

## ANNUAL ACTION PLAN: OCT-10-MARCH-11

### KVK, Phek, Nagaland

#### **PART – I (GENERAL INFORMATION)**

##### **1. General information about the KVK**

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

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

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

<b>Complete postal address with Pin Code</b>	<b>Telephone</b>	<b>Fax</b>	<b>E mail</b>
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\***

<b>Name of PC</b>	<b>Contacts</b>		
	<b>Residence</b>	<b>Mobile</b>	<b>E mail</b>
Dr. R.K.Singh	18 Gangotri Nagar, Dandi, Allahabad- 211007	09436606353	rksingh3@gmail.com

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

###### **Year of sanction of KVK: Scientific Staff Position\* (As on sept 10)**

<b>No.</b>	<b>Sanctioned posts</b>	<b>Name of the incumbent</b>	<b>Designation</b>	<b>Discipline</b>	<b>Date of joining</b>	<b>Permanent /Temporary</b>
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	Vaccant	SMS	Animal Science	-	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	Keniseto Chucha	Farm Manager	Horticulture	9,300-34,000	10.11.09

\* = *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 of previous SAC
1.	20 January 2011	25	<ul style="list-style-type: none"> <li>• Duck has good potential, so Khaki Campbell breed should be tested.</li> <li>• SRI can be taken up for testing in collaboration with NABARD.</li> <li>• Lemon grass and Citronella has good potential for oil and has insecticidal properties. Large area can be taken along with Assam lemon in collaboration with NOAHGRANDPA (NGO).</li> <li>• Soybean should be popularized in collaboration with NOAHGRANDPA (NGO).</li> <li>• Orange orchards are declining, so training and demonstration on rejuvenation of orchards should be conducted.</li> <li>• Training on fish rearing should be provided; particularly paddy cum fish culture is more remunerative, so it should be encouraged.</li> <li>• The people of Phek are fond of non vegetarian food and it forms major part of their daily meal so introduction of new breeds/species of poultry, pigs or other animal/birds will help in increasing over all livestock productivity.</li> <li>• Trainings should be conducted on bio-fencing and using wild cherry/khabu plant as biofence.</li> <li>• Training on Shitake mushroom should be conducted.</li> <li>• Wheat production should be taken up during rabi season.</li> <li>• Dairy farming should be encouraged amongst the farmers and trainings should be provided.</li> <li>• Quality analysis of Tree tomato should be done.</li> <li>• Tapioca as a pig feed should be encouraged.</li> </ul>

Details of district

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.	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
2.	Sub Alpine temperate zone (1500-3500m MSL)	High hills with steep terrains and deep gorges. Soils ranges are clay to clay loam
3.	Mild tropical Hill zone (200-800m MSL)	Mid hills to low hills with gentle slopes. Soils ranges from sandy loam to clay

**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 (above1500 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 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

				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	performance Vaccination  Introduction of quality pig germplasm. Developing breeding unit of high performing breeds Creating awareness regarding performance and management of better germplasm
				Mithun	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	Vaccination and health coverage measures. Feeding of Compounded mineral mixture instead of common salt only Deworming on regular intervals
				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
				Fishery	Skin disease in local breed Poor production of local fish	Liming in fish pond Introduction of quality fish breed
2	Pfutsero	Pfutsero	Sakaraba	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.

				<p>Pear, Peach &amp; plum Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.</p> <p>Cabbage Improper nursery raising technique Insect and pest infestation. Mix cultivation resulting in hindrance for inter-cultural operations.</p> <p>Ginger Rotting in field and as well as during storage</p> <p>Large cardamom High incidence of disease occurrence resulting in dyeing of plants High energy requirement in drying</p> <p>Poultry Low production performance of existing birds No provision of night shelter and unhygienic dwellings Improper feeding  High epidemics of RD</p> <p>Piggery 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>Cattle Poor milk production of local breed, Thotho  Epidemics of FMD Parasitic infestation in young calves</p>	<p>Control of weeds Use of high yielding varieties with improved production technology. Proper nursery raising techniques. Use of bio-control agents Developing proper intercropping pattern</p> <p>Soil and Seed treatment Proper storage of finished products</p> <p>Use of resistant varieties  Proper designing of driers</p> <p>Introduction of quality poultry germplasm. 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>Breed improvement through selection and cross breeding Vaccination Deworming on regular intervals</p>
3	Pfutsero	Pfutsero	Gidemi	<p>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</p> <p>Maize Poor yield and low quality of local variety Improper plant spacing with higher seed rate Drudgery in shelling of maize</p> <p>Potato Low yield</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</p>

					<p>Non availability of quality planting material Cut worm, Red ants</p> <p>Banana Cultivation of wild type low quality banana cultivars. Improper training of plants.</p> <p>Passion fruit Improper planting, training and pruning Insect pest and disease infestation. Post harvest losses of fruits and vegetables</p> <p>Mandarin Improper spacing Insect pest and disease management</p> <p>Pear, Peach &amp; plum Heavy weed infestation in the orchards Low yield and quality of pear peach and plum.</p> <p>Ginger Rotting in field and as well as during storage</p> <p>Poultry Low production performance of existing birds No provision of night shelter and unhygienic dwellings Improper feeding</p> <p>Piggery High epidemics of RD</p> <p>Cattle 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>Cattle Poor milk production of local breed, Thotho</p> <p>Epidemics of FMD Parasitic infestation in young calves</p>	<p>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. Proper plant geometry Integrated pest and disease management</p> <p>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. 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>Breed improvement through selection and cross breeding Vaccination Deworming on regular intervals</p>
4	Pfutsero	Pfutsero	Pfutseromi	Paddy	<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>Introduction of high yielding varieties of paddy suitable for panikhethi. 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>

				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.
				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  High epidemics of RD	Introduction of quality poultry germplasm/new kind of bird like turkey Adequate and hygienic shelter/housing Supplementary feeding for better growth and performance Vaccination
				Piggery	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



**Priority thrust areas (prioritized in sync with thrust areas identified and given above)**

Rank	Thrust area
1.	Introduction of high yielding varieties of paddy suitable for panikheti.
2.	Introduction of QPM technology
3.	Introduction of quality poultry and pig germplasms.
4.	Adequate Livestock and poultry health coverage measures
5.	Adoption of Integrated nutrient management to maintain the fertility status of soil.
6.	Introduction of biofertilizers e.g. Rhizobium, Azotobacter, Azospirillum, Blue green algae, Azolla for nutrient management
7.	Introduction of TPS technology
8.	Production technology for cole crops
9.	Production technology for off-season vegetable cultivation
10.	Improved production technology on passion fruit
11.	Introduction of high quality of banana cultivar such as Grand naine
12.	Awareness on improved production technology on ginger
13.	Introduction of high quality of banana cultivar such as Grand naine
14.	Introduction of disease resistance varieties of large cardamom
15.	Improved production technology on temperate fruits
16.	Proper design of terrace, water harvesting and diversion, irrigation and drainage system for proper management of watershed area
17.	Development capabilities of rural youth and women in the field of fruits and vegetables processing and value addition.
18.	Introduction of improved storage structure for cereals and pulses

**PART – II  
(OFT AND FLD)**

**2. Technical activities proposed**

**Details of proposed On Farm Trials**

No	Title of OFTs	Problem diagnosis	Technology selected	Assessment (and/ or) refinement (write A or R)	Source of technology	Year of release	Production system	Thematic area	Performance indicators
1.	To study the performance of HYV paddy	Not practiced	HYV	A	ICAR	-	Low land paddy	Varietal evaluation	Growth and yield
2.	Processing of local guava for Jam and jelly preparation	Not processed	Jam	A	ICAR	-	processing	Food processing	Shelf life, Quality
3.	Effect of liming on the yield of maize	Low soil fertility and acidity problem	Liming	A	ICAR	-	Jhum	Nutrient management	Growth and yield
4.	Khaboo ( <i>Ficus hookeri</i> ) bio-fencing development in natural habitation of mithun.		Khaboo	A	NRCM	2008	Animal Production	Nutritional management	Growth rate
5	Performance of Cauliflower var. Pusa Sarad under open and poly shade	Not cultivated due to low temperature	Var. Pusa sarad	A	ICAR	2009	Protected condition	Varietal evaluation	Growth and yield
6	Evaluation of various organic formulation for management of Aphids in cauliflower .	High aphid incidence	Tobacco, Garlic, Neem, Beauvaria basiana	A	AAU	-	Crop production	Pest management	%of infestation, Growth and yield
7	Performance of tomato var. Rohini under polyshade during rabi season.	Not cultivated due to winter	Var. Rohini and Polyshade	A	ICAR	-	Crop production	Varietal evaluation	Growth and yield

### Details of proposed Frontline Demonstrations

No	Title of FLDs	Problem diagnosis	Technology selected	Assessed (and/ or) Refined earlier (write A or R)	Year of assessment / refinement	No. of farmers/demonstrations proposed	Source of technology	Year of release	Production system	Thematic area	Performance indicators
1	To study the growth and yield of potato .Kufri megha in different altitude	No HYV	Potato var.Kufri megha	A	2011	3	ICAR		Hill slopes	Varietal evaluation	Growth and yield
2	Value addition on Maize	Not practiced	Preparation of maize cake	A	2011	3	ICAR		Jhum area	Processing	Quality
3	PSB inoculation in potato.	Low fertility status	PSB	A	2011	3	ICAR		Hill slopes	Nutrient management	Growth and yield
4	Popularization of garden pea var. Arkel	Low yield and high cost of staking in local	Var.Arkel	A	2010	3	ICAR	-	Crop production	Varietal evaluation	Growth and yield

### Extension and Training activities proposed under FLD (if any)

No.	Activity	No. of activities proposed	Date/month	Number of participants expected
1	Field days	7		200
2	Farmers Training	7		200
3	Media coverage	2		
4	Training for extension functionaries	2		30

### FLD on Enterprises


### Farm Implements

Name of the implement	crop	No. of farmers/demonstrations	Area (ha)	Performance indicators
Drip irrigation in Cauliflower	Cauliflower, Var.Pusa sarad	3	0.045	Growth and yield
Drip irrigation in Tomato r in polyshade	Tomato, Var. Rohini	3	0.015	Growth and yield

### Livestock Enterprises

Enterprise	Breed	No. of farmers/demonstrations	No. of animals, poultry birds etc.	Performance parameters*
Mithun	Nagaland	5	25	Growth and Reproductive
Rabbit	Soviet Chinchilla, Newzeland white	120	240	Growth and Reproductive

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

## Other Enterprises

Enterprise	Variety/ breed/Species/others	No. of farmers/demonstrations	No. of Units	Performance parameters
Mushroom	Oyster	2	20 bags	Yield(Fresh)
Apiary	<i>Apis serena</i>	10	10	Honey yield
Sericulture	-	-	-	-
Vermicompost	<i>Eisenia foetida</i>	5	5	Composting time, yield and quality

## Abstract of interventions proposed

No	Thrust area	Crop/ Enterprise	Identified Problem	Proposed Interventions (Give titles)					
				OFTs	FLDs	Trainings	Training for Extn Personnel	Extension activities	Supply of seeds, planting materials etc.
1	Introduction of HYV paddy	Paddy	Not introduced	To study the performance of HYV paddy	-	Production and protection technology on Paddy	-	Folder on production and protection technology on Paddy	Seeds
2	Popularization of potato, var., Kufri megha	Potato	Use of non descript variety	-	To study the growth and yield in different altitude	Production and protection technology on soybean		Folder on production and protection technology on potato, var., Kufri megha	seeds
3	Processing	Guava	Not process	Processing of local guava for Jam and jelly preparation	-	Preparation of guava jam and jelly		-	Fruits and ingredients
4	Value addition	Maize	Not practice	-	Value addition on Maize	Preparation of maize cake and biscuit		-	Maize and ingredients
5	Nutrient management	Maize	Low soil fertility and acidity problem	Effect of liming on the yield of maize	-	Production technology and application of lime in maize.		Production technology and application of lime in maize and field day.	Seeds, lime.
6	Nutrient management	Potato	Low soil fertility and lack of superior HYV tubers.	-	PSB inoculation in potato.	PSB inoculation in potato.		PSB inoculation in potato and field day.	Seeds, biofertilizer.
7	Mithun	Mineral mixture	Low mineral contents of the high altitude fodder leaves.		Supplementation of mineral mixture in mithun.	Supplementation of mineral mixture in mithun.		Leaflet/Folder	Mineral mixture

8	Mithun	Bio-fencing		Khaboo ( <i>Ficus hookeri</i> ) bio-fencing development in natural habitation of mithun.		Khaboo ( <i>Ficus hookeri</i> ) bio-fencing development in natural habitation of mithun.		Leaflet/Folder	Khaboo
9	Rabbit	brooding	Kits mortality	-	Brooding	Methods of brooding	-	Bulletine	Ribbits
10	Water management	Tomato	Draught during rabi		Drip irrigation in Tomato r in polyshade	Irrigation methods in vegetables		Leaflet/Folder	Drip irrigation kit
11	Water management	Cauliflower	Draught during rabi		Drip irrigation in Cauliflower	Irrigation methods in vegetables		Leaflet/Folder	Drip irrigation kit
12	Popularization of variety	Garden pea	Low yield and high cost of staking in local		Popularization of garden pea var. Arkel	Production technology on pea		Leaflet/Folder	Seed
13	Production management	Cauliflower	Not cultivated due to low temperature	Performance of Cauliflower var.Pusa Sarad under open and poly shade		Production technology under protection condition		Leaflet/Folder	Seedlings
14	Insectpest management	Cauliflower	High aphid incidence	Evaluation various organic formulation for management of Aphids in cole crops .		Insect pest management in rabi vegetables		Leaflet/Folder	Organic formulations Seedlings
15	Production management	Tomato	Not cultivated due to winter	Performance of tomato var. Rohini under polyshade during rabi season.		Production technology under protection condition		Leaflet/Folder	Seedlings





















Nursery raising											
Exotic vegetables production	1							10	15	25	25
Production of export potential vegetables											
Grading and standardization											
Protective cultivation (Green Houses, Shade Net etc.)	1							10	15	25	25
<b>b) Fruits</b>											
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							10	15	25	25
<b>c) Ornamental Plants</b>											
Nursery Management											
Management of potted plants											
Production of export potential 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	1							15	10	25	25
Soil and Water Conservation											
Integrated Nutrient Management											
Production and use of organic inputs	1							10	15	25	25
Management of Problematic soils											
Micro nutrient deficiency in crops											
Nutrient Use Efficiency											
Soil and Water Testing											
<b>Tuber crops</b>											
Production and Management technology	1							10	15	25	25
<b>IV Livestock Production and Management</b>											
Dairy Management											
Poultry Management	1							20	5	25	25
Piggery Management	1							15	10	25	25





Bio-agents production												
Bio-pesticides production												
Bio-fertilizer production												
Vermicompost production												
Other 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 in villages												
Managing Group dynamics												
Formation and Management of SHGs												
Mobilization of social capital in villages												
Entrepreneurial development of farmers/youths												
WTO and IPR issues												
<b>XI Agro-forestry</b>												
Production technologies												
Nursery management												
Integrated Farming Systems												
<b>XII Others (Pl. Specify)</b>												
<b>TOTAL</b>	<b>21</b>							<b>240</b>	<b>285</b>	<b>525</b>	<b>525</b>	
<b>(B) RURAL YOUTH</b>												
Mushroom Production												
Bee-keeping	<b>2</b>							<b>20</b>	<b>30</b>	<b>50</b>	<b>50</b>	
Soil and Water Conservation												
Irrigation system	<b>1</b>							<b>10</b>	<b>15</b>	<b>25</b>	<b>25</b>	
Integrated farming	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	
Seed production												
Production of organic inputs	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	
Integrated Farming												
Planting material production												
Vermiculture	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	
Sericulture												
Protected cultivation of vegetable crops	<b>1</b>							<b>10</b>	<b>15</b>	<b>25</b>	<b>25</b>	
Commercial fruit production	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	
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	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	
Poultry production	<b>1</b>							<b>15</b>	<b>10</b>	<b>25</b>	<b>25</b>	

Ornamental fisheries											
Training as Para vets											
Training as Para extension workers											
Composite fish culture											
Freshwater prawn culture											
Fish harvest and processing technology											
Fry and fingerling rearing											
Small scale processing	1						10	15	25	25	
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts	1						10	15	25	25	
<b>TOTAL</b>	<b>12</b>						<b>150</b>	<b>150</b>	<b>300</b>	<b>300</b>	
<b>(C) Extension Personnel</b>											
Productivity enhancement in field crops	2						20	30	50	50	
Integrated Pest Management											
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)											
<b>TOTAL</b>	<b>35</b>						<b>425</b>	<b>465</b>	<b>890</b>	<b>890</b>	

#### Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants		
				Male	Female	Total
Fruit Processing	Processing of wild apple	Processing and value addition of wild apple	1	-	25	25

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

## Sponsored Training Programmes

No	Title	Thematic area	Month	Duration (days)	Client PF/RV /EF	No. of courses	No. of Participants										Sponsoring Agency
							Male			Female			Total				
							Others	SC	ST	Others	SC	ST	Others	SC	ST	Total	
1	Rabbit farming	Production and management	Oct & Feb	4	PF/RV	4						120				120	NABARD
Total				4	PF/RV	4						120				120	NABARD



## 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)
<b>Cereals</b>					
<b>Oilseeds</b>					
<b>Pulses</b>	Pea	Arkel	1	4000	10
<b>Vegetables</b>					
<b>Flower Crops</b>					
<b>Others (Specify)</b>					

## Planting materials

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	To be provided to (No. of Farmers)
<b>Fruits</b>	<b>Orange</b>	<b>Khasi mandarin</b>	<b>500</b>	<b>2500.00</b>	<b>50</b>
	<b>Passion Fruit</b>	<b>Kavery</b>	<b>100</b>	<b>1000.00</b>	<b>10</b>
<b>Spices</b>					
<b>Vegetables</b>	Tomato	Rohini	1000	500	3
	Cauliflower	Pusa Sarad	1000	500	3
<b>Forest Species</b>	<b>Ficus hakeri</b>	<b>-</b>	<b>1000</b>	<b>2000</b>	<b>AH Dept, State govt. Nagaland</b>
<b>Ornamental Crops</b>					
<b>Plantation Crops</b>					
<b>Others (specify)</b>					

**Bioproducts**

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	To be provided to (No. of Farmers)
			No	(kg)		
	<b>Bioagents</b>					
1						
2						
3						
4						
	<b>Biofertilizers</b>					
1	Azolla			50	100	5
2						
3						
4						
	<b>Bio Pesticides</b>					
1	Neem based products			50	2000	50
2						
3						
4						

## Livestock

SI. No.	Type	Breed	Quantity		Value (Rs.)	To be provided to (No. of Farmers)
			Nos	Kgs		
<b>Cattle</b>						
<b>Sheep and Goat</b>						
<b>Poultry</b>						
<b>Fisheries</b>						
<b>Others (Specify)</b>						
<b>Rabbit</b>		<b>Soviet chinchilla and Newzeland white</b>	<b>20</b>	<b>40</b>	<b>4000</b>	<b>10</b>



**Literature proposed to be developed/ published**

Item	Title	Number
Research papers		2
Technical reports	Tomato, Mushroom, Pig, poultry, Rabbit, Drudgery, Azolla	7
News letters	Yirhi Dzu	1
Technical bulletins	Rabbitry, piggery, poultry, Tomato, Water Harvesting	5
Popular articles	-	2
Extension literature	Folders/leaflets	3
Others (Pl. specify) E Book	Rabbitry	1
VCD (Film)		3
<b>Total</b>		<b>24</b>

**Details of Electronic Media proposed**

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Proposed title of the programme	Number
1	VCD	Composting, Rabbitry and Water Harvesting	3
			1

**Field activities proposed**

- i. Number of villages to be adopted : 2
- ii. No. of farm families to be selected : 60
- iii. No. of surveys/PRA to be conducted : 3

**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. SAU	Technical
3. 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.)
Cluster Development Programme	Nov 2010	NABARD	35.00 Lakh (Approx)

**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)**

S. No.	Programme	Nature of linkage proposed

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

S. No.	Programme	Nature of linkage proposed
1	NFDB	Financial



**Proposed production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)**

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	Rabbit	SC, NW	Meat	50 Kg

**PART – VII  
(SUMMARY)**

**7. Summary**

Targets for 2008-09 for KVK,     Phek    

**On Farm Trials**

Thematic areas	Cereals	Pulses	Vegetables	Fruits	Fodder	Total
Varietal Evaluation	1		2			3
Integrated Nutrient Management	1					1
Integrated Pest Management			1			1
Biofertilisers						
Water Management						
Fisheries						
Animal Science					1	1
Food processing						1
<b>Grand total</b>						<b>7</b>

**FLDs on oilseed and pulse crops**

Name of KVK	Oilseeds		Pulses	
	Area (ha)	No. of farmers	Area (ha)	No. of farmers
KVK Phek, Nagaland	5	20	2	20
<b>Total</b>	5	20	2	20

**Other FLDs**

Name of KVK	Other Cops		Interprise	
	Area (ha)	No. of farmers	Area (ha)	No. of farmers
KVK Phek, Nagaland	5	25	7	142
<b>Total</b>	5	25	7	142

## Training programmes

Area	Farmers/ farm women		Rural youth		Extension personnel	
	Courses	Participants	Courses	Participants	Courses	Participants
Crop Production	2	50	1	25	2	50
Horticulture	3	75	2	50		
Plant Protection	3	75	2	50		
Home Science	3	75	2	50		
Animal Science	3	75	2	50		
Soil Science	3	75	2	50		
Agril Engineering	4	100	1	25		
<b>Total</b>	<b>21</b>	<b>540</b>	<b>12</b>	<b>300</b>	<b>2</b>	<b>50</b>

## Extension Activities

Nature of Extension Activity	No. of activities
Field Day	7
Kisan Mela	1
Kisan Gosthi	2
Exhibition	1
Film Show	2
Method Demonstrations	2
Farmers Seminar	1
Workshop	
Group meetings	10
Lectures delivered as resource persons	5
Newspaper coverage	5
Radio talks	4
TV talks	
Popular articles	2
Extension Literature	3
Advisory Services	10
Scientific visit to farmers field	10
Farmers visit to KVK	
Diagnostic visits	15
Exposure visits	1
Ex-trainees Sammelan	1
Soil health Camp	
Animal Health Camp	1
Agri mobile clinic	
Soil test campaigns	
Farm Science Club Conveners meet	
Self Help Group Conveners meetings	1
Mahila Mandals Conveners meetings	
Celebration of important days (specify)	
Any Other (Specify)	
<b>Total</b>	<b>84</b>

**Seed Production**

KVK	Quantity (qtl)			
	Cereals	Oilseeds	Pulses	Vegetables
KVK Phek, Nagaland				1
<b>Total</b>				<b>1</b>

**Planting Materials**

KVK	Quantity (nos)			
	Fruits	Vegetable Seedlings	Tree Species	Ornamental Plants
KVK Phek, Nagaland	600	2000	1000	
<b>Total</b>	<b>600</b>	<b>2000</b>	<b>1000</b>	

\_\_\_\_\_  
**Signature,**  
**Programme coordinator,**  
**KVK, \_\_\_\_\_**

(Signature not needed in case of soft copy)

**Notes:**

The filled in Proforma has to be emailed to [icar\\_zcu3@yahoo.co.in](mailto:icar_zcu3@yahoo.co.in) on or before **15<sup>th</sup> September, 2008**. Also the action plan has to be submitted in a CD during the Annual Zonal Workshop of KVKs to be held at Itanagar, Arunachal Pradesh during September 2008. The action plan will be verified on the spot before submission. **Incomplete and casually filled proformas not complying with the given guidelines will not be accepted.** Hence KVKs are requested to take utmost care in filling up the proforma in line with the guidelines provided at the beginning.

**Materials to be submitted at Annual Zonal Workshop of KVKs:**

1. 3 hard copies of Annual Report 2007-08
2. 3 hard copies of Annual Action Plan 2008-09
3. One CD containing 3 separate folders namely Annual Action Plan 2008-09, Annual Report 2007-08 and Action Photographs.

(The folder on action photographs should contain 10 action photos in JPEG format. The photos should be as separate JPEG files and not to be pasted in a single Word file. The name of each JPEG file should indicate the activity in Photograph in detail.)