

PROFORMA FOR ANNUAL REPORT OF KVKS, 2015-16

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
LalrinawmiRenthlei	03831-261484	9436159788, 9856229907	kvkxhawzawl@gmail.com

1.4. Year of sanction:

1.5. Staff Position (As on 31st March, 2016)

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	LALRINAWMI RENTHLEI	Sr Scientist & Head	Horticulture	15,600-39,100+8,000	25,140	1.7.11	Deputation	ST
2	SMS	MALSAWMKIMI	Scientist	Horticulture	15,600-39,100+5,400	18,590	03.06.09	Permanent	ST
3	SMS	SYED KHALIDUDDIN AHMED	Scientist	Animal Science	15,600-39,100+5,400	196,90	26.4.08	Permanent	GENERAL
4	SMS	F. ZORAMTHARI	Scientist	Plant Protection	15,600-39,100+5,400	18,590	06.6.09	Permanent	ST
5	SMS	Dr. OM PRAKASH	Scientist	Agronomy	15,600-39,100+5,400	18,590	23.6.14	Permanent	General
6	SMS	ISRAEL LALREMRUATA	Scientist	Agro Forestry	15,600-39,100+5,400	16,880	09.03.12	Permanent	ST
7	SMS	VANLALDUATI	Scientist	Soil Science	15,600-39,100+5,400	16,880	09.02.15	Permanent	ST
8	Programme Asst	LALHRUAILUANGI	PA (Home Sc)	Home Science	9,300-34,800+4200	13060	1.7.08	Permanent	ST
9	Computer Programmer	SAMSON SAIRENGPUIA SAILO	PA (Computer)	Computer	9,300-34,800+4200	13060	22.4.08	Permanent	ST
10	Farm Manager	PRAKASH THAPA	Farm Manager	B.Sc (Agri.)	9,300-34,800+4200	12,550	25.4.08	Permanent	GENERAL
11	Assistant	K.VANLALHMANGAIHI	Assistant	M.Com	9,300-34,800+4200	13060	29.5.08	Permanent	ST
12	Stenographer	CRUSADE THANGPUII	Stenographer	B.A	5,200-20,200+2,400	9,390	29.2.08	Permanent	ST
13	Driver	LALNUNTLUANGA	Driver	-	5,200-20,200+1,900	7,660	29.2.08	Permanent	ST
14	Driver	R.DENGLIANA	Driver	-	5,200-20,200+1,900	7,660	9.2.08	Permanent	ST
15	Supporting staff	LALTANPUIA	Supporting staff	-	4,440-7,440+1,300	5,960	10.7.08	Permanent	ST
16	Supporting staff	LALVENHIMA	Supporting staff	-	4,440-7,440+1,300	5,960	24.7.08	Permanent	ST
	Total					2,07,430			

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Gypsy	MZ-O1 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 2015-16

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken on last SAC recommendation
1.	29/1/2016	Shri. Lalthansiamia, Director Of Agriculture, Research & Extension	1) President, All Mizoram Farmer's Union(AMFU) Suggested for conducting of Soil sampling by KVK at various location of the district. 2) DAO suggested to conduct OFT/FLD on PEA variety Rachana. 3) Director of Agri(R&E) suggested to omit varietal trial on rice variety BPT-7029 proposed by agronomy scientist as the farmers may not like the taste. 4) DHO suggested preparation of leaflets/folders on the package of practices of crops/animals/enterprise on which KVK has conducted trials and demonstration and found suitable for adoption in the district.	
2.		Smt. Lalnunpuii Parte, AEO		
3		Shri Lalhmangaiha, Divisional Horti Officer		
4		Shri Vanlalchuiailova, Divisional Forest Officer		
5		Dr.L.Pudaite, District Vety Officer		

6	Shri R.K.Nithanga, District Agriculture Officer	<p>5) DAO suggested multiplication of green manure crops by KVK.</p> <p>6) It was suggested to include the number of weeds/sq.m in the parameters of assessment under Soil Sc OFTs vis "Effects of Azolla on the yield of rice crops" and "Effect of mulching method on the yield of Tomato". Moreover, Arkarakshak variety of Tomato was advised for the trial.</p> <p>7) Under OFT of Plant Protection "IPM on Aphids in Mustard" the members suggested to see the efficacy of Coriander juice besides the components of the proposed technology.</p> <p>8) In Animal sc segment, due to high input cost which becomes a constraints in the OFT of animal sc "Evaluation and comparison of Burmies Local Sows with the improved cross breed sows" The DVO suggested an offer to help in increasing the sample size in the research by incorporating the beneficiaries of NLUP Programmes covered by the Department</p>	
7	Shri Lalthanzuala, District Fisheries Development Officer		
8	Smt Emily Lalrinpuii, DIPRO		
9	Shri H.K.L Thanga, Sr,Vice Perisident, AMFU		
10	Shri K.Khamthuama, Seri Extension Officer		
11	Smt Lalrinawmi Renthlei, Sr Scientist & Head KVK		
12	Dr.OM.Prakash, Scientist, Agro KVK		
13	Smt F.Zoramthari, Scientist PP		
14	Shri S.K.Ahmed, Scientist, Animal Sc		
15	Smt Malsawmiki, Scientist, Horti		
16	Smt R.Vanlalduati, Scientist, SoilSc		

*** 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 + Hybrid 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).
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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 2014	nil	28	20.25	55
May	-	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	nil	20	12.95	46.5
February	nil	22.1	11.2	51
March	-	-	-	-

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 (2015-16)

Sl. No.	Taluk/ Eleka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1.	Khawzawl	Khawzawl	Khawzawl	WRC + Jhum paddy + Maize + Winter vegetables + Animal Husbandry and Fisheries	<ul style="list-style-type: none"> • Improper nursery management in WRC. • Improper nutrient management • Infestation of insect pest and diseases. • Lack of awareness toward s integrated farming • Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Nursery management • Integrated nutrient management • Integrated pest management • Creating awareness for adoption of integrated farming. • Creating awareness for livestock management and feed and fodder production.

2.	Khawzawl	Khawzawl	Biate	Jhum paddy + Tea + Orange + Vegetables + Animal Husbandry	<ul style="list-style-type: none"> •Lack of knowledge on crop rotation • No proper post harvest management in tea. •Lack of quality seed of different vegetables •Citrus declining •Lack of knowledge and awareness on livestock management, feed and fodder production. 	<ul style="list-style-type: none"> • Creating awareness on crop rotation and integrated farming • Training on post harvest management in tea. • Creating awareness for the use of quality seeds in different vegetables. • Rejuvenation of old citrus orchards. • Creating awareness for livestock management and feed and fodder production
3	Khawzawl	Khawzawl	Chawngtlai	WRC+Jhum Paddy Grapes + Ginger Passion fruit + Animal Husbandry	<ul style="list-style-type: none"> •Lack of Training and Pruning of Passion Fruit & Grapes •Improper nursery management in WRC. • Improper nutrient management •Infestation of insect pest and diseases. 	<ul style="list-style-type: none"> • Cultivation practices of Grapes and Passion fruit • IDM on Ginger • Integrated nutrient management • Integrated pest management • Creating awareness for livestock management and feed and fodder production

4.	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.

3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2015-16

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	3	3	8	8	3	3	30
Horticulture	3	3	6	6	2	2	25	25
Plant Protection	3	3	6	6	2	2	25	25
Soil Science	2	2	3	3	1	1	10	10
Animal Sc	3	2 on going & 1 achieved			1	1	3	3
Total	14	12 and 2 on going	23	23	9	9	93	93

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	40	50	1128	2064	136	133	1466	2042
Rural youth	7	6	230	146				
Extn. Functionaries	3	3	60	60				
Total	50	59	1418	2270				

Seed Production (ton.)		Planting material (Nos. in lakh)	
5		6	
Target	Achievement	Target	Achievement
0.70	0.75	11,150	14,000

Note: Target set during last Action Plan Workshop

3. B. Abstract of interventions undertaken during 2015-16

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 Paddy variety Gomati		-	-	Diagnostic visit,	Seeds, Fertilizer etc.
2	Weed Management	Maize	Low yield & higher cost of cultivation with manual weeding	Economic viability of herbicide on weed mngt in Maize		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	Effect of Rhizobium inoculation on growth and yield of field pea				Diagnostic visit, Field day	Seeds, Bio- fertilizer etc.
4	Varietal Evaluation	Paddy	Lack of known variety		Introduction of paddy variety Bhalum-3			Diagnostic visit, Field day	Seeds, Fertilizer etc.

5	Varietal evaluation	Soyabean	Lack of known variety		Introduction of Soyabean var RCS 1-9 and its scientific management			Diagnostic visit	Seeds, Bio- fertilizer etc.
6	Varietal evaluation	Toria	Lack of known variety		Performance of Toria Variety : TS-38			Diagnostic visit,	Seeds, Bio- fertilizer etc.
7	Plant production	King chilli	Lack of known variety	Introduction of King Chilli				Diagnostic visit,	Seeds , Biofertilizers etc
8	Plant production	Onion	No production during Kharif	Introduction of Kharif Onion Production				Diagnostic visit,	Seeds ,
9	Weed management	Onion	Lack of knowledge on weed management in Onion		Weed management in Onion by Using Pendimethaline			Diagnostic visit,	Seeds
10	Variatal evaluation	Garden pea	Lack of high yielding variety		Introduction promising variety of Garden Pea var. Arkel			Diagnostic visit, field day	Seeds
11	IPM	Ginger	Low yield due to wilting and rotting of rhizomes and shoot	Management of shoot and rhizome borer in ginger		Pest and disease management in ginger in Ginger		Diagnostic visits, Farmers Scientist Interaction	Pesticides
12	IPM	Paddy	Low yield due to disease and pest infestation	Integrated pests and diseases management in paddy		Pest and Disease management in Paddy		Diagnostic visits,Field Days,Farmer Scientist interaction,Farmers field school	Biopesticides and Pesticides
13	IDM	Tomato	Low yield due to wilting	Integrated Management of bacterial wilt in tomato		Pest and Disease management in Tomato		Diagnostic visits,Farmer Scientist interaction	Bactericides,Bleaching powder .

14	IDM	Ginger	Low yield due to disease infestation	Management of Ginger rhizome rot with Biofor PF		Diseases management in Ginger		Diagnostic visits, Farmer Scientist interaction	Biofor PF
15	Mushroom cultivation	Mushroom		Chinese method of mushroom cultivation				Diagnostic visit, demonstration	Spawns
16	Soil amendment and INM	Maize	Low yield due to Soil acidity	Liming and Integrated Nutrient Management for enhancing Maize Productivity in acidic soils				Diagnostic visit	Lime, Seeds, Fertilizers
17	Soil management	Okra	Low yield due to poor nutrient status of soil		Effect of organic manures on Growth and Yield of Okra			Diagnostic visit	Seeds, organic manures
18	Breed Comparison	Piggery production	Non availability of known exotic breeds	Evaluation and Comparison of Burmese local Sows with Improved Crossbreed (Hampshire cross) Sows with respect to Oestrus cycle, inter Furrowing Intervals & litter size				Diagnostic visit	Piglets & Mineral mixture
19	Feed and Fodder	Maize	Scarcity of green fodder during lean seasons	Fodder Production and feed Quality Enhancement	Introduction & Cultivation of Maize Var: DMH-849; HQPM-1 as Fodder crops			Diagnostic visits	seeds
20	Feeding Management	Piggery production & Management	Poor Growth & performance in existing feeding system & high cost of concentrate feed.					Diagnostic visit	

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 Paddy variety Gomati	Low yield with local variety & lack of Known variety	Varietal Evaluation	Paddy	3	<p>No. of hills / sqm Gomti: 16 Local: 14 No. of tillers / sq m Gomti – 224 Local - 203</p> <p>No. of effective tillers/ sq m Gomti- 223 Local – 198</p> <p>No. of grains / panicle Gomti – 238 Local – 216</p> <p>Yield/ha Gomti– 3.78 t Local – 3.06 t</p>	It is good to enhance their income per unit area	Performance is up to the mark and less attack of insect pest & diseases for further study will conduct FLD	1.69 1.61
2	Economic viability of herbicide on weed mngt in Maize	Low yield & higher cost of cultivation with manual weeding	Weed Management	Maize	3	<p>No. of weeds / sq m Treated– 16 Untreated -38</p> <p>Plant stand / sq m Treated - 8</p>	It's good to enhance their income & reducing cost of cultivation		2.02 1.56

						Untreated -8 No. of cobs/ sq m Treated- 11 Untreated -9 Cob length Treated- 13.92 cm Untreated -13.64cm No. of grains /cob Treated- 561 Untreated -534 Yield/ha Treated – 3.78 t Untreated -3.32t			
3	Effect of Rhizobium inoculation on growth and yield of field pea	Lack of knowledge about seed treatment with bio-fertilizers	Integrated Nutrient Management	Field Pea	2	Field pea – 1. Plant stand / sq m Treated- 47 Untreated-45 2. No. of pods / plant Treated- 9 Untreated-8 3. No. of seeds/ pod Treated– 6 Untreated-5 Pod yield/ha – 6.5 qt/ha	It is good to enhance Farmers income as Green pods is @Rs. 70-80/kg	To develop short duration varieties for utilizing residual moisture	Pea- 2.35 Local: 2.1
4	Performance of king chilli under Champhai District.	Lack of Known variety	Introduction of King chilli	King chilli	2	Date of sowing: 1/may/1016 Average Fruit weight (g) King chilli: 11.5 Control: 13.5	Farmers were motivated by seeing the Productivity and willing to continue for the next season.		King Chili : 3.1 Local: 2.7

						<p>Average Fruit length (cm):</p> <p>King chili : 7.3 Control: 9.5</p> <p>Average No of fruit /plant</p> <p>King chili :205</p> <p>Control : 128</p> <p>Average Yield:</p> <p>King chilli : 31.5 q/ha</p> <p>Control : 23q/ha</p>			
5	Evaluation of Kharif Onion Variety Arka Kalyan	No production during Kharif Season	Introduction of Kharif Onion Productio	Onion	4	<p>Technology :</p> <p>Time of sowing : 20.5.2015</p> <p>Time of transplanting: 4/6/2015</p> <p>Average weight of bulb (g): 150</p> <p>Average height (cm): 42</p> <p>Average yield: 335q/ha</p> <p>Farmers practice (Rabi) yield: 350q/ha</p>	Farmers are willing to continue since there was production during November and fetched higher price in the market.	The technology needs large scale demonstration.	<p>Technology : 2.7</p> <p>Farmers practice: 2.4</p>

3	Integrated Management of bacterial wilt in tomato	Low yield due to wilting	Soil treatment with bleaching powder (15 kg/ha). Seedling dip with Streptocycline Spraying with Streptocycline/Oxytetracycline 200ppm at 7 days interval	Tomato	2	<ul style="list-style-type: none"> No of infected plants at ten days interval-5% Disease incidence (%)-17% 3) Yield qt/Ha-250.80 qt Control 1) No of infected plants at ten days interval-30% 2) Disease incidence (%)-60% 3) Yield qt/Ha-170.25 qt	The farmers were ready to adopt and continue with the technology by seeing the quantity and quality of the harvest.	Soil treatment and seedling dip treatment greatly influences the growth of timely monitoring and spraying the crop. And with bactericides greatly influences the overall health of the crop.	Treated-2.51 Control -1.89
Soil science	Effect of organic manure and chemical fertilizer on the yield of Brinjal	Low yield	Integrated Nutrient Management	Brinjal	3	1) No. of fruits/plant-41 2) Length of fruit (cm)-11.48 3) Yield(q/ha)-49.10	Higher yield and more economic return	Proper Nutrient management response to higher productivity and more economic return	2.7
	Liming and Integrated Nutrient Management for enhancing Maize Productivity in acidic	Low yield due to Soil acidity	Soil amendment and INM	Maize	3	1. Plant height (cm)-130 2. Weight of cob (gm)-420 3. Cob length (cm)-22 4. Yield (q/ha)-45.10q/ha	Farmers are willing to adopt proper application of liming and INM	Liming and INM is recommended to increase the crop productivity on acidic soils.	2.2

	soils								
Animal sc	Evaluation and Comparison of Burmese local Sows with Improved Crossbred (Hampshire cross) Sows	Unavailability of known exotic breeds	Introduction of new breed	Piggery	4	<p>On going Parameters: a) Age at puberty- b) Age at first furrowing- c) Litters size at furrowing- d) Wt. of litter (weekly interval till weaning)- e) Mortality till weaning-</p>	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	-
	Fodder Production and feed Quality Enhancement	Scarcity of good green fodder in lean season	Cultivation of Maize Var: DMH-849; HQPM-1 as Fodder crops:	Maize as green Fodder	3	<p>Observations: a)Duration of Cutting: 55 DAS b) No. of cuttings per Year: 4 times c)Yield t/ha:35t/h as green fodder</p>	Farmers are getting aware of the fact that maize as fodder can be grown round the year provided there is sufficient water for irrigation	Many farmers are inclined towards the cultivation maize as subsidy to green fodder	

	Feeding Management	Poor Growth & Performance in existing feeding system & high cost of concentrate feed.	Low Cost feed formula utilising locally available non-conventional feed materials and Mineral mixture as feed additives.(wheat bran, Rice bran & polish, Groundnut cake, fish meal, mineral mixture, etc.)	Mineral mixture as feed additive to locally available non-conventional feed	4	On going Parameters: a) Weight at Monthly interval: b) Growth rate: 3 M- 14.25 kg & 14.85 kgs 4M- 19.25 kg & 21.3 kgs 5M- 24.75 kg & 25.6kgs 6M- 30.75 kg & 33.25kgs c) Disease occurrence: nil d) Mortality: nil	Created awareness among the farmers about the use of non-conventional feed materials available with them	Addition of mineral mixture on the existing feeding system has improved the growth rate of animals	
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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 2015-16

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

List of technologies demonstrated during previous year and popularized during 2014-15 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	Soybean	Introduction of Soybean var RCS 1-9 and its scientific management	5	10	2
2	Paddy	Introduction of paddy variety Bhalum-3	5	10	2
3	Onion	Weed management in Onion	3	10	1
4	Garden pea	Introduction of Garden pea Var. Arkel	3	10	1
5	Ginger	Application of 10 kg : 1 kg (Rhizome seed : Biofor Pf) and prepare paste @ 1kg in 2 ltr of water and dip the Rhizome in the paste for 15 minutes and dry shade for 1 hour.	2	10	2.02
6	Mushroom	A.Substrate mixture : a) 15 bucket paddy straw b) 4 buckets saw dust (excluding teak saw dust) c)2 kgs atta d)50 gms sodium bi carbonate (Cooking soda)	3	15	15 units

		<p>e)250 gms lime</p> <p>B) Sterilization for 24 hours</p> <p>C)Incubation</p> <p>D)Growing in growing room</p>			
7	Okra	<p>Influence of organic manures on growth and yield of Okra</p> <p>Treatment:</p> <p>1.FYM @ 10t/ha</p> <p>2.Neem cake @ 2t/ha</p> <p>3.Poultry manure @ 5t/ha</p>	2	10	1
8	Hybrid Napier (CO2&CO3)	Cultivation of fodder on waste and fallow land	3	5	5

* 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	Introduction of paddy variety Bhalum-3	Kharif-2015	2	2	10	-	10	-	Rainfed	211	14	116
2.	Soybean	Varietal Evaluation	Introduction of Soyabean var RCS 1-9 and its scientific management	Kharif-2015	2	2	10	-	10	-	Rainfed, 800 M MSL	233	17	120
3.	Toria	Varietal Evaluation	Performance of Toria Variety : TS-38	Rabi-2015-16	2	2	10	-	10	-	Rainfed	229	16	117
4	Onion	Weed management	Weed management in Onion by Using Pendimethalii	Rabi, 2015-16	1	1	10		10		Irrigated	273.4	16.7	126

5	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
6.	Ginger	Biological control	Application of 10 kg : 1 kg (Rhizome seed : Biofor Pf) and prepare paste @ 1kg in 2 ltr of water and dip the Rhizome in the paste for 15 minutes and dry shade for 1 hour.	April 2015-February 2016	2.02	2.02	10		10		Rainfed	245	17	136
7	Mushroom	Cultivation technique of Mushroom	<p>A.Substrate mixture :</p> <p>a) 15 bucket paddy straw</p> <p>b) 4 buckets saw dust (excluding teak saw dust)</p> <p>c)2 kgsatta</p> <p>d)50 gms sodium bi carbonate (Cooking soda)</p>	November 2015-February 2016	15 unit	15 unit	15		15		Rainfed	-	-	

			e)250 gms lime B) Sterilization for 24 hours C)Incubation D)Growing in growing room												
8	Okra	Soil management	Effect of organic manures on growth and yield of Okra var.Arka ana,ika	Kharif 2015	1	1	10	-	10	-	Rainfed	298	9.6	220	
9	Fodder grass	Fodder production	3	350tons/ha/year	290tons/ha/year	12.06					-	-	-	-	

	grass	on		ar	ar												
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*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	1	2/11/2016	-	65	65	
2	Farmers Training						
3	Media coverage	1					
4	Training for extension functionaries						
5	Any other (Pl. specify)						
	Total					65	

										cuttings											

**** 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.

(iii) Fisheries

Sl. No.	Category, e.g. Common carp, ornamental fish etc.	Thematic area	Name of Technology	No. of farmers	No. of units	No. of fish/fingerlings	Major Performance parameters / indicators		% change in the parameter	Other parameters (if any)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)				Remarks		
							Demo	Check		Demo	Check	GC*	GR*	NR*	BCR*	GC	GR	NR	BCR			

**** 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.

f. Performance of FLD on Crop Hybrids

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

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

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

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

3.3. Achievements on Training

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																						
Integrated Pest Management	6	4	10							175	135	30	5	205	140	175	135	30	5	205	140	345

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	2	-	2							44	-	6	-	50	-	44	-	6	-	50	-	50
Soil and Water Conservation																						
Integrated Nutrient Management		1	1	-	-	-	-	-	-	-	46	-	5	-	51	-	46	-	5	-	51	51
Production and use of organic inputs																						
Management of Problematic soils		1	1	-	-	-	-	-	-	-	45	-	9	-	54	-	45	-	9	-	54	54
Micro nutrient deficiency in crops																						
Nutrient Use Efficiency																						
Soil and Water Testing																						
IV Livestock Production and Management																						
Dairy Management		1	1						15											15		15
Poultry Management																						
Piggery Management	1	3	4						40	26		40	26							40	26	66

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	20	18	38																			

3.3.2. Achievements on Training of Farmers and Farm Women 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/ 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	-	-	-	-	-	-	48	18	5	2	53	20	48	18	5	2	53	20	73
Resource Conservation Technologies																						
Cropping Systems																						
Crop Diversification																						
Integrated Farming																						
Water management																						
Seed production	-	9	9	-	-	-	-	-	-	-	190	-	48	-	238	-	190	-	48	-	238	238

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 of		4	4								215		35		250							250

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																						
Production of organics input		1	1	-	-	-	-	-	-	-	14	-	-	-	14	-	-	14	-	-	14	14
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 Courses/ Prog.			Participants							Grand Total
	Off	Sp	Total	General			SC/ST		Total		

		Off		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*	Off	Sp Off*	
Mushroom Production	1		1							20		2		22		20		2		22		22
Integrated pest management	1		1							10		10		20		10		10		20		20
Winter vegetable cultivation	1		1							20		10										30
Para extension workers																						
Composite fish culture																						
Freshwater prawn culture																						
Shrimp farming																						
Pearl culture																						
Cold water fisheries																						
Macro & Micro nutrient deficiency symptoms		1	1	-	-	-	-	-	-	-	16	-	1	-	17		16	-	1	-	17	17
Soil and moisture conservation		1	1	-	-	-	-	-	-	-	13	-	3	-	16	-	13	-	3	-	16	16

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

C. Extension Personnel

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 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*
Citrus decline and its management		1	1								15		5		20		15		5			20
Integrated Pest Management		1									19		1		20		19		1			20
Integrated Nutrient management		1	1	-	-	-	-	-	-	-	8	-	7	-	15	-	8	-	7	-		15

Household food security																					
Women and Child care																					
Low cost and nutrient efficient diet designing																					
Production and use of organic inputs																					
Gender mainstreaming through SHGs																					
TOTAL																					

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 Manag	Chemical weed	10.7.15	1	KVK Training	Farmers & Farm women	-	-	-	22	3	25	22	3	25

	ement	management in rice			Hall										
	Seed Product ion	Seed production & storage of Rice and Field pea	10/4/15 & 13/11/15	1	KVK Training Hall	Farmers & Farm women	-	-	-	34	10	64	34	10	44
	Resour ce Conser vation Technol ogies	Direct Seeded Rice	6/6/15	1	KVK Training Hall	Farmers & Farm women	-	-	-	30	5	35	30	5	35
Horticulture	Post harvest manag ement	Curing and Storage of Onion	29.4.2015	1	KVK, Training Hall	Farm and farm women				20	10	30	20	10	30
	Protect ed cultivat ion	Protected cultivation of Tomato	6.5.2015	1	KVK, Training Hall	Farm and farm women				20	10	30	20	10	30
	Nursery manag ement	Nursery management of horticulture crops	21.5.2015	1	KVK, training Hall	RY				20	10	30	20	10	30
	Trainin g and	Training and pruning of	4.2.2016	1	KVK, training	RY				20	10	30	20	10	30

	pruning	Young Orchard			Hall										
Plant protection	IPM	Pest and disease management of Ginger	22/7/15 11/8/15 9/2/16	1 day each ie 3 day	KVK, Training Hall, Khawzawl	Farmer & Farm women				13 2	30	162	132	30	162
Soil Science	Soil Health management	Integrated Nutrient Management	10.04.2015	1	KVK Training Hall	Farmers & Farm women	-	-	-	23	2	25	23	2	25
	Soil management	Soil fertility management in degraded jhumland	17.04.2015	1	KVK Training Hall	Farmers & Farm women	-	-	-	21	4	25	21	4	25
	Nutrient management	Balance fertilization	20.04.2015	1	KVK Training Hall	Farmers & Farm women	-	-	-	46	5	51	46	5	51
	Soil amendment	Management of acidic soils	22.04.2015	1	KVK, Training Hall	Farm and farm women				45	9	54	45	9	54
	Soil health management	Soil solarisation	28.04.2015	1	KVK, Training Hall	Rural Youth				14	-	14	14	-	14
Animal Science	Scientific Management of	Piggery production	10/06/15, 18/6/15	2	KVK, Training Hall	Farmers & farm women				3 4	7	34	7	-	41

	pig														
	Paddy cum fish culture	Integration of fish in paddy fields	01/9/15 ;16/9/15 & 06/10/15	3	Zotlang & Khawzawl	As above				46	9	46	9		55

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	Seed Production	Seed production of Rice, Maize and Field pea	17/4/15 – 10/11/15	1	YMA Hall etc.	Farmer & Farm women				190	48	238	190	48	238
	Integrated Crop Management	Scientific use of Urea, DAP, MOP & Lime	03/03/2016	1	Rabung Primary School	Farmer & Farm women				48	5	53	48	5	53
	Weed Mngt	Scientific use of herbicide in Rice & other crops	11/03/2016	1	SDAO, Training Hall, Khawzawl	Farmer & Farm women				18	2	20	18	2	20
Horticulture	Nursery management	Better nursery management	10.4.2015	1	Chawngtlai	RY				20	10	30	20	10	30

	Trainin g and pruning	Training and pruning of major fruit crop	27.5.2015	1	Arro	Farm and farm women				30	20	50	30	20	50
	Lay out of orchard	Layout and management of orchard	29.5.2015	1	Hmunche ng	Farm and farm women				30	30	60	30	30	60
	Cultivat ion practice s	Scientific cultivation of M orange	10.6.2015	1	Vankal	Farm and farm women				45	15	55	45	15	55
	Manag ement of young plants	Canopy management in major fruit crop	26.6.2015, 7.7.2015.2 8.7.2015 and 3.3.2016	1	Hliappui	Farm and farm women				50	40	90	50	40	90
	Rejuve nation of Orchar d	Citrus rejuvenation	11.8.2015	1	New Chalrang	Farm and farm women				40	30	70	40		70
	Cultivat ion practice s	Scientific cultivation of M orange -	21.8.2015	1	Ngaizawl	Farm and farm women				30	30	30	30	60	60
	Cultivat ion practice s	Scientific cultivation of Kiwi -	3.9.2015	1	Tualpui	Farm and farm women				40	30	70	40	30	70
	Product ion technol	Scientific cultivation of Ginger.	5.5.2015, 13.5.2015	4	Newchalr ang, Hliappui, Khawzaw	Farm and farm women				26 5	55	250	265	35	320

	ogy				I, Ngopa, rabung										
	Product ion technology	Winter vegetable scultivation	14.10.2015	1	Khawzaw l	RY				20	10	20	10	30	30
Plant protection	IPM	IPM in Ginger : DDT banned in agriculture and IPM in paddy	17/4/15 20/4/15 28/4/15 1/5/15	4	Neihdawn Chawngtlai Rabung Chalrang	Farmer and farm women				125	20	145	125	20	145
	IPM	IPM in paddy	11/9/15 7/10/15	2	Tuimuk Phaisen	Farmer and farm women				50	10	60	50	10	60
	IPM	Management of Insect pest and Diseases of Passion fruit	24/8/15 21/10/15	1 day each (ie 2 days)	Chawngtlai & Ruantlang	Farmer and Farm women				30 30		30 30	30 30		30 30
	IPM	IPM in paddy Ginger & cowpea	9/10/15	1	Puilo	Farmer and farm women				50		50	50		50

	IPM	IPM in Ginger, Parkia and Tomato	8/12/15	1	Lungsum mual	Farmer and farm women				25	5	30	25	5	30
		IPM in winter vegetables	11/12/15	1	Phaizau, champha i	Extension personnel				19	1	20	19	1	20
	Mushroom	Mushroom Cultivation	15/12/15	1 day	Chhinga veng, khawzawl	Rural Youth				10	12	22	10	12	22
	IPM	Management of Storage pest of Paddy	22/12/15	1 day	Vengthar, khawzawl	Rural Youth				20		20	20		20
Soil Science	Nutrient Management	Nutrient Management in Paddy	1.05.2015	1	New Chalrang	Farm and farm women				30	5	35	30	5	35
	Soil conservation	Different types of mulching methods	17.06.2015	1	Tuipui	Farm and farm women				58	12	70	58	12	70
	Nutrient management	Nutrient use efficiency	7.07.2015	1	Khualen	Farm and farm women				10	3	13	10	3	13
	Production of organic inputs	Methods of vermiculture construction	12.08.2015	1	Neihdawn	Farm and farm women				15	-	15	15	-	15
	Fertilizer use efficiency	Methods of fertilizer applications	28.09.2015	1	Rabung	Farm and farm women				15	-	15	15	-	15

	Soil testing	Importance of soil testing	1.10.2015	1	Chawngtai	Farm and farm women				14	-	14	14	-	14
	Management of Agricultural crops	Macro and micro deficiency symptoms in Agricultural crops	10.11.2015	1	Khawhai	Rural Youth				16	1	17	16	1	17
	Mulching technique	Importance and benefits of mulching methods	25.10.2015	1	Ruantlang	Rural Youth				13	3	16	13	3	16
	Foliar fertilization	Foliar fertilization in fruit crops	16.02.2016	1	Tualte	Extension Personnel				15	-	15	15	-	15
Animal sc	Paddy cum fish culture	Integration of fish in paddy fields	01/9/15 ;16/9/15 & 06/10/15	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 transferred

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

On/ Off/ Vocational	Beneficiary group (F/ FW/ RY/ EP)	Date (From-To)	Duration (days)	Discipline	Area of training	Title	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
							General			SC/ST			Total				
							M	F	T	M	F	T	M	F	T		
On	F/ FW	10.7.15	1	Agronomy	Weed Management	Chemical weed management in rice				22	3	25	22	3	25	RKVY	
On	F/ FW	10/4/15 & 13/11/15	1	Agronomy	Seed Production	Seed production & storage of Rice and Field pea				34	10	64	34	10	64	RKVY & NFSM	
On	F/ FW	6/6/15	1	Agronomy	Resource Conservation Technologies	Direct Seeded Rice				30	5	35	30	5	35	RKVY	
Off	F/ FW	17/4/15 – 10/11/15	1	Agronomy	Seed Production	Seed production of Rice, Maize and Field pea				19	48	23	19	48	23	RKVY	
Off	F/ FW	11/03/2016	1	Agronomy	Weed Mngt	Scientific use of herbicide in Rice & other crops				18	2	20	18	2	20	ATMA	
On	F/ FW	-	1	Horticulture	Nursery raising	Better nursery management				20	10	30	20	10	30	RKVY	
off	F/ FW	-	1	Horticulture	Nursery raising	Better nursery management				20	10	30	20	10	30	IWMP	

off	F/FW	-	1	Horticulture	Training and pruning	Training and pruning of major fruit crop				30	20	50	30	20	50	IWMP	
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 M orange				45	15	55	45	15	55	IWMP	
Off	F/FW	-	1	Horticulture	Management of young plants	Canopy management in major fruit crops				50	40	90	50	40	90	RKY	
Off	F/FW	-	1	Horticulture	Rejuvenation	Rejuvenation of declining orchard				50	40	30	40	30	70	RKY	
Off	F/FW	-	1	Horticulture	Cultivation practices	Scientific cultivation of M orange				30	30	60	30	30	60	RKY	
Off	F/FW	-	1	Horticulture	Cultivation practices	Scientific cultivation of Kiwi				40	30	70	40	30	70	RD, Kha wzawl	
Off	F/FW	-	4	Horticulture	Cultivation practices	Scientific cultivation of Ginger				21 5	35	25 0	21 5	35	25 0	RKY, NAB ARD, ATMA	

Off	RY	-	1	Horticulture	Production technology	Winter vegetable cultivation				20	10	30	20	10	30	RKV Y	
Off	EP	-	1	Horticulture	Management of citrus	Horticulture				10	10	20	10	10	20	IWM P	
Off	F and FW	24/8/2015	1	Plant protection	IPM	Management of Insect pest and Diseases of Passion fruit				30		30	30		30	RKV Y	10,000/-
Off	F and FW	9/10/15	1	Plant protection	IPM	IPM in paddy Ginger & cowpea				50		50	50		50	RKV Y	10,000/-
Off	F and FW	21/10/15	1	Plant protection	IPM	Management of Insect pest and Diseases of Passion fruit				30		30	30		30	RKV Y	10,000/-
Off	F and FW	8/12/15	1	Plant protection	IPM	IPM in Ginger , Parkia and Tomato				25	5	30	25	5	30	RKV Y	10,000/-
off	EP	11/12/15	1	Plant protection	IPM	IPM in winter vegetables				19	1	20	19	1	20	RKV Y	20,000/-
On	F/FW	20.04.2015	1	Soil Science	Nutrient management	Balance fertilization	-	-	-	46	5	51	46	5	51	RKV Y	

On	F/FW	22.04.2015	1	Soil Science	Soil amendment	Management of acidic soils				45	9	54	45	9	54	RKV Y	
Off	F/FW	1.05.2015	1	Soil Science	Nutrient Management	Nutrient Management in Paddy				30	5	35	30	5	35	RKV Y	
Off	F/FW	17.06.2015	1	Soil Science	Soil conservation	Different types of mulching methods				58	12	70	58	12	70	RKV Y	
Off	F/FW	7.07.2015	1	Soil Science	Nutrient management	Nutrient use efficiency				10	3	13	10	3	13	RKV Y	
Off	F/FW	12.08.2015	1	Soil Science	Production of organic inputs	Methods of vermiculture construction				15	-	15	15	-	15	RKV Y	
Off	F/FW	28.09.2015	1	Soil Science	Fertilizer use efficiency	Methods of fertilizer applications				15	-	15	15	-	15	RKV Y	
Off	F/FW	1.10.2015	1	Soil Science	Soil testing	Importance of soil testing				14	-	14	14	-	14	RKV Y	
On	RY	28.04.2015	1	Soil Science	Soil health management	Soil solarisation				14	-	14	14	-	14	RKV Y	
Off	RY	10.11.2015	1	Soil Science	Management of Agricultural crops	Macro and micro deficiency symptoms in Agricultural crops				16	1	17	16	1	17	RKV Y	

Off	Ry	25.10.20 15	1	Soil Science	Mulching technique	Importance and benefits of mulching methods				13	3	16	13	3	16	RD	
Off	EP	16.02.20 15	1	Soil Science	Foliar fertilization	Foliar fertilization in fruit crops				15	-	15	15	-	15	RKV Y	

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 2015-16

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 2015-16	165				100	65	165				100	65	165
2.	Diagnostic visit	Agriculture and allied subject		45				30	15	45				30	15	45
3.	Field day	Paddy, Onion,		7				280	60	340				280	60	340

32.																		
Grand Total									2205	761	2866				2205	761	2866	

3.5 Production and supply of Technological products during 2015-16

A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS	Maize	RCM 75	0.05	2500		10	10
		RCM 76	0.05	2500		20	20
	Paddy	Shahsarang	0.2				
		Bhalum 3	0.2	4200		20	20
		Tamphaphou	0.2	10,000		40	40

A1. SUMMARY of Production and supply of Seed Materials during 2015-16

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	0.70	192000		90	90
TOTAL		0.70	192000		90	90

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	0.0045	2900		2	2
Spices	Chilli	King Chilli	0.027	2700		7	7
	Onion		0.035	3500		20	20
VEGETABLES	Tomato		0.04	4000		10	10
	Cabbage		0.01	1000		7	7

	Piggery							
	Poultry							
	Fisheries							
	Fodder grass (Hybrid Napier)	CO2 & CO3	5000 slips		-		15	15
	Others (Specify)							

D1. SUMMARY of production of livestock during 2015-16

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							
3	POULTRY							
4.	PIGGERY							
5	FISHERIES							

6	OTHERS (Pl. specify)							
	TOTAL							

3.6. Literature Developed/Published (with full title, author & reference) during 2015-16

(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			
1.			
2.			
3.			
Training manuals			
Technical Report			
1.			
2.			
3.			
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			

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

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

Success story on Onion Cultivation

Name of Farmer : Tawklinga

Village: Khawzawl

Shri Tawklinga, 70 years of age is a farmer of Khawzawl who has a farm quite near from the town. He even has a Dairy unit in his farm and has purchased Pick-up vehicle from his earning. With the help of KVK by lending him power tiller he has recently constructed a big fish pond for which he is very grateful. He has been Onion grower but he grows it as per his knowledge without adopting any scientific method of cultivation. He attended training on 'Scientific method of Onion Cultivation' conducted by KVK Champhai District during October 2015, and received 400 gram seeds of Onion variety Agri Found Light Red and Pendimethalin weedicide. With this seed, he adopted the knowledge he gained from the training right from nursery raising and used Pendimethalin as weed control in his plot saving lots of labour needed for manual weeding. He is amazed with the result of following the Package of Practice taught in the training. He stated that earlier he used to just broadcast the seeds on ploughed soil and covered it with sack, resulting in poor germination percentage as lots of seeds stick to the sack, etc. But after he adopted the right Package of Practices, germination percentage has been satisfactory with better and faster growth of the plants. He also incorporated slaked lime and Vermicompost in the soil in addition to Cowdung manure from his Dairy unit. His plot has been visited by KVK Scientists at various growth stages, which is just beautiful and appreciable. He is a happy man, expecting to harvest around 20 quintals, and he will harvesting from the last week of April. It is expected that he will earn about Rs 60,000 by selling his produce in the local market itself @ Rs 30/kg.



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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Mandarin Orange	Injecting smoked tobacco juice in the holes of stem and sealing with mud	To kill and control stem borer

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	350	350	5	-
Plant Samples	250	250	10	-
Total		600	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	94	94	30	30			10	10	8	8	18	18	160	160
Voice only	136	136	12	12			5	5	4	4	8	8	165	165
Voice and Text both														
Total													325	325

3.14 Contingency planning for 2015-16

a. Crop based Contingency planning

Contingency (Drought/ Flood/ Cyclone/ Any other please specify)	Proposed Measure	Proposed Area (In ha.) to be covered	Number of beneficiaries proposed to be covered

			General	SC/ST	Total
	Introduction of new variety or crop				
	Introduction of Resource Conservation Technologies				
	Distribution of seeds and planting materials				
	Any other (Please specify)				

a. Livestock based Contingency planning

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

4.0. IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period only)

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Chinese method of Mushroom cultivation	25	100	40500	70000
Pest and diseases management in M orange	10	100	30000	55800

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

4.2. Cases of large scale adoption

(Please furnish detailed information for each case)

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

5.0. LINKAGES ESTABLISHED

5.1 Functional linkage with different organizations

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
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 2015-16

Name of the scheme	Activity	Date/ Month of initiation	Funding agency	Amount (Rs.)
RKVY schemes	Training, Demonstration, diagnostic visits	29.4.2015	RKVY	72, 27,637 lakhs
NFSM on rice and pulses	Training, Demonstration, diagnostic visits	30.7.2014	NFSM	3.7125lakhs
Demonstration on Integration of Fish on Paddy field for Sustainable Agriculture	Training , Demonstration, , Diagnostic visits	11. 6 2015	NABARD	10 lakhs
National Mission for Sustainable Agriculture	Training , Demonstration, , Diagnostic visits	11.11.2015	NMSA	0.65 lakh

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 2015-16

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	

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	20/05/2015	02/11/2015	0.25	1) Bhalum-3 2) Gomati	Seed	3Qtls 5Qtls	14,500	19650	
Wheat									
Maize	26/05/2015	14/09/2015	0.1	RCM-76	Seed	4Qtls	4200	7600	
Any othe									
Pulses									
Green gram									
Black gram									
Arhar									
Lentil									
Field pea	26.11.2015	2. 2.2016	0.005	Rachna	Seed	1q	6000	12000	
Oilseeds									

Mustard									
Soy bean									
Groundnut									
Any other									
Fibers									
i.									
ii.									
Spices & Plantation crops									
Ginger									
i.	8.4 .2015	13.4.2016	0.75	Thinglaidum	Rhizome	15q	21000	31500	
Floriculture									
i.									
ii.									
Fruits									
i.									
Vegetables									
King Chilli	1.4.2015	18.11,2015	0.005	King chilli	Seeds	50g	750	3000	
Cabbage	23.10.2015	29.11` .2015	0.004	Improved Bahar	Seedlings	500	1500	3500	
Onion	14.10.2015	6.11.2015	0.015	Agri Found Light Red	Seedlings	3500	2500	17500	

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

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

6.6 Utilization of hostel facilities (Month-Wise) during 2015-16

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)
Total					
Grand total					

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

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location/ Branch	Account Number
With Host Institute			
With KVK			
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 2015 -16

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)
A. Recurring Contingencies				
1	Pay & Allowances	84.242		84.062

2	Traveling allowances	1		1
3	Contingencies			
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 (minimum of 30 demonstration in a year)			
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)	10		10
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)	10		10

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st 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	3800

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.

(Signature)
Programme Coordinator