PROFORMA FOR ANNUAL REPORT OF KVKS, 2018-19

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 31st March, 2019)**

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	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	Lalhruaitluangi	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.Vanlalhmangaihi	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-O1 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 (Mitshubishi 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

1.8. A). Details SAC meeting* conducted in 2018-19

Date	**Name and Designation of Participants**	**Salient Recommendations**	**Action taken on last SAC recommendation**
15th Jan 2019	***Attached a copy of SAC proceedings along with list of participants***	i. To find the possibilities of rearing high altitude/cold tolerant small ruminant like sheep goat to be introduced for next SAC ii. Suggested to try and developed own bio-culture native to the place instead of procuring from other state to have more efficacy iii. Sources of technology may be selected as far as possible from ICAR/ Institute nearest to the region iv. To popularized Bird Eye Chilli through participatory mode by engaging rural youth in the next OFT programme and diseases management on leaf curl of Bird Eye Chilli may be included in the next Action plan v. To emphasis awareness programme on ill effect of Weedicides/ Pesticides through training programme vi. Emphasis may be given for identification of seed village for promotion and production of notified seeds with provisions	*i.* Popularization of Tomato var*ArkaRakshak* and Garlic*Var G282* ii. OFT on INM was implemented

		for buy back.	

**** Attached copies of SAC proceedings with list of participants***

2. DETAILS OF DISTRICT

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

Sl. No	Farming system/enterprises
1.	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^{0}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. Weather data

Month	Rainfall (mm)	Temperature ^{0}C		Relative Humidity (%)
April 2018	85.6	8.4	28.6	82.3
May	79.1	8.6	29.6	81.2
June	240	10.4	30.6	98.7
July	242	10.5	31.3	86.8
August	244	11.1	31.8	87.2
September	179.3	10.2	30.2	78.3
October	88.2	9.2	29.1	69.4
November	48.6	5.3	26.8	68.6
December	NIL	4.9	25.3	72.9
January 2019	15.4	4.2	24.7	76.5
February 2019	28.5	6.5	26.2	74.1
March 2019	11.7	7.2	28.4	68.4

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

Category	Population	Production	Productivity
Cattle			
Crossbred	346	560 tons	1.6
Indigenous	6663	788 tons	0.12
Buffalo	3053	14 tons	0.0045
Sheep			
Crossbred			
Indigenous	712 & 115	3 tons	-
Goats	NA	NA	NA
Pigs	24186	437 tons	-
Crossbred	6051	-	-
Indigenous	NA	NA	NA
Rabbits	NA	NA	NA
Poultry			
Hens	NA	NA	NA
Desi	NA	NA	NA
Improved	NA	NA	NA

Ducks	NA	NA	NA
Turkey and others	NA	NA	NA

Category	Area	Production	Productivity
Fish	NA	NA	NA
Marine	NA	NA	NA
Inland	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***

2.7 Details of Operational area / Villages (2018-19)

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	• 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.	• 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	• 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.	• 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	• Lack of Training and Pruning of Passion Fruit & Grapes • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases.	• 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	• Lack of awareness towards integrated farming. • Improper nutrient management. • Citrus declining. • Lack of Orchard management	• 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	• Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming.	• Training on Orchard management. • Integrated nutrient & Pest management. • Creating awareness for adoption of integrated farming.
6	Khawzawl	Khawzawl	Rabung	Jhum paddy + Maize + Ginger + Vegetables	• Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming.	• 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	• Lack of Orchard management. • Improper nutrient management. • Lack of Disease and Pest management. • Lack of awareness towards integrated farming.	• 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	• 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.	• 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	• 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.	• 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	• 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.	• 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	• 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.	• 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	• 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.	• 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	• 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.	• 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. A. Details of target and achievements of mandatory activities by KVK during 2018-19

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	25	25
Soil Science	2	2	6	6	2	2	20	20
Plant Protection	3	3	9	9	2	2	20	20
Animal Science	2	Ongoing	13	-	1	1	10	10
Total	**11**	**9**	**40**	**27**	**9**	**9**	**100**	**100**

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**
Farmers	-	-	-	-	-	-	-	-
Rural youth	-	-	-	-	-	-	-	-
Extn. Functionaries	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-

Seed Production (ton.)		Planting material (Nos. in lakh)	
Target	**Achievement**	**Target**	**Achievement**
-	-	-	-

Note: Target set during last Annual Zonal Workshop

3. B. Abstract of interventions undertaken during 2018-19

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	Varietal evaluation	Rice	Lack of fine grain scented variety among the existing cultivar	Varietal evaluation of Rice var. KetkiJoha&BokuiJoha	Popularization of Groundnut Variety: GPBD-5	Package and practices of Groundnut cultivation	-	Field day	Seeds & fertilizers

2	ICM	Rice	Transplanting of old age seedlings and wider spacing leads low productivity of Rice	Comparative study of seedlings age and spacing in traditional Rice varieties.	Popularization of AP-3 with *Rhizobium* inoculation	Training on Rhizobium inoculation	-	Field day	Seeds & Rhizobium inoculation
1	Varietal evaluation	Garlic	Use of traditional varieties with low yield	Assessment of Garlic variety Yamuna Safed 8	Popularisation of garlic variety G-342	1. Scientific cultivation of garlic variety G-342 2. Post harvest management of Garlic	-	Field visits Training Field day	Seeds Pipes Sprinkler head Vermicompost (funded by NABARD)
2	Integrated crop management	Tomato	Use of traditional method of cultivation and low yield	Promotion on precision farming package for tomato variety ArkaSamrat	Popularization of Tomato variety ArkaSamrat	Scientific management of tomato cultivation	-	Field visits Training Field day	Seeds Pesticides Insecticides
	Nutrient Management	Paddy	Unaware and unutilization of biofertilizers	Popularisation of biofertilizers on growth ,yield and economics of rice(*Oryzasativa* L)		Nutrient management in Rice	-	Diagnostic visit, Training	Azotobacter-500 g Phosphate Solubilizing Bacteria (PSB)-500 g Vermicompost-100 kg
	Soil Conservation	Garden Pea	Non use of Paddy straw as a mulching material	Influence of Organic Mulches on Growth and Yield Components of pea		Soil Conservation measures	-	Diagnostic visit, Training	Seeds

	Nutrient Management	Grape	Low yield and poor quality of fruits		Potassium nutrition on yield and quality of Grapes variety *Bangalore blue*	Methods of fertilizer application in Grapes	-	Diagnostic visit, Training	MOP-1 bag &Agri 82 500 mL (1 no)
	Soil Management	Broccoli	Productivity of soils is declining due to depletion of organic matter caused by high cropping intensity		Effect of organic manures on growth and yield of Broccoli			Diagnostic visit	Seeds-2 pkt Azotobacter-500 g PSB-500 g, Vermicompost-3 bags
	Nutrient Management	Paddy	Unaware and unutilization of biofertilizers	Popularisation of biofertilizers on growth ,yield and economics of rice(*Oryzasativa* L)		Nutrient management in Rice		Diagnostic visit, Training	Azotobacter-500 g Phosphate Solubilizing Bacteria (PSB)-500 g Vermicompost-100 kg
	IPM	Tomato	Low yield due to infestation with white fly and thrips resulting in stunting,curling and drying of leaves and sometimes infected with virus		Integrated Pest Management of white fly and thrips in tomato	IPM of Tomato		Diagnostic visits, Farmers Scientist Interaction	Pesticides,yellow sticky traps and seeds

	IPM	Mustard	Low yield due to withering and stunting of plants,due to secretion of honey dew by aphids sooty molds grow and the infected plants look sickly and blighted in appearance		Integrated pest Management of Aphids (*Lipaphiser ysimi*) in Mustard.	Aphids management in winter vegetables		Diagnostic visits,FieldDays ,Farmer Scientist interaction,Farmers field school	Seeds,Biopesticides,Yellow sticky trap
	IDM	Tomato	Low yield due to drying of leaves ,stem and the fruit.	Integrated Disease Management of Late blight of tomato				Diagnostic visits,Farmer Scientist interaction	Seeds,Mulch film.
	Disease Management	Ginger	Low yield due to leaf spot which later coalese and form necrotic spots thus interferin g nutrient uptake by the plants	Management of Leaf spot of ginger		IPM in Ginger		Diagnostic visits,Training	Fungicides
	IDM	Paddy	Low yield due to chaffiness and sterility of grains due to sheath rot	Integrated Disease Management of sheath rot of Paddy		IPM in Paddy		Diagnostic visits,Training,Farmers Field School	Fungicides and Bio pesticides

	Breed Introduction	Poultry	Less knowledge of alternate source of meat and Egg	Introduction and Assessment of Turkey as alternate source of meat and Egg	Paddy cum fish culture-Common carps	Integration of fish in paddy fields	-	Field day	Poultry chicks, fish fingerlings
	Introduction	Poultry	Transplanting of old age seedlings and wider spacing leads low productivity of Rice	Introduction and Assessment of Japanese Quail.	-	-	-	Field Diagnostic visits,Training,Farmers	Day old quail chicks
1	Breed Introduction	Poultry	Less knowledge of alternate source of meat and Egg	Introduction and Assessment of Turkey as alternate source of meat and Egg	Paddy cum fish culture-Common carps	Integration of fish in paddy fields	-	FieldDiagnostic visits,Training,Farmers	Poultry chicks, fish fingerlings
2	Quail Introduction	Poultry	Less knowledge of alternate source of meat and Egg	Introduction and Assessment of Japanese Quail.	-	-	-	Field Diagnostic visits,Training,Farmers	Day old quail chicks

3.1 Achievements on technologies assessed and refined during 2018-19

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	1	-	-	-	-	-	-	-	-	1
Seed / Plant production			-	-	-	-	-	-	-	
Weed Management			-	-	-	-	-	-	-	
Integrated Crop Management	1		-	-	-	-	-	-	-	1
Integrated Nutrient Management	-	-	1	-	1	1	-	-	-	3
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	1	-	-	-	2	-	-	-	-	3
Resource conservation technology	1	-	-	-	-	-	-	-	-	1
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	
TOTAL	4		1		3	1				9

* *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					2					
Seed / Plant production										
Weed Management										
Integrated Crop Management					1					
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					3					

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

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

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

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitery	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management		2						
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL		2						

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

Sl. No.	Title of OFT	Problem Diagnosed	Name of Technology Assessed	Crop/Cropping system/ Enterprise	No. of Trials	Results of Assessment/ Refined (Data on the parameter should be provided)	Feedback from the farmer	Feedback to the Researcher	B:C Ratio (if applicable)
1	Assessment of Garlic variety Yamuna Safed - 8	Cloves sizes were good only in the field where there was soil rich in nutrients and good source of water throughout the cropping period.	Varietal evaluation	Garlic	3	*Height (cm)* Yamuna Safed 8– 27.5cm Local – 30cm *No of cloves per bulb:* Yamuna Safed 8 – 31 Local – 26 *Clove weight (g)* Yamuna Safed 8 – 46.8 Local – 30 *Duration:* Yamuna Safed 8 – 155 days Local – 170 days *Yield per hectare* Yamuna Safed 8 – 66.8q/ha Local –51.4q/ha	Flavor and taste is preferred by the consumers but requires high nutrients soil and regular irrigation at least twice in a week.	More research on value addition	Technology: 2.4 Local: 1.8
2	Promotion on precision farming package for tomato variety	Use of traditional method of cultivation	Integrated crop management	Tomato	3	*Plant height :* Technology : 62cm local :56 cm *No of fruit:* Technology - 78 Local :65	Farmers got higher yield as compare to traditional way of cultivation and	Shelf life and performance is very good during rainy season. Can be recommended for further cultivation.	Technology: 3.3 Local :2.5

	ArkaSamrat					*Fruit weight (g):* Technology - 73g Local – 70g *Yield/ha (Q):* Technology - 340 Local – 258	recommended for the farmers		
3	Popularisation of biofertilizers on growth ,yield and economics of rice(*Oryzas ativa* L)	Unaware and unutilization of biofertilizers	**TO1-**Azotobacter-5kg/ha+ Phosphate Solubilizing Bacteria (PSB)-5kg/ha +Vermicompost @ 5t/ha **TO2**-Farmer practice (No treatment)	Rice	3	**Technology** 1.Soil fertility status (kg/ha) Nitrogen-208 Phosphorus-16.85 Potassium-140.91 2. Yield (q/ha)-39.87 **Farmer Practice** 1.Soil fertility status Nitrogen-183.9 Phosphorus-12.31 Potassium-126.89 3. Yield (q/ha)-36.24	Although the farmers prefer biofertilizers, source of this biofertilizers in this coming year is doubtful to them.	Site specific biofertilizers is preferable for better performance	Technology : 2.2 Farmer practice : 2.0
4	Influence of Organic Mulches on Growth and Yield Components of pea	Non use of Paddy straw as a mulching material	**TO1**-Mulching material-Paddy straw **TO2**-Farmer practice (No mulching)	Garden Pea	3	**Technology** 1.Soil fertility status Nitrogen-256.1 Phosphorus-27.31 Potassium-171.3 2.Yield (q/ha)- **Farmer Practice** 1.Soil fertility status	Fail (Rotting of seeds before germination due to excessive moisture)		

						Nitrogen-203.9 Phosphorus-18.76 Potassium-132.46 3. Yield (q/ha)-			
5	Integrated Disease Management of sheath rot (*Sclaroclad iumoryzae*) of Paddy	Low yield due to chaffiness and sterility of grains due to sheath rot	Foliar spray of *P.flourescens* @ 0.2% concentration commencing from 45 DAT at 10 days interval for 3 times -Seed treatment with Mancozeb -Spraying with Mancozeb 75% WP @100 mg/L1st spray at the time of disease appearance and 2nd spray 15 days later -At sooting stage, foliar spray with carbendazim @ 500 g/ha	Paddy	3	***TO 1*** ***Treated*** 1)No of infected plants at ten days interval-15% 2)Disease incidence (%)-28% 3) Yield q/ha-35.5 ***TO 2*** ***Farmers practice*** 1) No of infected plants at ten days interval-53% 2)Disease incidence (%)-72% 3) Yield q/ha-24.9	Comment on shortfall of *P.flourescens*for regular use.		TO 1 - 1.93 TO 2 - 1.57
6	Management of leaf spot (*Phyllostict azingziberi*)of ginger	Low yield due to leaf spot which later coalese and form necrotic spots thus interfering nutrient uptake by the plants	1)Spraying with hexaconazole @ 1.5 g/L of water at the appearance of diseases followed by three foliar sprays at 20 days interval	Ginger	3	**To 1** Treated 1)No of infected plants at ten days interval-13% 2)Disease incidence (%)-23% 3) Yield q/ha-85.3 **To 2** Farmers practice	Ridomil Gold ®is preferred by the farmers but cost is higher		TO 1-2.32 TO 2 -1.98

						1)No of infected plants at ten days interval-45% 2)Disease incidence (%)-63% 3) Yield q/ha-61.3			
7	Integrated Disease Management of Late blight of tomato (*Phytophthorasp*)	Low yield due to drying of leaves ,stem and the fruit.	1) Raising the crop in raise beds with plastic mulch. 2) Nursery bed treatment with *Trichodermaherzianum* (0.5%) 3) Protective spraying with Copper oxy chloride @ 2 g/L	Tomato	3	**To 1** **Treated** 1)No of infected plants at ten days interval-5% 2)Disease incidence (%)-17% 3) Yield q/ha-260.1 **<u>To 2</u>** **<u>Farmers practice</u>** 1) No of infected plants at ten days interval-30% 2)Disease incidence (%)-60% 3) Yield q/ha-155.2 qt	Insect and tomato pin worm population augmented due to plastic mulch		TO 1-2.60 TO 2 -1.82
8	Varietal evaluation of Rice var. KetkiJoha& BokuiJoha RARS Titabor-2012	Lack of fine grain scented variety among the existing cultivar	KetkiJoha&BokuiJoha	Rice	3	No. of hills / sqm KetkiJoha: 16 BokuiJohsa: 16 No. of tillers / hill KetkiJoha – 14 BokuiJoha - 15 No. of effective tillers/ sq m KetkiJoha- 190 BokuiJoha– 208			Failed 2.05 check

						No. of grains / panicle KetkiJoha– BokuiJoha – Yield/ha KetkiJoha – BokuiJoha – **Farmer Practice** Yield- 35.80			
9	Comparative study of seedlings age and spacing in traditional Rice varieties. AAU 2012	Transplanting of old age seedlings and wider spacing leads low productivity of Rice	Seedling age at 25& 30 DAS Spacing: 25x15 cm & 30x15 cm	Rice	3	1. No. of hills / sq m TO 1: 16 TO 2: 16 2. No. of tillers / hill TO 1 – 16 TO 2 - 14 3. No. of effective tillers/ sq m TO 1- 212 TO 2 – 201 4. No. of grains / panicle TO 1 – 218 TO 2 - 204 5. Yield/ha TO 1 – 39.30 TO 2 - 36.50 **Farmer Practice** Yield- 35.25			TO 1: 2.15 TO 2: 2.10 Check: 2.02
1	Introduction and Assessment of Turkey as alternate source of meat and	Less knowledge of alternate source of meat and Egg	Meat and egg production	Turkey	6	**Technology (Avg Weight/bird)** **Weight at different intervals:** 1.Wt./chick Day Old - 38gms 2. 2weeks-154gms	On going	The mortality was high due to lack of good Transport facility	Yet to be estimated

	Egg					3. 4weeks-266gms 4. 8weeks-675 gms 5. 12weeks-1.180gms 6. 16weeks-1.95kgs 7.20weeks-2.45kgs 8. 24 Weeks- 3.5Kgs **2.Age at laying:** Laying not started **Mortality: *19** * High due to transportation 1.Wt./chick Day Old - *19 2. 2weeks-7 3. 4weeks-5 4. 8weeks-3 5. 12weeks-1 6. 16weeks-nil 7.20weeks-nil 8. 24 Weeks- nil			
2	Introduction and Assessment of Japanese Quail.	Less knowledge of alternate source of meat and Egg	Meat and egg production	Japanese Quail	10	Age at first laying- Weight at first egg laying- Mortality- 1.Avg. Age at First Laying- 8-9weeks 2.Weight at first laying- 175gms 3.Mortality till maturity- 10	The laying capacity has impressed the farmers	Selling of Eggs @ Rs.15-20per egg has given farmers an ample source of income, some farmers are getting ready for large scale adoption and production, can be proposed for FLD	1:3

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 2018-19

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	Tomato	Popularization of Tomato variety ArkaSamrat	4	10	4
2	Garlic	Popularisation of Garlic variety G- 282	6	15	5
3	Tomato	Integrated Pest Management of white fly in tomato	4	10	4
4	Mustard	Integrated pest Management of Aphids (*Lipaphiserysimi*) in Mustard.	5	10	4
5	Fish	Paddy cum fish culture-Common carps	1	20	15

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

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
												N	P	K
					Proposed	Actual	SC/ST	Others	Total					
1.	Garlic	Varietal evaluation	Popularisation of garlic variety G-282	Rabi, 2018-2019	5	5	15		15		Irrigated/Sandy	234	24	184
2.	Tomato	Varietal evaluation	Popularization of Tomato variety ArkaSamrat	Summer, 2018	4	4	10		10		Rainfed/Sandy	256	29	210
3	Grape	Nutrient management	Potassium nutrition on yield and quality of grapes variety Bangalore Blue	Kharif-2018-2019	5	5	10		10		Rainfed/Sandy Latitude-$23^0$45'02"N Longitude-$93^0$33'87"E Altitude-1308 M	212.8	17.39	150.4
4	Broccoli	Soil Management	Effect of organic manures on growth and yield of Broccoli	Rabi-2018-2019	2	2	10		10		Rainfed/Sandy Latitude-$23^0$45'48"N Longitude-$93^0$26'75"E Altitude-773 M	229.1	17.87	153.7

5	Tomato	Integrated Pest management of white fly in Tomato	1) Installation of yellow 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 2018-February 2019	4	4	10		10		Rainfed/Sandy			
6	Mustard	IPM of Aphids (*Lipaphiser ysimi*) in Mustard	1)Setting up of yellow sticky traps @ 12 No/ha 2)Spraying with neem oil 3% from 2^{nd} -3^{rd} week of Dec 3)ETL based spraying with dimethoate @ 625-1000ml/ha /imidaclopri d @1 ml/lt of water	Oct 2018-February 2019	4	4	10		10		Rainfed/Sandy			
7	Groundnut	Varietal Evaluation	Popularization of Groundnut Variety: GPBD-4	Kharif-2018	2.5	2.5	10	-	10	-	Rainfed/Sandy	210	14	115

8	Field Pea	INM	Popularization of AP-3 with *Rhizobium* inoculation	Rabi-2018-19	5	5	20	-	20	-	Rainfed/Sandy	232	17	120
9	1.Paddy cum Fish Culture	Integration	Integration of fast growing fish breed (common carp) at paddy field	2018	20	20	20	The demonstration has changed the way of farmers thinking in terms of extra income	20	Avg farmers land holding is less	Rain fed			

c. Performance of FLD on Crops during 2018-19

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.		Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)			
				Demo.	Check		H*	L*	Demo	Local	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
1	Tomato	Varietal evaluation	4	320	250	28	350	243	-	-	206451	640000	433549	3.1	206451	500000	206451	2.4
2	Garlic	Varietal evaluation	5	63.8	53	20.3	71	56	-	--	138095	319000	180905	2.31	138095	265000	126905	1.9

3	Grapes	Nutrient Management	5	73	59	23.72	79	67	-	-	87,100	2,76,500	1,89,400	3.1	81,000	2,06,500	1,25,500	2.5
4	Broccoli	Soil Management	2	61	54	12.96	65	58	-	-	1,10,000	3,25,000	2,15,000	2.9	98,500	2,55,000	1,56,500	2.5
5	Tomato	IPM	4	261.5	186	40.86	262	186	Pest Incidence – 20 %	Pest Incidence – 63 %	2,00,000/-	5,24,000/-	3,24,000/-	2.62	1,70,000/-	3,72,000/-	2,02,000/-	2.18
6	Mustard	IPM	4	37	26	49.23	38.8	35.2	Pest Incidence – 14 %	Pest Incidence – 71 %	31,040/-	77,600/-	46,560/-	2.5	28,000/-	52,000/-	24,000/-	1.85
7	Groundnut	Varietal Evaluation	2.5	8.50	NA	NA	8.80	6.25	-	-	37850	85000	47150	2.25	NA	NA	NA	NA
8	Field Pea	INM	5	24.25	18.20	20.60	14.20	31.07	-	-	36430	91000	54570	2.50	31480	65250	33770	2.07

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

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

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

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

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

d. Extension and Training activities under FLD on Crops

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days	6	29/11/2018 24/1/2019 15/2/2019 9/11/2018 3/12/2019 15/2/2019	-	144	144	
2	Farmers Training	11	16/11/2018 7/12/2018 12/01/2019 25/06/18 12/10/18 15/10/18 18/10/18 6/06/18 2/10/18 19/10/18 16/11/18		500	500	
3	Media coverage	3	6/06/18 29/11/2018 12/01/2019				
4	Training for extension functionaries	-	-		-	-	
5	Any other (Pl. specify)	-	-		-	-	
	Total	**17**			**644**	**644**	

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 finger lings	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	Fishery	Integrated farming system	Paddy cum Fish culture	20	20	6000	1.Weight of fish at harvesting time 2.Extra income generated 450g (Avg)		80%	Income from sale of fish-Rs. 45,000 Income from Fingerlings production-Rs.30,000	Paddy-35,000	30000	1,10,000	45,000	1:3.66					Farmers has mastered the art of Breeding CARPS. Through this Farmers has found a new source of income by selling fingerlings

(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	

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

(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
1	Tomato	ArkaSamrat	4	10	320	250	28	350	243	206451	640000	433549	3.1	206451	500000	206451	2.4

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 2018-19

3.3.1. Farmers and Farm Women in On Campus including Sponsored On Campus Training Programmes (*Sp. On means On Campus training programmes sponsored by external agencies)

Thematic area	No. of Trainings (Courses)			Participants																		
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On-Campus (1)	Spon On* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	Grand Total (x + y)
I. Crop Production																						
Weed Management	1	-	1	-	-	-	-	-	-	22	-	05	-	27	-	22	-	05	-	25	-	25
Resource Conservation Technologies		1	1								27		8		35							35
Cropping Systems																						
Crop Diversification	1	-	1	-	-	-	-	-	-	25	-	05	-	30	-	25	-	05	-	30	-	30
Integrated Farming																						
Water																						

management																						
Seed production	1	-	1	-	-	-	-	-	-	23	-	05	-	28	-	23	-	05	-	28	-	28
Nursery management																						
Integrated Crop Management																						
Fodder production																						
Production of organic inputs	1	1	2							17	32	10	10	27	42							69
II. Horticulture																						
a) Vegetable Crops																						
Production of low volume and high value crops																						
Off-season vegetables	1		1							20		20		40		20		20		40		40
Nursery raising																						
Exotic vegetables like Broccoli	1		1							20		10		30		20		10		30		30
Export	1		1							40		20		60		40		20		60		60

potential vegetables																						
Grading and standardizatio n																						
Protective cultivation (Green Houses, Shade Net etc.)																						
b) Fruits																						
Training and Pruning	1									20		10		30		20		10		30		30
Layout and Management of Orchards																						
Cultivation of Fruit	1									20		10		30		20		10		30		30
Management of young plants/orchard s																						
Rejuvenation of old orchards																						
Export potential fruits																						
Micro irrigation																						

systems of orchards																					
Plant propagation techniques																					
c) Ornamental Plants																					
Nursery Management																					
Management of potted plants																					
Export potential of ornamental plants																					
Propagation techniques of Ornamental Plants																					
d) Plantation crops																					
Production and Management technology																					
Processing and value addition																					
e) Tuber crops																					

Production and Management technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					
Production and management technology																					
Post harvest technology and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management		3	3								57		12		69						69
Soil and Water Conservation																					

Integrated Nutrient Management	1	1	2							20	27	05	13	25	40	20		05		25		65
Production and use of organic inputs		1	1								23		10		33							33
Management of Problematic soils		1	1								17		8		25							25
Micro nutrient deficiency in crops																						
Nutrient Use Efficiency																						
Soil and Water Testing	1	1	2							25	36	8	9	33	45							78
IV Livestock Production and Management																						
Dairy Management	1	-	1							35		10		45		35			10		45	45
Poultry Management	2		2							40		25		65			40	25				65
Piggery Management	2		2							35 42		10 8		45 50		35 42			10 8			45 50
Rabbit Management																						

Disease Management	2		1							30		3		33		30			3			33
Feed management	3		3							25		6		31		25			6			31
Production of quality animal products																						
V Home Science/Women empowerment																						
Household food security by kitchen gardening and nutrition gardening																						
Design and development of low/minimum cost diet																						
Designing and development for high nutrient efficiency diet																						
Minimization of nutrient loss in processing																						
Gender																						

mainstreaming through SHGs																					
Storage loss minimization techniques																					
Value addition																					
Income generation activities for empowerment of rural Women																					
Location specific drudgery reduction technologies																					
Rural Crafts																					
Women and child care																					
VI Agril. Engineering																					
Installation and maintenance of micro irrigation systems																					
Use of Plastics in farming																					

practices																					
Production of small tools and implements																					
Repair and maintenance of farm machinery and implements																					
Small scale processing and value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management	3		3							45		22		67		45		22		67		67
Integrated Disease Management	2		2							61		19		80		61		19		80		80
Bio-control of pests and diseases																					
Production of bio control agents and bio pesticides	2		2							54		6		60		54		6		60		60

VIII Fisheries																						
Integrated fish farming																						
Carp breeding and hatchery management																						
Carp fry and fingerling rearing																						
Composite fish culture																						
Hatchery management and culture of freshwater prawn																						
Breeding and culture of ornamental fishes																						
Portable plastic carp hatchery																						
Pen culture of fish and prawn																						
Shrimp farming																						
Edible oyster																						

farming																					
Pearl culture																					
Fish processing and value addition																					
IX Production of Inputs at site																					
Seed Production																					
Planting material production																					
Bio-agents production																					
Bio-pesticides production																					
Bio-fertilizer production																					
Vermi-compost production		1	1								62		25		87						87
Organic manures production																					
Production of fry and fingerlings																					

Production of Bee-colonies and wax sheets																					
Small tools and implements																					
Production of livestock feed and fodder																					
Production of Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and Management of SHGs																					
Mobilization of social capital																					
Entrepreneurial development of farmers/youths																					
WTO and IPR																					

issues																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming Systems																					
TOTAL																					

3.3.2. Achievements on Training of <u>Farmers and Farm Women</u> in <u>Off Campus</u> including <u>Sponsored Off Campus</u> Training Programmes (*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	**No. of Trainings (Courses)**			**Participants**																		**Grand Total**
				General						**SC/ST**						**Total**						
				Male		**Female**		**Total**		**Male**		**Female**		**Total**		**Male**		**Female**		**Total**		
	Off	**Sp Off***	**Total**	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	**Off**	**Sp Off***	
I. Crop Production																						

Weed Management																					
Resource Conservation Technologies		1	1								19		7		26						26
Cropping Systems																					
Crop Diversification	4	-	4	-	-	-	-	-	-	86	-	19	-	105	-	86	-	19	-	105	-	105
Integrated Farming																					
Water management																					
Seed production																					
Nursery management																					
Integrated Crop Management																					
Fodder production																					
Production of organic inputs																					

II. Horticulture																					
a) Vegetable Crops																					
Production of low volume and high value crops																					
Off-season vegetables																					
Nursery raising	1(5)									20		10		30		20		10		30		30
Exotic vegetables like Broccoli																					
Export potential vegetables																					
Grading and standardizatio n																					
Post harvest management of Garlic	2(3)									40		20		60		40		60		60		60
b) Fruits																					
Training and Pruning																					
Layout and Management																					

of Orchards																					
Cultivation of Fruit																					
Management of young plants/orchards																					
Rejuvenation of old orchards																					
Export potential fruits																					
Micro irrigation systems of orchards																					
Plant propagation techniques																					
c) Ornamental Plants																					
Nursery Management																					
Management of potted plants																					
Export potential of ornamental																					

plants																					
Propagation techniques of Ornamental Plants																					
d) Plantation crops																					
Production and Management technology																					
Processing and value addition																					
e) Tuber crops																					
Production and Management technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value addition																					
g) Medicinal and Aromatic Plants																					

Nursery management																					
Production and management technology																					
Post harvest technology and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management																					
Soil and Water Conservation																					
Integrated Nutrient Management																					
Production and use of organic inputs		1(2)	1(2)							19		10		29							29
Management of Problematic soils																					
Micro nutrient deficiency in crops																					
Nutrient Use																					

Efficiency																					
Soil and Water Testing																					
IV Livestock Production and Management																					
Dairy Management																					
Poultry Management																					
Piggery Management																					
Rabbit Management																					
Disease Management																					
Feed management																					
Production of quality animal products																					
V Home Science/Women empowerment																					
Household food security by kitchen gardening and nutrition																					

gardening																					
Design and development of low/minimum cost diet																					
Designing and development for high nutrient efficiency diet																					
Minimization of nutrient loss in processing																					
Gender mainstreaming through SHGs																					
Storage loss minimization techniques																					
Value addition																					
Income generation activities for empowerment of rural Women																					

Location specific drudgery reduction technologies																					
Rural Crafts																					
Women and child care																					
VI Agril. Engineering																					
Installation and maintenance of micro irrigation systems																					
Use of Plastics in farming practices																					
Production of small tools and implements																					
Repair and maintenance of farm machinery and implements																					
Small scale processing and																					

value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management	2		2							42		8		50		42		8		50		50
Integrated Disease Management		1	1								25		5		30		25		5		30	30
Bio-control of pests and diseases																						
Production of bio control agents and bio pesticides	3		3							54		27		81		54		27		81		81
VIII Fisheries																						
Integrated fish farming																						
Carp breeding and hatchery management																						
Carp fry and fingerling rearing																						

Composite fish culture																					
Hatchery management and culture of freshwater prawn																					
Breeding and culture of ornamental fishes																					
Portable plastic carp hatchery																					
Pen culture of fish and prawn																					
Shrimp farming																					
Edible oyster farming																					
Pearl culture																					
Fish processing and value addition																					
IX Production of Inputs at site																					
Seed Production																					

Planting material production																					
Bio-agents production																					
Bio-pesticides production																					
Bio-fertilizer production																					
Vermi-compost production																					
Organic manures production																					
Production of fry and fingerlings																					
Production of Bee-colonies and wax sheets																					
Small tools and implements																					
Production of livestock feed and fodder																					
Production of																					

Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and Management of SHGs																					
Mobilization of social capital																					
Entrepreneurial development of farmers/youths																					
WTO and IPR issues																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming																					

Systems																						
TOTAL																						

(B) RURAL YOUTH

3.3.3. Achievements on Training Rural Youth in On Campus including Sponsored On Campus Training Programmes

(*Sp. On means On Campus training programmes sponsored by external agencies)

Thematic area	No. of Trainings (Courses)			Participants																		Grand Total (x + y)
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On (1)	Sp On* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	
Mushroom Production	1	1	2							8	9	8	7	16	16	8	9	8	7	16	16	32
Bee-keeping	1	1	2							17	15	3	5	20	20	17	15	3	5	20	20	40
Integrated farming																						
Seed production																						
Production of		1(3)	1(3)								12		3		15		12		3		15	15

organic inputs																						
Integrated Farming																						
Planting material production																						
Vermi-culture		1(5)	1(5)								9		6		15							15
Sericulture																						
Protected cultivation of vegetable crops																						
Commercial fruit production	1									20		10		30		20		10		30		30
Repair and maintenance of farm machinery and implements																						
Nursery Management of Horticulture crops	1									10		20		30		10		20		30		30
Training and pruning of orchards																						

Value addition																						
Production of quality animal products																						
Dairying																						
Sheep and goat rearing																						
Quail farming	1		1							15	3			18		15		3		18		18
Piggery																						
Rabbit farming																						
Poultry production																						
Ornamental fisheries																						
Para vets																						
Para extension workers																						
Composite fish culture																						
Freshwater prawn culture																						
Shrimp farming																						
Pearl culture																						

Cold water fisheries																					
Fish harvest and processing technology																					
Fry and fingerling rearing																					
Small scale processing																					
Post Harvest Technology																					
Tailoring and Stitching																					
Rural Crafts																					
TOTAL																					

3.3.4. Achievements on Training of Rural Youth in Off Campus including Sponsored Off Campus Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	No. of Trainings (Courses)			Participants																			Grand Total
				General						SC/ST						Total							
				Male		Female		Total		Male		Female		Total		Male		Female		Total			
	Off	Sp Off	Total	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*		
Mushroom Production																							
Bee-keeping																							
Integrated farming	1		1							17		4		21		17		4		21		21	
Seed production																							
Production of organic inputs																							
Integrated Farming																							
Planting material production																							
Vermi-culture		1(3)	1(3)								10		5		15								15

Sericulture																					
Protected cultivation of vegetable crops																					
Commercial fruit production																					
Repair and maintenance of farm machinery and implements																					
Nursery Management of Horticulture crops																					
Training and pruning of orchards																					
Value addition																					
Production of quality animal products																					
Dairying																					
Sheep and goat rearing																					

Quail farming																					
Piggery																					
Rabbit farming																					
Poultry production																					
Ornamental fisheries																					
Para vets																					
Para extension workers																					
Composite fish culture																					
Freshwater prawn culture																					
Shrimp farming																					
Pearl culture																					
Cold water fisheries																					
Fish harvest and processing technology																					
Fry and fingerling rearing																					

Small scale processing																						
Post Harvest Technology																						
Tailoring and Stitching																						
Rural Crafts																						
TOTAL	1	1	2							17	10	4	5	21	15	17		4		21		36

C. Extension Personnel

3.3.5. Achievements on Training of Extension Personnel in On Campus including Sponsored On Campus Training Programmes

(*Sp. On means On Campus training programmes sponsored by external agencies)

Thematic area	**No. of Trainings (Courses)**			**Participants**																		**Grand Total (x + y)**
				General						**SC/ST**						**Total**						
				Male		**Female**		**Total**		**Male**		**Female**		**Total**		**Male**		**Female**		**Total**		
	On (1)	**Sp On* (2)**	**Total (1+2)**	**On (4)**	**Sp. On (5)**	**On (6)**	**Sp. On (7)**	**On (a= 4+6)**	**Sp. On (b= 5+7)**	**On (8)**	**Sp. On (9)**	**On (10)**	**Sp. On (11)**	**On (c= 8+10)**	**Sp. On (d= 9+11)**	**On (4+8)**	**Sp. On (5+9)**	**On (6+10)**	**Sp. On (7+11)**	**On (x= a +c)**	**Sp. On (y= b +d)**	
Productivity enhancement in field crops	1		1							9		2		11		9		2		11		11

Integrated Pest Management	1		1							22		3		25		22		3		25		25
Integrated Nutrient management																						
Rejuvenation of old orchards																						
Protected cultivation technology																						
Formation and Management of SHGs																						
Group Dynamics and farmers organization																						
Information networking among farmers																						
Capacity building for ICT application																						
Care and maintenance of farm machinery and																						

implements																					
WTO and IPR issues																					
Management in farm animals																					
Livestock feed and fodder production	1		1							8		2		10		10		2			10	10
Household food security																					
Women and Child care																					
Low cost and nutrient efficient diet designing																					
Production and use of organic inputs																					
Gender mainstreaming through SHGs																					

3.3.6. Achievements on Training of Extension Personnel in Off Campus including Sponsored Off Campus Training Programmes

(*Sp. Off means Off Campus training programmes sponsored by external agencies)

Thematic area	No. of Trainings (Courses)			Participants																		Grand Total
	Off	Sp Off*	Total	General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
				Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	
Productivity enhancement in field crops																						
Integrated Pest Management																						
Integrated Nutrient management																						
Rejuvenation of old orchards	1									8		2		10		8		2		10		10
Protected cultivation technology																						
Formation and Management of SHGs																						
Group Dynamics and farmers																						

organization																					
Information networking among farmers																					
Capacity building for ICT application																					
Care and maintenance of farm machinery and implements																					
WTO and IPR issues																					
Management in farm animals																					
Livestock feed and fodder production																					
Household food security																					
Women and Child care																					
Low cost and nutrient efficient diet designing																					

Production and use of organic inputs		1(2)	1(2)							23		7		30							30
Gender mainstreaming through SHGs																					
TOTAL	1	1	1						8	23	2	7	10	30	8		2		10		40

Note: Please furnish the details of above training programmes as <u>Annexure</u> in the proforma given below

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
Hort	Cultivation of fruit crops	Improved production technology in mandarin orange	14-16/5/2018	3	KVK training hall	Farmer and Farm women				20	10	30	20	10	30
	Export potential	Scientific management of Ginger	8-11/8/2018	3	KVK training hall	Farmer and Farm women				20	10	30	20	10	30
	Integrated crop management	Improved production technology tomato crop	8—10/5/2018	3	KVK training hall	Farmer and Farm women				20	10	30	20	10	30
	Exotic vegetables	Scientific cultivation of broccoli	5-7/11/2018	3	KVK training hall	Farmer and Farm women				20	10	30	20	10	30
	Citrus rejuvenation	Rejuvenation of citrus orchard	16-17/11/2018	3	KVK training hall	Extension personnel				8	2	10	8	2	10
	Nurser raising	Nursery management of horticultural crop	8-10/5/2018	3	KVK training hall	Rural youth				20	10	30	20	10	30
Soil Sc.	Soil Conservation	Soil and water conservation Technologies	10-12.04.18	3 days	KVK Training Hall	Extension Personnel				23	7	30			30
	Vermiculture	Vermicomposting	14-16.05.18	3 days	KVK Training Hall	Rural Youth				9	6	15			15
	Vermicult	Vermicomposti	4-6.06.18	3 days	KVK Training	Farmer & Farm women				62	25				87

	ure	ng			Hall										
	Soil testing	Soil & water testing	24-26.04.18	3 days	KVK Training Hall	Farmer & Farm women				25	8	33			33
	Soil testing	Soil & water testing	8-10.05.18	3 days	KVK Training Hall	Farmer & Farm women				36	9	45			45
	Soil Management	Management of problematic soils	18-20.06.18	3 days	KVK Training Hall	Farmer & Farm women				17	8	25			25
	Organic inputs	Production and use of organic inputs	15-17.07.18	3 days	KVK Training Hall	Farmer & Farm women				23	10	33			33
	INM	INM in major crops	13-15.08.18	3 days	KVK Training Hall	Farmer & Farm women				27	13	40			40
	Soil management	Soil fertility management	27-29.08.18	3 days	KVK Training Hall	Farmer & Farm women				57	12	69			69
	conservation	Resource conservation technologies	24-26.09.18	3 days	KVK Training Hall	Farmer & Farm women				27	8	35			35
	Organic inputs	Production and use of organic inputs	22-24.10.18	3 days	KVK Training Hall	Farmer & Farm women				17	10	27			27
PP	IPM	Pest and disease management of Ginger	2/8/18	1 day	KVK,Training Hall ,Khawzawl	Farmer & Farm women				27	2	29	27	2	29

	IPM	Pest and disease management of paddy	1/8/18 and 13/8/18	1 day each	KVK,Training Hall ,Khawzawl.	Farmer & Farm women				18	20	38	18	20	38
	Mushroom Cultivation	Vocational training on Mushroom Cultivation	19/9/18 to 20/9/2018	2 days	KVK,Training Hall ,Khawzawl	Farmer & Farm women				54	6	60	54	6	60
	IDM	Soil borne diseases and its management	5/9/18-6/9/18	2 days	KVK,Training Hall ,Khawzawl	Farmer & Farm women				61	19	80	61	19	80
	Mushroom Cultivation	Vocational training on Mushroom Cultivation (STRY)	25/2/2019-2/3/19	6 days	KVK,Training Hall ,Khawzawl	RY				9	7	16	9	7	16
	Mushroom Cultivation	Vocational training on Mushroom Cultivation	11/3/19-12/3/19	2 days	KVK,Training Hall ,Khawzawl	RY				8	8	16	8	8	16
	Organic Pesticides	Vocational training on Organic pesticides	14/3/19-15/3/19	2 days	KVK,Training Hall ,Khawzawl	RY				17	3	20	17	3	20
	Organic Pesticides	Vocational training on Organic	16/3/19	1 day	KVK,Training Hall	RY				15	5	20	15	5	20

		pesticides			,Khawzawl											
	IDM	Soil borne diseases and its management	5/3/18-6/3/18	2 days	KVK,Training Hall ,Khawzawl	RY				12	3	15	12	3	15
	IPM	IPM on paddy	13/6/18	1 day	KVK,Training Hall ,Khawzawl	EP				22	3	25	22	3	25
Agro	Weed Management	Chemical weed management in rice	08. 6.18	3	KVK Training Hall	Farmers & Farm women	-	-	-	20	05	25	20	05	25
	Seed Production	Package of practices for cultivation of groundnut	23. 6.18	2	KVK Training Hall	Farmers & Farm women	-	-	-	23	07	30	23	07	30
	Productivity enhancement in field crops	Role of Quality seeds & Rhizobium inoculation for enhancing Field pea production	21. 9.18	1	KVK Training Hall	Extension Personnel	-	-	-	09	02	11	09	02	11
	Seed Production	Package of practices for Field Pea cultivation	23. 6.18	2	KVK Training Hall	Farmers & Farm women	-	-	-	23	05	28	23	05	28
	INM	Benefits of *Rhizobium* inoculation in pulses	26.10.18	3	KVK Training Hall	Farmers & Farm women	-	-	-	21	4	25	21	4	25

Animal Sc	Dairy Management	1.Enrichment of hay as feed for dairy 2.Maize as fodder production	6/06/18 18/01/19	1 1		Farmer & Farm women Farmer & Farm women				35	10	45	35	10	45
	Poultry Management	Backyard Poultry Management	2/10/18 14/11/18	2		Farmer & Farm women				40	25	65	40	25	65
	Piggery Management	Vaccination and deworming schedule in Pigs	19/10/18 16/11/18	1 1		Farmer & Farm women Farmer & Farm women				35 42	10 8	45 50	35 42	10 8	45 50
	Disease Management	Importance of Vaccination in Farm animals	11/03/19	1		Farmer & Farm women				30	3	33	30	3	33
	Feed management	Feed and fodder production	7/12/18	1+1		Farmer & Farm women EP				25 8	6 2	31 10	25 8	6 2	31 10
	Qual Farming	Backyar quail farming	12/02/19	1		RY				15	3	18	15	3	18

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
Horticulture	Pruning and training	Pruning and training in kiwi	14-16. 2.2019	3	Neihdawn	FA & FW				20	10	30	20	10	30
	Export potential	Improved production technology of garlic and onion	4-6/2/2019	3	Tuipui	FA & FW				20	10	30	20	10	30
	Nursery raising	Nursery raising of winter vegetables	9-10/11/2018	2	Chawnngtlai	FA & FW				20	10	30	20	10	30
Soil Science	Vermiculture	Vermicomposting	2-4.10.18	3	KVK Training Hall	RY				10	5	15			15
	Conservation	Resource conservation technologies	13-15.11.18	3	KVK Training Hall	FA & FW				19	7	26			26
	Organic inputs	Production and use of organic inputs	22-24.01.19	3	KVK Training Hall	FA & FW				19	10	29			29
Plant Protection	IPM	IPM and safety use of pesticides	5/11/18	1	Mualkawi	FA & FW				21	9	30	21	9	30
	IPM	IPM in paddy	14/8/18	1	Vankal	FA & FW				18	2	20	18	2	20
	Mushroom	Mushroom Cultivation(Chinese method)	5-7/11/18	2	Mualkawi	FA & FW				21	9	30	21	9	30

	IPM	IPM in Tomato	16/11/18	1	Ruantlang	FA & FW				25	5	30	25	5	30
Agronomy	Weed Mngt	Scientific & economic use of Herbicide	27/04/18	2	YMA Hall Chawngtlai	RY				17	04	21	17	04	21
	Crop Production	Package of practices for cultivation of groundnut	25.6.18	2	YMA Hall Ruantlang	Farmer & Farm women	-	-	-	20	05	25	20	05	25
	INM	Advantage of Field Pea cultivation with *Rhizobium* inoculation	12. 10.18	2	Vengsang	Farmer & Farm women				21	04	25	21	04	25
	INM	Benefits of *Rhizobium* inoculation in Field Pea	15.10.18	2	Tlangsam	Farmers & Farm women	-	-	-	18	07	25	18	07	25
	INM	Benefits of *Rhizobium* inoculation in Field Pea	18.10.18	2	Tuipui	Farmer & Farm women				25	05	30	25	05	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	
Tomato, garlic khasi mandarin, grape	14-16.5.2018	3	Commercial cultivation of major fruits and vegetable					20	10	30	20	10	30					-
Vermiculture	1-5.10.18	5	Vermiculture	Vermicomposting				9	6	15	9	6	15					
Vermiculture	4-11/03.19	6	Vermiculture	Vermicomposting				10	5	15	10	5	15					

*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		
Off	F/FW	20-22.3.2019	3	Hort	Post harvest management	Post harvest management of Garlic				40	20	60	40	20	60	NABARD	25,000
On	EP	24-26.09.18	3	Soil Sc	Soil conservation	Soil conservation measures				27	8	35	27	8	35	SIRD	
Vocational	RY	2-4.10.18	3	Soil Sc	Vermiculture	Vermicomposting				9	6	15	9	6	15	FIWDC	
On	RY	14-16.05.18	3	Soil Sc	Vermiculture	Vermicomposting				10	5	15	10	5	15	NABARD	
On	F/FW	13-15.08.18	3	Soil Sc	INM	INM in major crops				27	13	40	27	13	40	SIRD	
On	F/FW	18-20.06.18	3	Soil Sc	Soil amendment	Management of problematic soil				17	8	25	17	8	25	ATMA	
Off	F/FW	4-6.06.18	3	Soil Sc	Vermiculture	Vermicomposting				62	25	87	62	25	87	NABARD	
On	F/FW	27-29.08.18	3	Soil Sc	Nutrient management	Soil fertility management				57	12	69	57	12	69	ATMA	
Vocational	RY	4-11.03.19	6	Soil Sc	Vemiculture	Vermicomposting				9	6	15	9	6	15	STRY	
On	RY	25/2/19-2/3/19	6	PP	Mushroom	Mushroom Cultivation				9	7	16	9	7	16	MANAGE	42,000/-
On	RY	5/3/18-6/3/18	2	PP	IDM	Soil borne diseases and its management				12	3	15	12	3	15	MANAGE	
On	RY	16/3/19	1	PP	Organic pesticides	Organic pesticides				15	5	20	15	5	20	MANAGE	
Off	F and FW	16/11/18		PP	IPM	IPM in Tomato				25	5	30	25	5	30	ATMA	

3.4.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.	Extension Activity	Topic	Date & duration	No. of activities	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1.	Advisory services	Agriculture and allied subject	2018-19	320				250	70	320				250	70	320
2.	Diagnostic visit	Agriculture and allied subject		40				30	10	40				30	10	40
3.	Field day	Paddy. Garlic Tomato Garden pea		8				180	60	240				180	60	240
4.	Group Discussion	Agriculture and allied subject		9				130	50	180				130	50	180
5.	KishanGosthi	-		3				50	20	70				50	20	70
6.	Film show	Post harvest management on garlic		2				50	20	70				50	20	70
7.	SHG formation	MushroomVermicompost	13. 06.2018 21. 08. 2018	2				45	10	55				45	10	55
8.	Exhibition		28.02.2019	1				180	70	250				180	70	250
9.	Scientists visit to farmers fields	Agriculture and allied subject		20				42	18	60				42	18	60
10.	Plant/ Animal Health camp			2				150	80	230				150	80	230
11.	Method demonstration	Agriculture and allied subject		7				100	40	140				100	40	140
12.	Celebration of important days	Independence Day, Republic Day, World Soil Day, Green Mizoram Day		4				33	22	55				33	22	55
13.	Extension literature			30												
14.	Newspaper coverage			24												
15.	Popular articles	Influence of organic manures and bio-dynamic preparations on growth, yield and quality of Khasi mandarin (Citrus reticulata Blanco) in Mizoram, NorthEast India	03.10.2018	1												
16.	TV talk			2												

17.	Soil test campaign	Importance of soil testing	1 day	6				200	40	240				200	40	240
18.	Lecture delivered as resource person			12												
19.	PRA			2												
20.	Farmer-Scientist interaction			4												
21.	Soil test campaign			1												
Grand Total				475				1440	510	1950				1440	510	1950

3.5 Production and supply of Technological products during 2018-19

A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Rice	Tripura Nirag	5	10000	-	20	20
		Luit	5	12500	-	25	25
		Manipur	30	120000	-	75	75
OILSEEDS	Groundnut	GPBD 4	8	48000	-	20	20
PULSES	Field Pea	Azad Pea -3	6	36000	-	30	30
VEGETABLES	Garlic	Yamuna Safed 2	26	224000	-	30	30
FLOWER CROPS	-	-	-	-	-	-	-

A1. SUMMARY ofProduction and supply of Seed Materials during 2018-19

Sl. No.	Major group/class	Quantity (q) produced	Quantity (q) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries		
					General	SC/ST	Total
1	CEREALS	40	40	142500/-		**120**	**120**
2	OILSEEDS	8	8	48000/-		20	20
3	PULSES	6	5	36000/-		30	30
4	VEGETABLES	28	26	224000/-		30	30
TOTAL		**82**	**79**	**4,50,500/-**		**200**	**200**

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

Major group/class	Crop	Variety	Quantity (In No.) produced	Quantity (In No.) supplied	Value (Rs.) of quantity produced	Number of recipient/ beneficiaries		
						General	SC/ST	Total
Vegetables	Broccoli	KTS-1	20000	20000	20,000/-	-	100	100
	Onion	Agri found Light Red	10000	10000	2000/-	-	50	50
	Tomato	ArkaSamrat	35000	35000	35,000/-	-	200	200
	Cabbage	Improved Bahar	10000	10000	1000/-	-	40	40
Ornamental Plants	FLOWER CROPS Marigold(PusaNarangiGainda)	75,000	75,000	7500/-	-	75	75	390

C. Production of Bio-Products during 2018-19

Major group/class	Product Name	Species	produced Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS								
BIOFERTILIZERS								
1	**Vermicompost**	***Eudriluseugeniae***	**2000 kg**		**30,000**		**97**	**97**
BIO PESTICIDES								

D. Production of livestock during 2018-19

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	30	-	5100/-		3	3
	2) Quail	Japanese Quail	70	-	4200/-		7	7
5	Fisheries							
	1) Fish Fingerlings	Common Carp	6000	-	30,000/-		12	12
	Total		6100	-	39,300/-		22	22

3.6. Literature Developed/Published (with full title, author & reference) during 2018-19

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

(B) Articles/ Literature developed/published

Item	Title /and Name of Journal	Authors name	Number of copies	
			Produced/ published	Supplied/ distributed
Research papers				
1.	1. Influence of organic manures and bio-dynamic preparations on growth, yield and quality of Khasi mandarin (*Citrus reticulata***Blanco**) in Mizoram, NorthEast India. (Indian J. Agric. Res., 52(5) 2018: 576-580)	Dr. Malsawmkimi, Scientist, Horticulture	1	
Book/ Book Chapter				
Popular articles				
Technical bulletins				
Extension bulletins				
Newsletter				
Conference/ workshop proceedings				
Leaflets/folders	1) PurunVar Chin Dan(Garlic Cultivation) 2) SachaInchi(Star Bean) Chin Dan (Star Bean Cultivation) 3) Tomato Chin DawnaHriatturPawimawhte(Important packages of practices on Tomato cultivation) 4) Wheat Chin Dan(Wheat Cultivation) 5) Zikhlum (Cabbage)Chin Dan(Cabbage Cultivation) 6) Capsicum(Hmarchapui) Chin dawn a hriatturpawimawhte(Important packages of practices on Capsicum cultivation) 7) ThlasikThlai(Rabi Crops) chin dawnahriatturte.(Importrant Points to remember for Rabi Crops Cultivation)	PrakashThapa Msc Horticulture Farm Manager	560(80 copy each)	560 copies
	8) AzollaKhawi Dan(Cultivation of Azolla)	Henry Saplalrinliana	80 copies	80 copies
TOTAL				

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

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

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

- Identification of courses for farmers/farm women
- Rural Youth
- Extension personnel

3.11 Field activities

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

3.12. Activities of Soil and Water Testing

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/-

3. Details of samples analyzed (2018-19) :

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

1. Details of Soil Health Cards (SHCs) (2018-19)

- **a. No. of SHCs prepared: 237**
- **b. No. of farmers to whom SHCs were distributed : 237**
- **c. Name of the Major and Minor nutrients analysed: N, P, K, Iron, Cu, Mn, Zinc**
- **d. No. of villages covered: 8**

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

Message type	Crop		Livestock		Weather		Marketing		Awareness		Other Ent.		Total	
	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary	No. of Message	No. of Beneficiary
Text only	35	35	56	56	16	16	9	9	59	59	34	34	209	209
Voice only	124	124	50	50	34	34	45	45	67	67	23	23	282	282
Voice and Text both														
Total	159	159	106	106	50	50	54	54	66	66	57	57	491	491

3.14 Contingency planning for 2018-19

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	15		20	20
Soil Erosion	Introduction of Resource Conservation Technologies	10		20	20
Scarcity of Water/ Late Monsoon	Water used efficiency through drip and Rain Water Harvesting Structure	10 units		10	10

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
Diseases outbreak during pre-monsoon	200	5	2	700	-	60	60
Modification of Existing housing system	10	2	-	20	-	30	30

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)
Cultivation of Tomato variety ArkaRakshak and ArkaSamrat	40	80	12,000/-	2,50,000/-
Vermicomposting	30	55	15,000/-	1,20,000/-
Mushroom cultivation	35	60	25000/-	1,80,000/-
Cultivation of onion variety AFLR	15	56	17,500/-	1,89,000/
Rhizobium inoculation in field pea	70	50	26,000/-	38,000/-
Quail Farming	10	100	25000/-	42,500/-
Paddy Cum Fish Culture	20	100	45,000/-	75,000/-

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

4.2. Cases of large scale adoption

FLD in Paddy cum Fish Culture:

Altogether, 20 farmers learned the modern technology of paddy cum fish culture. The farmers earned about in average an amount of Rs. 45,000 per acre. Farmers has mastered the art of breeding common carps for which some farmers engaged in fingerlings production has a surplus income of another Rs. 30,000 to 40,000 from selling of fingerlings to other surrounding villages. It has also been observedthat people from adjoining villages has preferred the locally breeded fingerlings over the imported ones as it has more adaptability and bettergrowth rate. The farmers of Khawzawland adjoining villages are adopting thistechnology of paddy cum fish culture which is expected to take anothermassive outcome in the coming season.

.





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 2018-19

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.

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

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies during 2018-19

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	March, 2019	SAMETI	1,22,000/-
Self Help Group	Training	Jan-Feb, 2019	NABARD	50,000/-

5.3 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	Plug trays were given to the farmers for trial and farmers found it very good because seedlings from plug tray had good root system and chances of survival were high after transplanted it to the main field Vermin bed were distributed to 6 farmers to enhanced to promote organic farming in Champhai District
2	Trainings	Resource person	-
3	Filed visits	Joint visits	
4	Training & Demonstration	Designated expert support	

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 2018-19

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	Vermi composting unit – 2 nos	2008 & 2016	480 sqft	Red Worm(*Eisenia-foetida*)	Compost/Biofertilizers	14Qtl	8500	21000	

6.2 Performance of instructional farm (Crops) including seed productionduring 2018-19

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 15	Nov 21	0.8	1) Manipur 2) Ruata 3) Luit	Seeds	1) 8 Qtl 2) 12 Qtl 3) 4 Qtl	1) 14,000/- 2) 16500/- 3) 4900/-	1) 24,000/- 2) 30,000/- 3) 7000/-	
Maize	July 10	Sept 8	0.07	RCM-76	Seeds	60kg	2600/-	4800/-	
Pulses									
Arhar	April 22	Oct 17	0.1	Local variety	Seeds	0.5Qtl	1600/-	4500/-	
Fruits									
Pineapple	-	June – July	0.25	Kew	Fruits	1500 nos	8500/-	30,000/-	

6.3 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	2000 kg	-	30,000	

6.4 Performance of instructional farm (livestock and fisheries production) during 2018-19

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	Turkey	Broad Breasted White	Meat	20 nos	12500/-	32000/-	

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Unit/ structureduring 2018-19

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 2018-19

Accommodation available (No. of beds): 13 nos

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)
May	Scientific management of Khasi mandarin	5 days	30	4 days	
February & March	Mushroom	6 days	15	5 days	
February & March	Vermiculture	7 days	60	6 days	
February & March	Organic Farming	6 days	60	6 days	
Total			165 Nos.		

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
With Host Institute			
With KVK	State Bank of India	Khawzawl	37041217638
Revolving Fund	State Bank of India	Khawzawl	37958564078

7.2 Utilization of funds under CFLD on Oilseeds and Pulses (Rs. In Lakhs) if applicable during 2018-19

Item	Released by ICAR/ATARI (in lakh)		Expenditure (in lakh)		Unspent balance as on 31st March, 2018
	Amount (Pulses)	Amount (Oilseeds)	Amount (Pulses)	Amount (Oilseeds)	
Inputs	67,500	75,264	67,500	75,264	NIL
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL					

7.3 Utilization of KVK funds during the year 2018-19

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	**Pay & Allowances**	140	140	140
2	**Traveling allowances**	3	3	3
3	**HRD(Human Resource Development)**	1.10	1.10	1.10
4	**Contingencies** **17.50** **17.50** **17.50**			
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)		**161.60**	**161.60**	**161.60**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**	0.30	0.30	0.30
3	**Vehicle** (Four wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)		**0.30**	**0.30**	**0.30**
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**161.90**	**161.90**	**161.90**

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)
April 2016 to March 2017	51,466	32,600	46,800	37,266
April 2017 to March 2018	37266	12,539	1,180	48,625
April 2018 to March 2019	48,625	42680	3680	87625

Note: No KVK must leave this table blank

8.0 Please include information which has not been reflected above.

(Write in detail)

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

(a) Administrative

(b) Financial

(c) Technical

(Signature)
Sr. Scientist cum Head