pest Management	7	0	0	0	125	85	210	0	0	0	125	85	210
Integrated Disease Management	3	0	0	0	62	28	90	0	0	0	62	28	90
Bio-control of pests and diseases													
Production of bio control agents and bio													

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
pesticides													
Others, if any	1	0	0	0	20	10	30	0	0	0	20	10	30
TOTAL	11	0	0	0	207	123	330	0	0	0	207	123	330
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													

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
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 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)	8	8	0	0	159	81	0	0	0	0	159	81	240
TOTAL	**49**	**0**	**0**	**0**	**1021**	**449**	**1470**	**0**	**0**	**0**	**1021**	**449**	**1470**

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	0	0	0	40	20	60	0	0	0	40	20	60
Bee-keeping	2	0	0	0	44	16	60	0	0	0	44	16	60
Integrated farming													
Seed production	1	0	0	0	20	10	30	0	0	0	20	10	30
Production of organic inputs	2	20	0	20	25	15	40	0	0	0	45	15	60
Planting material production													
Vermi-culture													
Sericulture													
Protected cultivation of vegetable crops													
Commercial fruit production													
Repair and maintenance of farm machinery and implements													
Nursery Management of Horticulture crops													
Training and pruning of orchards													
Value addition													
Production of quality animal products													
Dairying													
Sheep and goat rearing													
Quail farming													
Piggery													
Rabbit farming													
Poultry production													
Ornamental fisheries													
Para vets													
Para extension workers													
Composite fish culture													
Freshwater prawn culture													

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
Shrimp farming													
Pearl culture													
Cold water fisheries													
Fish harvest and processing technology													
Fry and fingerling rearing													
Small scale processing													
Post Harvest Technology													
Tailoring and Stitching													
Rural Crafts	3	0	0	0	0	60	60	0	0	0	0	60	60
Enterprise development													
Others if any (ICT application in agriculture)	4	0	0	0	80	40	120	0	0	0	80	40	120
TOTAL	**17**	**0**	**0**	**0**	**239**	**221**	**460**	**0**	**0**	**0**	**239**	**221**	**460**

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													
Integrated Pest Management													
Integrated Nutrient management													
Rejuvenation of old orchards													
Value addition													
Protected cultivation technology													
Formation and Management of SHGs													

Group Dynamics and farmers organization													
Information networking among farmers													
Capacity building for ICT application													
Care and maintenance of farm machinery and implements													
WTO and IPR issues													
Management in farm animals													
Livestock feed and fodder production													
Household food security													
Women and Child care													
Low cost and nutrient efficient diet designing													
Production and use of organic inputs	1	0	0	0	15	15	30	0	0	0	15	15	30
Gender mainstreaming through SHGs													
Crop intensification													
Others if any	1	0	0	0	20	10	30	0	0	0	20	10	30
TOTAL	**2**	**0**	**0**	**0**	**35**	**25**	**60**	**0**	**0**	**0**	**35**	**25**	**60**

4. Frontline demonstration to be conducted*

Thrust area: Productivity enhancement of field crops under jute-based cropping system through improved approach and farm mechanization (Thrust area 1)

FLD 1:

- **Crop**: Jute
- **Thematic Area**: Improved production technology
- **Season**:Pre Kharif 2023
- **Farming Situation**: Irrigated medium upland

FLD 2:

- **Crop**: Mustard
- **Thematic Area**: Nutrient management
- **Season**:Rabi 2023
- **Farming Situation**: Irrigated medium upland

FLD 3:

- **Crop**: Lentil
- **Thematic Area**: Integrated nutrient management
- **Season**:Rabi 2023
- **Farming Situation**: Irrigated medium upland

FLD 4:

- **Crop**: Sorghum
- **Thematic Area**: Crop diversification
- **Season**:Kharif 2023 and Rabi 2023-24
- **Farming Situation**: Irrigated medium upland

FLD 5

Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

- **Crop**: Cauliflower
- **Thrust Area**: Nutrient management
- **Thematic Area**: Cultivation of vegetables
- **Season**: Rabi

- **Farming Situation**: Irrigated Medium/ upland

FLD 6
Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

- **Crop**: Onion
- **Thrust Area**: Production Technology
- **Thematic Area**: Cultivation of Vegetable
- **Season**: Kharif
- **Farming Situation**: Irrigated Medium/ upland

FLD 7
Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

- **Crop / Enterprise:** Potato
- **Thrust Area**: Disease management
- **Thematic Area**: Cultivation of Vegetable
- **Season**: Rabi
- **Farming Situation**: Irrigated Medium/ upland

FLD 8
Entrepreneurship development for family income generation and empowerment of women and post-harvest operations (Thrust area 6)

- **Crop**: Oyster Mushroom
- **Thrust Area**: Augmentation of productivity
- **Thematic Area**: Improved production technology
- **Season**: November, 2023
- **Farming Situation**: Conventional method

FLD 9
Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

- **Crop**: Brinjal
- **Thrust Area**: Augmentation of productivity
- **Thematic Area**: Integrated Pest management

- **Season**: Rabi (October 2023)
- **Farming Situation**: Irrigated medium/ upland

FLD 10:

- **Crop**: Rice (Kharif)
- **Thematic Area**: Integrated crop management
- **Season**: Kharif 2023
- **Farming Situation**: Irrigated medium upland

Details of FLDs:

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	Jute; JRO 204	10	Seed treatment+ Use of seed drill/cycle weeder+ 80:40:40 NPK+retting with CRIJAF SONA	Plant height, base diameter, yield	Seed	73000	78000	25	0	0	0	0	0	25	0	25
2	Mustard; JD 6/Keshari/Any improved variety	10	Soil test based N, P, K + 30 kg S/ha+ two foliar spray of boron along with micronutrient mixture (Aquacal)	No. of pods/plant, test weight, oil content yield	Seed, Sulfur, boron	40000	39000	25	0	0	0	0	0	25	0	25
3	Lentil; IPL 316/Any improved variety	10	Treatment of seed with rhizobium; 15:40:20 N:P:K and 30 kg S/ha; Soil application of $ZnSO_4$ @ 10 kg/ha; 2 foliar spray of boron @ pre and post flowering	No. of pods/plant, yield	Seed, sulfur, micronutrient	38000	37000	25	0	0	0	0	0	25	0	25
4	Sorghum, CSH 14/Any improved variety	1	Seed treatment+ line sowing @ 30 cm x 10 cm+ 2 tonnes FYM and 80:40:40 NPK+2 foliar spray of micronutrient mixture		Seed, micronutrient mixture	40000	NO local check	10	0	0	0	0	0	10	0	10

5	Cauliflower	2	Sulphur & boron application	Yield, B:C ratio	Sulphur & boron	110000	195000	10	5	-	-	-	-	10	5	15
6	Onion, Var Agrifound Dark Red	3	Variety (Seeds) (Var. Agrifound Dark Red)	Yield, B:C ratio	Seeds	105000	Replacement of upland and medium land paddy	10	10	-	-	-	-	10	10	20
7	Potato	4	Seed treatment with *Trichoderma viridae* and foliar application *Cymoxanil 50% WP* (two spray) and *Dimethomorph 50% WP* (single spray)	Late blight disease incidence, Yield, B:C ratio	Plant protection chemical	165000	145000	10	20	-	-	-	-	10	20	30
8	Mushroom Var. Oyster	20 nos.	**Treatment of paddy straw:@**10 kgs of machine cut, dry paddy straw to be dipped in 100 litres of clean water, mixed with 120 ml formaldehyde + 10 gm Carbendazim + 30 gm Calcium hydroxide	Yield, B: C ratio	Mushroom spawn, machine cut paddy straw, poly packets, chemicals	3920	3335	10	10	0	0	0	0	10	10	20
9	Brinjal Var. Local	1 ha	Integrated pest management on *Leucinodes orbonalis* 1. Install pheromone traps 10/acre for mass trapping at 10 m distance from 20 DAT, the pheromone septa should be changed at regular interval. 2. Spray azadirachtin 0.03% (300	Yield, B:C ratio	Pheromone trap 10/ acre for mass trapping and spray azadirachtin 0.03% neem oil Need based applicatio	55000	53000	15	5					15	5	20

			ppm) neem oil based WSP @ 1000-2000 ml in 200-400 l of water/acre. 3. Need based application of Chemical pesticides (Cartap hydroloride 50% SP) @ 1gm/ L of water applied at 60 DAT and 75 DAT.)		n of Chemical pesticides (Cartap hydrolori de 50% SP) @ 1gm/ L of water applied at 60 DAT and 75 DAT.)											
10	Rice; CR Dhan 800/Sukum mar/Shatab di	50	16-18 day old seedling + 10'x10' spacing + chemical weeding + 80:40:40:20 NPKS + foliar spray of micro nutrient	No. of tiller/hil, test weight, yield	Seed, Fertilizers	58000	57000	125	0	0	0	0	0	125	0	125
TOTAL		**111**						**265**	**50**	**0**	**0**	**0**	**0**	**265**	**50**	**315**

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	Improved production technology of jute	1	PF	1 day	Off	10	0	0	0	15	0	25	0	25
	ICM of rice	1	PF	1 day	Off	10	0	0	0	15	0	25	0	25
	Improved production technology of rabi groundnut	2	PF	1 day	Off	15	0	0	0	60	05	75	05	80
	Nutrient management of mustard	2	PF	1 day	Off	20	10	0	0	50	10	70	20	90
	INM on lentil	1	PF	1 day	Off	20	10	0	0	20	0	40	10	50
	Cultivation techniques of solanaceous vegetables in jute based cropping system	1	PF	1 day	Off	15	15	0	0	0	0	15	15	30
	Improved production technology of kharif onion in jute based cropping system	1	PF	1 day	Off	15	15	0	0	0	0	15	15	30

	Improved production technology of Oyster mushroom	1	RY	1	Off	10	10	0	0	0	0	10	10	20
Field visits	Field visit	20	PF	Half day each	Off	190	65	0	0	310	10	500	75	575
Field day	Feld day on all crops	12	PF	Half day each	Off	228	78	0	0	372	12	600	90	690
	Field day on Banana, Onion , Tomato	3	PF	3 days	Off	15	10	0	0	45	0	60	10	70
	Oyster mushroom	1	RY	1	Off	15	10	0	0	0	0	15	10	25

5. a) Seed and planting material production by utilization of instructional farm (Crops / Enterprises)
Productivity enhancement of field crops under jute based cropping system through improved approach and farm mechanization (Thrust area 1)

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.)**
Boro Rice	Shatabdi	Jan –May , 2023	3	Foundation seed	210	400000	1000000	600000
	Sukumar	Jan –May , 2023	1	Foundation seed	55	100000	250000	150000
Kharif rice	CR Dhan 800	Jun 2023-December 2023	2	Foundation seed	110	350000	750000	400000
Kharif rice	MTU 7029	Jun 2023-December 2023	2	Foundation seed	105	350000	750000	400000
Fruit saplings	Mango, Guava, Citrus	June to Sept	-	Saplings	4000 nos	55000	300000	200000
Turmeric Seeds	Suguna	April to Feb	0.14	Seed rhizome	10	15000	40000	25000
Bhindi seeds	Kashi Kranti	March to Aug	0.14	Seed	0.3	5000	15000	10000

b) Village Seed Production Programme

Name of	**Variety /**	**Period**	**Area**	**No. of**	**Details of Production**

the Crop / Enterprise	Type	From…… … to ……..	(ha.)	farmers	Type of Produce	Expected Production(q)	Cost of inputs (Rs.)	Expected Gross income (Rs.)	Expected Net Income (Rs.)
Rice	MTU 7029, CR Dhan 800	June – Dec, 2023	500	1200	TL seed	20000			

6. Extension Activities

Thrust area: Soil nutrient and water management through organic farming, natural farming and improved irrigation management (Thrust area 4)

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	5	200	100	300	30	4	0	4	200	100	300
2.	Kisan Mela	1	500	300	800	70	20	0	20	520	300	820
3.	Kisan Ghosthi	2	100	50	150	70	0	0	0	100	50	150
4.	Exhibition	1	100	50	150	70	0	0	0	100	50	150
5.	Film Show	10	200	100	300	100	0	0	0	200	100	300
6.	Method Demonstrations	2	30	4	34	40				30	4	34
7.	Farmers Seminar	1	50	10	60	50	0	0	0	50	10	60
8.	Workshop	1	50	10	60	50	0	0	0	50	10	60
9.	Group meetings	4	100	30	130	60				100	30	130
10.	Lectures delivered as resource persons	8	70	10	80	30	90	30	120	160	40	200
11.	Advisory Services	20	50000	9000	59000	30	0	0	0	50000	9000	59000
12.	Scientific visit to farmers field	12	300	50	350	30	0	0	0	300	50	350
13.	Farmers visit to KVK											
14.	Diagnostic visits	10	54	13	67	21	0	0	0	54	13	67
15.	Exposure visits	2	100	50	150	30	0	0	0	100	50	150
16.	Ex-trainees Sammelan											
17.	Soil health Camp	6	273	9	282	15	10	3	13	283	12	295
18.	Animal Health Camp	1	50	10	60	50	0	0	0	50	10	60
19.	Agri mobile clinic	1	50	10	60	50	0	0	0	50	10	60
20.	Soil test campaigns	6	100	12	112	24	0	0	0	100	12	112
21.	Farm Science Club Conveners meet	1	100	0	100	30	0	0	0	100	0	100
22.	Self Help Group Conveners	1	0	100	100	30	0	0	0	0	100	100

	meetings											
23.	Mahila Mandals Conveners meetings	1	0	50	50	100	0	0	0	0	50	50
24.	Celebration of important days (specify)	10	400	100	500	100	0	0	0	400	100	500
25.	Sankalp Se Siddhi	1	50	0	50	70	0	0	0	50	0	50
26.	Swatchta Hi Sewa	2	175	75	250	70	0	0	0	175	75	250
27.	Mahila Kisan Diwas	1	0	100	100	100	0	0	0	0	100	100
28.	Any Other (Specify)	2	100	0	100	30	0	0	0	100	0	100
	Total	**112**	**53052**	**10213**	**63265**	**1290**	**124**	**33**	**157**	**53172**	**10246**	**63418**

Revolving Fund (in Rs.)

Opening balance of 2023 (As on 01.01.2023)	Amount proposed to be invested during 2023	Expected Return
1832303.00	**600000.00**	**900000.00**

7. Expected fund from other sources and its proposed utilization

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

8. On-farm trials to be conducted*

a. Productivity enhancement of field crops under jute based cropping system through improved approach and farm mechanization (Thrust area 1)

b. Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

OFT 1:

Sl no.	Particulars	Details
1	**Season**	Summer 2023
2	**Title of the OFT**	Assessment of different improved varieties of jute under medium upland situation of Purba Bardhaman
3	**Thematic Area**	Improved agronomic management
4	**Problem Diagnosed**	Sub optimal productivity and low profitability of jute due to weed infestation
5	**Important Cause**	Non use of improved weed management measures

6	**Production System**	Jute based production system
7	**Micro farming System**	Cultivation of JRO 204
8	**Technology for Testing**	Improved weed management
9	**Existing Practice**	Sole cropping of jute with broadcasting
10	**Hypothesis**	Improved weed management to result in improved productivity and profitability
11	**Objective(s)**	1. Improve productivity of jute 2. Improve profitability of jute
12	**Treatments:**	**Farmers Practice (FP):** Two hand weedings at 25 and 45 DAS **Technology option-I (TO-I):** Application of Fenoxaprop-p-ethyl (9% EC) @ 1.5 – 2.0 ml/lt after 15 days + One hand weeding **Technology option-II (TO-II):** Application of Propaquizafop (10% EC) @ 1.5 – 2.0 ml/lt after 15 days + One hand weeding
13	**Critical Inputs**	Seed (JRO 204), Herbicides
14	**Unit Size**	0.4 ha
15	**No of Replications**	10
16	**Unit Cost**	--
17	**Total Cost**	Rs. 6000
18	**Monitoring Indicator**	productivity, benefit:cost ratio
19	**Source of Technology**	ICAR-CRIJAF, Barrackpore

OFT 2:

Sl no.	Particulars	Details
1	**Season**	Rabi 2023-24
2	**Title of the OFT**	Assessment of different doses of sulfur application in mustard under medium upland situation of Purba Bardhaman
3	**Thematic Area**	Improved nutrient management
4	**Problem Diagnosed**	Sub optimal productivity and low oil quality of mustard
5	**Important Cause**	Non application of sulfur leading to
6	**Production System**	Jute based production system
7	**Micro farming System**	Cultivation of mustard (JD 6/B 9)
8	**Technology for Testing**	Improved nutrient management
9	**Existing Practice**	Non application of sulfur
10	**Hypothesis**	Improved nutrient management with inclusion of sulfur to result in improved productivity and profitability
11	**Objective(s)**	1. Improve productivity of mustard 2. Improve oil quality of mustard oil

12	**Treatments:**	**Farmers Practice (FP):** 80:40:40 NPK through 10:26:26 and urea (recommended dose) **Technology option-I (TO-I):** Recommended dose + 20 kg sulfur/ha through elemental sulfur **Technology option-II (TO-II):** Recommended dose + 30 kg sulfur/ha through elemental sulfur **Technology option-III (TO-III):** Recommended dose + 40 kg sulfur/ha through elemental sulfur
13	**Critical Inputs**	Sulfur
14	**Unit Size**	0.4 ha
15	**No of Replications**	10
16	**Unit Cost**	--
17	**Total Cost**	Rs. 15000
18	**Monitoring Indicator**	productivity, benefit:cost ratio
19	**Source of Technology**	ICAR-IIOR, Hyderabad

OFT 3

Sl no.	Particulars	Details
1	**Season**	Rabi
2	**Title of the OFT**	Weed management of onion in jute based cropping system
3	**Thematic Area**	Production technology
4	**Problem diagnosed**	Weed infestation is a major problem in onion cultivation particularly at the early stage of crop growth leading to reduction in yield
5	**Important Cause**	Lower return due to high cost of manual hand weeding operation
6	**Production system**	Jute-Paddy- vegetable cropping system
7	**Micro farming system**	Irrigated Medium Land
8	**Technology for Testing**	ICAR- CRIJAF Nail Weeder and Cycle weeder
9	**Existing Practice**	Hand weeding
10	**Hypothesis**	Use of ICAR- CRIJAF Nail Weeder and Cycle weeder may reduce cost of cultivation and improve B:C ratio
11	**Objective(s)**	Significant yield improvement as well as increase in income
12	**Treatments:**	**Farmers Practice (FP):** Three hand weeding **Technology option-I (TO-I):** One hand weeding + weeding by ICAR- CRIJAF Nail Weeder (2 times) **Technology option-II (TO-II):** One hand weeding + weeding by ICAR- CRIJAF Cycle Weeder (2 times) **Technology option-III (TO-III):** Application of Pre emergence herbicides (Oxyflourfen) + weeding by ICAR- CRIJAF Cycle weeder (2 times)

13	**Critical Inputs**	ICAR- CRIJAF Nail Weeder, Cycle weeder and Oxyflourfen
14	**Unit Size**	0.1 ha
15	**No of Replications**	5
16	**Unit Cost**	4000
17	**Total Cost**	Rs.40000
18	**Monitoring Indicator**	Yield, no of man days for weeding, cost benefit ratio
19	**Source of Technology (ICAR/ AICRP/ SAU/ Other, please specify)**	ICAR- CRIJAF

OFT 4

Production of disease-free planting materials and improvement of horticultural crops (Thrust area 2)

Sl no.	Particulars	Details
1	**Season**	Rabi
2	**Title of the OFT**	Assessment of different vegetable seedling raising techniques on the rate of seedling mortality and economic viability (cauliflower) in jute based cropping system
3	**Thematic Area**	Vegetable cultivation
4	**Problem diagnosed**	Vegetable seedlings are grown in raised beds and they are manually uprooted and transplanted in the main field leading to a significant percentage of seedling mortality. At the same time there was significant seedling mortality at seed bed due to soil born diseases.
5	**Important Cause**	Soil born diseases and damage of roots during uprooting causes seedling mortality
6	**Production system**	Vegetable- Jute-rice cropping system
7	**Micro farming system**	Irrigated Medium Land
8	**Technology for Testing**	
9	**Existing Practice**	Raising of seedlings on raised bed
10	**Hypothesis**	Raising of seedlings on pluck tray with coco peat as rooting medium may significantly reduce seedling mortality and improve health of the seedlings.
11	**Objective(s)**	To minimize seedling mortality.
12	**Treatments:**	**Farmers Practice (FP):** Raising of seedlings on raised bed, rooting medium soil+compost **Technology option-I (TO-I):** Raising of seedlings on pluck tray, rooting medium soil+compost **Technology option-II (TO-II):** Raising of seedlings on pluck tray, rooting medium coco peat

13	**Critical Inputs**	Pluck tray and coco peat
14	**Unit Size**	100 sq m
15	**No of Replications**	7
16	**Unit Cost**	3000
17	**Total Cost**	21000
18	**Monitoring Indicator**	Seedling mortality and B:C ratio
19	**Source of Technology**	ICAR-IIHR

OFT 5

Integration of good agronomic practices for cultivation of field and vegetable crops for vertical agricultural growth with production of quality seeds/planting materials and concomitant soil health management (Thrust area 5)

Sl no.	Particulars	Details
1	**Season**	Rabi 2023
2	**Title of the OFT**	Assessments of Managing leaf curl disease in tomato.
3	**Thematic Area**	Integrated pest management
4	**Problem diagnosed**	Low yield per unit area due to high leaf curling in tomato.
5	**Important Cause**	Leaf curl disease in tomato is one of the major diseases in Tomato. The virus causing this disease is tomato yellow leaf curl virus (TYLCV) and the virus is being transmitted by vector white fly. Thus the vector should be controlled taking some measures for management of this disease.
6	**Production system**	Paddy- Tomato
7	**Micro farming system**	Irrigated Medium Land
8	**Technology for Testing**	Use of nylon net, root dipping and use of insecticide for the vector control as well as disease management
9	**Existing Practice**	Open nursery bed and indiscriminate use of pesticides on standing crop.
10	**Hypothesis**	Vector control may improve yield
11	**Objective(s)**	Significant yield improvement as well as increase in income
12	**Treatments:**	**Farmers Practice (FP):** Open nursery bed and indiscriminate use of pesticides on standing crop. **Technology option-I (TO-I):** Covering the nursery by nylon net of 40 mesh size followed by 4 sprays (10 days interval) of imidacloprid (17.8% SL) @ 5 ml/15 litres water on standing crop. **Technology option-II (TO-II):** Root dipping of seedling with Thiamethoxam 25% WP @ 0.3 gm /litre water for 5 minutes, followed by 4 sprays (10 days interval) of imidacloprid (17.8% SL) @ 5 ml/15 litres water on standing crop. **Technology option-III (TO-III):** Spray the seedling 2 times at nursery stage followed by 4 sprays (10 days interval) of imidacloprid (17.8% SL) @ 5 ml/15 litres water) on standing crop.

13	**Critical Inputs**	Nylon net and chemicals
14	**Unit Size**	0.2 ha
15	**No of Replications**	5
16	**Unit Cost**	1400.00
17	**Total Cost**	21000.00
18	**Monitoring Indicator**	Disease incidence %, Yield, Net return, B:C ratio
19	**Source of Technology**	TNAU

OFT 6

Integration of good agronomic practices for cultivation of field and vegetable crops for vertical agricultural growth with production of quality seeds/planting materials and concomitant soil health management (Thrust area 5)

Sl no.	Particulars	Details
1	**Season**	Kharif and Rabi crops 2023-24
2	**Title of the OFT**	Compost production by recycling the crop residues and its application in Jute, Rice and Mustard crops
3	**Thematic Area**	Agri-waste management
4	**Problem Diagnosed**	Burning of left over crop residues, leaf litters and stubbles after harvesting of crops to make field available for next crop at earliest causes serious environmental concern and is detrimental to soil health for sustainable crop production
5	**Important Cause**	Burning of crop residues releases large quantity of GHGs and diminished population of beneficial soil microbes due to burning
6	**Production System**	Jute-Rice-Mustard cropping system
7	**Micro farming System**	Lowland and Medium land situation
8	**Technology for Testing**	Compost production by recycling of crop residues
9	**Existing Practice**	Burning in crop residues in or around agriculture field
10	**Hypothesis**	Improved technique will result in enhancement of soil organic matter/carbon thereby improving soil health, crop quality and reduction in uses of mineral fertilizers to clean environment and increased profitability
11	**Objective(s)**	1. Production of compost using ICAR technologies (ICAR-CRIJAF & ICAR-IARI) 2. Response of Compost in crops as organic amendment for replacement of chemical fertilizer Soil fertility/quality improvement due to application of compost in different micro-climate situations.
12	**Treatments:** **(Crop application)**	Farmers Practice (FP): Application of 100% NPK Technology option-II (TO-I): 100% CRIJAF compost application (as per recommended NPK fertilizer for the crop) Technology option-II (TO-II):

		50%NPK + 50% CRIJAF compost of RDF Technology option-I (TO-III): Stubble decomposition using pusa decomposer (IARI) + 50%NPK
13	**Critical Inputs**	Pusa Decomposer, Molasses, gram flour, Baler machine hiring, crop wastes and leaf litters
14	**Unit Size**	0.1 ha
15	**No of Replications**	3 villages (9 farmers in each village; 3 farmers for each treatment excluding FP)
16	**Unit Cost**	--
17	**Total Cost**	Rs. 10000
18	**Monitoring Indicator**	Soil: Texture, BD, pH, EC, Org C, available NPK, WHC, Microbial count, Microbial biomass Carbon, Microthermal environment, etc. Compost: Total C, N, P, K, S, Ca, Mg, Zn, Cu, Mn, Fe, Mo, B, etc. Crop and Economics: Economic yield, biomass, BCR, CC, etc.
19	**Source of Technology**	ICAR-IARI, Pusa and ICAR-CRIJAF

9. 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		

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

A. Entrepreneurship development through making of jute handicraft (5)
B. Integrated jute based farming system for augmented profitability and environmental sustainability (5)
C. Crop diversification with sorghum for improved family nutrition

11. Scientific Advisory Committee

Date of SAC meeting held during 2022	Proposed date during 2023
January 20, 2022	**March 27, 2023**

12. 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	50	10	0	0	0	90	0	100	0	100	10	100
Water Samples												
Other (Please specify)												
Total	50	10	0	0	0	90	0	100	0	100	10	100

13. Fund requirement and expenditure (Rs.)*

Heads	Expenditure (last year) (Rs.) up to 31.03.2023	Expected fund requirement (Rs.)
Recurring		
i. Pay & allowance	**1,48,92,387/-**	**1,6730000.00**
ii. Contingency	**1,73,88,748/-**	**30,00,000.00**
iii. TA	**1,53,130/-**	**2,00,000.00**
iv. HRD	**0/-**	**30,000.00**
Non-recurring (specify)		
i. Works (Road, threshing floor, drying yard, vehicle and implement shed, irrigation system etc.)	**0.00/-**	**30,00,000.00**
iv. Furniture & Equipment	**86,258**	**150000.00**
v. Vehicle and tractor	**7,99,679**	**2.00**
TOTAL		**2,30,60,000.00**

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

(Sr. Scientist and Head)
Krishi Vigyan Kendra
Bud Bud, Purba Bardhaman