

ANNUAL ACTION PLAN: 2009-10

KVK, Phek

**PART – I
(GENERAL INFORMATION)**

1. General information about the KVK

Name and address of KVK with Phone, Fax and E-mail*

Complete postal address with Pin Code	Telephone	Fax	E mail
Krishi Vigyan Kendra (NRCM), Village- Porba, P.O-Pfutsero, District- Phek,Nagaland-797107	03865-281436	03865-281436	kvk_phek@yahoo.co.in www.kvkphek.org.in

Name and address of host organization with Phone, Fax and E-mail*

Complete postal address with Pin Code	Telephone	Fax	E mail
NRC on Mithun, Jharnapani, Medziphema, Nagaland	03862-247341	03862-247341	nrcmithun@mailcity.com www.nrcmithun.res.in

Name of the Programme Coordinator with Landline & Mobile No*

Name of PC	Contacts		
	Residence	Mobile	E mail
Dr. R.K.Singh	Village- Porba, P.O-Pfutsero, District- Phek,Nagaland-797107	09436606353	rksingh3@gmail.com

** = Mandatory and to be provided without fail.*

Year of sanction of KVK: 2003

Scientific Staff Position* (As on 30th August, 2009)

No.	Sanctioned posts	Name of the incumbent	Designation	Discipline	Date of joining	Permanent /Temporary
1	Programme Coordinator	Dr. R.K.Singh	Programme Coordinator	Animal Science	7.12.2008	Permanent
2	Subject Matter Specialist	Mr.Rinku Bharali	SMS	Horticulture	17.8.2006	Permanent
3	Subject Matter Specialist	Miss T.Esther Longkumer	SMS	Soil Science	01-08-06	Permanent
4	Subject Matter Specialist	Miss Hannah K. Asangla	SMS	Agronomy	01-08-06	Permanent
5	Subject Matter Specialist	Er. Chitrasen Lairenjam	SMS	Agri Engg.	10-08-06	Permanent
6	Subject Matter Specialist	Dr. Prakash Ranjan Dutta	SMS	Animal Science	04-08-06	Permanent
7	Subject Matter Specialist	Vaccant				
8	Programme Assistant	Miss Virginia Thabah	Programme Asst.	Home Science	21-08-06	Permanent
9	Computer Programmer	Er. Nukusa T. Vadeo	Computer Programmer	Computer Engg.	1.8.2006	Permanent
10	Farm Manager	-				

* = The scientific staff position should reflect in the quantity and quality of all programmes proposed by KVK in the action plan

Total land with KVK (in ha):

No.	Item	Area (ha)
1	Under Buildings	Nil
2.	Under Demonstration Units	Nil
3.	Under Crops	0.2
4.	Orchard/Agro-forestry	1.8
5.	Others	15

SAC meetings proposed for the year:

No.	Proposed Date/Month	Expected Participants	Salient Action Points
1.	23 rd January 2010	25	<ul style="list-style-type: none"> • Training and demonstrations on high yielding varieties of various cereals, pulses and oilseeds. • Introduction and assessment of Kharif season vegetables under protected cultivation. • Production technology of temperate fruits. • Training and demonstration on disease and feeding management of livestock. • Introduction of turkey under backyard. • Post harvest management of vegetables and fruits. • Demonstration of water harvesting structures and micro irrigation system
2.	9 th July 2010	25	<ul style="list-style-type: none"> • Mushroom cultivation • Cultivation and assessment of Rabi season vegetables under protected condition. • Fish disease management technology. • Production of organic inputs. • Integrated pest management • Integrated Nutrient Management

Details of district (2008-09)**Major farming systems existing in the district* (based on the study made by the KVK)**

No	Farming systems identified
1.	Jhum
2.	Pani kheti
3.	Zabo system
4.	Agrisilvipastoral system
5.	Alder based cropping system

** = the programmes proposed by KVK should be matching with the identified farming systems*

Description of Agro-climatic Zone (based on soil and topography)

No	Agro-climatic Zone	Characteristics
1.	Mild tropical Hill zone (500-800m MSL)	Mid hills to low hills with gentle slopes. Soils ranges from sandy loam to clay
2.	Sub tropical Hill Zone (1000-1500m MSL)	High hills to medium hills with steep slope and undulating topography. Soils are rich in organic matter and ranges from sandy loam to clay loam
3.	Sub Alpine temperate zone (1500-3500m MSL)	High hills with steep terrains and deep gorges. Soils ranges are clay to clay loam

Description of major agro ecological situations (based on soil and topography)

No	Agro ecological situation	Characteristics
1	AES-I (500-1000 meters msl)	Foot hills with gentle slope having terraces suitable for paddy cultivation. Soil is basically clay loam to clay
2.	AES-II (1000-1500 meters msl)	Moderate hills with gentle slope have been observed. Soil is loamy in nature.
3.	AES-III (above 1500 meters msl)	Topography is high hills with moderate to steep slopes. Soil is dominantly Sandy loam to clay loam

Details of Operational area / Villages (2009-10)

No	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Pfutsero	Pfutsero	Porba	Paddy	Poor yield of local variety. Degrading soil fertility Stem borer infestation More time and labour consumption in weeding and thrashing of paddy Poor viability of seeds and loss due to improper storage Soil erosion, loss of fertility and degradation	Introduction of high yielding varieties of paddy suitable for panikheti. Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management Use of suitable plant protection measures Introduction of improved paddy weeders and thrashers. Introduction of improved storage structure for cereals. Proper design of terrace, water harvesting, diversion, developing irrigation and drainage system for proper management of watershed area.
				Maize	Poor yield and low quality of local variety Improper plant spacing with higher seed rate Drudgery in shelling of maize	Introduction of high yielding/hybride varieties Proper plant geometry and seed rate Use of maize shellers
				Potato	Low yield Non availability of quality planting material Cut worm, Red ants	Use of high yielding varieties and adoption of Integrated nutrient management to maintain the fertility status of soil. Introduction of TPS technology Use of suitable plant protection measures
				Banana	Cultivation of wild type low quality banana cultivars. Improper training of plants.	Introduction of high quality of banana cultivar such as Grand naine
				Passion fruit	Improper planting, training and pruning Insect pest and disease infestation. Post harvest losses of fruits and vegetables	Improved production technology of passion fruit. Use of suitable plant protection measures Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition.
				Pear, Peach & plum	Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.	Control of weeds Use of high yielding varieties with improved production technology.
				Cabbage	Improper nursery raising technique Insect and pest infestation. Mix cultivation resulting in hindrance for intercropping operations.	Proper nursery raising techniques. Use of bio-control agents Developing proper intercropping pattern
				Ginger	Rotting in field and as well as during storage	Soil and Seed treatment Proper storage of finished products
				Poultry	Low production performance of existing birds	Introduction of quality poultry germplasm.

				<p>Piggery</p> <p>Mithun</p> <p>Cattle</p> <p>Fishery</p>	<p>No provision of night shelter and unhygienic dwellings Improper feeding</p> <p>High epidemics of RD</p> <p>Low production performance of local breeds Non-availability of piglets in the locality Tendency of the farmers to produce pork on zero to negligible inputs</p> <p>High incidence of disease occurrence like FMD Compensation of mineral deficiency in high hill fodders by providing common salt only Parasitic infestation in young calves</p> <p>Poor milk production of local breed, Thotho</p> <p>Epidemics of FMD Parasitic infestation in young calves</p> <p>Skin disease in local breed Poor production of local fish</p>	<p>Adequate and hygienic shelter/housing Supplementary feeding for better growth and performance Vaccination</p> <p>Introduction of quality pig germplasm. Developing breeding unit of high performing breeds Creating awareness regarding performance and management of better germplasm</p> <p>Vaccination and health coverage measures. Feeding of Compounded mineral mixture instead of common salt only Deworming on regular intervals</p> <p>Breed improvement through selection and cross breeding Vaccination Deworming on regular intervals</p> <p>Liming in fish pond Introduction of quality fish breed</p>
2	Pfutsero	Pfutsero	Sakaraba	<p>Paddy</p> <p>Maize</p> <p>Potato</p> <p>Banana</p>	<p>Poor yield of local variety.</p> <p>Degrading soil fertility</p> <p>Stem borer infestation More time and labour consumption in weeding and thrashing of paddy Poor viability of seeds and loss due to improper storage Soil erosion, loss of fertility and degradation</p> <p>Poor yield and low quality of local variety Improper plant spacing with higher seed rate Drudgery in shelling of maize</p> <p>Low yield</p> <p>Non availability of quality planting material Cut worm, Red ants</p> <p>Cultivation of wild type low quality banana cultivars. Improper training of plants.</p>	<p>Introduction of high yielding varieties of paddy suitable for panikheti. Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management Use of suitable plant protection measures Introduction of improved paddy weeders and thrashers.</p> <p>Introduction of improved storage structure for cereals. Proper design of terrace, water harvesting, diversion, developing irrigation and drainage system for proper management of watershed area.</p> <p>Introduction of high yielding/hybride varieties Proper plant geometry and seed rate Use of maize shellers</p> <p>Use of high yielding varieties and adoption of Integrated nutrient management to maintain the fertility status of soil. Introduction of TPS technology Use of suitable plant protection measures</p> <p>Introduction of high quality of banana cultivar such as Grand naine</p>

				<p>Passion fruit</p> <p>Improper planting, training and pruning Insect pest and disease infestation. Post harvest losses of fruits and vegetables</p>	<p>Improved production technology of passion fruit. Use of suitable plant protection measures Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition.</p>
				<p>Pear, Peach & plum</p> <p>Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.</p>	<p>Control of weeds Use of high yielding varieties with improved production technology.</p>
				<p>Cabbage</p> <p>Improper nursery raising technique Insect and pest infestation. Mix cultivation resulting in hindrance for intercropping operations.</p>	<p>Proper nursery raising techniques. Use of bio-control agents Developing proper intercropping pattern</p>
				<p>Ginger</p> <p>Rotting in field and as well as during storage</p>	<p>Soil and Seed treatment Proper storage of finished products</p>
				<p>Large cardamom</p> <p>High incidence of disease occurrence resulting in dyeing of plants High energy requirement in drying</p>	<p>Use of resistant varieties Proper designing of driers</p>
				<p>Poultry</p> <p>Low production performance of existing birds No provision of night shelter and unhygienic dwellings Improper feeding</p> <p>High epidemics of RD</p>	<p>Introduction of quality poultry germplasm. Adequate and hygienic shelter/housing Supplementary feeding for better growth and performance Vaccination</p>
				<p>Piggery</p> <p>Low production performance of local breeds Non-availability of piglets in the locality Tendency of the farmers to produce pork on zero to negligible inputs</p>	<p>Introduction of quality pig germplasm. Developing breeding unit of high performing breeds Creating awareness regarding performance and management of better germplasm</p>
				<p>Cattle</p> <p>Poor milk production of local breed, Thotho</p> <p>Epidemics of FMD Parasitic infestation in young calves</p>	<p>Breed improvement through selection and cross breeding Vaccination Deworming on regular intervals</p>
3	Pfutsero	Pfutsero	Gidemi	<p>Paddy</p> <p>Poor yield of local variety.</p> <p>Degrading soil fertility</p> <p>Stem borer infestation More time and labour consumption in weeding and thrashing of paddy Poor viability of seeds and loss due to improper storage</p>	<p>Introduction of high yielding varieties of paddy suitable for panikheti. Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management Use of suitable plant protection measures Introduction of improved paddy weeders and thrashers. Introduction of improved storage structure for cereals.</p>

				Soil erosion, loss of fertility and degradation	Proper design of terrace, water harvesting, diversion, developing irrigation and drainage system for proper management of watershed area.
				Maize Poor yield and low quality of local variety Improper plant spacing with higher seed rate Drudgery in shelling of maize	Introduction of high yielding/hybride varieties Proper plant geometry and seed rate Use of maize shellers
				Potato Low yield	Use of high yielding varieties and adoption of Integrated nutrient management to maintain the fertility status of soil. Introduction of TPS technology Use of suitable plant protection measures
				Banana Non availability of quality planting material Cut worm, Red ants	Introduction of high quality of banana cultivar such as Grand naine
				Passion fruit Improper planting, training and pruning Insect pest and disease infestation. Post harvest losses of fruits and vegetables	Improved production technology of passion fruit. Use of suitable plant protection measures Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition.
				Mandarin Improper spacing Insect pest and disease management	Proper plant geometry Integrated pest and disease management
				Pear, Peach & plum Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.	Control of weeds Use of high yielding varieties with improved production technology.
				Ginger Rotting in field and as well as during storage	Soil and Seed treatment Proper storage of finished products
				Poultry Low production performance of existing birds No provision of night shelter and unhygienic dwellings Improper feeding	Introduction of quality poultry germplasm. Adequate and hygienic shelter/housing Supplementary feeding for better growth and performance Vaccination
				Piggery High epidemics of RD Low production performance of local breeds Non-availability of piglets in the locality Tendency of the farmers to produce pork on zero to negligible inputs	Introduction of quality pig germplasm. Developing breeding unit of high performing breeds Creating awareness regarding performance and management of better germplasm
				Cattle Poor milk production of local breed, Thotho Epidemics of FMD Parasitic infestation in young calves	Breed improvement through selection and cross breeding Vaccination Deworming on regular intervals

4	Pfutsero	Pfutsero	Pfutseromi	<p>Paddy</p> <p>Maize</p> <p>Potato</p> <p>Banana</p> <p>Passion fruit</p> <p>Pear, Peach & plum</p> <p>Ginger</p> <p>Poultry</p> <p>Piggery</p>	<p>Poor yield of local variety. Degrading soil fertility</p> <p>Stem borer infestation More time and labour consumption in weeding and thrashing of paddy Poor viability of seeds and loss due to improper storage Soil erosion, loss of fertility and degradation</p> <p>Poor yield and low quality of local variety Improper plant spacing with higher seed rate Drudgery in shelling of maize</p> <p>Low yield</p> <p>Non availability of quality planting material Cut worm, Red ants</p> <p>Cultivation of wild type low quality banana cultivars. Improper training of plants.</p> <p>Improper planting, training and pruning Insect pest and disease infestation. Post harvest losses of fruits and vegetables</p> <p>Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.</p> <p>Rotting in field and as well as during storage</p> <p>Low production performance of existing birds</p> <p>No provision of night shelter and unhygienic dwellings Improper feeding</p> <p>High epidemics of RD</p> <p>Low production performance of local breeds Non-availability of piglets in the locality</p>	<p>Introduction of high yielding varieties of paddy suitable for panikheti. Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management Use of suitable plant protection measures Introduction of improved paddy weeders and thrashers.</p> <p>Introduction of improved storage structure for cereals. Proper design of terrace, water harvesting, diversion, developing irrigation and drainage system for proper management of watershed area.</p> <p>Introduction of high yielding/hybride varieties Proper plant geometry and seed rate Use of maize shellers</p> <p>Use of high yielding varieties and adoption of Integrated nutrient management to maintain the fertility status of soil. Introduction of TPS technology Use of suitable plant protection measures</p> <p>Introduction of high quality of banana cultivar such as Grand naine</p> <p>Improved production technology of passion fruit. Use of suitable plant protection measures Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition. Control of weeds Use of high yielding varieties with improved production technology.</p> <p>Soil and Seed treatment Proper storage of finished products</p> <p>Introduction of quality poultry germplasm/new kind of bird like turkey Adequate and hygienic shelter/housing Supplementary feeding for better growth and performance Vaccination</p> <p>Introduction of quality pig germplasm. Developing breeding unit of high performing breeds</p>
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				Cattle	<p>Tendency of the farmers to produce pork on zero to negligible inputs</p> <p>Poor milk production of local breed, Thotho</p> <p>Epidemics of FMD</p> <p>Parasitic infestation in young calves</p>	<p>Creating awareness regarding performance and management of better germplasm</p> <p>Breed improvement through selection and cross breeding</p> <p>Vaccination</p> <p>Deworming on regular intervals</p>
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Priority thrust areas (prioritized in sync with thrust areas identified and given above)

Rank	Thrust area
1.	Introduction of quality livestock germplasm.
2.	Vaccination and health coverage measures of pig and poultry.
3.	Introduction of high yielding varieties of cereals, pulses and grains.
4.	Introduction of high yielding varieties of fruits and vegetables
5.	Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management
6.	Use of suitable plant protection measures against pest and diseases of crops
7.	Feeding of compounded mineral mixture instead of common salt in Mithun
8.	Deworming in regular intervals in Mithun
9.	Proper design of terrace, water harvesting and diversion, irrigation and drainage system for proper management of watershed area
10.	Introduction of improved storage structure for cereals and pulses
11.	Improved production technology of fruits and vegetables
12.	Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition.
13.	Control of weeds
14.	Soil and seed treatment and proper storage of finished products
15.	Adequate and hygienic shelter/housing
16.	Introduction of common carps and other exotic carps in paddy cum fish farming and fish ponds.

**PART – II
(OFT AND FLD)**

2. Technical activities proposed

Abstract of interventions to be undertaken during 2009-10 (Target)

No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions (if any)					
				Title of OFT	Title of FLD	Title of Training	Title of training for extension personnel	Extension activities	Supply of seeds, planting materials
1	Introduction of HYV wheat	Wheat	Not introduced	To study the performance of wheat	-	Production and protection technology on wheat	-	Folder on production and protection technology on wheat	Seeds
2	Testing the performance of HYV tuber seeds	Potato	Low productivity of local tuber seeds	To study the growth and yield of potato	-	Production and protection technology on potato	-	Folder on production and protection technology on potato	seeds
3	Popularization of QPM	QPM	Sowing haphazardly	-	To study the crop geometry for QPM	Production and protection technology on QPM	-	Folder on production and protection technology on QPM	seeds
4	Popularization of groundnut	Groundnut	Sowing haphazardly	-	To study the growth and yield in different altitude	Production and protection technology on groundnut	-	Folder on production and protection technology on pyrilla	seeds
5	Popularization of soybean	Soybean	Sowing haphazardly	-	To study the growth and yield in different altitude	Production and protection technology on soybean	-	Folder on production and protection technology on pyrilla	seeds
6	Introduction of HYV	French bean	Low productivity of local variety	Performance of French bean Arka komal (sel-9)		Production technology on French bean cultivation			Seed
7	Introduction of HYV	Garden pea	Low yield of local tall variety and high cost in staking	Performance of garden pea var. Kashi Nandini & Vivek matar10				Field day	Seed
8	Popularization of variety	Garden pea	Low yield of local tall variety and high cost in staking		Popularization of garden pea var.AP3	Production technology on Garden pea		Field day	Seed

9	Popularization of protected cultivation technology	Tomato	Low productivity of tomato during winter and high incidence of late blight disease during offseason		Protected cultivation of tomato	Protected cultivation of vegetables under polyshade		Field day	Seedling
10	Introduction of biofertilizer for nutrient management	Potato	Low productivity because of low availability of phosphorus	Phosphate solubilizing bacteria(PSB) inoculation in potato	-	Biofertilizer application on potato	-	Folder on Phosphate solubilizing bacteria(PSB) inoculation in potato	Biofertilizer, potato seed.
11	Introduction of biofertilizer for nutrient management	Paddy	Low productivity	-	Inoculation of Azolla in lowland paddy	Azolla for enriching the nitrogen status of soil(FLD)	-	Folder on Azolla for enriching the nitrogen status of soil	Azolla, paddy seed
12	Composting methods	Tomato	Low productivity due to high nutrient loss in degraded soils	Effect of composting methods on nutrient availability of mithun dung on tomato.	-	Composting methods to enhance the utilization of organic materials.	-	Folder on Effect of composting methods on nutrient availability of mithun dung on tomato	Tomato seed, compost (NADEP, vermicompost)
13	Introduction of new germplasm	Turkey	Low productivity of present local fowl germplasm	Performance evaluation of turkey under Phek district	-	Feeding and general management of turkey	Performance of turkey under high hill condition	Field day Scientist –farmer interaction Mass awareness through newspaper and AIR	Turkey
14	Nutritional management of backyard rabbits	Rabbitry	Slow growth rate of fryers	Effect of QPM on performance of rabbits	-	Feeding management of rabbits	-	Field day Scientist –farmer interaction Mass awareness through newspaper	QPM, Rabbits
15	Brooding of kits	Rabbitry	High mortality of young kits	Effect of proper brooding on the performance of rabbits	-	Brooding and care of new born	-	Field day Mass awareness through newspaper	Brooders and medicines
16	Backyard rabbitry	Rabbitry	Low production of quality meat	-	Performance of Soviet Chinchilla and New Zealand white Rabbits under backyard farming system.	Fryer Management	-	Publication of literature and news paper coverage	Pair of rabbits
17	Quality germplasm	Piggery	Poor body weight gain of non descript local pigs	-	Demonstration of performance of cross breed pigs	Swine production		Publication of booklet on swine production and news paper coverage	Pig breeding units

18	Quality germplasm	Poultry	Low productivity of local strain	-	Introduction of dual purpose Vanraja birds	Vanraja a wonder dual purpose bird	-	Booklet on Vanraja and news paper coverage, Radio talk	Vanraja birds
19	Efficient use of water	Tomato/ other rabi crops	Low yield of Rabi crops due to water stress during winter	Assessment of drip irrigation system in rabi vegetables.		Drip irrigation: A water saving technology		Field day	Drip irrigation kit Seed
20	Cardamom drying	Dryer	Low efficiency	Refining the present dryer to improve its efficacy	-	Drying of agri-produce	-	News paper coverage, publications	Exhaust and other electrical fittings
21	Maintenance of proper crop geometry	Adjustable row maker in French bean	Improper crop geometry causing low yield and hindrances intercultural operation		Maintanance of proper crop geometry using adjustable Row maker	Improved farm implement for hill agriculture		Field day	seed
22	Development of high nutrient diet for farm women	Diet design	Poor nutrition	Design and development of low cost high quality diet for hard working women		Proper nutrient supplementation for hill women		-	Locally available ingredients
23	Supply of high nutrient food	Vegetables	Poor nutrition		Scientific technology in nutritional gardening	Nutritional gardening		-	Seedlings
24	Value addition	Ginger	Loss due to storage		Processing of ginger products	Preparation of ginger ale		-	Ginger & Ingredients

Details of On Farm Trials be undertaken during 2009-10 (Target)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	Assessment/ Refinement (WRITE A / R)	No. of trials*
1	2	3	4	5	6
Wheat	Rainfed	Not introduced	To study the performance of wheat	A	3
Potato	Rainfed	Low productivity of local tuber seeds	To study the growth and yield of potato	A	3
French bean	RF	Low productivity of local variety	Performance of French bean selection-9	A	3
Garden pea	RF	Low yield of local tall variety and high cost in staking	Performance of garden pea var. Kashi Nandini & Vivek matar ¹⁰	A	3
Potato	RF	Low productivity	Phosphate solubilizing bacteria(PSB) inoculation in potato	A	3
Tomato	Irrigated (under polyhouse)	Low productivity	Effect of composting methods on nutrient availability of mithun dung on tomato.	A	3
Livestock	Backyard	Low productivity of present local fowl germplasm	Performance evaluation of turkey under Phek district	A	4
Livestock	Backyard	Slow growth rate of fryers	Effect of QPM on performance of rabbits	A	4
Livestock	Backyard	High mortality of young kits	Effect of proper brooding on the performance of rabbits	R	4
Tomato/ other rabi crops	Irrigated	Low yield of Rabi crops due to water stress during winter season	Promotion of Rabi crops during winter using drip irrigation	A	3
Dryers	-	Low efficacy of cardamom dryers	Refining the present dryer to improve its efficacy	R	3
Diet design	-	Poor nutrition	Design and development of low cost high quality diet for hard working women	A	3

* No. of farmers

Technology assessed/refined 6	Year of release of technology	Whether the technology is latest one available? (Y/N)*	If NO, then reason for using the old technology for OFT (in detail)	Parameters of assessment 7
A	-	N	Not introduced in this district	Growth and yield
A	-	N	As the farmers are still using the old conventional tuber seeds	Growth and yield
A	2005	Y		Plant ht, Days taken for pod formation, No of pods/plant, Length of pod, Yield/ha
A	2007	Y		Plant ht, Days taken for pod formation, No of pods/plant, Length of pod, Yield/ha
A	-	N	Biofertilizer are not being used	Growth and yield parameters Soil NPK analysis (Initial and after harvest)
A	-	N	Compost are usually not applied in this area	Analysis of compost NPK Growth and Yield parameters
Performance of turkey	-	N	Turkey is not reared in this area	Growth performance, Days taken to maturity
Performance of QPM	-	Y		Growth performance, Feed efficiency Days taken for maturity, Fertility and reproductive performance
Performance of brooder	-	N	Brooders are not used	Survival rate
A	-	Y		Crop performance, Water use efficiency Economics of the trial
R	-	Y	-	Drying time, power consumed, moisture content of the cardamon
A	-	Y		Protein Carbohydrate Fats Vitamins Minerals

- = The technology should be less than 5 years old.

Extension and Training activities proposed under FLD

No.	Activity	No. of activities	Tentative Date	Number of participants	Remarks
1	Training and Field day (Maize)	2	15.01.10 10.08.10	250	-
2	Training and Field day (Groundnut)	2	20.02.10 12.08.10	50	-
3	Training and Field day (Soyabean)	2	04.03.10 18.08.10	60	-
4	Training and Field day	2	15.9.2009& 20.1.2010	40	-
5	Training and field day	2	18.9.2009& 20.2.2010	40	-

(i) Farm Implements:

No.	Crop	Thematic area	Name of the implement	Season and year	Whether the technology assessed/refined by KVK earlier (Y/N)?	If not, how the technology was proven as suitable for the district?	Area (ha)		No. of farmers/demonstration		
							Proposed		SC/ST	Others	Total
1	Adjustable row maker in French bean	Popularization of farm implement and crop geometry	Adjustable Row maker	Kharif	N		0.50		5		5

(ii) Livestock Enterprises:

Enterprises	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		
Rabbitry	Newziland white	60	60 pairs	Growth and reproductive performance	Weight gain Day taken to maturity Litter size	Weight gain Day taken to maturity Litter size	-	-
Piggery	Hampshire cross	4	20 (16+4)	Growth and reproductive performance	Weight gain Day taken to maturity Litter size	Weight gain Day taken to maturity Litter size	-	-
Poultry	Vanraja	200	800	Growth and no. of eggs	Growth rate Days taken to maturity No. of eggs/laying cycle Egg weight	Growth rate Days taken to maturity No. of eggs/laying cycle Egg weight	-	-

* Milk production, meat production, egg production, reduction in disease incidence etc.

Integrated Nutrient management												
Rejuvenation of old orchards												
Protected cultivation technology												
Formation and Management of SHGs												
Group Dynamics and farmers organizations												
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												
Any other (Pl. Specify)												
TOTAL												

Off Campus

Thematic area	Courses (No)	No. of participants										Grand Total
		Others			SC			ST				
		Male	Female	Total	Male	Female	Total	Male	Female	Total		
(A) Farmers & Farm Women												
I Crop Production												
Weed Management	1							15	10	25		25
Nutrient Management	1							10	15	25		25
Resource Conservation Technologies	1							15	10	25		25
Cropping Systems												
Crop Diversification												
Integrated Farming systems	1							15	10	25		25
Water management												
Seed production	1							10	15	25		25
Nursery management	1							15	10	25		25
Integrated Crop Management												
Fodder production												
Production of organic inputs	5							25	100	125		125
II Horticulture												
a) Vegetable Crops												
Production of low volume and high value crops												
Off-season vegetables	1							15	10	25		25
Nursery raising												
Exotic vegetables production	1							15	10	25		25

Production of export potential vegetables												
Grading and standardization												
Protective cultivation (Green Houses, Shade Net etc.)												
b) Fruits												
Training												
Pruning												
Layout and Management of Orchards												
Cultivation of Fruit crops												
Management of young plants/orchards												
Rejuvenation of old orchards												
Cultivation of export potential fruits												
Micro irrigation systems of orchards												
Plant propagation techniques	1							20	5	25	25	
c) Ornamental Plants												
Nursery Management												
Management of potted plants	1							5	20	25	25	
Production of export potential ornamental plants												
Propagation techniques of Ornamental Plants												
d) Plantation crops												
Production and Management technology												
Processing and value addition												
e) Tuber crops												
Production and Management technology	1							10	15	25	25	
Processing and value addition												
f) Spices												
Production and Management technology	2							20	30	50	50	
Processing and value addition												
g) Medicinal and Aromatic Plants												
Nursery management												
Production and management technology	1							15	10	25	25	
Post harvest technology and value addition												
III Soil Health and Fertility Management												
Soil fertility management	2							33	17	50	50	
Soil and Water Conservation	3							55	20	75	75	
Integrated Nutrient Management	1							19	6	25	25	
Production and use of organic inputs	1							15	10	25	25	
Management of Problematic soils	1							15	10	25	25	
Micro nutrient deficiency in crops												
Nutrient Use Efficiency												
Soil and Water Testing												
IV Livestock Production and Management												
Dairy Management	1							20	5	25	25	
Poultry Management	4							20	80	100	100	
Piggery Management	4							80	20	100	100	
Rabbit Management	2							10	40	50	50	
Disease Management	2							20	20	40	40	

Training as Para extension workers											
Composite fish culture											
Freshwater prawn culture											
Fish harvest and processing technology											
Fry and fingerling rearing											
Small scale processing	2						20	30	50	50	
Post Harvest Technology											
Tailoring and Stitching	1						5	20	25	25	
Rural Crafts	2						20	30	50	50	
TOTAL	20						228	212	440	440	
(C) Extension Personnel											
Productivity enhancement in field crops	1						10	5	15	15	
Integrated Pest Management											
Integrated Nutrient management											
Rejuvenation of old orchards											
Protected cultivation technology	1						10	5	15	15	
Formation and Management of SHGs											
Group Dynamics and farmers organizations											
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	1						15	5	20	20	
Livestock feed and fodder production											
Household food security	1						20	5	25	25	
Women and Child care											
Low cost and nutrient efficient diet designing											
Production and use of organic inputs	1						10	5	15	15	
Gender mainstreaming through SHGs											
Any other (Pl. Specify) Micro irrigation	1						10	1	11	11	
TOTAL	6						75	26	101	101	

Processing and value addition												
e) Tuber crops												
Production and Management technology	1							10	15	25	25	
Processing and value addition												
f) Spices												
Production and Management technology	2							20	30	50	50	
Processing and value addition												
g) Medicinal and Aromatic Plants												
Nursery management												
Production and management technology	1							15	10	25	25	
Post harvest technology and value addition												
III Soil Health and Fertility Management												
Soil fertility management	2							33	17	50	50	
Soil and Water Conservation	3							55	20	75	75	
Integrated Nutrient Management	1							19	6	25	25	
Production and use of organic inputs	1							15	10	25	25	
Management of Problematic soils	1							15	10	25	25	
Micro nutrient deficiency in crops												
Nutrient Use Efficiency												
Soil and Water Testing												
IV Livestock Production and Management												
Dairy Management	1							20	5	25	25	
Poultry Management	4							20	80	100	100	
Piggery Management	4							80	20	100	100	
Rabbit Management	2							10	40	50	50	
Disease Management	2							20	20	40	40	
Feed management	1							15	5	20	20	
Production of quality animal products												
V Home Science/Women empowerment												
Household food security by nutrition gardening	1							10	15	25	25	
Design and development of low/minimum cost diet	1							5	20	251	251	
Designing and development for high nutrient efficiency diet												
Minimization of nutrient loss in processing												
Gender mainstreaming through SHGs												
Storage loss minimization techniques												
Value addition	1							10	15	25	25	
Income generation activities for empowerment of rural Women												
Location specific drudgery reduction technologies												
Rural Crafts	1							10	15	25	25	
Women and child care	1											
VI Agricultural Engineering								0	25	25	25	
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	5							100	25	125	125	

Care and maintenance of farm machinery and implements											
WTO and IPR issues											
Management in farm animals	1						15	5	20	20	
Livestock feed and fodder production											
Household food security	1						20	5	25	25	
Women and Child care											
Low cost and nutrient efficient diet designing											
Production and use of organic inputs	1						10	5	15	15	
Gender mainstreaming through SHGs											
Any other (Pl. Specify) Micro irrigation	1						10	1	11	11	
TOTAL	6						75	26	101	101	

Vocational training programmes for Rural Youth :

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants		
				Male	Female	Total
Apiary	Low honey yield of local sp.	Improved technology on honey bee rearing	5	20	5	25
Rabbitry	Meat and fur production	Rabbit farming for meat and fur	6	5	5	10

*training title should specify the major technology /skill transferred

Sponsored Training Programmes

No	Title	Thematic area	Month	Duration (days)	Client	No. of courses	No. of Participants										Sponsoring Agency
					PF/R Y/EF		Male			Female			Total				
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1.	Rainwater harvesting methods	Water conservation		2 day	PF	1			20			10				30	NABARD
2.	Backyard rabbitry	Meat production		4 days	PF/R Y	3						90				90	NABARD
3.	Turkey farming	Meat production		4 days	PF/R Y	1						30				30	NABARD
4.	Post harvest management of fruits	Processing of fruits		6 days	RY	1			10			10				20	ASSOCHAM
5.																	
Total				16 days		6			16			134				150	

PART – IV
(EXTENSION ACTIVITIES AND PRODUCTION OF SEED AND PLANTING MATERIALS)

4. Proposed Extension Activities for the year 2008-09 (including activities under FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Rural Youth			Total		
		M	F	T	M	F	T	M	F	T	M	F	T
Field Day	30	450	300	750							450	300	750
Kisan Mela	1	200	100	300							200	100	300
Kisan Gosthi	4	75	25	100							75	25	100
Exhibition	2	50	25	75							50	25	75
Film Show	10	150	100	250							150	100	250
Method Demonstrations	20	100	100	200							100	100	200
Farmers Seminar	1	30	20	50							30	20	50
Workshop	1	30	20	50							30	20	50
Group meetings	4	50	50	100							50	50	100
Lectures delivered as resource persons	6	-	-	-							-	-	-
Newspaper coverage	6	-	-	-							-	-	-
Radio talks	6	-	-	-							-	-	-
TV talks	6	-	-	-							-	-	-
Popular articles	20	-	-	-							-	-	-
Extension Literature	20	-	-	-							-	-	-
Advisory Services	25	-	-	-							-	-	-
Scientific visit to farmers field	50	-	-	-							-	-	-
Farmers visit to KVK	5	75	25	100							75	25	100
Diagnostic visits	30	-	-	-							-	-	-
Exposure visits	2	30	30	60							30	30	60
Ex-trainees Sammelan	1	20	10	30							20	10	30
Soil health Camp	1	15	10	25							15	10	25
Animal Health Camp	1	30	20	50							30	20	50
Agri mobile clinic	NA	-	-	-							-	-	-
Soil test campaigns	1	-	-	-							-	-	-
Farm Science Club Conveners meet	1	-	-	-							-	-	-
Self Help Group Conveners meetings	5	25	75	100							25	75	100
Mahila Mandals Conveners meetings	1	-	30	30							-	30	30
Celebration of important days (specify)	World food day	50	50	100							50	50	100
Any Other (Specify)													
Total	262	1305	965	2370							1305	965	2370
M=Male	F=Female	T=Total											

Proposed production and supply of Technological products

Seed materials:

Sl. No.	Crop	Variety	Proposed Quantity (qtl.)	Value (Rs.)	To be provided to (No. of Farmers)
Cereals					
Oilseeds					
Pulses					
Vegetables					
Flower Crops					
Others (Specify)					

Planting materials :

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	To be provided to (No. of Farmers)
Fruits					
Spices					
Vegetables					
Forest Species					
Ornamental Crops					
Plantation Crops					
Others (specify)					

Bioproducts :

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	To be provided to (No. of Farmers)
			No	(kg)		
	Bioagents					
1						
2						
3						
4						
	Biofertilizers					
1						
2						
3						
4						
	Bio Pesticides					
1						
2						
3						
4						

Livestock :

Sl. No.	Type	Breed	Quantity		Value (Rs.)	To be provided to (No. of Farmers)
			Nos	Kgs		
Cattle						
Sheep and Goat						
Poultry						
Fisheries						
Others (Specify)						
Rabbits	Meat	Newziland white and Soviet Chinchila	200	600	30,000	100

Literature proposed to be developed/ published

Item	Title	Number
Research papers	-	6
Technical reports	-	5
News letters	Biannually KVK news letter Quarterly e-magazine	6
Technical bulletins	QPM production in Phek, Rabbitry a profitable venture, Pig breeding, Protected cultivation of tomato, Rain water harvesting	5
Popular articles	Offseason vegetable production for income generation	3
Extension literature	Package and practices of Raja chilly cultivation (Folder) Production technology on ginger (Folder) Medicinal plants (Folder) Plant propagation techniques (Folder) Production technology on wheat (Folder) Production and protection technology on potato (Folder) Cultivation of pyrilla (Folder) QPM cultivation for quality poultry feed (Folder) Production and protection technology on groundnut (Folder) Production and protection technology on soybean (Folder)	15
Others (Pl. specify)	Booklet- 1- Vegetable production in Nagaland 2- Pre and post harvest management of fruits and vegetables	2
Total		42

Details of Electronic Media proposed

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Proposed title of the programme	Number
1	VCD	Mushroom production:A profitable enterprise	1
2	CD	IPM in rice	1
3	CD	Potato cultivation	1
4	VCD	Backyard rabbitry	1
5	VCD	Turkey farming in high hills	1

Field activities proposed

- i. Number of villages to be adopted : 6
 ii. No. of farm families to be selected : 500
 iii. No. of surveys/PRA to be conducted : 2

Proposed activities of Soil and Water Testing Laboratory:**NA****Status of establishment of Lab :**

1. Year of establishment :
 2. Details of samples to be analyzed :

Details	No. of Samples	No. of Farmers	No. of Villages
Soil Samples			
Water Samples			
Total			

PART – V
(LINKAGES WITH OUTSIDE ORGANISATIONS)

5. Proposed Linkages**Functional linkage with different organizations**

Name of organization	Nature of linkage
1. NABARD	Financial
2. NFDB	Financial
3. AAU Jorhat	Technology transfer
4. NEIST, Jorhat	Technology transfer
5. ICAR (RC), Barapani	Technology transfer
6. IMD	Technology transfer
7. SASRD	Technology transfer
8. ASSOCHAM	Financial, Marketing linkage
9. ATMA	Technological support
10. NGO	Technology transfer

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

List special programmes to be undertaken by the KVK, financed by State Govt./Other Agencies (if any)

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

Details of proposed linkage with ATMA

a) Is ATMA implemented in your district (Yes/No): Yes

S. No.	Programme	Nature of linkage proposed

Give details of programmes implemented under National Horticultural Mission (if any) : NA

S. No.	Programme	Nature of linkage proposed

Nature of linkage with National Fisheries Development Board (if any): Training

S. No.	Programme	Nature of linkage proposed

Fruits								
Vegetables								
Others (Specify)								

Proposed production Units (bio-agents / bio pesticides/ bio fertilizers etc.,) : **No units are available with KVK**

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

Performance of instructional farm (livestock and fisheries production) :

No	Name of the animal / bird / aquatics	Details of expected production		
		Breed	Type of Produce	Qty expected
1	Fish	Exotic carps	Fresh Fish	1.00 Q

**PART – VII
(SUMMARY)**

7. Summary

Targets for 2009-10 for KVK.

On Farm Trials

Thematic areas	Cereals	Pulses	Vegetables	Fruits	Total
Introduction of HYV			2		2
Promotion of Rabi crop production using drip irrigation Kit			1		1
Grand total					

FLDs on oilseed and pulse crops.

Name of KVK	Oilseeds		Pulses	
	Area (ha)	No. of farmers	Area (ha)	No. of farmers
Total				

Training programmes

Area	Farmers/ farm women		Rural youth		Extension personnel	
	Courses	Participants	Courses	Participants	Courses	Participants
Crop Production	12	375	1	25	1	15
Horticulture	7	175	2	50	1	25
Plant Protection						
Home Science						
Animal Science						
Soil Science						
Agri Engineering	9	225	2	35	1	11
Bee Keeping			5	25		
Mushroom Cultivation			2	50		
Agro forestry						
Others i) Fishery						
ii) Agri.Extension						
Total						

Extension Activities

Activity	Nos
Field days	7
Kisan Mela	1
Exhibition	1
Exposure visit	2
Extension literature	10
Scientist farmers' interaction	2
Ex-trainees meet	1
Advisory services	50
Newspaper coverage	6
TV show	1
Radio talk	7
Others (Kisan Gosthi)	2
Total	90

Seed Production:

KVK	Quantity (qtl)			
	Cereals	Oilseeds	Pulses	Vegetables
Total				

Planting Materials :

KVK	Quantity (nos)			
	Fruits	Vegetable Seedlings	Tree Species	Ornamental Plants
		2500		

Total				

Signature,
Programme coordinator,
KVK,

(Signature not needed in case of soft copy)

Notes:

The modalities for submission are available in the website www.icarzc3.gov.in and is also mailed to respective KVKs. The same may be strictly followed.