PROFORMA FOR ANNUAL REPORT OF KVKS, 2014-15

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
Krishi Vigyan Kendra Thoubal, Rice Research Station Wangbal, Thoubal-795138	Office	FAX	kvkthoubal@gmail.com

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

Address	Telephone		E mail
	Office	FAX	
Department of Agriculture, Government of Manipur, Sanjenthong Imphal-795001.	-	-	-

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.M.Thoithoi Singh		9856282339	thoithoi_pp@yahoo.co.in

1.4. Year of sanction: 16th Nov.,2005

1.5. Staff Position **(As on 31st March, 2015)**

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	Programme Coordinator				12,000-375-16,500 (Pre-revised)			Temporary	
2	Subject Matter Specialist	N.Tomba Singh	SMS (Agronomy)	Agronomy	15,600-39100-P.B-3	16,880	25-7-07	-do-	-do-
3	Subject Matter Specialist	Dr.M.Thoithoi Singh	i/c,Programme Coordinator SMS (Plant protection)	Plant protection	15,600-39100-P.B-3	16,880	25-7-07	-do-	-do-
4	Subject Matter Specialist	S.Sumangal Singh	SMS (Plant Breeding & Genetics)	PBG	15,600-39100-P.B-3	16,880	25-7-07	-do-	-do-
5	Subject Matter Specialist	Y.Bedajit Singh	SMS (Fisheries)	Fisheries	15,600-39100-P.B-3	16,880	12-4-07	-do-	-do-
6	Subject Matter Specialist	Dr.S.Zeshmarani	SMS (Animal Sc.)	Animal Science	15,600-39100-P.B-3	16,880	12-4-07	-do-	-do-
7	Subject Matter Specialist	Kh.Premlata Devi	SMS (Horticulture)	Horticulture	15,600-39100-P.B-3	16,880	12-4-07	-do-	SC
8	Programme Assistant	R.K.Lembisana Devi	Prog.Asst.(Home Sc.)	Home Science	9300-34,800-P.B-2	10130	12-4-07	-do-	Gen
9	Computer Programmer	L.Babita Devi	Prog.Asst.(Computer)	Computer	9300-34,800-P.B-2	10130	12-4-07	-do-	-do-

10	Farm Manager	W.Jiten Singh	Farm Manager		9300-34,800-P.B-2	10130	12-4-07	-do-	OBC
11	Accountant / Superintendent	NG.Brojendro Singh	Office Suptd. cum Acct./Assistant		9300-34,800-P.B-2	11010	01-3-07	-do-	Gen
12	Stenographer	M.Geeta Devi	Jr.Steno cum Computer operator		5200-20,200-P.B-1	8120	12-4-07	-do-	-do-
13	Driver	M.Hemanta Singh	Driver cum Mechanic		5200-20,200-P.B-1	6310	12-4-07	-do	-do-
14	Driver	Th.Tiken Singh	-do-		5200-20,200-P.B-1	6310	03-5-07	-do	-do-
15	Supporting staff	S.Dhabali Singh	Peon cum Chowkidar		4440-7440-1S	4800	12-4-07	-do-	-do-
16	Supporting staff	Mangminthang Zou	-do-		4440-7440-1S	4800	12-4-07	-do-	ST

1.6. a. Total land with KVK (in ha) :10 ha

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

c. Total cultivated land (in ha): 9.945

S. No.	Item	Area (ha)
1	Under Buildings(Administrative building+ Staff Quarters)	0.055
2.	Under Demonstration Units	0.016
3.	Under Crops(Cereals, pulses, oilseeds etc.)	5.4
4.	Orchard/Agro-forestry	4.529

5.	Others (specify)	

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	Within 24 months.	550(Ground floor)	76,33,000	Dec,2007	550(1st floor)	Completed
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters (5)	-do-	31-3-12		67.90	2-1-12		Completed
4.	Demonstration Units (2)	-do-	31-3-12		20.07	2-1-12		Completed
5	Fencing	-do-	31-3-12	215m	19.75	2-1-12		Completed

6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown							

B) Vehicles

Type of vehicle	Regd. No.	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero, Diesel jeep		2006-07	5,08,657	(62344)	Bad
Tractor, complete set		2006-07	4,35,543	(1116)	Bad

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer withj accessories(2nos.)	March 2010	75,000	good
Fax	March,2010	25,000	Good
Photo copier	March,2010	1,00,000	Good
Digital Camera	March,2010	20,000	Good
LCD projector	March,2010	1,00,000	Good
Portable carp hatchery	March,2010	2,25,000	good

1.8. A). Details SAC meeting* conducted in the year 2014-15

Sl. No.	**Date**	**Name and Designation of Participants**	**Salient Recommendations**	**Action taken on last SAC recommendation**
1.	11-12-14	O.Ibomcha Singh, Rice Breeder,Wangbal	In agronomic part for the crop arhar Dr. A. K. Sinha suggested to put the parameters observed	It was included in the final report.
2.	11-12-14	Th.Ghyaneshwor Singh, DAO,Thoubal	Dr. A.K. Sinha suggested to find out the problems of the existing varieties such as yield, pest, duration etc. Then go for solving the problems. I	It was included in the final report.
3	11-12-14	Dr.A.Halim Sheik, Joint Director/DVO,Tbl	In plant protection Dr. N. Prakash suggested that in IPM degree of	It was included in the final report.

			infestation of the field before and after the trial should be indicated.	
4	11-12-14	Dr.A K Singha, PS,ZPD-III	Regarding home science, Dr. A.K. Sinha enquired whether OFT on solar cooker could be brought to the level of demonstration with care so that it should not be failed.	It was confirmed that it could be taken up.
5	11-12-14	Dr.N.Prakash, JD,ICAR,Lamphel	Regarding vaccination schedule joint director Veterinary , Dr. A. Helim Sheik commented that only one time is required as broiler is to be consumed within seven weeks.	In response to this SMS animal science replied that F1 vaccin should be given on day5 and booster at day 21. There should always be a booster dose.
6	11-12-14	S.Gunija Devi, Director of Agriculture,Manipur/ PC,Thoubal.	Regarding PBG, Dr. A.K. Sinha said that drought and flood are not a problem.	The problem has been change to scarcity of late sown/contingent rice variety.
7	11-12-14	E.Subhana Devi, Dist.fishery,Thoubal	Regarding Horticulture it was suggested by Dr. N. Prakash to increase the number of farmers/demonstration.	No. of demonstration was increased
8	11-12-14	Kh.Kameshwor, Singh, E.O(Agri)	In fisheries, Dr. N Prakash suggested that as the FLD is on production of	It has been worked out.

			seed, number of fingerling/ seedling should be worked out.	
9	11-12-14	Th.Tomba Singh, EO (Agri)	Regarding home science, Dr. N. Prakashsuggested to form self help groups and go for cheap materials and not for difficult technologies.	Self help groups have been formed and technologies are not difficult.
10	11-12-14	M.Kumar Singh, Farmer representative	It was suggested by Dr. N. Prakash to increase the number of training not to go for one day but to increase the number to 3-5 days. He further suggested to go for sponsored, estension personnel and vocational training. He further suggested to increase mobile service and improved the publication.	These have been implemented.
11	11-12-14	M.Manglembi Devi, Farmer representative	Soil testing should be taken up	It is under process.
12	11-12-14	S.Memnaobi Devi, Farmer representative	Seed production in participatory mode should also be included in the report.	It was included in the final report.

**** 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)

S. No	Farming system/enterprise
1.	Agriculture
2.	Agriculture-Horticulture
3.	Agriculture-Horticulture-Animal Husbandry
4.	Agriculture-Horticulture-Fishery
5.	Agriculture-Animal Husbandry-Fishery
6.	Agriculture-Fishery
7.	Fishery

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

S. No	Agro-climatic Zone	Characteristics
1.	Sub tropical plain zone	The agro-climatic zone of the Thoubal dist. May be characterized by diverse soil type ranging from clay, clay loam, silty loam to peat and muck soil, high rainfall and high RH with distinct temperature variation between summer and winter, wide cultural diversity with different cropping pattern from fruits (pine apple, banana, mango), Vegetables (cauliflower, cabbage, brinjal, tomato), paddy, pulses and oil seeds, fish and farm animals. The district has the following topographical structures:- upland, medium land and low land and shallow lakes.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Fine, Umbric Dystrochrepts	Deep, excessively drained fine soils moderately steep side slopes of hills having clayey surface with moderate erosion, associated with deep well drained fine soils	3500

	Fine, Typic Haplo humults.	on moderately sloping side slopes of hills with moderate erosion and slight stoniness.	
2.	Fine Typic, Haplo humults Fine, Loamy Umbric Dystrochrepts	Deep, well drained, fine soils on moderately sloping side slopes of hills having loamy surface with moderate erosion, associated with moderately deep, excessively drained fine loamy soils on moderately steep side slopes of hills with moderate erosion and slight stoniness.	14,803.2
3.	Fine, Typic Haplaquepts Fine Ruptic Ultic Dystrochrepts	Deep, poorly drained, fine soils on nearly level valleys having clayey surface with very slight erosion, ground water table between one to two meters of the surface and slight flooding, associated with deep well drained fine soils on gently sloping side slopes of hills with slight erosion.	6251
4.	Very fine, molic haplaquepts	Deep ,very poorly drained, very find soils on nearly valleys having clayey surface with very slight erosion ground water level between one meter of the surface and severe flooding associated with deep, poorly drained fine soils on very gently sloping valleys with slight erosion ground water table between one to two meters of the surface and slight flooding.	22,373.8
5.	Fine, Typic Hapludalfs, Fine Silty Tupic Haplumbrepts	Deep, somewhat excessively drained, fine soils on sloping side slopes of hillocks having clayey surface with moderate to severe erosion associated with well drained fine silty soils on moderately sloping side slopes of hillocks with moderate erosion.	4572

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy			
	i) Pre kharif	5338	1,07,293.3	20.09
	ii) Kharif	25,000	7,,25,000	29.09
	iii) Improved	10,550	2,21,550	21.00
	iv) Local paddy	1000	14,000	14.00
2.	Maize	250	5500	22.00
3.	Kharif pulses	150	1125	7.50
4.	Kharif oilseeds	120	912	7.60

5.	Sugarcane	830	12,45,000	1,500,00
6.	Rabi pulses	2125	23,377	11.00
7.	Rabi oilseeds	2050	34,850	17.00
8.	Potato	825	80,025	97.00
9.	Cole crops	725	87,000	120.00
10	Chilli	350	2,800	8.00
11.	Pineapple	2,000	16,00,000	800.00
12.	Wheat	42	798	19.00

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April,14	29.7	35	12	77.5
May,14	177.0	34	16	76
June,14	180.6	35	21	74
July,114	116.4	34	19	76
August,14	152.6	33	21	73.5
September,14	55.8	33	19	84
October,14	84.2	33	10	74
November,14	Nil	24	8	78
December,14	Nil	25	5	74
January,15	77.0	25	5	71.5
February,15	16	25	3	65.5

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

Category	**Population**	**Production**	**Productivity**
Cattle			
Crossbred	14166	47584lit/d	18lit/d

Indigenous	69784	37832lit/d	4lit/d
Buffalo	6079	2961lit/d	3lit/d
Sheep			
Crossbred			
Indigenous	318	2845kg	11kg/sheep
Goats	2540	18,650kg	12kg/goat
Pigs			
Crossbred	35184	925tonnes	75kg/pig
Indigenous	3760	57.8tonnes	52kg/pig
Rabbits			
Poultry			
Hens	62383	26,49,840eggs/year	120eggs/year/hen
Desi	122865	40,36,340eggs/year	220eggs/year
Improved	94500	47,12,780eggs/year	130eggs/year
Ducks	94371	12,220kg	20kg/turkey
Turkey and others	611		

Category	**Area (ha)**	**Production (t)**	**Productivity**

Fish	**504**	**3.84**	**2000 kg/ha**
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

Note: Pl. provide the appropriate Unit against each enterprise

2.6 Details of Operational area / Villages (2014-15)

Sl.No.	**Taluk/ Eleka**	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1		Thoubal	Yairipok	Paddy	Lack of suitablecultivation practice,fertilizer use and pest management	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
2				Goat farming	No vaccination,castration and improper feeding and housing	Goat farming with less input and vaccination

3				Fishery	Lack of knowledge of scientific fish farming	Composite fish culture
4			Maibam	Paddy	Varietal admixture, improper cultivation methods	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
5				Horticulture (Cole crops)	Lack of proper variety and pest management	Winter vegetables like cagbbage cauliflower, Broccoli and IPM
6			Charangpat	Paddy	Varietal admixture, improper cultivation methods	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
7				Horticulture (Green chilli)	Lack of knowledge of summer vegetable varieties and pest management	Summer vegetable, Corm Cultivation and IPM
8				Pig farming	No, vaccination, improper feeding and breed	Vaccination, Castration and Housing
9			Uyan	Paddy	Varietal Admixture, improper cultivation technique and pest management	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
10				Oilseeds & Pulses	Limited area under oilseed and pulses	Pulses and oilseed cultivation
11				Poultry Farming	Lack of scientific knowledge of poultry farming	Broiler farming, vaccination

12				Piggery	No vaccination, castration and improper housing	Pig rearing, vaccination
13			Uchiwa	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. of paddy.
14				Fishery	Lack of knowledge for Scientific fish farming.	Scientific fish farming.
15				Pig farming	Lack of knowledge for Integrated fish cum pig farming.	Integrated fish cum pig farming
16			Sangai yumpham	Paddy	Injudicious use of fertilizers, pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. of paddy.
17				Poultry farming	Problems in feeding readymade feeds.	Feeding management with locally available feeds.

18			Wanging	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. Of paddy.
19				Poultry farming	Problems in feeding readymade feeds.	Feeding management with locally available feeds.
20				Horticulture (Green chilli)	Die Back, fruit rot.	Integrated pest management.
21			Lilong	Vegetable crops (Cabbage, cauliflower, onion, broad bean)	Selection of variety, Lack of knowledge of cultivation techniques.	Varietal demonstration & new cultivation techniques.
22			Nongpok Sekmai	Paddy	Injudicious fertilizers used,lack of suitable cultivation technique	ICM,SRI,Hybrid Rice, INM,Balanced Fertilizer and IPM
23				Oilseed & pulses	Not grown	Pulses & oilseed cultivtaion

24		Kakching	Thongjao	Paddy	Injudicious use of fertilizers, Pest and diseases problem, Varietal admixture, failure of crop due to error in planting season	Integrated pest management, Integrated nutrient management, Balance fertilization, Seed prodn. Of paddy, varietal trails.
25				Fishery	Lack of Knowledge of Disease management	Fish Health management.
26				Pig farming	Reduce body weight, preweaning mortality.	Piggery management.
27			Umathel	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
28				Oilseeds & pulses	Lack of knowledge of oilseed & pulses cultivation	Scientific pulse & oilseed cultivation
29			Waikhong	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
30				Pig farming	No vaccination & castration	Vaccination & castration

31			Serou	Maize	Lack of suitable maize varieties & its cultivation technique	Proper composite & hybrid varieties,intercropping of maize with pulses & oilseeds
32			Wangoo	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
33				Fishery	Lack of scientific fish culture	Composite fish culture
34			Wabagai	Paddy	Lack of suitable cultivation technique	ICM,SRI,hybrid rice cultivation
35				Horticulture (Chilli, cole crops)	Lack of relay cropping & pest management	Relay cropping with beans and cucurbits,IPM
36				Fishery	Lack of scientific fish culture	Composite fish culture,integrated fish farming
37				Potato	Improper variety & lack of nutrient & pest management	Kufri varieties,IPM,INM
38				Tomato	Improper variety & lack of nutrient & pest management	IPM,INM,Hybrid varieties

39			Sekmaijin	Paddy	Injudicious use of fertilizer,pesticides & lack of proper cultivation method	SRI,INM,Intercropping of paddy with pulses & oilseed crops
40				Fish	Lack of scientific fish culture	Composite fish culture,integrated fish farming
41			Tokpaching	Paddy	Lack of deep water rice varieties,nutrient & pest management	Deep water rice varieties,nutrient & pest management
42				Horticulture	Lack of knowledge of summer veg. crops & its cultivation techniques in upland areas.	Crops of summer season,growing of crops across the slopes & proper irrigation techniques

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3. TECHNICAL ACHIEVEMENTS

3. A. Details of target and achievements of mandatory activities by KVK during 2014-15

Discipline	OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Maize, Other Crops/Enterprises)			
	Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Agronomy	2	1	10	3	5	4	25	20

Horticulture	2	2	10	10	3	3	15	15
Plant protection	2	2	10	10	2	2	10	10
Fisheries	2	2	9	9	1	1	5	5
Homescience	**1**	**1**	**5**	**5**	**2**	**2**	**10**	**10**
Animal Science	**2**	**2**	**10**	**10**	**3**	**3**	**30**	**30**
PBG	**2**	**2**	**14**	**14**	**1**	**1**	**10**	**10**
Total	**13**	**12**	**68**	**61**	**17**	**16**	**105**	**100**

Note: Target must be as 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	35	200					
Rural youth								
Extn. Functionaries								
Total								

Seed Production (ton.)		Planting material (Nos. in lakh)	
5		6	
Target	**Achievement**	**Target**	**Achievement**
10.5	10.3		

Note: Target must be as set during last Action Plan Workshop

3. B. Abstract of interventions undertaken during 2014-15

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	IWM	Arhar	Heavy weed infestation at initial stage leads to reduce growth & yield.	IWM in arhar					
2	Varietal evaluation of onion	Onion	Lack of improved variety	Varietal performance of onion					
3	Varietal evaluation of garlic	Garlic	Lack of improved variety	Varietal performance of garlic					

4	Insect pest management of ladies finger	Ladies finger	Aphid, Jassid, white flies, Hispa armigera, S.litura	Insect pest					
5	Insect pest management of tomato	Tomato	White flies,mites	Insect pest mgt. of tomato					
6	Seed production of carp	Barb	Scarcity of carp seeds	Seed production of barp					Seed
7	Seed production of carp	Grass carp + paddy	Scarcity of carp seeds	Seed production of Grass carp in paddy field					Seed
8	Renewable energy	Solar cooker	Lack of use of renewable energy saving devices	Introduction of box type solar cooker					
9	Feeding of probiotic in broiler	Broiler	Mortality% is high	Feeding of probiotic in broiler					
10	Feeding of feed supplement with vitamins & minerals.	Geese	Unawareness of feed supplements, vitamins & minerals	Feeding of food supplements, vitamins & minerals in geese.					

11	Varietal evaluation of RCM-13	Rice	Very less no. short duration of rice	Evaluation of RCM-13					
12	Contingent	Rice	Frequent natural calamity like draught & flood.	Evaluation of rice under late sown condition as contingent crop.					
13	Planting of spring maize for green cob production	Maize	Maize crop is not yet popularize in the district		Planting of spring maize				Seed
14	Seed production of rice using ICM	Rice	Lack of adequate quantity of good quality rice seed		Seed production of rice through ICM				Seed
15	INM in cauliflower	Cauliflower	INM not yet practice		INM in cauliflower				Biofertilizer
16	Nutrient mgt. in tomato using vermicompost	Tomato	Use of chemical fertilizer only deteriorates soil fertility & productivity.		Use of vermicompost in tomato cultivation				Vermicompost

17	Varietal demonstration of watermelon variety NS-295	Watermelon	Lack of proper cultivation method & variety		Scientific cultivation of watermelon				Seed
18	Mgt. of hopper	Rice	Lack of suitable hopper mgt. insecticide		Hopper mgt. with Ethiprol 40% + Imidachlorophid 40%				Insecticide
19	Mgt. of fruit fly	Bitter gourd	Lack of suitable fruit fly mgt. insecticide		Fruit fly mgt.with chlorantranipiole				Insecticide
20	Trap crop for onion thrips	Onion	Lack of suitable biopesticide		Maize as trap crop for onion thrips				Maize & onion seed
21	Seed production of carps	Carps	Scarcity of carp seeds		Seed production of carps				Fingerlings
22	Organic dye	-	Little use of organic dye		Introduction of organic dye				-
23	Utilization of waste material	-	Waste material are unused		Fibre extracts from pseudostem of banana plant				-

24	Feeding of vitamins & minerals	Goat	Farmers were unaware of feeding vitamin and mineral in the preweaned goats		Effect of vitamins & minerals on pre unweaned goats of Manipur				Vitamins & minerals
25	Semi intensive farming of poultry (Giriraja & vanaraja)	Poultry	Farmers difficult to choose the right variety to increase their incom		Comparative study on production potential of Giriraja & vanaraja under semi intensive system.				Chicks
26	IFS	Duck-Fish	Practice of monoculture		Integrated duck cum fish farming				Ducks

3.1 Achievements on technologies assessed and refined during 2014-15

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation									2	2
Seed / Plant production	2									2

Weed Management			1							1
Integrated Crop Management										
Integrated Nutrient Management										
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	2		1		2				2	6

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

A.2. Abstract of the number of technologies **refined*** in respect of crops/enterprises

Thematic areas	**Cereals**	**Oilseeds**	**Pulses**	**Commercial Crops**	**Vegetables**	**Fruits**	**Flower**	**Plantation crops**	**Tuber Crops**	**TOTAL**
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										

Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL										

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

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management		2						2
Disease of Management								
Value Addition								
Production and Management							2	2
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL		2					2	4

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								

Small Scale income generating enterprises								
TOTAL								

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	IWM in arhar	Lost of Hw is very high	IWM in arhar using Pendimethalin & HW	IWM	3	No.of pods/plt-283 No. of seeds/plt -4 Plt. Ht-6ft Yield-12.5q/ha			1.94:1

2	Varietal performance of onion	Lack of improved variety	Varietal trail of Bhim Shakti	Onion	5	Ongoing			
3	Varietal performance of garlic	Lack of improved variety	Varietal trail of G-313	Garlic	5	Ongoing			
4	Insect pest mgt.of ladies finger	Ploblem of aphid, Jassids, white flies, H armigera & S.litura	Insect pest mgt. with Cyantraniliprole @75g.ai/ha	Ladies finger	5	Yield-8.1t/ha	-	-	3.49
5	Mgt. of white flies, mites in tomato	White flies, mites	Mgt. of white flies, mites using spiromesifen 240SC	Tomato	5	White flies/plt-4.37 Mites-3.68 Farmer practice: White flies-15.23 Mites-18.75			5.62 Farmer practice: 4.91

6	Seed production of carp	Scarcity of carp seeds	Seed production of carp	Carp	5	Survivility -46% Growth: Length-92mm in 3mth Weight-27g in 3mths			6.57
7	Seed production of Grass carp in paddy field	Scarcity of carp seeds	Seed production of carp	Grass carp	4	Yield of rice-3.57ton/ha Survivility of fish seed-30-35% Growth" Length-245cm in 5mths Weight-162g			2.08
8	Feeding of probiotic in poultry (broiler)	Mortality % is high	Feeding in probiotic in broiler @ 2g/lit drinking	Poultry	5	Weekly body wt(g)-0(44), 1(116.4), 2(324.53), 3(651.33), 4(1076.66), 5(1509.33), 6(2120), 7(2450),8(2750)	Mortality % is very much reduced and profit margin is increase	Can go for FLD	1.71:1

						Weekly mortality-1(1), 2(0), 3(0), 4(0), 5(0), 6(0), 7(0), 8(0) Weekly feedf intake (g/week/bird)-1(68), 2(221), 3(426), 4(643), 5(836),6(920), 7(980), 8(1080) Production/bird - 2.75kg at 8 weeks			
9	Performance of geese by feeding locally available feed supplemented with vitamins & minerals	Unawarenes s of feeding of vitamins & minerals	Performance of geese by feeding locally available feed supplemented with vitamins & minerals	Geese (Poultry)	5	Body wt.(g)at: 4weeks-800 8wks-1800 12wks-2700 16wks-3500 20wks-4000 24wks-4800	Performanc e of geese is increase by feeding vitamin and mineral	Can adopt for FLD	2.8:1

						Egg wt.-120±0.012g Dressing%-72 Production-4.8kg at 20wks.			
10	Evaluation of rice variety RCM-13	Very less no. of short duration rice variety	Evaluation of rice variety RCM-13	Rice	10	Technology: Plt.ht-102cm No.of grains/Panicle-160 Duration-110days Yield-46q/ha Farmer practice: Plt.ht-115cm No.of grains/Panicle-130 Duration-120days			1.9:1

						Yield-38q/ha			
11	Evaluation of rice under late sown condition as contingent crop	Frequent natural calamity like draught & flood	Late sown rice variety	Rice	4	Plt.ht-95cm No.of grains/Panicle-140 Duration-121days Farmer practice: Var-IR-64 Plt.ht-Nil No.of grains/Panicle-Nil Duration-Nil			1.45:1

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 2014-15

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 villages	No. of farmers	Area in ha
1	Maize	Spring maize cultivation	5	5	1.25
2	Rice	Seed production of rice through ICM	5	5	1.25
3	Cauliflower	INM in cauliflower using biofertilizers	5	5	-
4	Tomato	Nutrient mgt.in tomato using vermicompost	5	5	-
5	Watermelon	Scientific cu;ltivation of watermelon	5	5	0.75
6	Rice	Hopper mgt.with Ethiprol + Imidaclorprid	5	5	1.25
7	Bitter gourd	Mgt. of fruit fly with chlorantriniprole	5	5	1.00
8	Onion	Maize as trap crop for onion thrips	5	5	8.50
9	Carp	Seed production of carps	5	5	0.25
10	Goat	Effect of vitamins & minerals in preweaned goat	10	6	-
11	Poultry	Comparative study of growth & production of giriraja & vanaraja under semi intensive system of farming.	10	6	-

12	Duck+Fish	Integrated farming system of duck+fish	10	7	-
13	Rice	Seed production of rice through SRI var. Tampha phou	10	8	2.5
14	Mustard	Cultivation of zero tillage mustard	5	5	1.25
15	Pea	Popularization of pulse crop in rice fallows	4	4	1.00
16	Lentil	Popularization of pulse crop in rice fallows	5	5	1.00

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

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement	Farming situation (Rainfed/ Irrigated, Soil type, altitude, etc)	Status of soil (Kg/ha)		
												N	P	K
					Proposed	Actual	SC/ST	Others	Total					
1.	Rice	Seed production	Seed production of rice through ICM	Kharif,2014	1.25	1.25	-	5	5	NA	Irrigated clay loam			

2.	Maize	Cereal production	Spring maize	Spring 2014	1.25	1.25	-	5	5	NA	Rainfed clay loam			
3	Cauliflower	INM	INM in cauliflower using bio fertilizer	Rabi,2014	0.5	0.5	-	5	5	NA	Irrigated			
4	Tomato	INM	INM in tomato using vermicompost	Rabi,2014	0.5	0.5	-	5	5	NA	Irrigated			
5	Watermelon	Varietal demonstration	Cultivation of water melon variety NS-295	Rabi,2014	0.75	0.75	-	5	5	NA	Irrigated			
6	Rice	Insect pest mgt.	Hopper mgt.with Ethiprol 40%+ Imidaclorprid 40%	Kharif,2014	1.25	1.25	1	4	5	NA	Rainfed clay loam			
7	Bitter gourd	Insect pest mgt.	Mgt. of fruit fly with chlorantriniprole	Kharif,2014	0.75	0.75	1	4	5	NA	Irrigated clay loam			
8	Onion	Insect pest mgt.	Mgt. of thrips using maize as trap crop	Kharif,2014	0.50	0.50	1	4	5	NA	Irrigated clay loam			

9	Rice	Seed production	Seed production of rice through SRI var. Tamphaphou	Kharif,2014	2.5	2.5	2	8	10	NA	Irrigated clay loam			

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	Maize	Cereal production	1.25	20.9	20.40	2.55	21.40	20.00	No. of grain/cob-405 Plant ht-175cm	402 175	23,000	31,380	8380	1.36	23500	30600	7100	1.3

2	Rice	Seed Production	1.25	73.92	57.60	28.33	76.80	69.64	Pl.pop-58000 No. of grain /panniclle No. of tiller/hill	135 6	55000	147840	92840	2.68	60000	92160	32160	1.54
3	Mustard	Continuing																
4	Pea	-do-																
5	Lentil	-do-																
6	Cauliflower	INM	0.50	180	173	4	195	168			87300	360000	272700	4.1	89,220	34,600 0	256780	3.8
7	Tomato	INM	0.50	260	262	-0.76	270	249			94966	390000	295834	4.12	92,664	3,79,50 0	286836	4.0
8	Watermelon	Varietal introductio	0.75	265	265	-	280	275			87140	476000	388860	5.4	87140	432000	345480	4.9
9	Rice	IPM	1.25	53.00	49	8.66	62.4	46			55730	79500	23720	1.43	56400	78000	11600	1.38
10	Bittergourd	-do-	0.75	168	155	8.39	181	151			92000	420000	328000	4.56				
11	Onion	-do-	0.50	Continuing		-												
12	Rice	Seed prod	2.5	77	50	54	95	65			55000	154000	99000	2.8	56400	80652	24252	1.43

***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						
2	Farmers Training	5					
3	Media coverage	T.V talk, radio talk					
4	Training for extension functionaries						
5	Any other (Pl. specify)						
	Total						

e. Details of FLD on Enterprises

(i) Farm Implements

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

				Indicators	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. Goat(Rs./kid.) IFS (300/ha) Poultry(Rs/10bird)				Econ. of check (Rs./Ha.)				Remarks
							Demo	Check		Demo	Check	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR	
1	Goat	Feeding mgmt	Effect of feeding vitamin and mineral supplement on preweaned goats	10	10	30	Live wt at 0 day (1.05kg) Live wt at 3mths (5.28kg)	1.1 3.5	-4.5 33.71			550	1800	1250	3.2:1	400	1000	600	2.5:1	
2	Poultry	Housing mgmt	Comparative performance	10	10	100	Age at 1st lay	Age at 1st lay	Ageat 1st lay			A.2851	A.88	A.5987	2.1:1	2752	5625	2873	1.5:1	

			on growth and production of Giriraja and Vanaraja under semi intensive system of farming A: Giriraja B. Vanaraja				A.152 Day B. 138.5 Day Hatchability % A.73.5 B. 80.02 Egg production / mth A.14.5 B.19.5 Wt at 20 wks A.3.05 kg B.3.35 kg	224Day Hatchability % 92(through brooding) Egg production / mth 16.04 Wt at 20 wks 1.8kg	A.32 B. 26 Hatchability % A.-26 B. -21 Egg production / mth A.-31 B.-6 Wt at 20 wks A.28 B.33			B. 2851	38.1 B. 9408.3	B. 6557.3						
3	Duck-Fish	IFS	IFS on Duck-Fish	10	10	300 ducks 10000 fish	Live wt of duck at 8 mths (2.15) Live wt of	Live wt of duck at 8 mths (1.5) Live wt of	30.23			4093	318600	244507	3.3:1	120000	300000	1800000	2.5:1	

							fish at 8 mths (0.15kg)	fish at 8 mths (0.11kg	26.66										

**** 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	
1	Carp	Seed production	Seed production of carp	5	5	-	900000Fingerling/ha	720000	9%			70000	450000	380000	6.4:2	60000	3000000	250000	5	

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

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

(iv) Other enterprises

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

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

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

(v) Farm Implements and Machinery

Sl. No.	Name of implement	Crop	Name of Technology demonstrated	No. of farmers	Area (In ha.)	Field observation (Output/ man-hours)		% change in the parameter	Labour reduction (Man days)	Cost reduction (Rs. per ha. or Rs. per unit etc.)	Remarks
						Demo	Check				

f. Performance of FLD on Crop Hybrids

Sl. No.	Crop	Name of hybrids	Area (ha.)	No. of farmers	Avg. yield (Q/ha.)		% increase in Avg. yield	Additional data on demo. yield (Q/ha.)		Econ. of demo. (Rs./Ha.)				Econ. of check (Rs./Ha.)			
					Demo.	Check		H*	L*	GC**	GR**	NR**	BCR**	GC	GR	NR	BCR
1	Maize	*Deklab Hishell*	*1.25*	*5*	*20.9*	*20.4*	*2.55*	*21.4*	*20.1*	*23000*	*31380*	*7380*	*1.36*	*23500*	*30600*	*7100*	*1.3*

****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

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

Thematic area	No. of Courses/ prog			Participants																		
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On-Campus (1)	Spon On* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	Grand Total (x + y)
I. Crop Production																						
Weed Management																						
Resource Conservation Technologies																						

Cropping Systems	1		1	17		3		20								17		3		20		20
Crop Diversification	1		1	20		7		27								20		7		27		27
Integrated Farming																						
Water management																						
Seed production	4		4	65		18		83								65		18		83		83
Nursery management																						
Integrated Crop Management																						
Fodder production																						
Production of organic inputs																						
II. Horticulture																						
a) Vegetable Crops																						
Production of low volume																						

and high value crops																					
Off-season vegetables																					
Nursery raising																					
Exotic vegetables like Broccoli																					
Export potential vegetables																					
Grading and standardizatio n																					
Protective cultivation (Green Houses, Shade Net etc.)																					
b) Fruits																					
Training and Pruning																					

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

Management of potted plants																					
Export potential of ornamental plants																					
Propagation techniques of Ornamental Plants																					
d) Plantation crops																					
Production and Management technology																					
Processing and value addition																					
e) Tuber crops																					
Production and Management technology																					

Processing and value addition																					
f) Spices																					
Production and Management technology																					
Processing and value addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					
Production and management technology																					
Post harvest technology and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management																					

Soil and Water Conservation																					
Integrated Nutrient Management																					
Production and use of organic inputs																					
Management of Problematic soils																					
Micro nutrient deficiency in crops																					
Nutrient Use Efficiency																					
Soil and Water Testing																					
IV Livestock Production and Management																					
Dairy Management																					

Poultry Management																					
Piggery Management																					
Rabbit Management																					
Disease Management																					
Feed management	1		1	13		4		17							13		4		17		17
Production of quality animal products																					
V Home Science/Women empowerment																					
Household food security by kitchen gardening and nutrition gardening																					
Design and development of low/minimum cost diet																					

Designing and development for high nutrient efficiency diet																					
Minimization of nutrient loss in processing																					
Gender mainstreaming through SHGs																					
Storage loss minimization techniques																					
Value addition																					
Income generation activities for empowerment of rural Women																					
Location specific drudgery																					

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

and value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management																					
Integrated Disease Management																					
Bio-control of pests and diseases																					
Production of bio control agents and bio pesticides																					
VIII Fisheries																					
Integrated fish farming																					
Carp breeding and hatchery management																					

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

Fish processing and value addition																						
IX Production of Inputs at site																						
Seed Production																						
Planting material production																						
Bio-agents production																						
Bio-pesticides production																						
Bio-fertilizer production																						
Vermi-compost production																						
Organic manures production																						
Production of fry and fingerlings																						

Production of Bee-colonies and wax sheets																					
Small tools and implements																					
Production of livestock feed and fodder																					
Production of Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and Management of SHGs																					
Mobilization of social capital																					
Entrepreneuri al																					

development of farmers/youths																					
WTO and IPR issues																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming Systems																					
TOTAL	5		5	78		22		90							78		22		90		90

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
				General						SC/ST						Total						
	Off	Sp Off*	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	14		3		17								14		3		17		17
Resource Conservation Technologies																					
Cropping Systems	3		3	44		12		56								44		12		56		56
Crop Diversification	3		3	39		14		53								39		14		53		53
Integrated Farming																					
Water management																					
Seed production																					
Nursery management																					
Integrated Crop Management	1		1	15				15								15				15		15
Fodder production																					

Production of organic inputs	1		1	13		5		18							13		5		18		18
II. Horticulture																					
a) Vegetable Crops																					
Production of low volume and high value crops																					
Off-season vegetables	5		5	35		59		94		15		6		21		50		65		115		115
Nursery raising																					
Exotic vegetables like Broccoli																					
Export potential vegetables																					
Grading and standardizatio n																					
Protective cultivation (Green Houses,																					

Shade Net etc.)																					
b) Fruits																					
Training and Pruning																					
Layout and Management of Orchards																					
Cultivation of Fruit	1		1							18		13		31		18		13		31		31
Management of young plants/orchards																					
Rejuvenation of old orchards																					
Export potential fruits																					
Micro irrigation systems of orchards																					

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

e) Tuber crops																					
Production and Management technology																					
Processing and value addition																					
f) Spices																					
Production and Management technology	2		2	24		13		37								24		13		37		37
Processing and value addition																					
g) Medicinal and Aromatic Plants																					
Nursery management																					
Production and management technology																					
Post harvest technology																					

and value addition																					
III Soil Health and Fertility Management																					
Soil fertility management																					
Soil and Water Conservation																					
Integrated Nutrient Management																					
Production and use of organic inputs																					
Management of Problematic soils																					
Micro nutrient deficiency in crops																					
Nutrient Use Efficiency																					

Soil and Water Testing																					
IV Livestock Production and Management																					
Dairy Management	1		1	18		5		23								18		5		23		23
Poultry Management																					
Piggery Management	1		1							20		2		22		22		2		22		22
Rabbit Management																					
Disease Management	1		1	18				18								18				18		18
Feed management																					
Production of quality animal products																					
V Home Science/Women empowerment																					
Household food security by kitchen gardening and	1		1			17		17										17		17		17

nutrition gardening																					
Design and development of low/minimum cost diet																					
Designing and development for high nutrient efficiency diet																					
Minimization of nutrient loss in processing	2		2	1		34		35								1		34		35		35
Gender mainstreaming through SHGs																					
Storage loss minimization techniques	1		1							11		9		20		11		9		20		20
Value addition	2		2	26		22		48								26		22		48		48
Income generation activities for																					

empowerment of rural Women																					
Location specific drudgery reduction technologies	1		1	2		19		21								2		19		21		21
Rural Crafts	1		1			20		20										20		20		20
Women and child care																						
VI Agril. Engineering																						
Installation and maintenance of micro irrigation systems																						
Use of Plastics in farming practices																						
Production of small tools and implements																						
Repair and maintenance																						

of farm machinery and implements																					
Small scale processing and value addition																					
Post Harvest Technology																					
VII Plant Protection																					
Integrated Pest Management	5		5	68		6		74									68		6		74
Integrated Disease Management	1		1	18		3		21									18		3		21
Bio-control of pests and diseases																					
Production of bio control agents and bio pesticides																					
VIII Fisheries																					

Integrated fish farming	2		2	49		10		59								49		10		59		59
Carp breeding and hatchery management	2		2	16		11		27								16		11		27		27
Carp fry and fingerling rearing																						
Composite fish culture	2		2	56		2		58								56		2		58		58
Hatchery management and culture of freshwater prawn																						
Breeding and culture of ornamental fishes																						
Portable plastic carp hatchery																						
Pen culture of fish and prawn																						

Shrimp farming																						
Edible oyster farming																						
Pearl culture																						
Fish processing and value addition																						
IX Production of Inputs at site																						
Seed Production																						
Planting material production																						
Bio-agents production																						
Bio-pesticides production																						
Bio-fertilizer production																						
Vermi-compost production																						

Organic manures production																					
Production of fry and fingerlings																					
Production of Bee-colonies and wax sheets																					
Small tools and implements																					
Production of livestock feed and fodder																					
Production of Fish feed																					
X Capacity Building and Group Dynamics																					
Leadership development																					
Group dynamics																					
Formation and																					

Management of SHGs																					
Mobilization of social capital																					
Entrepreneurial development of farmers/youths																					
WTO and IPR issues																					
XI Agro-forestry																					
Production technologies																					
Nursery management																					
Integrated Farming Systems																					
TOTAL																					

(B) RURAL YOUTH

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

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

Thematic area	No. of Courses/ Prog			Participants																		Grand Total (x + y)
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	On (1)	Sp On* (2)	Total (1+2)	On (4)	Sp. On (5)	On (6)	Sp. On (7)	On (a= 4+6)	Sp. On (b= 5+7)	On (8)	Sp. On (9)	On (10)	Sp. On (11)	On (c= 8+10)	Sp. On (d= 9+11)	On (4+8)	Sp. On (5+9)	On (6+10)	Sp. On (7+11)	On (x= a +c)	Sp. On (y= b +d)	
Mushroom Production																						
Bee-keeping																						
Integrated farming		2	2	1	140		160		300		45		140		185		185		300		485	485
Seed production		1	1		20		20		40							20		20		40		40

Production of organic inputs																					
Integrated Farming																					
Planting material production																					
Vermi-culture																					
Sericulture																					
Protected cultivation of vegetable crops																					
Commercial fruit production																					
Repair and maintenance of farm machinery and implements																					
Nursery Management of																					

Horticulture crops																					
Training and pruning of orchards																					
Value addition		1	1		40		20		60							40		20		60		60
Production of quality animal products																					
Dairying																					
Sheep and goat rearing																					
Quail farming																					
Piggery																					
Rabbit farming																					
Poultry production																					
Ornamental fisheries																					
Para vets																					

Para extension workers																					
Composite fish culture																					
Freshwater prawn culture																					
Shrimp farming																					
Pearl culture																					
Cold water fisheries																					
Fish harvest and processing technology																					
Fry and fingerling rearing																					
Small scale processing																					
Post Harvest Technology																					
Tailoring and Stitching																					

Rural Crafts																						
TOTAL																						

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
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	Off	Sp Off	Total	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	Off	Sp Off*	
Mushroom Production	3		3	58		37		95								58		37		95		95
Bee-keeping																						
Integrated farming	2		2	28		13		41								28		13		41		41
Seed production Fish Rice	3 1		3 1	40 21		29 8		69 29								40 21		29 8		69 29		69 29
Production of organic inputs																						

Integrated Farming																					
Planting material production	1		1	14		6		20								14		6		20		20
Vermi-culture																					
Sericulture																					
Protected cultivation of vegetable crops																					
Commercial fruit production																					
Repair and maintenance of farm machinery and implements																					
Nursery Management of Horticulture crops																					

Training and pruning of orchards																					
Value addition	1		1			24		24									24		24		24
Production of quality animal products																					
Dairying																					
Sheep and goat rearing																					
Quail farming																					
Piggery																					
Rabbit farming																					
Poultry production	4		4	42		33		75								42		33		75		75
Ornamental fisheries																					
Para vets																					
Para extension workers																					

Composite fish culture	1		1	13				13								13				13		13
Freshwater prawn culture																						
Shrimp farming																						
Pearl culture																						
Cold water fisheries																						
Fish harvest and processing technology																						
Fry and fingerling rearing																						
Small scale processing																						
Post Harvest Technology	1		1	17		3		20								17		3		20		20
Tailoring and Stitching																						
Rural Crafts																						
TOTAL																						

C. Extension Personnel

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

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

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

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

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

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

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

Thematic area	No. of Courses/ prog.			Participants																		Grand Total
				General						SC/ST						Total						
				Male		Female		Total		Male		Female		Total		Male		Female		Total		
	Off	Sp Off *	Total	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off *	Off	Sp Off*	Off	Sp Off *	Off	Sp Off*	Off	Sp Off *	
Productivity enhancement in field crops																						
Integrated Pest Management																						
Integrated Nutrient management																						

Rejuvenation of old orchards																					
Protected cultivation technology																					
Formation and Management of SHGs																					
Group Dynamics and farmers organization																					
Information networking among farmers																					
Capacity building for ICT application																					
Care and maintenance of farm machinery and implements																					

WTO and IPR issues																					
Management in farm animals																					
Livestock feed and fodder production																					
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
Animal Science	Feed Management	Treatment of straw			On	PF									

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

Plant protection		Mushroom cultivation	26-6-14	1	Serou	Farmers & Farm women	**17**	**8**	**25**				**17**	**8**	**25**
		Mushroom cultivation	4-7-14	1	Laiphrakpam	Farmers & Farm women	**1**	**19**	**20**				**1**	**19**	**20**
		Weed management in pineapple field	16-7-14	1	Saramlok	Farmers & Farm women	**14**	**3**	**17**				**14**	**3**	**17**
		IPM on rice	2-8-14	1	Wangjing Wanglkei	RY	**24**	**0**	**24**				**24**	**0**	**24**
		Pest management in cole crops	12-9-14	1	Wangjing Hodamba	Farmers & Farm women	**17**	**0**	**17**				**17**	**0**	**17**
		Hopper management in rice field	14-10-14		Salungpham	Farmers & Farm women	**15**	**2**	**17**				**15**	**2**	**17**
		Hopper management in rice field	1-10-14	1	Ngatensoi maspal	Farmers & Farm women	**12**	**4**	**16**				**12**	**4**	**16**
		Grain storage	20-11-14	1	Charangpat	Farmers & Farm women	**18**	**3**	**21**				**18**	**3**	**21**

		Mushroom cultivation	28-2-15	1	Khangabok	RY	**10**	**40**	**50**				**10**	**40**	**50**
Agronomy		Cultivation of kharif field crops.	26-5-14	1	Hijam khunou	Farmers & Farm women	21	7	28				21	7	28
		Cultivation of kharif field crops.	23-6-14	1	Charangpat	Farmers & Farm women	12	5	17				12	5	17
		Nutritional mgt. in rice	28-7-14	1	Kiyam siphai	Farmers & Farm women	15	-	15				15	-	15
		Scientific cultivation of rice	23-8-14	1	Wangjing, Wangkhei	Farmers & Farm women	15	5	20				15	5	20
		Use of organic inputs	16-9-14	1	Waikhong	Farmers & Farm women				13	5	18	13	5	18
		Management of rabi field crops.	26-12-14	1	Wangjing	Farmers & Farm women	11	-	11				11	-	11

		Cultivation of pre-kharif rice	20-11-14	1	Kiyam siphai	Farmers & Farm women	12	4	16				12	4	16
		Scientific cultivation of maize	18-2-15	1	Tangjing	Farmers & Farm women	12	5	17				12	5	17
Animal Science		Clean milking & value addition of milk	28-4-14	1	Hiyanglam	Farmer	18	5	23				18	5	23
		Scientific duck farming	21-5-14	1	Charangpat	RY	10	11	21				10	11	21
		IFS	24-6-14	1	Tekcham	RY	16	6	22				16	6	22
		Scientific broiler farming	15-7-14	1	Keirak	RY	12	8	20				12	8	20
		Scientific broiler farming	12-8-14	1	Wabagai	RY	13	9	22				13	9	22
		Disease mgt. of	12-9-14	1	Wabagai	F	18	-	18				18	-	22

		dairy cattle													
		Scientific broiler mgt.	8-9-14	1	Tentha	RY	17	5	22				17	5	22
		Treatment of straw	19-12-14	1	On	F	13	4	17				13	4	17
		IFS	10-1-15	1	Wangjing	RY	12	7	19				12	7	19
		Scientific mgt. of pig	12-2-15	1	Ingarok	F				20	2	22	20	2	22
Fisheries		Induced breeding of carps	15-4-14	1	Arong nongmaikhong	PF	10	3	13				10	3	13
		Seed production of carps	26-5-14	1	Waikhong	PF	6	8	14				6	8	14
		Integrated aquaculture	13-6-14	1	Elang khangpokpoi	PF	19	1	20				19	1	20
		Fish health mgt.	8-8-14	1	Tokpaching	PF	39	-	39				39	-	39

		Integrated aquaculture	19-9-14	1	Langmeidong	RY	13	-	13				13	-	13
		Integrated fish farming	26-10-14	1	Arong nongmaikhong	PF	30	9	39				30	9	39
		Fish health mgt.	24-11-14	1	Thoubal khunou	PF	17	2	19				17	2	19
PBG		Rogueing in pre-kharif rice	8-5-14	1	Sekmaijing	Farmer	20	4	24				20	4	24
		Storage of seed	12-8-14	1	Wabagai	RY	17	3	20				17	3	20
		Refinement of garden pea+cabbage	20-9-14	1	Wabagai	PF	17	3	20				17	3	20
		Varietal description of cereal crops maize & rice	12-9-14	1	On	PF	20	7	27				20	7	27

		Harvesting of rice seed	20-10-14	1	Thongjao	PF	16	5	21				16	5	21
		Harvesting of rice seed	16-10-14	1	Laikhrakpam	PF	17	4	21				17	4	21
		Storage mgt.of rice	17-12-14	1	Khongjom	PF	12	5	17				12	5	17
		Spring rice seed production	19-2-15	1	Tangjing	RY	21	8	29				21	8	29
		Nursery mgt. of pre-kharif rice	16-1-15	1	Sekmaijing	RY	14	6	20				14	6	20
Horticulture		Early production of cauliflower	26-4-14	1	Sikhong	PF	2	23	25				2	23	25
		Scientific cultivation of ginger	26-6-14	1	Ukongsang	PF	11	6	17				11	6	17

		productio n													
		Use of pineapple harvestor & cultural practices	17-7-14	1	Lisamlok	PF				1 8	13	31	18	13	31
		Scientific cultivation of onion	10-8-14	1	Wangjing	PF	13	7	2 0				13	7	20
		Productio n of cole crops	9-9-14	1	Kakching	PF	15	6	2 1				15	6	21
		Cultural practices of watermelo n	16-1-14	1	Umathel	PF	13	7	2 0				13	7	20
		Tomato cultivation	22-1-15	1	Thoubal	RY	12	13	2 5				12	13	25
		Vegetable productio n in greenhous e	26-2-15	1	Yairipok singa	PF	8	16	2 4				8	16	24

Home Science		Preparation of low cost tomato powder	21-4-14	1	Langathel	PF	4	17	21				4	17	21
		Use of energy devices	16-5-14	1	Thoubal	PF		20	20					20	20
		Value addition of fruits	26-6-14	1	Serou	PF	3	24	27				3	4	27
		Organic dyeing	16-7-14	1	Langmeidong	PF		20	20					20	20
		Value addition of gauva	4-8-14	1	Kakching	PF				7	21	28	7	21	28
		Household food security by nutritional gardening	9-9-14	1	Ukhongshang	PF		17	17					17	17
		Minimization ofd nutrient	16-1-15	1	Umathel	RY	3	24	27				3	24	27

		loss in processing														
		Storage loss minimization technique	24-2-15	1	Wangjing	RY	9	11	20				9	11	20	

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date (From – To)	Duration (days	Area of training	Training title*	No. of Participants									Impact of training in terms of Self employment after training				Whether Sponsored by external funding agencies (Please Specify with amount of fund in Rs.)
					General			SC/ST			Total							
					M	F	T	M	F	T	M	F	T	Type of enterprise ventured into	Number of units	Number of persons employed	Avg. Annual income in Rs. generated through the enterprise	

*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		
Total																	

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 2014-15

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**			**284**	**200**	**60**	**260**	**20**	**4**	**24**				**220**	**64**	**284**
2.	Diagnostic visit			**239**	**200**	**30**	**230**		**9**	**9**				**230**	**9**	**239**
3.	Field day			**1**	**20**	**5**	**25**							**20**	**5**	**25**
4.	Group Discussion			**21**	**100**	**30**	**130**	**15**	**10**	**25**				**115**	**40**	**155**
5.	Kishan Gosthi															
	Kishan Mela															
6.	Film show															
7.	SHG formation															
8.	Exhibition															
9.	Scientists visit to farmers fields			346	290	40	330	6	10	16				296	50	346
10.	Plant/ Animal Health camp			5	90	10	100	6		6				90	16	106
11.	Farm science club															
12.	Ex-trainee Sammelan															
13.	Farmers seminar/ workshop															
14.	Method demonstration			16	41	30	71	1	9	10				42	39	81
15.	Celebration of important days	i)World Environment Day ii)World Vety,Day	5-6-14													
16.	Exposure visits															

17.	Electronic media (CD/DVD)			1												
18.	Extension literature			6												
19.	Newspaper coverage			4												
20.	Popular articles			47												
21.	Radio talk			6												
22.	TV talk			18												
23.	Training manual			2												
24.	Soil health camp															
25.	Awareness camp															
26.	Lecture delivered as resource person															
27.	PRA			26												
28.	Farmer-Scientist interaction															
29.	Soil test campaign															
30.	Mahila Mandal Convener meet															
31.	Any other (Book chapter)			3												
32.																
Grand Total																

3.5 Production and supply of Technological products during 2014-15

A. SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qt)	Value (Rs.)	Number of recipient/ beneficiaries		
					General	SC/ST	Total
CEREALS			105.90	264750			
OILSEEDS							
PULSES							
VEGETABLES							
FLOWER CROPS							
OTHERS (Specify)							

A1. SUMMARY of Production and supply of Seed Materials during 2014-15

Sl. No.	Major group/class	Quantity (ton.)	Value (Rs.)	Number of recipient/ beneficiaries		
				General	SC/ST	Total
1	CEREALS	10.59	264750	**320**	**80**	**400**
2	OILSEEDS					
3	PULSES					

4	VEGETABLES					
5	FLOWER CROPS					
6	OTHERS					
TOTAL		10.59	264750	**320**	**80**	**400**

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							
Spices	**Onion**	**Bhima, Shakti**	**1,00,000**	**10,000**			
Ornamental Plants							
VEGETABLES	**Cauliflower**	**White flash**	**50,000**	**25,000**	**15**	**10**	**25**
	Cabbage	**Rare ball**	**40,000**	**20,000**	**10**	**10**	**20**
Forest Spp.							
Plantation crops							
Medicinal plants							
OTHERS (Pl. Specify)							

B1. SUMMARY of Production and supply of Planting Materials (In Lakh) during 2014-15

Sl. No.	Major group/class	Numbers (In Lakh)	Value (Rs.)	Number of recipient beneficiaries		
				General	SC/ST	Total
1	Fruits					
2	Spices					
3	Ornamental Plants					
4	VEGETABLES					
5	Forest Spp.					
6	Medicinal plants					
7	Plantation crops					
8	OTHERS (Specify)					
TOTAL						

C. Production of Bio-Products during 2014-15

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Number of Recipient /beneficiaries		
			No	(qt)		General	SC/ST	Total
BIOAGENTS								
BIOFERTILIZERS								
1								

2								
3								
4								
BIO PESTICIDES								
1								
2								
3								
4								

C1. SUMMARY of production of bio-products during 2014-15

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							
3	BIO PESTICIDE							
	TOTAL							

D. Production of livestock during 2014-15

Sl. No.	Type of livestock	Breed	Quantity		Value (Rs.)	Number of Recipient beneficiaries		
			(Nos)	Kgs		General	SC/ST	Total
	Cattle/ Dairy							
	Goat	**Non descript**	**40**		**Not yet sale**			
	Piggery	**Crossbred pig**	**12 piglets**		**Notyet sale**			
	Poultry(Duck)	**Khaki campbell**	**60nos.**		**6000/-**	**40**	**20**	**60**
	Fisheries	**Rohu, grasscarp, pengba, puntius**	**20,000**	**20**	**20000/-**	**20**	**10**	**30**
	Others (Specify)							

D1. SUMMARY of production of livestock during 2014-15

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	**Non descript**	**40**					

3	POULTRY	**Khaki campbell**	**60nos.**		**6000/-**	**40**	**20**	**60**
4.	PIGGERY	**Crossbred**	**12 piglets**					
5	FISHERIES	**Rohu, grasscarp, pengba, puntius**	**20,000**	**20**	**20,000/-**	**20**	**10**	**30**
6	OTHERS (Pl. specify)							
	TOTAL							

3.6. Literature Developed/Published (with full title, author & reference) during 2014-15

(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.	Length weight relationship and condition factor of an endemic carp *osteobrama cunma (day,1888) of Manipur*	Bedajit, Y; Chakraborty, S.K; Motilan, Y; Vishwanath, W; Deshmukh,G and Jaiswar, A.K	500
2.	Studies on seed characters and seedling	Singh,M.T, Singh, I.M and Singh M.S	500
3.	Vigour of rice, Agricultural research	Thoithoi, M: Meghachandra,I;Mutum S. Singh	500
4.	Feedinghabbits and reproductive biology of an endemic carp, osteobrama cunma (day1888) of Manipur	Bedajit, Y: Chakraborty, S.K;Motilan, Y; Vishwanath, W Deshmukh, G and Jaiswar, A.K	1000

Training manuals	i. IWMP training manual 2014-15 ii. Village level training programme manual for IWMP	**KVK and DRDA thoubal**	**500**
Technical Report			
1.			
2.			
3.			
Book/ Book Chapter	1. Fish fauna of Manipur and their conservation 2. Prospect of integrated fish farming 3. Integrated Fish farming	i. Bedajit, Y ii. Bedajit, Y iii. Bedajit Y	1000 1000 1000
Popular articles	i.Care and management of pig ii. Dairy Farming iii. feeding of broiler iv. understanding rabies v.Rabies- what we should do vi Fish – Duck integration vi. paddy-duck farming viii. Managemental practices to prevent from mortality of preweaned piglets ix. Hopper management in rice field x. Low cost mushroom cultivation	i.Zeshmarani, S ii. Zeshmarani, S iii Zeshmarani, S iv.Zeshmarani,S v.Zeshmarani, S vi Zeshmarani,S vii. Zeshmarani, S ix M. Thoithoi x. M. Thoithoi	500 500 500 500 500 500 500 500 500

	xi. Blast management in rice field xii. Shoot borer and termite management of sugarcane xiii SRI in fish farm with hybrid rice PAC-807 xiv. Rice seed production the need of the hour xv. Rice fish rotation in Manipur xvi Hybrid rice cultivation in Manipur xvii.Situation specific rice varieties of Manipur xviii. Late sown rice as contigent crop xix. Early varieties of cauliflower and their package of practice xx. Rogueing in rice and production	xi. M. Thoithoi xii M. Thoithoi xiii. S. Sumangal Xiv. S. Sumangal xv. S. Sumangal xvi. S. Sumangal xvii S. Sumangal xviii S. Sumangal xix. S. Sumangal xx. S. Sumangal	500 500 500 500 500 500 500 500 500 500 500
Technical bulletins			
Extension bulletins			
Newsletter			
Conference/ workshop proceedings	Influence of probiotic supplementation on growth performance of broiler	Zeshmarani, S	500
	Comparative performance kid supplemented with vitamin and minerals	Zeshmarani, S and Dhaneshwar, M	500
Leaflets/folders	Income generation through value added pulses	R.K Lembisana	600
	Agronomic measures for controlling soil erosion	W. Jiten	600

	Vermicompost technology	M. Thoithoi	600
	Scientific cultivation of onion	Kh.Premlata Devi	500
	Scientific cultivation of Ginger	Kh. Premlata Devi	500
	Cultural practices of Watermelon	Kh.Premlata Devi	500
	Tomato production in Green House	Kh.Premlata Devi	500
	Crop diversification in rainfed upland rice areas	N. Tomba	500
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)

INTEGRATED FARMING SYSTEM - A BOON TO POOR RURAL

HOUSEHOLD COMMUNITY

Due to unemployment problem, Agriculture and allied activities are the primary source of income for the people living in rural areas of Thoubal district. Commercial broiler farming was taken up as an enterprise by almost and every household communities in a very small scale Integrated. Since feed cost accounts for more than 70% of the total cost of production. It is high time for the farmers to take up Integrated Farming System so as to increase their income to many fold and also helps in moving towards organic farming.

Intervention:

KVK imparted training on Integrated Farming System and its advantage in different IFS module namely Fish-Poultry, Fish-Duck, Fish- dairy, Fish- goat , Fish-Pig were designed and imparted knowledge through training to the farmers and rural youths. One day Smt. Huidrom Anita Devi aged about 32 years, Wife of Soibam Shantipur Singh of Tekcham Mayai Leikai happens to attend the one day training programme taken up by KVK Thoubal under IFS. Smt. Anita Devi owned 1.5 ha of land where she takes up fish farming. She is very much motivated by the technology and the advantage of IFS. She conducted a trial on Fish cum broiler farming in 0.5 ha of fish pond. She made the poultry shed above the pond and started rearing 150 birds/0.5 ha pond. She also rear 5000 fingerlings in the ratio of 30% surface feeder, 30% middle finger and 40% bottom feeder. Broiler faeces and left

over feed were dropped in the fish pond which were used as feed for the fish. KVK personnel attended her farm from time to time and gave suggestion about the technology to improve the farming system. Liming with quick lime was done in the fish pond at 300kg/ha in four splits to increase ph/ correction of acidity. She sold the birds at 49 days.

Impact

She has earned a good income from both fish and bird. She sold the bird at Rs.120/kg and could earn an income of Rs.12,000.00 from one batch of broiler and from such 6 batches she could earn about Rs.72,000.00 From the fish per annum she could earn a profit of 60,000.00 in a year totaling to Rs.(72,000.00 + 60,000.00)1,32,000.00. Before from the fish alone she could get a profit of Rs.40,000. An increase about 20,000.00 could be achieved from this system. Now she is planning to extend remaining pond to Integrated Farming System. This technology is being spread to other farmers of the district

Success story

SRI in fish farm

The status of First crop/pre kharif/spring rice in Manipur is alarming. It was once envisaged that two crops of rice the first crop (feb-march to june-july) and the main season crop (June-July to oct.- nov.) could increase the annual production of rice in Manipur to a great extent. But on the contrary, the area of first crop in Manipur is alarmingly decreasing due to many factors such as lack of adequate number of suitable varieties, sprouting of mature seeds in standing condition in the field, submergence of good paddy fields due to Loktak hydel project and conversion to fish ponds, lack of irrigation facilities due to failure of barrages and dams, more importantly lesser total yield of two subsequent crops compared to only one proper crop because of lack of proper land preparation of main crop due to lack of time, etc.

In such a situation, , in the fish ponds located in the periphery of the major lakes of Thoubal District hybrid rice PAC – 807 was introduced as a trial. This venture became a very successful one giving a yield of about 9 – 10 mt of paddy/ha. The technology was demonstrated and popularized through different media such as doordarshan, radio news papers, etc. Training programmes were conducted at different villages for farmers who participated with great enthusiasm.

The technology has been able to give an average gross return of Rs.96600 and an average net profit of Rs. 50600 annually. The B:C ratio is worked out as 2.1

The technology:

1. nursery raised about 12 days prior to fishing out/pumping out water from the pond
2. plot making
3. marking with roller marker at 25x25 cm
4. transplanting

5. cono weeding
6. intermittent irrigation

The advantages of this technology:

1. no ploughing – saves money
2. no fertilizer – as the pond bed is very fertile – saves money
3. rice and fish rotation possible –more income
4. pond dykes used for fruit and vegetable cultivation
5. animal component can be added

The technology has been adopted by farmers in Thoubal district(KVK district) but also to almost all the shallow lake areas of other districts ofManipur

SRI in Fish Farm

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

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

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

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

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

3.11 Field activities

i. Number of villages adopted

ii. No. of farm families selected

iii. No. of survey/PRA conducted

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab :

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

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
Total			

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount (In Rupees) realized
Soil Samples				
Water Samples	12	12	12	-
Plant Samples				
Petiole Samples				

Total	12	12	12	

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	2	71	13	50									15	121
Voice only														
Voice and Text both														
Total														

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)**
1.Seed production of rice through ICM & SRI	1200	30	35,000/- per ha (approx)	90.000/-

2.Hybrid rice	4000	60	35,000/-	45,000/-
3.Pre-kharif/ Spring rice	2000	50	32,000/-	40,000/-

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

4.2. Cases of large scale adoption

1. Hybrid rice: The introduction of hybrid rice : PAC-801, PAC-807, Arise-^$$$, Arise 6444 (gold) and Prima has enabled the farmers to increase their income. It is now spread to all the valley district of Manipur. The Department of Agriculture Manipur also distributed these hybrid seeds at free of cost to the farmers through RKVY scheme. Use of Hybrid seeds enabled farmers to adopt new technologies of rice cultivation and increase their income to the tune of Rs. 45,000 against 35,000 by using local HYVs

2. Zero tillage mustard cultivation has been adopted by the farmers since long time back using local mustard varieties with the introduction of new mustard and rapeseed varieties like M-27, TS-36, TS-38,NRCHB -101, Pusa boldetc. Farmers are now using these varieties in zero tillage cultivation during rabi season in rice fallows

3. With the introduction of new hybrids of pumpkin and watermelon by the KVK, several farmers adopted these crops in large scale in rice fallows during spring season getting extra income of Rs.3,20,000/ha with little investment from rice fields increasing the cropping intensity in rice areas

4. The introduction of Chemical castration of pig by the KVK encourage the farmers to take up chemical castration instead of open method of castration as it reduces the cost of castration and injury to the piglets

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
1.DRDA,IWMP Thoubal	Demonstration,Training,Resource person
2.NBFGR,Lucknow	Research
3.DCFR,Bhimtal	Demonstration
4.ATMA,Thoubal	Training

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 2014-15

Name of the scheme	Activity/ programme	Year	Funding agency/ Sponsoring orgn.	Amount (Rs.)
Participatory programme on exploration and characterization of fish germplasm resources in North East,India	**Exploration and characterization of fish germplasm resources and indigenous knowledge of the Chindwin drainage in Manipur**	**2013-16**	**NBFGR**	**2,30,0000/-**

Demonstration	**Culture of Osteobrama belangeri(Pengba) along with Chinese carps**	**2014**	**DCFR**	**3,53,370/-**
Training and demonstration	**Training & demonstration**	**2014**	**IWMP,DRDA,Thoubal**	**2,40,000/-**

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

Sl. No.	Programme	Nature of linkage	Remarks
1			

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 2014-15

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	June	November	2.5	HYV of Manipur	Seed	10.59 T	165000	264750 (approx)	Not yet sale
Wheat									
Maize									
Any other									
Pulses									
Green gram									
Black gram									
Arhar									
Lentil									
Any other									
Oilseeds									
Mustard									
Soy bean									
Groundnut									
Any other									
Fibers									
i.									
ii.									

Spices & Plantation crops									
i.									
ii.									
Floriculture									
i.									
ii.									
Fruits									
i.									
ii.									
Vegetables									
i.									
ii.									
a. Others (specify)									
i.									
ii.									

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

Sl.	Name of the Product	Qty	Amount (Rs.)	Remarks

No.			Cost of inputs	Gross income	

6.4 Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed/ species	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Fish	Rohu, Catla, Mrigal, Grass carp,Silver carp, Common carp	Table fish	1	10000	200000	Not yet sale

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

Date	Title of the training course	Client (PF/RY/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 2014-15

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	State Bank of India	Thoubal	11746667259
With KVK	State Bank of India	Thoubal	11746667259
Revolving Fund	State Bank of India	Thoubal	11746667260

7.2 Utilization of funds under FLD on Maize *(Rs. In Lakhs) if applicable-Not received any fund for the year 2014-15*

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

7.3 Utilization of KVK funds during the year 2014 -15 (Expenditure upto Feb. 2015 only)

S. No.	Particulars	Sanctioned (in Lakh)	Released (in Lakh)	Expenditure (in Lakh)

A. Recurring Contingencies				
1	**Pay & Allowances**	85.00	85.00	76.05
2	**Traveling allowances**	2.00	2.00	1.37
3	**Contingencies**	9.00	**9.00**	7.50
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (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)	**96.00**	**96.00**	**84.92**

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)		**96.00**	**96.00**	**84.92**

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 2012 to March 2013	1,03,759	54,241	1,00,000	3,759
April 2013 to March 2014	3,759	1,63,391		1,69,150
April 2014 to March 2015*	1,69,150	58,990		1,88,140

***figure shown under 2014-15 is for upto 28-02-2015**

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

(b) Financial

(c) Technical

(Signature)
Programme Coordinator

Minutes of the 10th SAC meeting held on 11th Dec 2014

The 10th SAC meeting of KVK Thoubal was held on 11th December 2014 in the conference hall of KVK thoubal to discuss the following agenda.

Agenda discuss

1. Confirmation of last meeting
2. Presentation of progress report
3. Presentation of action plan
4. Discussion
5. Miscellaneous

The following, members were present

1.	O. Ibomcha Singh	Rice Breeder
2.	Th. Gyaneshwar	DAO
3.	Th. Tomba	EO (Agriculture)
4.	E. Sulochana Devi	District fishery officer
5.	Dr. A. Helim Sheik	Joint Director / DVO
6.	Dr. A. K. Sinha	Principal Scientist ZPD-III
7.	Dr. N. Prakash	Joint Director ICAR, Lamphel
8.	S. Gunija Devi	Director of Agriculture, Govt. Of Manipur
9.	Kh. Keuyalushor	E.O. (Agri)
10.	M. Kumar	Farmer representative
11.	M. Manglembi	Farmer representative
12.	S. Memnaobi	Farmer representative

At the very onset Smt. S Gunija devi, Director Agri, Manipur, president of the meeting welcome all the members present. The president gave permission of the progress report and action plan and Shri S. Sumangal Singh SMS, PBG presented the same.

In the beginning the action taken report of the last SAC was presented during which Dr. A.K. Sinha suggested to present it in powerpoint. It was requested to excuse for the present and would be done next time.

In agronomic part for the crop arhar Dr. A. K. Sinha suggested to put the parameters observed supposed to earlier it was replied to put in the final report.

In case of horticulturalcrop onion Dr. N. Prakash said Bhim super was superior to Bhima Shakti. It was noted. Dr. A.K. Sinha further suggested to find out the problems of the existing varieties such as yield, pest, duration etc. Then go for solving the problems. It was also noted.

In plant protection Dr. N. Prakash suggested that in IPM degree of infestation of the field before and after the trial should be indicated which was noted.

Regarding home science, Dr. A.K. Sinha enquired whether OFT on solar cooker could be brought to the level of demonstration with care so that it should not be failed. It was confirmed that it could be taken up .

In animal science, Dr. N. Prakash enquired whether other varieties of broiler could be used. In response to this animal science SMS, Dr. Zeshmarani Sarangthem replied generally the farmers of Manipur used vancob varieties. Regarding vaccination schedule joint director Veterinary , Dr. A. Helim Sheik commented that only one time is required as broiler is to be consumed within seven weeks. In response to this SMS animal science replied that F1 vaccin should be given on day5 and booster at day 21. There should always be a booster dose she further reacted.

Regarding PBG, Dr. A.K. Sinha said that drought and flood are not a problem. The problem has been change to scarcity of late sown/contingent rice variety.

During discussion of FLD, in Agronomy- names of varieties of maize and rice was suggested to be indicated. It has been put as Tampha phou in rice and for maize as Deklals Hissel. Dr. A. K. Sinha and Dr. N. Prakash said that it should be present yearly and not half yearly. It was noted.

In case of the yield potential of the maize variety used even after refinement the yield potential cannot be increased then demonstration should not be taken up.Dr. Prakash suggested to go for QPM.

Regarding Horticulture it was suggested by Dr. N. Prakash to increase the number of farmers/demonstration. It should also be tried for all FLD's he further suggested.

In fisheries, Dr. N Prakash suggested that as the FLD is on production of seed, number of fingerling/ seedling should be worked out. In response, it has been worked out.

Regarding home science, Dr. N. Prakashsuggested to form self help groups and go for cheap materials and not for difficult technologies.

While presenting on veterinary, it was suggested by Dr. N. Prakash to increase the number of training not to go for one day but to increase the number to 3-5 days. He further suggested to go for sponsored, estension personnel and vocational training. He further suggested to increase mobile service and improved the publication.

Dr. A.K. Sinha and Dr. N. Prakash enquired whether soil testing was taken up. He further said that as the Dept. Is in possession of mobile soil testing lab soil testing should be taken up.

After the presentation was over, queries were initiated from the house. Joint director, veterinary Thoubal enquired whether the FLD on duck is taken up, If so why only 10 ducks were given. In response SMS animal Science said, it was a trial and so only 10 nos. were given to them.

Smt. Manglembi , women farmers representative said Hopper is very serious problem and necessary action may kindly be taken up by the KVK in time.

Smt. Memnaobi requested to take up training and other activities in time.

Seed production in participatory mode should also be included in the report.

Seed production of barp

Seed production of carp

FLD on Maize
production of barp

Door darsan programme on rice base cropping system

Seed production of Tampha phou

FLD on pulse

FLD on Arhar

FLD on Hybrid rice

FLD on Cauliflower

Horticulture

OFT on onion var. Bhima Shakti

Farmers' training programme

FLD on Tomato

Field visit

Anti rabies vaccination programmeFLD on pulse

Castration of goat vaccination programmeFLD on pulse

Field visit

Farmers training

Chemical castration

Home visit for treatment

Vaccination

Field visit

Training

Field visit

Rouguing in rice seed productionChemical castration

Intercropping of pea and cabbasege

Garden pea with cabbage

After harvest of cabbage

OFT on RCM-13

FLD on onion

OFT on ladies finger

Training programme on Plant protection

Field visit

Training programme on Horticulture