

PROFORMA FOR ANNUAL REPORT OF KVKS, 2016-17

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, Distt.- Champhai (MIZORAM)-796310	03831-261484, 261486	03831- 261485	kvkxhawzawl@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	mizagr@gmail.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Shri Lalthansiamia Director of Agriculture (R & E)		9436354893	mizagr@gmail.com

1.4. Year of sanction: 2008

1.5. Staff Position (As on 31st March, 2017)

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	PC	Vacant	Sr Scientist & Head						
2	SMS	MALSAWMKIMI	Scientist	Horticulture	15,600-39,100+5,400	20,440/-	03.06.09	Permanent	ST
3	SMS	SYED KHALIDUDDIN AHMED	Scientist	Animal Science	15,600-39,100+5,400	21,220/-	26.4.08	Permanent	GENERAL
4	SMS	F. ZORAMTHARI	Scientist	Plant Protection	15,600-39,100+5,400	20,440/-	06.6.09	Permanent	ST
5	SMS	Dr. OM PRAKASH	Scientist	Agronomy	15,600-39,100+5,400	20,440/-	23.6.14	Permanent	General
6	SMS	ISRAEL LALREMRUATA	Scientist	Agro Forestry	15,600-39,100+5,400	20,440/-	09.03.12	Permanent	ST
7	SMS	VANLALDUATI	Scientist	Soil Science	15,600-39,100+5,400	18,240/-	09.02.15	Permanent	ST
8	Programme Asst	LALHRUAILUANGI	PA (Home Sc)	Home Science	9,300-34,800+4200	14,120/-	1.7.08	Permanent	ST
9	Computer Programmer	SAMSON SAIRENGPUIA SAILO	PA (Computer)	Computer	9,300-34,800+4200	14,120/-	22.4.08	Permanent	ST
10	Farm Manager	PRAKASH THAPA	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

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Gypsy	MZ-01 D 4086	-	-	-	Running condition
Tractor	MZ-01 D 2246	-	-	-	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
Incubator	Sept,2008	-	Good
Oven	Sept,2008	-	NOT WORKING
Grinder	Sept,2008	-	Good
Laptop	Sept,2008	-	Good
T.V.	Sept,2008	-	Good
A.C.	Sept,2008	-	NOT WORKING

1.8. A). Details SAC meeting* conducted in the year 2016-17

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	22/02/2017	Shri. Lalthansiamia, Director Of Agriculture, Research & Extension	1) Suggest all the Scientist to go for publisizing through media. 2) To simplify the presentations while presenting it and use local language when and wherever possible in view of the farmers..	
2.		Shri.P.Vanlalnggheta,SMS(R & E)		
3		Shri Lalmangaiha, Divisional Horti Officer		
4		Shri H.Malsawmkima, Wildlife		
5		Shri.Vanlalchhuana , RO (Soil)		
6		Shri James Vanlalluaia, District Agriculture Officer		
7		Shri Lalthanzuala, District Fisheries Development Officer		
8		Shri Rohmingthanga, FD (fishery)		
9		Shri PC Lalarliana, Block President, AMFU		
10		Shri, P Lalbiakkima , SDO (minor Irrigation)		
11		Shri Lalchharliana ,Sub Divisional Agriculture Officer		
12		Dr.OM.Prakash, Scientist, Agro KVK		
13		Smt F.Zoramthari, Scientist PP		
14		Shri S.K.Ahmed, Scientist, Animal Sc		
15		Smt Malsawmkimi, Scientist, Horti		
16		Smt R.Vanlalduati, Scientist, SoilSc		
17		Smt Remveli , Block president,MHIP		
18		Smt K Vanlalmangaihi,Assistant KVK		
19		Smt Lalhruiitluangi ,Programme Assistant Homescience		
20		Shri Samson S Sailo Programme Assistant Computer		

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

2. DETAILS OF DISTRICT

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

Sl. No	Farming system/enterprises
1.	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 type/s

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 Chilli	1250	6875	0.18

2.5. Weather data

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
April 2016	170	28	20.25	55
May	380	29.3	23.95	71.6
June	1250	31.8	22.9	81
July	2200	29	23.1	86.8
August	6400	26.25	20.1	94.25
September	3200	28.85	20.9	83.2
October	500	25.65	19.95	74.2
November	Nil	23.8	14	65.4
December	Nil	19.4	10.1	69.83
January 2017	Nil	20	12.95	46.5
February 2017	Nil	22.1	11.2	51
March 2017	130	24	18	-

2.6. 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			
Pigs	24186	437 tons	
<i>Crossbred</i>	6051	-	
<i>Indigenous</i>			
Rabbits			
Poultry			
Hens			
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

Note: Pl. provide the appropriate Unit against each enterprise

2.6 Details of Operational area / Villages (2016-17)

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	New Chalrang	Jhum paddy + 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.	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 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.

5.	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 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
6.	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

7.	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 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.
8.	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

9.	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.
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3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2016-17

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
Agonomy	2	2	6	6	2	2	20	20
Horticulture	2	2	6	6	2	2	20	20
Plant Protection	2	2	6	6	2	-	20	-
Soil Science	3	3	9	9	2	2	20	20
Animal Sc	2	2	7	7	1	1	40	40
Total	13	13	40	40	9	9	120	120

Note: Target set during last Action Plan Workshop

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	45	60	1282	1742	322	326	2856	3040
Rural youth	13	13	349	380				
Extn. Functionaries	4	3	70	40				
Total	62	76	1701	2162	322	326	2856	3040
Seed Production (ton.)					Planting material (Nos. in lakh)			
5					6			
Target		Achievement			Target		Achievement	
1.15		1.15			0.138		0.185	

Note: Target set during last Action Plan Workshop

3. B. Abstract of interventions undertaken during 2016-17

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	Paddy	Low yield with local variety & lack of Known variety	Varietal evaluation of Rice var. Samba Mahsuri(BPT-5204), Jeera Phool .		-	-	Diagnostic visit,Field day,Palatability test of Rice varieties.	Seeds, Fertilizer etc.
2	Weed Management	Paddy	Low yield &higher cost of cultivation with manual weeding	Economic viability of herbicide on weed management in Rice.		Chemical weed mn in rice.	-	Diagnostic visit, Field day	Seeds, Fertilizer etc.
3	Integrated Nutrient Management	Field Pea	Lack of knowledge about seed treatment with biofertilizers		Popularization of Ap-3 with <i>Rhizobium</i> inoculation	Advantage of <i>Rhizobium</i> inoculation for Pulses		Diagnostic visit, Field day	Seeds, Bio- fertilizer etc.
4	Varietal Evaluation	Paddy	Lack of known improved variety		Popularization of paddy variety Gomati			Diagnostic visit, Field day	Seeds, Fertilizer etc.
5	Plant production	Garlic	No identified variety under Champhai district	Performance of Garlic var. G282 under Champhai District		Scientific cultivation of Garlic		Diagnostic visit,Field day	Seeds , fertilizers etc
6	Varietal Evaluation	Tomato	Lack of multi resistant variety leading to low production and income	Introduction of Tomato var. Arka Rakshak		Scientific cultivation of Tomato		Diagnostic visit,field Days	Seeds , fertilizers etc
7	Varietal Evaluation	Onion	Lack of known high yielding variety		Popularization of Onion variety Agrifound Light Red	Scientific cultivation of Onion		Diagnostic visit,	Seeds

8	Variatal evaluation	King Chilli	Lack of high yielding variety		Popularization of King chilli	Scientific cultivation of King chilli		Diagnostic visit, field day	Seeds
9	IPM	Tomato	Low yield due to infestation with white fly resulting in curling and drying of leaves and sometimes infected with virus	Integrated Pest Management of white fly in tomato		Integrated Pest Management of white fly in tomato		Diagnostic visit, field day	Seeds,pesticides,bio pesticides etc
10	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 (Lipaphis erysimi) in Mustard. (Brassica juncea var rugosa		Integrated pest Management of Aphids (Lipaphis erysimi) in Mustard.		Diagnostic visit, field day	Seeds,pesticides,bio pesticides etc
11	Soil Health		Nitrogenous fertilizer not affordable by the farmers	Effect of <i>Azolla</i> on the yield of Rice crop.		Advantages of <i>Azolla</i> on paddy Cultivation		Diagnostic visit,Field days	Azolla
12	Soil management		Low productivity due to traditional method of cultivation	Effects of micronutrients on growth, yield and quality of Chilli				Diagnostic visit,Field days	Seeds
13	Soil management		Low yield due to weed infestation	Effect of mulching method on the yield of Tomato var. <i>Arka rakshak</i>				Diagnostic visit,Field days	Seeds and polymulch
14	Soil Health		Lack of balance fertilization.		Popularisation of Chemical fertilizers on the yield of Brinjal			Diagnostic visit,Field days	Seeds,fertilizers

Management										
Integrated Nutrient Management	1				2					3
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management					2					2
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
Total	3				7					10

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

A.5. Results of On Farm Testing

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 variety Jeera Phool & Samba Mahsuri	Low productivity with the existing varieties	Varietal Evaluation var. Jeera Phool & Samba Mahsuri	Rice	3	<p>No. of hills / sqm Jeera Phool: 16 Samba Mahsuri: 16</p> <p>No. of tillers / hill Jeera Phool – 15 Samba Mahsuri - 16</p> <p>No. of effective tillers/ sq m Jeera Phool - 203 Samba Mahsuri – 214</p> <p>No. of grains / panicle Jeera Phool – 197 Samba Mahsuri 1 – 206</p> <p>Yield/ha</p>	It is good to enhance their income per unit area	Performance is up to the mark and less attack of insect pest & diseases but var. Jeera Phool was too late for further study will go for Refinement	<p>1. 59</p> <p>1. 62</p> <p>1.89 check</p>

						Jeera Phool i– 22.04 qt/ha Samba Mahsuri – 33.49 qt/ha			
2	Economic viability of herbicide on weed mngt in Rice	Severe weed infestation and cumbersome manual weeding compared to new generation broad spectrum herbicide	Weed Management Technology: Nominee Gold (Bispyribac sodium) @25g ai/ha at 15-25 DAT	Rice	3	No. of weeds / sq m Treated– 9 Control -12 No. of tillers/ hill Treated - 18 Control -17 No. of grains / panicle Treated- 206 Control -196 Yield/ha Treated – 3.425 t Control -3.2 t Economics Treated – 2650 Control -7700	It's good to enhance their income & reducing cost of cultivation		1. 66 1.57
3	Performance of Garlic variety G282 under	No identified variety under Champhai district	Varietal evaluation	Garlic	3	Height (cm) G282 – 27cm Local – 31cm	Farmers are willing to continue since the variety is short duration,	It is Short duration and no serious pests and diseases were observed	Treated : 2.3 Local: 1.9

	Champ hai District					No of cloves per bulb G282 – 32 Local – 26cm Clove weight (g) G282 – 55.8 Local – 46 Duration G282 – 150 days Local – 170 days Yield per hectare G282 – 177q/hac Local – 150q/ha	higher yield and fetched higher price in the market.		
5	Introdu ction of Tomato variety Arka Raksha	Production during rainy season is low in Champhai District	Varietal evaluation	Tomato	3	Plant height : 60cm Local: 85 cm No of fruit	Farmers were impressed by seeing the performance during rainy	Shelf life is good and performance is very good during rainy	Treated 2.85 Local 2.1

	k					Arka Rakshak - 76 Local- 35 Fruit weight (g) Arka Rakshak -70g Local – 72g Yield/ha (Q): Arka Rakshak- 518 Local – 280	season	season	
	Integrat ed pests manage ment of Aphids (Lipaph is erysimi) in 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	1)Early sowing of seeds (i.e before 20 th of october) 2)Setting up of yellow sticky traps @ 12 No/ha 3)Destructio n of aphid infesting twigs at the	Mustard	3	<u>Treated</u> 1)No of infested plants at ten days interval- 8% 2) Pest incidence (%)- 20 % 3) Yield Kg/Ha fresh weight-3800 kg <u>Untreated</u> 1)No of infested	Since the farmers could harvest better quality and higher quantity yield,they were ready to adopt and continue with the technology	Timely installation of sticky traps s and bio pesticides and monitoring closely from the time of sowing and till harvest greatly shows significant results in yield	Treated-2.9 Untreated-2.5

			<p>initial stage of appearance.</p> <p>4)Spraying with neem oil 3% from 2nd -3rd week of Dec</p> <p>5)ETL based spraying with dimethoate @ 625-1000ml/ha /imidacloprid @1 ml/lt of water</p>			<p>plants at ten days interval- 30%</p> <p>2) Pest incidence (%) - 70%</p> <p>3) Yield Kg/Ha fresh weight -2500 kg</p>			
	<p>Integrated pest Management of whitefly in Tomato</p>	<p>Low yield due to infestation with white fly resulting in curling and drying of leaves and sometimes infected with virus</p>	<p>1)Uprooting and destroying of diseased leaf curl plants</p> <p>2)Judicious use of nitrogen fertilizer and irrigation .</p>	Tomato	3	<p><u>Treated</u></p> <p>1)No of infested plants at ten days interval-5%</p> <p>2)Leaf curl Disease incidence (%) - 5%</p> <p>3) Pest incidence (%) -17 %</p> <p>4) Yield Kg/Ha-</p>	<p>By seeing the quality and quantity of yield,the farmer become the means for dispersing the technology as they were ready to adopt the</p>	<p>Timely installation of sticky traps s and pesticides and monitoring closely from the time of sowing and till harvest greatly shows significant results in</p>	<p>Treated-2.6</p> <p>Untreated-1.90</p>

			<p>3) Installation of yellow sticky traps @ 12 no/ha to attract and kill insects.</p> <p>4) Application of carbofuran 3% G @ 40 kg/ha and ETL based spraying with Dimethoate 1ml/ltr of water</p>			<p>26000 kg/ha</p> <p>Untreated</p> <p>1) No of infested plants at ten days interval-30%</p> <p>2) Leaf curl Disease incidence (%)-40%</p> <p>3) Pest incidence (%)-60%</p> <p>4) Yield Kg/Ha-17117 kg/ha</p>	technology.	terms of quality and quantity of harvest	
Soil science	Effect of Azolla on the yield of Rice	Nitrogenous fertilizers not affordable by the farmers.	Popularization of biofertilizers -Azolla	Rice	3	<p>i. No. of grains/panicle -258</p> <p>ii. Yield (q/ha)-39.87</p>	Higher yield and more economic return	Proper Nutrient management response to higher productivity and more	2.0

	crop.							economic return	
	Effect of Micronutrients on yield of Chilli	Low productivity due to traditional method of cultivation.	Nutrientl management	Bird's Eye Chilli	3	i. Yield (q/ha)- 26.3q/ha	Farmers are willing to adopt proper application of micronutrients	Micronutrients is recommended to increase the crop productivity on acidic soils.	2.7
Animal sc	Evaluation and Comparison of Burmese local Sows with Improved Crossbreed (Hampshire cross) Sows	Non availability of prolific improved breed	Piggery Breed comparison	Piggery	4	Parameters: a) Age at first farrowing- 10 & 11 months b) Litters size at farrowing- 5-8 c) Wt. of litter at birth- 1.8-2 kg d) Mortality till weaning-	There is a sense of nervousness amongst the farmers as the burmese local pigs thrives good & are well adapted to the region	As of now the animals under observations have not come to heat	-
	Introduction of	Scarcity of green fodder	Cultivation of Oat Var:	Oat as green	3	Observations: a)Duration of	Farmers are getting aware	Many farmers are inclined	

	Oat varieties JHO-822 and Kent as fodder crops	during lean season	JHO -822 and Kent as Fodder crops:	Fodder		Cutting: 55 DAS b) No. of cuttings per Year: 4 times c)Yield t/ha:35t/h as green fodder	of the fact that Oat as fodder can be grown during lean period	towards the cultivation of Oat as subsidy to green fodder	
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**Field crops – ton/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.*

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

3.2 Achievements of Frontline Demonstrations during 2016-17

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

List of technologies demonstrated during previous year and popularized during 2015-16 and recommended for large scale adoption in the district

Sl. No	Crop/ Enterprise	Technology demonstrated	Horizontal spread of technology		
			No of village	No of farmers	Area in ha
1	Paddy	Popularization of paddy variety Gomati	5	10	1
2	Field pea	Popularisation of AP- 3 with Rhizobium inoculation	3	10	2
3	King Chilli	Popularization of king Chilli	3	10	1

4	Onion	Popularization of Onion Var Agri Found Light Red	3	10	1
5	Brinjal	Popularisation of Chemical fertilizers on the yield of Brinjal Technology : NPK @ 120:100:50 kg/ha	2	10	1
6	Tomato	Popularization of organic fertilizers on Growth and yield of Tomato Technology : Vermicompost @ 10ton/ha	3	10	1

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

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
					Proposed	Actual	SC/ST	Others	Total			N	P	K
1.	Paddy	Varietal Evaluation	Popularization of Rice variety Gomati	Kharif-2016	2	2	10	-	10	-	Rainfed	211	14	116
2.	Field Pea	INM	Popularization of AP-3 with <i>Rhizobium</i> inoculation	Rabi-2016-17	2	2	10	-	10	-	Rainfed, 800 M MSL	233	17	120
4	Chilli	Varietal evaluation	Popularization of King chilli	May – September 2016	1	1	10		10	-	Irrigated	213	15	136

5	Onion	Varietal evaluation	Introduction of promising Onion var. Agri Found Light Red	Nov-March	1	1.5	15	-	15		Irrigated	234	18.5	125
6	Garden pea	Varietal evaluation	Introduction promising variety of Garden Pea var. Arkel	Rabi, 2015-16	1	1	10		10		irrigated	281.1	15.78	129
7	Tomato	Soil health	Growth and yield of Tomato as influenced by organic fertilizers	Rabi 2016	1	1	10	-	10	-	Rainfed	298	9.6	220

c. Performance of FLD on Crops

Sl. No.	Crop	Thematic area	Area (ha.)	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Data on parameters other than yield, e.g., disease incidence, pest incidence etc.		Econ. of demo. (Rs./ha.)				Econ. of check (Rs./Ha.)			
				Demo.	Check		H*	L*	Demo	Local	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
1	Rice	Varietal Evaluation	1	39.87	39.21	1.683	41.25	36.60			41480	59805	18325	1.44	41480	78420	36940	1.89
2	Field 3Pea	INM	2	23.50	15.60	80.26	27.00	21.30	Rust	Rust	36200	94000	57800	2.60	32480	62400	29920	1.78

4	King chilli	Popularisation of King chilli	1	32.5 q/ha	22q/ha	47	33	28	Antrac nose	Antrac nose	120000	284000	164000	2.36	90000	130000	40000	1.4
5	Onion	Popularisation of Onion Var. Agri Found Light Red	1.5	180q/ha	130q/ha	38.4	210	140	Dampin g off	Dampin g off	160000	360000	200000	2.25	160000	260000	100000	1.6
6	Tomato	Soil health	1	160	125	28	190	145	-	-	95000	330000	235000	3.4	67000	201000	134000	3.1

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

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

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

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

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

d. Extension and Training activities under FLD on Crops

Sl.No.	Activity	No. of activities organised	Date	Number of participants			Remarks
				Gen	SC/ST	Total	
1	Field days	5	22/10/16 5/11/2016 25/11/2016 18/1/2017 9/2/2016	-	110	110	
2	Farmers Training	1			32	32	
3	Media coverage	5					
4	Training for extension functionaries						
5	Any other (Pl. specify)						
	Total	11			142	142	

e. Details of FLD on Enterprises

(i) Farm Implements

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

* Field efficiency, labour saving etc.

(ii) Livestock Enterprises

Sl. No.	Enterprise/ Category (e.g., Dairy, Poultry etc.)	Thematic area	Name of Technology	No. of farmers	No. of units	No. of animals, poultry birds etc.	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks
							Demo	Check		Demo	Check	GC*	GR*	NR*	BCR*	GC	GR	NR	BCR	

** 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

f. Performance of FLD on Crop Hybrids

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

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

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

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

programmes sponsored by external agencies)																						
Thematic area	No. of Courses/ prg.			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*	
I. Crop Production																						
Weed Management	1	1	2	-	-	-	-	-	-	40	18	5	2	45	20	40	18	5	2	45	20	65
Resource Conservation Technologies																						
Cropping Systems	1	-	1	-	-	-	-	-	-	24	-	5	-	29	-	24	-	5	-	29	-	29
Crop Diversification																						
Integrated Farming																						
Water management	1	-	1	-	-	-	-	-	-	30	-	5	-	35	-	30	-	5	-	35	-	35
Seed production																						
Nursery management	1	-	1	-	-	-	-	-	-	20	-	5	-	25	-	20	-	5	-	25	-	25

Integrated Crop Management	1	-	1	-	-	-	-	-	-	24	-	5	-	29	-	24	-	5	-	29	-	29	
Fodder production																							
Production of organic inputs																							
II. Horticulture																							
a) Vegetable Crops																							
Production of low volume and high value crops																							
Off-season vegetables																							
Nursery raising																							
Exotic vegetables like Broccoli																							
Export potential vegetables																							
Grading and standardization																							
Tomato cultivation		1	1							40		10				40		10				50	

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		1	1	-	-	-	-	-	-	-	30	-	5	-	35	-	30	-	5	-	35	35
Soil and Water Conservation		1	1	-	-	-	-	-	-	-	58	-	12	-	70	-	58	-	12	-	70	70
Integrated Nutrient Management		1	1	-	-	-	-	-	-	-	10	-	3	-	13	-	10	-	3	-	13	13
Production and use of organic inputs		1	1	-	-	-	-	-	-	-	8	-	7	-	15	-	8	-	7	-	15	15
Management of Problematic soils	1		1							20		10			30	20		10			30	30
Micro nutrient deficiency in crops																						
Nutrient Use Efficiency		1	1	-	-	-	-	-	-	-	15	-	-	-	15	-	15	-	-	-	15	15

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	14	20	34							477	345	160	129	607	474	477	345	160	129	607	474	1081

(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 Courses/ Prog			Participants																	Grand Total (x + y)		
	On (1)	Sp On* (2)	Total (1+2)	General						SC/ST						Total							
				Male		Female		Total		Male		Female		Total		Male		Female		Total			
				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)	
Training and pruning of orchards		1	1								20		10				20		10			30	30
Mushroom Production	1		1							10		10		20	10		10		20		20	20	
Integrated pest management	1		1							10		10		20	10		10		20		20	20	

Piggery	1		1								20	6	26			20		6				26
Production of organics input		1	1	-	-	-	-	-	-	-	14	-	-	-	14	-	-	14	-	-	14	14
TOTAL	3	2	5							20	54	26	36	46	90	20	54	26	36	46	90	136

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 Courses/ Prog.			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*
Mushroom Production	1		1							20		2		22		20		2		22		22
Integrated pest management	2		2							20		20		40		20		20		40		40
Winter vegetable cultivation	1		1							20		10										30
Macro & Micro nutrient deficiency symptoms	1	1	2	-	-	-	-	-	-	20	16	-	1	20	17	20	16	-	1	20	17	37
Soil and moisture conservation	1	1	2	-	-	-	-	-	-	15	13	10	3	25	16	15	13	10	3	25	16	41

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 Courses/ prog.			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	
Citrus decline and its management		1	1								15		5		20		15		5		20
Integrated Pest Management		1	1								19		1		20		19		1		20
Integrated Nutrient management		1	1	-	-	-	-	-	-	-	8	-	7	-	15	-	8	-	7	-	15
TOTAL		3	3								42		13		55		42		13		55

Note: Please furnish the details of above training programmes as Annexure 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
Agronomy	Weed Management	Chemical weed management in rice	10. 6.16	1	KVK Training Hall	Farmers & Farm women	-	-	-	22	3	25	22	3	25
	Seed Production	Package of practices for cultivation of groundnut	17. 6.16	1	KVK Training Hall	Farmers & Farm women	-	-	-	34	10	64	34	10	44
	Fodder production	Advantage of fodder maize - African Tall	19. 8.16	1	KVK Training Hall	Farmers & Farm women	-	-	-	30	5	35	30	5	35
	INM	Benefits of <i>Rhizobium</i> inoculation in pulses	14. 10.16	1	KVK Training Hall	Farmers & Farm women	-	-	-	30	5	35	30	5	35
Horticulture	Nursery raising	Better nursery management of horticultural crops	11.5.2016	1	KVK training hall	Farm and farm women	-	-	-	20	10	30	20	10	30

	Product ion technology	Scientific cultivation of Mandarin orange	21.6.2016	1	KVK training hall	Farm and farm women	-	-	-	40	20	60	40	20	60
	Product ion technology	Scientific cultivation of Garden pea	14.12.2016	1	KVK Training Hall	Farm and farm women	-	-	-	25	5	30	25	5	30
	Training and pruning	Training and pruning for major fruit crop in Mizoram	21.9.2016	1	Khawbung	Rural youth	-	-	-	20	10	30	20	10	30
Plant protection	IPM	Pest and disease management of Ginger	15/9/16 6/3/17	1 day each (ie 2 days)	KVK, Training Hall, Khawzawl	Farmer & Farm women and EP				30	20	50	30	20	50
	IPM	Pest and disease management of tomato	17/10/2016	1 day each	KVK, Training Hall, Khawzawl	Farmer & Farm women				20	10	30	20	10	30
	IPM	Safety use of pesticides	27/10/2016	1 day each	KVK, Training Hall, Khawzawl	Farmer & Farm women				20	10	30	20	10	30

	IPM	Preparation of neem extracts	11/11/2016 21/2/2017	1 day each (ie 2 days)	KVK, Training Hall, Khawzawl	Farmer & Farm women and rural youth				30	20	50	30	20	50
	Mushroom	Mushroom Cultivation	17/3/2017	1 day	KVK, Training Hall, Khawzawl	Rural Youth				10	10	20	10	10	20
Soil Science	Soil Health management	Integrated Nutrient Management	21/6/2016	1	KVK Training Hall	Farmers & Farm women	-	-	-	45	9	54	45	9	54
	Soil management	Soil fertility management in degraded jhumland	22.06.2016	1	KVK Training Hall	Farmers & Farm women	-	-	-	44	6	50	44	6	50
Animal Science	Scientific Management of pig	Piggery production	10/6/16, 17/6/16	2	KVK, Training Hall	Farmers & farm women				34	7	34	7	-	41
	Paddy cum fish	Integration of fish in paddy fields	22/6/16; 23/6/16 & 24/6/16	3	Zotlang & Khawzawl	As above				46	9	46	9		55

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

Discipline	Area of training	Title of the training programme	Date (From – to)	Duration in days	Venue	Please specify Beneficiary group (Farmer & Farm women/ RY/ EP and NGO Personnel)	General participants			SC/ST			Grand Total		
							M	F	T	M	F	T	M	F	T
Agronomy	Weed Mngt	Advantage of Chemical weed management in Maize	6/5/2016	1	Chawngtai	Farmer & Farm women				18	2	20	18	2	20
	Integrated Crop Management	Package of practices for raising paddy seedlings	27/5/2016	1	New Champhai	Farmer & Farm women				25	5	30	25	5	30
	Seed Production	System of rice intensification	8. 6.16	1	YMA Hall Rabung	Farmer & Farm women				22	7	29	22	7	29
	Weed Management	Chemical weed management in rice	13. 6.16	1	Agri Deptt. Training Hall, Khawzaw I	Farmers & Farm women	-	-	-	22	3	25	22	3	25
	Water mngt	Advantage of water conservatio	13. 6.16	1	Champhai		-	-	-	22	3	25	22	3	25

		n during rabi season													
Horticulture	Vegetable production	Scientific cultivation of Tomato	6.9.2016	1	Kawlkulh	Farm and farm women	-	-	-	40	10	50	40	10	50
	Training and pruning	Training and pruning of major fruit crop	4.10.2016 10.10.2016	2	Biate Dungtlang	Farm and farm women				60	40	100	60	40	100
	Fruit production	Scientific cultivation of orange	14.7.2016	1	Rabung	Farm and farm women				40	20	60	40	20	60
	Cultivation practices	Scientific cultivation of ginger	27.6.2016 21.7.2016 11.8.2016	3	New chalran, Pawlrang, Chawntlai	Farm and farm women				100	55	100	100	55	155
	Vegetable production	Scientific cultivation of winter vegetables	18.9.16	1	Zotlang	Rural youth				20	10	30	20	10	30
	Citrus decline	Rejuvenation of citrus declining orchard	6.12.2016	1	BDO training Hall	EP				15	5	20	15	5	20

Plant protection	IPM	IPM in ginger	28/10/2016	1 day	Darngawn	Rural Youth				10	20	10	10	20
	IPM	Management of Insect pest and Diseases of Passion fruit	14/11/2016	1 day	Chawngtlai	Farmer and Farm women				20	30	20	10	30
	IPM	IPM in cabbage	19/12/2016	1	Darngawn	Farmer and farm women				20	30	20	10	30
	IPM	IPM in citrus	26/9/2016	1	Lungsummual	Farmer and farm women				20	30	20	10	30
	IPM	IPM in winter vegetables	20/1/2017	1	Tuisenphai	Farmer and farm women				20	30	20	10	30
	IPM	Preparation of Bordeaux paste	1/2/2017	1 day each	Artlangpeng, khawzawl	Rural Youth and Farmer and farm women				30	50	30	20	50
	IPM	Management of Storage	28/3/2017	1 day	Vengthar, khawz	Farmer and farm women				20	30	20	10	30

		pest			awl										
Soil Science	Nutrient management	Balance fertilization	23.06.2016	1	KVK Training Hall	EP				10	10	20	10	10	20
	Soil amendment	Management of acidic soils	24.06.2016	1	KVK, Training Hall	Farm and farm women				20	10	30	20	10	30
	Soil health management	Soil solarisation	25/8/2016	1	KVK, Training Hall	Rural Youth				15	10	25	15	10	25
	Nutrient use efficiency	Nutrient Management in Paddy	19.08.2016	1	New Chalrang	Farm and farm women				15		15	15		15
	Soil conservation	Different types of mulching methods	11.10.2016	1	Tuipui	RY				13	3	16	13	3	16
	INM	INM	25/10/2016	1	Khualen	Farm and farm women				10	3	13	10	3	13
	Production of organic inputs	Methods of vermicomposting	26/10/2016	1	Neihdawn	Farm and farm women				8	7	15	8	7	15
	Fertilizer use efficiency	Methods of fertilizer applications	4.11.2016	1	Rabung	RY				20		20	20		20
	Soil testing	Importance of soil testing	7.11.2016	1	Chawngtai	Farm and farm women				14		14	14		14
	Management of	Macro and micro	8/11/2016	1	Khawhai	Rural Youth				16	1	17	16	1	17

	Agricultural crops	deficiency symptoms in Agricultural crops													
	Mulching technique	Importance and benefits of mulching methods	10/11/2016	1	Ruantlang	Farmer and farm women				58	12	70	58	12	70
	Soil management	Soil fertility management in degraded jhumland	14/11/2016	1	Dungtlang	Farmers and farm women				30	5	35	30	5	35
	Nutrient management	Balance fertilization	5/12/2016	1	Ngopa	Farmers and farm women				10	3	13	10	3	10
Animal sc	Paddy cum fish culture	Integration of fish in paddy fields	27/6/16; 28/6/16 & 29/6/16	3	Zotlang & Khawzawl	As above				46	9	46	9		55

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

*training title should specify the major technology /skill transfer

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	1/07/2016	1	Agronomy	Weed Mngt	Scientific use of herbicide in non cropped areas				18	2	20	18	2	20	RKVY	
ON	F/FW	-	1	Horticulture	Fruit production	Scientific cultivation of M orange				40	20	60	40	20	60	RKVY	
off	F/FW	-	1	Horticulture	Vegetable production	Cultivation of Garden pea				25	5	30	25	5	30	NABARD	
Off	F/FW	-	1	Horticulture	Layout of orchard	Layout and management of orchard				30	30	60	30	30	60	IWMP	
Off	F/FW	-	1	Horticulture	Cultivation practices	Scientific cultivation of Tomato				40	10	50	40	10	50	RKVY	
Off	F/FW	-	1	Horticulture	Training and pruning	Training and pruning of major fruit crops in Champhai District				50	50	100	50	50	100	RKVY	

Off	F/FW	-	1	Horticulture	Cultivation practices	Scientific management of Ginger				100	55	155	100	55	155	RKVY	
Off	RY	-	1	Horticulture	Cultivation practices	Scientific cultivation winter vegetables				20	10	30	20	10	30	NABARD	
Off	EP	-	1	Horticulture	Citrus rejuvenation	Rejuvenation of declining orchard				15	5	20	15	5	20	IWMP	
Off	F and FW	20/1/2017	1	Plant protection	IPM	Pest and disease Management of winter vegetables				20	10	30	20	10	30	RKVY	10,000/-
on	EP	6/3/17	1	Plant protection	IPM	IPM in Ginger				10	10	20	10	10	20	RKVY	10,000/-
Off	F and FW	28/3/2017	1	Plant protection	IPM	Management of storage pest				20	10	30	20	10	30	RKVY	10,000/-
On	F/FW	22/6/2016	1	Soil Science	Nutrient management	INM	-	-	-	45	9	54	45	9	54	RKVY	

Off	F/FW	7/11/2016	1	Soil Science	Soil testing	Importance of soil testing				14		14	14		14	NABARD	
Off	F/FW	14/11/2016	1	Soil Science	Soil fertility management.	Soil fertility management in degraded jhum land.				30	5	35	30	5	35	NABARD	
Off	F/FW	10/11/2016	1	Soil Science	Soil conservation	Different types of mulching methods				58	12	70	58	12	70	NABARD	
Off	F/FW	19.8.2016	1	Soil Science	Nutrient use efficiency	Nutrient management in paddy				15		15	15		15	RKVY	
Off	F/FW	25/10/2016	1	Soil Science	INM	INM				10	3	13	10	3	10	RKVY	
Off	F/FW	26/10/2016	1	Soil Science	Production of organic inputs	Methods of Vermicomposting				8	7	15	8	7	15	RKVY	
Off	Ry	11.10.2016	1	Soil Science	Soil and Moisture conservation	Different types of mulching method				13	3	16	13	3	16	NABARD	
Off	Ry	8.11.2016	1	Soil Science	Management of Agricultural crops	Macro and micro deficiency symptoms in Agricultural crops				16	1	17	16	1	17	NABARD	
Off	EP	23.06.2016	1	Soil Science	INM	Balance fertilizer				10	10	20	10	10	20	RKVY	

3.4. Extension Activities (including activities of FLD programmes) (Please mention specific Extension Activity conducted by the KVK such as Field Day, Kisan Mela, Exhibition, Diagnostic Visit, etc) during 2016-17

Sl. No.	Extension Activity	Topic	Date and duration	No. of activities	Participants											
					General (1)			SC/ST (2)			Extension Officials (3)			Grand Total (1+2)		
					M	F	T	M	F	T	M	F	T	M	F	T
1.	Advisory services	Agriculture and allied subject	April 2016-March 2017	130				100	30	130				100	30	130
2.	Diagnostic visit	Agriculture and allied subject		90				50	40	90				50	40	90
3.	Field day	Paddy, Onion, Field pea ,garlic		7				200	30	230				200	30	230
4.	Group Discussion	Agriculture and allied subject		10				190	50	240				190	50	240
5.	Film show	Post harvest management on Onion and weed management on Maize ,Mushroom cultivation		3				80	40	120				80	40	120

3.5 Production and supply of Technological products during 2016-17

A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Maize	RCM 76	2	10,000/-		20	20
	Paddy	Gomati	2	6,000/-		20	20
		Sambha Mahshuri	2	8,000/-		20	20
	Groundnut	GG 20	0.5	3,000/-		10	10
	Field pea	AP-3	5	50,000/-		50	50

A1. SUMMARY of Production and supply of Seed Materials during 2016-17

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	0.6	24,000/-		60	60
2	OILSEEDS	0.05	3,000/-		10	10
3	PULSES	0.5	50,000/-		50	50
TOTAL		1.15	77,000/-		120	120

B. Production of Planting Materials (Nos. in lakh)

Major group/class	Crop	Variety	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
					General	SC/ST	Total
Fruits	Pineapple	Kew	0.005	2,500/-		5	5
Spices	Chilli	King Chilli	0.03	6,000/-		60	60
	Onion		0.1	20,000/-		10	10
VEGETABLES	Tomato		0.04	4000/-		10	10
	Cabbage		0.01	1000/-		7	7

B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2016-17

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	Fruits	0.005	2,500/-		5	5
2	Spices	0.13	26,000/-		70	70
3	VEGETABLES	0.05	5000		17	17
TOTAL		0.185	56,000/-		92	92

C. Production of Bio-Products during 2016-17

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS								
BIOFERTILIZERS								
1 Azolla	Azolla	Azolla spp		2			20	20
2 Vermi	Vermcompost	Eisenia foetida		5	6000		50	50

C1. SUMMARY of production of bio-products during 2016-17

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	BIOAGENTS							
2	BIO FERTILIZERS	<i>Azolla pinnata</i>		200			20	20
		<i>Eisenia foetida</i>		500	6000/-		50	50
3	BIO PESTICIDE							
	TOTAL			700	6000/-		70	70

D. Production of livestock during 2016-17

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
	Cattle/ Dairy							
	Goat							
	Piggery							
	Poultry							
	Fisheries							
	Others (Specify)							

D1. SUMMARY of production of livestock during 2016-17

Sl. No.	Livestock category	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		Total number of Recipient beneficiaries
			Nos	(kg)		General	SC/ST	
1	CATTLE							
2	SHEEP & GOAT							
5	FISHERIES							
6	OTHERS (Pl. specify)							
	TOTAL							

3.6. Literature Developed/Published (with full title, author & reference) during 2016-17

(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
Research papers			
Training manuals			
Technical Report			
Book/ Book Chapter			
Popular articles			
Technical bulletins			
Extension bulletins			
Newsletter			
Conference/ workshop proceedings			
Leaflets/folders	<ol style="list-style-type: none"> 1. Paddy cultivation in Top soil bedded terrace 2. Cultivation of French bean Var. Arka Anoop 3. Economic viability of herbicide on weed management on maize 4. Fodder management Co1 & Co2 5. Chinese method of Mushroom cultivation 	R. Vanlalduati Malsawmkimi Dr. OP singh S.K ahmed F. Zoramthari	100 100 100 100 100
e-publications			
Any other (Pl. specify)			

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

(C) Details of Electronic Media Produced

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

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

Success story on Tomato Cultivation

Name of Farmer : Lalmuanpuia

Village: Tuipui

Mr. Lalmuanpuia is a young farmer of village Tuipui and is working hard in his field for his family survival but due to lack of knowledge he was not able to support his family. Later on KVK, Champhai District brought seeds from NHRDF, Hubli and conducted On farm trial on Tomato variety Arka Rakshak on his field. He is quick learner and before he take any step he always take advised from KVK Scientist. He cultivated Tomato variety Arka Rakshak in his 0.75 hectare land. He raised nursery on May 2016 and transplanted on June 2016 scientifically with the help of KVK scientist. He is amazed with the result of Arka Rakshak variety. He sold his tomato to Aizawl and Lunglei at the rate of Rs 27 -55 per kg. Within one year he earned around 12 lakhs. The neighboring farmers came to know the about his produce and quality of Arka Rakshak and motivated his neighboring farmers and other district farmers. Till now KVK, Champhai District listed many farmers name and their phone number from different district of Mizoram who are willing to take up this variety for the next season.



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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1			

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 Laboratory :

Status of establishment of Lab :

1. Year of establishment :2015
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1	Side table	1	8500
2	Steel rack	3	26700

3	Book case	3	51000
4	USDV 8	3	75231
4	Stool	2	2622
5	MRIDAPARIKSHAK	1	7500
TOTAL			1,71,553

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount (In Rupees) realized
Soil Samples	250	250	5	-
Plant Samples	70	70	10	-
Total		320	15	

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	90	90	20	20			15	15	12	12			137	137
Voice only	120	120	10	10			5	5	10	10			145	145
Voice and Text both														
Total													282	282

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)
Chinese method of Mushroom cultivation	25	100	40500	70000
Pest and diseases management in M orange	10	100	30000	55800
Onion Cultivation (var Agri Found Light Red)	10	100	55,000/-	1,30,000/-

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

4.2. Cases of large scale adoption

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

Name of organization	Nature of linkage
State Department of Horticulture	Supply of subsidized inputs like HDPE pipes, Chemicals etc
State Department of Agriculture	Implementation of RKVY, NFSM, supply of subsidized inputs like chemicals, farm machinery etc

NABARD	Promoter in formation of Farmers Clubs - Zotlang & Hliappui ,Project sanctioning.
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 .

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 2016-17

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
RKVY schemes	Training, Demonstration, diagnostic visits etc	10.5.2016	RKVY	21,38,250/-
Demonstration on Integration of Fish on Paddy field for Sustainable Agriculture	Training , Demonstration , Diagnostic visits	June 2016	NABARD	10,00,000/-
Crop intensification through rice-pea cropping system	Training , Demonstration , Diagnostic visits	19.12.2016	NABARD	8,35,800/-

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Sl. No.	Programme	Nature of linkage	Remarks
1.	Joint visits	Financial 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 2016-17

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estd.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Vermicompost unit 2	2016		Eisenia foetida	Vermicompost	5 qt		6000/-	Prepared from using banana pseudostem.
2	Azolla	2016		Azolla pinnata	Azolla	2 qt		-	

6.2 Performance of instructional farm (Crops) including seed production

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	2/06/2016	02/11/2016	0.15	1) Gomati 2) Samba Mahsuri	Seed	2Qtls 2Qtls	7235/-	14,000/-	
Wheat									
Maize	26/05/2016	14/09/2016	0.1	RCM-76	Seed	2Qtls	6150/-	10,000/-	
Any othe									
Pulses									

Green gram									
Black gram									
Arhar									
Lentil									
Field pea	5.11.2016	20. 2.2017	0.5	AP-3	Seed	5 q	6000	12000	
Oilseeds									
Mustard									
Soy bean									
Groundnut	7.6.2016	16.10.2016	0.05	GG 20	seed	0.5 qt	1800/-	3,000/-	
Any other									
Fibers									
i.									
ii.									
Spices & Plantation crops									
Ginger									
i.									
Floriculture									
i.									
ii.									
Fruits									

Pineapple				kew	Slip & crown	0.005		2500	
i.									
Vegetables									
King Chilli	1.4.2016	18.11,2016	0.005	King chilli	Seedling	3000	750	6000	
Cabbage	23.10.2016	29.11'.2016	0.004	Improved Bahar	Seedlings	1000	1500	1000	
Onion	14.10.2016	6.11.2016	0.015	Agri Found Light Red	Seedlings	10000	2500	20000	
Tomato	2.10.2016	30.10.2016	0.015	Arka Rakshak	Seedlings	4000	5000	4000	
a. Others (specify)									
i.									
ii.									

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	vermicompost	5 qt	-	6000/-	Prepared from using banana pseudostem.

6.6. Utilization of hostel facilities (Month-Wise) during 2016-17

Accommodation available (No. of beds) :

Months	Title of the training course/Purpose of stay	Duration of Training	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
August	Vermicomposting	3 day	13	2 nights	
Total					
Grand total			13		

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	SBI	Khawzawl Branch	36607032799
Revolving Fund			

7.2 Utilization of funds under FLD on Maize (Rs. In Lakhs) if applicable

Item	Released by ICAR/ZPD		Expenditure		Unspent balance as on 31 st March, 2015
	Year	Year	Year	Year	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.3 Utilization of KVK funds during the year 2016 -17

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances		100.33	94.50
2	Traveling allowances		2	2
3	Contingencies		30.08	30.08
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)			
<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
<i>G</i>	Training of extension functionaries			
<i>H</i>	Maintenance of buildings			
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory			
<i>J</i>	Library			
TOTAL (A)			132.41	126.57
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)			132.41	126.57

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 in hand as on 1st April of each year
April 2013 to March 2014	63,084	91,345	1,04,731	49,648
April 2014 to March 2015	49,648	2,55,399	2,07,733	47,666
April 2015 to March 2016	47,666	65,360	61,560	51466
April 2016 to March 2017	51466	32,600	46800	37266

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

(a) Administrative:

(i) Electrification is needed in the KVK Farm.

(ii) Two four wheel vehicles-One in the name of Programme Co-ordinator and one for Office use/ technical staff is needed. Moreover two wheeler is needed for dak, etc.

(b) Financial:

(i) Irregular salary is a major constraint.

(ii) TE bills get accumulated for many months together causing great problem.

(c) Technical

- (i) Technology Inventory issued for Zone III during 2008-2009 needs to be updated.
- (ii) Refreshment course for Scientists/SMS's may be conducted from time to time at Zonal level.
- (iii) Need, for strengthening of infrastructure for Plant Health Clinic and Soil Lab. Etc.

A handwritten signature in blue ink, appearing to be 'H. S. ...', written over a horizontal line.

(Signature)
Programme Coordinator