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ICAR - RCNEH

ICAR-Krishi Vigyan Kendra
West Tripura

Annual Report 2023

ICAR-KRISHI VIGYAN KENDRA, WEST TRIPURA
ICAR Research Complex for North-Eastern Hill Region

Belbari, West Tripura, Pin-799045

ICAR-Krishi Vigyan Kendra
West Tripura

Anual Report : 2023

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1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
KVK West Tripura, Tripura, Belbari-799045	-	-	kvkwesttripurajirania@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Director, ICAR Research Complex for NEH Region, Umroi Road, Umiam (Barapani), Meghalaya-793103	0364-2570302	0364-2570257	director.icar-neh@icar.gov.in

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Ganesh Das	Jalpaiguri, West Bengal, 735102	8967786990	ganesh.ext@gmail.com

1.4. Year of sanction: 2016

1.5. Staff Position (As on December 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Category (SC/ST/ OBC/ Others)
1	Sr. Scientist & Head	Dr. Ganesh Das	Senior Scientist-cum-Head	Agricultural Extension	-	131400	9/11/2023	SC
2	Subject Matter Specialist	Dr. Mandira Chakraborti	Subject Matter Specialist	Agronomy	-	99800	1/6/2017	General
3	Subject Matter Specialist	Mr. Debashis Datta	Subject Matter Specialist	Agril Extension	-	71100	6/6/2019	OBC
4	Subject Matter Specialist	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
5	Subject Matter Specialist	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
6	Subject Matter Specialist	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
7	Subject Matter Specialist	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
8	Programme Assistant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
9	Computer Programmer	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
10	Farm Manager	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
11	Superintendent / Accountant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
12	Stenographer	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
13	Driver	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
14	Driver	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
15	Supporting staff	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
16	Supporting staff	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
	Total	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant

Note: No column in the table must be left blank

1.6. a. Total land with KVK (in ha) : 20 ha

b. Total cultivable land with KVK (in ha): 18 ha

c. Total cultivated land (in ha): 4 ha

S. No.	Item	Area (ha)
1	Under Buildings	0.02
2.	Under Demonstration Units	4 ha
3.	Under Crops (Cereals, pulses, oilseeds etc.) (Pl. specify separately) i. Cereal (Maize) ii. Pulses (Blackgram,, Garden pea, French bean) iii. Oilseed (Mustard and Sesamum) iv. Millet (Foxtail millet, Finger millet, Sorghum, Bajra, Proso millet Kodo millet, Barn yard millet etc.)	Cereals : 0.1 ha Pulses: 0.32 ha Oilseed: 0.42 ha Millet: 0.16 ha
4.	Under vegetables Rabi vegetables: Cabbage Cauliflower, Broccoli, tomato, potato, Knolkhol, Chilli, capsicum, onion etc) Summer and *Kharif* season vegetables (Cucumber, Ash gourd, cowpea, bhindi, ridge gourd, water melon etc.)	Rabi season vegetables: 0.25 ha Summer and kharif season vegetables: 0.25 ha
5.	Orchard(Jackfruit, Mango, Litchi)	1.5 ha
6.	Fruit	Dragon: 0.2 Pineapple: 0.2 Lemon: 0.3 Banana: 0.3

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR					341	90%
2.	Farmers Hostel							
3.	Staff Quarters (6)							
4.	Demonstration Units (2)							
5	Fencing							
	Rain Water harvesting system							
	Threshing floor							
	Farm godown							

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero	TR01J1088	2019	69986.25	40000	Working condition
Tractor	TR01H1121	2019	653205.00	130	Working condition

C) Equipments& AV Aids

Sl. No.	Name of the equipment	Year of purchase	Cost (Rs.)	Present status
1.	Soil Testing Kit (Pusa STFR)	2018	86000/-	Working

2.	Projector	2019	43000/-	Working
3.	Camera (Digital)	2018	20995/-	Working
4.	Computer Printer	2018	17700/-	Working
5.	UPS	2019	22000/-	Working
6.	Grass Cutter	2018	32398/-	Working
7.	Rice drum seeder	2019	14700/-	Working
8.	Power operated Cono-weeder	2019	35056/-	Working
9.	Power Sprayer	2019	9950/-	Working
10.	Power tiller	2019	4,94,550/-	Working
11.	Zero tillage machine	2021	1,49,000/-	Working
12.	Rice Transplanter	2022	2,48,999/-	Working
13.	Manual Paddy Thresher	2022	Rs. 2,47,777/-	Working
14.	Multicrop planter	2021	76000/-	Working
15.	PH meter	2022	14,850/-	Working
16.	Spice cum Ginger Grinder	2021	92,700/-	Working
17.	Stainless Steel 304single phase wet Grinder	2021	44,500/-	
18.	Microwave oven	2022	19,740/-	Working
19.	Refrigerator	2023	18,999/-	Working
20.	Computer	2023	87,290/-	
21.	Honda Petrol Start, petrol Generator and portable Generator	2021	39,697/-	Working
22.	land leveler	2022	24,945/-	Working
23.	MB Plough	2022	1,25,998/-	Working
24.	cultivator	2022	43,700/-	Working
25.	Harrow	2022	1,07,997/-	Working
26.	Computer Printer	2023	19,099/-	Working
27.	Photostat Machine	2023	55,996/-	Working
28.	Colour Computer printer	2023	39,987/-	Working
29.	Cooler	2023	15,250/-	Working
30.	LG Smart Television	2023	23,849/-	Working
31.	Hot Air Oven Hover	2023	24,720/-	Working
32.	Inverter	2023	6,800/-	Working
33.	Harrow(disc type) Double Row	2023	69,444/-	Working
34.				

1.8. A). Details SAC meeting conducted in 2023

Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
12/3/2024	Dr. B.P. Singh, Division of social science, ICAR (RC) for NEH Region, Umiam Dr. A. K. Mohanty, Director ICAR-ATARI, Zone VII, Umiam, Meghalaya Dr. M. Islam, Nodal officer of KVKs of ICAR NEH Region, Umiam, Dr. B.U. Choudhury, Head, ICAR, Tripura Centre Prof. Biswajit Lahiri, Professor (Fishery Extension), College of Fisheries, CAU, Tripura, Dr. Abhijit Saha, Assistant Professor, College of Agriculture, Lembucherra; Dr. Radheshyam Das, Deputy Director ARDD, West Tripura Mr. Ranjit Kumar Das, Deputy Director Agriculture, West Tripura; Dr. Dipayan Dewan, Dy. Principal Veterinary officer, ARDD, TTAADC, Khumlung Dr. S. N. Datta Assistant Director, DDH, West Tripura, Dr. Samir Malla, Superintendent of fisheries, Jirania Mr. Tushar Kanti Das, Superintendent of Agriculture, Belbari,	Recommendations of Annual Progress Report ➢ Protein & Zinc content of biofortified varieties CR Dhan 310 and CR Dhan 311 to be estimated under Tripura condition for the OFT on "Assessment of rice varieties (CR Dhan 310 and CR Dhan 311). ➢ Parameters of shelf life biotic and abiotic stress should be taken in to consideration in OFT on "Assessment of potato varieties under West Tripura condition". ➢ Title of the OFT on "Assessment of mustard var. DRMR-150-35" should be modified as "assessment of mustard variety suitable for late planting condition" ➢ Instead of farmers practice it should be written as local check in OFT on mustard and application of Sulphar should be taken in to consideration for the OFT of Assessment of mustard var. DRMR-150-35 ➢ *Jalkund* based IFS model should be promoted among the farmers	Action has already been taken on last SAC recommendation

	Mr. Manoj Bhowmik, Lead District Manager, Punjab National Bank (PNB), Agartala Branch	of West Tripura district ➢ For demonstration of millet crops soil moisture status should be studied. ➢ Wherever pulse crops taken, lime should be applied before raising the crop ➢ Awareness programme on KCC, Crop and Animal health insurance should be organized in collaboration with the Bank and line department ➢ Result of PRA should be highlighted in the the presentation . ➢ There is a need to take more parameter with the use of social science statistical design for the OFT "Assessment of Existing Marketing channel of on Ginger" ➢ Problem, Treatment and title should be matching for the OFT "Impact study of MSP on rice for enhancing farmers income of West Tripura district" ➢ For the FLD on "Assessment of group dynamics" Range should be mentioned in result for the SHG member	
	Farmer representative Shri. Surendra Debbarma from Chintaramkobrara village		
	Farmer representative, Shri. Tapan Debbarma from Ramkrishnapara village		
	Farmer representative, Mrs. Bibhu Rani Debbarma from Brajabashipara village		

** Attach a copy of SAC proceedings along with list of participants*

2. DETAILS OF DISTRICT

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

Sl. No	Farming system/enterprises
1.	Agriculture -Irrigated (Paddy) -Rainfed (Paddy, pulses, maize, sugarcane)
2.	Horticulture -Vegetables &Potato -Fruit orchard (Banana, Pineapple, Cashew nut, Rubber, Beetle vine)
3.	Animal husbandry -Cows, pigs, poultry, goatary & duckary
4.	Fisheries

2.2 Description of Agro-climatic Zone & major agro-ecological situations (based on soil and topography)

Sl. No	Agro-climatic Zone	Characteristics
1.	ACZ-3 (Mild Tropical Plain)	Humid dissected mount and valleys with sub-humid denuded hills of varying altitudes. The annual rainfall ranges from 2000 to 2200 mm with 70 – 80 % of relative humidity throughout the year and the temperature between a maximum of 35°C and a minimum of 7°C.

2.3 Soil types

Sl. No	Soil type	Characteristics	Area in ha
1.	Red soil	Brown red to yellow, deep to very deep, well drained, fine loamy with moderate erosion hazard, moderately to strongly acidic	7,86,400 sq.km

2.4. Area, Production and Productivity of major crops cultivated in the district

Sl. No	Crop	Area (ha)	Production (ton)	Productivity (Qt /ha)
1	Aus Rice	38	102	26.84
2	Aman rice	14986	51395	34.30

3	Jhum Rice	176	192	10.91
4	Boro Rice	7996	28036	35.06
5	Maize (Kharif)	1568	2798	17.84
6.	Maize (Rabi)	91	310	34.07
7.	Foxtail millet	93	88	9.46
8	Arhar	535	392	7.33
9	Moong	8	5	6.25
10	Blackgram	268	195	7.28
11.	Cowpea	260	206	7.92
12.	Sesamum	720	465	6.46
13	Rape seed & Mustard	971	830	8.55

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	Morning
January 2023	0.0	25.1	9.1	97
February 2023	0.0	29.5	12.7	94
March 2023	73.5	32.2	15.6	93
April 2023	85.7	35.5	19.5	90
May 2023	59.8	34.9	20.8	88
June 2023	472.6	33.9	22.6	91
July 2023	241.7	34.3	23.4	93
August 2023	407.6	32.1	23.4	95
September 2023	152.8	33.9	23.3	95
October 2023	136.3	31.9	20.9	96
November 2023	113.9	30.5	16.4	96
December 2023	52.0	26.8	13.0	99

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle *Crossbred*	18038	Not Available	Not Available
Indigenous	276834	-do-	-do-
Buffalo	3688	-do-	-do-
Sheep*Crossbred*	--	-do-	-do-
Indigenous	1511	-do-	-do-
Goats	201146	-do-	-do-
Pigs *Crossbred*	40551	-do-	-do-
Indigenous	43504	-do-	-do-
Rabbits	--	-do-	-do-
Poultry*Crossbred*	--	-do-	-do-
Indigenous	823499	-do-	-do-
Ducks	293703	-do-	-do-
Turkey and others	24314	-do-	-do-

Category	**Area**	**Production**	**Productivity**
Fish			
Marine	Nil		
Inland(Capture and Culture)	Capture fishery: 260.02 ha Culture fishery: 2499.29 ha	Capture fishery: 154.47 MT Culture fishery: 7119.08 MT	Capture fishery: 594 kg/ha/year Culture fishery: 2975 kg/ha/year
Prawn	Nil		
Scampi	Nil		
Shrimp	Nil		

Note: Pl. provide the appropriate Unit against each enterprise

2.7 Details of Operational area / Villages (2023)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem Identified	Identified thrust area
1	Jirania Agri Subdivision	Belbari	Brajabashipara	Rice, Vegetables, Poultry, Fishery	Irrigation problem, Lack of knowledge on scientific production technology of different crops, lack of knowledge on Cropping system.	1)Introduction of Pulses and oilseed production in the upland which is otherwise left fallow 2) Introduction of suitable Cropping System for Upland 3) Introduction of suitable crops in the moisture stress area 4) Introduction of pulses and oilseed after kharif rice in lowland area. 5. IPM and IDM on Rice, Vegetable, Pulses and Oil seeds 6. Popularization of Mushroom cultivation 7. Introduce bee peeking technology

2.	Jirania Agri Subdivision	Mandai	Bhrigudasbari	Rice, maize, vegetables, piggery, poultry, fishery	Lack of knowledge on scientific production technology of different crops, Lack of irrigation facilities for Rabi crops.	1)Introduction of Pulses and oilseed production in the upland which is otherwise left fallow 2) Introduction of suitable Cropping System for Upland 3) Introduction of suitable crops in the moisture stress area 4) Introduction of suitable varieties of rice in the lowland 5) Indentification of suitable crop after lowland rice
3	Jirania Agri Subdivision	Mandai	Dumtibari	Rice, maize, vegetables, piggery, poultry, fishery	Lack of knowledge on scientific production technology of different crops, lack of knowledge on Cropping system, Non availability of HYVs of different crops, lake of knowledge on IPM and IDM, Low production performance of local pig breeds Non availability of piglets in the locality. Poor milk production of local Cattle Breeds. Lack of knowledge on high quality fodder grass.	1) Introduction of rabi pulses and oilseed 2) Introduction of suitable Cropping System 3) Introduction of HYVs and scientific production technology of different crops 4. IPM and IDM on Rice, Vegetable, Pulses and Oil seeds 5. Introduction of quality pig germplasm. Developing breeding unit of high performing breeds, Creating awareness regarding performance and management of better germplasm. Vaccination 6. Cattle Breed improvement through selection and cross breeding. Cultivation of good quality fodder grasses, Vaccination, Supplementation of mineral mixture with feed, Deworming on regular intervals
4	Belbari Agri Subdivision	Belbari	Ramakrishnapara	Rice, maize, vegetables, piggery, poultry, fishery	Lake of knowledge on scientific production technology of different crops, cropping system, IPM and IDM, No idea about Mushroom Cultivation	1.Introduction of cropping system based crop production 2. Introduction of quality protein maize in the upland and fallow area. 3. Introduction of oyster mushroom cultivation during October to February. 4. Training on IDM, IPM etc.
5	Belbari Agri subdivision	Belbari	Shantinagar	Rice, vegetable, pulses, oilseed, organic farming of vegetables	Irrigation problem, Lack of knowledge on scientific production technology of different crops, Uses of upland, lack of knowledge on Cropping system	1)Introduction of high yielding varieties of Pulses and oilseed in the upland area which is otherwise left fallow 2) Introduction of suitable Cropping System for Upland 3) Introduction of suitable crops in the moisture stress area 4) Introduction of suitable varieties of rice in the lowland 5) Indentification of suitable crop after lowland rice.
6.	Jirania Agri Subdivision	Jirania	Chintaramkobrapara	Rice, vegetable, pulses, oilseed, organic farming of vegetables, Rice, maize, vegetables, piggery, poultry, fishery	Lake of knowledge on scientific production technology of different crops, cropping system, IPM and IDM, No idea about Mushroom Cultivation	1.Introduction of cropping system based crop production 2. Introduction of quality protein maize in the upland and fallow area. 3. Introduction of oyster mushroom cultivation during October to February. 4. Training on IDM, IPM etc.
7.	Mohanpur Agri subdivision	Mohanpur	Lankamura	Rice, vegetable	Lack of HYV of vegetable seeds, lack of knowledge on Cropping system	1) Introduction of HYVs and scientific production technology of vegetable crops. 2) Introduction of suitable Cropping System

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2023

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	2	4	20	63	80	178	80	178
Horticulture	-	-						
Fishery								
Home Science								
PP								
A.Sc								
Agril. Extension	2	2	150	150	2	2	180	180
Total	4	6	170	213	82	180	260	258

Note: Target set during last Annual Zonal Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
	Number of Courses		Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	8	11	160	318	20	35	400	692
Farmers								
Rural youth								
Extn. Functionaries								
Hort								
Farmers								
Rural youth								
Extn. Functionaries								
Agril. Extension								
Farmers	4	4	80	100	12	17	270	375
Rural youth	1	1	25	29				
Extn. Functionaries								
Total	13	16	290	498	32	52	670	1067

Seed Production (ton.)		Planting material (Nos. in lakh)	
Target	Achievement	Target	Achievement
40.2	50.3	3800 nos/223 kg	5400 nos/614 kg

Note: Target set during last Annual Zonal Workshop

3. B. Abstract of interventions undertaken during 2023

Sl. No	Thrust area	Crop/ Enterprise	Identified problems	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1.	Crop Production	Rice	Malnutrition among the rural Childs due to to less availability of bio-fortified rice variety	**Assessment of bio-fortified rice varieties**	-	-	-	Diagnostic Field visit	Seeds
2.	Crop Production	Potato	Low yield of local potato tuber	Assessment of potato varieties	-	-	-	Diagnostic Field visit	Seeds

3.	Crop Production	Mustard	Late sowing of mustard leads to decrease in duration of flowering in mustard which leads to poor seed setting and results in low yield and oil content of different varieties.	Assessment of mustard varieties suitable for late sown condition	-	-	-	Diagnostic field visit	-
4.	Crop Production	Cabbage	-	Application of Questa grow biostimulent in winter vegetables	-	-	-	Diagnostic field visit	Cabbage seed and biostimulant
5.	Crop Production	Rice	Low yield of local rice varieties	-	Demonstration of high yielding variety of Kharif rice var. Tripura Nirog to replace local varieties	-	-	Diagnostic field visit	Seed
6.	Crop Production	Millet	-	-	Demonstration of finger millet var. CFMV-1	Training on promotion of millet crops	-	Diagnostic field visit	Seed
7.	Crop Production	Millet	-	-	Demonstration of foxtail millet var.SIA-3156	-	-	Diagnostic field visit	Seed
8.	Crop Production	Sesamum	-	-	Demonstration of sesamum variety Tripura siping	-	-	Diagnostic field visit	Seed
9.	Crop Production	Mustard	-	-	Demonstration of mustard var.NRCHB-101	-	-	Diagnostic field visit	Seed
10.	Crop Production	Blackgram	-	-	Demonstration of blackgram var. Tripura mashkoloi-1	-	-	Diagnostic field visit	Seed
11.	Crop Production	Lentil	-	-	Demonstration of lentil variety pusa ageti	-	-	Diagnostic field visit	Seed
12.	Extension methodology	Pea			Study on adoption level of Pea (Aman) variety in West Tripura			Field visit	
13.	Marketing	Rice			Impact of MSP on rice for enhancing farmers income of West Tripura district			Field visit	

3.1Achievements on technologies assessed and refined during 2023

A. 1 Abstract of the number of technologies assessed* in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Seed / Crop production	1	1	-	-	2	-	-	-	-	4
TOTAL	1	1	-	-	2	-	-	-	-	4

* *Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro farming situation.*

A.2. Abstract of the number of technologies refined* in respect of crops/enterprises

A.3. Abstract of the number of technologies assessed in respect of livestock / enterprises

A.4. Abstract on the number of technologies refined in respect of livestock / enterprises

A.5. Results of On Farm Testing (OFT)

<table>
<tr><th>Sl. No.</th><th>Title of OFT</th><th>Problem Diagnosed</th><th>Name of Technology Assessed</th><th>Crop/ Cropping system/ Enterprise</th><th>No. of Trials</th><th>Results of Assessment (Data on the parameter should be provided)</th><th>Feedback from the farmer</th><th>Feedback to the Researcher</th><th>B:C Ratio (if applicable)</th></tr>
<tr><td>1</td><td>Assessment of rice varieties</td><td>Lack of protein and nutrient rich rice varieties</td><td>T1: CR Dhan 310
T2: CR Dhan 311
T3:Farmers practice (Swarna)</td><td>Rice-Rice</td><td>21</td><td>
<table>
<tr><th>Treatments</th><th>Plant height(cm)</th><th>No. of effective tiller/heal</th><th>No. of panicles/sqm</th><th>Test wt(g)</th><th>Yield (q/ha)</th></tr>
<tr><td>T1</td><td>121.85</td><td>11.57</td><td>273.57</td><td>22.81</td><td>45.98</td></tr>
<tr><td>T2</td><td>111.71</td><td>14.14</td><td>306.14</td><td>24.92</td><td>47.26</td></tr>
<tr><td>T3</td><td>126.42</td><td>7.71</td><td>167.85</td><td>22.14</td><td>37.67</td></tr>
<tr><td>SE(m)</td><td>1.78</td><td>0.49</td><td>6.27</td><td>0.11</td><td>1.01</td></tr>
<tr><td>CD(P=0.05)</td><td>5.54</td><td>1.54</td><td>19.56</td><td>0.33</td><td>3.15</td></tr>
</table>
</td><td>Farmers are happy to cultivate these two protein rich varieties</td><td>These two Protein varieties (CR dhan 310 and CR dhan 311) are suitable for agroclimatic condition of West Tripura district.</td><td>T1: 2.00:1
T2: 2.06:1
T3: 1.60:1</td></tr>
</table>

<table>
<tr>
<td>2.</td>
<td>Assessment of potato varieties under West Tripura condition</td>
<td>Low yield of local potato tuber</td>
<td>T1 Kufri Chipsona-3
T2 Kufri Pokhraj
T3 Local</td>
<td>Rice-Potato</td>
<td>21</td>
<td>
<table>
<tr><th rowspan="2">Treatment</th><th>Plant height(cm)</th><th>No. of Branches</th><th>No. of leaves</th><th>Plant height(cm)</th><th>No. of Branches</th><th>No. of leaves</th></tr>
<tr><th>30 DAS</th><th>60 DAS</th><th>30 DAS</th><th>30 DAS</th><th>60 DAS</th><th>30 DAS</th></tr>
<tr><td>Kufri chipsona-3</td><td>39.17</td><td>54.97</td><td>8.71</td><td>9.14</td><td>48.28</td><td>80.429</td></tr>
<tr><td>Kufri Pukhraj</td><td>32.18</td><td>44.00</td><td>7.28</td><td>8.00</td><td>39.85</td><td>62.57</td></tr>
<tr><td>Local</td><td>25.87</td><td>37.57</td><td>3.14</td><td>4.00</td><td>29.14</td><td>53.28</td></tr>
<tr><td>SE(m)</td><td>1.11</td><td>1.78</td><td>0.34</td><td>0.32</td><td>1.67</td><td>2.23</td></tr>
<tr><td>CD(P=0.05)</td><td>3.45</td><td>5.55</td><td>1.04</td><td>0.99</td><td>5.25</td><td>6.93</td></tr>
</table>
</td>
<td>Farmers are happy to cultivate Kufri Chipsona-3 and Kufri Pokhraj</td>
<td>Two varieties namely Kufri Pokhraj and Chipsona-3 are comes up well under West Tripura condition and highly preferred by the farmers.</td>
<td>T1: 2.97:1
T2: 2.67:1
T3: 1.88:1</td>
</tr>
<tr>
<td>3.</td>
<td>Assessment of mustard varieties under late sown condition</td>
<td>Low yield of local variety of mustard</td>
<td>T1: DRMR-150-35
T2 : NRCHB-101
T3: Local check</td>
<td>Rice - fallow</td>
<td>21</td>
<td>
<table>
<tr><th>Treatment</th><th>Plant ht(cm)</th><th>Primary branches</th><th>No. of siliqua/plant</th><th>Yield (q/ha)</th></tr>
<tr><td>T1</td><td>182.57</td><td>8.28</td><td>482.42</td><td>14.79</td></tr>
<tr><td>T2</td><td>168.57</td><td>5.85</td><td>364.00</td><td>12.27</td></tr>
<tr><td>T3</td><td>134.86</td><td>2.85</td><td>167.71</td><td>7.58</td></tr>
<tr><td>SE(m)</td><td>4.33</td><td>0.28</td><td>24.64</td><td>0.30</td></tr>
<tr><td>CD(P=0.05)</td><td>13.49</td><td>0.86</td><td>76.76</td><td>0.94</td></tr>
</table>
</td>
<td>Farmers showed their interest to cultivate the variety DRMR-15--35</td>
<td>Among the varieties tested , DRMR-150-35 give good response in terms of yield and other yield attributing characters</td>
<td>T1: 2.41:1
T2: 2.00:1
T3: 1.36:1</td>
</tr>
<tr>
<td>4.</td>
<td>Application of Questagrow biostimulent in winter vegetables</td>
<td>Low yield of cabbage</td>
<td>T1:Spray of Biostimulent
T2: Control</td>
<td>Rice-vegetables</td>
<td>-</td>
<td>
<table>
<tr><th>Treatment</th><th>Plant height (cm)</th><th>Yield (q/ha)</th><th>Cost of Cultivation (Rs.)</th><th>Gross Return (Rs)</th><th>Net Return (Rs)</th></tr>
<tr><td>T1</td><td>55.5</td><td>124</td><td>110000</td><td>310000</td><td>200000</td></tr>
<tr><td>T2</td><td>50.2</td><td>115</td><td>108000</td><td>287000</td><td>179500</td></tr>
</table>
</td>
<td>Farmers are happy to see the yield of cabbage obtained with biostimulant sprayin g</td>
<td>Spraying of Biostimulant can increase the yield of cabbage by stimulating the physiological functions of a plant</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Assessment of Existing Marketing channel of Ginger in West Tripura District</td>
<td>Lack of remunerative price of Ginger</td>
<td>T1-Producer-village trader-Whole seller–Retailer-Consumer
T2-Producer-village trader-Retailer-Consumer
T3-Producer-Retailer-Consumer
Farmers practice: Producer-Local market</td>
<td>Ginger</td>
<td></td>
<td>
<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>T-1</th><th>T-2</th><th>T-3</th><th>Farmers Practice</th></tr>
<tr><td>1.</td><td>Producer avg Price (Rs./tonne)</td><td>7,000</td><td>7,500</td><td>8,500</td><td>8,000</td></tr>
<tr><td>2.</td><td>Total Market charge incurred by producer (Rs.)</td><td>300</td><td>300</td><td>360</td><td>400</td></tr>
<tr><td>3.</td><td>Net amount received by Producer (Rs.)</td><td>6,700</td><td>7,200</td><td>8,140</td><td>7,600</td></tr>
</table>
</td>
<td>Farmers are happy for identifying the profitable marketing channel for ginger</td>
<td>Profitable marketing channel has been identified</td>
<td>NA</td>
</tr>
<tr>
<td>6.</td>
<td>Assessment of Group effectiveness of SHGs</td>
<td>Low income & savings of SHG</td>
<td>PRA conducted, Analysis of training needs,
Skill Training on secondary agriculture</td>
<td>SHGs</td>
<td></td>
<td>
<table>
<tr><th>Parameters</th><th>Treatment</th><th>control</th><th>Percentage (%) change in parameter</th></tr>
<tr><td>Annual Avg income (Rs.)</td><td>Rs. 20,000</td><td>Rs. 12,000</td><td>66%</td></tr>
<tr><td>Annual avg. savings (Rs.)</td><td>Rs. 3,500</td><td>Rs. 2,000</td><td>75%</td></tr>
<tr><td>Group size (no.)</td><td>15</td><td>10</td><td>50%</td></tr>
</table>
</td>
<td>This technology increase the annual income and savings group members</td>
<td>Skill training increase the efficiency of the group memebers</td>
<td></td>
</tr>
</table>

**Field crops – ton/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermicompost kg/unit area.*

*** Give details of the technology assessed or refined and farmer's practice*

3.2Achievements of Frontline Demonstrations during 2023

a. Follow-up for results of FLDs implemented during previous years List of technologies demonstrated during previous years and popularized and recommended for large scale adoption in the district

Sl. No	Crop and Variety/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No. of villages	No. of farmers	Area in ha
1	Rice (Gomati)	Popularisation of HYV of Gomati rice	50	1500	500
2	Field pea	Popularisation of field pea variety Aman	5	100	5
3	Mustard	Popularisation of mustard variety NRCHB-101	5	100	5
4	Maize	Popularisation of maize variety VHM-45	3	70	4

** Thematic areas as given in Table 3.1 (A1 and A2)*

B. Details of FLDs conducted during reporting period (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1.	Rice	Crop Production	Demonstration of high yielding variety of Kharif rice var. Tripura Nirog to replace local varieties	Kharif 2023	10	20	75	25	100	No shortfall	Rainfed	-	-	-
2.	Sesamum	Crop Production	Demonstration of Sesamum variety Tripura Sipping	Kharif 2023	3	3	5	10	15	No shortfall	Rainfed			
3.	Foxtail millet	Crop Production	Demonstration of Foxtail Millet variety SIA-3156	Kharif 2023	1	1.5	5	3	8	No shortfall	Rainfed			
4.	Finger Millet	Crop Production	Demonstration of Finger Millet variety CFMV-1	Kharif 2023	1	1	5	5	-	No shortfall	Rainfed	-	-	-
5.	Onion	Crop Production	Demonstration of onion variety Bhima Shakti	Kharif 2023	-	0.5	3	2	-	No shortfall	Rainfed	-	-	-
6.	Water melon	Crop Production	Demonstration of vegetable cultivation (water melon) under polythene mulching in the farmers field of West Tripura district	Kharif 2023	-	1	5	2	7	No shortfall	Rainfed	-	-	-
7.	Pea	Adoption study	Adoption study of Field pea variety (Aman)	Rabi 2023	-	-	20	30	50	No shortfall	Rainfed			
8.	Rice	Impact Assessment	Impact of MSP on rice for enhancing farmers income of West Tripura district	Kharif 2023	-	-	70	30	100	No shortfall	Rainfed			

c. Performance of FLD on Crops during 2023

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.		Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)			
				Demo.	Check		H*	L*	Demo	Local	GC**	GR**	NR**	BCR **	GC	GR	NR	BCR
1	Rice (var. Tripura Nirog)	Crop Production	20	51.4	40.3	27.54	54.0	49.0	51.4	40.3	**40,000**	**92,520**	**52,520**	**2.31:1**	40,000	72540	32540	1.81 : 1
2	Sesamum (var.Tripura sipping)	Crop Production	3	8.6	6.0	43.3%	9.0	8.2	9.0	8.2	17180	34400	17220	1:2.0	16750	31160	14410	1.86 :1
3	Foxtail Millet (SIA 3156)	Crop Production	1.5	14.6	10.8	35.18	16.0	13.0	14.6	10.8	33500	73000	39500	1:2.18	33500	54000	20500	1.61 :1
4	Finger millet	Crop Production	1	17.3	13.4	29.1	20.7	15.3	17.3	13.4	34500	86500	54000	1:2.50	34500	67000	32500	1.94 :1
5	Onion	Crop Production	0.5	182	125	45.6%	210	170	182	125	97,000	2,73,000	1,76,000	2.81:1	97,000	187500	90500	1.93 :1
6.	Water melon	Crop Production	1	142.5	110.4	29.07%	155.3	133.8	142.5	110.4	100000	2,85,000	185000	2.85:1	110000	220800	110800	2:1

*H-Highest recorded yield, L- Lowest recorded yield ** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio Produce Sale Price must be as per MSP or Registered Marketing Society Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC *Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.*

d. Extension and Training activities under FLD on Crops

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days	02	27/7/2023 7/2/2024	20	65	85	Sesamum field day and mustard field day
2	Farmers Training	1	14/9/2023	-	9	9	Training on blackgram cultivation conducted
3	Media coverage	-	-	-	-	-	-
4	Training for extension functionaries	-	-	-	-	-	-
5	Extension Activities	3	1/2/2024 2/2/2023 21/12/2023				Diagnostic field visit to mustard field Diagnostic field visit to lentil field
	Total	6					

e. Details of FLD on Enterprises

(i) Farm Implements

(ii) Livestock Enterprises

(iii) Fisheries

(iv) Other enterprises

Sl. No.	Category/ Enterprise, e.g., mushroom, vermicompost, apiculture etc.	Thematic area	Name of Technology	No. of farmers	No. of units	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
						Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	
1.	Oyster Mushroom	Mushroom production	Oyster Mushroom cultivation for income generation of tribal women of West Tripura district	50	50	65.8 kg	-	-			5000/-	13,160/-	8160	2.63:1	-	-	-	-	-

** *GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost Ratio*

Note: Economics to be worked out based on total cost of production per unit area and not on critical inputs alone.

(v) Farm Implements and Machinery

f. Performance of FLD on Crop Hybrids

3.3. Achievements on Training during 2023

(Attached separate in Excel format)

Annexure 1: Details of Training Programme (On Campus including Sponsored On Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Agronomy	Crop Production	Training Programme on onion cultivation	16/8/2023	01	KVK West Tripura	Farmer & Farm women	-	-	-	20	29	20	20	29	49
Agronomy	Crop Production	Training Programme on baby corn	31/8/2023	01	KVK West Tripura	Farmers and Farm women	10	-	10	10	9	19	20	9	29
Agronomy	Integrated Farming System	Training programme on Integrated Farming System	16/10/2023	01	KVK West Tripura	Farmers and Farm women	-	-	-	5	5	10	5	5	10
Agronomy	Crop Production	Training cum awareness programme on Promotion of millet crops	15/11/2023	01	KVK West Tripura	Farmers and Farm women	-	-	-	15	20	35	15	20	35
Agronomy	Crop Production	Promotion on biofortified maize production in Tripura	7/11/2023	01	KVK West Tripura	Farmers and Farm women	10	-	10	10	7	17	20	7	27
Agronomy	IFS	Integrated Farming System for tribal farmers	4/10/2023	01	KVK West Tripura	Farmers and Farm women	8	2	10	-	-	-	8	2	10
Agronomy	Crop Production	Training on production technologies of mango and dragon fruit	26/3/2024	01	KVK West Tripura	Farmers and Farm women	20	6	26	-	-	-	20	6	26
Agronomy	Crop Production	Training cum awareness Programme on Soil health and Natural Farming	16/11/2023	01	Mandai	Farmers and Farm women	22	8	30	-	-	-	22	8	30
Agronomy	Natural Farming	Natural Farming	18th December 2023 to 26th December 2023	01	KVK West Tripura	Farmers and Farm women	16	6	22	-	-	-	16	6	22
Agronomy	IFS	Integrated Farming System	5th March 2024 to 14th March 2024	01	KVK West Tripura	Farmers and Farm women	10	-	10	14	28	102	24	28	52
Agril. Extension	Credit linkage	Credit linkages for crops and livestock	13/12/2023 to 15/12/2023	03	KVK West Tripura	Farmers and Farm women	-	-	-	18	12	30	18	12	30
Agril. Extension	Leadership Development	Rural Leadership Development for agricultural growth	02/01/2024 to 04/01/2024	03	KVK West Tripura	Farmers and Farm women	-	-	-	08	14	22	08	14	22

Agril. Extension	Group management	Management of FPOs	23/01/2024 to 25/01/2024	03	KVK West Tripura	Farmers and Farm women	-	-	-	22	8	30	22	8	30
Agril. Extension	ICT Application	Application of ICTs in Agricultural Development.	29/01/2024 to 31/01/2024	03	KVK West Tripura	Farmers and Farm women	-	-	-	14	10	24	14	10	24
Agril. Extension	Production	Azolla cultivation	31/01/2024	01	KVK West Tripura	Farmers and Farm women	-	-	-	21	27	48	21	27	48

Annexure 2 : Details of Training Programme (Off Campus including Sponsored Off Campus) for Farmers, Farm Women, Rural Youth and Extension Personnel.

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Agronomy	Crop Production	Production technologies of rabi vegetables	19/10/2023	01	KVK West Tripura	Rural Youth	10	-	10	10	8	18	20	8	28

(D) Vocational training programmes for Rural Youth

Annexure 3 : Only Sponsored Training Programmes (On, Off and Vocational)

3.4. Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2023

Sl. No.	Extension Activity	Topic	Date and duration	No. of activities	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1.	Awareness programme	Technological intervention & innovation in the Honey/beekeeping sector	12/04/2023	1	0	-	-	15	18	23	-	-	-	15	18	23
2.	Input distribution	Input distribution Programme	12/04/2023	1	-	-	-	03	0	03	-	-	-	03	0	03
3.	Celebration of important day	Foundation stone laying ceremony	30/04 /2023	1	08	11	19	71	98	169	12	5	17	91	114	205
4.	Awareness programme	Agriculture and allied sector technologies	11/05/2023	1	-	-	-	19	28	47	-	-	-	19	28	47
5.	Awareness Campaign	Climate resilient Agriculture	22/05/2023 to 28/05/2023	7	16	09	25	27	42	69	-	-	-	43	51	94
6.	Celebration of important day	Observance of international year of millet	24/05/2023	1	-	-	-	22	36	58	-	-	-	22	36	58
7.	Celebration of important day	World Environment Day	05/06/2023	1	-	-	-	16	14	30	-	-	-	16	14	30
8.	Input distribution	Input (seed) distribution Programme	15/06/2023	1	-	-	-	27	06	33	-	-	-	27	06	33
9.	Input distribution	Input (seed & weedmat) distribution Programme	19/06/2023	1	-	-	-	09	0	09	-	-	-	09	0	09
10.	Input distribution	Input (seed) distribution Programme	23/06/2023	1	-	-	-	14	16	30	-	-	-	14	16	30
11.	Recipe contest	Millet Recipe contest	05/07/2023	1	-	-	-	14	12	26	-	-	-	14	12	26
12.	Input distribution	Input (seed) distribution	12/07/2023	1	-	-	-	05	0	05	-	-	-	05	0	05
13.	Input distribution	Input distribution Programme	17/07/2023	1	-	-	-	07	04	11	-	-	-	07	04	11
14.	Recipe contest	Millet Recipe contest	19/07/2023	1	-	-	-	14	16	30	-	-	-	14	16	30
15.	Recipe contest	Millet Recipe contest	20/07/2023	1	-	-	-	8	21	29	-	-	-	08	21	29
16.	Awareness programme	PM Kisan Samman Nidhi	27/07/2023	1	-	-	-	12	23	35	-	-	-	12	23	35
17.	Field Day	Sesamum variety Tripura Sipping	27/07/2023	1	-	-	-	12	23	35	-	-	-	12	23	35
18.	Input distribution	Input distribution (fingerling) Programme	02/08/2023	1	-	-	-	02	10	12	-	-	-	02	10	12
19.	Celebration of important day	Independent Day	15/08/2023	1	-	-	-	19	4	23	-	-	-	19	4	23
20.	Input distribution	Input (chicks) distribution Programme	22/08/2023	1	-	-	-	10	10	20	-	-	-	10	10	20
21.	Input distribution	Input (seed) distribution Programme	14/09/2023	1	-	-	-	04	0	04	-	-	-	04	0	04
22.	Exposure visit	Exposure visit of farmers to BAPCL	20/09/2023	1				12	10	22	-	-	-	12	10	22
23.	Awareness campaign	Swachhta Special Campaign 2.0	02/10/2023 to 31/02/2023	30	28	22	50	58	62	120	30	20	50	116	104	220
24.	Input distribution	Input distribution Prgoramme	04/10/2023	1	-	-	-	18	0	18	-	-	-	18	0	18
25.	Input distribution	Input distribution Prgoramme	13/10/2023	1	-	-	-	02	0	02	-	-	-	02	0	02
26.	Input distribution	Input distribution (piglet) Prgoramme	16/10/2023	1	-	-	-	08	02	10	-	-	-	08	02	10
27.	Input distribution	Input distribution (vermibed) Prgoramme	17/10/2023	1	-	-	-	03	0	03	-	-	-	03	0	03
28.	Input distribution	Input (seed) distribution Programme	19/10/2023	1	-	-	-	19	21	40	-	-	-	19	21	40
29.	Input distribution	Input (farm tool) distribution Programme	30/10/2023	1	-	-	-	10	0	10	-	-	-	10	0	10

30.	Awareness programme	PM Kisan Samman Nidhi	15/11/2023	1	-	-	-	28	38	66	-	-	-	28	38	66
31.	Awareness campaign	Viksit Bharat Sankalp Yatra	15/11/2023 to 25/01/2024	70	55	78	133	169	158	327	-	-	-	224	236	460
32.	Celebration of important day	World Soil Day	05/12/2023	1	-	-	-	23	34	56	-	-	-	23	34	56
33.	Awareness campaign	Swachhta Pakhwada	16/12/2023 to 31/12/2023	16	12	45	57	49	73	122	18	25	43	79	133	212
34.	Celebration of important day	Kisan Diwas	23/12/2023	1	-	-	-	27	51	78	-	-	-	27	51	78
35.	Awareness programme	Farmers Scientist Interaction Programme	27/12/2023	1	17	21	38	45	22	67	-	-	-	62	43	105
36.	Input distribution	Input distribution Programme	31/01/2024	1	-	-	-	21	17	38	-	-	-	21	17	38
37.	Input distribution	Input distribution Programme	09/02/2024	1	-	-	-	08	17	25	-	-	-	08	17	25
38.	Awareness programme	PM Kisan Samman Nidhi	28/02/2024	1	-	-	-	16	12	28	-	-	-	16	12	28
39.	Exposure visit	Exposure visit of farmers	04/03/2024	1	-	-	-	15	10	25	-	-	-	15	10	25
40.	Input distribution	Input (chicks) distribution Programme	14/03/2024	1	-	-	-	10	10	20	-	-	-	10	10	20
41.	Input distribution	Input distribution Programme	26/03/2024	1	-	-	-	09	17	26	-	-	-	09	17	26

3.5 Production and supply of Technological products during 2023

A. SEED MATERIALS

Major group/class	Crop wise	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries				
					General		SC/ST		Grand Total
					M	F	M	F	
Oilseed	Mustard	DRMR-150-35	0.05	250/-	3	2	3	2	10
	Sesamum	Tripura Sipping	0.08	400/-	8	-	8	-	16
Pulses	Black gram	Tripura Mashkoloi-1	0.07	350/-	4	-	3	-	7
Millets	Fingermillet	CFMV-1	0.1	1000/-	5	-	5	-	10

A1. SUMMARY of Production and supply of Seed Materials during 2023

Sl. No.	Major group/class	Quantity (q) produced	Quantity (q) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries				
					General		SC/ST		Grand Total
1	Oilseed	0.13	0.13	650/-	11	2	11	2	26
2	Pulses	0.07	0.07	350/-	4	-	3	-	7
3	Millet	0.1	0.1	1000/-					
TOTAL		0.3	0.3	2000/-	15	2	14	2	33

B. Production and supply of Planting Materials (Nos. in No.) during 2023

Major group/class	Crop	Variety	Quantity (In No.) produced	Quantity (In No.) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries				
						General		SC/ST		Grand Total
						M	F	M	F	
Vegetables	Tomato	-	500 nos.	-	1000	-	-	-	-	-
	Chilli	-	500 nos.	-	1000	-	-	-	-	-
	Brinjal,	Arka anand	500 nos.	-	1000	-	-	-	-	-
	Cauliflower	-	500 nos.	-	1000	-	-	-	-	-
	Cabbage	-	500 nos.	-	1000	-	-	-	-	-
	Capsicum	Indra	500 nos.	-	1000	-	-	-	-	-
	Onion,	Bhima Shakti	2000 nos.	-	2000	-	-	-	-	-
				-						
Spices	Ginger	Local	25 kg	-	1250	-	-	-	-	-
	Turmeric	Local	476 kg	-	11900	-	-	-	-	-
Tuber crop	Colocasia(Taro)	Muktakeshi	48 kg	-	2400	-	-	-	-	-
	Elephant Foot Yam	Gajendra	65 kg	-	3250	-	-	-	-	-

C. Production of Bio-Products during 2023

Major group/class	Product Name	Species	produced Quantity		Value (Rs.)	Number of Recipient /beneficiaries				
			No	(Kg)		General		SC/ST		Grand Total
						M	F	M	F	
BIOAGENTS	Earth Worm	Erisina foetida	1000	-	1000	5	5	-	-	10
	Vermicompost	-	-	1500	18000	20	5	30	10	55

D. Production of livestock during 2023

3.6. Literature Developed/Published (with full title, author & reference) during 2023

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.) : _____

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
Research Paper	Yield of direct seeded upland rice (Oryza sativa L.) as influenced by different weed management practices under Tripura condition International Journal of Agricultural Science Vol 20, Issue 1 January 2024	M. Chakraborti, B. Duary, M. Datta	Published	-
Extension Literature	Package of Practices for carp seed rearing. 2023	K. Nath, R. Das, S. K. Das, M. Chakraborti, Dhiman Daschoudhury, Debashis Datta		
TOTAL				

N.B. Please enclose a copy of each. In case of literature prepared in local language, please indicate the title in English

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number produced
1.			

3.7 Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

Success story 1 : Income generation of the farmers through development of Integrated Farming System :

1. **Name of the Farmer:** Shri Rabi Debbarma
2. **Postal address, Mobile No./e-mail:**

Village name: Bahadurpara,

GP: East Janmeyjoynagar, Pin code: 799045

Contact no.: 9612606101

Dist: West Tripura, State: Tripura

3. Farmers Profile:

Particulars	Detail	Particulars	Detail
Name:	Mr. Rabi Debbarma	Village: Bahadurpara	
Aadhar no.:	841096759497		
Age:	58 years	Sub Division/ Block: Belbari	
Gender:	Male		
Education:	Primary school pass	State :Tripura	
Family Type & Size: Nuclear (4 members)		Farm Area- 5.5 ha	
Main crops/enterprise/farm animals: Vegetables, fish, poultry and pig		Mobile no.+91-9612606101	

4. Brief about farmers

Mr. Rabi Debbarma was working as an agricultural labour in others fields before the intervention during 2017, though his having a 5.5 ha of land. He was earn less than 1 lakh rupees per year due to his lack of knowledge on scientific package and practices of agriculture and allied sector. He has contacted with the KVK West Tripura to get scientific knowledge. KVK imparted training and provided various agri and allied sector inputs to him. Now he has set himself a successful agri entrepreneur on Livestock based integrated farming system by his hard working and showing interest on learning new things He has increased his annual income from rupees 1 lakh to 5.9 lakh.

5. Training Exposure in last five years

Informal education	Name of the institute	Year
Plant protection training	West Tripura KVK	2019
Nursery Management	West Tripura KVK	2020
Integrated farming	West Tripura KVK	2021
Natural Farming	West Tripura KVK	2023

6. Resources owned by Farmer

- Land (ha): 5.5 ha
- Water bodies with irrigation capacity: 3 Pond, 1 Solar
- Animal Resources including fish and Poultry: Pig: 8, Cattle: 5; Chicks: 50
- Farm Machinery: Chicks hatchery: 1 , Pump: 1, Spray machine: 2

7. Area Under

- Field Crops: 1.5 ha
- Horticultural Crops: 1 ha
- Rubber garden: 2
- Pond: 0.5 ha

8. Major Achievements :

- **Integrated farming system**
- **Vegetable based cropping system**
- **Livestock based farming system**
- **Integrated fish farming**
- **Chicks hatchery**
- **Rubber plantation**
- **Diary farming**
- **Improved Maize cultivation**

11. Economics analysis :

Sl. No.	Component	Area/ Nos.	Production	Rate (Rs.)	Gross Income (Rs.)	Total cost (Rs.)	Net income (Rs.)	B:C ratio
1	Vermicomp	2 no.s	3 quintal	30.00/kg	90,000.00	27,0000.00	63,000.00	3.33
2	Poultry	90 nos.	4,760 nos. egg	15.00	71,400.00	25,300.00	46,100.00	2.82
3	Piggery	2 nos.	10 nos. pig	55,000.00	5,50,000.00	1,15,250.00	3,34,750.00	3.28
4	Vegetables	2.5 ha	3.32 quintal	40.00/kg	2,52,800.00	1,20,150.00	1,32,650.00	2.62
5	Maize	1.5 ha	1.29 quintal	40.00/kg	1,25,800.00	73,300.00	42,500.00	2.11
					9,90,000.00	**4,00,000.00**	**5,90,0000.00**	

12. What improvement have been affected for productivity, profitability and sustainability - enhancement.

- Integrated farming system
- Organic mulching in vegetables
- Vermi compost production
- Cultivation of mustard in zero tillage technology

13. Any spread effect on Fellow Farmers

- Up-scaled the production technology of vermicompost production
- Up-scaled the zero tillage technology
- Integrated farming system

14. Innovative interventions inducted in the system of production and management and effects

- **Use of Solar pump based irrigation system**

15. Any others relevant information

- Active member of Farmers Producer Farmers Producer Company –Hatai Kotor
- Received **Best Farmers Award** from ICAR RC for NEH, 2024

16. Photographs:







Success story 2: Agri entrepreneurship development through high yielding crop cultivation

1. Farmers name: Mr. Subal Debbarma

2. Address: Brojabasipara, Belbari, West Tripura, 799045

Latitude: N 23°45′22″, Longtitude: E 91°27′41″

Altitude: 230 meter

Contact details: 8787782436

3. . Component details: Horti + Agri+ Vermicompost

4. **Area coverage**: 0.48 ha

5. Scientific Intervention : Rice + Maize +Horticultural crops(Chili, Cabbage, cauliflower, Tomato, bhindi) + Vermicompost unit

6. Economics with cost benefit

Components	Area (ha)/Number	Cost of cultivation (RS.)	Gross Income (Rs.)	Net income	B:C Ratio
Rice	0.40	23200	Rs.48,000/-	24800	2.07:1
Maize	0.16	9100/-	Rs.19,200/-	10100	2.10:1
Chili	0.08	20000/-	Rs.46,000/-	26000	2.30:1
Cabbage	0.16	8500/-	Rs.17,800	9300	2.09:1
Tomato	0.08	14200/-	Rs.32,000/-	17800	2.25:1
Bhindi	0.08	5400/-	Rs.12,000/-	6600	2.22:1
Vermicompost	2 unit	10,000/-	Rs.25,000/-	15000	2.5:1
Total		90400/-	Rs.2,00000/-	109600	

Photographs of Horticulture based farming developed in Mr. Subal Debbarma field

7. Impact

Mr. Subal Debbarma is a successful IFS farmer from Brajabashipara village. Before adoption of intervention of KVK West Tripura, his income was around Rs.45000/- by cultivating rice, maize and bhindi. Mr. Subal Debbarma usually cultivated the rice varieties like sahabhagi, swarna etc. Mr. Debbarma was not aware about the high yielding varieties of rice, maize, vegetables and also was lacking of knowledge on scientific cultivation practices of crops. To combat this problem, KVK West Tripura imparted training on various improved technologies of agriculture and allied sector. Besides imparting training, many demonstrations on improved varieties of rice vegetables, how to utilize fallow area, nutrient recycling through composting and vercomposting. After adaptation of the interventions of KVK West Tripura, his income increased from Rs.45000/- to Rs.1,0,9600/-.

3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year

1. Pineapple cultivation under weed mulch
2. Cultivation of dragon fruit under INM technology
3. Tuber crop based Integrated Farming System model

3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

3.10 Indicate the specific training need analysis tools/methodology followed for

3.11 Field activities

i. Number of villages adopted: 5

ii. No. of farm families selected: 250

iii. No. of survey/PRA conducted: 5

3.12. Activities of Soil and Water Testing

Status of establishment of Lab : No soil Testing Lab is there in KVK West Tripura

1. Year of establishment : NA(Not applicable)
2. List of equipmentspurchased with amount : NA(Not applicable)

3. Details of samples analyzed (2023)

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	NIL	PUSA STFR	IARI PUSA	01	86000
Total					

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount (In Rupees) realized
Soil Samples	125	125	5	nil
Water Samples				
Plant Samples				
Petiole Samples				
Total	**125**	**125**	**5**	**nil**

1. Details of Soil Health Cards (SHCs) (2023)

a. No. of SHCs prepared: 125

b. No. of farmers to whom SHCs were distributed: 125

c. Name of the Major and Minor nutrients analysed: N,P,K, Organic C, pH

d. No. of villages covered: 05

3.13. Details of SMS/ Voice Calls sent on various priority areas

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	40	2844	20	2844	20	2844	20	2844	04	2844	0	0	104	2844
Voice only														
Voice and Text both														
Total	40	2844	20	2844	20	2844	20	2844	04	2844	0	0	104	2844

3.14 Contingency planning for 2023

a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
Drought	Introduction of new variety of rice for lowland (Khara Dhan-1/Khara Dhan-2)	3	15	5	20
	Growing of pulses like cowpea, moong, blackgram as covercrop in medium upland area to mitigate drought (Resource Conservation Technology)	3	15	5	20
	Distribution of seeds of rice variety Khara Dhan-1	3	15	5	20
	Distribution of seeds of rice Swarna Sub-1	2	10	5	15
	Introduction of new variety of rice for lowland (Khara Dhan-1/Khara Dhan-2)	3	15	5	20
Flood	Introduction of variety like Swarna Sub-1 for lowlying area	2	10	5	15

A. Livestock based Contingency planning

4.0. IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period only)

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Demonstration of HYV Rice(var. Gomati)	100	70%	Rs.22000/-	Rs.39000/-
Demonstration of HYV lentil(var. HUL-57)	25	30%	Rs.10000/-	Rs.17000/-
Demonstration of HYV garden pea(Arkel)	100	60%	Rs. 15000/-	Rs.32000/-

NB : Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large scale adoption Demonstration of HYV rice var. Gomati.

Rice variety gomati is cultivated in 70% of the lowland area of the district. The potential yield of gomati rice is55 to 58 q/ha which is much more higher than the other prevailing rice varieties of Tripura.. The variety is mediumduration and can easily be fit in the cropping system.The rice grain is slender which is highly preferred by the people of Tripura.

(Please furnish detailed information for each case)

4.3 Details of impact analysis of KVK activities carried out during the reporting period Impact analysis of KVK activities carried out during the reporting period is going on.

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations established during 2021

Name of organization	Nature of linkage
ICAR	Training, KVK-Interface Meeting, Field demonstration under TSP programmes of ICAR (Tripura Centre)
ATMA, SAMETI	Field demonstration on agronomic crops under NFSM
Agriculture Department, Govt. of Tripura	Training and Demonstration of crops
Fisheries Department, West Tripura	Capacity building programmer of fish farmers
Indian Institute of Horticulture Research, Banglore	Field Demonstration on vegetables and fruit crops
Indian Institute of Spices Research, Calicut	Training and Demonstration of spices and Ginger
NABARD	Demonstration, Awareness programme
College of Agriculture	Training, meeting
College of Fisheries	Training, meeting

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2023

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1.	Meeting	KVK participated in the all ATMA meetings organised by Project Director ATMA	

5.4 Give details of programmes implemented under National Horticultural Mission

5.5 Nature of linkage with National Fisheries Development Board

5.6 MGMG of KVKs during 2023

No of Villages	Participants		No of Visit made	Participants		No of demonstration	Participants		No of Farmers meeting	Participants	
	SC/ST	Others		SC/ST	Others		SC/ST	Others		SC/ST	Others
1	20	-	3	20	-	25	25	-	-	-	-

5.7 Natural Farming during 2023

No. of demonstrations conducted	Participants		No. Trainings	Participants		No. of Awareness Programs	Participants	
	SC/ST	Others		SC/ST	Others		SC/ST	Others
-nil	nil	nil	1	22	-	1	20	-

5.8 Achievements under DAMU KVKs during 2023 (only selected KVKs)

5.9 Format for Current Progress of Cluster Demonstrations on Organic Farming under PKVY during 2023 (only selected KVKs)

6.0 Report on Agri Drone project (only selected KVKs)

Foundation stone ceremony

Farmers Scientist Interaction Prog

Celebration of ICAR foundation Day

Celebration of World Soil Day

6.1 Status of NARI during 2023

7. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2023

7.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit (Name and No.)	Year of estd.	Area(acre)	Details of production			Amount (Rs.)		Remarks
				Variety/ species/ breed	Type of Produce	Qty.(q)	Cost of inputs	Gross income	
1	Integrated Farming System	2019	1	Jackfruit, Apiary, Ginger, Turmeric, Vermicompost	Fruits, Honey, Rhizome, vermicompost	30	Rs.30,000/-	Rs.55000/-	-
2	Dragon Fruit	2020	0.5	Red flesh	Fruit	0.7	Rs.7000/-	Rs.17500/-	-
3.	Pineapple under mulching	2020	0.5	Kew and queen	Fruit	2.0	Rs1000/-	Rs.4000/-	
4.	Lemon	2020	0.5	Gandharaj	Fruit	2.0	Rs.500/-	1000/-	

7.2 Performance of instructional farm (Crops) including seed production during 2023

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.(kg)	Cost of inputs	Gross income	
Mustard	1st week of November 2023	2nd week of February 2024	0.02	DRMR-150-35	seed	20 kg	500	1000	Distributed to the farmers
Sesamum	1st week of July 2023	1st week of September 2023	0.05	Tripura sipping	Seed	15 kg	200	900	Distributed to the farmers

7.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.) during 2023

Black gram	1st week of September 2023	Last week of November 2023	0.02	Tripura Mashkoloi 1	seed	10 kg	200	600	Distributed to the farmers
Finger millet	1st week of July 2023	1st week of October	0.02	CSMV-1	seed	10 kg	500	1000	

7.4 Performance of instructional farm (livestock and fisheries production) during 2023

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Earth worm	1000	100	1000	Distributed to farmers
2.	Vermicompost	500 kg	3000	7500	Used in office farm

7.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Unit/ structure during 2023

7.6. Utilization of hostel facilities (Month-Wise) during 2023

Accommodation available (No. of beds):

8. FINANCIAL PERF ORMANCE

8.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch
Current Account	State Bank of India, Jiranaia	Jirania, West Tripura

8.2 Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2023

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 31st March, 2023
	Amount	Amount	Amount	Amount	
CFLD Oilseeds	0.106	0.106	0.106	0.106	Nil
TOTAL					

8.3 Utilization of KVK funds during the year 2023

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances	49.13370	49.13370	49.13370
2	Traveling allowances	2.30	2.30	2.30
3	Contingencies	22.60	22.60	22.60
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
	Working Capital			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
K	KSHAMTA	0.80	0.80	0.80
L	NARI	0.80	0.80	0.80
M	HRD	0.50	0.50	0.50
TOTAL (A)				
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		76.13370	76.13370	76.13370

8.4 Status of Revolving Fund (Rs. in lakhs) for last three years :

8.5 Please include information which has not been reflected above. (Write in detail)

8.6 Constraints and Suggestion (Provide point-wise if any, for recommendation)

(a) Administrative :

(b) Financial

(c) Technical

(Signature)

Sr. Scientist cum Head