

**REVISED PROFORMA FOR ANNUAL REPORT – 2008-09****1. GENERAL INFORMATION ABOUT THE KVK**

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

Address	Telephone		E mail
	Office	FAX	
Krisshi Vigyan Kendra, Rice Research Station Wangbal, Thoubal-795138			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 &amp; mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.O.Nobo Singh	Nil	0986415048	onobo.singh@gmail.com

1.4. Year of sanction: 2005-06

1.5. Staff Position (as on 30<sup>th</sup> September 2007)

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	Dr.O.NoboSingh	Programme co-ordinator	Soil and water conservation	12,000-375-16,500 (Pre-revised)	13,125	13-6-07	Temporary	General
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	SMS (Plant protection)	Plant pathology	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.Premalata 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.		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. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1.	Under Buildings	0.055
2.	Under Demonstration Units	0.016
3.	Under Crops	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 (1 <sup>st</sup> floor)	Work in good progress.
2.	Farmers Hostel							
3.	Staff Quarters (6)							
4.	Demonstration Units (2)							
5.	Fencing							
6.	Rain Water harvesting system							
7.	Threshing floor							
8.	Farm godown							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero, Diesel jesp	2006-07	5,08,657	62344	
Tractor, complete set	2006-07	4,35,543	1116	

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Type writer	August,2007	14,602	Good

1.8. A). Details SAC meeting\* conducted in the year --Annexure- I.

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.		1. R.K.Nayansana Devi- Director of Agriculture. 2. Dr.O.Nobo Singh-P.C.KVK,Thoubal. 3. Dr.Jogendra- Sr.Scientist ICAR. 4. R.K.Noni Devi- DAO,Thoubal/Project Dir.ATMA. 5. L.Upendro Singh-HDO,Thoubal 6. Dr.K.Nimaichand Singh-Asst.Director Tsar. 7. W.Jibon Singh-A.O(B) Rice research station,Wangbal. 8. V.Vaiphei-DFO,Thoubal 9. K.Jayentia Singh-Farmers representative. 10. M.Bino Devi- Farmers representative. 11. O.Kunjabihari Singh- Farmers representative.	1. Inclusion of walking cat fish as OFT. 2. To take up experiment on cultivation of Rabi maize, QPM, Wheat, rabi pulses, other pea and oilseeds other than mustard 3. To test the adaptability of arecanut, coconut, betel vine etc in KVK, instructional farm	1. To be taken up in the next year 2. To be taken up in the next year 3. To be taken up in the next year

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

**2. DETAILS OF DISTRICT (2006-07)**

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

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

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 district may be characterized by diverse soil type ranging from Clay, clay loam, silty loam to peat and muck soil, high rainfall and high relative humidity with distinct temperature variation between summer and winter; wide cultural diversity, with different cropping pattern from fruits (pineapple, banana, mango), vegetables( cauliflower, cabbage, tomato, brinjal), paddy pulses and oilseeds, fish and farm animals. The district has the following topographical structures:- upland, medium land, lowland and shallow lakes.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Fine, Umbric Dystrichrepts Fine, Typic Haplo humults.	Deep, excessively drained fine soils moderately steep side slopes of hills having clayey surface with moderate erosion, associated with deep well drained fine soils on moderately sloping side slopes of hills with moderate erosion and slight stoniness.	3500
2.	Fine Typic, Haplo humults Fine, Loamy Umbric Dystrichrepts	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 Dystrichrepts	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, mollic haplaquepts	Deep very poorly drained, very fine 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 Tropic 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 <sup>0</sup> C		Relative Humidity (%)
		Maximum	Minimum	
September	151.3	28.3	21.3	84.6
October	87.5	27.6	18.2	88.3
November	1.7	20.6	10.7	80.7
December	8.7	22.7	10.3	79.05
January	0	22.7	7.9	184.6
February	20.8	25.1	5.9	71.3
March	42.9	27.5	13.08	53.8
April	92.7	23.7	13.2	82.1
May	160.35	30.01	19.74	78.2
June	69.3	29.9	21.57	86.94
July	178.4	28.73	22.57	85.3
August	296.4	27.86	22.08	83.51

**2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district. (New Census)**

Category	Population	Production	Productivity
Cattle			
Crossbred	14166	47574 lit./day	18 lit./day
Indigenous	89784	37832 lit./day	4 lit./day
Buffalo	6079	2961 lit./day	3 lit./day
Sheep			
Crossbred	0		
Indigenous	318	2845 kg	11 kg/sheep
Goats	2540	18,650 kg	12 kg/goat
Pigs			
Crossbred	35184	925 tonnes	75 kg/pig
Indigenous	3760	57.8 tonnes	52 kg/pig
Rabbits	15	22.5 kg	1.5 kg/ rabbit
Poultry			
Hens	62383		
Desi	122865	26,49,840 eggs/year	120 egg/year/hen
Improved	94500	40,36,340 eggs/year	220 eggs/year/hen
Ducks	94371	47,12,780 eggs/ year	130 eggs/year/hen
Turkey and others	611	12,220 kg	20 kg/turkey

Category	Area	Production	Productivity
Fish	1225 (ha)	3674(t)	3.0 t/ha
Marine	-	-	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

2.6 Details of Operational area / Villages (2008-09)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	-	Thoubal	Thoubal	Paddy	Pest & disease, varietal admixture	Seed production of paddy pulses
			Wangjing	Paddy	Pest & disease, varietal admixture	Integrated pest management
			Khangabok	Paddy	Pest & disease, varietal admixture	Crop rotation of paddy with pulses & oilseeds
			Yairipok	Paddy	Varietal admixture rainfed	Seed production of paddy
			Leishangthem, Tentha	Fish Paddy, Fish	Disease Pest & Disease, Disease of fish	Integrated nutrient management
2.	-	Kakching	Kakching khullen	Paddy	Crop failure due to ignorance of appropriate variety with respect to season, in-judicious use of pesticides.	Emphasis on cole crops
			Lamjao hiyanglam	Paddy Fish	Pest & Disease, Disease of fish	Integrated pest management, Disease management of fish.

2.7 Priority/thrust areas

Crop/Enterprise	Thrust area
Rice	Quality and production of existing rice variety (HYV)
Rice	Integrated farming system
Rice	Integrated pest management
Rice	Integrated nutrient management
Vegetable crops	Off season vegetable production
Vegetable crop	Integrated pest management
Poultry	Management of poultry
Pig	Management of Pig
Dairy	Management of Dairy farming
Fishery	Health management
Fishery	Seed production

\*An example for guidance only

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2008-09

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1		2		3		4	
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
9	6	30	42	13	10	104	76

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Clientele	Number of Courses		Number of Participants		Number of activities		Number of participants	
	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	58	32	1160	623	834	578	115	1774
Rural youth	20	15	400	224	-	-	-	-
Extn. Functionaries	-	-	-	-	-	-	-	-

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement		Target	Achievement	
285	120		50,000	40,000	

## 3.B. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					Supply of seeds, planting materials etc.
				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	
1.	Poultry management	Poultry bird (Giriraja)	Poor production of indigenous bird	Improvement of dual purpose Giriraja farming	-	Improvement of dual purpose bird	-	-	Checks
2.	Fodder production	Maize	Scarcity of fodder	-	Fodder production of maize	Fodder production of maize	-	-	-
3.	Integrated Pest Management	Chilli	Fruit rot & sucking insects	IPM for chilli	-	IPM for chilli	-	-	Seed & Biopesticides
4.	IPM	Cabbage	Diamond black moth	-	Mustard as a trap crop to control DBM of cabbage	Mustard as a trap crop to control DBM of cabbage	-	Demonstration & media	Seed & Biopesticides
5.	IPM	Cabbage	Diamond black moth	-	Tomato as intercrop to control DBM of cabbage	Tomato as intercrop to control DBM of cabbage	-	Demonstration & media	Seed & Biopesticides
6.	Nutrient management	Rice	Injudicious and imbalance use of NPK	Balance NPK	-	Balance of NPK	-	-	Fertilizer
7.	Crop production	Rice	Lack of new cultivation technique of rice	SRI methodology	-	SRI Methodology	-	-	Seed, FYM
8.	Exotic cole crop production	Broccoli	Flooding of cabbage and cauliflower in the market	Introduction of broccoli	-	Introduction of Broccoli	-	-	Seed
9.	Conservation of local pea	Local pea makhayat mubi	Dense planting, low yield, late planting, disease infestation	Improve method of local pea cultivation	-	Improved method of local pea cultivation.	-	-	Seed
10.	Crop production	Pre kharif maize	Deep water sprouting, low yield	Pre-kharif cultivation of Hybrid rice PAC-807 in SRI	-	Pre-Kharif cultivation of Hybrid rice PAC-807 in SRI	-	-	Seed
11.	Crop production	Hybrid rice	Low yield of local hybrid	Cultivation of Hybrid rice	-	Cultivation of Hybrid rice	-	-	Seed
12.	Eel culture	Eel	Slow growth	Eel culture	-	Eel culture	-	-	Seed
13.	Exotic cole crop production	Broccoli	Flooding of cabbage and cauliflower in the market	-	Introduction of F1 hybrid Green magic	-	-	Demonstration & media coverage	Seed
14.	Crop production	Hybrid rice	Low yield of hybrid	-	Cultivation of Hybrid rice PAC-801	Training field visit & Demonstration	-	-	Seed, Pesticide
15.	Pulse production	Pea	Lack of suitable cultivation method and variety	-	Improved cultivation of pea	Training field visit & Demonstration	-	-	Seed, fertilizer, pesticides
16.	Oilseed production	Mustard	Lack of suitable cultivation method and variety	-	Improved cultivation of mustard	Training field visit & Demonstration	-	-	Seed, fertilizer pesticides
17.	Crop production	Rice	Lack of new cultivation method of rice	-	SRI methodology	Training field visit & Demonstration	-	-	Seed, FYM, pesticide
18.	Oilseed production	Soyabean	Lack of suitable cultivation method and variety	-	Improved cultivation of soyabean	Training field visit & Demonstration	-	-	Seed, fertilizer, pesticide
19.	Pulse production	Blackgram	Lack of suitable cultivation method and variety	-	Improved cultivation of blackgram	Training field visit & Demonstration	-	-	Seed, fertilizer, pesticide
20.	Oilseed production	Groundnut	Lack of suitable cultivation method and variety	-	Improved cultivation of groundnut	Training field visit & Demonstration	-	-	Seed, fertilizer, pesticide
21.	Pulse production	Blackgram	Lack of suitable cultivation method and variety	-	Improved cultivation of blackgram	Training field visit & Demonstration	-	-	Seed, fertilizer, pesticide

## 3.1 Achievements on technologies assessed and refined

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				1					3
Seed / Plant production										
Weed Management										
Integrated Crop Management	1									1
Integrated Nutrient Management	1									1
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management										1
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises			1							1
<b>TOTAL</b>	<b>4</b>		<b>1</b>		<b>1</b>					<b>7</b>

\* Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro 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										
<b>TOTAL</b>										

\* 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		1						1
Disease of Management		1						1
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
<b>TOTAL</b>								



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								
<b>TOTAL</b>								

**B. Details of each On Farm Trial to be furnished in the following format****A. Technology Assessment****ANIMAL SCIENCE****Trial 1**

- 1) Title : Improvement of dual purpose bird (Giriraja Farming)
- 2) Problem diagnose/defined : Poor production of indigeneous bird.
- 3) Details of technologies selected for assessment /refinement : Breed: Giriraja, dual purpose bird.  
No. of bird- 100  
Housing- 2.5sqm/ bird.
- Desirable economic performance:**
- i. Body weight at day old chick- 42-43g
  - ii. Survival % 8 weeks- 96%
  - iii. Body weight at 8 weeks of age- 1.5kg
  - iv. Feed consumption at 8 weeks- 3.5-4
  - v. Feed conversion efficiency at 8 weeks of age- 1:2.4
  - vi. Egg weight- 52-55g
  - vii. Hatchability%- 85
  - viii. Fertility %- 88
  - ix. Dressing %- 75
- Feed: i) starter ration from- 0-8weeks
- ii) Grower ration 8-20 weeks
- iii) Layer ration 22 weeks onward.
- Farmers practices:**
- i) Improper management of poultry
  - ii) Backyard system of poultry farming
  - iii) Locally available feeds with low nutrient content
  - iv) Disease diagnosis & treatment not done.
- 4) Source of technology : ICAR & College of Vety Sc.,Khanapara Guwahati.
- 5) Production system thematic area : Poultry Production
- 6) Thematic area : Poultry Management
- 7) Performance of the Technology with performance indicators : Giriraja, a dual purpose bird shows a better growth performance
- 8) Final recommendation for micro level situation : Giriraja Farming may be done in Thoubal district for better economy.
- 9) Constraints identified and feedback for research : i) Mortality rate is high.  
ii) profit margin is low.
- 10) Process of farmers participation and their reaction : 10 farmers in different locations of Thoubal district were selected for Giriraja Farming and each received 10 Giriraja chicks .Farmers reared the chicks under supervision of SMS,Vety & AH and outbreak of diseases were monitored and regular treatment were done. Datas were recorded from each farmers & result were assessed

11). Results of On Farm Trials

1	2	3	4	5	6	7
Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters assessed
Giriraja a dual purpose poultry bird	-	Poor production of indigeneous bird	Improvement of dual purpose bird (Giriraja farming)	10	<b>Assessed:</b> Scientific rearing of giriraja i) proper housing management ii) Disease management iii) Production performance Iv) Growth performance <b>Farmers practice:</b> i) proper housing management ii) Disease management iii) Production performance Iv) Growth performance	i) body wt at 0 d ii) body wt at 8 weeks iii) Feed conversion efficiency iv) Egg weight v) Fertility vi) Hatchability vii)Survivibility viii)Dressing %

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Scientific rearing of Giriraja	Meat 3.4kg/bird Egg – 125nos./bird	198.05	1.44:1

**Trial 2**

- 1) Title : Production performance of crossbred pig in Thoubal district.
- 2) Problem diagnose/defined : i) Mortality of piglet is high.  
ii) Parasitic load is high  
iii) Poor growth due to low nutrient feeding system
- 3)Details of technologies selected for assessment /refinement : Breed : Crossbred pig –50% Hampshire and 50% local 2:1 Male and Female  
Housing of different categories of Pigs:  
iv) for breeding boar- 3x3m<sup>2</sup>  
v) For breeding sows- 3x3m<sup>2</sup>  
vi) Farrowing pen- 3x3m<sup>2</sup> for 1 pregnant sow  
vii) Growers pen- 3x3m<sup>2</sup> for 10-12 piglets.
- 4)Source of technology : AAU
- 5)Production system thematic area : Pig production.
- 6)Thematic area : Piggery.
- 7)Performance of the Technology with performance indicators : i) Litter size at birth- 10 or more  
ii) Litter size at weaning- 8  
iii) Individual body weight at birth- 1.4kg  
iv) Individual body weight at birth- 12kg  
v) Individual body weight at birth- 35kg  
vi) Individual body weight at birth- 70kg
- 8)Final recommendation for micro level situation : Research in progress.
- 9)Constraints identified and feedback for research : Research in progress.
- 10)Process of farmers participation and their reaction : 5 farmers in different locations of Thoubal district were selected to study the performance of crossbred pig. Farmers reared pig under the supervision of SMS Vety. & AH and outbreak of disease were monitored and regular treatment done. The crossbred pig attains 1 months of age. Breeding was done and further work is in progress.

11.Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	I
1	2	3	4	5	6	
Pig	All situation	i) Mortality of piglet is high. ii) Parasitic load is high. iii) Improved feeding management.	Production performance of crossbred Pig.	5	<b>Assessed:</b> i) Housing management ii) Disease management iii) Feeding management iv) Production performance <b>Farmers practices:</b> i) Housing management ii) Disease management iii) Feeding management iv) Production performance	i) L birt ii) L iii) l iv) l v) ( per

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Result awaited.	Result awaited.	Result awaited.	Result awaited.

**(Plant Protection)**

- 1) Title : Integrated Pest Management for chilli.
- 2) Problem diagnose/defined : Thrips, mites, die back & fruit rot diagnosed.
- 3) Details of technologies selected for assessment /refinement : i) Farmers practice: No trap crop ; 3-7 sapplings per hills; spacing-20cm x 25cm.  
ii) Assessment: Maize as trap crop around the chilli fields; spacing of maize-25cm in single row; area of chilli in each trail field- 0.25ha; spacing of chilli- 30cm x 30cm; sapling per hill- single. Chilli var.:Popular local cultiv
- 4) Source of technology : ICAR
- 5) Production system thematic area : Rainfed
- 6) Thematic area : IPM ( Maize as trap crop)
- 7) Performance of the Technology with performance indicators : Continuing
- 8) Final recommendation for micro level situation : Continuing
- 9) Constraints identified and feedback for research : Continuing
- 10) Process of farmers participation and their reaction : i) Training conducted  
ii) Interested farmers selected,  
iii) Periodical field visits at different crop stages.  
iv) Very co-operative, happy with the technology.
- 11). Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters assessmen
1	2	3	4	5	6	7
Chilli	Rainfed	Low productivity due to insect pest	Integrated Pest Management for Chilli	10	Maize as trap crop.	i) No. of infected leaves(mites & thrips) ii)No. of die back infected plants iii) Average no. c fruit rot per plant iv) Yield- Green



**(AGRONOMY)****Trial 1**

- 1) Title : Balance NPK in rice
- 2) Problem diagnose/defined : Injudicious & unbalance use of fertilizer leads to low yield of paddy.
- 3) Details of technologies selected for assessment /refinement :  
 i) 100:20:15 NPK/ ha- Farmer's practice.  
 ii) 60:40:30 NPK/ ha- Recommended practice.  
 iii) 80:40:30 NPK/ ha- Assessed practice.
- 4) Source of technology : Dr. L.Nabachandra Singh, Associate Prof. Deptt. Of Agronomy, CAU, Imphal.
- 5) Production system thematic area : Irrigated rice production.
- 6) Thematic area : Nutrient management
- 7) Performance of the Technology with performance indicators : The assessed practice of nutrient management had more no. of tillers/ hill, no. of grains/ panicle and higher yield 6240kg/ha as compared to other treatments of nutrient management.
- 8) Final recommendation for micro level situation : Application of 80:40:30 NPK/ ha without soil testing increase yield.
- 9) Constraints identified and feedback for research : Application of 80:40:30 NPK/ ha was conducted without soil testing. Research needed with soil testing.
- 10) Process of farmers participation and their reaction : Trainings were conducted, irrigated lands were selected and interested farmers were selected for the trail. They prefer to recommended fertilizer dose after testing the soil. Seeding the performance of the crop in comparison to other treatments, they are ready to adopt the technology in the next season.

11). Results of On Farm Trials

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Rice	Irrigated	Injudicious & imbalance use of NPK/ ha leads to low yield.	Balance NPK in rice	3	80:40:30 NPK/ ha (to be assessed)	No. of tillers/plt., No. of grains/panicle, Yield, Spacing.
					100:20:15 NPK/ ha (Farmers practice)	
					60:40:30 NPK/ ha (recommended practice)	

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
100:20:15 NPK/ ha – farmers practice	3200 kg/ ha	9018	1.36:1
60:40:30 NPK/ha – recommended	4575 kg/ ha	22,466	1.86:1
80:40:30 NPK/ha - assessed	6240 kg/ ha	39,270	2.5:1

**Trial 2**

- 1) Title : SRI Methodology.
- 2) Problem diagnose/defined : Lack of new production technology of rice production system under irrigated, upland and medium land area, yield of rice cannot be increased more than 5 t/ha.
- 3) Details of technologies selected for assessment /refinement :  
 i) Haphazard wet sowing & transplanting- Farmers practice.  
 ii) Transplanting at 15x10, 15x15, and 20x15 on spacing- Recommended practice.  
 iii) SRI Methodology using FYM. Raising seedlings in raised beds having soil +FYM at 2:1 ratio seeder saturated condition, early transplanting of 8-12 days old seedlings, weeding using rotary weeder at 10, 20, 30 and 40 days. Keeping the field at saturated condition, raised bed of 2m for transplanting followed by 30cm drained. Spacing- 30x30cm. Roller marker to mark the hills.
- 4) Source of technology : DRR, Hyderabad.
- 5) Production system thematic area : Irrigated rice production system.
- 6) Thematic area : Rice production system using SRI Methodology.
- 7) Performance of the Technology with performance indicators : The assessed practice of SRI methodology had more no. of tillers/ plant, no. of grains/ panicle & yield compared to wet sowing and transplanting.
- 8) Final recommendation for micro level situation : SRI methodology is recommended in irrigated upland and medium land having clay loam to silty loam soils of Thoubal districts.
- 9) Constraints identified and feedback for research : Stem borer infestation was a problem, farmers want the technology to be undertaken under shallow water level of 5cm.
- 10) Process of farmers participation and their reaction : Trainings were conducted, irrigated lands were selected and interested farmers were selected for the trail. They prefer to recommended fertilizer dose after testing the soil. Seeding the performance of the crop in comparison to other treatments, they are ready to adopt the technology in the next season.



11). Results of On Farm Trials

1	2	3	4	5	6	7
Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
Rice	Irrigated	Lack of new technology under irrigated upland medium lands, yield cannot be increase more than 5 t/ha.	SRI methology	3	Wet sowing & transplanting- Farmers practice. SRI methology – (assessed technology.)	No.of tillers/plant, no. of grains /panicle, yield, spacing.

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Wet & transplanting .	3200kg/ha	9018	1.36:1
SRI Methology maintained in details of technology.	8640kg/ ha.	60,268	2.97:1

**(Horticulture)****Trial 1**

- 1) Title : Introduction of Broccoli var Princess.
- 2) Problem diagnose/defined : Flooding of Cole crops (Cabbage & Cauliflower) at Thoubal district.
- 3) Details of technologies selected for assessment /refinement : Broccoli (F1 hybrid) var. Princess.  
1. Spacing- 45 x 30cm  
2. Time of transplanting-3<sup>rd</sup> week of September.09.
- 4) Source of technology : i) Variety- Sakata Japan  
ii) Agroclimatic practice-Adopted from ICAR.
- 5) Production system thematic area : Irrigated system.
- 6) Thematic area : Exotic vegetable production
- 7) Performance of the Technology with performance indicators : It fetches more income compare to other cole crops like cabbage & cauliflower.
- 8) Final recommendation for micro level situation : As broccoli Hybrid Princess fetches higher income it can be recommended to the farmers.
- 9) Constraints identified and feedback for research : High seed cost, difficulty in marketing.
- 10) Process of farmers participation and their reaction : Training, field visit, interaction with farmers.

11). Results of On Farm Trials

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Broccoli	Irrigated system	Flooding of cabbage & cauliflower in the market.	Introduction of new var. of broccoli (Princess)	10	Assessed: Performance as per yield of Princes F1 hybrid.	1. Curd weight
					Farmers practices: Cauliflower performance as per curd yield of mid season var. Early Himlata F1 hybrid.	2. Curd compactness
						3. Curd colour
						4. Days of maturity
						5. Yield

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Broccoli var. Princess	15 tonnes/ha	Rs.3,28,287/-	3.7:1
Farmers practice	7.2 tonnes/ ha	Rs. 22287/-	1.18:1

**(Plant breeding & Genetics)**

**Trial 1**

- 1) Title : Improved method of Local Pea Cultivation (Makhyat mubi)
- 2) Problem diagnose/defined : Dense planting, low yield, late planting, disease infestation (powdery mildew)
- 3) Details of technologies selected for assessment /refinement : Farmers practice: Variety- Makhyat mubi; dense planting; dense staking, late planting.  
 Assessment:
  1. Spacing -2x2 □
  2. No. of rows/ plot – 2-3, seed rate- 85-9kg/ha.
  3. Method of planting –dibbling on unploughed soil.
  4. Fertilizer – 10gms each of fertilizer mature of NPK 10:26:26 as starter dose.
  5. Time of planting – middle week of September.
  6. Start of harvest- middle of Dec. upto early March.
  7. Permanent structure of stacking with bamboo polls. 8 □ tall at 5 □ interval in two rows, nylon rope/ GT wire at three different heights at same interval (permanent structure for 3-4 yrs.)
- 4) Source of technology : Progressive farmer's improved method.
- 5) Production system thematic area : Conservation of local cultivar of Pea Makhyat mubi through improved method of cultivation.
- 6) Thematic area : Cultivation of x Conservation of local pea.
- 7) Performance of the Technology with performance indicators : Escapes powdery mildew, branches well, Yield (green pods) =11616 kg. B:C – 13:1:1
- 8) Final recommendation for micro level situation : Planting at 2x 2 □ spacing, 2 rows, 1 plot, minimum tillage, point application of fertilizer as starter dose, interculture with cabbage.
- 9) Constraints identified and feedback for research : Staking is not easy, spraying PP chemicals is not easy.
- 10) Process of farmers participation and their reaction : Training conducted, volunteer farmers selected, every critical steps like seed treatment, planting etc. done in SMS presence. Pest & disease monitored through phone & field visit. Records maintained in farmers field book.

11). Results of On Farm Trials

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Garden pea	Irrigated	Dense planting, late planting, disease infestation, low yield.	Improved method of local pea cultivation.	10	Assessed Wide spacing, timely planting.  Farmers practice: Dense planting, Late planting- Oct-Nov.	Assessed Duration- plant ht., pods/ plant, seed/ pod.  Farmers practice No. of pods/plant, No. of seeds /pod, pod wt., dry seed wt.

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Wide spacing & timely planting	11616kg/ha	321830	13:1:1

**Trial 2**

- 1) Title : Pre-kharif cultivation of Hybrid Rice PAC-807 in SRI in Fish Farms of Manipur.
- 2) Problem diagnose/defined : Derth water, sprouting (no dormancy), lack/ derth of FYM, compost , low yield.
- 3) Details of technologies selected for assessment/refinement: Assessment:  
 PAC-807: Hybrid rice , duration- 110days, plant height- semi dwarf, tillering- high, disease & pest reaction- tolerant to most pest, grain type- medium slender, eating quality- soft, yield-high, dormancy- dormant.  
 SRI: Seed rate-5kg/ha, seedling age-8-12days, plot size- 175cm(7rows), spacing- 25x25cm, organic manure- 15-20kg, fertilizer- nil, PP chemical- nil, weedicide- nil, date of sowing- 3<sup>rd</sup> March,09, date of harvest- 4<sup>th</sup> July,09.  
 Farmers practices:  
 Variety- Local variety- No.1; Semi dwarf; medium bold seed;medium yield-4.5-5 MT/ha. ; non dormant seed  
 Agronomic practice: Normal transplanting; very old seedling; random spacing; no fertilizer.  
 a) Hybrid rice from UPL groups of companies- Advanda.  
 b) SRI- ICAR
- 4) Source of technology : One crop of short duration rice before or at arrival of monsoon.
- 5) Production system thematic area : Pre-kharif SRI
- 6) Thematic area : Pre-kharif SRI
- 7) Performance of the Technology with performance indicators :  
 1) Duration- 110days.  
 2) Tiller no.- 12-13 nos. (all effective)  
 3) Plant height- semi dwarf (100cm)  
 4) No. of grains/ panicle- 150-200.  
 5) Test weight- 27.5  
 6) Disease & Pest- no incidence  
 7) Dormancy- dormant  
 8) Yield- 7 MT/ha.
- 8) Final recommendation for micro level situation : Performed well- can be taken for FLD.
- 9) Constraints identified and feedback for research : Can be tried sowing in middle February.
- 10) Process of farmers participation and their reaction : Training conducted, volunteer farmer selected, SMS personally present during seed treatment, sowing, transplanting and other critical stages of crop and during harvesting. Observations taken at appropriate stages. Farmers very responsive to the new technology & co-operative requested for conducting FLD next season in their farms.
- 11). Results of On Fam Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on t paramet
1	2	3	4	5	6	7	8
Hybrid rice	Irrigated	Derth of water, low yield, sprouting of mature seeds.	Pre-kharif cultivation of hybrid rice in fish farm in SRI.	10	<b>Assessment:</b> PAC-807, SRI	<b>Assessment:</b> Crop duration, tiller no., plant height, grains/ panicle, test weight, disease reaction, dormancy, yield.	<b>Assesme</b> Duration- 125days, tiller no.-80, plant height 100cm, grains/panic -290, test weight-28, disease- no dormancy- dormant, yield- 9.97MT/ha.
					<b>Farmers practice:</b> var no.1 normal transplanting	<b>Farmers practice:</b> Yield, duration	<b>Farmers practice:</b> Yield- 4.5MT/ha, duration- 140-150days.

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Hybrid rice: PAC-807,SRI	9.97MT/ha.	Rs.79660/-	4.9:1

**Trial 3**

- 1) Title : Cultivation of Hybrid rice.
- 2) Problem diagnose/defined : Low yield of local HYV's
- 3) Details of technologies selected for assessment /refinement :  
 Variety: Hybrid rice Pac-801, crop duration- 125days, plant height- semi dwarf, seed rate- 16kg/ha.  
 yield- high, disease reaction- tolerant to major pest, tiller/ plant- high.  
 Agronomic practice: Spacing- 20x15 cm, fertilizer- 80:50:40 (NPK), date of sowing- 10 June, date of transplanting- 5 July, crop alley- maintained, weeding- use of rotary weeder, PP chemicals- nil, no. of seedlings/hill- single.
- 4) Source of technology : a) Variety- UPL (Groups of Company- Advanta)  
 b) Agronomic practice-ICAR
- 5) Production system thematic area : Cultivation of Hybrid rice PAC-807.
- 6) Thematic area : Cultivation of Hybrid rice (evaluation of new hybrid rice)
- 7) Performance of the Technology with performance indicators : Yield 7.4 MT/ha., B:C- 2.4:1
- 8) Final recommendation for micro level situation : Hybrid rice PAC-801 gives high yield under the season and agronomic practices as given in technology detail compared to local best HYV. So it can be cultivated.
- 9) Constraints identified and feedback for research : High seed cost.
- 10) Process of farmers participation and their reaction : Training on hybrid rice cultivation was conducted, volunteer farmers selected, seed treatment, sowing, transplanting done in presence of SMS. Field visit conducted during critical periods. Observations taken at appropriate crop stages.

11). Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Hybrid rice	Rainfed	Nil	Cultivation of Hybrid rice PAC-801	10	Hybrid rice PAC-801, farmers practice-Tampha phou with same agronomic practices.	Crop duration, no. of effective tiller, no. of grain/ panicle, test cot, yield, plant height.	Duration- 125days, plant height- 101cm, grains/panicle 285.5, tiller no.- 13.3, test weight- 28.3, yield- 7.4 MT/ha.	No incidence of major pest higher yielding than best local check consumer's preference good.	They are willing to go for FLD.

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
PAC-801	7.4MT/ha	Rs.43409/-	2.4:1



**(Fisheries)****Trial 1**

- 1) Title : Eel culture.
- 2) Problem diagnose/defined : Slow growth.
- 3) Details of technologies  
 selected for assessment/refinement : Earthen pond size of 8x1.5x1.5m was used. Pond preparation was made with 20 cm straw and 20cm cow dung in alternate layers upto 80cm and a top layer of 20cm mud. Above the top layer 20cm water height was maintained and allowed to decomposed for one month and eel seeds are released at the rate of 40 nos/ m<sup>3</sup>. 1.5kg of quick lime was applied to maintain the soil pH. Low cost net was used to encircle the experimental pond to prevent the eel from escaping.
- 4) Source of technology : ICAR
- 5) Production system thematic area : Culture of indigenous fish (eel)
- 6) Thematic area : Eel culture
- 7) Performance of the  
 Technology with  
 performance indicators : Yield: 2.2kg/m<sup>3</sup> , B:C=1:1.58
- 8) Final recommendation for  
 micro level situation : It can be cultured in small areas where composite fish culture is not possible.
- 9) Constraints identified and  
 feedback for research : Slow growth, low survival in acidic condition.
- 10) Process of farmers  
 participation and  
 their reaction : Interested farmers are selected and discussed about eel culture and the parameters to be recorded for assessment. Farmers along with SMS recorded the parameters and discussed about the benefit cost ratio.

11). Results of On Farm Trials

1	2	3	4	5	6	7	8	9	10
Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
Eel culture	Rain fed	Slow growth & more sensitive to acidic condition.	Eel culture	10	Earthen pond size of 8x1.5x1.5m was used. Pond preparation was made with 20cm straw and 20cm cow dung in alternate layers up to 80cm and a top layer of 20cm mud. Above the top layer 20cm water height was maintained and allowed to decomposed for one month and eel seeds are released at the rate of 40 nos/m <sup>3</sup> . 1.5kg of quick lime was applied to maintain the soil pH. Low cost net was used to encircle the experimental pond to prevent the eel from escaping.	Growth, water quality	Increase in weight- 27g, Increase in length- 17cm	During six months of culture average increase in weight and length are 27g and 17cm respectively.	Most of the small farmers preferred the technology.

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Eel culture	2.2/ m <sup>3</sup>	121.7/ m <sup>3</sup>	1:1.58

**B. Technology Refinement**

**Trial 1**

1. Title :
2. Problem diagnose/defined :
3. Details of technologies selected for assessment/refinement:
4. Source of technology :
5. Production system thematic area :
6. Thematic area :
7. Performance of the Technology with performance indicators :
8. Final recommendation for micro lev
9. Constraints identified and Feedback for research :
10. Process of farmers participation and their reaction :
- 11). Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10

\* No. of farmers

Technology Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
12	13	14	15

\*Field crops – kg/ha, \* for horticultural crops = kg/l/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**

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

List of technologies demonstrated during previous year and popularized during 2007-08 and recommended for large scale adoption in the district

S. No	Crop/Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Cabbage	IPM	Mustard as trap crop of cabbage	Training, field visit, media coverage.	3	10	2.5
2	Cabbage	IPM	Tomato as intercrop	Training, field visit, media coverage.	3	10	2.5
3.	Rice	Cultivation of Hybrid rice.	Hybrid Rice PAC-801	1. Seed rate- 16kg/ha. 2. Density of seed in nursery- 25gms/m2 3. Seedling age- 20days. 4. Spacing in main field- 20 x 15cm. 5. NPK- 80:50:4	4	10	5
4.	Pea	Pulse production	Improved method of pea	Spacing- 30x10cm Variety- Rachna Fertilizer management	6	6	3
5.	Mustard	Oilseed production	Improved method of mustard	Spacing- 30x10cm Variety- Pusa Bold Fertilizer management	3	4	2
6.	Rice	Rice production	SRI methology	Early transplanting Raised bed system Spacing- 25x25cm or 30x30cm Use of FYM/ Compost, weeding using rotary weeder at 10days interval. Seed rate : 5kg/ha	6	6	1.50
7.	Soyabean	Oilseed production	Improved cultivation techniques of soyabean	Spacing- 40x10cm Variety- JS-335	8	10	5
8.	Blackgram	Pulse production	Improved cultivation techniques of blackgram	Spacing- 30x10cm Variety- T-9 Fertilizer management	7	10	5
9.	Broccoli	Exotic vegetable production	Introduction of F1 hybrid green magic	Variety : Green magic Spacing 45 x 30cm	7	10	1.5
10	Groundnut	Oilseed production	Improved cultivation technique of groundnut	Training field visit media coverage	4	4	2
11	Black gram	Pulse production	Improved cultivation technique of black gram	Training field visit media coverage	7	8	4
12	Fodder maize	Fodder production	Fodder production of maize	Training field visit media coverage	8	10	1.25
13	Rice+Fish	Integrated Aquaculture	Paddy cum fish culture	Demonstration, Training field visit media coverage	6	6	3

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

b. Details of FLDs implemented during 2008-09 (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
					Proposed	Actual	SC/ST	Others	Total	
1.	Broccoli	Exotic vegetable production	F1 hybrid Green magic	2008		1.5		10		-
2.	Cabbage	IPM	Mustard as trap crop of cabbage.	Rabi,2008	2.5	2.5	2	8	10	-
3	Cabbage	IPM	Tomato as intercrop	Rabi,2008	2.5	2.5	1	9	10	-
4	Rice	Hybrid rice cultivation	Variety-Hybrid rice PAC- 801	Kharif 2009	5ha	5ha	6	4	10	-
5.	Pea	Pulse production	Improved cultivation method of pea	Rabi'08	5	3	-	6	6	-
6.	Mustard	Oilseed production	Improved cultivation method of mustard	Rabi '08	5	2	-	4	4	-
7.	Rice	Rice production	SRI	Kharif '09	2.5	1.5		6	6	Draught condition prevail during June & July 2009.
8.	Soyabean	Oilseed production	Improved cultivation method of soyabean	Kharif '09	5	5		10	10	-
9.	Black gram	Pulse production	Improved cultivation method of blackgram	Kharif '09	5	5		10	10	-
10	Ground nut	Oilseed production	Improved cultivation method groundnut	Kharif '09	5	2	-	4	4	-
11	Black gram	Pulse production	Improved cultivation method blackgram	Kharif '09	5	4	-	8	8	-
12	Fodder maize	Fodder production	Fodder production of maize	Kharif '09	1.25	1.25		10	1.25	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Broccoli	September (Rabi)	Irrigated system	Silty loam	-	-	-	Broccoli	21-9-08	20-11-08-	-	-
Cabbage	October (Rabi) 2008	Irrigated	Silty loam	Medium	Medium	Medium	French beans, Pumpkin, Bottle gourd.	06-10-08	16-12-08	71.7mm	12
Cabbage	October (Rabi) 2008	Irrigated	Silty loam	M	M	M	Beans	20-10-08	30-12-09	68.0mm	10
Rice	Kharif,09	Rainfed	Silty clay	Low	Low	Low	Rice	10-6-09	Not yet harvested	Continuing	Continuing
Pea	Rabi '08	RF	Sandy loam to clay loam	-	-	-	Paddy	1 <sup>st</sup> week to 2 <sup>nd</sup> week of Dec.08.	1 <sup>st</sup> week-2 <sup>nd</sup> week of April,09	89.8	12
Mustard	Rabi '08	RF	Clay loam	-	-	-	Paddy	3 <sup>rd</sup> week of Dec.08.	1 <sup>st</sup> week of April, 09	74.1	10
Rice	Kharif ,09	Irrigated	Clay loam to sandy loam	-	-	-	Paddy	3 <sup>rd</sup> week - 4 <sup>th</sup> week of June 08	3 <sup>rd</sup> week -4 <sup>th</sup> week of Oct.,09	-	-
Soyabean	Kharif, 09	RF	Clay loam to sandy loam	-	-	-	Vegetable	3 <sup>rd</sup> week of May-2 <sup>nd</sup> week of June, 09	1 <sup>st</sup> week of Sept-3 <sup>rd</sup> week of Sept.,09	-	-
Blackgram	Kharif, 09	RF	Clay loam to sandy loam	-	-	-	Vegetable	1 <sup>st</sup> week of July- last week of July,09	2 <sup>nd</sup> week of Sept.-3 <sup>rd</sup> week of Sept.,09	-	-
Groundnut	Kharif, 09	RF	Clay loam to silty loam	-	-	-	Vegetable	2 <sup>nd</sup> week of July,08	2 <sup>nd</sup> week - 3 <sup>rd</sup> week of Oct.,08	420.6	82
Blackgram	Kharif, 09	RF	Clay loam to sandy loam	-	-	-	Vegetable	4 <sup>th</sup> week of June-2 <sup>nd</sup> week of July,08	4 <sup>th</sup> week of Aug.-2 <sup>nd</sup> week of Sept.,08	661.8	73
Fodder maize	Fodder oroduction	RF	Clay loam to silty loam	-	-	-	-paddy and vegetable	4 <sup>th</sup> week of july	-	continuing	

Performance of FLD

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Broccoli	F1 hybrid Green magic	Green magic	10	1ha	-	-	160	Cauliflower variety F1 hybrid white flash - 270	-68%	Broccoli 1) Curd weight-0.75kg 2) Curd compact-fully compact. 3) Curd colour- Light bluish green. 3) Days to maturity- 70 days. 4) Yield- 160q/ha B:C= 3.94:1	Cauliflower 1) Curd weight- 1.5kg 2) Curd compact-Compact 3) Curd colour- Creamy white. 4) Days to maturity- 70days. 5) Yield- 270q/ha BC ratio= 3.84:1
2.	Cabbage	Mustard as trap crop	Green hero	10	2.5ha	-	-	460	470	-	Average weight-2kg, Duration-70days, Infestation level- mild. B:C= 4.45:1	Average weight- 2.05kg, Duration- 70days, Controlled (with pesticides) B:C= 4.42:1
3.	Cabbage	Tomato as trap crop	Green hero	10	2.5	-	-	230 + 200	470		Average weight- 2kg/ head (Cabbage) + 2kg/ plant (Tomato), Duration- 70 days, infestation level- mild	Average weight- 2.05 kg, duration – 70days, control with pesticides.
3.	Rice	Cultivation of hybrid rice	PAC-801	10	5	Continuing			Yet to be assessed	Yet to be assessed	Yet to be assessed	
4.	Pea	Improved cultivation techniques of pea	Rachna	6	3	7.4			7.3	1.36		
5	Mustard	Improved cultivation technique of mustard	Varuna	4	2	7.1			6.8	4.41		
7	Rice	SRI Methodology	PAC-801	6	1.5	Continuing			-	-		
8	Soyabean	Improved cultivation method of soyabean	JS-335	10	5	continuing						
9	Blackgram	Improved cultivation method of soyabean	T-9	10	5	continuing						
10	Groundnut	Improved cultivation method of soyabean	ICGS-76	4	2	16.5			9.8	68.36		
11	Blackgram	Improved cultivation method of soyabean	T-9	8	4	8.0			4.8	66.66		
12	Fodder maize	Fodder maize production	Fodder maize	10	1.25	continuing						

NB: Attach few good action photographs with title at the back with pencil

Economic Impact (continuation of previous table)

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
51,600	53,100	2,30,000	2,35,000	178400	181900	4.45:1
52600	53,100	276000	235000	223400	181900	5.24:1
Yet to be totalled	Yet to be totalled	Not yet assessed	Not yet assessed			

Analytical Review of component demonstrations (details of each component for rainfed / irrigated situations to be given separately for each season).

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Line sowing gives good performance – i. easy operation & other crop management.
2	

Farmers' reactions on specific technologies

S. No	Feed Back
1	Willing to adopt the technology.
2	

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training				
3	Media coverage				
4	Training for extension functionaries				

c. Details of FLD on Enterprises

(i) Farm Implements

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

\*Field efficiency, labour saving etc.

(ii) Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / Indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Maize crop	-	10	-	-	Continuing	Not yet practice in		





Production of small tools and implements												
Repair and maintenance of farm machinery and implements												
Small scale processing and value addition												
Post Harvest Technology												
<b>VII Plant Protection</b>												
Integrated Pest Management												
Integrated Disease Management												
Bio-control of pests and diseases												
Production of bio control agents and bio pesticides												
<b>VIII Fisheries</b>												
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												
<b>IX Production of Inputs at site</b>												
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												
<b>X Capacity Building and Group Dynamics</b>												
Leadership development												
Group dynamics												
Formation and Management of SHGs												
Mobilization of social capital												
Entrepreneurial development of farmers/youths												
WTO and IPR issues												
<b>XI Agro-forestry</b>												
Production technologies												
Nursery management												
Integrated Farming Systems												
<b>TOTAL</b>												
<b>(B) RURAL YOUTH</b>												
Mushroom Production												
Bee-keeping												
Integrated farming												
Seed production												
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												
Production of quality animal products												
Dairying												
Sheep and goat rearing												
Quail farming												
Piggery												
Rabbit farming												
Poultry production												
Ornamental fisheries	1	15	5	20	-	-	-	-	15	5	20	
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												
<b>TOTAL</b>												
<b>(C) Extension Personnel</b>												
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												
<b>TOTAL</b>												



B) OFF Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management										
Resource Conservation Technologies (Integrated nutrient management)	1	19	1	20				19	1	20
Cropping Systems										
Crop Diversification										
Integrated Farming										
Water management										
Seed production										
Nursery management										
Integrated Crop Management	4	45	35	80				45	35	80
Fodder production										
Production of organic inputs										
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
<b>b) Fruits</b>										
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										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
<b>III Soil Health and Fertility Management</b>										
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										
<b>IV Livestock Production and Management</b>										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Disease Management	6	64	21	85	23	20	43	87	41	128
Feed management	1	19	1	20				19	1	20
Production of quality animal products										
<b>V Home Science/Women empowerment</b>										
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					20	20		20		20
Value addition										
Income generation activities for empowerment of rural Women										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
<b>VI Agril. Engineering</b>										
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										
<b>VII Plant Protection</b>										
Integrated Pest Management	9	106	19	125	32	4	36	138	23	161
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
<b>VIII Fisheries</b>										
Integrated fish farming	1	11	10	21				11	10	21
Carp breeding and hatchery management	2	20		20	18	2	20	38	2	40
Carp fry and fingerling rearing										
Composite fish culture	1	13		13				13		13
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										
<b>Induced breeding of climbing perch</b>	1	9	11	20			9	11	20	
<b>IX Production of Inputs at site</b>										
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										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
<b>XII Others. ( Plant breeding &amp; Genetics)</b>										
<b>Seed production of rice</b>	1	16	3	19	1		1	17	3	20
<b>Conservation of local cultivars of pea</b>	1	17	3	20				17	3	20
<b>Pre kharif SRI</b>	2	37	3	40				37	3	40
<b>TOTAL</b>										
<b>(B) RURAL YOUTH</b>										
Mushroom Production										
Bee-keeping										
Integrated farming										
Seed production										
Production of organic inputs										
Integrated Farming										
Planting material production										
Vermi-culture										
Sericulture										
Protected cultivation of vegetable crops	1	20		20				20		20
Commercial fruit production										
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	1				11	6	17	11	6	17
Training and pruning of orchards										
Value addition										
Production of quality animal products										
Dairying	1	18	4	22				18	4	22
Sheep and goat rearing	1	16	4	20				16	4	20
Quail farming										
Piggery	1	17	3	20				17	3	20
Rabbit farming										
Poultry production										
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture	1	22		22				22		22
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing	2	4	36	40				4	36	40
Post Harvest Technology	4	8	52	60			20	8	72	80
Tailoring and Stitching										
Rural Crafts										
<b>Fish Health Management</b>	1	22		22				22		22
<b>TOTAL</b>										
<b>(C) Extension Personnel</b>										
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										
<b>TOTAL</b>										

C) Consolidated table (ON and OFF Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Water management										

Seed production										
Nursery management										
Integrated Crop Management										
Fodder production										
Production of organic inputs										
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
<b>b) Fruits</b>										
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										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
<b>III Soil Health and Fertility Management</b>										
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										
<b>IV Livestock Production and Management</b>										
<b>Dairy Management</b>										
Poultry Management										
Piggery Management										
Rabbit Management										
Disease Management	6	64	21	85	23	20	43	87	41	128
Feed management	1	19	1	20				19	1	20
Production of quality animal products										
<b>V Home Science/Women empowerment</b>										
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	1					20	20		20	20
Value addition	1		20	20					20	20
Income generation activities for empowerment of rural Women										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
<b>VI Agril. Engineering</b>										
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										
<b>VII Plant Protection</b>										
Integrated Pest Management	9	106	19	125	32	4	36	138	23	161
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
<b>VIII Fisheries</b>										
Integrated fish farming	1	11	10	21				11	10	21
Carp breeding and hatchery management	2	20		20	18	2	20	38	2	40
Carp fry and fingerling rearing										
Composite fish culture	1	13		13				13		13
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 (Induced breeding of climbing perch)	1	9	11	20				9	11	20
Fish processing and value addition										
<b>IX Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										



7-1-09	PF	Pest & disease of bulb crops.	"	"	"	Off	12	6	18				12	6	18
24-2-09	PF	Integrated pest management for chilli	"	"	"	Off				20	-	20	20	-	20
25-2-09	RY	Soil borne disease management .	"	"	"	Off	20	-	20				20	-	20
11-5-09	PF	Integrated pest management for rice.	"	"	"	Off	16	4	20				16	4	20
23-5-09	RY	Integrated pest management (Basic)	"	"	"	Off	10	-	10				10	-	10
20-6-09	PF	Application of pesticides with different types of nozzles.	"	"	"	Off				12	4	16	12	4	16
<b>Animal science</b>															
3-10-08	PF	Common diseases of pig & vaccination prog.	Livestock production & management	Disease management	1	Off	18	2	20						
15-11-08	PF	Bird flu	-do-	-do-	1	Off	13	7	20				13	7	20
19-12-08	PF	Common diseases of poultry	-do-	-do-	1	Off				16	6	22	16	6	22
19-1-09	PF	Potentials of pig farming	-do-	Piggery	1	Off	17	3	20				17	3	20
16-2-09	RY	Rearing of goat for meat production	-do-	Sheep & goat rearing	1	Off	16	4	20				16	4	20
13-3-09	RY	Swine fever, symptoms, treatment & prevention	-do-	Disease management	1	Off				16	6	22	16	6	22
19-4-09	PF	Vaccination prog. Of pig	-do-	-do-	1	Off				17	4	21	17	4	21
13-5-09	RY	Summer management of buffalo	-do-	Dairying	1	Off	18	4	22				18	4	22
12-6-09	PF	Restricted feeding of broiler	-do-	Poultry prodn.	1	Off	19	1	20				19	1	20
31-7-09	PF	Common diseases of poultry	-do-	Disease management	1	Off	17	8	25				17	8	25
<b>Agronomy</b>															
3-2-09	PF	Integrated nutrient management			1	Off	19	1	20				19	1	20
24-3-09	PF	System of rice cultivation			1	Off	7	13	20				7	13	20
6-6-09, 17-7-09, 6-7-09	PF	Cultivation of rice			3	Off	38	22	60				38	22	60
<b>Plant breeding &amp; genetics</b>															
22-11-08	PF	Harvesting of rice for seed prodn.		Seed production of rice	1	Off	16	3			1		17	3	20
22-12-09	PF	Improved cultivation method of local pea		Cpnservation of local pea	1	Off	17	3	20				17	3	20
17-2-09	PF	Pre-kharif cultivation of hybrid rice PAC-807 in SRI		SRI	1	Off	17	3	20				17	3	20
26-2-09	PF	-do-		-do-	1	Off	17	3	20				17	3	20
<b>Horticulture</b>															
27-6-09	RY	Nursery management of vegetable crops		Off season vegetables	1	Off	20		20				20		20
15-6-09	RY	Off season vegetable production		Nursery Raising	1					11	6	17	11	6	17
<b>Home Science</b>															

21-11-08	RY	Value addition of fruits & vegetables		Value addition	2	On		40	40				-	40	40
16-12-08	RY	Processing of bamboo shoot		Small scale processing	1	Off	-	-	-	-	20	20	-	-	20
31-01-09	PF	Sugar & its products		- do-	1	Off	4	16	20				4	16	20
7-03-09	PF	Storage loss minimization technique		Storage loss minimization technique	1	Off					20	20	-	-	20
8-04-09	PF	Milk products		Value addition	1	Off	8	12	20				8	12	20
29-05-09	PF	Preparation of candies		Value addition	1	Off		20	20				-	20	20
30-6-09	PF	Pineapple products		Small scale processing	1	Off	-	20	20				-	20	20
<b>Fisheries</b>															
20-10-08	RY	Composite fish culture	Fisheries	Composite fish culture	1	Off	22	-	22	-	-	-	-	-	22
10-12-08	RY	Fish health management	-do-	Fish disease	1	Off	22	-	22						22
21-1-09	PF	Integrated fish farming	-do-	Integrated fish farming	1	Off	18	2	20	-	-	-	-	-	20
23-3-09	PF	Seed production of common carp	-do-	Seed production of carp	1	Off	20		20						20
30-3-09	PF	Integrated fish farming	-do-	Integrated fish farming	1	Off	11	10	21						21
09-04-09	PF	Induced breeding of carp	-do-	Seed production of carp	1	Off				18	2	20			20
13-5-09	RY	Setting of Aquarium	-do-	Ornamental fish culture	1	On	15	5	20						20
21-5-09	PF	Induced breeding of climbing perch	-do-	Seed production of indigenous fish	1	Off	9	11	20		S				20
27-7-09	PF	Composite fish culture	-do-	Composite fish culture	1	Off	13		13						13

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
					Male	Female	Total	Type of units	Number of units	Number of persons employed	

\*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes

Sl.No	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/RV/EF)	No. of courses	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
								Others			SC/ST			Total				
								Male	Female	Total	Male	Female	Total	Male	Female	Total		
Total																		



## 3.4. Extension Activities (including activities of FLD programmes)

Sl. No.	Nature of Extension Activity	Purpose/ topic and Date	No. of activities	Participants												
				Farmers (Others) (I)			SC/ST (Farmers) (II)			Extension Officials (III)			Grand Total (I+II+III)			
				Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	
1.	Field Day															
2.	Field Day															
3.	Field day	29.11.08	1	70	15	85	34	13	47	-	-	-	104	28	132	
	Total															
4.	Kisan Mela															
5.	Kisan Mela															
	Total															
6.	Kisan Ghosthi															
7.	Exhibition															
8.	Film Show															
9.	Method Demonstrations															
10.	Farmers Seminar															
11.	Workshop															
12.	Group meetings															
13.	Lectures delivered as resource persons		38	527	219	746	287	107	394	-	-	-	814	326	114	
14.	Newspaper coverage		41													
15.	Radio talks		12													
16.	TV talks		21													
17.	Popular articles															
18.	Extension Literature		5													
19.	Advisory Services															
20.	Scientific visit to farmers field		127	95	16	111	16	-	16	-	-	-	111	16	127	
21.	Farmers visit to KVK		331	257	41	298	26	7	33	-	-	-	283	48	331	
22.	Diagnostic visits															
23.	Exposure visits															
24.	Ex-trainees Sammelana															
25.	Soil health Camp															
26.	Animal Health Camp	Vaccination	2	17	3	20	18	6	24	-	-	-	35	9	44	
27.	Agri mobile clinic															
28.	Soil test campaigns	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.	Farm Science Club Conveners meet															
30.	Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.	Mahila Mandals Conveners meetings															
32.	Celebration of important days (specify)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Grand Total</b>		<b>578</b>	<b>966</b>	<b>294</b>	<b>1175</b>	<b>381</b>	<b>381</b>	<b>514</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1347</b>	<b>427</b>	<b>177</b>	

\* Example for guidance only

## 3.5 Production and supply of Technological products

## SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Rice	HYVs	9260	1,11,120/-	450
OILSEEDS	-	-	-	-	-
PULSES	-	-	-	-	-
VEGETABLES	-	-	-	-	-
FLOWER CROPS	-	-	-	-	-
OTHERS (specify)	-	-	-	-	-
LIVESTOCK	-	-	-	-	-

\*An example for guidance only

## SUMMARY

Sl. No.	Major group/class	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	9260	1,11,120	450
2	OILSEEDS	-	-	-
3	PULSES	-	-	-
4	VEGETABLES	-	-	-
5	FLOWER CROPS	-	-	-
6	POULTRY	-	-	-
	<b>TOTAL</b>		<b>1,11,120.00</b>	<b>450</b>

## PLANTING MATERIALS

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS					

SPICES					
VEGETABLES					
FOREST SPECIES					
ORNAMENTAL CROPS					
PLANTATION CROPS					
Others (specify)					

\*An example for guidance only

**SUMMARY**

Sl. No.	Major group/class	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
1	FRUITS			
2	VEGETABLES			
3	SPICES			
4	FOREST SPECIES			
5	ORNAMENTAL CROPS			
6	PLANTATION CROPS			
7	OTHERS			
	<b>TOTAL</b>			

**BIO PRODUCTS**

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
<b>BIOAGENTS</b>						
<b>BIOFERTILIZERS</b>						
1						
2						
3						
4						
<b>BIO PESTICIDES</b>						
1						
2						
3						
4						

**SUMMARY**

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	(kg)		
1	BIOAGENTS					
2	BIO FERTILIZERS					
3	BIO PESTICIDE					
	<b>TOTAL</b>					

**LIVESTOCK**

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
Cattle	-	-	-	-	-	-
SHEEP AND GOAT	-	-	-	-	-	-
POULTRY	Dual	Giriraja	85	289kg of meat 6625nos of egg	54555.00	10
FISHERIES	-	-	-	-	-	-
Others (Specify)	-	-	-	-	-	-

\* An example for guidance only

SUMMARY						
Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	Kgs		
1	CATTLE	-	-	-	-	-
2	SHEEP & GOAT	-	-	-	-	-
3	POULTRY	Giriraja	85	289kg of meat 6625nos of egg	54555.00	10
4	FISHERIES	-	-	-	-	-
5	OTHERS	-	-	-	-	-
	<b>TOTAL</b>		<b>85</b>	289kg of meat 6625nos of egg	54555.00	<b>10</b>

**3.6. Literature Developed/Published (with full title, author & reference)**

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

(B) Literature developed/published

Item	Title	Authors name	Number of copies
Research papers	A comparative and character association study on some hybrids and varieties of rice	S. Sumangal Singh and W. Jiten Singh	
	Effect of season on body weight, body measurement and reproductive performances of non descript goat of Manipur	S. Zeshmarani and M. Dhaneshwor Singh	
	Induced breeding of Climbing perch, <i>Anabas testudineus</i> (Bloch) by using ovatide	Y. Bedajit Singh	
	Studies on growth performance of Giriraja chicks with different feeding and management practices	S. Zeshmarani and R.K. Ghambhir	
	Relationship of egg weight with egg size and shell quality characters of Giriraja fowl	S. Zeshmarani and R.K. Ghambhir	
<b>Total</b>	<b>5</b>		
Technical reports			
Popular articles			
Leaflets/folders	SRI	N. Tomba Singh	200
	Composite fish Culture	Y. Bedajit Singh	200
	Ascariasis in pig	S. Zeshmarani	200
	Scientific management of pig sty	S. Zeshmarani	200
	Production of Quality farm save seeds	S. Sumangal Singh	200
	Mustard as trap crop of cabbage	M. Thoithoi Singh	200
<b>Total</b>	<b>6</b>		<b>1200</b>
<b>GrandTOTAL</b>	<b>11</b>		<b>1200</b>

\* an example for guidance only

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

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

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

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) : NIL

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

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

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

3.11. Field activities

- i. Number of villages adopted : 7
- ii. No. of farm families selected : 150
- iii. No. of survey/PRA conducted : 250

3.12. Activities of Soil and Water Testing Laboratory

- 1. Status of establishment of Lab : NIL
- 2. Year of establishment : NIL
- 3. List of equipments purchased with amount : NIL

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
<b>Total</b>			

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples				
Water Samples				
Plant Samples				
Petiole Samples				
<b>Total</b>				

**4.0 IMPACT**

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

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

4.2. Cases of large scale adoption : NIL  
(Please furnish detailed information for each case)

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

**5.0 LINKAGES**

**5.1 Functional linkage with different organizations**

Name of organization	Nature of linkage
1. Directorate of Agriculture Govt. of Manipur (Host Institute)	Guidance
2. Directorate of Horticulture Govt. of Manipur	Technology & contribution for infrastructural development
3. Directorate of Vety. & Animal Husbandry	Technology & supply of seed for fodder crop
4. Directorate of Senculture, Govt. of Manipur	Technology transfer
5. College of Agriculture, Imphal	Sharing knowledge and expertise in transfer of technology
6. ICAR Research complex for NEH Region, Umiam, Meghalaya.	Knowledge, Guidance, Technologies, Improved machineries etc.
7. Central Institute of Fresh water aquaculture (CIFA), Bhubaneshwar.	Sharing knowledge and expertise in transfer of technology
8. Central Institute of Fishery Technology (CIFT), Cochin	Sharing knowledge and expertise in transfer of technology
10. IGNOU	Study centre
11. NVK	Conducting training programme
12. Mini Mission-1 (Hort.)	Contribution for infrastructural development
13. Other KVKs	Discussion and sharing of experiences.

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 : NIL**

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)

**5.3 Details of linkage with ATMA**

a) Is ATMA implemented in your district                      yes

SL. No.	Programme	Nature of linkage	Remarks
1	Training Programme	Training	Not done

**5.4 Give details of programmes implemented under National Horticultural Mission**

SL. No.	Programme	Nature of linkage	Constraints if any
1	Infrastructural development	Infrastructural development	nil

**5.5 Nature of linkage with National Fisheries Development Board**

SL. No.	Programme	Nature of linkage	Remarks
1	Training	Financial Assistance	Not done

**6. PERFORMANCE OF INFRASTRUCTURE IN KVK**

**6.1 Performance of demonstration units (other than instructional farm) : Nil**

Sl. No.	Demo Unit	Year of est.	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	6-6-2008 – 25-7-2008	2-11-2008 – 20-11-2008	3.6	HYV	Seed	9260	91231	111120	
Pulses									
Pigeon pea									
Oilseeds									
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	

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	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Carps	Rohu, Catla, Mrigal, Common carp	Table fish	80kg	5000	8000	-

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

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

6.5 Utilization of hostel facilities

Accommodation available (No. of beds) :

Months	Title of the training course/Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
October 2006				
Total				
November 2006				
Total				
December 2006				
Total				
January 2007				
Total				
February 2007				
Total				
March 2007				
Total				
April 2007				
Total				
May 2007				
Total				
June 2007				
Total				
July 2007				
Total				
August 2007				
Total				
September 2007				
Total				
Grand total				

5 X 25= 125 (Duration of the training course X No. of trainees)

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute			
With KVK	SBI	Thoubal	1174667259

7.2 Utilization of funds under FLD on Oilseed (Rs. In Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2008
	Kharif 2007	Rabi 2007-08	Kharif 2007	Rabi 2007-08	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-

TA/DA/POL etc.	-	-	-	-	-
TOTAL	29812	11875	29812	11875	NIL

7.3 Utilization of funds under FLD on Pulses (Rs. In Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2008
	Kharif 2007	Rabi 2007-08	Kharif 2007	Rabi 2007-08	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL	-	12469	-	12469	NIL

7.4 Utilization of funds under FLD on Cotton (Rs. In Lakhs) NIL

Item	Released by ICAR	Expenditure	Unspent balance as on 1 <sup>st</sup> April 2008
	Kharif 2007	Kharif 2007	
Inputs			
Extension activities			
TA/DA/POL etc.			
TOTAL			

7.5 Utilization of KVK funds during the year 2007 -08

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	25,00000	25,00000	25,00000
2	Traveling allowances	1,00000	1,00000	1,00000
3	<b>Contingencies</b>			
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 (ceiling upto Rs.40/day/trainee be maintained)			
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	6,00000	6,00000	6,00000
<b>TOTAL (A)</b>		<b>32,00000</b>	<b>32,00000</b>	<b>32,00000</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works ( construction of main building)	50,93,000	50,93,000	50,93,000
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>		<b>50,93000</b>	<b>50,93000</b>	<b>50,93000</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>82,93,000</b>	<b>82,93,000</b>	<b>82,93,000</b>

7.5 Utilization of KVK funds during the year 2008-09

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	44,00000	44,00000	44,00000
2	Traveling allowances	1,00000	1,00000	1,00000
3	<b>Contingencies</b>			
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 (ceiling upto Rs.40/day/trainee be maintained)			
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	6,00000	6,00000	6,00000
<b>TOTAL (A)</b>		<b>51,00000</b>	<b>51,00000</b>	<b>51,00000</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works ( construction of main building)	-	-	-
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>51,00000</b>	<b>51,00000</b>	<b>51,00000</b>

NB; This KVK Thoubal received a sum of Rs. 24,65,000/- till 31<sup>st</sup> August 2009 from the office of the Zonal Project Directorate Zone-iii as fund for this current financial year 2009-10.

7.5 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2005 to March 2006	Nil	Nil	Nil	Nil
April 2006 to March 2007	1,00000	Nil	Nil	Nil
April 2007 to March 2008	1,00000	Nil	Nil	Nil
April 2008 to March 2009	1,00000	53,759	1,00000	1,53,759

8.0 Please include information which has not been reflected above (write in detail).

8.1 Constraints

- (a) Administrative
- (b) Financial
- (c) Technical : Due to lack of fencing Instructional farm area cannot be use throughout the seasons to produce seeds, planting materials etc

## Annexures

District Profile - I

## Include the details of

1. General census
2. Agricultural and allied census
3. Agro-climatic zones
4. Agro-ecosystems
5. Major and micro-farming systems
6. Major production systems like rice based (rice-rice, rice-green gram, etc.), cotton based, etc.
7. Major agriculture and allied enterprises



Agro-ecosystem Analysis of the focus/target area - II**Include**

1. Names of villages, focus area, target area etc.
2. Survey methods used (survey by questionnaire, PRA, RRA, etc.)
3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc.
4. Analysis and conclusions
5. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem
6. Matrix ranking of problems
7. List of location specific thrust areas
8. List of location specific technology needs for OPT and FLD
9. Matrix ranking of technologies
10. List of location specific training needs

**Technology Inventory and Activity Chart - III**

**Include**

1. Names of research institutes, research stations, regional centres of NARS (SAU and ICAR) and other public and private bodies having relevance to location specific technology needs
2. Inventory of latest technology available \*

Sl. No	Technology	Crop/enterprise	Year of release or recommendation of technology	Source of technology	Reference/citation

PS \* an example for guidance only

3. Activity Chart

Crop/Animal/Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
				1.	1.

2. Details of each of the technology under Assessment, Refinement and demonstration

Include

- a. Detailed account on varietal/breed characters for each of the variety/breed selected for FLD and OFT
- b. Details of technologies that may include formulation, quantity, time, methods of application of nutrients, pesticides, fungicides etc., for technologies selected under FLD and OFTs
- c. Details of location/area specificity of recommended technology viz., for each of the variety/breed/technology selected for FLD and OFT

Annexure – 1

- 1. General census : 2001 census
  - i. Total population : 3,64,140
  - ii. Male population : 1,82,250
  - iii. Female population : 1,81,890
  - iv. Density of population : 708 per square km

2. Agricultural and allied census

- 8. Agricultural and allied census
- 9. Agro-climatic zones
- 10. Agro-ecosystems
- 11. Major and micro-farming systems
- 12. Major production systems like rice based (rice-rice, rice-green gram, etc.), cotton based, etc.
- 13. Major agriculture and allied enterprises

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ANNUAL REPORT – (2008 -2009)

II

DEPARTMENT OF AGRICULTURE,  
MANIPUR

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ANNUAL ACTION PLAN – (2009 -2010)

II

DEPARTMENT OF AGRICULTURE,  
MANIPUR