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, Jaintia Hills Government of Meghalaya, Directorate of Agriculture, Moopun, Wahiajer District-Jaintia Hills Meghalaya- 793150	0365-222-3343	0365-222-3343	kvkjaintiahills@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Director of Agriculture, Lower Cleve Colony, District-East Khasi Hills Meghalaya Pin-793003	0364-2223228(DA) 0364-2227434(DH)	0364-2223228(DA) 0364-2227434(DH)	agri-meg@nic.in hort-meg@nic.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.Dodo Pasweth	Jowai	8731082414	kvkjaintiahills@gmail.com

1.4. Year of sanction:2010

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. Dodo Pasweth	Senior Scientist & Head	Seed Science & Technology	Level 45,600	56,100	1st February 2019	ST
2	Subject Matter Specialist	Smti. B Kharbamon	SMS	Horticulture	21000-39100	65,000	2nd July 2012	ST
3	Subject Matter Specialist	Smti. R Lyngdoh	SMS	Agronomy	21000-39100	65,000	2nd July 2012	ST
4	Subject Matter Specialist	Smti.J.K.Marak	SMS	Fisheries	21000-39100	63,100	16th May 2013	ST
5	Subject Matter Specialist	Dr.RimikiSuchiang	SMS	AH& Vet.	21000-39100	56,100	19th December 2018	ST
6	Subject Matter Specialist	Dr.AletheaDympep	SMS	Agril.Extension	21000-39100	56,100	3rd March, 2020	ST
7	Subject Matter Specialist	Shri.HeipormiPapang	SMS	Plant Protection	21000-39100	56,100	1st December, 2021	ST
8	Programme Assistant	Km. D.Lyngdoh	Programme Assistant	Agriculture	13500-34800	35,400	19th December 2018	ST
9	Computer Programmer	Smti. S. Pohthmi	Programme Assistant	Computer	13500-34800	39,900	1st May 2013	ST
10	Farm Manager	Shri. M Kharbuli	Farm Manager	Agriculture	13500-34800	42,300	2nd July 2012	ST
11	Superintendent / Accountant	Shri. TeibokKharsyiemlieh	Accountant / Superintendent	M.Com	13500-34800	35,400	21st August 2019	ST
12	Stenographer	SmtiWanbhahkiPhawa	Stenographer	Class XII	7600-20200	26,300	1st Dec 2017	ST
13	Driver	Shri.H.Nangtein	Driver	Class XII	7200-20200	21,700	4th July,	ST

							2019	
14	Driver	Shri. K Passah	Driver	Class VIII	7200-20200	22,400	1st Dec 2017	ST
15	Supporting staff	Shri. UrgentsonSukhlain	Supporting staff	Class XII	7200-20200	18,000	1st July, 2019	ST
16	Supporting staff	Smt.IoowanlinShylla	Supporting staff	Class X	7200-20200	18,000	1st July, 2019	ST
	Total=16							

Note: No column in the table must be left blank

1.6. a. Total land with KVK (in ha) :**10.5**

b. Total cultivable land with KVK (in ha):**10**

c. Total cultivated land (in ha):

S. No.	Item	Area (ha)
1	Under Buildings	Nil
2.	Under Demonstration Units	Nil
3.	Under Crops (Cereals, pulses, oilseeds etc.) (Pl. specify separately) i.Cereal ii.Pulses (Blackgram, Greengram, Field pea iii. Toria	Nil
4.	Under vegetables	Nil
5.	Orchard/Agro-forestry	Nil
6.	Others (specify)	Nil

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	ATARI	Nil	Nil	Nil	October 2020	550	Completed
2.	Farmers Hostel	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3.	Staff Quarters (6)	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4.	Demonstration Units (2)	Nil	Nil	Nil	Nil	Nil	Nil	Nil
5	Fencing	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Rain Water harvesting system	Nil	Nil	Nil	Nil	Nil	Nil	Nil
6	Threshing floor	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Farm godown	Nil	Nil	Nil	Nil	Nil	Nil	Nil

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero	ML 05H-5047	2011	6 lakh	2,16,059	Poor condition

C) Equipments& AV Aids

Sl. No.	**Name of the equipment**	**Year of purchase**	**Cost (Rs.)**	**Present status**
1.	Lenovo laptop with carry case M/N-590565598-Z560 S/N-CB05421311 Windows 7 home Basic 64 bit	19th April, 2011	42,890	Good condition

	Preloaded code-00190047651822			
2.	HP Laserjet printer Printer P1007 S/N: VNFNP66829 Luminous 600VA UPS S/N: B04L050014230A6 Fax Sharp F051 S/N:0716223X Pendrive	20th April, 2011	15,200	Good condition
3.	Computer table Computer Chair	20th April, 2011	12,698	Good condition
4.	Plastic chairs,NILKAMAL-7007	26th April, 2011	21,000	Good condition
5.	Desktop Computer HP DC 7000 series Intel core 2 Duo, 2GB DDR2 RAM 8GB,250 GB, SATA HDR	31st March, 2011	40,035	Good condition
6.	Camera Nikon-Cool pix L	10th August, 2011	14,650	Out of order
7.	Camera Case Log	10th August, 2011	742	Out of order
8.	Steel Almira Computer table	8th March, 2012	9700	Good condition
9.	Officer table T>M>O>P-10	30th March, 2012	6000	Good condition
10.	Xerox machine (canon)	31st March, 2012	1,00,995	Under repairing
11.	Revolving officers Chair	24th May, 2012	5000	Good condition
12.	BenQ Projector Model No MS502P Serial No-PDM 8C04375000	30th March, 2013	25,000	Good condition
13.	Seed displayer single cavity (50 nos.) Seed displayer double cavity (50 nos.) Weighing scale 100 kg (1 no.) Herbarium for field use (10 nos.) Garden gloves (12 pairs) Soil testing kit (10 nos.) Insect box (53x45x9 cms) (10 nos.) Sealing machine (1 no.) Grinder/Mixer Bajaj (1 no.)	29th March, 2014	1,55,232	Good condition

	Electronic balance 10 kg (1 no.) Specimen jars with Bakelite screw cap 1000 ml			
14.	GPS model No.Extrex 30	28th March, 2014	18,055	Good condition
15.	Foot sprayer with hyject lawn Knapsack sprayer Garden tools (2 sets)	31st March, 2014	18,666	Good condition
16.	PA system 1. Amplifier TZA-1500 DP 2. Speaker SRX-120 DX 3. Speaker stand STA 100 4. Microphone SHM-1000XLR 5. Microphone stand BMS 101 6. Gooseneck Microphone Gm 601LM 7. GMB 6C Base 8. Wireless Microphne AWM 520V2 9. IBALL Rocky Headphone 10. Speaker wire 11. Stabilizer	20thMarch, 2016	50,000.00	Good condition
17.	LCD Projector Screen 1. EB-U 32 Projector 2. Mounting Kit 3. VGA Cable 4. Laser Pointer Ball 5. Extension Plug 6. Stabilizer/UPS	31st March, 2016	1,00,000.00	Good condition
18.	Computer with accessories 1. PC Desktop 2. Laptop lenevo G50-Q31H/383 3. HP laser Jet Pro P1108 Printer 4. HP colour LJ printer MFP M277N/DW 5. HP Office jet 7110 Wide format Printer 6. HP Scan Jet G 4010 7. Extension Plug 8. Inverter	31st March, 2016	3,00,000.00	Good condition
19.	Furniture & Furnishing	31st March, 2016	1,00,000.00	Good condition

	1. Big steel almirah 2. Steel table 3. Visitors chair 'S' type 4. Computer table 5. Computer revolving chair 6. Slotted angle rack 7. Curtains			
20.	Mahindra Tractor 275NBPLT of 39HP 4.5 MT wheel Trailer body Drawer Frame with Pintel Hook for hitching Rotary Tiller Model No. R2/100 Multipurpose Leveler Model No. L 6"	28th February, 2017	10,000,00.00	Good condition
21.	Hour Meter Farmers maintenance kit Canopy with steel frame Set of front wheel weight DP 2/26 Disc plough 2 furrows	30th June, 2017	80,710.00	Good condition
22.	Honda Portable Gen Set Model: EP 1000	5th March, 2019	30,000.00	Good condition

1.8. A). Details SAC meeting* conducted in 2021 Date: 17th January,2022

Sl.No.	Name	Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1	Smt. R. Majaw	Director of Agriculture, Shillong,Meghalaya	• Suggested SMS, Agronomy to include more parameters for observation on the OFT- Performance evaluation of fingermillet (VL Mandua-348) • Suggested SMS, Horticulture to include parameters to identify the reduction in the cost of production on the OFT- Single bud sprout planting technique of	• Nutrient content of Vermicompost analysis done • To replicate the OFT on Single Sprout of Ginger on turmeric (Taken up as OFT) • To take the initial and final weight of the
2	Dr. A.K. Singha	(i/c) Director, ATARI. Zone VII, Umiam		
3	Smt. E. M. Suchiang	Joint Director of Agriculture(R&T), Shillong,Meghalaya		
4	Smt. B.Mukhim	ADA(R&T), Shillong, Meghalaya		
5	Shri D. W. Pyrbot	DAO,West Jaintia Hills, Jowai		
6	Smt. R. K. Blah	DHO, West Jaintia Hills, Jowai		
7	Smt M. J. Shylla	DAO, East Jaintia Hills,Khliehriat		
8	Smt. H. Suchiang	DHO, East Jaintia Hills, Khliehriat		
9	Smt L. Lakiang	Project Director ATMA, West Jaintia Hills, Jowai		
10	Smt. H. Wann	Project Director ATMA, West Jaintia Hills, Khliehriat		

11	Shri. R.Lamare	S.O, D&LRS&L, WJHD, Jowai	Ginger. • Smt. R. Majaw, Director of Agriculture, Deptt. of Agriculture & Farmers Welfare Suggested the SMS Plant protection to take up technology under OFT on-Assessment of late blight in tomato by altering the time of plantation. • Smt. E. Suchiang,Joint Director(R&T) suggested the KVK to identify various ITK in the district & to document it. • Shri. G. Kharbuli (ADM,NABARD), in his suggestion, mentioned that in coming year NABARD is willing to sponsor Livelihood enterprise capacity building programmes for vegetable cultivation.	rhizome under the OFT- Single bud sprout planting technique of ginger (Completed) • Seed production of rice variety (*Shahsarang*)- No project under Seed Production
12	Shri L.Pohktai	Divisional Soil & Water conservation Officer (Territorial), West Jaintia Hills Dist. Jowai		
13	Dr.Heimonmi Niang	District AH & Vety. Officer, West Jaintia Hills, Jowai		
14	Shri G.Kharlukhi	ADM, NABARD, West Jaintia Hills, Jowai		
15	Smt. Arlin Muruh	Farmer, Lumkhudung village		
16	Shri Iahmeheibha Ladia	Farmer, Mustem village		

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

Proceedings of the meeting of the Scientific Advisory Committee(SAC) of KVK Jaintia Hills held on the 17th January,2022 through virtual meeting and also at video conference hall, Directorate of Agriculture, Shillong.

Member Present:-

Sl.No	Name	Designation	Phone No.	Signature
1.	Smt. R. Majaw	Director of Agriculture, Shillong,Meghalaya	8794742683	Sd/-
2.	Dr. A.K. Singha	(i/c) Director, ATARI. Zone VII, Umiam	9101701355	Sd/-
2.	Smt. E. M. Suchiang	Joint Director of Agriculture(R&T), Shillong, Meghalaya	9615915395	Sd/-
3.	Smt. B.Mukhim	ADA(R&T), Shillong, Meghalaya	9436314252	Sd/-
5.	Shri D. W. Pyrbot	DAO,West Jaintia Hills, Jowai	9436106298	Sd/-
6.	Smt. R. K. Blah	DHO, West Jaintia Hills, Jowai	8974488504	Sd/-
7.	Smt M. J. Shylla	DAO, East Jaintia Hills,Khliehriat	9862668020	Sd/-
8.	Smt. H. Suchiang	DHO, East Jaintia Hills, Khliehriat	8787639331	Sd/-
9.	Smt L. Lakiang	Project Director ATMA, West Jaintia Hills, Jowai	9436102738	Sd/-
10.	Smt. H. Wann	Project Director ATMA, West Jaintia Hills, Khliehriat	9856410093	Sd/-
11.	Shri. R.Lamare	S.O, D&LRS&L, WJHD, Jowai	8787711295	Sd/-
12.	Shri L.Pohktai	Divisional Soil & Water conservation Officer (Territorial), West Jaintia Hills Dist. Jowai	8132839761	Sd/-
13.	Dr.Heimonmi Niang	District AH & Vety. Officer, West Jaintia Hills, Jowai	-	Sd/-
14.	Shri G.Kharlukhi	ADM, NABARD, West Jaintia Hills, Jowai	-	Sd/-
15.	Smt. Arlin Muruh	Farmer, Lumkhudung village	8787774809	Sd/-
16.	Shri Iahmeheibha Ladia	Farmer, Mustem village	8837274143	Sd/-

The meeting was chaired by Smt. R. Majaw, Director of Agriculture, Deptt. of Agriculture & Farmers Welfare,Govt of Meghalaya. At the outset the Chairperson, welcomed all members to the meeting and appreciate their cooperation and coordination extended towards the KVK JaintiaHills.

This was followed by presentations and deliberation on the Annual Progress Report(January-December 2021) and Annual Action Plan(January-December,2022)

The Annual Progress Report (January-December 2021) was presented by Dr. D. Pasweth, Senior Scientist& Head, KVK Jaintia Hills.

- The following suggestions were given by Dr. A.K. Singha, Principal Scientist(AE), Director(i/c), AAO(i/c), ATARI, Zone VII, Umiam

i) Suggested SMS, Agronomy to include more parameters for observation on the OFT-Performance evaluation of fingermillet(VL Mandua-348)

ii) Suggested SMS, Horticulture to include parameters to identify the reduction in the cost of production on the OFT- Single bud sprout planting technique of Ginger.

- Smt. R. Majaw, Director of Agriculture, Deptt. of Agriculture & Farmers Welfare, Suggested the KVK to include PM KISSAN, Farmers ID, KCC, Soil Health Card under Training Programmes.

The second presentation on the Annual Action Plan (January-December 2021-2022) was presented by Dr. R. Suchiang, SMS (AH&Vety.), KVK Jaintia Hills

- Smt. R. Majaw, Director of Agriculture, Deptt. of Agriculture & Farmers Welfare Suggested the SMS Plant protection to take up technology under OFT on-Assessment of late blight in tomato by altering the time of plantation.
- Smt. E. Suchiang,Joint Director(R&T) suggested the KVK to identify various ITK in the district & to document it.
- Shri. G. Kharbuli (ADM,NABARD), in his suggestion, mentioned that in coming year NABARD is willing to sponsor Livelihood enterprise capacitybuildingprogrammes for vegetable cultivation.

With the above presentation and suggestion, the House approved the Annual Progress Report(January-December, 2021) and the Annual Action Plan (January-December, 2022) of the KVK.

The meeting ended with a vote of thanks from Dr. D. Pasweth, Senior Scientist & Head, KVK Jaintia Hills.

Sd/-
Chairperson
Scientific Advisory Committee (SAC), KVK, Jaintia Hills
Director of Agriculture, Deptt. Of Agriculture & Farmers Welfare
Govt. of Meghalaya

2. DETAILS OF DISTRICT

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

Sl. No	Farming system/enterprises
1	Agri + Hort +AH +Fishery
2	Agri + Hort +AH +Sericulture
3	Agri + Hort +AH
4	Agri + Hort +AH +Fishery

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

Sl. No	Agro-climatic Zone	Characteristics
1.	Temperate and sub-alpine zone	This Zone confined in the Central plateau of the District in an area around Jowai, part of Thadlaskein Block. Climate: The rainfall in this Zone is around 2800 - 6000mm which is well distributed. It is Humid and moderately warm and severe winter. The dominant geographic unit is upper and middle plateau. Cropping pattern: The main crops grown in this zone are paddy, potato. Vegetables like Tomato, bean, radish, carrot is also grown wherever irrigation facility is available.
2.	Sub Tropical Hill Zone	This zone spread over the Northern Part of the District. i.e. (Laskein, and part of Thadlaskein,) are under this Zone. Climate : The average rainfall of this zone ranges from 1270- 2032 mm received in 150 days, about 70-80 % of annual rainfall is received during Monsoon period(June –September. The Maximum temperature of this Zone goes up to 20-27 ^{0} C during April-May while minimum temperature is 6-9 ^{0} C during December-January. It is humid and Warm. Land use pattern: One of the characteristic of this zone is high percentage of cultivable land. The dominant geographic unit Hills is rolling and undulating piedmont Cropping Pattern: Major crops grown in this Zone are Paddy and Maize.
3.	Mild Tropical Hill Zone	This zone situated in the south western part of the district. Climate: Humid and warm, Very high rainfall which ranges from 4000 - 10000 mm mostly covered by semi deciduous forest. The maximum temperature ranges from 25-30 ^{0} C and minimum temperature ranges from 8-10 ^{0} C. The dominant geographic unit is severely dissected and undulating low hills, gentle to steep slope. The land is mostly covered with forest, land sometimes acidic in nature having poor fertility. Due to steep and undulated topography with high rainfall, soils are prone to erosion leading to heavy degradation. The soil type varies from red to loamy. Cropping pattern: This zone has most of the forest area of the District .The population of this region depends on Natural resources and forest products like broomsticks etc. The main crops grown in this zone are areca nut, Betel leaf, banana, and fruits.

2.3 **Soil types**

The soil in Jaintia Hills is **red and loamy**. It is derived from the weathering of rocks such as granite, gneiss, diorites etc., which are relatively richer in clay forming minerals but poor in silica contents. The soils are thin, immature, light in colour, less clayey and less fertile. The exposed red and loamy soils are rich in organic matter and nitrogen due to humus contents from the litters of tree leaves, grasses etc. These are usually acidic and suitable for the cultivation of potato, fruits, rice in slopes and terraces.

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

Sl No	CROPS	Area (ha)	Production (metric tonnes)	Average yield (kg/ha)
A. Cereals				
1.	Rice : (a)*Autumn*	116	324	5504
	(b)Winter	17814	29741	5217
	(c) Spring	112	30345	5448
	Total	18042	60410	16169
2.	Wheat	-	-	-
3.	Maize	5244	10559	4435
	Total Cereals	**23286**	**70969**	**20604**
B. SMALL MILLETS				
1.	Finger millet	154	189	1227
2.	Foxtail millet	46	64	1391
	Total small millets	**200**	**253**	**2618**
C.Pulses				
1.	Pea	125	150	2319
2.	Cowpea	60	76	2465
	Total pulses	**185**	**226**	**4784**
D. Oilseeds				
1.	Sesamum	44	41	1855
2.	Rape & mustard	94	86	1760
3.	Soybean	698	1117	3360
	Total oilseeds	**836**	**1244**	**6975**

E. Commercial Crops				
1.	Sugarcane	18	21	2221
Total Commercial crops		**18**	**21**	**2221**
Grand Total(A+B+C+D+E)		**24525**	**72713**	**37202**
Horticultural crops				
A. Fruits				
1.	Khasi Mandarin	1163	6779	10871
2.	Assam Lemon	41	158	7667
3.	Pomelo	56	67	4097
4.	Pine apple	88	778	17998
5.	Banana	365	1244	6815
6.	Papaya	20	67	6138
	Total fruits	**1733**	**9093**	**53586**
B. Vegetables				
1.	Frenchbean	245	1214	939
2.	Carrot	50	606	12120
3.	Cabbage	120	1251	10425
4.	Cauliflower	52	652	12538
5.	Turnip	66	462	7000
6.	Raddish	67	708	10567
7.	Beetroot	18	179	9944
8.	Brinjal	26	374	14385
9.	Ladies Finger	18	41	2278
10.	Bottlegourd	62	652	10516
12.	Pumpkin	126	632	5016
	Total vegetables	**850**	**6771**	**95728**
B. Tuber crops				
1.	Potato	219	1246	11974
2.	Sweet potato	1207	3799	6336
3.	Tapioca	33	361	21609
	Total tuber crops	**1459**	**5406**	**39919**

C. Spices				
1.	Ginger	369	4445	24558
2.	Turmeric	1867	13757	14685
3.	Chillies	73	76	2040
4.	Black pepper	41	29	1381
	Total spices	**2350**	**18307**	**42664**
D. Plantation crops				
1.	Arecanut	2054	3590	3207
2.	Rubber	665	67	217
3.	Tea	20	63	6250
Total plantation crops		**2739**	**3720**	**9674**
Grand total (A+B+C+D)		**9131**	**43297**	**241571**

Source: Directorate of Agriculture, Meghalaya, Shillong (2016-17)

2.5. Weather data

Month	**Rainfall (mm)**	**Average**	**Temperature ^{0}C**		**Relative Humidity (%)**	
			Maximum	Minimum	Maximum	Minimum
January ,2021	11.9	0.6	33.5	13.1	91.60	42.4
February, 2021	41.8	1.82	20.60	10.94	84.9	43.2
March , 2021	676.0	28.15	17.90	11.30	90.2	59.8
April, 2021	1525.0	36.35	19.50	13.12	96	67.9
May, 2021	540.0	18.50	22.09	16.15	91.2	68.8
June , 2021	2470	82.25	25.01	19.3	94.7	81.2
July, 2021	1318.4	47.1	24.17	18.4	93.62	81.9
August, 2021	2220.3	65.28	31.2	19.1	93.2	79.63
September, 2021	875	32.8	28.8	18.9	98.3	75.08
October, 2021	1402	48.1	25.2	17.87	97.2	71.3
November , 2021	845.3	30.29	22.38	12.96	95.9	47.89
December, 2021	490	18.02	22.12	10.4	95.2	42.92

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

Category	**Population**	**Production**	**Productivity**
Cattle			
Crossbred	1285	2608 thousand litres of milk	-
Indigenous	96591	4216 thousand litres of milk	-
Buffalo	2619	175 thousand litres of milk	
Sheep			
Crossbred	-	-	-
Indigenous	8	-	-
Goats	37087	200 thousand litres of milk	-
Pigs			-
Crossbred	21630	13140 tonnes meat	-
Indigenous	40316		-
Rabbits	13	-	-
Poultry			
Hens			-
Desi	3,29,824	114.49 lakhs eggs	-
Improved	1,22,59	47.67 lakhs eggs	-
Ducks	7536	2.07 lakhs eggs	-
Turkey and others	Nil		

Note: Pl. provide the appropriate Unit against each enterprise

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.	Thadlaskein	Thadlaskein	Ummulong ,Nangbah,Niriang Namdong,Nongkhroh,Umladang,Nongkhroh,Mukhnang, Sohphoh,Nangbah, Wahiajer, Niriang, Mulum,Moodymmai, Niawkmai,Moosakhia,Jowai,Pynthorlangtein, Tyrshang, Pynthorwah Mynthong,	Potato,Groundnut, Paddy,Peach Pineapple,Guava,Ginger,Turmeric,Tomato,Brocolli,Pea Oyster Mushroom, Beekeeping, Poultry,Paddy, Piggery, Vegetables, Fishery	Susceptible to Late blight, Low production Improper orchard management ,No proper spacing followed Not yet grown in the district, Improper Nutrient Management Low cropping intensity Powdery mildew in pea if late sown High incidence of fruit flies Non utilization of natural resources Low production and income due to traditional beekeeping Low egg production due to breakage and cannibalism Storage pest infestation Low productivity due to winter stress and high incidence of diseases, Low productive and reproductive attributes of local chicken variety, No evaluation was conducted before, Low income from a unit farm area, improper utilization of resources, Unavailability of quality seeds	Canopy management Crop Production Performance evaluation Integrated Nutrient Management Crop Production IDM, Crop diversification IPM Income generation Pond Management IFS Biological management of diseases, Resource conservation Practices, On and Off farm waste management, Fodder Production, Fish breeding, Formation and management of SHGs
2.	Laskein	Laskein	Mootyrchiah, Nongkynrih,Phramer,Moobakhon,Muthlongrim,Chilliangmyntang,Raliang,Shangpung,Kyndongtuber,Mookyndeng	Potato,Groundnut, Paddy, Guava,Ginger,Turmeric, Vegetables,Ginger,Turmeric, Poultry, Piggery, Fishery,	Susceptible to Late blight, Low production Improper orchard management ,No proper spacing followed,Not	Canopy management Crop Production Performance

				Oyster Mushroom, Beekeeping	yet grown in the district,Improper Nutrient Management,Low egg production due to breakage andcannibalism,Low productivity due to winter stress and high incidence of diseases, Low productive and reproductive attributes of local chicken variety,Low production, Not yet introduced in the district, No evaluation was conducted before, Low income from a unit farm area, improper utilization of resources, Unavailability of quality seeds	evaluation Integrated Nutrient Management Crop Production IDM, Fodder Production, IPM, Crop diversification Income generation Pond Management IFS, Fish breeding Biological management of diseases, Resource conservation Practices, On and Off farm waste management, Crop diversification, Formation and management of SHGs
3.	Khliehriat	Khliehriat	Rymbai, Nonthymme, Mynsoo, Latyrke, Tongseng, Tuber Sohshrieh	Vegetables,Paddy, Piggery, Poultry, Fishery, Oyster Mushroom, Beekeeping	Storage pest infestation , Low productivity due to winter stress and high incidence of diseases Low productive and reproductive attributes of local chicken variety, Not yet introduced in the district, Low production, No evaluation was conducted before, Low income from a unit farm area, improper utilization of resources, Unavailability of quality seeds	Performance evaluation Integrated Nutrient Management Income generation Pond Management, Fish breeding IFS, Piggery, Poultry, Biological management of diseases, Resource conservation Practices, On and Off farm waste management,

						Formation and management of SHGs
4.	Amlarem	Amlarem	Moosakhia, Mookaiaw,Sohmynting	Vegetables, Poultry, Fishery, Oyster Mushroom, Beekeeping	Low productive and reproductive attributes of local chicken variety,Not yet introduced in the district, Low income from a unit farm area, improper utilization of resources, Unavailability of quality seeds	Pond Management, IFS, Piggery, Poultry, Resource conservation Practices, Fish breeding, Formation and management of SHGs

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2021-22

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	2	2	10	10	1	1	10	10
Horticulture	1	1	5	5	3	3	12	15
Fishery	2	2	10	10	2	2	22	22
Animal Science	2	2	10	10	2	2	11	11
Agril.Extension	2	2	150	150	1	1	120	120
Total	**9**	**9**	**185**	**185**	**9**	**9**	**175**	**178**

Note: Target set during last Annual Zonal Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy					393	1944	453	3728
Farmers	12	12	90	229				
Rural youth	16	16	120	120				
Extn.Functionaries	2	2	40	40				
Hort								
Farmers	24	24	150	329				
Rural youth	14	14	60	60				
Extn. Functionaries	2	2	30	30				
Agril.Extension								
Farmers	13	15	120	134				
Rural youth	12	15	90	120				
Extn. Functionaries	8	8	60	60				
Animal Science								
Farmers	16	18	170	344				
Rural youth	16	16	120	120				

Extn. Functionaries	8	8	60	60				
Fisheries								
Farmers	22	22	140	151				
Rural youth	12	12	60	60				
Extn. Functionaries	8	8	30	30				
Total	**185**	**192**	**1340**	**1887**	**393**	**1944**	**453**	**3728**

Seed Production (q.)		Planting material (tonnes)	
Target	Achievement	Target	Achievement
46.5	8.5q	2t	45q

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.	Performance evaluation	Potato	Low yield of local variety	Performance evaluation of Potato varieties (*Kufri himalini &Kufri girdhari*	Nil	Integrated Weed Management	Nil	Method Demonstration, Group discussion, Diagnostic visit, Advisory service, Scientist visit	Seeds, Biofertilizers ,Compost, Biopesticides, Lime
2.	Performance evaluation	Finger millet	Low yield of local variety	Performance evaluation of finger millet (VL Mandua -352**)**	Nil	Organic cultivation of millets	Nil	Method Demonstration, Group discussion, Diagnostic visit, Advisory service, Scientist visit	Seeds, Biofertilizers ,Compost, Biopesticides, Lime
Horticulture									

1.	Production Technology	Ginger	Large sized rhizome used for planting leads to high cost of cultivation Insufficiency of planting material	Single bud sprout planting technique of ginger	Nil	Single bud sprout planting technique of ginger	Nil	Method Demonstration, Group discussion, Diagnostic visit, Advisory service, Scientist visit	Ginger planting materials
2.	IFS modules	Pig, fish, cabbage, guava	Low return,. Improper utilization of resources.	Integrated livestock-cum-fish-cum-horticulture farming	Nil	Integrated farming system	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service	Guava plants, vegetable seeds
Fisheries									
1.	IFS modules	Pig, fish, cabbage, guava	Low return, Improper utilization of resources.	Integrated livestock-cum-fish-cum-horticulture farming	Nil	Integrated farming system	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service	Piglet, Fingerlings, guava plants, vegetable seeds

2.	Nursery raising of carp fry	Amur common carp, Labeo gonius	Unavailability of quality seeds	Utilization of Jalkund for nursing of carp fry to fingerlings stages	Nil	Nursery raising of carp fry	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service	Fingerlings, lime
Animal Science									
1.	Piggery	Pig	Low productivity due to winter stress and high incidence of diseases	Low cost climate resilient environment-affinitive pigpen model	Nil	Piggery rearing and management, Construction of deep litter pig sty	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service Scientist visit to farmers field	Piglets, Mineral mixtures, deworming tablets

2.	Piggery	Pig	Low productive and reproductive performance of local indigenous pigs	Introduction of "Lumsniang" Upgraded pig variety in Jaintia Hills District	Nil	Piggery rearing and management, Introduction of improved pig variety	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service Scientist visit to farmers field	
3.	IFS	Pig, fish, cabbage, guava	Low return,. Improper utilization of resourses.	Integrated livestock-cum-fish-cum-horticulture farming	Nil	Integrated farming system	Nil	Group discussion, Diagnostic visit, Advisory helpline, Mobile advisory service	Piglet, Fingerlings, guava plants, vegetable seeds
Agricultural Extension									
1.	Benchmark Survey	Turmeric	Identifying prospective intervention to upgrade livelihoods	Value Chain Analysis of Ginger and Turmeric in West Jaintia Hills	Nil	Scope of entrepreneurship in food processing	Nil	Interview schedule, Survey and data collection Questionnaire	Benchmark Survey

2.	Benchmark Survey	Indigenous wild leafy vegetables	Lack of documentation	Assessment of indigenous wild leafy vegetables traditionally consumed by the Jaintia tribal people	Nil	Importance on nutritive value of indigenous wild leafy vegetables	Nil	Interview schedule, Survey and data collection Questionnaire	Benchmark Survey

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	Spices	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	1								1	**2**
Production Technology							1			**1**
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Resource conservation technology	-	-	-	-	-	-	-	-	-	-

Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
Benchmark survey					1		1			2
TOTAL	**1**				**1**		**2**		**1**	**5**

* *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	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating	-	-	-	-	-	-	-	-	-	-

enterprises										
TOTAL	-	-	-	-	-	-	-	-	-	-

* *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					1			1
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management								
Nursery raising of carp fry							1	1
IFS modules							1	1
TOTAL					**1**		**2**	**3**

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								
Nutrition Management								
Disease of Management								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
Improved Housing system					1			1
TOTAL					**1**			**1**

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)
Agronomy									
1.	Performance evaluation of Potato	Low yield of local variety	Performance evaluation of Potato varieties (*Kufri himalini &Kufri girdhari)*	Potato varieties (*Kufri himalini &Kufri girdhari)*	5	**Technology –** ***(a)Kufri himalini*** ➢ Yield (t/ha): 13.4 ➢ Gross cost (Rs/ha.): 98,350 ➢ Gross return (Rs/ha.): 2,68,000 ➢ Net return (Rs/ha.): 1,69,650 ***(b)Kufri girdhari*** ➢ Yield (t/ha): 12.2 ➢ Gross cost (Rs/ha.): 1,03,017 ➢ Gross return (Rs/ha.): 2,44,000 ➢ Net return (Rs/ha.): 1,40,983 **Farmer's practice:** *Kufri jyoti* ➢ Yield (t/ha): 10 ➢ Gross cost (Rs/ha.): 1,0,5348 ➢ Gross return (Rs/ha.): 2,00,000 ➢ Net return (Rs/ha.): 94,652	Performing well	Accepting the technology	**Technology** *Kufri himalini* B:C ratio: 2.7:1 *Kufri girdhari* B:C ratio: 2.4:1 **Farmer's practice:** B:C ratio: 1.9:1
2.	Performance evaluation of finger millet	Low yield of local variety	Performance evaluation of finger millet (VL Mandua -352) In the 2nd year, another variety was added VL	Finger millet (VL Mandua -352) & VL Mandua -347	5	**Technology**-Finger millet (VL Mandua -352) ➢ No. of tillers/ plant- 2.3 ➢ No. of ears - 6.3 ➢ Yield (kg): 1331.5 ➢ Cost of cultivation (Rs.): 22,310.4 ➢ Gross return (Rs.): 53,260	Performing well	Accepting the technology	**Technology** Finger millet (VL Mandua -352) **B:C ratio:** 2.4:1 Finger millet

			Mandua -347			➢ Net return (Rs.): 30,950 **Technology -**Finger millet (VL Mandua -347) ➢ No. of tillers/ plant- 2.3 ➢ No. of ears - 6.7 ➢ Yield (kg): 1391.5 ➢ Cost of cultivation (Rs.): 22,910.4 ➢ Gross return (Rs.): 55,660 ➢ Net return (Rs.): 32,750 **Farmer's practice:** Local variety ➢ No. of tillers/ plant- 2.1 ➢ No. of ears – 5.2 ➢ Yield (kg): 1214.2 ➢ Cost of cultivation (Rs.): 18,753.3 ➢ Gross return (Rs.): 36,426 ➢ Net return (Rs.): 17,673			(VL Mandua - 347) **B:C ratio:** 2.4:1 **Farmer's practice:** B:C ratio: 1.9:1
Horticulture									
1.	Production Technology	1. Large sized rhizome used for planting leads to high cost of cultivation 2.Insufficiency of planting material	Single bud sprout planting technique of ginger	Ginger	5	**Technology** ➢ Weight of rhizome used for planting (g): 5-6 ➢ Weight of rhizome after harvesting (g) - 342 ➢ Productivity (t/ha) : 8.62 ➢ Gross cost (Rs/ha): 92,000 ➢ Gross return (Rs/ha) : 5,17,200 ➢ Net return (Rs/ha) : 4,25,200 ➢ Reduction in cost of cultivation ; Rs. 1,43,000 ➢ % of reduction in cost of cultivation :60.85%	Performing well	(a) Seed requirement is reduced from 3t to 600kg giving higher B:C ratio and disease free seed rhizomes	**B:C ratio** **Technology** 5.62:1 **Farmer's practice** 2.6:1

<table>
<tr>
<td></td><td></td><td></td><td></td><td></td><td></td>
<td>Farmer’s practice
➢ Weight of rhizome used for planting (g): 180
➢ Weight of rhizome after harvesting (g) - 480
➢ Productivity (t/ha)- 10.2
➢ Gross cost (Rs/ha): 2,35,000
➢ Gross return (Rs/ha) : 6,12,000
➢ Net return (Rs/ha) : 3,77,000</td>
<td></td><td>(b)Good practice for seed production since it reduces the soft rot disease in the rhizomes</td><td></td>
</tr>
<tr><td colspan="10">Agricultural Extension</td></tr>
<tr>
<td>1.</td><td>Bench mark survey</td><td>Identifying prospective intervention to upgrade livelihoods</td><td>Value Chain Analysis of Ginger and Turmeric in West Jaintia Hills</td><td>Ginger and Turmeric</td><td>90 samples</td>
<td>
A. Actors along the value chains and their functions
<table>
<tr><th>Functions</th><th>Actors</th></tr>
<tr><td>Cultivation</td><td>Farmers</td></tr>
<tr><td>Processing</td><td>Farmers, SHGs, Processors</td></tr>
<tr><td>Marketing</td><td>Farmers, SHGs, Processors, Retailers, Wholesalers</td></tr>
</table>
B. Cost and returns for production of turmeric
<table>
<tr><th>Particulars</th><th>Amount</th></tr>
<tr><td>Total Cost of Cultivation</td><td>₹82863/ha</td></tr>
<tr><td>Total Cost of Processing</td><td>₹17.9/kg</td></tr>
<tr><td>Total Cost of Marketing</td><td>₹99.9/kg</td></tr>
<tr><td>Returns from main produce</td><td>₹38.93/kg</td></tr>
</table>
</td>
<td></td><td>More training on post harvesting methods, incentives on processing machines</td><td>Scope of entrepreneurship in food processing</td><td>-</td>
</tr>
</table>

Returns from by-produce (powdered)	₹246 per kg
Net return	₹146.21/kg

C. Marketing channels for disposal of turmeric	
Channel I	Producer→ Village Trader→ Processor→ Wholesaler→ Retailer→ Consumer
Channel II	Producer→ Processor-cum-Retailer→ Consumer
Channel III	Producer → Consumer

D. Swot analysis	
Strength	Large production of *Lakadong* turmeric organically
Weakness	Lack of processing units, manual processing, lack of marketing strategies
Opportunities	Tie up with local entrepreneurs for further marketing of processed produced
Threat	No curcumin testing centre

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>2.</td><td>Bench mark survey</td><td>Lack of documentation</td><td>Assessment of indigenous wild leafy vegetables traditionally consumed by the Jaintia tribal people</td><td>Indigenous wild leafy vegetables</td><td>60</td><td>Integrated Value (Taste, Distribution, Community status, Life form, Wild or cultivated, Edible time (ET), Edible part (EP), Medicinal value (MV), and Market potential (MP).
<table>
<tr><th>Criteria</th><th>Percentage</th><th>Wild Leafy Vegetables (local names)</th></tr>
<tr><td>Highest (Integrated value>2.5)</td><td>10.53</td><td>Slachiet, Jamyrdoh</td></tr>
<tr><td>High (Integrated value 2.0-2.5)</td><td>42.11</td><td>Jarain,Jajew, Ja merembut,Jaiur, Jyllang, La thynriat, Sla wang, Latdoh</td></tr>
<tr><td>General (Integrated value 1.5-2.0)</td><td>31.58</td><td>Khliangsyiar, Tyrkhang, Jalynniar, Ja-ut, Ja tyndong, Jakeng, Iada</td></tr>
<tr><td>Low (Integrated value <1.5)</td><td>15.79</td><td>Shkorblang, Jabuit</td></tr>
</table>
Market Potential and Disposal
Taste was the most important</td><td>Lack of market value for indigeneous vegetables</td><td>Awareness should be given in urban areas on importance of indigeneous vegetables to upscale its market potential</td><td></td></tr>
</table>

						criterion for preference in case of leafy vegetables. The tastiest species are most commonly preferred by consumers, and have greater market potential though marketability is also influenced by other factors such as abundance, availability, distribution. • Some of the plants though not considered tasty are consumed by the locals for their medicinal quality or the health benefit they provided.			
Animal Science									
1	Improved Housing System	Low productivity due to winter stress and high incidence of diseases	Low cost climate resilient environment-affinitive pigpen model (Refinement)	Piggery	5	**Technology:** • Body weight(in kg) a. 2 months old: 8.4 b. 6 months old: 29 c. 9 months old: 50.1 d. 12 months old: 75.5 • Lameness: Nil • Skin disease: Nil • Diarrhea: Nil • Respiratory problem: Nil • Mortality: Nil **Economics** i. Gross Cost(Rs/unit): 21,900 ii. Gross Return(Rs/unit): 67,000 iii. Net Return(Rs/unit): 33,500	Due to its low cost with high benefits, it has been widely accepted by the farmers till date and more than 5 nos. of farmers have started constructing this type of shed in a span of just	This technology is performing very well and little bit modification is required which the researcher is doing right now	**Technology:** B:C Ratio-3.05:1 **Farmer's practice:** B:C Ratio-1.74:1

						Farmer's practice: • Body weight(in kg) i. 2 months old: 7.1 ii. 6 months old: 18 iii. 9 months old: 31.3 iv. 12 months old: 44.6 • Lameness: 6.6% • Skin disease: 25.5% • Diarrhea: 15.2% • Respiratory problem: 7.8% • Mortality: 5% **Economics** i. Gross Cost(Rs/unit): 17,520 ii. Gross Return(Rs/unit):30,500 iii. Net Return(Rs/unit): 16,000	2 years.		
2.	Evaluation of breed	Low productive and reproductive performance of local indigenous pigs	Introduction of "Lumsniang" Upgraded pig variety in Jaintia Hills District	Piggery	5	**Technology:** **1.Body weight(in kg)** ➢ 3 months old: 9.4 ➢ 6 months old: 29 ➢ 9 months old: 55.5 ➢ 12 months old: 89.5 **2. Age at sexual maturity** 8 months **3.Litter size(per farrowing)-**10 **Economics** i. Gross Cost(Rs/unit): 34,800 ii. Gross Return(Rs/unit): 1,00,000 iii. Net Return(Rs/unit): 65,200 **Farmer's practice:** **1.Body weight(in kg)**	(i)Farmers found it more profitable to rear this breed as it grows faster compared to local breed (ii)It perfectly suits the local climatic condition	(i)It has high feed conversion ratio (ii)Attains sexual maturity early at the age of 8 months (iii)It has a litter size of 10 per farrowing (iv)Presently weighs around	**Technology:** B:C Ratio-2.87:1 **Farmer's practice:** B:C Ratio-1.79:1

						➢ 3 months old: 7.4 ➢ 6 months old: 18.9 ➢ 9 months old: 30.8 ➢ 12 months old: 46.8 **2. Age at sexual maturity** 10 months **3.Litter size(per farrowing)**-5 **Economics** iv. Gross Cost(Rs/unit): 25,050 v. Gross Return(Rs/unit): 45,000 vi. Net Return(Rs/unit): 19,950		110-120 kg	
Fisheries									
1.	Nursery raising of carp fry	Unavailability of quality seeds	Utilization of Jalkund for nursing of carp fry to fingerlings stages	Amur common carp, Labeo gonius	5	• **Survival percentage** ➢ 80% survival for Gonius ➢ 99%survival for Amur common carp • **Gross cost (Rs/unit):** 4360 • **Gross return (Rs/unit):**9660 • **Net return (Rs/unit)**:5330	Performing well	Performing well, the success of this technology depend on quality of seeds	B:C ratio **2.21:1**
2.	IFS Modules	Low income from a unit farm area, improper utilization of resources	Integrated livestock-cum-fish-cum-horticulture farming **T1**-Fish species: Indian Major carps & Exotic carps (0.1ha)	Pig cum Fish cum Horticulture	5	**Yield (t/ha)** **T1** • Fish-1.67 **T2** • Fish- 1.96 • Pork- 1.920 kg meat **T3** • Fish - 1.980 • Vegetables Tomato-24.8, Brocolli-14.5 • Pork-1.920 kg meat **Gross cost (Rs/ha)**	Performing well	With optimum utilization of resource they get more production and increased in net income	**B:C ratio Technology:** • **T1-** 1.95:1 • **T2-** 2.01:1 • **T3-** 2.4:1

			T2- Fish+Piggery Hampshire cross (3-4 piglet/0.1 ha) **T3-** Fish+Piggery+ Vegetables			• **T1: 1,72,920** • **T2**: (1,55,650+277500)=**4,33,150** • **T3:** (1,55,600+277500+173700)= **Rs.6,06,800** **Gross return (Rs/ha)** • **T1: 3,37,800** • **T2**: 3,92,400+4,80,000=**8,72,400** • **T3:** 3,96000+480000+ 611020)=**Rs.1,48,7020** **Net return (Rs/ha)** • **T1: 1,64,880** • **T2**: **44,39,250** • **T3: 8,80,220** **Farmer's practice (single component)** i. Fish yield-0.32t/ha ii. Gross cost (Rs/ha): 36,000 iii. Gross return (Rs/ha): 64,000 iv. Net return (Rs/ha): 28,000			**Farmer's practice:** B:C ratio - 1.77:1

**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 2017-18 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.	Piggery	Introduction of "Lumsniang" Upgraded pig variety in Jaintia Hills District	4	4	1200 sq.ft rearing area and around 1 ha in total community green forages growing plot
2.	Piggery	Low cost climate resilient environment-affinitive pigpen model	6	6	1400 sq.ft
3.	Poultry	Innovative Egg Laying cabin	6	14	2100 sq.ft poultry shed area with a cabin size of 8x4 inches in each of the 14 sheds rearing 50 BV-380 birds each
4.	Pineapple	Popularization of Double row planting system of pineapple	6	8	2.2
5.	Guava	Popularization of Guava varieties *Megha Supreme, Megha Magenta & Megha Wonder*	6	10	2
6.	Peach	Popularisation of low chilling peach varieties	6	8	1.6
7.	Fodder	Popularization of fodder grasses (Guinea grass)	6	6	2
8.	Poultry	Rural poultry production with improved chicken variety (Vanaraja)	65	1000	-

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

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1.	Vermicomposting	On and Off farm waste management	Vermicomposting	May-Dec, 2021	-	-	10		10	-	-	-	-	-
Horticulture														
1.	Pineapple	Production technology	Double row planting system of pineapple variety Queen	Whole year 2021	2	4	5	-	5	-	Rainfed	-	-	-
2.	Guava	Varietal performance	Varietal performance of Guava varieties (*Megha Supreme, Megha Magenta & Megha Wonder*)	Aug-March (8 months)	2	2	5	-	5	-	Rainfed	-	-	-

3.	Peach	Varietal performance	Popularisation of low chilling peach varieties	Aug-March (8 months)	2	2	5	-	5	-	Rainfed	-	-	-
Agricultural Extension														
1.	Turmeric, Poultry	Impact Assessment	Effect of group farming system *vs* individual farming system	Aug-Feb	-	-	120	-	120	-	-	-	-	-

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
Horticulture																		
1.	Pineapple	Production technology	2	452	214	111.2	471	421	-	-	5,51,500	9,04,000	3,52,500	1.64:1	3,79,500	4,28,000	48,500	1.13:1
2.	Guava	Varietal performance	2	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
3.	Peach	Varietal performance	2	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing

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1.	Turmeric, Poultry	Effect of group farming system *vs* individual farming system		

Parameters	**Technology**	**Results of parameters assessed**		
Determinants of decision-making to join group-farming cooperatives	N=60, Purposive sampling (ARYA & PKVY group beneficiaries), Multinomial Logistic Regression	**Indicators**	**Significance Level**	
		Gender	**0.039****	
		Household size	0.299	
		Farming experience(years)	**0.102***	
		Education	**0.056***	
		Farm size (ha)	**0.098***	
		Annual Income	**0.065***	
		Member of other groups	0.781	
		Subjective Norms	**0.005****	
Comparative analysis of poverty status between group farmers and non-group farmers	N=120 (ARYA & PKVY members vs non-group members) Poverty Index=0.83, Percentage	**Indicators**	**Below Poverty Index**	**Above Poverty Index**
		Group farm members	**35.00%**	**65.00%**
		Non-group farm members	47.00%	53.00%
Note : **p≤0.05, *p ≤0.01				

Parameters	**Technology**	**Results**	
Impact of membership in group-farming cooperatives on production and livelihood of the community	N=120, T-test	**Indicators**	**Significance Level**
		Operational landholding (ha)	0.74
		Farm output	0.062*
		Labour productivity (output/manday)	0.043**

						Land productivity (output/ha)	0.009**
						Farm income	0.002**
				Note : **p≤0.05, *p ≤0.01			

*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 SocietyPl. 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	Date	No. of activities organised	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days	8.01.21 9.01.21 13.5.21 11.05.21 11.11.21	5		40	40	
2	Farmers Training	1.02.21 18.02.21 3.03.21 8.03.21 24.03.21 25.03.21 26.03.21 30.03.21 21.04.21 22.04.21 23.04.21 24.04.21 28.4.21 01.06.21 18.06.21 30.06.21 7.07.21	27		1125	1125	

		8.7.2021 10.07.21 5.8.21 25.08.21 26.8.21 15.09.21 22.09.21 20.10.21 9.11.21 29.11.22					
3	Media coverage	22.02.21 07.02.21 10.02.21 8.04.21 06.08.21	5				
4	Training for extension functionaries	27.10.21 5.10.21 9.12.21	3		126	126	
5	Any other (Pl. specify)						
	Total		**40**		**1291**	**1291**	

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		
-	-	-	-	-	-	-	-	-

** 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.	Dairy	Fodder production and quality enhancement	Popularization of fodder grasses (Guinea grass)	10	10	-	**Grass yield per hectare** 51 tonnes **No. of cuttings in a year** 5 **Total milk production** 7875	**Grass yield per hectare** 20 tonnes **No. of cuttings in a year** 2 **Total milk production** 2470	>100 %	-	-	82,400	3,68,420	2,86,020	4.47:1	43,000	1,13,312	88,125	2.63:1	Showed good result during it's 1st year of trial. Setting up of a fodder bank at community level will be a top most priority for the upcoming years which has

							litres	litres											already been started at KVK farm
2.	Poultry	Improved Housing System	**Innovative Egg Laying Cabin**	5	5	50 birds/unit	**Egg production** 16,200 **Egg Breakage** :Nil **Soiled eggs** :Nil **Dead due to cannibalism** :Nil	**Egg production** 9720 **Egg Breakage** : 720 **Soiled eggs** : 1800 **Dead due to cannibalism** :15(out of 50 birds)	>100 %	-	-	55,450	1,62,000	1,06,550	**2.92:1**	55,450	97,200	41,750	**1.75:1**	Highly accepted by farmers and it helped in minimizing losses incurred due to breakage and cannibalism in layer farming

(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./unit)				Econ. of check (Rs./Ha.)				Remarks
							Demo (t/ha)	Check (t/ha)		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	
1.	Fish,Pig,vegetables	IFS Modules	Integrated pig cum fish cum horticultural crops	12	12	Fish(IMC& Exotic carps) -10000nos/ha Pig(Hampshire) -30-40nos. piglet/ha) Vegetables(tomato, broccoli)	Fish-1.980 Pork-1.885 Vegetables-Tomato-25.8, Brocolli-14.8	0.255	>100 %	-	-	6,21,340	15,21350	9,00,010	2.44:1	30,600	51,000	20,400	1.6:1	Performed well
2.	Common carp	Carps Breedi	Common carp Breedin	20	20	1,500-2,000 kg/ha	Hatching %- 25	Hatching %- 10	>100 %	-	-	-	76,857	37800	2.03:1	-	4612	2012	1.77:1	Performed well

		ng	g and seed production in happa				Survival rate%-30 -	Survival rate%-3												

** 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	
Agronomy																			
1.	Vermicompost	On and Off farm waste management	-	8.6	NA	NA	9.7	7.5	-	-	16,200	26,010	9819	1.6:1	-	-	-	-	

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

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

(v) Farm Implements and Machinery

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				
-	-	-	-	-	-	-	-	-	-	-	-

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
-	-	-	-	-	-	-	-	-	-	-	-						

**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
Agronomy	Production and use of organic inputs	Vermicomposting	21.8.2021	1	FTI,Rymphum	Rural Youth	-	-	-	11	7	18	11	7	18
Agronomy	Integrated Farming System	1.Integrated Farming System 2. On anf off farm waste management ***under the event of Azadi ka Mahotsav***	26.8.2021	1	FTI,Rymphum	Farmers & Farm Women	-	-	-	11	9	20	11	9	20
Agronomy	On and Off farm waste management	Vermicomposting	9.12.21	1	FTI,Rymphum	Extension Personnel	-	-	-	18	22	40	18	22	40
Horticulture	IFS	Agroforestry - integrated approach	13.05.21	1	Virtual	Farmers & Farm Women	-	-	-	9	4	13	9	4	13
Horticulture	Production technology	Package of practices of ginger	5.8.21	1	Virtual	Farmers & Farm Women	-	-	-	8	6	14	8	6	14

Horticulture	Production technology	IFS	26.8.21	1	KVK campus	Farmers & Farm Women	-	-	-	5	4	9	5	4	9
Horticulture	Production technology	Package of practices of Ginger Cultivation	7.07.21	1	Virtual	Farmers & Farm Women	-	-	-	4	7	11	4	7	11
Horticulture	Nutritional garden	Nutri-garden	17.09.2021	1	KVK Farm	Farmers & Farm Women	-	-	-	7	8	15	7	8	15
Horticulture	Water management	Micro irrigation and appropriate crops during soil health day	6.10.21	1	KVK campus	Farmers & Farm Women	-	-	-	7	6	13	7	6	13
Horticulture	Post harvest	Pre and post harvest management of horticultural crops	27.10.21	1	KVK campus	Extension personnel	-	-	-	11	19	30	11	19	30
Horticultural crops	Nursery management	Nursery management of horticultural crops	1.11.21 – 6.11.21	6	KVK,Campus	Rural Youth	-	-	-	5	8	13	5	8	13
Animal Science	Dairy farming	Dairy farming	01.06.21	1	Via google meet	Farmers and Farm women	-	-	-	9	5	14	9	5	14

Animal Science	Poultry farming	Poultry farming	30.06.21	1	Via google meet	Farmers and Farm women	-	-	-	10	7	17	10	7	17
Animal Science	Poultry farming	Poultry farming	10.07.21	1	Via google meet	Farmers and Farm women	-	-	-	8	5	13	8	5	13
Animal Science	Poultry farming	Poultry farming	25.10.21 to 29.10.21	5	KVK Office	Rural youth	-	-	-	17	11	28	17	11	28
Animal Science	Piggery farming	Piggery farming	22.11.21 to 26.11.21	5	KVK Office	Rural youth	-	-	-	11	9	20	11	9	20
Animal Science	Poultry farming	Vocational training on poultry farming	06.12.21 to 10.12.21	5	KVK Office	Rural youth	-	-	-	8	11	19	8	11	19
Animal Science	Poultry farming	Capacity building of farmers through training on poultry farming	20.12.21 To 22.12.21	3	KVK Office	Farmers	-	-	-	9	6	15	9	6	15
Animal Science	Piggery farming	Piggery farming	17.09.21	1	KVK Office	Farmers and Farm women	-	-	-	11	6	17	11	6	17
Animal Science	Livestock Production	Future and Prospects of Animal Husbandry Sector in Meghalaya	5.10.21	1	KVK Office	Extension personnel	-	-	-	12	14	26	12	14	26
Animal Science	Livestock Production	Organic Livestock Production	3.11.21	1	KVK Office	Extension personnel	-	-	-	22	12	34	22	12	34

Agril.Extension	Group dynamics	Setting up of custom agro-hiring centres	30.06.21	1	Online mode	Farmers and Farm women	-	-	-	12	5	17	12	5	17
Agril.Extension	Centrally and state sponsored schemes	Different central and state schemes highlighting on state post-harvest schemes	05.07.2021	1	Online mode	Farmers and Farm women	-	-	-	11	7	18	11	7	18
Agril.Extension	Centrally and state sponsored schemes	Different central and state schemes highlighting on state post-harvest schemes	19.08.2021	1	Online mode	Farmers and Farm women	-	-	-	9	8	17	9	8	17
Agril.Extension	Information networking among farmers	Market-led Agricultural Extension	4.8.21	1	KVK,Campus	Extension personnel	-	-	-	15	17	32	15	17	32

Agril.Extension	Information networking among farmers	Importance of Farming Situation Based Extension	6.8.21	1	KVK,Campus	Extension personnel	-	-	-	18	10	28	18	10	28
Fisheries	IFS	IFS	18.06.2021	1	Online	Farmers and Farm women	-	-	-	8	7	15	8	7	15
Fisheries	Composite Fish culture	Composite Fish culture	30.06.2021	1	Online	Farmers and Farm women	-	-	-	10	6	16	10	6	16
Fisheries	Breeding and Seed production	Carp breeding and seed production	14.12.2021	1	FTI,Rymphum	Extension personnel	-	-	-	16	14	30	16	14	30

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

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Agronomy	Resource conservation Technologies	Water conservation technologies in Agriculture	22.3.21	1	Lumbihsyntu	Farmers & Farm Women	-	-	-	4	1	5	4	1	5
Agronomy	Water mana	Water conservation	24.3.21	1	Amlarem	Farmers & Farm Women	-	-	-	. 10	6	16	. 10	6	16

	gemen nt	technologies in Agriculture													
Agronomy	Resou rce conse rvatio n Techn ologie s	Water conservation technologies in Agriculture	25.3.21	1	Laskein	Farmers & Farm Women	-	-	-	11	6	17	11	6	17
Agronomy	Integr ated Farmi ng	Integrated Nutrient Management	26.3.21	1	Thadmuthlong	Rural Youth	-	-	-	5	4	9	5	4	9
Agronomy	Crop Diver sificat ion	Status and Scope of fingermillets cultivation on Fingermillets	21.4.21	1	Umshangiar	Farm Women	-	-	-	-	15	15	-	15	15
Agronomy	Water mana gemen nt	Water use efficiency and appropriate crops	23.4.21	1	Mustem	Farmers & Farm Women	-	-	-	9	12	21	9	12	21
Agronomy	Integr ated Farmi ng	Paddy cum fish culture	23.4.21	1	Sohmynting	Farmers & Farm Women	-	-	-	3	15	18	3	15	18
Agronomy	Water mana gemen nt	Water use efficiency and appropriate crops	27.4.21	1	Pynurkba	Farmers & Farm Women	-	-	-	9	10	19	9	10	19
Agronomy	Crop Diver sificat ion	Status and Scope of fingermillets cultivation on Fingermillets	28.4.21	1	Samanong	Rural Youth	-	-	-	9	11	20	9	11	20

Agronomy	Soil fertility management & Nutrient Use Efficiency	Role of Soil Testing in balance use of fertilizers Judicious use of fertilizer using 4Rs approach Drip Fertigation	18.6.21	1	Mulieh,	Farmers & Farm Women	-	-	-	9	11	20	9	11	20
Agronomy	Resource Conservation Technologies	Water use efficiency	30.6.2021	1	Moodymmai	Farmers & Farm Women	-	-	-	12	8	20	12	8	20
Agronomy	Cropping System	Millets the nutri cereals	8.7.2021	1	Lumkhudung	Farm Women	-	-	-	-	12	12	-	12	12
Agronomy	Weed managment	Importance of Seed bank	10.7.2021	1	Madanrtiang	Farmers & Farm Women	-	-	-	10	8	18	10	8	18
Agronomy	Water management	Critial period in water requirement of paddy	11.8.2021	1	Niawkmai	Rural Youth	-	-	-	-	13	13	-	13	13

		under Jal Shakti Abhiyan													
Agronomy	Crop Production	Important pest of paddy	19.8.20	1	Mukhla	Farmers & Farm Women	-	-	-	4	9	13	4	9	13
Agronomy	Resource Conservation Technologies	Water conservation technologies *under Jal Shakti Abhiyan*	20.8.2021	1	Wahiajer	Farmers & Farm Women	-	-	-	10	5	15	10	5	15
Horticulture	Production Technology	'Proper storage of ginger and turmeric seed rhizome' under PKVY	8.1.21	1	Lumkhudung	Farm women	-	-	-	-	15	18	-	-	15
Horticulture	Production Technology	Promotion of ginger cultivation	1.02.21	1	Iooksi	Farmers & Farm Women	-	-	-	10	6	16	10	6	16
Horticulture	Nursery management	Nursery management of vegetables crops	18.02.21	1	Barato	Farmers & Farm Women	-	-	-	12	6	18	12	6	18
Horticulture	Production Techn	Vegetable seed production	3.03.21	1	Wahiajer	Farmers & Farm Women	-	-	-	9	8	17	9	8	17

	ology														
Horticulture	Integrated farming system	Integrated farming system	8.03.21	1	Jowai	Farmers & Farm Women	-	-	-	5	3	8	5	3	8
Horticulture	Production Technology	Cultivation aspects of ginger	19.03.21	1	Khliehtyrshi	Rural youth	-	-	-	11	6	17	11	6	17
Horticulture	Production Technology	Cultivation practices of banana	24.03.21	1	Amlarem	Farmers & Farm Women	-	-	-	10	7	17	10	7	17
Horticulture	Production Technology	Cultivation aspects of ginger	26.03.21	1	Mukhla	Farmers & Farm Women	-	-	-	8	6	14	8	6	14
Horticulture	Production Technology	Package of practices of ginger	21.04.21	1	Khanduli	Farmers & Farm Women	-	-	-	11	8	19	11	8	19
Horticulture	Production Technology	Package of practices of ginger	23.04.21	1	Sohmynting	Farmers & Farm Women	-	-	-	12	6	18	12	6	18
Horticulture	Residue management	Crop residue management	18.6.21	1	Lumkhudug	Farmers & Farm Women	-	-	-	7	9	16	7	9	16

	nt														
Horticulture	Organic production	Importance of organic fertilizer	18.6.21	1	Niriang	Farmers & Farm Women	-	-	-	8	9	17	8	9	17
Horticulture	Nutritional gardening	Nutritional gardening	30.6.21	1	Moodymmai	Farmers & Farm Women	-	-	-	11	5	16	11	5	16
Horticulture	IPM	Integrated pest and disease management of ginger and turmeric	20.10.21	1	Lumkhudung	Farmers & Farm Women	-	-	-	7	8	15	7	8	15
Horticulture	Natural Resource Management	Raise and Sunken bed cultivation of winter vegetables	24.11.21	1	Pynthornein	Farmers & Farm Women	-	-	-	11	6	17	11	6	17
Horticulture	Orchard Management	Orchard Management	9.11.21	1	Madanrwan kyrwein	Farmers & Farm Women	-	-	-	8	9	17	8	9	17
Horticulture	Production Technology	Organic cultivation of Ginger and	29.11.22	1	Lumkhudung	Farm women	-	-	-	-	14	14	-	14	14

		Turmeric														
Animal Science	Poultry farming	Poultry farming	01/02/2021	1	Iooksi,	Farmers & Farm Women	-	-	-	10	11	21	10	11	21
Animal Science	Piggery farming	Piggery farming	18/02/2021	1	Barato	Farmers & Farm Women	-	-	-	12	8	20	12	8	20
Animal Science	Poultry farming	Poultry farming	25.03.2021	1	Laskein,	Farmers & Farm Women	-	-	-	11	8	19	11	8	19
Animal Science	Poultry farming	Poultry farming	26.03.2021	1	Mihmyntdu	Farmers & Farm Women	-	-	-	12	9	21	12	9	21
Animal Science	Dairy Farming	Dairy Farming	30.03.2021	1	Sahsniang	Farmers & Farm Women	-	-	-	7	9	16	7	9	16
Animal Science	Pig Farming	Pig Farming	21.04.21	1	Umshangiar	Farmers and Farm women	-	-	-	11	6	17	11	6	17
Animal Science	Poultry Farming	Poultry Farming	22.04.21	1	Sahsniang	Farmers and Farm women	-	-	-	8	9	17	8	9	17
Animal Science	Integrated Farming Syste	Integrated Farming System	23.04.21	1	Sohmynting	Farmers and Farm women	-	-	-	7	12	19	7	12	19

	m														
Animal Science	Dairy farming	Dairy farming	24.04.21	1	Moosakhia	Farmers and Farm women	-	-	-	11	9	20	11	9	20
Animal Science	Poultry farming	Poultry farming	25.08.21	1	Khliehtyrshi	Farmers and Farm women	-	-	-	12	4	16	12	4	16
Animal Science	Poultry rearing and management	Poultry rearing and management	20.01.21 to 28.01.21	9	Bishop House, Lumbihsyntu	Rural Youth	-	-	-	9	14	23	9	14	23
Animal Science	Poultry farming	Poultry farming	15.09.21	1	Umladkhur	Farmers and Farm women	-	-	-	12	11	23	12	11	23
Animal Science	Piggery farming	Piggery farming	17.09.21	1	Thangbuli	Farmers and Farm women	-	-	-	7	12	19	7	12	19
Animal Science	Integrated Farming System	Integrated Farming System	22.09.21	1	Jalyiah	Farmers and Farm women	-	-	-	6	13	19	6	13	19
Animal Science	Dairy farming	Dairy farming	22.09.21	1	-Narwan	Farmers and Farm women	-	-	-	13	8	21	13	8	21
Agril.Extension	Centrally and	State and Centrally sponsored Agricultural and	18.02.21	1	Barato village	Farmers and Farm women	-	-	-	12	10	22	12	10	22

	state sponsored schemes	rural development schemes													
Agril.Extension	Centrally and state sponsored schemes	State and Centrally sponsored Agricultural and rural development schemes	21.04.21	1	Umshyngiar,	Farmers and Farm women	-	-	-	17	12	29	17	12	29
Agril.Extension	Centrally and state sponsored schemes	State and Centrally sponsored Agricultural and rural development schemes	24.04.21	1	Sohmynting	Farmers and Farm women	-	-	-	18	13	35	18	13	35
Agril.Extension	Group dynamics	Training on setting up of agro-custom hiring centres	25.01.21-02.02.21	9	Thadlaskein Block	Rural Youth	-	-	-	23	28	51	23	28	51
Agril.Extension	WTO and IPR issues	Awareness on registration of farmers' varieties and farmers' rights under PPV	03.03.21	1	Wahaijer	Rural Youth	-	-	-	32	37	69	32	37	69

Fisheries	IFS	Integrated fish farming	18.02.21	1	Borato	Farmers and Farm women	-	-	-	13	12	25	13	12	25
Fisheries	IFS	Integrated fish farming	24.0321	1	Amlarem	Farmers and Farm women	-	-	-	11	13	24	11	13	24
Fisheries	Pond management	Scientific pond management	26.03.21	1	Mukla	Farmers and Farm women	-	-	-	8	12	20	8	12	20
Fisheries	Pond management	Scientific pond management	21.04.21	1	Khanduli	Farmers and Farm women	-	-	-	15	13	28	15	13	28
Fisheries	Pond management	Scientific pond management	21.05.21	1	Pynthorlangtein	Farmers and Farm women	-	-	-	14	9	23	14	9	23
Fisheries	Fish breeding	Common carp breeding and seed production	21.10.21	1	Mukhla	Rural Youth	-	-	-	16	14	30	16	14	30

(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	
Millets	1-4.12.21	1	Value Addition	Value addition on millets	-	-	-	22	38	60	22	38	60	-	-	-	-	-
Horticultural crops	1-4.12.21	1	Value Addition	Value addition of horticultural crops			-	12	18	30	12	18	30	-	-	-	-	-
Poultry&Piggery	24-27.10.21	2	Value Addition	Value addition of pork				13	17	30	13	17	30	-	-	-	-	-

				and chicken														
Fisheries	1-4.12.21	1	Value Addition	Post harvest technology and value addition of fish				12	18	30	12	18	30	-	-	-	-	-
		5						**59**	**91**	**150**	**59**	**91**	**150**					

*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	Rural youth	6-13th ,Dec 2021	8	Agronomy	On and Off farm waste mamangement	Vermicomposting	-	-	-	7	8	15	7	8	15	STRY (MANAGE)	42,000

Off	Rural youth	20th to 27th Jan	8	Horticultu re	'Nursery managem ent of horticultur al' crops	'Nursery management of horticultural' crops	-	-	-	10	9	19	10	9	19	STRY (MANAGE)	42,000
Off	Rural youth	20th Jan,2021-28th Jan,2021	9	Animal Science	Poultry Farming	Poultry rearing and management	-	-	-	8	9	17	8	9	17	STRY (MANAGE)	42,000
Off	Rural youth	25th Jan,2021-2nd Feb,2021	9	Agril.Exte nsion	Setting up of custom hiring agro service centres	Setting up of custom hiring agro service centres	-	-	-	3	13	16	3	13	16	STRY (MANAGE)	42,000
Off	Rural youth	3.01.22-10.01.22	8	Fisheries	Fish rearing and manageme nt	Fish rearing and management	-	-	-	3	13	16	3	13	16	STRY (MANAGE)	42,000
Off	Farm Women	22.02.20 21 till 22.03.20 21	25	Animal Science	Poultry Farming	Small Poultry Farmer"	-	-	-	-	25	25	-	25	25	ASCI	2,64,00 0

On	Farmers& Farm Women	20.12.21 To 22.12.21	3	Animal Science	Poultry Farming	Poultry Farming	-	-	-	34	26	60	34	26	60	Capacity building of farmers through training programme on “Poultry Farming” (MFAH&D)	2,00,000
										65	**103**	**168**	**65**	**103**	**168**		**6,74,000**

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
Agronomy																
1.	Diagnostic visit	• Lack of moisture in the vermicompoost pit • white grub in the cultivation area • poor post harvest management in turmeric • Absent of shades over the vermicompost pit • Presence of cutworm below ETL • Lack of post harvest management in fingermillets • Diagnosed blister beetle in potato suggested neem oil • Diagnosed blister beetle in potato suggested neem oil, Excess moisture in potato field causing rotting • Diagnosed blister beetle in potato suggested neem oil, Excess moisture in potato field causing rotting • Post harvest loss due to heavy rainfall in tomato crop • Diagnosed leaf folder attack in paddy suggested for tricho card installation. • Diagnosed increased weeds density in the paddy suggest for weeding. • Diagnosed lack of crop residue, plant waste in the vermibed suggest for refilling. • Diagnosed poor performance of millets suggested for early sowing next year.	2.3.21 3.3.21 4.3.21 17.3.21 26.3.21 22.4.21 23.4.21 28.4.21 29.4.21 21.5.21 2.6.21 14.6.21 17.6.21 21.6.21 8.7.21 10.7.21 23.7.21 10.8.21 11.8.21 12.8.21 13.8.21 20.8.21 21.8.21	26	-	-	-	9	11	20				9	11	20

		• Diagnosed excess moisture in vermibed suggested providing better roof • Post harvest loss due to heavy rainfall in tomato crop. • Diagnosed slow decomposition process suggested to chop the waste material before filling into the pit	26.8.21 27.10.21 29.11.21													
2.	Advisory/helpline service	• Maintaining social distancing while performing agricultural activities in the farm • Seeds treatment with biofertliizer in paddy • Soil treatment with soldier for soil borne insect, • Seed treatment with biofertilizer in maize and beans , • Application of trichoderma spray in potato • Maintaining social distancing while performing agricultural activities in the farm • maintaining spacing in intercropping maize with legumes • Seeds treatment with biofertliizer in paddy and maize • Application of metarhizium in maize for fall army worm • Soil treatment with soldier for soil borne insect, • Seed treatment with biofertilizer in maize and beans , • Application of trichoderma spray in potato • Maintaining social distancing while performing agricultural activities in the farm • maintaining spacing in intercropping maize with legumes • Application of metarhizium , mud slurry in maize for fall army worm • Soil treatment with soldier, lime for soil borne insect	5.3.21 7.3.21 9.3.21 10.3. 21 16.3. 21 17.3, 21 26.3. 21 27.3. 21 2.4.21 5.4.21 6.4.21 7.4.21 12.4.21 15.4.21 21.4.21 23.4.21 24.4.21 27.4.21 28.4.21 30.4.21 8.5.21 11.5.21 15.5.21 21.5.21 23.5.21 24.5.21 28.5.21 5.6.21	30	-	-	-	112	132	244				112	132	244

		• Maintaining social distancing while performing agricultural activities in the farm • Maintaining social distancing and wear face mask while performing agricultural activities in the farm • tricho card installation for leaf folder infestation-intercropping legumes with othger crops-Application of lime to reduce soil acid • Use of baffle trap for gundhi bug in paddy • Application of metarhizium , mud slurry in maize for fall army worm • Soil treatment with soldier, lime for soil borne insect • use of mud slurry for maize army worm • Maintaining social distancing and wear face mask while performing agricultural activities in the farm • maintaining spacing in intercropping maize with legumes • Application of lie to reduce soil acid • Application of metarhizium , mud slurry in maize for fall army worm • Soil treatment with soldier, lime for soil borne insect • To minimize tuber injury, always dig when the soil is *dry*. • maintaining spacing in intercropping maize with legumes • Application of metarhizium , mud slurry in maize for fall army worm • Soil treatment with soldier, lime for soil borne insect • To minimize tuber injury, always dig when the soil is *dry*.	10.6.21 17.6.21 24.6.21 25.6.21 30.6.21 7.7.21 13.7.21 15.7.21 22.7.21 29.7.21 30.7.21 4.8.21 5.8.21 11.8.21 12.8.21 13.8.21 17.8.21 18.8.21 19.8.21 21.8.21 24.8.21 26.8.21 27.8.21 14.10.21 19.10.21 23.10.21 16.11.21 27.11.21 30.11.21													
3.	Farmers Scientist Interaction	• Climate change and its effect on agriculture • Soil and water conservation technologies	8.3.21 22.3.21	7				10	8	18				10	8	18

		• Climate resilient technologies • Use of Bio pesticides for Pest and Disease management • Management of fall army worms in • Use of Bio pesticides for fall army worm management and termites attack	24.3.21 25.3.21 16.4.21 21.4.21 11.5.21													
4.	Scientists' visit to farmers' field	• Visit to ARYA Units • Visit to OFT field • Visit for OFT • Visit to FLD unit • Visit to turmeric field • Lack of moisture in the vermicompoost pit • Visit to Rural Youth Vermicompost unit of ASCI 2020 batch • Visit to OFT filed on Potato • Visit to OFT beneficiaries on Finger millets • Visit to OFT field • Visit to OFT field • Field day • Visit to OFT field • Visit to Farmers field under KSHAMTA • Visits to paddy field infested with leaf folder,viist for new vermicompost unit under ARYA • Visits to OFT Field • Visits to paddy FLD field	2.3.21 3.3.21 4.3.21 17.3.21 26.3.21 22.4.21 23.4.21 28.4.21 29.4.21 21.5.21 2.6.21 14.6.21 17.6.21 21.6.21 8.7.21 10.7.21 23.7.21 10.8.21 11.8.21 12.8.21 13.8.21 20.8.21 21.8.21 26.8.21 27.10.21	12				6	7	13				6	7	13
5.	Field Day	• Field day on OFT varietal performance of potato • Field day on OFT varietal performance of millets	13.5.21 11.11.21	4				10	6	16				10	6	16

6.	Seeds and planting materials	• Carrot seeds and mustard seeds (40gms each) under NEH program • Onion seeds and spinach (20gms each) under NEH program • Paddy Arize 6444, Annapurna, Tomato • Paddy Arize 6444, Paddy (IARI),Soldier, Neem oil • Fingermillets, baby corn, • Annapurna , tetravermibed • Cowdung, cabbage, frenchbeans, soldier • Local vegetable seeds, Annapurna • Finger millets, Annapurna organic manure • Finger millets, Annapurna organic manure, Soldier • Pea imported (15kg), carrot, cabbage (15 packet), broccoli (15 packet) • Pea imported (15kg), carrot, cabbage (15 packet), broccoli (15 packet) • Pea imported (1kg), Chaff cutter 1no unde ARYA project • Pea 1kg, vermibag 5 nos	8.3.21 22.3.21 24.3.21 25.3.21 21.4.21 8.3.21 22.3.21 24.3.21 25.3.21 13.5.21 14.5.21 21.5.21 22.5.21 17.6.21 15.6.21 15.7.21 11.8.21 20.8.21 21.8.21 26.8.21	20				25	41	66				25	41	66
7.	Group discussion	• Scope , Problems and Marketing of Vermicompost • Importance of conservation of indigenous seeds and seed Bank • Post harvest mananagement of fingermillets and its health benefits • Marketing of Vermicompost • Line sowing of fingermillets	25.3.21 28.4.21 29.4.21 21.5.21 23.07.21 18.8.21 20.08.21 03.09.21	8				42	35	77				42	35	77
8.	Film Show	• Vermicomposting, installation of tetra vermibed • NADEP method of composting	22.04.21 15.05.21	3				101	79	180				101	79	180
		Total		**110**				**315**	**319**	**634**				**315**	**319**	**634**

Horticulture																
1	Exhibition	• Participated in exhibition of District horticulture office Khliehriat • Participated in exhibition of District horticulture office Jowai	19.1.21 11.02.21	2				34	42	76				34	42	76
2	Diagnostic visit	• Diagnosed soft rot of ginger • Diagnosed pest and diseases of khasi mandarin • Ginger storage at Iooksi village • Diagnosed soft rot of ginger • Diagnosed soft rot of ginger and advised seed treatment with trichoderma • Diagnosed soft rot of ginger and advised seed treatment with trichoderma • Visited single bud sprout planting of ginger and diagnosed soft rot disease • Site selection for FLD on guava and peach at DFI VILLAGE • Site selection for FLD on guava and peach at Khliehtyrshi, DFI Village Lumkhudung • Disgnosed blossom rnd rot at arya village wahiajer • Visited turmeric fields • Nursery raising in paddy fields	12.01.21 15.01.21 1.02.21 17.03.21 26.03.21 9.04.21 29.06.21 26.07.21 29.07.21 11.11.21 24.11.21	11				14	8	22				14	8	22
3	Group discussion	• Discussed with farmers the proper utililization of fallowed paddy field by cultivation of winter vegetables • Discussed with women SHG on marketing strategies of processed products • Discussed with Village organizations on processing of ginger and its marketing • Discussed with farmers of DFI village on income generation activities like value addition and processing and its marketing • Discussed with women SHG on income generation activities for women like value	11.01.21 11.03.21 14.04.21 11.05.21 26.07.21 29.07.22 29.11.21 8.12.21	8				122	103	225				122	103	225

		addition pickle making ginger candy making • Group discussion with local group and BRDC officials for organic certification for PKVY project														
4	Advisory/helpline service	• Advised farmers on proper storage of ginger and turmeric • Seed treatment of ginger with Trichoderma • Conservation of local indigenous species of vegetable and herbs • Seed treatment of ginger with Trichoderma • Seed treatment of ginger with Trichoderma and manure treatment with metarhizium • Advised farmers for collection of citrus trunk borer adults • Advised farmers for use of Bordeaux mixture 1% for soft rot disease in ginger • Advised intercropping of ginger with soyabean for additional income and soil nutrient enhancement • Advised farmers for spray of Bordeaux mixture for controlling soft rot • Advised farmers for seed treatment of ginger with trichoderma • Treatment with trichoderma for soft rpt of ginger • Treatment with streptocyline for bacterial infection of ginger • Advised farmers to avoid ginger mother harvesting to prevent soft rot disease • Advised farmers for early planting of pea to avoid powdery mildew disease • Advised farmers to follow scientific method of planting fruit trees • Advised farmers to adopt one nutritional garden in their backyard for nutritional security of their family • Advised farmers to do seed treatment of ginger	1.02.21 3.02.21 17.03.21 26.03.21 9.04.21 14.04.21 15.5.21 21.5.21 23.5.21 24.5.21 29.06.21 26.07.22 30.07.21 12.09.21 14.09.21 25.09.21 28.09.21 26.10.21 16.11.21 27.11.21	35				35	41	76				35	41	76

		and turmeric with Trichoderma before planting • Water harvesting with the use of Jalkund for cultivation of winter vegetables • Cultivation of rabi vegetables in paddy fallow land • Advised farmers to do Bordeaux paste application of fruit trees • Advised farmers do canopy management of fruit trees for pest and disease management and also for better yield and quality of fruits														
5	Field day	• Field day of ginger under PKVY • Field day of turmeric under PKVY	8.01.21 9.01.21	2				8	6	14				8	6	14
6	Method demonstration	• Proper storage of ginger and turmeric seed rhizomes • Propagation of fruit plants • Propagation of foliage plants • Nursery raising in beds and nursery trays • Preparation of bordeaux mixture • Preparation of pineapple jam • Preparation of pineapple squash • Preparation of cauliflower pickle • Preparation of tomato ketchup • Preparation of ginger RTS • Preparation of ginger candy • Preparation of pineapple candy • Preparation of pineapple and ginger wine • Demonstration on nursery of single bud sprout planting of ginger at Khliehtyrshi and Mukhla • Layout of peach orchard and planting of seedlings • Layout of FLD ON peach orchard and planting of seedlings • Layout of guava orchard and planting of fruit plants • Layout of peach orchard and planting of fruit trees • Method Demonstration on Fruits Tree Plantation	8.01.21 24.01.21 25.01.21 24.02.21 9-11th.02.21 19.3.21 26.3.21 26.07.21 29.07.21 17.09.21 24.11.21	13				25	16	41				25	16	41

		• Nursery raising in paddy fields														
7	Scientist visit to farmers field	• Visited ginger harvesting field at Lumkhudung • Visited turmeric harvesting field at Lumkhudung • Visited pea cultivation field at Pynthornein • Visited OFT on ginger field at Iongnoh • Visited turmeric harvesting field at Shangpung • Visited ginger storage areas • Site selection for OFT on ginger • Visited ginger planting areas • Site selection for OFT on ginger • Visited ginger storage areas • Visited PKVY demonstration field • Visited single bud sprout planting of ginger field • Site selection for FLD on peach at Niawkmai • Site selection for FLD on guava at Niawkmai • Site selection on peach at Khlieh tyrshi • Site selection for fld on guava at lumkhudung • Site selection for FLD on peach at lumkhudung • Field visit to PKVY Field of ginger and turmeric • Visited turmeric ARYA farmers • Visited paddy fields for vegetable cultivation	8.01.21 9.01.21 11.01.21 12.01.21 15.01.21 1.02.21 3.02.21 17.3.21 19.3.21 26.3.21 9.04.21 29.06.21 26.07.21 29.07.21 11.11.21 24.11.21	16				10	6	16				10	6	16
8	Farmers Scientist interaction	• Cultivation of winter vegetables on fallow paddy fields • Interaction of KVK and Regional council BRDC with PKVY farmwomen on organic certification • Farmers scientist interaction through Community service centre on various issues related to horticultural activities	11.01.21 14.04.21 11.05.21	4				4	8	12				4	8	12
9	Lecture delivered	• IPM of vegetables • IPM of floriculture • Value addition of Horticultural products • Package of practices for citrus cultivation for AROH foundation	24.02.21 9-11th.02.21 26.10.21	4				32	26	58				32	26	58
10	Film show	• Preparation of botanicals	24.02.21	2				87	36	123				87	36	123

		• Film show on value addition of Horticultural crops	11.03.21												
		Total		**97**				**371**	**292**	**663**				**371**	**292**	**663**
Animal Science															
1.	Exhibition	• Attended biodiversity fair of plant genetic resources • Attended Horticulture exhibition organized by DHO, Jowai	03.02.21 11.02.21	2				40	35	75				40	35	75
2.	Diagnostic visit	• Visit to ARYA Project site along with Director ATARI, Zone-VII • Inauguration of pig breeding unit • Site selection for construction of pig shed and poultry shed at KVK farm • Demonstration on cultivation of azolla for feeding livestock and poultry • Care and management of piglets as well as feeding management of boar • Preparation of poultry shed prior to arrival of chicks • Demonstration on management of deep litter pig shed • Brooding management in poultry farming • Visit to OFT unit on Introduction of Lumsniang at Mukhla • Visit to OFT unit on low cost climate resilient environment-affinitive pigpen model at Lumkhudung • Visit to DFI village at Niawkmai for inspection of ongoing activities • Collection of fodder rootslips from Saitsama • Cultivation of sweet potato and colocasia at KVK farm at Wahiajier	08.01.21 18.01.21 29.01.21 07.02.21 29.03.21 31.03.21 15.04.21 16.04.21 22.04.21 19.05.21 20.05.21 02.06.21 08.06.21 09.06.21 12.06.21 15.06.21 22.06.21 21.07.21 22.07.21 26.07.21 03.08.21 11.08.21 16.08.21 20.08.21 03.09.21 09.09.21	40				12	7	19				12	7	19

		• FLD on popularization of fodder grass • Filed visit to pig breeding unit at Umladkhur • Selection of youths for pig breeding enterprise under ARYA Project • OFT on Poultry cum Fish cum Horticulture (2M) • OFT on Pig cum Fish cum Horticulture • OFT on Low cost climate resilient environment-affinitive pigpen model • Inspection of ongoing construction of pig shed under ARYA Project • Selection of new unit for pig breeding enterprise under ARYA Project • Diagnostic visit to the progressive piggery and poultry farmers (• Awareness programme on Swacchta Campaign • Visit to OFT on Poultry cum Fish cum Horticulture • Inspection of demonstration site prior to visit of officials at NICRA village • Site selection for construction of pig shed under ARYA Project (3rd and 4th unit). • Inspection of poultry enterprise unit under ARYA Project • Diagnostic visit to OFT unit on Poultry cum Fish cum Horticulture • Inspection of ongoing construction of pig shed for pig breeding enterprise under ARYA Project • Inspection of pig breeding enterprise unit under ARYA Project • Diagnostic visit to OFT unit on Low cost climate resilient environment-affinitive pigpen model • OFT on Pig cum Fish cum Horticulture unit • Final inspection of pig breeding enterprise under ARYA Project • Visit to NICRA village along with officials from	27.09.21 28.09.21 06.10.21 11.10.21 13.10.21 18.10.21 03.11.21 09.11.21 11.11.21 29.11.21 13.12.21 14.12.21 17.12.21 23.12.21														

		NABARD • Visit to ARYA Village along with officials fromNABARD • OFT on Introduction of Lumsniang • Inspection of construction of poultry shed under ARYA Project • Visit to existing poultry enterprise under ARYA Project • Site selection for construction of poultry shed under ARYA Project • Visit to KVK farm for inspection of ongoing activities at the farm • Collection of piglets and fodder rootslips from ICAR • Inspection of ongoing activities at NICRA village • Inspection of ongoing construction of poultry shed under ARYA Project (1st and 2nd unit) • Inspection of ongoing construction of poultry shed under ARYA Project (3rd and 4th unit) • Farmers-Scientists interaction on climate resilient technologies														
3.	Advisory/helpline service	• Advisory for pig farmers on scientific pig farming • Poultry farming • Awareness on Kisan Credit card scheme • Vaccination schedule of cattle • Importance of goat rearing • Silage preparation using sweet potato vines • Dairy farming • Poultry farming • Awareness on Kisan Credit card scheme • Growing of hydroponics wheat grass • Commercial layer farming • Silage preparation using sweet potato vines • Silage preparation using sweet potato vines	05.01.21 12.01.21 17.01.21 24.01.21 03.02.21 08.02.21 11.02.21 13.02.21 18.02.21 23.02.21 04.03.21 10.03.21 16.03.21	54				102	113	215				102	113	215

		• Treatment of mange in pigs • Recent advances in poultry farming • Silage preparation using sweet potato vines • Hygienic meat production • How to avail benefit under Piggery and Poultry mission • Popularization of crossbred pigs • Silage preparation for reducing feed cost and azolla cultivation. • Importance of deworming in livestock and poultry farming • Package of practices for cultivation of guinea grass • Swine fever: Control and treatment • Commercial layer farming • Vaccination schedule for cattle • Advisory to livestock farmers for rabi season • Azolla cultivation • Silage preparation for reducing feed cost • Package of practices for growing oat as fodder • Awareness on Rashtriya Gokul MissioN • Awareness on Kisan Credit Card scheme • Scientific poultry farming • Rabbitry farming • Awareness on PM Kisan Yojana • Awareness on PM Kisan scheme • Silage preparation using sweet potato vines • Feeding management in piggery farming • Commercial layer farming • Deworming and vaccination schedule for pigs • Rural Poultry Production with Vanaraja • Awareness on Kisan Credit Card Scheme • Silage preparation for feeding pigs • Hygiene management in a dairy farm	19.03.21 25.03.21 30.03.21 8.04.21 21.04.21 24.05.21 25.05.21 05.06.21 18.06.21 22.06.21 08.07.21 16.07.21 23.07.21 05.08.21 17.08.21 25.08.21 07.09.21 12.09.21 14.09.21 25.09.21 28.09.21 01.10.21 07.10.21 08.10.21 15.10.21 19.10.21 25.10.21 01.11.21 04.11.21 05.11.21 14.11.21 23.11.21 01.12.21 03.12.21 13.12.21 16.12.21														

		• Vaccination schedule for layer birds • Advisories on clean milk production • Importance of milk for health as well as income generation • Treatment of mastitis in cow • Scientific poultry farming • Knowledge on latest breed of pigs like Lumsniang and HDK-75 • Vaccination schedule of pigs • Silage preparation as a measure to reduce feed cost • Package of practices of rabi fodder	19.12.21 27.12.21													
4.	Group discussion	• Discussed with Village organizations of East Jaintia Hills regarding setting up of proper marketing channel for poultry farmers • Answered to various queries of farmers in livestock and poultry farming • Poultry farming and it's prospective • Group discussion on scientific pig farming for setting up new ARYA group • Discussed regarding treatment of pigs in case of repeat breeding and anestrus	19.04.21 13.05.21 18.06.21 04.08.21 11.11.21 28.09.21 06.10.21 18.10.21 03.11.21 09.11.21	10				54	60	114				54	60	114
5.	TV programme	• Shooting of successful poultry farmer under ARYA Project by DoordarshanShillong	07.02.21	1												
6.	Method Demonstration	• Demonstration on vaccination of poultry birds against ranikhet disease • Demonstration on brooding of poultry chicks and hatchery management	23.02.21 05.03.21 20.08.21 03.09.21 29.11.21	5				-	25							
7.	Film Show	• Film show of National Horticulture Fair	11.02.21	2				89	118	207				89	118	207
8.	Scientists' visit to farmers' field	• Visit to ARYA Project site along with Director ATARI, Zone-VII	08.01.21 18.01.21 29.01.21	17				8	11	19				8	11	19

		• Inauguration of pig breeding unit • Site selection for construction of pig shed and poultry shed at KVK farm • Demonstration on cultivation of azolla for feeding livestock and poultry • Care and management of piglets as well as feeding management of boar • Preparation of poultry shed prior to arrival of chicks • Demonstration on management of deep litter pig shed • Brooding management in poultry farming • OFT on Poultry cum Fish cum Horticulture • OFT on Pig cum Fish cum Horticulture • OFT on Low cost climate resilient environment-affinitive pigpen model • Inspection of ongoing construction of pig shed under ARYA Project • Selection of new unit for pig breeding enterprise under ARYA Project • Diagnostic visit to the progressive piggery and poultry farmers • Awareness programme on Swacchta Campaign • Visit to OFT on Poultry cum Fish cum Horticulture • Inspection of demonstration site prior to visit of officials at NICRA village • Site selection for construction of pig shed under ARYA Project (3rd and 4th unit). • Inspection of poultry enterprise unit under ARYA Project • Diagnostic visit to OFT unit on Poultry cum Fish cum Horticulture • Inspection of ongoing construction of pig shed for	07.02.21 29.03.21 31.03.21 15.04.21 16.04.21 22.04.21 03.08.21 11.08.21 16.08.21 20.08.21 03.09.21 09.09.21 27.09.21 28.09.21 06.10.21 11.10.21 13.10.21 18.10.21 03.11.21 09.11.21 11.11.21 29.11.21 13.12.21 14.12.21 17.12.21 23.12.21														

		pig breeding enterprise under ARYA Project • Inspection of pig breeding enterprise unit under ARYA Project • Diagnostic visit to OFT unit on Low cost climate resilient environment-affinitive pigpen model • OFT on Pig cum Fish cum Horticulture unit • Final inspection of pig breeding enterprise under ARYA Project • Visit to NICRA village along with officials from NABARD • Visit to ARYA Village along with officials from NABARD • OFT on Introduction of Lumsniang • Inspection of construction of poultry shed under ARYA Project • -Visit to existing poultry enterprise under ARYA Project • -Site selection for construction of poultry shed under ARYA Project • Inspection of ongoing activities at NICRA village • -Inspection of ongoing construction of poultry shed under ARYA Project (1st and 2nd unit) • -Inspection of ongoing construction of poultry shed under ARYA Project (3rd and 4th unit) • -Farmers-Scientists interaction on climate resilient technologies														
9.	ARYA Group Meeting and Scientist visit	• Shooting of successful poultry farmer under ARYA Project by DoordarshanShillong • Visit to the project site for poultry enterprise	07.02.21 15.03.21	2				2	-	2				2	-	2
10.	Exposure visit	• Practical cum exposure visit to poultry farm • Exposure visit to the poultry farms of the successful youths under ARYA Project • Exposure visit to the Pig breeding farm at Nongpiur, Upper shillong under CAT programme	26.02.21 05.03.21 15.03.21 24.03.21	4				25	43	68				25	43	68

		sponsored by NABARD • Exposure visit to the poultry farm of WallamkuparLyngrah, a successful poultry farmer under ASCI training programme •														
11.	Lecture delivered	• Piggery farming • Poultry farming • Dairy farming • Social Enterprise: With special reference to animal husbandry sector • Poultry cum fish farming • Animal Health and Disease management	09.02.21 29.03.21 15.04.21 19.04.21 03.08.21 16.06.21 20.08.21 21.09.21	7				37	66	103				37	66	103
12.	Farmers Scientist interaction	• Discussed with Village organizations of East Jaintia Hills regarding setting up of proper marketing channel for poultry farmers • Attended to farmers queries on livestock and poultry farming • Attended to farmers queries on livestock and poultry farming • Animal Health and Disease management • Steps for availing benefits under Kisan Credit Card scheme • Pros and cons of poultry farming • Poultry farming and its advantage • Gave advice on scientific poultry farming • Silage preparation for pig and cattle • Various climate resilient technologies and it's benefits	11.01.21 19.04.21 11.05.21 18.06.21 10.07.21 20.08.21 28.09.21 06.10.21	8				9	11	20				9	11	20
13.	Workshop attended	• Attended ICAR foundation day and Farmers award ceremony • Attended NICRA Review Workshop	26.05.21 16.07.21	2				1	-	1				1	-	1
14.	Video documentation	• Video documentation of a successful poultry entrepreneur	06.08.21	1				-	-	-				-	-	-

15.	Seeds and planting materials	• 100 Vanaraja chicks produced	13.08.21	1				3	2	5				3	2	5
16.	Publication	• Clean milk production • Dairy farming for health and productivity	24.05.21	2				-	-	-				-	-	-
17.	Video documentation	• Official release of video on successful poultry farmer	29.09.21	1				-	-	-				-	-	-
		Total		**159**				**407**	**516**	**898**				**407**	**516**	**898**
Fisheries																
1.	Scientist visit to farmers field	• Field visit • Training • Frontline Demonstration • Field visit • Soil collection • Site selection for IFS and Training • Visit to OFT field on Integrated poultry cum fish cum Horticultural crops • Releasing of fingerlings • Visit to OFT field on Integrated poultry cum fish cum Horticultural crops • Training	12.01.21 20.01.21 03.02.21 18.02.21 04.03.21 12.03.21 19.03.21 26.03.21 24.03.21 21.04.21 9.11.21 26.11.21 2.07.21 9.11.21 26.11.21	15				7	5	12				7	5	12
2.	Scientist- farmers interaction	• Integrated Fish farming	11.01.21 19.04.21 26.04.21 18.06.21	4				12	9	21				12	9	21
3.	Advisory/helpline service	• Advised farmers to give frequent feed in small quantities and observe how fish response to feeding and portion the feed appropriately. • Advised farmers on post stocking management of pond viz. Liming manuring & Supplementary feeding of fish • Advised farmers to give frequent feed in small quantities and observe how fish response to feeding and portion the feed appropriately.	03.02.21 18.02.21 26.03.21 9.04.21 14.04.21 15.5.21 21.5.21 23.5.21 05.06.21	22				78	34	112				78	34	112

			18.06.21 22.06.21 08.07.21 16.07.21 23.07.21 05.08.21 17.08.21 25.08.21 03.09.21 09.09.21 27.09.21 9.11.21 26.11.21													
4.	Distribution of fingerlings	• Distributed fingerlings to farmers for conducting FLD	2.07.21	1				4	10	14				4	10	14
5.	Group discussion	• Discussed on benefits of adopting IFS	24.03.21 21.04.21 6.12.21	3				12	15	27				12	15	27
6.	Field day	• Field day on Composite fish culture	11.05.21	2				5	5	10				5	5	10
7.	Diagnostic visit	• Inspected site for conducting OFT and FLD • Inspected site for conducting IFS	22.04.21 03.08.21	2				7	3	10				7	3	10
8.	Method demonstration	• Method demonstration on pre-stocking management of pond • Method demonstration on monthly liming and manuring of pond • Method demonstration on broadcasting of feed • Method demonstration on preparation of value addition in fisheries	11.01.21 19.04.21 06.05.21 11.05.21 16.08.21 20.08.21	6				22	12	34				22	12	34
9.	Lecture delivered as resource person	• Delivered lecture on IFS	14.04.21 22.06.21 03.08.21 09.09.21	4				16	27	43				16	27	43
			Total	**59**				**163**	**120**	**256**				**163**	**120**	**256**

Agril.Extension																
1	Diagnostic visit	• Powdery mildew effect on Pea	20.01.21	1				5	4	9				5	4	9
2	Group discussion	• Discussion with farm women on group formation for PKVY project	9.04.21	1				9	8	17				9	8	17
3	Exposure visit	• Exposure visit of STRY trainees to Namdong for observing Custom hiring Centre (CHC)	29.01.21	1				12	20	32				12	20	32
4	Exhibition	• Plant Genetic Resource Awareness programme in collaboration with ICAR-NBPGR	03.02.21	1				35	50	85				35	50	85
5	Farmer Scientist Interaction	• KCC	06.05.21	1				15	27	42				15	27	42
6	Seeds and planting materials	• Distribution of farm garden tools to STRY beneficiaries • Distribution of sweet corn seeds	02.02.21 03.03.21	2				20	34	54				20	34	54
7	Interaction with scientist	• Online training on climate change adaptation in agriculture organized by MANAGE, Hyderabad • Online workshop on DFI Network Project • Online webminar on “Skill Training of Rural Youth (STRY)- Success Story Webminar Series” organized by MANAGE. • Online training programme on “Climate resilient production systems and promotion of agri-preneurship” organized by NIRD, Khanapara	23-26.03.21 20.04.21 16.06.21 19th-23rd.07.21	4				15	22	37				15	22	37
8	Advisory/helpline service	• Online interaction with farmers through Common Service Centre • Online advisory services through Common service Centres(CHC)	19.04.21 4.04.21	2				10	18	28				10	18	28
9	Workshop	• World Milk Day celebration • National Fish Farmers’ Day celebration	1.06.21 10.07.21	2												
		Total		**15**				**121**	**183**	**304**				**121**	**183**	**304**
1	Celebration of important days	• International Womens day • World Environment Day • World Soil Day	8.03..21 22.03.21 20.05.21 1.06.21	7				103	137	240				103	137	240

		• World Honey Bee day • World Milk day • World Water Day • World Food Day	5.06.21 15.10.21 16.10.21 5.12.21													
2	Newspaper coverage	• Local newspapers		12				-	-	-				-	-	-
3	Radio talk	• Orchard management of peach • Hydroponics • Delivered talk on "Setting up of agro-custom hiring centres" • Integrated Farming System •	22.02.21 8.04.21 10.02.21	12				-	-	-				-	-	-
4	Awareness Programme	• Biodiversity fair cum Plant genetic resources awareness camp in collaboration with ICAR-NBPGR, Umiam • Farmers scientist interaction on various horticultural activities through CSC • Celebrated National Campaign on Food and Nutrition for Farmers to meet the Food and Nutrition requirement of Farmers • Climate Resilient Agriculture at Nongkynrih Village, Laskein	3.02.21 26.8.21 28.9.21	6				156	214	370				156	214	370
5.	Animal Health Camp			1				56	44	100				56	44	100
6.	Farmer's visit to KVK							118	145	263				118	145	263
			Total	**26**				**433**	**540**	**973**				**433**	**540**	**973**
			Grand Total	**466**				**1810**	**1970**	**3728**				**1810**	**1970**	**3728**

	Any other	➢ All SMS conducted SAC meeting on 17.01.2022 ➢ All SMS attended Google meet DFI review meeting of the office on the 11 Aug ➢ All SMS participated in *Rashtragaan* an initiative by the Ministry of Culture to Mark Azadi ka Mahotsav on the 15th Aug ➢ All SMS attended Online Farmers Scientist Interaction as requested by the CSC both East and West Jaintia Hills District on the 16th April ➢ SMS (Agronomy) attended attended Virtual Sensitization Workshop on DFI Network project on the 20th April organized by ATARI Jodhpur ➢ All SMS attended Online Farmers Scientist Interaction as requested by the CSC both East and West Jaintia Hills District on the 11th May ➢ SMS (Agronomy) attended attended Online Training Program on Contract Farming in India –Issues and Challenges on the 25th to 27th May 2021 organized by MANAGE Hyderabad ➢ SMS (Agronomy) attended Online Training Program on Efficacy of FPO Extension Methods and Tools of FPO-extension Method and Tools from the 1st to 5th 2021 organized by EEI (NE Region) ➢ All SMS attended Online Farmers Scientist Interaction as requested by the CSC both East and West Jaintia Hills District on the 16th April ➢ SMS (Agronomy)-Collection of local finger millets variety from Amlarem village ➢ All SMS attended Zoom meeting on Annual Action plan Workshop of KVKs under ICAR-ATARI , umiam on the 9th-10th June 2021 ➢ SMS (Agronomy) attended Zoom 1 day training organized by BRDC Shillong on Organic Farming on the 9th Aug ➢ SMS (Agronomy) attended Zoom meeting on status of DFI success story , FPO and backward District Intervention on the 17th Aug ➢ SMS (AH&Vety.) Collection of pseudomonas and Metarhizium from State Bio Control lab, Upper Shillong on 12.08.21 ➢ SMS (AH&Vety.) Collection of green forages for demonstration purpose, pig feed and Trichocards from State Bio Control lab, Upper Shillong and ICAR Research complex for NEH Region on 23.08.21 ➢ SMS (Agril.Extension) attended the online training programme on "Climate resilient production systems and promotion of agri-preneurship" organized by NIRD, Khanapara on 19th – 23rd July 2021 ➢ SMS (Agril.Extension) attended the online training on climate change adaptation in agriculture organized by MANAGE, Hyderabad on 23-26 March'2021 ➢ SMS (Horticulture) attended the online training programme on "Climate resilient production systems and promotion of agri-preneurship" organized by NIRD, Khanapara on 19th – 23rd July 2021

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	CAU-R1	8.5	34,000	-	-	20	20	40

A1. SUMMARY ofProduction 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	-	8.5	34,000			20	20	40
TOTAL		**-**	**8.5**	**34,000**			**20**	**20**	**40**

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

Major group/class	Crop	Variety	Quantity (In No.) produced	Quantity (In q.) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries				
						General		SC/ST		Grand Total
						M	F	M	F	
Spices	Ginger	Nadia	-	25	150000	-	-	10	15	25
	Turmeric	Lakadong	-	20	80000	-	-	10	10	20
				45	**2,30,000**			**20**	**25**	**45**

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	
BIOFERTILIZERS	Vermicompost	*Eisenia foetida*		8000	2,40,000			5	5	10

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	Piggery	Hampshire cross, Large Black	300		12,00,000			10	10	20
2	Poultry	Vanaraja	1500		3,75,000			15	15	30
3	Fisheries	Common carp	30,000		60,000			15	15	30
Total			**31,800**		**16,35,000**			**40**	**40**	**80**

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.): January-December,2021

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
1. Booklet	a) Integrated Farming System b) Successful Technologies of KVK,Jaintia Hills	*Dr.A.Dympep (SMS,Agril.Extension)* *Shri.M.Kharbuli (Farm Manager)* *Smt.D.Lyngdoh (Programme Asst.Technical)* *Inputs provided by all the Subject Matter Specialists of KVK,Jaintia Hills*	2000	-
2. Newspaper clippings	Local newspapers		12	-
3. Research article (Published during the Fifth International Agronomy Congress on *"Agri innovations to Combat Food and Nutrition Challenges"* organized by the Indian Society of Agronomy)	Impact of climate resilient technologies under NICRA Project in West Jaintia Hills, Meghalaya	*Smt.B.Kharbamon (SMS,Horticulture)* *Dr.A.Dympep (SMS,Agril.Extension)* *Dr.R.Suchiang (SMS,AH&Vety.)* *Smt.J.K.Marak (SMS,Fisheries)* *Smt.R.Lyngdoh (SMS,Agronomy)* *Dr.D.Pasweth (Senior Scentist & Head)* *F.Sutnga (SRF,NICRA Project)*	1	-
4. Video documentation	a) Video documentation on Piggery Farming b) Video documentation of a successful poultry entrepreneur	*Dr.R.Suchiang (SMS,AH&Vety.)*	2	-
5. Newsletter	(January-December,2021)	Senior Scientist &Head	500	
TOTAL			**2515**	

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

(C) Details of Electronic Media Produced

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

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

SKILLING OF YOUTHS THROUGH POULTRY FARMING: A FUTURE FOR THE GROWTH OF THE NATION

Introduction:

The present era of pandemic due to COVID-19 is affecting the economy and livelihood of millions of people worldwide. It is one of the worst pandemics that we noticed in the present century affecting the economy of every nation. It is also during these times that we realize the importance of agriculture and allied sector. Poultry farming is one of the leading sectors providing employment opportunities to the farmers in the state of Meghalaya. However due to lack of skills in this sector, it becomes very difficult to sustain it and mainly ending up as a casual trend for self-interest.

About the successful youth:

One of the youths, Mr. Toribait Passah showed a keen interest in poultry farming and therefore visited the Office of Krishi Vigyan Kendra Jaintia Hills for technical assistance. Looking into his interest,this office has provided him training on scientific poultry farming along with hands on practical experiencesupported by the SMS (AH& Vety). At the end of the training programme, he initially started rearing a total of 150 Vanaraja birds and 50 broiler birds earning a total gross income of Rs. 83,750. Looking into the profit he had received from this enterprise during the first year, he continued to expanded his business by rearing500 numbers of Vanaraja birds, 500 numbers of broiler birds, 500 numbers of kuroiler birds and 150 ducks. He approached the Block

Development Officer, Laskein Block for financial assistance and thereafter received a grant of Rs. 2,37,500 under the MNREGS scheme for construction of a poultry shed and the work for the same has already been completed. He has become a regular supplier of poultry chicks and ducklings, supplying not less than 20,000 poultry chicks and 1000 ducklings till date.

Way forward:

The success story of Mr. Toribait Passah is a great achievement for KVK Jaintia Hills as well as the district as a whole. He has set an example for the other youths of the district and the region that it is high time that we should shift our focus towards agriculture and allied sector especially poultry farming which is one of the most profitable enterprise. His main focus is now to set up his own poultry hatchery unit in his farm. This will also help in boosting our economy, reduce unemployment and help the region to be self-sufficient in meat and egg production.

A GLANCE OF TORIBAIT'S FARM

Shri. Toribait Passah during the course of the training programme

Shri. Toribait Passah receiving certificate from Dr. D. Pasweth, SS&Head, KVK Jaintia Hills

SUCCESS STORY ON ORGANIC CULTIVATION OF GINGER AND TURMERIC

Name of farmer: Arlin Muruh
Address: Lumkhudung
Mobile Number:8787774809
Age: 42
Education: BA
Size of land holding (in acre): 6

Introduction:

Ginger and turmeric are one of the major crops in Jaintia hills. Most of the farmers are practicing traditional methods of cultivation in slash and burn methods and buns cultivation. Most of the farmers did not follow any seed treatment before sowing, some farmers cultivate in virgin forest soils after clearing a patch of land and slash burning without application of any fertilizer. The farmers' production before intervention was low, with very less profit due to lack of nutrient management, loss due to soft rot disease, and loss of seed rhizome during storage.

Before initiation of the PKVY project the farm woman Kong Arlin Muruh cultivates ginger in her small plot of land (2 acres) with a low productivity of 5.2tonnes. The farm woman used to get annual income of around Rs. 142560 from ginger cultivation and other minor crops cultivation She faced problems like lack of planting materials, lack of knowledge on plant production, plant protection measures etc.

KVK Intervention:

With the introduction of PKVY project in the DFI village Lumkhudung she could adopt scientific management technologies and also cultivate new crop like turmeric variety Lakadong in an area of 2 acres which fetched very high returns. She could increase her area for ginger cultivation from 2 acres to 3 acres with the availability of planting materials, increase her productivity and overall income.

Before sowing, the ginger/turmeric seeds are treated with *Trichoderma viridae* @ 5ml/litre to control soft rot disease for 30mins. After drying in the shade, the rhizomes are planted.For one acre of land, two heaps of cow dung manure of 50kg each is kept on a shady place preferably a hut to avoid direct sunlight. Then mix 2-4kg azotobacter in 2-4 lts of water and pour this on the heap of manure. In another bucket mix 2-4 kg of PSB in 2-4 litres of water and mix in the other heap of manure. The heap of compost is also treated with *Trichoderma viride* @2.5kg/50kg cowdung manure. The manure is kept overnight and in the following day, mix both the heaps properly. This manure is used immediately for planting of ginger.In highly acidic soils, 25kg of lime can also be applied.

The rhizomes are placed in pits filled with manure and vermicompost well mixed with soil at a depth of 4-5cm and covered with soil. The spacing maintained is 30cm x 30 cm.

For seed purpose, healthy plants, free from disease and pest are selected while still in the field. Rhizomes for seed purpose are kept separate from the rhizomes for sale, they are not mixed. Before storage the seed rhizomes are treated with *Trichoderma viridae* @ 5ml/litre. The seed rhizomes are then dried under the shade for 1-2 days. Pits of 1m depth are dug and a layer of dry sand is placed on the bottom. Then the seed rhizome are placed in layers alternating with paddy straw and over it wooden planks on the top or soil a little over the ground level to form a roof. Then, the pit is sealed with clay. There is provision for aeration with bamboo pole and covered on the top to protect from rain water entering into the pit.

Output and Outcome

Ginger: The cost of cultivation is high mainly because of the high seed rate. The yield before intervention was 5.2t from 2 acres compared to 11t from 3 acres after intervention. The percentage increase in yield is 52.7%. There was an increase in the net profit from Rs.142560 to Rs. 378840after intervention. The B:C ratio was 2.32:1 after intervention compared to 1.7:1 during farmers practice.

Turmeric: The farm woman cultivated a new crop turmeric and obtained a yield of 6.5t from 2 acres of land giving her a net income ofRs. 62800.This has increased her total net income to Rs 441640.

Impact:

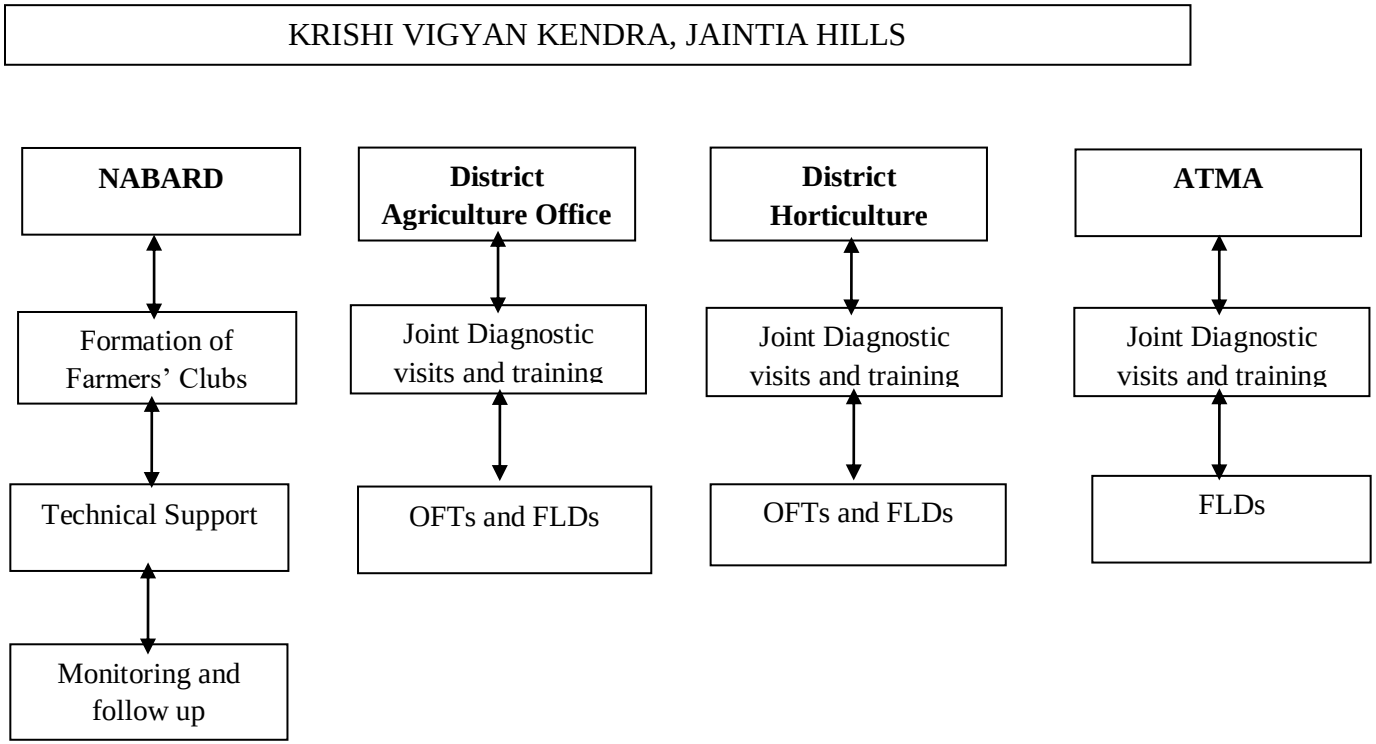
The PKVY project has helped the farmers of Lumkhudung village to adopt proper organic cultivation practices, become aware of organic certification processes and getting higher returns for their produce.

Field day

Ginger crop cultivation

Turmeric crop cultivation

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



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.	Integrated Pest Management	❖ The biopesticide is made from locally available plants such as *Eupatorium adenophorum Lantana camara* Tobacco leaves, *Zanthoxylum khasianum, Allium tuberosum*, neem, chilli, prickly plant, ginger, garlic, cow urine, gur. ❖ All the herbs are chopped, placed in a 100lt drum and added with 10lts of cow urine. The drum is filled with water up to the brim and covered. ❖ It is allowed to ferment for 15days with daily stirring. ❖ To spray on vegetables, 250 ml of this mixture is diluted with 10lts of water	❖ It prevents against pest attacking leaves, fruits and flowers

Biopesticide formulation prepared by the farmer

Foliar application of the mixture on vegetables

Crop free from pests

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

A. Identification of courses for farmers/farm women
   i. PRA
   ii. Field visit/ Diagnostic visit
   iii. Focus group discussion
   iv. Farmers Visit to KVK
   v. Discussion with Department Officials

B. Rural Youth
   i. PRA
   ii. Focus group discussion
   iii. Youth Visit to KVK
   iv. Discussion with NYKS Officials

C. Extension personnel
   i. Focus group discussion
   ii. Meetings
   iii. Discussion with Department Officials

3.11 Field activities

i. Number of villages adopted: 40
ii. No. of farm families selected:100
iii. No. of survey/PRA conducted: 5

3.12. Activities of Soil and Water Testing

Status of establishment of Lab : Nil
1. Year of establishment : 2022
2. List of equipments purchased with amount : -

Sl. No	Name of the Equipment	Qty.	Cost

	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	Nil	Soil Testing Kit	Nagarjuna Agro Chemicals Pvt. Ltd.	2	86000(Exclusive Tax) each

3. Details of samples analyzed (2021) :

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount(In Rupees) realized
Soil Samples	153	500	5	-
Total	**153**	**500**	**5**	**-**

1. Details of Soil Health Cards (SHCs) (2021)
   a. No. of SHCs prepared:Nil
   b. No. of farmers to whom SHCs were distributed: Nil
   c. Name of the Major and Minor nutrients analysed: SOC(%), pH, N,P,K
   d. No. of villages covered: 5

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

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of	No. of	No. of	No. of	No. of	No.	No. of	No. of	No. of	No. of	No. of	No.	No. of	No. of

	Message	Ben eficiary	Message	Benef iciary	Message	of Benef iciary	Message	Benefi ciary	Message	Benef iciary	Message	of Benef iciary	Message	Benefi ciary
Text only	36	3000	15	1600	-	-	-	-	7	1100	5	600	63	6300
Total	**36**	**3000**	**15**	**1600**	-	-	-	-	**7**	**1100**	**5**	**600**	**63**	**6300**

3.14 Contingency planning for 2021

a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Hailstorm Any other please specify)	**Proposed Measure**	**Proposed Area (In ha.) to be covered**	**Number of beneficiaries proposed to be covered**	
			SC/ST	**Total**
Affected by flash flood	**Introduction of new variety or crop** 1) CAU R 1 can be sown late in the month of June -July	1	10	10
Drought	**Introduction of Resource Conservation Technologies** 1) In situ moisture conservation practices using maize stalk in mustard cultivation	0.1	10	10
Flood/ hailstorm/Crop failure due to pest and diseases	**Distribution of seeds and planting materials** 1. HYV maize DA61 2. CAU-R1 paddy variety 3. Marigold	-	30	30
Flood/ hailstorm/Drought/Crop failure due to pest and diseases	**Training and demonstration** Resource Conservation technologies, Biopesticides, trap crop etc	-	40	40
Total		**1.1**	**90**	**90**

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
-	-	-	-	-	-	-	-

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)

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

4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

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

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations established during 2021

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

Name of organization/ Agency	Activities/ programmes	Nature of linkage
District Agricultural Office(East Jaintia Hills District and West Jaintia Hills District)	• SAC meeting • Filed visit	Diagnostic services, meetings, Joint implementation of OFTs & FLDs, Training programme, etc.
District Horticulture Office (West Jaintia Hills District & East Jaintia Hills District)	• Attended Horticulture exhibition organized by DHO, Jowai on the 11.02.21 • Participated in exhibition of District horticulture office Khliehriat on the 19.1.21	Diagnostic services, meetings, Joint implementation of OFTs & FLDs, Training programme, exhibition etc.
NABARD	• Exposure visit to the Pig breeding farm at Nongpiur, Upper shillong under CAT programme sponsored by NABARD on the 15.03.21 • Visit to NICRA village along with officials from NABARD • Visit to ARYA Village along with officials from NABARD	Participation in meetings, Formation & Mobilizing Farmer's clubs, sponsored exposure trip for farmers, selection of villages
Soil and water conservation ,West Jaintia Hills District	• SAC meeting	Participation in meeting
District Veterinary Office	• SAC meeting • Jointly organised Animal Health Camp	Participation in meeting, Convergence of programmes
District Fishery Office	• SAC meeting	Participation in meeting, convergence of programmes
Research Office, Dept Of Agril, West Jaintia Hills District	• SAC meeting	Convergence of programmes
ATMA	• Training programmes in collaboration with ATMA (Thadlaskein Block-Namdong village, Amlarem Block-Umladkhur and Thangbuli village, Laskein Block- Sahsniang village & ATMA ,Mawkyrwat)	Diagnostic services, meetings, Joint implementation of OFTs & FLDs, Training Programme, etc.

ICAR-NBPGR, Umiam	• Biodiversity fair cum Plant genetic resources awareness camp in collaboration with ICAR-NBPGR, Umiam on the 3.02.21	Training, awareness programme
AASTHA foundation	• ASCI Skilled Training programme on poultry and piggery farming at East Jaintia Hills in collaboration with AASTHA foundation, Silchar-Lumshken,Tuber Shohshrieh, Pamrakmai,Pamrapaithlu,Mukhep and Sohkymphor villages	Training, awareness programme
NGO- AROH Foundation	• KVK Jaintia Hills is providing expert support mainly on Citrus cultivation and fodder cultivation to an NGO- AROH Foundation in their 13 adopted villages in Laskein Block(viz Khliehrangnah, khlookynrein, Madankynsaw, Iongkwang, Borato, Kyrwen, Madanrwan, Ionglang, Iongkasoro, Khatkasla, Iooksi Kynmynsai, Iooksi Iapkla & Lakadong) • Resource person in trainings	Training, awareness programme,Resource person

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2021

Sl. No.	Name of special program	Major Activity	Duration and Date	Funding agency	Amount (Rs.) received
1.	Skill Development Programme under ASCI	Training, Exposure visit, Distribution of inputs	22.02.2021 till 22.03.2021	ASCI	2,64,000
2.	Swachta Action Plan (SAP)	Cleaning Drive, Awareness programme	16.12.2021 19.12.2021	ATARI	41,400
3.	STRY	Training, Exposure visit, Distribution of inputs	20th to 27th Jan,2021 20th Jan,2021-28th Jan,2021 25th Jan,2021-2nd Feb,2021 6-13th ,Dec 2021 3.01.22-10.01.22	MAMETI	2,10,000

4.	Poshan Abhiyan & Tree Plantation	Awareness programme and tree plantation	17.9.2021	ATARI	7,000
5.	Farmers Outreach Programme on Natural Farming	Trainings on Natural Farming	16.12.21	ATARI	14,104.31
6.	Capacity Building of Farmers through training programme on Profitable Dairy Farming and Livestock Management	Trainings on dairy farming & livestock management	20.12.21 To 22.12.21	ATARI	2,00,000
7.	Frontline demonstration	Training programmes in collaboration with ATMA (Thadlaskein Block-Namdong village, Amlarem Block- Umladkhur and Thangbuli village, Laskein Block- Sahsniang village & ATMA ,Mawkyrwat)	8.12.21 15.12.21	ATMA	20,000
	Total				**7,56,504**

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district: Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Farmers field school	Resource person	SMS took part as resource person
2	Training for rural educated unemployed youth	Resource person	SMS took part as resource person in training for rural educated unemployed youth
3	Skilled training for rural youth	Resource person	SMS took part as resource person in the Skilled training for rural youth
4	Diagnostic visits	Experts	Diagnostic visit to farmer's field
5	Demonstration	Resource person	Resource person in training programmes & collaboration of programmes

5.4 Give details of programmes implemented under National Horticultural Mission

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	2021	14x22 sq.ft	Lumsniang	1 adult, piglets	1 adult+8piglets	1,00,000	55,000	
2	Walk in tunnel	2021	15x1.5x2 m^3	*Ashwarya*	Seedling	236 nos.	500	1180	

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	
Brocolli	11.8.21	8.10.21	0.01	*Ashwarya*	Seedling	236 nos.	500	1180	

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	
-	-	-	-	-	-

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.	Pig	Lumsniang	1adult+8Piglets	1no.	1,00,000	55,000	

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
-	-	-	-	-	-	-

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)
-	-	-	-	-	-

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
Senior Scientist & Head, KVK Jaintia Hills	Meghalaya Cooperative Apex Bank	Jowai	702002312433

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

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 31st March, 2018
	Amount	Amount	Amount	Amount	
TOTAL					

7.3 Utilization of KVK funds during the year 2021

S.No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure(in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances	134.84200	134.84200	134.42705
2	Traveling allowances	2.25000	2.25000	2.25000
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	6.28250	6.28250	6.28250
B	POL, repair of vehicles, tractor and equipments			
Working Capital				
C	Meals/refreshment for trainees	7.18000	7.18000	7.18000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries	4.48750	4.48750	4.48750
H	Maintenance of buildings	-	-	-
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Library	-	-	-
K	KSHAMTA	0.25000	0.25000	0.25000
L	NARI	0.25000	0.25000	0.25000
M	HRD	0.50000	0.50000	0.50000
TOTAL (A)		**156.04200**	**156.04200**	**155.62705**
B. Non-Recurring Contingencies				
1	Works	38.00000	38.00000	38.00000
2	Equipments including SWTL & Furniture	10.50000	10.50000	10.50000
3	Vehicle (Four wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		**48.50000**	**48.50000**	**48.50000**
C. REVOLVING FUND		-	-	-

GRAND TOTAL (A+B+C)	**204.542**	**204.542**	**204.1271**

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	Nil	Nil	Nil	Nil
2020	Nil	Nil	Nil	Nil
2021	Nil	Nil	Nil	Nil

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above.

KVK, Jaintia Hills under the guidance of SMS (Animal Science) has helped poultry and pig rearing farmers in receiving financial assistance.

i. No. of Detailed Project Report provided to farmers for poultry and piggery farming-12

ii. No. of farmers who had received financial assistance from banks-6

iii. In order to meet the increasing demand of pork as well as easy procurement of improved variety crossbreed piglets within the district, KVK Jaintia Hills in the year 2019-20 has set up pig breeding units with the introduction of Breed HDK-75 at Umladkhur village, Amlarem Block, West Jaintia Hills District

iv. 40 farmers have cleared the examination and received certificates on small poultry farming under PMKVY

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

(a) Administrative-Nil

(b) Financial-Nil

(c) Technical

- Trials to find out the right variety(s) that fits the agro climatic condition, soil type and farmers preference
- Non availability of manure required for crop cultivation
- For technology like IFS, availability of inputs like piglets, fingerlings and seeds at the right time decides yield/unit or production and profitability of farmers
- Innovative Egg Laying cabin may be up scaled as it is highly accepted in layer farming
- More number of pig breeding units to be set up as availability of piglets is still a major concern in the district
- Low cost feed mills should be introduced in farmers filed in order to reduce feed cost
- Low cost poultry hatchery should be introduced in farmer's field

(Signature)
Sr. Scientist cum Head