PROFORMA FOR ANNUAL REPORT OF KVKS 2021 (January- December)

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	
Krishi Vigyan Kendra (Divyodaya), Khowai, P.O. Chebri, Dist: Khowai, Tripura- 799 207	-	-	dkvkwesttripura@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Sri Ramakrishna Seva Kendra, 81 Bondel Road, Kolkata-700 019, West Bengal	033-22809579	033-22809578	srskcal@yahoo.co.in

1.3. Name of the Senior Scientist & Head with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Manoj Singh Sachan	-	9862807336	sachankvkmon@gmail.com

1.4. Year of sanction: 1979

1.5. Staff Position

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. Manoj Singh Sachan	Sr. Scientist & Head	GPB	L-13A Col-2	135300	18.12.2020	OBC
2	Subject Matter Specialist	Dr. Nurul Islam	SMS (Animal Science)	Vety. Gynae. & Obst.	L-11 Col-12	93800	5.12.2007	Others
3	Subject Matter Specialist	Mr. Suresh Biswas	SMS (Home Science)	Food Technology	L-11 Col-7	80900	18.12.2010	SC
4	Subject Matter Specialist	Dr. Subhra Shil	SMS (Horticulture)	Horticulture	L-10 Col-8	69000	21.09.2013	OBC
5	Subject Matter Specialist	Mr. Dipankar Dey	SMS (Soil Sc.)	Soil Science	L-10 Col-8	69000	30.09.2013	Others
6	Subject Matter Specialist	Mr. Ardhendu Chakraborty	SMS (PP)	Entomology	L-10 Col-7	67000	15.10.2014	Others
7	Subject Matter Specialist	Mr. Rajib Das	SMS (Agri Extn)	Extension Education	L-10 Col-4	61300	16.05.2018	SC
8	Programme Assistant	Mr. Pranab Rudra Paul	PA	Fishery	L-6, Col-1	35400	23.12.2021	OBC
9	Computer Programmer	Mr. Pradip Deb Barma	PA	-	L-8, Col-15	72100	02.05.1988	ST
10	Farm Manager	Mr. Prasanta Reang	Farm Manager	Agronomy	L-6, Col-4	42300	03.10.2015	ST
11	Superintendent/ Account	Mr. AnantaNath	Assistant	Commerce	L-6, Col-1	35400	07.02.2022	OBC
12	Stenographer	Kaushik Sen Gupta	Jr Steno cumTypist	-	L-5 Col-14	42800	05.07.1990	Others
13	Driver	Monmohan Debnath	Driver	-	L-4, Col-7	30500	1.04.2000	OBC
14	Driver	Rakesh Debnath	Driver	-	L-3,Col-7	26000	24.10.2014	OBC
15	Supporting staff	Mr. Gautam Deb Barma	Supporting staff	-	L-1 Col-5	20300	22.09.2017	ST
16	Supporting staff	Manas Deb Barma	Supporting staff	-	L-1 Col-8	22100	24.10.2014	ST
	Total		**16**					

Note: No column in the table must be left blank

1.6. a. Total land with KVK (in ha): 43.46 ha

b. Total cultivable land with KVK (in ha): 3.1

c. Total cultivated land (in ha):

S. No.	Item	Area (ha)
1	Under Buildings	0.71
2.	Under Demonstration Units	0.75
3.	Under Crops (Cereals, pulses, oilseeds etc.) (Pl. specify separately) i.Cereal ii.Pulses (Blackgram, Greengram, Field pea iii. Toria	1.16
4.	Under vegetables	2.00
5.	Orchard/Agro-forestry	37.84
6.	Others (specify)- Fish based Integrated Farming System Models	1.00

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	1979-1991	475.83	6,91,010	-	-	Need renovation with up gradation
2.	Farmers Hostel	ICAR	1983-1987	226.9	8,22,107	-	-	Need renovation with up gradation
3.	Staff Quarters (4)	ICAR	1985-1991	129.82	12,09,865	-	-	Unfit for residing as certified by PWD
4.	Senior Scientist & Head"s Quarter	ICAR	1990-1991	140.6	-	-	-	Need renovation with up gradation
5.	Bachelor's Quarters (5)	ICAR	1985-1986	253.51	-	-	-	Need renovation
6.	Demonstration Units (2 piggery, 4 poultry, 1 duckery)	ICAR, DRDA, RF	1982-2003	1030.75	21,90,231	-	-	Need renovation
7.	Fencing	ICAR	2002-2003	2312.8	8,000	-	-	Damaged
8.	Threshing Floor	ICAR	1982-1983	184.5	-	-	-	Need renovation
9.	Farm Go-down	ICAR	2005-2006	103.3	-	-	-	Need renovation
10.	Guest House	ICAR	1990-1991	166.65	-	-	-	Need renovation
11.	Garage (2)	ICAR, SRSK	1991, 2008	37.2	-	-	-	Complete
12.	Library	ICAR	1986-1987	96	-	-	-	Complete
13.	Animal Science Store	ICAR	1986-1987	88.55	-	-		Need renovation
14.	Fishery Store	ICAR	1981-1982	12.71	-	-	-	Need renovation
15.	Class Room (2)	ICAR	1982-1983	226.90	-	-	-	Need renovation
16.	Vermicompost Unit (9)	RF, Spices Board, MGNREGA	2008-2009	30.31	-	-	-	Complete
17.	Exhibition Hall	RF	2010- 2011	37.14	-	-	-	Need renovation
18.	Mushroom spawn production laboratory and agri clinic	ICAR and RF	2013-14	326.1	1,30,000.00	-	-	Agri clinic building was pre-existed and amount shown only for mushroom lab
19.	Bio-Flock Unit	T-SAMETI, DoA	2020-21	33.75	100000.00			Complete
20.	Temple	SRSK	2002	110.15				Complete

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Bolero Jeep	TR016A0338	2016-17	800000.00	106093 (14824)	Good

C) Equipments& AV Aids

Name of the equipments	Year of purchase	Cost (Rs.)	Present status
1. Hand Sprayer	2005	-	Good
2. Foot Sprayer	2003	-	Good
3. Mechanical weighing machine	2003	58,088.00	Good
4. Solar motor pump	2003	30,060.00	Good
5. Power tiller	2016	1,63,000.00	Good
6. Thresher	2005-2006	15,500.00	Good
7. Photo copying machine	2017	63803.00	Good
8. Digital chemical balance	20052006	19,000.00	Good
9. Rotary shaker	20052006	6,900.00	Good
10. Soil sampler	20052006	5,200.00	Good
11. Hot water bath	20052006	4,900.00	Good
12. Muffle furnace	2005-2006	13,600.00	Good
13. Spectrophotometer	2005-2006	30,000.00	Need to be repaired
14. Micro centrifuge	2005-2006	17,000.00	Good
15. Colorimeter	2005-2006	11,800.00	Good
16. TV (B/W) – 1 nos.	1991	10,800.00	Need to be repaired
17. TV (Colour) – 6 nos.	2001-2005	41,794.00	Good
18. VCD – 2 nos.	2003- 2005	42,231.00	Need to be repaired

19. Camera – 4 Nos.	2013,2014	56,960.00	Good
20. Multimedia P.C (9)	2003, 2004, 2016	-	Good
21. LCD projector with display screen	2008-09	1,00,012.00	Need renovation
22. Autoclave (3)	2011-12	5,63,045.00	Good
23. B.O.D. Incubator	2011-12	87,720.00	Need to be repaired
24. Steel rack (20)	2011-12	1,51,912.00	Good
25. CPU (1)	2012-13	19,900.00	Good
26. Hard disk external (2)	2012-13	11,600.00	Good
27. Laminar flow (1)	2011-12	39,450.00	Good
28. Laminar flow (1)	2012-13	67,873.00	Good
29. Mixture machine (1)	2012-13	4,115.00	Good
30. Research microscope (1)	2012-13	22,246.00	Good
31. Note pad computer (1)	2012-13	16,900.00	Need to be repaired
32. UPS (APC 1 KV) (1)	2012-13	13,800.00	Good
33. Weighing balance (1) 200 gm capacity	2011-12		Good
34. Refrigerator (3)	2011-12, 16-17	41000.00	Good
35. Digital balance (1)	2011-12	12,650.00	Good
36. pH meter	2012-13	15743.00	Need to be repaired
37. EC meter	2012-13	25936.00	Need to be repaired
38. Canon printer (9)	2011-12, 2016	79025.00	Good
39. Spiral binding machine (1)	2011-12	4030.00	Good
40. Fax machine (1)	2011-12	6050.00	Good
41. GPS instrument (1)	2011-12	21,111.00	Good
42. UPS (600 V) (1)	2011-12	2550.00	Good
43. HP combined printer & Scanner (2)	2012-13, 2016	9000.00	Good

44. Rotary shaker (1)	2012-13	38,604.00	Good
45. Vacuum cleaner (1)	2012-13	6799.00	Good
46. Internet modem (4)	2012-13	6800.00	Good
47. Internet modem wi fi (1)	2016-17	3500.00	Good
48. Intercom	2015-16	20000.00	Good
59. Sewing machine (5)	1980-1985	4,250.00	Good
60.Lenovo computer notebook	2013-2014	47,520.00	Good
61. Lenovo desktop	2013-2014	31,630.00	Good
64. UPS 600 VA	2013-2014	2,530.00	Good
66. LAN connection	2013-2014	12,083.00	Need to be repaired
67.Mridaparikshak (2)	2015-16	165300.00	Good
68. Tractor	2017-18	10,00,000.00	Good
69. Generator	2017-18	85,958.00	Good
70. Distilled Water plant	2016-17	25000.00	Good
71. Ahuja Speaker with stand, Ahuja Microphone	2018-19	18420.00	Good
72.Sprinkler Irrigation Set (12 Numbers)	2019-20	3,0000.00	Good
73.Invertor (3 numbers)	2020-21	8,0000.00	Good
74. LCD projector with Screen	2020-21	45,200.00	Good
75.Refrizerator	2020-21	17,000.00	Good
76. Foot Sprayer	2020-21	6328.00	Good
77. Chain Saw	2020-21	16520.00	Good
78.Mixer Grinder	2020-21	5252.00	Good
79 Portable LCD Projector	2020-21	9500.00	Good

1.8. A). Details SAC meeting* conducted in 2021

Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
11.01.2022	Swami Muktatmananda Maharaj- General Secretary of SRSK, Kolkata, the host institute of the KVK, Khowai.	1. Discipline wise all slides must be included in the single presentation and head will present the same in the next year. 2. In all OFT & FLD title must be written clearly. 3. Presentation format of SAC provided by ATARI must be followed. Awareness programmes must be done to aware farmers on crop rotation to reduce diseases of solanaceous crops. 5. Thrips and Mites management strategies may be clubbed in BIPM strategies. 6. All real data of natural farming intervention must be presented to validate the technology. 7. ICAR released suitable hybrid tomato varieties may be popularized. 8. Priority must be given to popularize pheromone traps among the farmers. 9. KVK must focus on crop varieties suitable for Tripura condition. 10. Based on the OFT data some good research papers may be published in some good journals to highlight the research activities done by KVK. 11. Few good success stories may be prepared and presented in next year. 12. Impact study of training programme must be conducted and successful technologies must be shared with the line department. 13. Some successful entrepreneurs must come out from the KVK.	Recommendation: Dragon Fruit Orchard may be established at KVK, Campus. ATR: Ten numbers of pillar with 3 nos. of seedling in each pit has been planted
	Dr. M.S. Sachan- Sr. Scientist & Head, KVK, Khowai, Tripura		Recommendation: Pineapple with Mulching Technology may be demonstrated at KVK, Campus. ATR: Demonstrated at KVK farm in collaboration with ICAR Tripura Centre, Lembuchera
	Dr. Ratan Kumar Saha- Dean, College of Fisheries, Lembucherra, Tripura		Recommendation: Gynodiocious Papaya Variety Pusa Delicious to be tested for demonstration ATR: Seedling prepared for KVK farm and also distributed among the farmers
	Dr. T.K. Maity-Principal, College of Agriculture, Lembucherra, Tripura		Recommendation: IPM Modules must be designed with new Molecules **ATR:** New molecules viz., thiamethoxam 25 WG, chlorontraniliprile 18.5 SC have been included in pest management modules
	Dr. Rajumani Bordoloi-Principal Scientist (AE), ICAR-ATARI, Umiam, Meghalaya		Recommendation: Ecofriendly Pheromone traps may be demonstrated in vegetables and in Rice. ATR: Elite quality pheromone lures have been introduced in all suitable demonstrations

	Dr. Sankar Prasad Das-PS (Plant Breeding)-ICAR (RC) for NEH Region Tripura Centre	14. Number of villages, blocks covered by KVK under various interventions must be projected. 15. Refinement must be done with the successful OFT . 16. KVK may establish some models of agroforestry to aware farmers and farm women those are staying mainly in the forest areas. 17. As wild elephants are damaging paddy crops in many areas of Teliamura subdivision so KVK may intervene to change the cropping pattern to mitigate the problems. 18. Few intervention in OFT/FLD may be taken with spice crops. 19. Successful interventions must be shared with the line departments for further spread of the same among the farmers. 20. KVK should popularize various govt. schemes through training and awareness programmes. 21. Interventions related to fisheries may be increased. 22. Few interventions related to flower like gerbera, tuberose cultivation may be taken up. 23. More emphasis should be given in awareness programme on malnutritions. 24. Introduction of short duration vegetable crops and new crop like onion may be emphasized. 25. Paira cropping of lentil and khesari in fallow land may be encouraged. 26. More awareness/ training programmes on ill effect and safe use of pesticides may be conducted. 27. An indigenous fruit block may be established by KVK inside the campus to conserve the extinct species.	Recommendation: Sulpher must be applied in oil seeds for increasing oil content. ATR: Sulphar applied in CFLD & FLD of Sesamum plots, Total Number of Farmers: 143 Area Covered:23.76
	Dr. N.K. Chanchal (IFS), DFO, Khowai		Recommendation: Standardization of Artificial insemination must be done in Association with the Deptt. of ARDD, Govt of Tripura ATR: Sex sorted semen is used for AI in cattle to produce only female calves
	Mr. Kashinath Das, Deputy Director, Horticulture & Soil Conservation, Khowai		Recommendation: Duckery unit at KVK Campus to be upgraded ATR: Hatching of fertile eggs are done at KVK itself for propagation, ducklings and mature ducks are sold in nominal prices
	Mr. Bibhas Biswas, Superintendant of Fisheries, Khowai, Tripura.		Recommendation: New Poultry Breeds must be introduced and to be made available at KVK, Khowai. ATR: Kadaknath birds are made available for propagation through handmade incubator
	Mr. Amit Das, DDM, NABARD, Khowai, Tripura.		
	Dr. Tridip Bhattacharya, Asst. Professor, College of Agriculture, Tripura.		
	Mr. Pritam Chakraborty, Field Officer, Spices Board, Agartala Mr. Suman Bhowmik, Senior Agriculture Demonstrator,		

	Spices Board, Agartala		
	Mr. Niranjan Debnath, President, Prabin Farmers Club, R.C. Ghat, Khowai		
	Mr. Pradyut Rudra Paul, Progressive Farmer, Kalyanpur, Khowai		
	Dr. Nurul Islam, SMS-Animal Science, KVK, Khowai, Tripura.		
	Mr. Suresh Chandra Biswas-SMS-Home Science, KVK, Khowai, Tripura.		
	Dr. Subhra Shil, SMS-Horticulture, KVK-Khowai		
	Mr. Dipankar Dey, SMS-Soil Science, KVK, Khowai, Tripura.		
	Mr. Ardhendu Chakraborty, SMS-Plant Protection, KVK, Khowai, Tripura.		
	Mr. Rajib Das, SMS-Agricultural Extension, KVK, Khowai, Tripura.		
	Mr. Pranab Rudra Paul, Programme Assistant, KVK, Khowai, Tripura.		
	Mr. Pradip Debbarma, Programme Assistant, KVK, Khowai, Tripura.		
	Mr. Swapan Kumar Deb, OS cum Accountant, KVK, Khowai, Tripura.		

	Mr. Kaushik Sengupta, Steno cum Typist, KVK, Khowai, Tripura.		
	Mr. Rakesh Debnath, Driver, KVK, Khowai, Tripura.		
	Mr. Manmohan Debnath, Driver, KVK, Khowai, Tripura.		
	Mr. Manas Debbarma, Supporting Staff, KVK, Khowai, Tripura.		
	Mr. Gautam Debbarma, Supporting Staff, KVK, Khowai, Tripura		

2. DETAILS OF DISTRICT

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

Sl. No	Farming system/enterprises
1	Agro - based farming system - Paddy (Mono cropped)
2	Agro - horti based farming system – Paddy-TPS/Chilli/Cucurbitaceous vegetables
3	Agri – horti – pisci –livestock
4	Horti-agri-livestock
5	Agriculture
6	Livestock
7	Horti-pisci-agri
8	Livestock-agri-horti
9	Agri-horti-silvi-pastoral-livestock
10	Plantation (Rubber)
11	Plantation-pisci-livestock
12	Horticulture

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

Sl. No	Agro-climatic Zone	Characteristics
1	Humid Dissected Mount & Valleys	Lateritic soil and texturally sandy loam-loamy sand. It is characterized by high hills and steep slopes of the hillocks.
2	Sub Humid Denuded Hills	Alluvial soil and texturally clay in small pockets. It is characterized by river valleys and low lying (Marshy) areas suitable for lowland rice cultivation.

2.3 Soil types

Sl. No	Soil type	Characteristics	Area in ha
1	Upland soil	Podzolic, lateritic and are mostly sandy clay loam in nature. Soils are granular, loose, friable and non sticky with good drainage.	NA
2	Lowland soil	Found in deep and narrow synclinal valley, Soils are mostly clay loam, sub angular blocky, hard, firm and sticky with moderately poor drainage.	NA

2.4. Table 1. Area production and productivity of field crops in Khowai district, Tripura 2019-20.

Sl. No.	Name of crop	2019-20		
		Area (ha)	Production (MT)	Yield (Kg/ ha)
Cereals				
1	Aush paddy	1155	2927	2534
2	Aman paddy	14698	44079	2999
3	Jhum paddy	1427	1633	1144
4	Boro paddy	6930	21401	3088
	Total	**24210**	**70040**	**2893**
5	Wheat	20	43	2129
6	Maize (R)	471	1121	2380
7	Sorghum (R)	133	106	799
8	Maize hybrid	203	429.43	2115
9	Maize local/ composite	980	1117.03	1140
10	Sorghum	103	87.29	847
11	Foxtail millet	70	59.12	845
	Total	**26190**	**73002.87**	**-**
Pulses				
12	Moong (R)	256	179	700
13	Black gram (R)	248	183	738

14	Lentil (R)	261	174	666
15	Pea (R)	534	507	950
16	Gram (R)	16	10	618
17	Kesari (R)	4	3	645
	Others (R)	-	-	-
18	Rajmash (R)	102	82	802
19	Arhar	555	413.94	746
20	Moong	225	139.76	621
21	Black gram	89	54.80	616
22	Cow pea	355	263.24	742
23	Rajmash	4	3.77	943
	Total	**2649**	**2013.51**	**-**
Oilseeds				
25	Rapeseed/ mustard (R)	1465	1170	799
26	Groundnut (R)	176	266	1509
27	Soybean (R)	28	21	747
28	Flex/ Linseed (R)	85	68	803
29	Sesame	680	381.54	561
30	Groundnut	142	208.76	1470
31	Vegetable type soybean	2	1.50	750
	Total	**2578**	**2116.80**	**-**
Commercial crops				
32	Jute	43	416.13	9.68
33	Mesta	47	429	9.13
34	Cotton	47	66.10	1.41
35	Sugarcane	43	2335.40	54312
	Total	**180**	**3246.63**	**-**

Table 2. Area production and productivity of horticultural crops in Khowai district, Tripura 2019-20.

Sl. No.	**Name of crop**	**2019-20**		
		Area (ha)	**Production (Mt)**	**Yield (Mt/ ha)**
Summer vegetables				
1	Bhindi	322	3065	9.51863
2	Brinjal	231	4220	18.26839
3	Spine guard	99	1720	17.37373
4	Pointed guard	43	486	11.30232
5	Ridge guard	150	2667	17.78

6	Bitter guard	98	550	5.61224
7	Bottle guard	79	1416	17.92405
8	Sweet guard	78	1583	20.29487
9	Ash guard	67	1089	16.25373
10	Snake guard	10	118	11.8
11	*Colocasia*	130	2202	16.93846
12	Elephant Foot Yam	9	224	24.88888
13	Jal kachu	53	981	18.50943
14	Cucumber	117	1495	12.77777
15	Amaranthus	211	3410	16.16113
16	Barbati	-	-	-
17	Radish	48	707	14.72916
18	Cow pea	168	2839	16.8988
19	Summer cabbage	32	389	12.15625
20	Summer cauliflower	33	301	9.12121
21	Summer tomato	3	44	14.66666
22	Chilli (green)	54	497	9.2037
23	Leafy vegetables	24	244	10.16666
24	Water melon	330	8267	25.05152
25	Others	130	1825	14.03846
	Total	**2519**	**40737**	-
Winter vegetables				
1	Cabbage	338	9194	27.20118
2	Cauliflower	406	10637	26.1995
3	Brinjal	228	5534	24.27192
4	Radish	283	5524	19.51943
5	Tomato	186	5915	31.80107
6	Garden pea	64	261	4.07812
7	Cucumber	104	927	8.91346
8	Knol- khol	21	215	10.23809
9	French bean	48	279	5.8145
10	Carrot	56	616	11
11	Capsicum	12	94	7.83333
12	Brocoli	6	41	6.83333
13	Chilli	170	1171	6.88823
14	Bottle guard	127	2704	21.29133
15	Beet	19	42	2.21052

16	Others	111	1665	15
	Total	**2179**	**44837**	**-**
C	Potato	632	11452	18.12025
	Total	**632**	**11452**	**-**
	Fruits			
1	Mango	806	4103	5.09057
2	Pine apple	682	9944	14.58064
3	Orange	216	968	4.48148
4	Jack fruit	224	5436	24.26785
5	Banana	1136	11746	10.35563
6	Litchi	52	179	3.4423
7	Lime/ lemon	414	1995	4.81884
8	Papaya	356	3596	10.10112
9	Sapota	13	81	6.23076
10	Mosomi	142	287	2.02113
11	Guava	70	328	4.68571
12	Others	173	1505	8.69942
	Total	**4284**	**40168**	**-**
	Nuts			
1	Coconut	399	997	2.49874
2	Areca nut	452	1546	3.42035
3	Cashew nut	22	9	0.40909
	Total	**873**	**2551**	**-**
	Spices			
1	Ginger	143	1216	8.50349
2	Turmeric	101	615	6.089
3	Chilli	278	659	2.3705
4	Black pepper	20	58	2.9
5	Onion	28	180	6.42857
6	Betel- vine	53	721	13.60377
	Total	**623**	**3448**	**14.60377**

2.5. Weather data:

Month	**Rainfall (mm)**	**Temperature ^{0} C**		**Relative Humidity (%)**	
		Maximum	**Minimum**	**Maximum**	**Minimum**

January	1.1	24.7	10.9	92.5	57.4
February	0	26.6	9.8	91.05	49.5
March	53	32.9	16.5	92.4	31.04
April	158.9	32.5	21.6	95.6	46.4
May	225.8	32.05	22.4	87.1	53.5
June	279.8	30.8	24.1	83.4	64
July	373.87	30.4	24.3	82	51
August	212.7	30.1	24.5	76.5	49.3
September	226.1	30.7	24.1	83.6	47.5
October	105.7	31.1	23.2	74.5	46.8
November	10.8	29.1	17.03	62.9	44.06
December	0.0	26.2	12.04	61.8	43.6

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

Category	Population	Production	Productivity
Cattle			
Crossbred	13071	5442169.38 kg	Milk: 4.54 kg/day
Indigenous	53989	12276349.89 kg	Milk: 1.12kg/day
Buffalo	87	26276.03 kg	Milk: 2.016 kg/day
Sheep			
Crossbred	-	-	-
Indigenous	202	-	-
Goats	36822	2367558.88 kg milk 220763.67 kg meat	Milk: 0.050 kg/day
Pigs			
Crossbred	14231	1672130.84 kg	Meat: 43.523 kg/year
Indigenous	7250		Meat: 43.523 kg/year
Rabbits	112	-	-
Poultry			
Hens			
Desi	287816	14869431 nos egg 25854.53 kg meat	Egg 85/layer/yr

Improved	32029	13439282 nos. of egg 3541358.56 kg Broiler	Egg 168/layer/yr
Ducks	61985	4518196 nos egg by deshi 2365958 nos. egg by improved	Egg: 161/Improved duck/yr, 109/local/yr
Turkey and others	15087	-	-

Category	**Area**	**Production**	**Productivity**
Fish			
Marine	-	-	-
Inland	**3572 Ha**	**9332 MT/Yr**	**2912 Kg/Ha/Yr**
Prawn	-	**2.3MT**	-
Scampi	-	-	-
Shrimp	-	-	-

2.7 Details of Operational area / Villages (2021)

Sl. No.	**Taluk/ Eleka**	**Name of the block**	**Name of the village**	**Major crops & enterprises**	**Major problem Identified**	**Identified thrust area**
1	R.C Ghat	Khowai	Namapara	Sesame, Toria	Mono Cropping of Paddy, Yellow stem borer and Leaf folder	Crop Diversification
2	R.C Ghat	Khowai	Batapura	Paddy, bottle gourd, Crucifers	Low Yield of Paddy due to Phosphorus deficiency, Higher nos. of male flower, Diamond Back Moth	Soil Fertility Management
3	North Pulinpur	Teliamura	North Pulinpur & Duski ADC	Maize	Soil acidity leading to low Maize Yield	Soil acidity amelioration with liming
4	Kalyanpur	Kalyanpur	Durgapur	Cabbage, Tomato	Excessive Use of Chemical Fertilizers in Cabbage, unavailability of suitable tomato variety	Organic Management
6	Kalyanpur	Kalyanpur	Madhya krishnapur	Brinjal	Economical loss due to High weed infestation in Brinjal	Weed Management
7	Kalyanpur	Kalyanpur	Gopalnagar	Colocasia	Poor nutrient management	INM

8	Padmabil, R.C Ghat, Chebri Raj Nagar	Padmabil, Khowai, Tulashikhar	Ratanpur, North Chebri, Ramchandraghat, Batapura, Paschim Rajnagar, Gour nagar	Hybrid Paddy	Low yield of existing varieties of paddy due to repeated use	To increase the production of cereals crop
9	Sardu Karkari	Teliamura	Sardu Karkari	Farmers Club	Less knowledge (Not maintaining proper records Improper management of farmers clubs)	Group mobilization
10	Khowai, Tulashikhar	Khowai, Tulashikhar	West Sonatala, Rajnagar, Shantinagar	Millet, jackfruit seeds, maize based Value added products. Pulse and Rice based Value added products, Nutri Garden	Malnutrition	Human Health & Balance Diet of the women
11	Sardu Karkari	Teliamura	Hrankhawl Para	Cucurbits	Melon fly	Ecofriendly melonfly management
12	Ghilatali, Ganki Chebri	Kalyanpur, Khowai	Ghilatali, Ganki, West Chebri	Fodder, poultry, pig	Low cultivation of nutritious fodder, less housing arrangements for poultry, no regulation in temperature for Piglets, no creep feeding for piglets	To increase the production of nutritional fodder during lean period, to reduce incidence of disease due to adverse weather condition & increased germ load, to reduce death of piglets due to extreme cold weather, to enhance growth of Piglets & reduce mortality by providing nutritional feed in creep box

\

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2021

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 & Soil Science	2	2	10	11	4	4	90	262
Horticulture	2	2	8	30	2	2	8	8
Home Science	2	2	10	14	2	2	20	22
PP	2	2	10	10	2	2	12	12
Agril Extn	0	1	0	90	0	0	0	0
A.Sc	2	2	12	12	2	2	20	20
Total	**10**	**11**	**50**	**167**	**12**	**12**	**150**	**324**

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**
					754	1034	4960	7547
Agronomy/ Soil Sci.								
Farmers	5	5	100	95				
Rural youth	5	5	100	100				
EF	2	3	40	70				
Horticulture								
Farmers	6	6	120	127				
Rural youth	4	4	80	88				
EF	2	2	40	35				
Plant Protection								
Farmers	6	5	120	137				
Rural youth	4	4	80	116				
EF	2	1	40	36				
Home Science								
Farmers	7	10	140	240				
Rural youth	4	4	80	60				

EF	1	0	0	0				
Agril Extension								
Farmers	4	3	60	61				
Rural youth	4	2	40	41				
EF	2	1	20	20				
Animal Science								
Farmers	6	6	120	295				
Rural youth	6	6	120	141				
EF	2	2	40	36				
Total	**72**	**69**	**1100**	**1698**	**754**	**1034**	**4960**	**7547**

Seed Production (ton.)		**Planting material (Nos. in lakh)**	
Target	**Achievement**	**Target**	**Achievement**
35	69	0.3375	0.55608

Note: Target set during last Annual Zonal Workshop

3. B. Abstract of interventions undertaken during 2021

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	Organic Management	Cabbage	Indiscriminate use of Chemical fertilizer in Cabbage	Organic Management in Cabbage	NA	Preparation of Vermi-compost and its utilization in Agriculture	Nil	Field inspection, Method demonstration	Cabbage Seedlings: 2000 no"s Rock Phosphate: 100 kg Vermicompost: 1200 kg
2	Integrated Nutrient Management	Mustard	Zn and Boron deficiency in Mustard	Assessment on the Performance of Application of 0.1% Boron & 0.5% ZnSO4 during flowering stage in Indian Mustard	NA	Integrated Nutrient Management in Mustard	Nil	Field inspection, Group discussion	Borax: 1 kg Zn EDTA: 1 kg
3	Soil Amendment	Maize	Soil acidity leading to poor maize yield	NA	Popularization of Lime and Bio Fertilizers on improvement of Soil Fertility status and on improvement of Soil Fertility status and on improvement of Yield of Maize	Hand hold training on Soil Testing	Nil	Field Day on Bio-fortified varieties of Maize, Field inspection	Maize Seed: 80 kg Lime: 1.5 ton

4	Varietal Evaluation	Toria	Lack of suitable Toria varieties under Tripura Condition	NA	Popularization of Toria var. Tripura Toria	Nil	Nil	Field Day on Popularization of Toria var. Tripura Toria, Field inspection	Toria seed var. Tripura Toria qty: 70 kg
5	Soil Fertility Management	Paddy	Phosphorus deficiency under acidic soils of Tripura	NA	Popularization of SSP-mc slurry method of P management.	Hand hold training on Soil Testing	Nil	Field Day on Popularization of SSP-mc slurry method of P management, Field inspection	Paddy Seed var. Gomoti Rock Phosphate: 850 kg
6	Varietal Evaluation	Sesamum	Lack of suitable sesamum varieties under Tripura Condition	NA	Popularization of Sesamum var. Tripura Siphing	Nil	Nil	Field Day on Cluster Demonstration on Sesamum var. Tripura Siphing, Field inspection	Sesamum Seed var. Tripura Siphing qty: 65 kg
7	Varietal Evaluation	Tomato	Less income due to non availability of suitable crop variety of Tomato	Varietal evaluation of Tomato TO1:Arka Rakshak TO2: Arka Samrat TO3: Farmer Practice	NA	Scientific cultivation of tomato	Nil	Field Visit	Tomato Seeds-200gms

8	Weed Management	Brinjal	Low Yield of Crop due to poor Weed management	Integrated Weed management in Brinjal TO1: Oxadiarygyl 9.0 kg/ha followed by garden hoeing at 30 and 60 DAP TO2: Polythene Mulching with 25 mir TO3: Farmer Practice	NA	Nil	Nil	Field Visit, Group discussion	Polythene mulch- 400 mt and weedicide-50 ml
9	INM	Bottle gourd	Higher nos. of male flower	NA	Application of Boron And Ethrel on Vegetative and fruit Character of Bottle Gourd Spraying of Ethrel 100 ppm at 2 and 4 true leaf stage along with the seed Soaking in boron (0.05%) for 12 hours	Sex modification of cucurbitaceous crop	Nil	Method demonstration, Field Visit	Boron-500gm and Ethrel-300ml
10	INM	Colocasia	Poor Integrated Nutrient Management	NA	Integrated Nutrient management in Colocasia	Nutrient management in tuber crop crops	Nil	Method demonstration, Field Visit	Vermicompos150 kg

11	IPM	Chilli	Thrips infestation, low yield	Assessment on Biointensive Management of Chilli Thrips	NA	Management of sucking pests in vegetable ecosystem	Nil	Diagnostic visit	Seed-100gm, insecticide-1lit and sticky trap-50 nos.
12	IPM	Tomato	Fruit borer infestation, poor fruit quality, less market acceptability	Assessment of BIPM Module Against Fruit Borer of Tomato	NA	Management of insect and pest in solanacous crop	Nil	Diagnostic visit	Seedling-350 nos, insecticide-500ml and biocontrol agent-2kg
13	IPM	Cucumber	Fruit fly infestation in cucumber	NA	Management of Fruit fly in Cucumber	Management of insect and pest in cucurbitaceous crop	Preparation of low cost bait	Diagnostic visit	Seed-500gm, insecticide - 1lit and pheromone trap-50 nos.
14	IPM	Brinjal	Fruit and shoot infestation	NA	Management of Fruit and Shoot Borer in Brinjal	Management of insect and pest in solanacous crop	-	Diagnostic visit	Pheromone trap-250 nos
15	Feeding management	Goat	Less cultivation of nutritious fodder	Hydroponic device T1 *(Made of Bamboo & Aluminum tray)* *T2 (Made of Bamboo & Polythine)* *T3: Farmer's Practice(Tree leaves and tethering at low nutritious fodder)*	NA	Scientific Livestock & Poultry farming methods at backyard and income generating activities	Nil	Method demonstration, scientist's visit, group discussion	Hydroponic device-6 nos. and maize seed-1kg

16	Housing	Poultry	Poor housing arrangements for poultry	T1: Rural Poultry Cage *Made of wood & CG leaf* *T2:* Rural Poultry Cage *Made of Bamboo & Aluminum Sheet* *T3: Farmer's Practice* Rural Poultry Cage*(Bamboo Cages kept inside house)*	NA	Reducing production cost in livestock & Poultry rearing	Nil	Method demonstration, scientist's visit, group discussion	Rural Poultry Cage-6 nos.
17	Housing	Pig	No regulation in temperature for Piglets	NA	Piglet Soothe Snooze Deck to reduce the mortality in piglets due to hypothermia and crushing injury by the dam	Scientific Livestock & Poultry farming methods at backyard and income generating activities	Nil	Method demonstration, scientist's visit, group discussion	Piglet Soothe Snooze Deck-10 nos.
18	Feed Management	Pig	No creep feeding for piglets	NA	Creep Feeder for Piglets	Utilizing resources optimally while rearing livestock & poultry		Method demonstration, scientist's visit, group discussion	Creep box and creep feeder-10 nos.

19	Utilization of jackfruit seeds	Jackfruit seed flour	Low market price , Shelf life, storage	Assessment of Jack fruit seed flour	NA	Cereals based Nutri-Products with jackfruit seeds flour	Nil	Training, method demonstration, Field visit	Jackfruits seeds-5kg, All ingredients-10kg
20	Utilization of marketable surplus of bamboo for value addition	Bamboo (Non timber forest product)	Low price during peak season, waste	Performance evaluation of fermented bamboo shoot for value addition	NA	Processing , preservation and value addition of Bamboo shoot	Nil	Training, method demonstration, Field visit	Bamboo shoot-30kg Bamboo basket-5nos
21	Nutrition, Economic, waste land utility	Nutritional garden	Consume lack of vegetables	NA	Grow Round the year nutritional garden	Nutritional gardening for nutritional food security	Nil	Training, method demonstration, Field visit	Vegetable seeds-3.5 kg, Potato -5.5q, seedling-24 kg
22	Utilization of Paddy straw, income generation, produce nutritional food	Mushroom (*Pleurotus* spp.)	Paddy straw waste, lack of cultivation knowledge	NA	Round the year Oyster mushroom cultivation for income generation	Mushroom Production technology round the year at low cost	Nil	Training, method demonstration, Field visit	Mushroom spawn-444packets, Polypropylene bag-900 nos

3.1 Achievements on technologies assessed and refined during 2021

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
Varietal Evaluation	0	0	0	0	1	0	0	0	0	1
Seed / Plant production	0	0	0	0	0	0	0	0	0	0

Weed Management	0	0	0	0	1	0	0	0	0	1
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	1	0	0	0	0	0	0	0	1
Integrated Farming System	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0
Drudgery reduction	0	0	0	0	0	0	0	0	0	0
Farm machineries	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	1	0	1	0	2
Integrated Pest Management	0	0	0	0	2	0	0	0	0	2
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Resource conservation technology	0	0	0	0	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0	0	0	0	0
Organic Management	0	0	0	0	1	0	0	0	0	1
TOTAL	**0**	**1**	**0**	**0**	**5**	**1**	**0**	**1**	**0**	**8**

* *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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	0	0	0	0	0	0	0	0	0	0
Seed / Plant production	0	0	0	0	0	0	0	0	0	0
Weed Management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Integrated Farming System	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0
Drudgery reduction	0	0	0	0	0	0	0	0	0	0
Farm machineries	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Resource conservation technology	0	0	0	0	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

* *Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	1	-	-	-	1
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	1	-	-	-	-	-	1
TOTAL	**-**	**1**	**-**	**1**	**-**	**-**	**-**	**2**

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds	0	0	0	0	0	0	0	0
Nutrition Management	0	0	0	0	0	0	0	0
Disease of Management	0	0	0	0	0	0	0	0
Production and Management	0	0	0	0	0	0	0	0
Feed and Fodder	0	0	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0

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

Sl. No.	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)				Feedback from the farmer	Feedback to the Researcher	B:C Ratio (if applicable)
1	Organic Management in Cabbage	Indiscriminate application of Chemical fertilizers in Cabbage	Organic Management in Cabbage TO1:Azotobactor & PSB @ 75 g each per 1000 seedling Rock Phosphate @ 375 kg/ha Vermi-Compost @ 5 ton/ha TO2: Application of only NPK: 200: 120:222 TO3: Farmers Practice(Control)	Cabbage	6	Yield: T_1 :450 q/ha T_2: 500 q/ha T_3: 430 q/ha Weight of Per Head Cabbage: T_1 : 1.09 kg T_2: 1.15 kg T_3: 1.04 kg	Initial Soil Parameters: Soil Texture: Sandy loam, Soil $P^{H::}$ 5.9 Organic carbon:0.64 Available Nitrogen(Kg/ha) : 294 Available P_2O_5 by Bray"s method(Kg/ha): 12.5 Available K_2o(Kg/ha): 167	Post Harvest Soil Parameters**:** Soil Texture: Sandy loam Soil $P^{H::}$ 5.8 Organic carbon:0.66 Available Nitrogen(Kg/ha) : 299 Available P_2O_5 by Bray"s method	Economics: Gross Income (Rs/ha): T_1: 36,0000 T_2: 40,0000 T_3:34,4000 Gross Cost: T_1: 90,782 T_2: 97,587 T_3: 87,590 **Net** Income(Rs/ha) : **T_1**: 26,9218 **T_2:** 30,2413 **T_3:** 256,410	Getting Critical inputs like Rock Phosphate is difficult for the farmers, moreover the cost of Vermicompost is very high in the market. Availability of PSB and Azotobactor is also a	Instead of 100% organic management of Cabbage,Integrated Nutrient management in cabbage can be a better option for the farmer of	**BCR:** T_1: 3.96 T_2: 4.09 T_3: 3.92

								(Kg/ha): 13.1 Available K_2 o(Kg/ha): 169		problem for the farmers	Khowai district of Tripura.	
2	Assessment on the Performance of Application of 0.1% Boron & 0.5% ZnSO4 during flowering stage in Indian Mustard	Poor Yield due to low fertility status of soil in Indian Mustard	Assessment on the Performance of Application of 0.1% Boron & 0.5% ZnSO4 during flowering stage in Indian Mustard TO1: Application of 0.1% Boron & 0.5% ZnSO4 during flowering stage plus RDF TO2: Application of Only NPK (60:80:56) TO3: Farmers Practice(No habit of Micro nutrient Application)	Indian Mustard	5	Yield: T_1: 10 q/ha T_2: 9.5 q/ha T_3:7 q/ha Number of Siliquae/plant**:** T_1: 19.3 T_2: 19.9 T_3: 15.1 Siliquae length(cm): T_1: 4.2 T_2: 4.2 T_3: 3.3 Number of seeds per siliquae:	Initial Soil Parameters: Soil Texture: Sandy loam, Soil $P^{H::}$ 5.4 Organic carbon(%):0.68 Available Nitrogen(Kg/ha) : 301 Available P_2O_5 by Bray"s method(Kg/ha): 12.1 Available	Post Harvest Soil Parameters: Soil Texture: Sandy loam, Soil $P^{H::}$ 5.3 Organic carbon:0.69 Available Nitrogen (Kg/ha) : 304 Available P_2O_5 by Bray"s method	Economics: Gross Income (Rs/ha): T_1: 60,000 T_2: 57,000 T_3:42,000 **Gross Cost:** T_1: 25,823 T_2: 24,890 T_3: 23,823 Net Income (Rs/ha)**:** **T_1**: 34,177 **T_2:** 30,2413 **T_3:** 18,177	Farmers accepted the technology.	The technology may be recommended for Front Line demonstration.	BCR: T_1: 2.32 T_2: 2.29 T_3: 1.76

						T_1: 19.8 $T_{2:}$: 19.7 T_3: 19.3	K_2O(Kg/ha): 159	(Kg/ha): 12.3 Available K_2 o(Kg/ha): 162				
3	Varietal evaluation of Tomato	Less income due to non availability of suitable crop variety of Tomato	Varietal evaluation of Tomato TO1:Arka Rakshak TO2: Arka Samrat TO3: Farmer Practice	Tomato	30	TO1: Days to first flowering:38 Plant height:122.34 Average Weight Of Fruit: 68 g Yield per ha: 65.34t / ha Plant type: semi Determinate	TO2: Days to first flowering: 36 Plant height: 119 .21 Average Weight Of Fruit: 72 g Yield per ha: 68.86t/ ha Plant type: semi Determinate	TO3: Days to first flowering: 36 Plant height: 120.51 Average Weight Of Fruit: 53g Yield per ha: 60.04t/ ha Plant type: semi Determinate	-	Both the varieties are very much accepted by the farmer as the yields of the varieties were higher than the existing variety	Suitable for Khowai district	TO1: 1: 3.1 TO2: 1:3.3 TO3: 1.2.3

4	Integrated Weed management in Brinjal	Low Yield of Crop due to poor Weed management	Integrated Weed management in Brinjal TO1: Oxadiarygyl 9.0 kg/ha followed by garden hoeing at 30 and 60 DAP TO2: Polythene Mulching with 25 mir TO3: Farmer Practice	Brinjal	8	TO1: WCE (60DAT): 74.34 Plant Height: 165.7 cm Yield per ha: 175.2 q/ha	TO2: WCE (60DAT): 70.25 Plant Height: 195.4 cm Yield per ha: 180.3q /ha	TO3: WCE (60DAT): 65.23 Plant Height: 160.5 cm Yield per ha: 168.5 q/ha	-	Polythene mulching found to be very effective in controlling weed and over growth and development of crop.	Mulching with polythene was more effective than other treatment	TO1: 1: 2.6 TO2: 1:3.0 TO3: 1.2.3
5	Assessment on Biointensive Management of Chilli Thrips	Thrips infestation, low yield	**T1:** Seed treatment with imidachloprid 70 WS @ 7g/kg, neem cake @ 250 kg/ha. at the time of sowing, Yellow Sticky Trap @ 40nos./ha **T2:** One sprays of azadirachtin 10000 ppm @ 2 ml/l @ two WAT, neem cake @ 250 kg/ha. at	Chilli	5	Population of thrips/leaf T1: 2.35 T2:3.62 T3:7.42	Yield (q/ha) T1: 75 T2: 52 T3: 34	-	-	Unavailability of sticky traps causes problem	Thrips population was less in T1 and received higher yield through eco-friendly interv	T1: 1:2.0 T2: 1:1.60 T3: 1:1.48

			the time of sowing, Yellow Sticky Trap @ 40nos./ha **T3:** Farmers Practices								ention	
6	Assessment of BIPM Module Against Fruit Borer of Tomato	Fruit borer infestation, poor fruit quality, less market acceptability	**M_1:** a. Growing of trap crops like marigold @ 100 per acre b.Installation of pheromone traps @ 4 per care c.Erection of bird perches @ 10 per acre d.Use of SlNPV or HaNPV @ 250 LE per acre **M_2:** Need based application of flubendiamide @ 0.3 ml/ lt or chlorantraniliprole @ 0.3 ml/ lt or spinosad @ 0.3 ml/ lt **M_3:** Farmers	Tomato	5	% fruit infestation M1: 12 M2: 8 M3: 30	Yield (q/ha) M1: 260 M2: 320 M3: 87			Accepted by farmers	M2 was good and accepted for demonstration in next years	M1: 1:1.87 M2: 1:2.24 M3: 1:0.98

			practice (Non IPM) –use of chemicals alone or in combination.									
7	Low cost Hydroponic device T1 *(Made of Bamboo & Aluminum tray)* *T2 (Made of Bamboo & Polythine)* *T3: Farmer's Practice(Tree leaves and tethering at low nutritious fodder)*	Less cultivation of nutritious fodder	Low cost Hydroponic device	Goat	6	Technology: 1.Mortality of Kids upto weaning : Nil 2.Body weight gain at every fortnight upto 3 months of age First : 0.650 kg, 2nd:0.9kg, 3rd : 1.10g, 4th : 1.4kg, 5th : 1.6kg, 6th: 1.6kg	**Farmer Practice:** 1.One 2. First : 0.6 kg, 2nd:0.8kg, 3rd : 0.95kg, 4th : 1.1kg, 5th : 1.3kg, 6th: 1.4kg	-	-	Fodder Seed supply should be year round	To include the technology in package of practices of goat farming	Technology: 2.5 Farmer's Practice: 2.0
8	Rural Poultry Cage	*Poor housing arrangements for poultry*	Rural Poultry Cage T1: Rural Poultry Cage *Made of wood & CG leaf* *T2:* Rural Poultry Cage *Made of Bamboo &*	Poultry	6	Technology: 1. Chicks Mortality: 10% 2. Body wt gain 1st Month: 90g 2nd: 110g, 3rd: 125g 4th: 140g, 5th:	Farmer Practice: 1.20% 2. 1st Month: 70g 2nd: 90g, 3rd: 115g 4th: 120g, 5th: 130g 6th: 125g	-	-	Technology is Accepted	To include the technology in package of practi	Technology: 2.84 Farmer's Practice:

			Aluminum Sheet *T3: Farmer's Practice* Rural Poultry Cage*(Bamboo Cages kept inside house)*			155g 6th: 150g 3. Spoilage of egg: Nil	3. 10% Spoilage				ces of backy ard poultr y farmin g	2.26
9.	Identificatio n of different cropping patterns followed by the farmers of Khowai district	Not following suitable cropping patterns	**T1:** Cropping patterns actually followed by the farmers **T2:** Cropping patterns suggested by the extension personnel's **T3:** Suitable cropping patterns	Agricultur e	3	1. only 27.50% farmers followed actual cropping pattern 2. 64% farmers found yield increase if actual cropping pattern followed 3. 62.50% farmers concludes actual cropping pattern cannot followed all time because of unavailability	-	-	-	Farmers are not followin g suggeste d croppin g pattern	Need aware ness cum trainin g, , expos ure visits and critica l inputs	-

						of planting materials, farm machineries etc						
10	Assessment of Jack fruit seed flour	Low market price , Shelf life, storage	Assessment value addition of Jack fruit seed flour	Jackfruit seeds	7	18	80Rs./ Kg	Average	75	Farmer are interested to produce variety of products ,	Should create more awareness utility of jackfruits flour , regarding preparation of Cereal based Nutri-products	1: 1.65
11	Performance evaluation of fermented bamboo shoot for value addition	Low price during peak season, waste	Performance evaluation of fermented bamboo shoot for value addition	Bamboo shoot(Non Timber products)	7	7	-	-	Not accepted	Tripura Farmers prefer don't fermented Bamboo	This year change the technology of	-

										products due to its odd smell , Tripura People prefer hot water boiling followed by sundry bamboo shoot products	processing and value addition , it will assess under new technology	

**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*

3.2 Achievements of Frontline Demonstrations during 2021

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous years and popularized during 2020 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	Sesamum	Popularization of Sesamum var. Tripura Siphing	3	210	45
2	Toria var. Tripura Toria	Popularization of Toria var. Tripura Toria	6	270	120

3	Bitter gourd	Management of fruit fly in bitter gourd	5	124	17
4	Brinjal	Management of brinjal fruit and shoot borer	9	198	28

** 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)		
												N	P	K
					Proposed	Actual	SC/ST	Others	Total	Nil				

1	Paddy	Integrated Nutrient Management	Popularization of SSP-mc slurry method of P management in Paddy. • T1:Step-I:Root dipping of paddy seedling in soil-water slurry amended with SSP • Step II: Root dipping of paddy seedling in soil water slurry amended with MC • Step III: Broadcasting of RP @ 125kg/ha along with 50% Recommended dose of N &K in the main field • T2: Farmers practice(Direct Transplanting of Paddy Seedling to the main field)	Kharif, 2021	5	13.22	69	2	71	Nil	Rainfed	305	12.8	162

2	Maize	Soil amendment	Popularization of Lime and Bio Fertilizers on improvement of Soil Fertility status and on improvement of Soil Fertility status and on improvement of Yield of Maize Technology: Application of lime@ 10% of actual LR+ Application of PSB+ Mychoryza as Seed Treatment	Rabi,2021	3	3.2	11	0	11	Nil	Irrigated	287	10.9	161
3.	Sesamum	Varietal Evaluation	Popularization of Sesamum var. Tripura Siphing	Summer,2021	10	13.76	98	17	115	Nil	Rainfed	298	12.7	158
4.	Toria	Varietal Evaluation	Popularization of Toria var. Tripura Toria	Rabi,2021	10	10.1	64	1	65	Nil	Irrigated	302	14.1	163

1	Bottle gourd	INM	Application of Boron And Ethrel on Vegetative and fruit Character of Bottle Gourd Spraying of Ethrel 100 ppm at 2 and 4 true leaf stage along with the seed Soaking in boron (0.05%) for 12 hours	Rabi, 2021	1	1	5	5	10	NA	Rainfed	289	12.7	162
2	Colocasia	INM	Integrated Nutrient management in Colocasia	Rabi, 2021	1	1	5	5	10	NA	Irrigated	293	13.1	165
1	Cucumber	IPM	Management of Fruit fly in Cucumber Pheromone traps @ 25 trap/ha + Gur based poison bait trap: (50 ml malathion + 200 g gur + 2 litre water).	Kharif 2021	3	3	2	4	6	No Shortfall	Irrigated	304	14.1	162

2	Brinjal	IPM	Management of Fruit and Shoot Borer in Brinjal Mechanical control + Behavioural control + Botanicals + Chemical control Technology Details *Mechanical control:* Clipping of drooped shoots and removal of infested fruits from the field at weekly interval *Behavioural control:* Installation of pheromone traps @ 75 per ha, starting from flower bud initiation (45 days old crop) till final harvest and changing the lures at monthly intervals *Botanical:* Application of nimbecidine 0.03% @ 3-5 ml/lit. *Chemical control*: Cartap Hydrochloride 50SP @ 500-550 g/ha	Kharif 2021	3	3	1	5	6	No Shortfall	Irrigated	304	12.4	162

c. Performance of FLD on Crops during 2021

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	Paddy	Integrated Nutrient Management	13.22	69	60	15	73	65	Initial available P_2O_5 (kg/ha): 11.9 Post Harvest Available P_2O_5 (kg/ha): 12.1	Post Harvest Available P_2O_5 (kg/ha):11.8	51,000.00	128,340.00	77,340.00	2.51	50,000.00	111,600.00	61,600.00	2.23
2	Maize	Soil Amendment	3.2	48	28	71.42	54	42	Initial Soil P^H: 5.4 Post harvest Soil P^H: 5.7	Initial Soil P^H:5.4 Post harvest Soil P^H: 5.3	34,929.00	96,000.00	610,71.00	2.74	290,10.00	56,000.00	26,990.00	1.73

3	Sesamum	Varietal Evaluation	13.76	9	7	28.57	10	8	Early, Matures in 83 days under Tripura condition	Late maturing in more than 90 DAS	30823.00	72,000.00	411,77.00	2.33	30,823.00	56,000.00	25,177.00	1.81
4	Toria	Varietal Evaluation	10.01	10	7.5	33.33	12	8	Early Maturing	Late Maturing	29928.00	75000.00	45072.00	2.50	56250.00	27,998.00	28,252.00	2.00
5	Bottle gourd	INM	1	188.32	130.54	30.68	202.38	120.56	Days to first flower T1: 52 days, Sex ratio (M/F): T1: 2.79;	Days to first flower T2: 56 DAS Sex ratio (M/F): T2: 4.32	1,02,308	2,80,000	1,77,692	2.73	98652	210000	111348	2.13
6	Colocasia	INM	1	140.4	110.5	27	164.6	105.7	Average tuberweight: 38.4, Average no of Off shoots per plant: 3, Avg Dia. Of tuber (cm): 3.6	Average tuberweight: 30.33, Average no of Off shoots per plant: 3, Avg Dia. Of tuber (cm): 3.1	153700	387500	233800	2.52	105400	278000	122600	2.16

7	Cucumber	IPM	3	156	94	39.74	237	75	Harvesting Damage %= 3	Harvesting Damage %= 40	57000	172490	115490	3.02	42000	98560	56560	2.34
8	Brinjal	IPM	3	138	87	36.95	194	82	% Fruit infestation= 7.5 % Shoot infestation= 3	% Fruit infestation = 25 % Shoot infestation = 3 18	48000	110650	62650	2.30	35000	67580	32580	1.93

*H-Highest recorded yield, L- Lowest recorded yield** GC- Gross Cost, GR- Gross Return, NR- Net Return, BCR- Benefit-Cost RatioProduce 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	3	2.12.2021 & 3.02.2021, 07.08.2021	19	129	147	-
2	Farmers Training	14	10.06.202, 11.10.21, 28.10.21, 16.2.2021, 10.3.2021, 7.4.2021, 19.4.2021, 27.4.2021, 23.8.2021, 20.9.2021, 11.10.2021, 3.12.2021	143	171	314	-
3	Media coverage	1	20.01.2021				Mass
4	Training for extension functionaries	1	30.12.2021	14	22	36	-
5	Any other (Pl. specify) Diagnostic visit	36	Throughout the year	24	18	36	
6	Field Inspection	48	Throughout the year	23	23	48	
7	Method demonstration	11	10.06.202, 11.10.21, 28.10.21, 16.2.2021, 10.3.2021, 7.4.2021, 19.4.2021, 27.4.2021, 23.8.2021, 20.9.2021, 11.10.2021	7	4	11	

8	Group discussion	7	7.4.2021, 19.4.2021, 27.4.2021, 23.8.2021, 20.9.2021, 11.10.2021, 3.12.2021	4	3	7	
	Total			**234**	**370**	**599**	-

e. Details of FLD on Enterprises

(i) Farm Implements

Name of the implement	Crop	No. of farmers	Area (ha)	Performance parameters / Indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
0	0	0	0	0	0	0	0	0

** Field efficiency, labour saving etc.*

(ii) Livestock Enterprises

Sl. No.	Enterprise/ Category (e.g., Dairy, Poultry etc.)	Thematic area	Name of Technology	No. of farmers	No. of units	No. of animals, poultry birds etc.	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	Pig	Housing	Piglet Soothe Snooze Deck to reduce the mortality in	10	10	60	1.Mortality of piglets upto weaning: Nil	1.Mortality of piglets upto weaning: Nil	**(-) 10%**	-	-	51710	82700	30990	1.6	37060	39150	2090	1.06	

			piglets due to hypothermia and crushing injury by the dam				2.Body weight gain at weaning:13 Kg 3.Wastage of feed: 5% 4.Incidences of piglet diarrhoea: Nil	2.Body weight gain at weaning:13 Kg 3.Wastage of feed: 5% 4.Incidences of piglet diarrhoea: Nil	**118.18 %** **(-) 5%** **(-) 30%**										
2	Pig	Feed Management	Creep Feeder for Piglets	10	10	60	1.Mortality of piglets upto weaning: Nil 2.Body weight gain of piglets weaning: 13kg	1.Mortality of piglets upto weaning: 10% 2.Body weight gain of piglets weaning: 11kg	**(-) 10%** **118.18 %**			52250	88400	36150	1.7	37060	42600	5540	1.15	

							3.Wastage of feed: 5% 4.Incidences of piglet diarrhoea **: Nil**	3.Wastage of feed: 10% 4.Incidences of piglet diarrhoea **: 30%**	**(-) 5%** **(-) 30%**										

(iii) Fisheries

Sl. No.	Category, e.g. Common carp, ornamental fish etc.	Thematic area	Name of Technology	No. of farmers	No. of units	No. of fish/ fingerlings	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

** *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.

(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	Mushroom	Mushroom production for income generation	Low cost Mushroom production round the year	11	60 bags/ farmer	Yield=0.950kg/bag Economics: Sale =Rs. 200.00/kg Total= 60 bag X 190.00 =11400.00	Yield=0.600kg/bag Economics: Sale =Rs. 200.00/kg Total= 30 bag X 120.00 = 3600.00	30%	-	-	60.00/bag	1900	1300	3.17	55.00/bag	120.00	65.00/bag	2.18	

** *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

Sl. No.	Name of implement	Crop	Name of Technology demonstrated	No. of farmers	Area (In ha.)	Field observation (Output/ man-hours)		% change in the parameter	Labour reduction (Man days)	Cost reduction (Rs. per ha. or Rs. per unit etc.)	Remarks
						Demo	Check				
0	0	0	0	0	0	0	0	0	0	0	0

f. Performance of FLD on Crop Hybrids

Sl. No.	Crop	Name of hybrids	Area (ha.)	No. of farmers	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)			
					Demo.	Check		H*	L*	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
0	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

**H-Highest recorded yield, L- Lowest recorded yield*

*** 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.

3.3. Achievements on Training during 2021

**(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
Soil Science	Soil Health and Fertility Management	Hand hold training on Soil Testing (Online mode)	18.06. 2021	1	Online Mode	Rural Youth	8	1	9	8	1	9	16	2	18
Soil Science	Soil Health and Fertility Management	Preparation of Panchyagavya and its utilization in Agriculture and Horticulture	18.08. 2021	1	KVK	Rural Youth	0	0	0	0	9	9	0	9	9
Soil Science	Soil and Water Conservation	Recent advances in Soil and Water conservation technologies	22.03.2022	1	KVK	Extension Personal	0	5	5	20	6	26	20	11	31
Soil Science	Soil and Water Conservation	Recent advances in Soil and Water conservation technologies	18.11.2021	1	KVK	Extension Personal	2	2	4	6	10	16	8	12	20

Horticulture	Package of practice	Off Season vegetable cultivation	11.11.21	1	KVK	EP	9	0	9	7	5	12	16	5	21
Horticulture	Floriculture	Propagation of major Horticultural crops	6.08.21	1	KVK	RY	7	3	10	10	8	18	17	11	28
Horticulture	Orchard Management	Orchard Management	12.7.21	1	KVK	F & FW	7	5	12	8	0	8	15	5	20
PP	Low cost bait preparation	Low cost bait preparation techniques	30.12.2021	1	KVK	EP	13	1	14	14	8	22	27	9	36
Agril Extension	Farmers Club	Formation & Mgt of Farmers Clubs	17.8.21 25.10.21	1 1	KVK KVK	Farmer & Farm women	9	5	14	15	12	27	24	17	41
Agril Extension	Entrepreneurship	Entrepreneurship Development	12.10.21	1	KVK	RY	8	5	13	6	2	8	14	7	21
Agril Extension	Entrepreneurship	Entrepreneurship Development	5.11.21-6.11.21	2	KVK	EP	5	3	8	2	10	12	7	13	20
Animal Sc	Livestock Management	Extension service, voluntary work and public service through livestock related activities	25^{th}-28^{th} August, 21	2	KVK	EP	5	0	5	13	0	13	16	0	16
Animal Sc	Do	Do	10^{th} Nov, 2021	1	KVK	EP	5	1	6	15	1	16	19	1	20

Animal Sc	IFS	Livestock and Poultry based IFS for enhancement of farmers income	16th-18th Dec, 2021	3	KVK	Farmer & Farm women (Sponsored)	18	10	28	19	7	26	37	17	54
Fisheries	Fish Processing	Harvest and Post Harvest Technology of Fish	23rd- 25th March 2021	3	KVK	Farmer & Farm women (Sponsored)	2	0	2	21	2	23	23	2	25
Home Sc	Mushroom	Skill development of Training programme on Mushroom production technology for income generation	5th-8th Jan,2021	3	KVK	RY	6	0	6	11	0	11	17	0	17
Home Sc	Household Nutrition Security	Nutritional gardening for Nutritional food security	12.02.2021	1	KVK	PF/FW	6	4	10	7	0	7	13	7	20
Home Sc	Mushroom	Skill development Training programme on mushroom production technology for self employment	5-18th, Feb, 2021	10	KVK	RY(Sponsored) UNNATI	1	0	1	2	1	3	3	1	4
Home Sc	Mushroom	Skill development Training programme on mushroom production technology for self employment	8-10th , Feb, 2021	3	KVK	RY	1	0	1	0	20	20	1	20	21

Home Sc	Value addition	Training programme on indigenous fruit and vegetable processing value addition for Entrepreneurship development	4/3/2021	1	KVK	SHG(FW)	0	13	13	0	2	2	0	15	15
Home Sc	Value addition	Training programme on indigenous fruit and vegetable processing value addition for income generation	19-20th , April, 2021	2	KVK	RY	2	8	10	6	2	8	8	10	18
Home Sc	Value addition	Training programme on indigenous fruit and vegetable processing value addition for Women empowerment	17th -18th , Aug 2021	2	KVK	FW(SHG)	0	0	0	0	19	19	0	19	19
Home Sc	Cereal based Processing and value addition	Beneficiary Classroom training programme on ODOP-Rice based products for SHG members	8th-17th, Nov-2021	8	KVK	FW(SHG)	0	21	21	0	4	4	0	25	25
Home Sc	Cereal based Processing and value addition	Beneficiary Classroom training programme on ODOP-Rice based products for SHG /NGO members	16th -24th Dec, 2021	8	KVK	SHG/NGO ,	0	0	0	3	25	28	3	25	28

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
Soil Science	Organic Farming	Preparation of Panchyagavya and its utilization in Agriculture and Horticulture	27.02.2021-01.03.2021	3	Vill:Ajagartilla, Block: Khowai	Farmer & Farm women	11	0	11	5	2	7	16	2	18
Soil Science	Organic Farming	Preparation of Vermicompost as a source of Income generation	29.04.2021-30.04.2021	2	Vill: Tablabari,Block: Khowai	Farmer & Farm women	7	2	09	7	5	12	14	7	21
Soil Science	Organic Farming	Preparation of Vermicompost as a source of Income generation	16.08.2021	1	Vill: Ghilatali,Block: Kalyanpur	Farmer & Farm women	3	0	3	7	0	7	3	7	10
Soil Science	Organic Farming	Preparation of Vermicompost as a source of Income generation	28.08.2021	1	Vill: Singichera,Block: Kalyanpur	Farmer & Farm women	18	3	21	7	1	8	25	4	29

Soil Science	Organic Farming	Preparation of Panchyagavya and its utilization in Agriculture and Horticulture	26.10.2021	1	Vill: Singichera,Block: Kalyanpur	Farmer & Farm women	11	2	13	4	0	4	15	2	17
Soil Science	Soil Health and Fertility Management	Hand hold training on Soil Testing	7.04.2021-8.04.2021	2	Vill: Nayanpur, Block: Teliamura	Rural Youth	0	0	0	25	0	25	25	0	25
Soil Science	Soil Health and Fertility Management	Training Programme on Preparation of Panchyagavya	19.06.2021	1	Vill: Maigonga Block: Teliamura	Rural Youth	2	4	6	26	0	26	28	4	32
Soil Science	Soil Health and Fertility Management	Hand hold training on Soil Testing	15.07.2021-16.07.2021	2 days	Village: NKR Para ADC Village,Block: Teliamura	Rural Youth	0	0	0	14	2	16	14	2	16
Soil Science	Soil and Water Conservation	Recent advances in Soil and Water conservation technologies	8.09.2021	1 Day	North Pulinpur ADC Village	Extension Personal	0	0	0	15	4	19	15	4	19
Horticulture	Nursery	Nursery raising technique	29.9.21	1	Hrangkhwalpara	F & FW	11	0	11	9	7	16	20	7	27
Horticulture	Nursery	Nursery raising technique	2.8.21	1	R.C Ghat	F & FW	0	0	0	14	4	18	14	4	18
Horticulture	Package of practice	Production and management technology of tuber crops	13.09.21	1	Madhya Krishnapur	F & FW	3	5	8	10	7	17	13	12	25

Horticulture	Package of practice	Production and management technology of tuber crops	16.09.21	1	Ratanpur	F & FW	0	4	4	5	13	18	5	17	22
Horticulture	Orchard Management	Orchard Management	22.7.21	1	Tablabari	F & FW	0	2	02	0	13	13	0	15	15
Horticulture	Floriculture	Propagation of major Horticultural crops	19.08.21	1	North Chebri	RY	0	4	4	3	15	18	3	19	22
Horticulture	Package of practice	Off Season vegetable cultivation	11.02.21	1	Durgapur	EP	14	0	12	0	0	0	14	0	14
Horticulture	Floriculture	Scope of flower cultivation	14.9.21-15.09.21	2	West Sonatala	RY	2	8	10	7	3	10	9	11	20
Horticulture	Floriculture	Scope of flower cultivation	14.3.21	2	Jambura	RY	0	0	0	0	18	0	18	0	18
Animal Science	Entrepreneurship	Livestock and poultry based entrepreneurship	8^{th}-9^{th} Sep, 21	2	Ghilatali	RY	6	8	14	7	1	8	13	9	22
Animal Science	Livestock Management	Scientific Livestock & Poultry farming methods at backyard and income generating activities	20^{th} Sep, 21	1	Chebri	RY	5	9	14	5	3	8	10	12	22

Animal Science	Do	Do	21st Sep, 21	1	Ghilatali	RY	2	8	10	14	11	25	16	19	35
Animal Science	Do	Do	30th Sep, 2021	1	Ghilatali	RY	5	3	8	7	5	12	12	8	20
Animal Science	IFS	Livestock and Poultry based IFS	4th Oct, 2021	1	South Singhicherra	Farmer & Farm women	0	50	50	2	18	20	2	68	70
Animal Science	Livestock Management	Utilizing resources optimally while rearing livestock & poultry	5th Oct, 21	1	South Singhicherra	Farmer & Farm women	22	24	46	3	23	26	25	47	72
Animal Science	Do	Performance indicators in livestock and poultry rearing	21st- 23rd Dec, 2021	3	West Chebri	Farmer & Farm women (Sponsored)	19	16	36	12	7	19	31	23	54
Plant Protection	Pest Management	Management of pest and disease of summer vegetable	16.2.2021	1	RC Ghat	Farmer & Farm women	9	6	**15**	18	3	**21**	27	9	**36**
Plant Protection	Pest Management	Management of pest and disease of summer vegetable	10.3.2021	1	Rajnagar	Farmer & Farm women	12	2	**14**	9	5	**14**	21	7	**28**
Plant Protection	Pest Management	Management of pest and disease of summer vegetable	7.4.2021	1	Ratia	Farmer & Farm women	3	4	**7**	14	0	**14**	17	4	**21**

Plant Protection	Pest Management	Management of pest and disease of rabi vegetable	19.4.2021	1	Singhicherra	Farmer & Farm women	14	2	**16**	11	2	**13**	25	4	**29**
Plant Protection	Pest Management	IDM in potatoes	30.12.2021	1	Sonatala	Farmer & Farm women	6	0	**6**	13	4	**17**	19	4	**23**
Plant Protection	Muhroom production	Scientific mushroom production	27.4.2021	1	RS Para	Rural youth	6	1	**7**	6	4	**10**	12	5	**17**
Plant Protection	Beekeeping	Scientific beekeeping	23.8.2021	1	Singhicherra	Rural youth	21	4	**25**	8	3	**11**	29	7	**36**
Plant Protection	Beekeeping	Scientific beekeeping	20.9.2021	1	Brahmacherra	Rural youth	13	3	**16**	12	7	**19**	25	10	**35**
Plant Protection	Beekeeping	Scientific beekeeping	11.10.2021	1	Khowai	Rural youth	10	4	**14**	11	3	**14**	21	7	**28**
Agricultural Extension	Farmers Club	Formation & Mgt of Farmers Clubs	22.12.21-23.12.21	2	Sardu Karkari	F& FW	5	4	9	7	4	11	12	8	20
Agricultural Extension	Entrepreneurship	Entrepreneurship Development	8.12.21-9.12.21	2	P Rajnagar	RY	6	3	9	7	4	11	13	7	20
Home Sc	Household food security	Nutritional gardening for Nutritional Food security	7-8th, April,2021	2	Nayanpur	PF/FW	0	0	0	11	10	21	11	10	21
Home Sc	Nutrition	Management of nutritional Foods for increase Immune Boosting	28-30th April, 2021	2	Tablabari	PF/FW	4	8	12	9	6	15	13	14	27

		during Covid-19													
Home Sc	Household food security	Nutritional gardening for Nutritional Food security	25.6.2021	1	Icharbil(Anganwadi Kendra)	FW	0	6	6	0	9	9	0	15	15
Home Sc	Value addition	Value addition of Bamboo shoot processing and fermentation techniques	26-27th July, 2021	2	Murabari, Champahour	FW	0	0	0	0	18	18	0	18	18
Home Sc	Cereal based Nutri-Products	Preparation of cereals based Nutri- Products from jackfruits seeds flour	14.9.2021-15.9.2021	2	West Sonatala	FW	0	25	25	0	1	1	0	26	26

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date (From – To)	Duration (days	Area of training	Training title*	No. of Participants			Impact of training in terms of Self employment after training	Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					General	SC/ST	Total		

					M	F	T	M	F	T	M	F	T	Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*training title should specify the major technology /skill transferred

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

On/ Off/ Vocational	Beneficiary group (F/ FW/ RY/ EP)	Date (From-To)	Duration (days)	Discipline	Area of training	Title	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
On	F&FW	16th-18th Dec, 2021	3	Animal Sc	IFS	Livestock and Poultry based IFS for enhancement of farmers income	18	10	28	19	7	26	37	17	54	ICAR	40,000/-
Off	F&FW	21st-23rd Dec, 2021	3	Animal Sc	Livestock Management	Performance indicators in livestock and poultry rearing	19	16	36	12	7	19	31	23	54	ICAR	40,000/-

ON	F&FW	23rd- 25th March 2021	3	Fisheries	Fish Processing	Harvest and Post Harvest Technology of Fish	2	0	2	21	2	23	23	2	25	CAU-CoF	-
On	RY	5-8th Jan, 2021	3	Home Sc	Mushroom	Skill development of Training programme on Mushroom production technology for income generation	6	0	6	11	0	11	17	0	17	DM and Collector office , Khowai Govt Of Tripura under BAD Scheme	34920.00
On (Vocational)	RY	5-18th Feb, 2021	10	Home Sc	Mushroom	Skill development of Training programme on Mushroom production technology for income generation	1	0	1	2	1	3	3	1	4	UNNATI, Govt of Tripura	Direct transfer to Beneficiary=8000.00
On	RY	8-10th , Feb, 2021	3	Home Sc	Mushroom	Skill development of Training programme on Mushroom production technology for income generation	1	0	1	0	20	20	1	20	21	DM and Collector office, Khowai Govt. Of Tripura under BAD Scheme	41560.00

On	RY	19-20th , April, 2021	2	Home Sc	Food Processing, value addition	Training programme on Indigenous fruits and Vegetables processing and value addition for income generation	2	8	10	6	2	8	8	10	18	DM and Collector office , Khowai Govt Of Tripurau nder BAD Scheme	36,455.00
On	SHG(FY)	8-19th, Nov, 2021	8	Home Sc	Cereal based processing and value addition, packaging	Beneficiary Classroom training programme on ODOP-Rice based products for SHG members	0	21	21	0	4	4	0	25	25	DIC, PMFME, Agartala Govt Of Tripura	2,19238.00
On	SHG/NGO	16-24th, Dec, 2021	8	Home Sc	Cereal based processing and value addition, packaging	Beneficiary Classroom training programme on ODOP-Rice based products for SHG members											2,19,238.00

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 2021

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.	Advisory services	Agriculture & Allied Subjects	Throughout the year	408	140	74	214	234	45	279	0	0	0	374	119	493
2.	Diagnostic visit	Agriculture & Allied Subjects	Throughout the year	36	38	21	59	47	21	68	0	0	0	85	42	127
3.	Field day	HYV of Sesamum, SRI, HYV of Mustard, Organic Farming	07.08.2021,2.11.2021,2.12.2021 3.12.2021, 8.12.2021	5	68	25	93	116	61	177	0	0	0	184	86	270
4.	Group Discussion	Agriculture & Allied activities	Throughout the year	13	33	15	48	118	9	127	0	0	0	151	24	175
5.	Kisan Mela	Nutritional Security	-	0	0	0	0	0	0	0	0	0	0	0	0	0
6.	Film show	Agriculture & Allied Activities	Throughout the year	10	107	49	156	146	132	278	0	0	0	253	181	434
7.	Farmers Visit to KVK	Agriculture & Allied Activities	Throughout the year	354	205	125	330	250	85	335	0	0	0	455	210	665
8.	Exhibition	Women Empowerment	18.01.2021	1	20	15	35	35	30	65	0	0	0	55	45	100
9.	Scientists visit to farmers fields	Agriculture & Allied Activities	Throughout the year	99	104	72	176	555	182	737	0	0	0	659	254	913

10.	Plant/ Animal Health camp	Plant & Animal Health Managementt	10.02.2021	1	89	13	102	63	31	94				152	44	196
11.	Ex-trainee Sammelan	Agriculture & allied activities	Nil	0	0	0	0	0	0	0	0	0	0	0	0	0
12.	Farmers seminar/ workshop	Agriculture & allied activities	18.01.2021,10.02.2021	2	23	66	111	200	25	7	0	0	0	30	62	262
13	Method demonstration	Agriculture & allied activities	Throughout the year	17	8	46	54	18	75	93	0	0	0	26	121	147
14	Celebration of important days	World Women Day, World Enviornment Day, National Unity Day, World Food Day, Constitution Day, World Soil Day	8.03.2021,5.06.2021, 22.05.21,20.09.2021,1.06.2021,15.10.21,16.10.21, 5.12.2021	10	107	49	156	146	132	278	0	0	0	253	181	434
15	Exposure visits	Agriculture & allied activities	28.01.2021,4.03.21 , 10.03.21,20.03.21,1,04,2021,13.09.2021,12.11.2021	7	50	53	103	51	55	106	0	0	0	101	108	209
16	Farmer-Scientist interaction	Agriculture & allied activities		0	0	0	0	0	0	0	0	0	0	0	0	0
17	Electronic media (CD/DVD)	NA	Nil	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Extension literature	Vision 2030	November, 2021	1												
19	Newspaper coverage	Special programme imparted as per direction of ATARI	Throughout the year	12	Mass											
20	Case Study	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0

21	Abstract	Reseach related to soil fertility management	November & December, 2021	2	0	0	0	0	0	0	0	0	0	0	0	0
22	TV talk	Mushroom, Poshan Abhiyan	11.01.2021, 17.09.2021	2	Mass											
23	Training manual	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Review Paper	Control of Store grain pest	2021	1	-	-	-	-	-	-	-	-	-	-	-	-
25	Research Article	Research article related to food technology aspects	2021	2												
26	Soil health camp	Soil Health Management	10.02.2021,5.12.2021	2	89	13	102	88	38	126	0	0	0	177	51	228
27	Awareness camp	Agriculture & allied activities	Throughout the Year	30	339	222	561	543	239	782	0	0	0	882	461	1343
28	Lecture delivered as resource person	Agriculture & allied activities	Throughout the Year	29	192	362	554	330	315	645	0	0	0	522	677	1199
29	PRA	Agriculture & allied activities	07.05.21,19.11.2021	2	3	5	8	38	18	56	0	0	0	41	23	64
30	Soil test campaign	Nil	Nil	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Mahila Mandal Convener meet	Nil	Nil	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Kisan Gosthi	Agriculture & allied sector	11.02.2021	1	3	0	3	29	2	31	0	0	0	32	2	34
33	Programme on model	Development At School level related to spices	06.07.2021	1	16	12	28	22	11	33	0	0	0	38	23	61

	spice garden															
34	National Camping on Jai Jawan Jai Kissan	Farmer's Day Celebration	24.12.21	1	25	5	30	53	15	68	0	0	0	78	20	98
35	Online Seminar on Food and nutrition for farmer	Food and Nutrition	26.08.2021	1	6	0	6	8	2	10	0	0	0	14	2	16
36	Others (Input Distribution, Farmers Club Convenors Meet, SHG Convenors Meet)	Agriculture & allied sector	12.02.2021, 17.04.2021,17.09.2021,27.11.21	4	12	20	9	41	8	12	0	0	0	18	38	79

3.5 Production and supply of Technological products during 2021

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	

Cereals	Paddy	Gomoti	64.41(KVK Farm)	84096.00	157	18	99	11	285
Oil Seeds	Toria	Tripura Toria	50(Farmers Field)	3,50000.00	Sold and income generated by farmers				
Pulses	Rajma	Tripura Rajma-1	150(Farmers Field)	9,00000.00	Sold and income generated by farmers				
Vegetables	Potato tuberlet	HPS II/67	80 (KVK Farm and Farmers Field)	120,000.00	22	10	37	1	70
	Elephant Foot Yam	Gajendra	45(Farmers Field)	9,0000.00	Sold and income generated by farmers				
Green Manure	Dhaincha	Local	0.85(KVK,Farm)	8500.00	2	0	0	0	2

A1. SUMMARY of Production and supply of Seed Materials during 2021

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	Cereals	64.41(At KVK Farm)	64.41	84096.00	157	18	99	11	285
2	Oil Seeds	50(At farmers Field)	Nil	3,50000.00	Sold and income generated by farmers				
3	Pulses	450(At farmers Field)	Nil	24,0000.00	Sold and income generated by farmers				
4	Vegetables	125(KVK and Farmers Field)	7.044 (KVK)	59500.00	22	10	37	1	70
5	Green Manure	0.85(At KVK,Farm)	0.85	8500.00	2	0	0	0	2
TOTAL		690	72.3	74,2096.00	181	28	126	12	357

B. Production and supply of Planting Materials (Nos. in No.) during 2021

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	
Fruits	Mango graft	Amrapali	130	91	6500.00	17	5	8	1	31
	Papaya seedlings	RCTP8 ,Tripura papita	685	685	10275.00	24	16	70	14	124
	Litchi saplings	Bombay	78	46	3510.00	3	0	12	3	18
	Sweet orange saplings	Valencia ,Nagpuri santra	65	63	2600.00	4	6	23	2	35
	Lemon cuttings	Gandharaj	100	100	1500.00	9	11	46	5	71
Spices	Ginger cuttings	Nadia	4030	4030	4030.00	0	0	1	0	1
	Black pepper cuttings	Pioneer	20	2	300.00	0	0	1	0	1
Vegetables	Tomato seedlings	Arka harita, Arka apeksha , Arka samrat , Arka samrat	10500	8468	15750.00	91	13	76	22	202
	Cauliflower seedlings	Lucky 5, Valentina, Carotina, White crystal	4000	171371 Valentine 16	7	18	1	42	0	61
	Chilli seedlings	Arka harita, Arka meghna , Arka kyati	8600	5788	8600.00	53	14	49	18	134
	Capsicum seedlings	Delisha	1100	947	5500.00	55	7	47	2	111
	Cabbage seedlings	Green master , BC 76	9640	5398	14460.00	70	9	67	16	162

	Red cabbage seedlings	Ruby ball	600	145	900.00	43	0	34	0	77
	Knol khol seedlings	Goliath ,Jambo 10	2230	1940	2230.00	17	8	5	16	46
	Broccoli seedlings	Green magic	4440	4225	8880.00	105	1	92	15	213
	Brinjal seedlings	VNR 212,Shinghnath,Bhangor giant	4000	3917	4000.00	33	12	7	2	54
	Drumstick	ODC3	350	217	5250.00	34	70	38	20	162
	Iceberg seedlings	NS 1451	850	825	850.00	2	0	0	0	2
	Lettuce seedlings	Grand rapids	430	410	430.00	2	7	0	1	10
	Chinese cabbage seedlings	Apollo	90	80	90.00	1	0	1	0	2
Plantation crops	Areca nut seedlings	Local	100	44	1000.00	19	2	0	9	30
	Coconut seedlings	West coast ,Kanchanpuri	20	15	1100.00	4	0	1	0	5
Flowers	Marigold seedlings	Double orange , Inca	3550	3260	5325.00	38	11	11	4	62
Total			**55608**	**42409**	**103798**	**640**	**199**	**607**	**151**	**1597**

C. Production of Bio-Products during 2021

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	
Bio material	Mushroom spawn	Pl. Sajar Caju	7083 pkt	1770.5	212490.00	43	38	52	28	162
BIOAGENTS	0	0	0	0	0	0	0	0	0	0

BIOFERTILIZERS	Vermicompost	-	-	800 kg	8000.00	Produced and utilized at crop cafeteria in KVK instructional farm				
	Earth worm	*Eudrellus* Sp	500		500.00					
	Pig dung	*LWY x LR*	-	15000	7500					
	Cow dung	*Jersey Cross*	-	5000	5000					
	Poultry Litter	*Broiler & Kuroiler*	-	3000	3880	3	0	3	0	6
BIO PESTICIDES	Nil	0	0	0	0	0	0	0	0	0

D. Production of livestock during 2021

Sl. No.	Type/ category of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries				
			(Nos)	Kgs		General		SC/ST		Total
						M	F	M	F	
1	Pig (Piglet, Sow, Gilt, Boar)	White Yorkshire & Landrace	83 (60, 6, 10, 7)	1802.6 kg	1114150/-	20	2	35	7	64
2	Poultry- Chiken (Chicks) Live weight, eggs	Kuroiler, Broiler	(3177, Live weight- B 1193, K-5068, Eggs-690)	1176.97 kg 10244.7 kg	2028289/-	210	89	187	99	585
3	Cow and Milk	Crossed	1 nos	1467.3 lt	104652/-	9	1	6	2	18
4	Poultry- Duck (Ducklings, Duck, Eggs)	Deshi Crossed	(36, 21, 125)	-	16550/-	6	2	3	-	11

3.6. Literature Developed/Published (with full title, author & reference) during 2021

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

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
Research article	Ethno-botanical study of Underutilized Wild edible Fruits and their Antibacterial activity against Human Pathogens,/ Journal of pure and Applied Microbiology, 2021. 15(4): 1976-1986	Suresh Ch. Biswas, Pranab Dutta, Purnima Barua, Tarun Kumar Misra, and Subrata Das.	Published	-
Research article	Evaluation of Nutritional value, Antioxidant Activity, and Phenolic Content of Protium serratum Engl and Artocarpus Chama Buch.-Ham, Wild Edible Fruits available in Tripura, A North-East State, India/ Current Nutrition & Food Science, accepted 2021,October Publishe online V.18, Number 2022, ISSN: 2212-3881 Print: ISSN: 1573-4013	Suresh Ch. Biswas, Ajan Borah, Pranab Mudoi, Tarun Kumar Misra and Subrta Das.	Published	-
Abstract	Enhancing groundnut productivity by Integrated use of lime,organic,inorganic fertilizers and biofertilizers in acidic soil of Tripura published in the Journal of Indian Society of Soil Science.	Dey, D.,Kundu, M.C.,Sen, D	Published	-
Abstract	Groundnut productivity and microbial biomass carbon as influenced by integrated use of lime,organic,inorganic fertilizers and biofertilizers in acidic soil of Tripura published in the Souvenir cum abstract book of International conference on “Integrated Agriculture,Natural Farming,Bio-diversity conservation and rural bio entrepreneurship under Changing Climate Scenario”.	Dey,D.,Kundu, M.C.,Sen, D	Published	-
Review Article	Management of stored grain pests: Novel Strategies	Chakraborty, A, Chanker, S.,Sehgal, M., Malik,	Published	-

		M.,Sachan,		
Policy document	Vision 2030 (Food for All)	Sachan, M.S; Islam, N.; Biswas, S.C.; Shill, S.; Dey, D.; Chakraborty, A.; & Das, R.	Published	Distributed
News Paper Coverage(21)	Dainik Sambad,Syndayan Patrika,North East Colour	KVK	Published	Mass
TOTAL	**27**			

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: Nil

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

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

INTEGRATED PEST MANAGEMENT IN RICE IN KHOWAI DISTRICT OF TRIPURA – A SUCCESS STORY

Name of the farmer: Mrs. Anita Das, W/O Dhanonjoy Kumar Das Vill- Namapara, P.O. Chebri, Distt. Khowai-799207 Tripura	
Mobile Number: NIL	
Mail id: NIL	

Age: 43; **Educational Qualification:** 8th pass; **Farming Experience:** 15 years; **Other crops grown:** Potato, Brinjal, Cabbage, Cauliflower, Chilli

Crop: Rice **Area:** 0.80 ha

Introduction:

The farmers of Namapara Village of Khowai district are engaged in paddy cultivation since time immemorial and as the khowai river is flowing near the village farmers can grow paddy three times in a year. Most of the farmers are following SRI techniques for paddy with high yielding varieties like Gomati, Tripura Chikon etc.

The major biotic factors contributing to yield loss in rice are pests, diseases and weeds. Among diseases rice sheath blight, bacterial leaf blight and blast are the major diseases of rice in irrigated ecosystem while weeds like *Cyperus iria, C. rotundus, Cloeme viscosa, Echinochloa crusgalli, Eclipta alba, E. colona,* and *Fimbristylis dichotomy* are also limiting rice productivity in rice growing areas of Tripura. Yellow stem borer and leaf folder are the major Insect pests of rice here. Yellow stem borer, *Scirpophaga incertulas* (Walker) (Lepidopter: Pyralidae) is a monophagous rice pest and attacking the rice crop at every growth stages of the crop.

For the control of yellow stem borer, many methods have been adopted but insecticides are still playing a key role for its control. Non judicial and repeated application of insecticides at improper doses may causes several problems such as disrupting natural enemy complexes, secondary pest outbreak, pest resurgence, development of insecticide resistance and environmental pollution. There is an urgent need to develop an alternate method/technology which can effectively control the insect pests population below economic threshold level and also enhance the rice production without harming the ecological niche. Integrated Pest Management (IPM) is one of the eco-friendly approach which can be utilized to control the non-judicial uses of insecticides to control rice insect pest.

Considering the merits of rice IPM, efficacy and suitability of IPM modules was evaluated in irrigated ecosystem of Khowai district of Tripura during the year 2021-22 under NCIPM, New Delhi NEH project to find out its efficacy in Tripura conditions.

Interventions of KVK

KVK has conducted baseline survey and identified problems associated with rice cultivation. Socio economic status of adopted farmers was also studied before demonstration. The majority of the farmers of study areas are marginal and resource poor. A probable list of interested farmers has been prepared from the survey. Further, KVK scientists visited the land of the selected farmer in presence of the villagers. Before implementing the programme, the skill training programmes were organized involving the selected farmers. Field days and other extension programmes were also organized inviting the farmers of the said and nearby villages, Soil samples were collected before transplanting from 15 and 30 cm depths. Since the balanced use of these nutrients was essential for realizing the full potential of the variety, fertilizer recommendation on the basis of soil test data was recommended.

The experimental material was consists of two treatment schedules viz IPM and non-IPM (conventionally cultivated farmers' practice). IPM module included seed treatment with carbendazim @ 4 g/kg seed, application of broad spectrum weedicide Pretilachlor 50 EC @ 500 ml/acre 2-3 DAT, pheromone traps with 5 mg lure @ 20 traps/ha against yellow stem borer for mass trapping and need-based spraying of Hexaconazole @ 1 ml/l against sheath blight. Popular rice variety of area 'Gomati' was used as test variety. The observations on pests, diseases and yield data were recorded from IPM and non-IPM demonstrations. The data on stem borer infestation was recorded at vegetative stage as dead heart (DH) and total tillers and per cent incidence was worked out. Similarly, white ear (WE) and panicle bearing tillers were recorded near maturity of crop and percent white ear infestation was worked out. The data on grain yield of each plot were recorded separately.

Output and Outcome:

The data on effect of IPM technologies in frontline demonstrations on rice grain yield presented in Table -1 show that the yield ranged from 22.57 q/ha at non IPM module to 35.48 q/ha at IPM modules and net return was also high at IPM modules than the non IPM modules. Minimum % DH and % WE were observed in the IPM modules (6.50% and 8.75%) than the non IPM modules (14.36% and 12.84%).

Table 1: Evaluation of IPM and non IPM modules

IPM modules			**non IPM modules**			**% Yield increase**
Yield (q/ha)	**Net Return (**Rs.)	**BCR**	**Yield (q/ha)**	**Net Return (**Rs.)	**BCR**	
35.48	72376	1:2.38	22.57	32332	1:1.54	57.9

Impact:

The demonstration has given a clear picture of minimizing yield loss due to yellow stem borer by following IPM modules. Further, the quality of produce was also improved and the net returns of the farmers have also increased as they are not spraying expensive insecticides frequently. Farmers are encouraged to use various ecofriendly strategies before application of deadly insecticides. This year we have planned to spread the technology horizontally in other parts of the district.

Table 2: Impact of IPM and non IPM modules against yellow stem borer

	Before IPM	**After IPM**
No. of Sprays	1 spray/week	1 spray/20 days
Labor Requirement	Increased	Decreased
Farmer's profit margins	Less	High
Production level	Decreased	Increased
Average net return	Rs. 32332/ha	Rs. 72376/ha
Pest damage level	Dead Heart (DH) % 14.36 White Ear (WE) % 12.84	Dead Heart (DH) % 6.50 White Ear (WE) % 8.75

ECO FRIENDLY MANAGEMENT OF FRUIT FLY IN BITTERGOURD IN TRIPURA – A SUCCESS STORY

Name of the farmer: Mr. Tutan Das, S/O Kamal Das Vill- Paschim Ganki, P.O. Khowai, Distt. Khowai-799202 Tripura	
Mobile Number: 9436329465	
Mail id: NIL	

Age: 38; **Educational Qualification:** BA Pass; **Farming Experience:** 10 years; **Other crops grown:** Bottle gourd, Paddy, Potato, Pea, Brinjal, Mustard, Green gram; **Crop:** Bittergourd; **Area:** 0.32 ha

Introduction:

The farmers of Ganki Village of Khowai district have shifted their traditional rice-maize system to vegetable crops. The area under vegetable crops is increasing day by day. During winter and rainy season, cucurbits are cultivated in majority of area under vegetables crops. The major cucurbits grown by farmers are cucumber, bottle gourd, bitter gourd, sponge gourd, etc. The farmers sell the cucurbits in local as well as distant mandis/markets like Teliamura, Moharcherra, Khowai, etc. Throughout the year fruit fly is a major threat that adversely affects the yield as well as quality of cucurbits. Farmers usually use various insecticides to control this insect, which is not only harmful to the mankind but also affect the environment adversely. The Krishi Vigyan Kendra-Khowai introduced low cost pheromone traps for the management of fruit fly in cucurbits especially in bittergourd. The KVK has assessed and demonstrated this technology during the year 2021-22 under NCIPM, New Delhi NEH project to find out its efficacy in Tripura conditions and also organized awareness programmes, training and field demonstrations.

Interventions of KVK

KVK, Khowai has conducted trials of pheromone traps during the year 2021 - 22 at fields of 17 farmers in cucurbits especially in bitter gourd. Subsequently, for up-scaling the technology in the district, 32 demonstrations covering two development blocks of Khowai district including Ganki village were laid out. The farmers were also educated about the technology during on and off-campus training programmes conducted on production and protection of vegetable crops. The experimental material was consists of two treatment schedules viz IPM and non-IPM (conventionally cultivated farmers' practice). IPM module included Growing of maize as border crop, Installation of pheromone trap (10/ hectare) at 42 DAS, Spraying of NSKE 5%@ 5 ml per litre of water, Spraying of Flubendiamide 39.35 EC @ 0.3 ml/ lit of water

Output and Outcome:

Due to intervention of KVK, Khowai, the farmers have adopted this innovation especially by those who are cultivating cucurbits during rainy/winter season. The adoption of this innovation resulted in reduction of losses by about 50 per cent and the yields of the different crops increased from 20-25 percent. Further, the quality of produce has also improved. The net returns of the farmers have also increased as they are not spraying expensive insecticides frequently.

The results of trials and demonstration conducted on pheromone traps in the village were encouraging and farmers have started demanding these pheromone traps from KVK, Khowai on payment basis. The other farmers are also purchasing pheromone traps from various sources including private dealers. This technology has reduced pesticide use and saved money of farmers. This technology was adopted by about 30 percent cucurbit growers of the village for the management of fruit fly due to its obvious monitory benefit.

Table 1: Economics of using pheromone traps for the management of fruit fly in bitter gourd

Economics of Demonstration					**Economics of Farmer Practice**				
Yield (q/ha)	**Gross Cost (**Rs.**)**	**Gross Return (**Rs.**)**	**Net Return (**Rs.**)**	**BCR**	**Yield (q/ha)**	**Gross Cost (**Rs.**)**	**Gross Return (**Rs.**)**	**Net Return (**Rs.**)**	**BCR**
128	65873	215875	150002	1:3.27	57	54838	105095	50257	1:1.91

Impact:

Since the technique employed is male annihilation technique, the population of the pest will automatically decline in future. This will be highly beneficial for the farming community which were otherwise employing blanket application of insecticides and getting poor yield due to heavy fruit fly attack in the district. The farmers are being trained to lower the cost of the technology by making homemade traps. Used mineral water or soft drinks bottles may be utilized with four windows of 1.5cm diameter. The wooden blocks should be placed almost at the same level of the windows. The use of plastic water/soft drinks bottles are also performing well and lowering the cost of technology. Farmers may purchase only lures to be recharged in the home made traps. Scientists of the KVK are now popularizing the home made traps among cucurbits growers for maximum adoption of the technology at lowest cost.

Table 2: Impact of IPM technology

	Before IPM	**After IPM**
No. of Sprays	4-5 spray/week	1 spray/week
Labor Requirement	Increased	Decreased
Farmer's profit margins	Less	High
Production level	Decreased	Increased
Average net return	Rs. 50257/ha	Rs. 150002/ha
Pest damage level	Harvested Damage %= 60	Harvested Damage %= 12

3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year 2021

Innovative Technology: Handmade Egg Hatching Incubator: A Social Innovation Validated and Calibrated as Economic Practice for Rural Youths

Introduction: Few rural youths prepared egg hatching incubator watching in YouTube videos in Khowai District of Tripura and tried to hatch eggs in the year 2019-20. Few of them approached KVK Khowai after experiencing failure in achieving expected hatching percentage. KVK expert then validated and calibrated the technique and brought to maximum 82% hatching. Observing the success at KVK farm, it was promoted under different projects and distributed several such incubators throughout the district.

Components of the Incubator:

1. Thermo Cage with lid: Contains all the components which fish contained collected from market
2. Sensor: Senses temperature and humidity inside the cabin and transmits information to circuit.
3. Electronic Temperature and humidity regulator: Electronic circuit connected with all the electronic components
4. Monitor: Displays temperature and humidity
5. Electric bulb: To make the cabin warm as per requirement guided by sensor and regulator
6. Electric fan: To reduce temperature inside cabin as per requirement guided by sensor and regulator
7. Adaptor: To supply 9V electricity to the circuits
8. Water container for maintenance of humidity

Parameters fixed:

1. Temperature: Lowest 37.2°C, Highest: 37.7°C
2. Humidity maintained: 40-60%
3. Manual egg rotation at 4 hours interval required (Setting Stage): Quail & Pigeon: 15 days, hen: 18 days, duck: 25days
4. Hatching days: 3 days for all categories of egg (No egg rotation required)

No. of incubators distributed by KVK Khowai: 49 nos. as follows:

1. IWMP/PMKSY: 20 Nos.
2. TAR under TSAMETI: 15 Nos.
3. IFS under ICAR-VPKAS: 9 Nos.
4. NICRA: 5 Nos.

Economics: Cost of preparing the machine is Rs. 1700-2500/- for 100 egg capacity. For 100 nos. of egg hatching a total of maximum Rs.1500/- is required and after hatching 80 nos. of day old chicks are sold for Rs.4800/- @ Rs. 60/- per chicks. There is net profit of Rs.3300/- per batch with benefit cost ratio of 3.2

Impact: Rural youths become very much interested to continue the Practice observing the profit and till now more than 200 nos. of youths throughout the district are practicing it. Day old chicks of local ducks and chicken are available every time now and rearing of deshi birds become easy due to this incubator. Several youths innovated machines with setting capacity of 500-1000 with auto egg rotation facility. Several rural youths are making such machines and selling. They are earning regular income, specially during COVID-19 lockdown period this activity bloomed in the district with the assistance from KVK-Khowai. Some youths has successfully hatched turkey, quail and pigeon egg also.

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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Paddy	Rusham & Romo (Kokborok language) or Denki or Man operated Rice miller	It is mainly used for making flour specially from paddy grain and sometime other grains are also placed for making flour.
2	Pulse	Janta (in Bengali/ local language) or pulse breaker	It is mainly used to break whole pulse grain by crushing them into it to make edible pulse.
3	Rice	Dengki or man operated rice miller	It is mainly used for milling of rice. Earlier days when milling machine was not available, it was being used by the people for preparing rice from paddy.

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

Identification of courses for farmers/farm women: PRA; - Rural Youth: PRA; - Extension personnel: Nil

3.11 Field activities

i. Number of villages adopted: 19
ii. No. of farm families selected:2300
iii. No. of survey/PRA conducted:2

3.12. Activities of Soil and Water Testing

Status of establishment of Lab : Need Up-gradation

1. Year of establishment : 2005-06
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	Mridaparishak	Nagarjuna Agro Chemicals Pvt Limited	2	165300.00	
Total		Pusa Mini Soil Lab	W.S Telematics Pvt Ltd	1	86000.00
				3	**251300.00**

3. Details of samples analyzed (2021) :

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount(In Rupees) realized
Soil Samples	428	428	12	-
Water Samples	0	0	0	0
Plant Samples	0	0	0	0
Petiole Samples	0	0	0	0
Total	**428**	**428**	**12**	**0**

1. Details of Soil Health Cards (SHCs) (2021)
   a. No. of SHCs prepared: 428
   b. No. of farmers to whom SHCs were distributed: 428
   c. Name of the Major and Minor nutrients analysed: N, P, K, S, Zn, B, Cu
   d. No. of villages covered: 12

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	216	1080	150	851	171	995	55	221	142	1292	174	554	908	4993
Voice only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voice and Text both	155	895	110	580	56	395	35	280	175	357	34	182	565	2689
Total	**371**	**1975**	**260**	**1431**	**227**	**1390**	**90**	**501**	**317**	**1649**	**208**	**736**	**1473**	**7682**

3.14 Contingency planning for 2021

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
Introduction of Drought Tolerant Paddy Variety. Tripura Hakuchuk-2,Tripura-Nirog	5	0	70	70	140
Introduction of Mulching in Bitter Gourd with Paddy Straw	5	0	50	50	100
Total	**10**	**0**	**120**	**120**	**240**

a. Livestock based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Number of birds/ animals to be distributed	No. of programmes to be undertaken	No. of camps to be organized	Proposed number of animals/ birds to be covered through camps	Number of beneficiaries proposed to be covered		
					General	SC/ST	Total
Cyclone	1000	5	5	750	300	200	500

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)
Handmade Egg Hatching Incubator	49	80%	11500/10 birds/year	24500/10 birds/year
Promotion of ginger cultivation through Raising sett	35	65%	120000/ha	180400/ha
Promotion of HYV of Sesamum (Tripura Siphing)	150	90%	40000/ha	68000/ha
Promotion of HYV of Toria (Tripura Toria)	170	87.00	52500.00/ha	66500/ha
Promotion of Liming & INM in Maize	199	75	56000/ha	100000/ha
Backyard Poultry Shelter (BPS) with nest box	12	100	4300.00	5400.00
Piglet Soothe Snooze Deck to reduce the mortality in piglets due to hypothermia and crushing injury by the dam	10	100	45000.00	60000.00
Creep Feeder for Piglets	10	100	45000.00	60000.00

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

4.2. Cases of large scale adoption

Sl. No	Crop/ Enterprise	Technology	Result Obtained
1.	Agriculture & Soil Science	Installation of Nano Pumps Near to the Water Harvesting Structure for Supplemental Irrigation in Paddy with SRI Technology	**Cultivation of Paddy with Conventional Method** Yield Obtained: 52 qt/ha,BCR: 2.01 Cultivation of Paddy with Nano Pump Technolgy**:** Yield Obtained: 70 qt/ha BCR: 2.52; **Total area Covered: 250 ha**
2.		Furrow Irrigation in Maize with Liming & INM	Higher yield of Maize with enhanced B:C ratio of 2.88 compared to FP where land remains fallow BD value under TD incraeased from 1.35 from 9 1.48 Field Saturated Hydraulic conductivityK_S(cm/hr) increased to 1.11,from 0.37
3.		Soil Test Based Nutrient Management	Tested 489 representative soil sample Soil Health Cards were distributed Result -Save 15-16 per cent cost on fertilizers, besides increase in yield by 10-12 % to start
4		In Situ Green Manuring with Dhaincha	Higher yield of paddy obtained with Green manuring with Dhaincha as compared to FP where land remains fallow SOC value under bio-mulch by 1.9% Enhanced available soil nutrient status compared to Common Practice**.**
5.	Nutritional garden	Year round vegetable production	As per daily requirement of vegetable @ 300g /day/capita, a family member of 4-5 nos. will require 540 kg of vegetable/year. From a nutritional garden having area 0.0.256 ha total production of vegetable is 435 kg/year. i.e through this garden a family will be able to meet 80.55% of total vegetable requirement
6.	Soakage pit	Soakage pit- Soakage pit (Disposal of waste water in design pit (1m X 1m X 1m)	1.10% stagnant water observed around the tube well 2. Due to lack of water stagnant smell was not found 3. No Fly and Mosquito in the operational area
7.	Jackfruit Chips	Assessment on performance of Jackfruit Chips Preparation T1: Jackfruit chips preparation with blanching	T1 – Jackfruits chips prepared under treatment of KMS and blanching for the certain time enhance & improved the quality of chips- color, taste, increase shelf life. Consumer demand is high T2 – Without KMS and blanching, in this product It was observed shelf life of this

		in hot water with 1% KMS for 5-6 minutes T2: Local method : Without blanching in hot water with KMS	product was only upto20-30 days. Colour & taste is also not attractive. Consumer demand is low
8.	Poultry	Portable Mini Poultry Brooder	Hatchability of fertile egg received as 75%, duckling were sold at Rs. 70/- per piece, poultry chicks were sold at Rs.50/- per piece. Benefit Cost Ratio attained was 2.63
9.	Poultry	Rearing of dual purpose poultry bird	Body weight gain was 1.8 kg at age of puberty in male birds, 1.6kg in case of female bird at the age of first laying, Egg laid in first year was 120 eggs/bird. Benefit Cost Ratio received was 2.84

4.3 Details of impact analysis of KVK activities carried out during the reporting period

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Impact of CFLD on Hybrid Paddy	250	74	46875/ ha	53310/ha

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations established during 2021

Name of organization	Nature of linkage
1. ICAR Research Complex for NEH Region, Tripura centre	Joint implementation
2. College of Agriculture, Tripura	Joint implementation
3. Dept. of Agriculture, Horticulture, ARD Dept. and Dept. of Fisheries, Tripura	Joint implementation
4. College of Fisheries, CAU, Tripura	FAWEP
5. NGOs	Joint implementation
10. NIPHM	Joint implementation
11.NCIPM	Joint implementation
12. T- SAMETI	Joint implementation
14.District Magistrate & Collector, Khowai	Joint implementation
15.Sub-Divisonal Magistrate, Khowai	Joint implementation

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 2021

Name of the scheme/ special programme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Setting of Model Spices Garden	Establishment of Spices Garden at Two Schools, Training and awareness programme	Throughout the year	Spices Board of India	3,50,000/-
Mera Gaon Mera Garav (MGMG)	Demonstration on Bio fortified varieties of Maize and HYV of Potato var. Khupri Jyoti, establishment of Spices Garden	Rabi, 2021	ICAR	Zero Budget
Doubling of Farmers Income (DFI)	Winter and Summer vegetables Production, IPM, Field Day	Throughout the year	ICAR	Zero Budget
ICAR- IARI, NEH Component	Demonstration on Potato seed Var. Kufri Jyoti and other vegetable seeds	Nov, 2021	ICAR	Zero Budget
ICAR-IIHR, NEH Component	Demonstration on IIHR released variety Tomato, Chiili, Pumpkin	Oct-Nov2021	ICAR	Zero Budget
ICAR- VPKAS, NEH Component	Cluster demonstration of HYV of Paddy and Maize and distribution of Farm Implements among the farmers and farm women for drudgery reduction.	Kharif and Rabi,2021	ICAR- VPKAS, Almora, Uttarakhand	Zero Budget
National Food Security Mission (NFSM) on Cereals	Demonstration on Hybrid Variety of Paddy	Kharif, 2021	DoA	Zero Budget
National Food Security Mission (NFSM) on Oilseeds	FLD on oilseeds and pulses	Kharif & Rabi	ICAR	72,150.00
Knowledge System & Homestead Agriculture Management in Tribal Areas (KSHMATA)	Demonstration on Scientific cultivation of Traditional maize variety (Jhum), tradition rice variety like Binni, kali kasha, Cultivation of ginger, elephant foot yam with improves variety Gajendra, Introduction of Bee hive, Deworming in Goat	Throughout the year	ICAR	25,000/-
Nutri Sensitive Agricultural Resources & Innovations (NARI)	Nutri garden, Training on value additi, Nutritional Garden, Field Day, OFT , FLD	Throughout the year	ICAR	25,000/-

Poshan Abhiyan & Tree Plantation	Campaign on Nutri-Garden and Tree Plantation	17th Sept, 2021	ICAR	7000/-
ICAR-NCIPM, NEH Component	Assessment, Demonstrations, training, awareness programme, plant health clinic, entrepreneurship development	Throughout the year	ICAR-NCIPM, New Delhi	3,50,000/-
Capacity Building on profitable Dairy farming & Livestock mgt	Training and Method demonstration	16th-18th Dec, 2021, 213st-23rd Dec, 2021	ICAR	2,00,000/-
Swacchata Abhiyan	Swatchata Pakhwada, Special Swatchta Campaign, Regular Cleanliness drive and disposal of pendency	16th-31st Oct, 2021, 4th-6th Oct, 2021, 12th, 19th & 26th Nov, 2021	ICAR-ATARI VII	20,500/-

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district No

Sl. No.	Programme	Nature of linkage	Remarks
-	-	-	-

5.4 Give details of programmes implemented under National Horticultural Mission: Nil

S. No.	Programme	Nature of linkage	Constraints if any
-	-	-	-

5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
-	-	-	-

6. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2021

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit (Name and No.)	Year of estd.	Area	Details of production				Amount (Rs.)		Remarks
				Variety/ species/ breed	Type of Produce		Qty.	Cost of inputs	Gross income	
1.	Piggery- 2 nos.	1992, 2002	779.9 sq.m	White Yorkshire and Landrace	Piglet, Sow, Gilt, Boar	60 nos 6 10 7	1802.6 kg	995728/-	1114150/-	Need Renovation
2	Poultry-11 nos.	1982, 1993, 2003	584 sq.m	Kuroiler, Broiler	Chicks Live weight Egg	3177 nos B-1193 K-5068 690 nos	- 1176.97 kg 10244.7 kg 690 nos	1970172/-	2028289/-	Need Renovation
3.	Dairy-1 no	2003	50sq. m	Crossed	Cow Milk	1 nos -	1 nos 1467.3 lt	32175/-	104652/-	Need Renovation
4	Duckery	2003	50sq.m	Crossed	Egg, Duck Ducklings	125 21 36	125 nos. 21 36 nos.	23175/-	16550/-	Need Renovation

5	Fishery-6 nos.	1975, 1978, 1984, 1991, 1992	0.76 ha	IMC	Fish Seed Table fish	66500 nos	- 1554.208 kg	91704/-	202749.6	Need to be modernized

6.2 Performance of instructional farm (Crops) including seed production during 2021

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Paddy	01.01.2021,10.02.2021	29.5.2021	0.75	Gomati	Seed /Table	3141	46000.00	54968.00	
Paddy	09.08.2021	25.11.2021	0.80	Gomati	Seed/Table	3300	50000.00	57750.00	
Maize	08.02.2021,02.04.2021,03.11.2021	30.04.2021	0.12	Disha 3502	Table	456 Kg	9000.00	11400.00	
Any other									
Dhaincha	20. 07.2021,12.07.2021,09.08.2021	30.12.2021	0.16	Local	Seed	50 Kg	4000.00	5000.00	
Spices									
Chilli	14.6.21,6.10.21, 22.11.21	30.06.2021	0.014	Bullet ,VNR 145 ,Arka harita, Arka meghna, Arka	Table	4 Kg	1000.00	300.00	Standing crop

				kyati					
Ginger	2.5.21	-	0.04	Nadia	Seed	-	4000.00	-	Standing crop
Turmeric	25.5.21	10.5.22	0.008	Rajendra sonia	Seed	-	400.00	-	In stock
Areca nut	10.6.2008	22.09.2021	0.032	Local	Table /Seed	4000 pc	1000.00	2800.00	
Coconut	20.6.1979	Throughout the year	0.48	Kanchanpuri , West coast	Table /Seed	2084 pc	5000.00	25700.00	
Fruits									
Litchi	1979,1986	May 2021	0.08	Bombay	Table	12732 pc	1500.00	3849.00	
Sweet orange	5.2.13	August 2021	0.04	Valencia, Nagpuri santra	Table	270 pc	500.00	750.00	
Mango	1986,2014	May 2021	0.32	Amrapali, Himsagar	Table	1315 Kg	2000.00	38986.00	
Banana	15.10.16	Throughout the year	0.024	Sapri ,G 9	Table	840 pc	1000.00	1230.00	
Wood apple	20.4.1986	March 2021 ,May 2021	0.008	Local	Table	780 pc	100.00	780.00	
Pamelo	25.4.1986	Sept 2021	0.008	Local	Table	172 pc	200.00	460.00	

Apple ber	16.5.21	-	-	Apple kul	Table	-	1500.00	-	Standing crop
Vegetables									
Tps tuberlet	21.10.2020	09.3.2021	0.08	HPS II /67	Seed	800 Kg	45000.00	59500.00	
Ware potato	10.11.2020	06.02.2021	0.048	HPS II /67 ,Jyoti	Seed /Table	479 Kg	5500.00	7000.00	
Papaya	3.5.18	Throughout the year	0.04	RCTP 8	Table	3487 Kg	3500.00	28500.00	
Yard longbean	31.03.2021,03.04.2021,11.08.2021, 19.11.21	Jun 2021 – Dec 2021	0.056	YB 7,Lafa sahini 7,Mary green	Table	385 Kg	5500.00	5000.00	Standing crop
Brinjal	10.6.21,8.9.21	September 2021	0.056	Shinghnath ,VNR 212,Bhangor giant	Table	177 Kg	5000.00	5700.00	Standing crop
Broccoli	5.12.2020, 05.01.2021, 04.12.2021	Feb 2021, March 2021	0.048	Green magic	Table	93 Kg	3000.00	3200.00	Standing crop
Cauliflower	20..11.20,8.12.20, 24.11.2021	Jan 2021,Feb 2021	0.024	Valentina, Carotina,white crystal ,Luck 5	Table	220 Kg	1600.00	1800.00	Standing crop
Cabbage	05.12.2020, 30.11.2021	Feb 2021	0.02	NS 43	Table	200 KG	1100.00	1200.00	Standing crop
Red	5.12.2021	-	0.008	Ruby ball	Table	-	500.00	-	Standing

cabbage									crop
Tomato	11.1.21, 20.11.21	March 2021	0.032	Keshave,Arka abhed ,Arka apeksha,Arka samrat,Arka rashal	Table	227 Kg	2500.00	1765.00	Standing crop
Okra	24.02.21,18.03.2021, 03.04.2021,21.09.2021, 07.11.2021	April 2021 –Dec 2021	0.080	VNR 999, Unnati ,Debpusa	Table	235 Kg	6000.000	6600.000	Standing crop
Pumpkin vine	03.04.2021, 07.11.2021	May 2021	0.028	Baidyabati, Arka surkyamukhi	Table	154 pc	420.00	400.00	Standing crop
Ridge gourd	02.01.2021,19.04.2021	April 2021, June 2021	12	Machar ginga, SC 18 , Kaveri, Debsundari ,Heera	Table	84 Kg	3000.00	3100.00	
Colocasia	22.02.2021	Nov 2021	0.008	Muktakeshi	Seed	30 Kg	1000.00	-	In stock
Drumstick	10.06.2013	March 2021	0.08	Local	Table	243 Kg	3000.00	9700.00	
Amaranthus	3.4.21,10.8.21	May 2021	0.028	Durgabhog	Table	205 bunch	1500.00	1713.00	
EFY	16.5.20, 10.05.2021	May 2021	0.04	Gajendra	Table	35 Kg	1500.00	2450.00	Standing crop
Others									
Sweet	23.12.21	-	0.016	Bhu Krishna,Bhu	Table	-	1500.00	-	Standing

potato				sona	/Cuttings				crop

6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.) during 2021

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Mushroom spawn	7083 pkt	76400.00	212490.00	
2	Value added products (jam Jelly , squash, Pickle, Mango leather)	101.25 kg	9500.00	25250.00	

6.4 Performance of instructional farm (livestock and fisheries production) during 2021

Sl. No	Name of the animal / bird / aquatics	Details of production				Amount (Rs.)		Remarks
		Breed/ species	Type of Produce		Qty.	Cost of inputs	Gross income	
1	Piggery	White Yorkshire and Landrace	Piglet, Sow, Gilt, Boar	60 nos 6 10 7	1802.6 kg	995728/-	1114150/-	Need Renovation
2	Poultry	Kuroiler, Broiler, Eggs	Chicks Live weight numbers	3177 nos B-1193 K-5068 690	- 1176.97kg 10244.7kg 690 nos	1970172/-	2028289/-	Need Renovation

3	Dairy	Crossed	Cow Milk	1 nos -	1 nos 1467.3 lt	32175/-	104652/-	Need Renovation
4	Duckery	Crossed	Duck Egg, Ducklings	21 nos 125 36	21 125 36	23175/-	16550/-	Need Renovation
5	Fishery	IMC	Fish Seed Table fish	66500	66500 1554.208 kg	91704/-	202749.6	Need to be modernized

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Unit/ structure during 2021

Date	Title of the training course	Client (PF/RY/EF)	No. of Courses	No. of Participants including SC/ST		
				Male	Female	Total
0	0	0	0	0	0	0

6.6. Utilization of hostel facilities (Month-Wise) during 2021

Accommodation available (No. of beds):

Months	Title of the training course/Purpose of stay	Duration of Training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
October, 2021- December, 2021	RAWEP	2 Months	20	60 days	-
Total					

Note: (Duration of the training course X No. of trainees)= Trainee days

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
Current Account	State Bank of India	Khowai	36526709161
Saving Account	State Bank of India	Khowai	38096287514
Revolving Fund- Saving Account	State Bank of India	Khowai	38096267348

7.2 Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2021-22.

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 31st March, 2022
	Sanctioned	Released	Amount	Amount	
CFLD On oil seed	0.3	0.3	0.3	0.3	Nil
CFLD on Pulses	0.72150	0.72150	0.72150	0.72150	Nil
TOTAL	1.0215	1.0215	1.0215	1.0215	Nil

7.3 Utilization of KVK funds during the year 2021-22

Sl. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances	255.33337	255.33337	255.33337
2	Travelling allowances	2.20	2.20	2.20
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	17.85	17.85	12.48869
B	POL, repair of vehicles, tractor and equipments			1.06332
	Working Capital			
C	Meals/refreshment for trainees			0.4857
D	Training material (posters, charts, demonstration material including			0.14083

	chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses			0.75044
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			0.48732
G	Training of extension functionaries			1.80838
H	Maintenance of buildings			0.62532
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Library	-	-	-
K	KSHAMTA	0.25	0.25	0.25
L	NARI	0.25	0.25	0.25
M	HRD	0.50	0.50	0.50
TOTAL (A)		**276.38337**	**276.38337**	**276.38337**
B. Non-Recurring Contingencies				
1	Works	4.0	4.0	4.0
2	Equipments including SWTL & Furniture	5.50	5.50	5.50
3	Vehicle (Four wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		**9.50**	**9.50**	**9.50**
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**285.88337**	**285.88337**	**285.88337**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance with KVK (in lakh)
2019-20	4.48	44.39	45.25	3.62
2020-21	3.62	50.17	49.41	4.38
2021-22	4.38	48.01	44.71	7.68

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above. (Write in detail): Six numbers of IC allotted by NBPGR, New Delhi to KVK Khowai, Tripura

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

(a) Administrative-

- Staffs of NGO KVK should be treated at par with University/ ICAR employees and should provide all the welfare policies applicable to Govt. Employees.
- Lack of residential facilities within the KVK premises

(b) Financial-

- Need to increase fund for training and meals for farmers because allocation of less amount is a barrier for KVK to manage training programme effective ly
- Provision for permanent labour and electricity, administrative and faculty building needs to be updated as per ICAR norms.

(c) Technical-

- More man power required.
- Need mini diagnostic laboratory for livestock, plants and fish

(Signature)
Sr. Scientist cum Head