

PROFORMA FOR ANNUAL REPORT OF KVKs, 2019-20

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	
KrishiVigyan Kendra (KVK), Khawzawl, PO- Khawzawl, Dist.-Champhai (MIZORAM)-796310	03831-261484, 261486	NIL	kvkKhawzawl@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Directorate of Agriculture (R&E), Aizawl, Mizoram- 796 001	0389-2319025	0389-2315784	mizagri@gmail.com

1.3. Name of the Programme Coordinator/ Sr. Scientist & Head with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Henry Saplalrinliana	KVK, Complex, KawnzarVeng, Khawzawl	9436190701	henry_sapa@yahoo.com

1.4. Year of sanction: 2008

1.5. Staff Position (As on 14th FEB, 2020)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/Others)
1	Sr Scientist & Head	Dr. Henry Saplalrinliana	Sr Scientist & Head	Soil Science	Not yet fixed	Not yet fixed	04.03.19	Permanent	ST
2	Scientist	Dr. Malsawmkimi	Scientist	Horticulture	15,600-39,100+5,400	20,440/-	03.06.09	Permanent	ST
3	Scientist	Syed Khaliduddin Ahmed (study leave)	Scientist	Animal Science	15,600-39,100+5,400	21,220/-	26.4.08	Permanent	GENERAL
4	Scientist	F.Zoramthari	Scientist	Plant Protection	15,600-39,100+5,400	20,440/-	06.6.09	Permanent	ST
5	Scientist	Dr. Om.Prakash	Scientist	Agronomy	15,600-39,100+5,400	20,440/-	23.6.14	Permanent	General
6	Scientist	Israel Lalremruata	Scientist	Agro Forestry	15,600-39,100+5,400	20,440/-	09.03.12	Permanent	ST
7	Scientist	Vanlalduati	Scientist	Soil Science	15,600-39,100+5,400	18,240/-	09.02.15	Permanent	ST
8	ProgrammeAsst	Lalhruiatuangi	PA (Home Sc)	Home Science	9,300-34,800+4200	14,120/-	1.7.08	Permanent	ST
9	Computer Programmer	Samson SairengpuiaSailo	PA (Computer)	Computer	9,300-34,800+4200	14,120/-	22.4.08	Permanent	ST
10	Farm Manager	PrakashThapa	Farm Manager	B.Sc (Agri.)	9,300-34,800+4200	13,580/-	25.4.08	Permanent	GENERAL
11	Assistant	K.Vanlalmangaihi	Assistant	M.Com	9,300-34,800+4200	14,120/-	29.5.08	Permanent	ST
12	Stenographer	Crusade Thangpuii	Stenographer	B.A	5,200-20,200+2,400	10,170/-	29.2.08	Permanent	ST
13	Driver	Lalnuntluanga	Driver	-	5,200-20,200+1,900	8,250/-	29.2.08	Permanent	ST
14	Driver	R.Dengliana	Driver	-	5,200-20,200+1,900	8,250/-	9.2.08	Permanent	ST
15	Supporting staff	Laltanpuia	Supporting staff	-	4,440-7,440+1,300	6,410/-	10.7.08	Permanent	ST
16	Supporting staff	Lalvenhima	Supporting staff	-	4,440-7,440+1,300	6,410/-	24.7.08	Permanent	ST

- 1.6. a. Total land with KVK (in ha) :12.774
 i. Block-I (Instructional farm) :11.464 ha
 ii. Block-II (Office Complex) : 1.31 ha
 b. Total cultivable land with KVK (in ha):8.464
 c. Total cultivated land (in ha):3

S. No.	Item	Area (ha)
1	Under Buildings (Administrative building+ Farmers' Hostel+ Staff Quarters)	1.31
2.	Under Demonstration Units	11.464
3.	Under Crops (Cereals, pulses, oilseeds etc.)	1.7
4.	Under vegetables	0.8
5.	Orchard/Agro-forestry	1.3
6.	Plantation Crops(Coffee etc)	0.2

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2007	-	-	-	-	Completed
2.	Farmers Hostel	ICAR	2009	-	-	-	-	Need repair
3.	Staff Quarters (6)	ICAR	2007	-	-	-	-	Completed
4.	Demonstration Units (2)	ICAR	2007	-	-	-	-	Completed
5	Fencing	ICAR	2009	-	-	-	-	Need repair

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Gypsy	MZ-01 D 4086	-	-	-	Not in running condition
Tractor	MZ-01 D 2246	-	-	-	Major repair required
	MZ-01P0211	2016	-	-	Running condition
Bolero	MZ-01 N 9053	2018	-	-	Running condition

C) Equipments & AV Aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
LCD projector	Sept,2008	-	Good
Xerox machine	Sept,2011	-	Good
Computer	Sept,2008/2011	-	Good
Seed analyzer	Sept,2008	-	Good
Refrigerator	Sept,2008	-	Good
BOD Incubator	Sept,2008	-	Good
Hot Air Oven	Sept,2008	-	NOT WORKING
Grinder	Sept,2008	-	Good
Laptop	Sept,2008	-	Good
T.V.	Sept,2008	-	Good
A.C.	Sept,2008	-	NOT WORKING
Water Pump (5 hp)	2008	-	Good
Paddy Thresher	2009	-	Good
Power Tiller (Mitsubishi Shakti)	2008	-	Good
Power Tiller (Greaves.GS15DILS)	2014	-	Good
Solar Dryer	2012	-	Good
Chaff Cutter	2014	-	Good
Mini Rice Mill cum Oil Expeller	2015	-	Good
Mini Dal Mill	2012	-	Good
Rice Mill(Polisher + winnower)	2017	-	Good

***2. DETAILS OF DISTRICT**

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

Sl. No	Farming system/enterprises
1.	Horticulture +Maize + Animal Husbandry- Highland (>1250m MSL)
2.	Jhum Paddy +Vegetable + Animal Husbandry- Midland (900- 1250 m MSL)
3.	Wetland Rice + Fish + Winter Vegetables - Low land (< 900 m MSL)

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

Sl. No	Agro-climatic Zone	Characteristics
1	Sub- tropical/ Sub- temperate/ Humid	Some parts of the district like Ngopa&Khawzawl block experience all the three seasons i.e. winter, summer and rains, while in the Champhai valley the temperature ranges from 1-7°C for a longer period during winter, severely affecting the crops because of frosty weather. The relative humidity of the region is higher due to heavy rains (2500 mm annually).

2.3 Soil types

Sl. No	Soil type	Characteristics	Area in ha
1	Black Soils	-	36550 ha
2	Red Soils	-	89600 ha
3	Alluvial Soils	-	31000 ha
4	Sandy soil	-	3600 ha
5	Acid Soils	-	89600 ha

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

Sl. No	Crop	Area (ha)	Production (ton)	Productivity (Qtl /ha)
1	Jhum Paddy	4350	4431	0.982
2	Paddy (WRC)	3750	8148	0.460
3	Maize	1660	2345	0.708
4	Rice bean	83	104	0.80
5	Arhar	20	17	1.18
6	Field pea	295	425	0.694
7	Cow Pea	210	231	0.909
8	French Bean	193	401	0.481
9	Soyabean	205	196	1.05

10	Potato	205	2057	0.099
11	Onion	6	34	0.18
12	Brinjal	365	2355	0.154
13	Cauliflower	75	745	0.10
14	Pea	35	150	0.23
15	Carrot	55	393	0.14
16	Cabbage	175	2363	0.07
17	Tomato	31	292	0.11
18	Okra	279	1861.3	0.15
19	Capsicum	25	331.5	0.07
20	Broccoli	16	100.1	0.16
21	Ginger	1008	4969	0.20
22	Turmeric	555	2784	0.20
23	Bird Eye Chilly	1250	6875	0.18

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	346	560 tons	1.6
<i>Indigenous</i>	6663	788 tons	0.12
Buffalo	3053	14 tons	0.0045
Sheep			
<i>Crossbred</i>			
<i>Indigenous</i>	712 & 115	3 tons	-
Goats	NA	NA	NA
Pigs	24186	437 tons	-
<i>Crossbred</i>	6051	-	-
<i>Indigenous</i>	NA	NA	NA
Rabbits	NA	NA	NA

Poultry			
Hens	NA	NA	NA
<i>Desi</i>	NA	NA	NA
<i>Improved</i>	NA	NA	NA
Ducks	NA	NA	NA
Turkey and others	NA	NA	NA

Category	Area	Production	Productivity
Fish	NA	NA	NA
<i>Marine</i>	NA	NA	NA
<i>Inland</i>	NA	NA	NA
Prawn	NA	NA	NA
Scampi	NA	NA	NA
Shrimp	NA	NA	NA

Note: Pl. provide the appropriate Unit against each enterprise **Source: Statistical Handbook of Mizoram**

2.6 Details of Operational area / Villages (2019-20)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1.	Khawzawl	Khawzawl	Khawzawl	WRC + Jhum paddy + Maize + Winter vegetables + Animal Husbandry and Fisheries	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness toward s integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.
2.	Khawzawl	Khawzawl	Biate	Jhum paddy + Tea + Orange + Vegetables + Animal Husbandry	<ul style="list-style-type: none"> • Lack of knowledge on crop rotation • No proper post harvest management in tea. • Lack of quality seed of different vegetables • Citrus declining • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Creating awareness on crop rotation and integrated farming • Training on post harvest management in tea. • Creating awareness for the use of quality seeds in different vegetables. • Rejuvenation of old citrus orchards. • Creating awareness for livestock management and feed and fodder production
3	Khawzawl	Khawzawl	Chawngtlai	WRC+Jhum Paddy Grapes + Ginger Passion fruit + Animal Husbandry	<ul style="list-style-type: none"> • Lack of Training and Pruning of Passion Fruit & Grapes • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. 	<ul style="list-style-type: none"> • Cultivation practices of Grapes and Passion fruit • IDM on Ginger • Integrated nutrient management • Integrated pest management • Creating awareness for livestock management and feed and fodder production

4.	Khawzawl	Khawzawl	Kawlkulh	Jhum paddy + Maize + Banana + Ginger + Animal Husbandry + orange	<ul style="list-style-type: none"> • Lack of awareness towards integrated farming. • Improper nutrient management. • Citrus declining. • Lack of Orchard management 	<ul style="list-style-type: none"> • Creating awareness for adoption of integrated farming. • Rejuvenation of old citrus orchards. • Creating awareness for livestock management
5.	Khawzawl	Khawzawl	Dulte	Jhum paddy + Banana + Maize + Ginger + Vegetables	<ul style="list-style-type: none"> • Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming. 	<ul style="list-style-type: none"> • Training on Orchard management. • Integrated nutrient & Pest management. • Creating awareness for adoption of integrated farming.
6	Khawzawl	Khawzawl	Rabung	Jhum paddy + Maize + Ginger + Vegetables	<ul style="list-style-type: none"> • Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming. 	<ul style="list-style-type: none"> • Training on Orchard management. • Integrated nutrient & Pest management. • Creating awareness for adoption of integrated farming.
7	Khawzawl	Khawzawl	Khawhai	Jhum paddy + Maize + Ginger + Vegetables+ Citrus+Pineapple	<ul style="list-style-type: none"> • Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming. 	<ul style="list-style-type: none"> • Training on Orchard management. • Integrated nutrient & Pest management. • Creating awareness for adoption of integrated farming.

8	Champhai	Champhai	Champhai	WRC + Maize + Winter vegetables + Animal Husbandry and Fisheries	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness towards integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.
9	Champhai	Champhai	Zotlang	WRC + Jhum paddy + Potato + Winter vegetables + Animal Husbandry	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness towards integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production
10	Champhai	Champhai	Hmunhmeltha	Jhum paddy + Vegetables + Animal Husbandry	<ul style="list-style-type: none"> • Lack of knowledge on crop rotation • Lack of quality seed of different vegetables • Citrus declining • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Creating awareness on crop rotation and integrated farming • Creating awareness for the use of quality seeds in different vegetables. • Creating awareness for livestock management and feed and fodder production

11	Champhai	Champhai	Tuipui	WRC + Jhum paddy + Maize + Winter vegetables + Animal Husbandry and Fisheries	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness towards integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.
12	Champhai	Champhai	Khawbung	WRC + Jhum paddy + Maize + Winter vegetables + Animal Husbandry and Fisheries	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness towards integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.
13	Champhai	Champhai	Hnahlan	WRC + Jhum paddy + Maize + Winter vegetables + Animal Husbandry and Fisheries + Grapes	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness towards integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.

3. TECHNICAL ACHIEVEMENTS**3.1 A. Details of target and achievements of mandatory activities by KVK during 2019-20**

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
Horticulture	2	2	6	6	2	2	25	25
Agronomy	2	2	6	6	2	2	30	30
Soil Science	2	2	6	6	2	2	20	20
Plant Protection	3	3	9	9	2	2	20	20
Total	9	9	27	27	8	8	95	95

Note: Target set during last Annual Zonal Workshop

3.2 Results of On Farm Testing (OFT)

Sl. No.	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B:C Ratio (if applicable)
1	Varietal evaluation of Rice var. CO-52	Low income of the farmers from the existing varieties	Rice var. CO-52	Rice	3	No. of hills /sq m TO 1: 15 TO 2: 16 No. of tillers / hill TO 1 - 14 TO 2 - 15 No. of effective tillers/ sq m TO 1- 195 TO 2- 198 No. of grains / panicle TO 1- 213 TO 2 - 216 Yield/ha TO 1 - 32.4q/ha TO 2 - 30.25q/ha	It's good to enhance their production	-	2.12 2.08 check
2	Modified system of Rice Intensification for higher productivity	Low income of the farmers from the traditional method of transplanting	Seedling age at 18-20 days Spacing: 20x20 cm	Rice	3	No. of hills /sq m TO 1: 20 TO 2: 20 No. of tillers / hill TO 1 - 22 TO 2 - 19 No. of effective tillers/ sq m TO 1- 225 TO 2 - 210	It's good to enhance their production	To be adopt at large scale through FLD	2.16 2.08 check

						No. of grains / panicle TO 1 - 208 TO 2 - 203 Yield/ha TO 1 - 35.60 TO 2 - 30.25			
3	Introduction of carrot variety Pusa Vrishti	No Carrot production in large scale and variety suitable for the District not yet identified	Varietal evaluation	Carrot	3	Technology : 1.Root length (cm) :16 2. Shoulder diameter (cm):3.45 3.Weight (g):68.85 4.Duration :135 5. Yield (q):125 Local 1Root length (cm):12 2. Shoulder diameter (cm):2.95 3.Weight (g):52.25 4.Duration 150 5. Yield (q) 80	Farmers are satisfied with the performance and recommended for further cultivation	Root is very attractive and sweet	Technology :2.2 Local: 1.6
4	Assessment of Kharif onion variety L-883	Variety suitable for Kharif not yet identified	Varietal evaluation	Onion	3	Technology 1. Plant height (cm) 2. Bulb weight (g) 3. Crop duration 4. Yield /ha (q) Local :	Failed	Though the variety is for Kharif season but in Champhai District the variety does resist heavy rainfall	

		plant	<p>prepared paste @ 1kg in 2 L of water and dip Rhizome in the paste for 15 minutes and dry shade for 1 hour.</p> <p><u>Soil application:</u> Biofor Pf + Vermicompost @ 1kg Biofor Pf: 10kg Vermicompost to be applied as basal dressing @ 100 gm/plant at 80-90 DAS</p>						
7	Organic management on growth and yield of French Bean	Inadequate availability of nutrients in the soil due to non application of biofertilizers	<p>Technology TO1- Phosphorus Solubilizing Bacteria (<i>Pseudomonas sp</i>) (@ 2.5 kg/ha + Rhizobium seed treatment @100g/kg seed will be given uniformly</p> <p>TO2-Farmer Practice(No treatment) Sowing time: First week of July</p>	French Bean	3	<p><u>Soil fertility status(kg/ha)</u></p> <p>1.T01 T02 N-208 N-183.9 P-16.85 P-12.31 K-140.91 K-126.8 2. Yield (q/ha)-62</p>			2.8

			Spacing: 45 cm X 10 cm						
8	Potassium nutrition on yield and quality of Grapes variety Bangalore Blue	Low yield and poor quality of fruits	Technology K ₂ O doses (g/vine) T01 -300-K ₂ O T02 -Farmers practice(No treatment) (Fertilizer will be applied in split doses i.e Half dose of Potash will be applied immediately after pruning and the other half after 60 days of pruning.	Grape	3	Soil Fertility Status(Kg/ha) T01 T02 N-293 N-250 P-21.7 P-19.8 K-276 K-249 2. Yield (q/ha)-57			3:2

**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*

4 Achievements of Frontline Demonstrations during 2019-20

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

4.1 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	Groundnut	Popularization of Groundnut Variety: ICGV 91114	3	10	5
2	Field Pea	Popularization of Var. Aman with <i>Rhizobium</i> inoculation	4	20	10
3	Tomato	Promotion on precision farming package for tomato variety Arka Samrat	5	15	5.25
4	Garlic	Assessment of Garlic variety Yamuna Safed -8	3	10	3.5
5	Tomato	Integrated Disease Management of Late blight (<i>Phytophthora infestans</i>) in tomato	4	10	4
6	Tomato	Integrated pest Management of Thrips (<i>Thrips tabaci</i>) in Tomato.	5	10	4
7	Pea	Influence of Organic Mulches on Growth and Yield Components of pea	3	10	2
8	Paddy	Popularisation of biofertilizers on growth ,yield and economics of rice(<i>Oryzasativa</i> L)	3	10	2

4.2 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.	Groundnut	Varietal Evaluation	Popularization of Groundnut Variety: ICGV 91114	Kharif-2019	5	5	10	-	10	-	Rainfed	210	14	115
2.	Field Pea	INM	Popularization of Var. Aman with <i>Rhizobium</i> inoculation	Rabi-2019-20	10	10	20	-	20	-	Rainfed, 800 M MSL	232	17	120
3	Garlic	Varietal evaluation	Popularisation of garlic variety Yamuna Safed 8	Rabi, 2019-2020	5.25	3.5	15		15		Irrigated/Sandy	214	22	164
4	Tomato	Varietal evaluation	Promotion on precision farming package for tomato variety Arka Samrat	Summer, 2019	7.5	5.25	10		10		Rainfed/Sandy	236	26	198

5	Tomato	Integrated Pest management of thrips (Thrips tabaci) in Tomato	1) Installation of blue sticky traps @ 12 no/ha to attract and kill insects. 2) Application of carbofuran 3% G @ 40 kg/ha and ETL based spraying with imidachlorprid @ 0.05%	Oct 2019-February 2020	4	4	10		10		Rainfed 23°26'48.35" N 93°15'15.9"E 814 m above MSL			
6	Tomato	IDM of Late Blight (<i>Phytophthora infestans</i>) in Tomato	1) Raising the crop in raised beds with plastic mulch. 2) Nursery bed treatment with <i>Trichoderma harzianum</i> (0.5%) 3) Protective spraying with mancozeb @ 0.2% or Copper oxychloride @ 2 gm/lit	Oct 2019-February 2020	4	4	10		10		Rainfed 23°25'61.5"N 93°19'76.3"E 1460m above MSL			
7	Pea	Soil Moisture management	Influence of Organic Mulches on Growth and Yield Components of pea	Rabi-2019-20	2	2	10	-	10		Rainfed 23° 32.094'N 93°10.463'E 1113 m above MSL		on going	
8	Paddy	IINM	Popularisation of biofertilizers on growth, yield and economics of rice (<i>Oryza sativa</i> L)	Kharif 2019	2	2	10		10		Rain fed 23° 31.690'N 93° 10.491'E 1118 m above MSL			

4.3 Performance of FLD on Crops during 2019-20

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*			GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
							Demo	Local										
1	Ground nut	Varietal Evaluation	5	8.30	6.60	25.75	8.70	6.20			37850	83360	46650	2.20	34320	66280	31960	1.93
2	Field Pea	INM	10	21.80	14.50	50.34	26.20	19.30			36280	94250	57970	2.59	32520	61600	29080	1.89
3	Tomato	Integrated crop management		325	250	30	350	243	-	-	196969	650000	453031	3.3	144230	375000	230770	2.6
4	Garlic	Varietal evaluation (on going)																
5	Tomato	IPM	4	220	175		262.5	186	Pest Incidence - 20 %	Pest Incidence - 63 %	100000/-	2,62,500/-	1,62,500/-	2.62	90000/-	1,72,000/-	82,000/-	1.91
6	Tomato	IDM	4	219	171		263	183	Disease Incidence - 14 %	Disease Incidence - 71 %	103000/-	2,63,000/-	1,63,000/-	2.55	90000/-	1,71,000/-	81,000/-	1.9
7	Paddy	INM	2	31.06	25.12	23	32.40	30.9			30,510	76,900	46,390	2.5	25650	53800	28150	2.09
8	Pea	Soil Moisture Management	2									ongoing						

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

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

Produce Sale Price must be as per MSP or Registered Marketing Society

Pl. apply the formula: Net Return= Gross Return-Gross Cost, BCR= GR/GC

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

Discipline	No. of Training prog. (No. of courses/topics)			Participants (Nos.)					Target Beneficiary (nos.)	% achievement (over target beneficiaries)
	T	A	% of A	On	Off	Spon.	Vocational	Total		
Agronomy	8(10)	7(5)	87.5	55	105	-	-	160	180	88.8
Soil Science	7(15)	11(15)	157	-	55	378	60	493	255	193
Horticulture	13 (15)	12 (14)	92.3	120	140	90	-	350	330	106.06
Plant Protection	16(30)	15(17)	93.75	45	175	257		507	480	105.6
Total	44(70)	45(51)	-	220	475	725	60	1510	1245	-

Training conducted

5.1 Training Programmes (Farmers)

5.2 Training Programmes (Rural Youth)

Discipline	No. of Training prog. (No. of courses/topics)			Participants (Nos.)					Target Beneficiary (nos.)	% achievement (over target beneficiaries)
	T	A	% of A	On	Off	Spon.	Voc.	Total		
Agronomy	1	1	100		18	-	-	18	20	90
Soil Science	2 (4)	2(4)	100	-	-	-	30	30	25	120
Horticulture	4(10)	5(12)	125	35	40	20	-	95	60	158.3
Plant Protection	2(4)	2(5)	50	48	47	95		198	150	132
Total	9(19)	8(16)	-	83	185	115	30	341	255	-

5.3 Training Programmes (Extension Personnel)

Discipline	No. of Training prog. (No. of courses/topics)			Participants (Nos.)				Target Beneficiary (nos.)	% achievement (over target beneficiaries)
	T	A	% of A	On	Off	Spon.	Total		
Soil Science	1 (2)	1 (2)	100	-	-	30	30	15	200
Horticulture	1(3)	1(3)	100	10	-	-	10	10	100
Plant Protection	1(1)	1(1)	100			10	10	20	50
Total	3(6)	3(6)	-	10	-	40	50	45	-

6.Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, KisanMela, Exhibition, Diagnostic Visit, etc) during 2018-19

Sl. No.1	Extension Programme/ Activity	Programme/ Activity			Beneficiaries (No.)		
		Target (No.)	Achievement (Nos.)	% achievement	Target (No.)	Achievement (Nos.)	% achievement
A.	Field trips and Visits						
1	Diagnostic visit	56	68	121	196	215	110
2	Exposure visit	1	-	-	50	-	
B.	Group activities						
1	Farmer Seminar	1	2	200	70	130	186
2	Method demonstration	8	12	150	50	148	296
C.	Mass outreach program						
1	Exhibition	1	2	200	200	342	171
2	Kisan Mela	1	-	-	250	-	
D.	Camps and Campaigns						
1	Soil Health Camps	2	3	150	45	60	133
2	Animal Health Camps	2	1	50	35	52	149
E.	Publications						
1	Research Publication	2	1	50	-	-	
2	Extension bulletin	15	8	53	-	-	
	Total	92	97		896		

7. Production and supply of Technological products during 2019-20

7.1. SEED MATERIALS

Seed Materials	Crop	Variety	Target (q)	Achievement (q)	Current Value (Rs.)	Quantity supplied to the farmers (No)
Cereals	Maize	RCM-76	5	3	24000	30
	Rice	Manipur	20	25	75000	50
Oilseeds	Groundnut	GPBD-5	5	4	30000	50
Pulses	Field Pea	IPFD10-12	5	1.5	15000	10
Vegetables	Garlic	G282	10	12	108000	24
Total			45		252000	164

7.2 Production and supply of Planting Materials(Nos. in No.) during 2018-19

Planting Materials	Crop	Variety	Proposed quantity (Nos.) to be produced (both at KVK farm and farmers field)	Achievement (q)	Current Value (Rs.)	Quantity supplied (No.)
Vegetables	Chilli	Arka Harit	8000	9600	9,600/-	92
	Brinjal	Local	10,000	8000	8,000/-	80
	Onion	Agrifound Light Red	14,000	20000	10,000/-	100
	Tomato	Arka Rakshak & Arka Samrat	10,000	15000	15,000/-	85
Flower	Marigold	Pusa Narangi	-	25000	5,000/-	150
Total	5	-	42,000	77600	4,76,000/-	450

8. Production of Bio-Products during 2019-20

Major group/class	Product Name	Species	produced Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
			BIOAGENTS					
BIOFERTILIZERS								
1	Vermicompost	<i>Eudriluseugeniae</i>	4500 kg		45000		80	80
BIO PESTICIDES								

9. Production of livestock during 2019-20

Sl. No.	Type/ category of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
			1	Cattle/ Dairy				
2	Goat							
3	Piggery							
4	Poultry							
	1) Turkey	Broad Breasted White	6	-	1200		3	3

10 Literature Developed/Published (with full title, author & reference) during 2019-20

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
Research papers				
1.				
Book/ Book Chapter				
Popular articles				
Technical bulletins				

Extension bulletins				
Newsletter				
Conference/ workshop proceedings	Formulating feasible approaches for nutrients management in shifting cultivation scenarios of eastern Himalayan tracts	Henry Saplarinliana	-	35
Leaflets/folders	1) Alu chindan 2) Tomato hlawk zawka thar dan 3) Vermicomposting 4) IPM in Tomato 5) AzollaKhawi Dan(Cultivation of Azolla)	Malsawmkimi R. vanlalduati	560(80 copy each)	560 copies
		Henry Saplarinliana	80 copies	80 copies
TOTAL				

11. Status of establishment of Lab : Available

1. Year of establishment : 2015

2. List of equipments purchased with amount :

Sl. No	Name of the Equipment			Qty.	Cost
	S&WT lab	Mini lab/ Mridaparikshak	Manufacturer		
1	Side table			1	8500
2	Steel rack			3	26700
3	Book case			3	51000
4	USDV 8			3	75231
5	Stool			2	2622
6		MRIDAPARIKSHAK		1	86000
Total					2,50,053/-

12. Details of samples analyzed (2019-20) :

Details	No. of Samples analysed	No. of Farmers	No. of Villages	Amount (In Rupees) realized
Soil Samples	250	250	10	-
Water Samples				
Plant Samples				
Petiole Samples				
Total	237	237	8	-

13. Details of Soil Health Cards (SHCs) (2019-20)

- a. No. of SHCs prepared: 250
- b. No. of farmers to whom SHCs were distributed : 250
- c. Name of the Major and Minor nutrients analysed: N, P, K, Iron, Cu, Mn, Zinc
- d. No. of villages covered: 8

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

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	150	150	50	50	12	12	20	20	130	130	30	30		
Voice only	250	250	20	20	20	20	23	23	34	34	20	20		
Voice and Text both														
Total	400	400	70	70	32	32	43	43	164	164	50	50	595	595

15. Contingency planning for 2019-20

a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered		
			General	SC/ST	Total
Climate change	Introduction of new variety or crop	13		22	22
Soil Erosion	Introduction of Resource Conservation Technologies	12		15	15
Scarcity of Water/ Late Monsoon	Water used efficiency through drip and Rain Water Harvesting Structure	12 units		10	10

16. LINKAGES ESTABLISHED

16.1 Functional linkage with different organizations established during 2019-20

Name of organization	Nature of linkage
State Department of Agriculture/Horticulture/ AH&VETY/ Fishery/ Forestry/ Soil & Water Conservation/ Minor Irrigation/ Sericulture of Champhai District.	Implementation of RKVY, NFSM, supply of subsidized inputs like chemicals, farm machinery, Project, Training, Technical Advices, etc
NABARD	Implementation of Project and Trainings
ATMA	Training and technical advice as Resource person
IWMP	Training and technical advice as Resource person
Block Development Office	Training and technical advice as Resource person
NGOs AMFU, YMA etc	Technology transfer, Awareness programme, Celebration of important days
IFAD FOCUS(Fostering Climate Resilient Upland Farming System)	Training and technical advice as Resource person
District Commissioner of Champhai District.	Member-District level committee on providing irrigation facilities to farmers.

16.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2019-2020:

Name of the scheme/ special programme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
Crop diversification through the introduction of improved variety of Garlic variety G 282 in Champhai District	Training, Trial at farmers field Inspection	October 2018 – May 2019	NABARD	9,44,100/-
Skill training for Rural youth	Training	Sept, 2019	SAMETI	42000/-
Implementation of IPM in rice and vegetables crops in NEH Region	Training, Trials	2019-2020	NCIPM	2,50,000/-
Cluster demonstration on organic farming	Trials, Training	2019-2020	PKVY	
Popularization of field pea with rhizobium inoculation	Trials, Training	October 2019-feb 2020	NFSM	150000/-

16.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1	Assessment and refinement	Data collection and trials	
2	Trainings	Resource person	-
3	Filed visits	Joint visits	
4	Training & Demonstration	Designated expert support	

17. PERFORMANCE OF INFRASTRUCTURE IN KVK DURING 2019-20

17.1 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	Vermi composting unit - 2 nos	2008 & 2016	480 sqft	Red Worm(<i>Eisenia-foetida</i>)	Compost/Biofertilizers	25q	12000	30000	

17.2 Performance of instructional farm (Crops) including seed production during 2019-20

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Rice	June 10	30 oct	0.8	1)Ruata	Seeds	1) 18q	1) 23600	1) 54000	

17.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.) during 2018-19

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermi-compost	2500 kg	-	30,000	

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

18 FINANCIAL PERFORMANCE

18.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
With Host Institute			
With KVK	State Bank of India	Khawzawl	37041217638
Revolving Fund	State Bank of India	Khawzawl	37958564078

18.2 Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2019-20

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 17 st February, 2020
	Amount (Pulses)	Amount (Nutri Cereal)	Amount (Pulses)	Amount (Nutri Cereal)	
Inputs	77,400	24,000	77,400	24,000	NIL
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL	77,400	24,000	77,400	24,000	0

18.3 Utilization of KVK funds during the year 2019-20

S.	Particulars	Sanctioned (in Lakh)	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances		117.60	117.60
2	Traveling allowances		1.58	1.55
3	HRD(Human Resource Development)		0.50	0.50
4	Contingencies		12.50	10.46
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)			132.18	130.11
B. Non-Recuring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture		0.30	0.30
3	Vehicle (Four wheeler, please specify)			

4	Library (Purchase of assets like books & journals)			
TOTAL (B)			0.30	0.30
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)			132.48	130.41

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance with KVK (in lakh)
April 2019 to (till date) 2020	87,625	61,390	5,000	1,44,015
April 2018 to March 2019	48,625	42,680	3,680	87,625
April 2017 to March 2018	37,266	12,539	1,180	48,625

Note: No KVK must leave this table blank

- (b) Financial
- (c) Technical

(Signature)
Sr. Scientist cum Head