ANNUAL REPORT

April 2009- March 2010

KRISHI VIGYAN KENDRA, POONCH

Directorate of Extension Education

Sher-e-Kashmir
University o f Agricultural Sciences & Technology-Jammu
(Jammu & Kashmir)- 180 009

ANNUAL REPORT – April 2009 – March 2010

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
Krishi Vigyan Kendra, Qazi Mohra, Poonch, Jammu (J&K)	**Office** 01965221796	**FAX** 01965221796	kvkpoonch@yahoo.com

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

Address	Telephone		E mail
	Office	FAX	
Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu, Railway Road, Jammu (J&K)	0191-2475827	0191-2477629	deeskuastj@gmail.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Sanjay Khar	01912535621	09419129115	sanjaykhar2007@gmail.com sanjaykhar2007@rediffmail.com

1.4. **Year of sanction: 2007**

1.5. Staff Position (as on 31st March 2010)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category
1	Programme Coordinator	Dr. Sanjay Khar	Programme Coordinator	Agril. Engg.	15600-39100 (34,520)	18/03/10	Temporary	General
2	Subject Matter Specialist	Dr. Sanjeev Kumar	SMS	Plant Breeding & Genetics	15600-39100 (25520)	19/6/07	Temporary	General
3	Subject Matter Specialist	Dr. Neeraja Sharma	SMS	Horticulture	15600-39100 (25520)	19/6/07	Temporary	General
4	Subject Matter Specialist	Dr. Arvind Kumar Ishar	SMS	Entomology	15600-39100 (25520)	19/6/07	Temporary	General
5	Subject Matter Specialist	Sh. Vishal Mahajan	SMS	Agroforestry	15600-39100 (22920)	19/6/07	Temporary	General
6	Subject Matter Specialist	Sh. Suraj Parkash	SMS	Agril. Ext. Education	15600-39100 (22920)	19/6/07	Temporary	General
7	Subject Matter Specialist	Sh. Pawan Kumar	SMS	Agril. Economics	15600-39100 (22920)	13/09/07	Temporary	General
8	Programme Assistant	Sh. Sudhir Singh	Programme Assistant	Pomology	9300-34800 (13910)	14/8/08	Temporary	General
9	Computer Programmer	-	Computer Programmer	--	9300-34800 (13500)	-	Temporary	-
10	Farm Manager	Sh. Raju Gupta	Farm Manager	Agronomy	9300-34800 (13910)	18/8/08	Temporary	General
11	Accountant / Superintendent	Sh. Darshan Kumar	Head Assistant	--	9300-34800 (21290)	--	Temporary	General
12	Stenographer	--	--	--	--	--	--	--

13	Driver	--	--	--	--	--	--	--
14	Driver	--	--	--	--	--	--	--
15	Supporting staff	--	--	--	--	--	--	--
16	Supporting staff	--	--	--	--	--	--	--

1.6. Total land with KVK (in ha) : 3.2 ha

S. No.	Item	Area (ha)
1	Under Buildings	1.0 hectare
2.	Under Demonstration Units	NIL
3.	Under Crops	2.2 hectare
4.	Orchard/Agro-forestry	NIL
5.	Others	NIL

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				2008	400	Under construction
2.	Farmers Hostel	ICAR				2008	300	Under construction
3.	Staff Quarters (6)	ICAR				2008	400	Under construction
4.	Demonstration Units (2)	ICAR				2008	90	Under construction
5	Fencing	ICAR				2009		Partially completed
6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godowns							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	2008	4,30,000	70 hours	Good

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer	2008	34,528.00	Good
Computer	2009	33,217.00	Good
Printer Coloured	2008	19,717.36	Good
Scanner	2008	2,600.00	Good
Sony Handycam	2008	29,900.00	Good
Song Digital Camera	2009	16,800.00	Good
Fax Machine	2009	7,000.00	Good
Laser Printer (1007hp)	2009	5,475.00	Good

1.8. A). Details SAC meeting conducted in the year (2009-10)

Date	S.No.	Name and Designation of Participants	Salient Recommendations	Action taken
23-10-09	1.	Dr. K.S. Rissam Director Extension Education, SKUAST-J	Incorporation of recommendation of all the members	Incorporated as per suggestions.
	2.	Dr. B.K Thakur, District Sheep Husbandry Officer	1. Evaluation of new species of fodder trees to overcome scarcity of fodder 2. Control of Parthenium weed 3. Introduction of new breeds of goat through FLDs 4. Awareness camps on sheep husbandry in different blocks of district.	Some suggestions incorporated in Annual action Plan 2010-11.
	3.	Dr. S.S. Raina, Chief Animal Husbandry Officer, Poonch	1. Veterinary Camps especially for Bakerwals 2. Motivation of youths for adopting Dairy and Poultry as an enterprise.	Suggestions incorporated in Annual action Plan 2010-11
	4.	Mr. Manoj Dhar, SMS, Agriculture Deptt.	1. Increase number of FLDs for introduction of new varieties of pulses and preservation of germplasm. 2. OFTs on chemical control of weeds.	Suggestions incorporated in Annual action Plan 2010-11.
	5.	Mr. V.K.Tandon, Apiculture Development Officer, Poonch.	1. Vocational training and awareness camps on Bee keeping and Mushroom	Suggestion incorporated in Annual action Plan 2010-11

			cultivation.	
	6.	Sh. G.R. Bandey Chief Horticulture Officer, Poonch	1. Awareness camps and farmers Trainings for Horticulture development be increased. 2. Problem of Insect-pests in walnut	Suggestion incorporated in Annual action Plan 2010-11
	7.	Mr. Bashir Ahmad Chauhan, Asstt. Director Fisheries	1. Awareness Camps on Fisheries in collaboration with Fisheries Deptt.	Suggestion incorporated in Annual action Plan 2010-11
	8.	Mr. Shamshari Ahmad, District Forest Officer	To organize farmers awareness camps on social forestry	Camps proposed in Annual action plan 2010-11
	9.	Mr. Suraj Gupta, AEE, Department of Irrigation	Awareness camps for proper /judicious utilization of water for irrigation crops.	Trainings/Camps/ Radio talks proposed in Plan 2010-11
	10.	Mr. Bhajan Singh, Deputy Director, Sericulture	Setting up of units of mulberry in collaboration with Sericulture Deptt.	To be incorporated in next action plan
	11.	Mr. Raman Sharma, J&K Bank (lead Bank), Poonch.	Assured full cooperation in providing loan to farmers and activities of KVK.	
	12.	Dr. Amit Singh I/C Maize Breeding Research Station Poonch.	Introduction of maize hybrids from Almora	Hybrids from Almora shall be introduced through FLDs.
	13.	S. Sardev Singh R/o Khorinar, Poonch Progressive Farmer	Trainings on dairy management and conducting visits to ideal progressive farms outside the district.	Suggestion incorporated in Annual action Plan 2010-11
	14.	Smt. Bhajan Kour R/o Magnad, Farm Women	Providing new technologies for vegetable production	Trainings on Off-season vegetables conducted and proposed for 2010-11.
	15.	Smt. Kulwant Kour R/o Magnad, Poonch Farm Women		

Copy of Proceedings attached as annexure

2. DETAILS OF DISTRICT (2009-10)

Poonch is located on the Southern slopes of Pir Panjal range and as such is rugged with spurs and valleys. It lies between 33^0 25' to $34^0$10' North latitude and 73^0 58' to 74^0 35' East longitude. It is bounded on the north by Baramula and Budgam district of Kashmir valley, on its west and North-West lies Pakistan Occupied Kashmir (POK). The district having population of 3.71 lacs consists of 4 tehsils, 6 blocks and 178 villages covering an area of 1674 sq. km. The climate of the district varies from Sub-tropical to temperate and receives good annual rainfall.

2.1 **Major farming systems/enterprises** (based on the analysis made by the KVK): Maize – Wheat (as fodder) is the major cropping sequence being followed in the district. Besides this, other cropping rotations being practiced in the district are:-

S. No	Farming system /Enterprise
1	Maize -solo crop
2	Maize – Wheat
3	Maize – Potato
4	Maize - Berseem
5	Rice – wheat
6	Rice – Fodder

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 (Up to 800 m)	Plain area with water logging
2	Intermediate lower (800 to 1500)	Slopy land with problem of soil erosion
3	Intermediate higher (Above 1500)	High hills with gully erosion

S. No	Agro ecological situation	Characteristics
1	AES-I	Plain topography with thick soil and canal irrigated
2	AES-II	Slopy land with thin soil cover and rainfed
3	AES-III	Thick growth of conifers & deciduous forests

2.3 Soil Type/s

S. No	**Soil type**	**Characteristics**	**Area in ha**
1.	Silty	Soil is Silty with water logged and flood prone	N.A.
2.	Sandy loam	Soil is sandy to sandy loam with salt affected in patch.	N.A.

2.4. **Area, Production and Productivity of major crops cultivated in the district (2009-10)**

S. No	Crop	Area (ha)	Production (Qtl.)	Productivity (Qtl. /ha)
1	Paddy	4,100	1, 20,760	32.50
2	Maize	25,000	8,25,540	29.80
3	Wheat	16,000	2,70,000	17.88

2.5. **Weather Data**

Month	Rainfall (mm)	Temperature ^{0} C	
		Maximum	Minimum
April 09	111.5	30.2	10.7
May 09	15.0	35.9	15.7
June 09	32.0	38.1	17.83
July 09	190.0	37.3	18.9

August 09	297.0	35.3	18.0
September 09	67.0	35.0	14.6
Oct. 09	75	31.19	12.06
Nov. 09	14.5	27.16	9.63
Dec. 09	170	22.9	5.8
January 2010	91.0	20.38	4.41
Feb. 2010	202.5	20.60	4.82
March 2010	59.0	25.77	7.90

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

Category	Population	Production	Productivity
Cattle			
Crossbred	69445	16425 MT (Milk)	--
Indigenous	137491	16525 MT (Milk)	--
Buffalo	203336	50850 MT (Milk)	--
Sheep			
Crossbred	180964	Mutton 19.99 lakh kg Wool 4.91 lakh kg	--
Indigenous	102007		--
Goats	170090		--
Pigs	--	--	--
Crossbred	--	--	--
Indigenous	--	--	--
Rabbits	21	--	--
Poultry			
Hens	349894	245 Lakh eggs	
Desi	250870	100 Lakh eggs	
Improved	99024	135 Lakh eggs	
Ducks	--	--	--
Turkey and others	--	--	--

Category	Area	Production	Productivity
Fish			
Marine	--	--	--
Inland	1.98 ha	3.6 tonnes/ year	--
Water bodies (Reverine)		33.24 tonnes/ year	--
Prawn	--	--	--
Scampi	--	--	--
Shrimp	--	--	--

2.7 Details of Operational area / Villages (2009-10)

S.No.	Taluka/Tehsil	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Poonch Haveli	Haveli	Karmada, Khari, Jhallas, Gundi	Maize, Paddy, Fodder	Low Productivity	- INM in Paddy and Maize - IPM in Maize - Standardization of Wheat Production technology under rainfed conditions
2	Mandi	Mandi	Asmabad, Rajpura, Mandi	Maize, Rajmash	Low Productivity	- INM & IPM in Maize - Standardization of Pulses Production technology under rainfed conditions
3	Surankote	Surankote, Bufliaz	Draba Potha	Maize Rajmash Paddy	Low Productivity	- INM & IPM in Maize - Standardization of Pulses Production technology under rainfed conditions

2.8 Priority/thrust areas

Agriculture

Crop	Thrust area
Maize	- Line Sowing / Proper Spacing - Integrated Nutrient & Pest Management - Introduction of single cross hybrids
Paddy	- Integrated Nutrient Management
Wheat	- Standardization of Production technology under rainfed conditions
Pulses	- Standardization of Production technology under rainfed conditions

Horticulture

Crop/Enterprise	Thrust area
Pear, Plum, Apple	Promoting balance use of fertilizers
	Application of recommended micronutrients
	Promoting IPM & IDM
Walnut	Management of walnut weevil

Animal Husbandry

Enterprise	Thrust area
Cow, Buffalo, Sheep, Goat	Fertility improvement by addressing reproductive problems
	Availability of green fodder round the year
	Breed up-gradation in Buffalo
	Disease Management in sheep & goat

3.TECHNICAL ACHIEVEMENTS

3. A. **Details of target and achievements of mandatory activities by KVK during 2009-10**

OFT **(Technology Assessment and Refinement)**				FLD **(Oilseeds, Pulses, Cotton, Other Crops/Enterprises)**			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Target	Achiev e-ment	Target	Achiev ement	Targets	Achiev ement	Targets	Achieve ment
16	15	--	29	Maize - 04 ha.	04 ha.	11	11
				Maize - (ISOPOM) 28 ha.	28 ha.	70	87
				Paddy - 04 ha.	04 ha.	10	11
				Wheat - 02 ha.	02 ha.	05	09
				Rajmash- 02 ha.	02 ha.	05	22
				Gobhi Sarson- 07 ha.	3.75 ha.	18	36
				Toria- 03 ha.	-	-	-
				Mash – 02 ha.	02 ha.	05	17
				Moong – 02 ha.	02 ha.	05	19
				Chickpea - 02 ha.	02 ha.	05	22
				Lentil - 02 ha.	02 ha.	05	24
				Mustard – 09 ha.	3.8 ha.	22	33

Training				**Extension Activities**			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Targets	Achieve-ment	Target s	Achiev e-ment	Targets	Achiev e-ment	Targ et	Achieve-ment
Crop Production (08)	09	120	146	Kisan Gosthi (3)	3	-	114
Agroforestry (05)	05	75	90	Field Day (05)	05	-	82
Horticulture (06)	06	90	121	Awareness camps	05	-	183

Plant Protection (05)	05	75	75	Symposium Attended	2	-	-
Extension Education (05)	06	75	96	Advisory Services	At far flung areas to farm women and men		
Vocational Trainings							
Papad and Badi Making	1	20	21	Campaign/ Surveys	25	-	-
Preservation of fruits and vegetables	1	20	23	**Newspaper Coverage**	12	-	-
In-Service Trainings				**Field day Maize& Paddy**	03	-	-
Crop Production(03)	03	45	56	-	-	-	-
Crop Protection (2)	2	30	31	Farmer visit to KVK	125	-	-
Horticulture (2)	2	30	20				
Agroforestry (2)	2	30	28				
Extension Education (4)	3	60	41	-	-	-	-

Seed Production (Qtl.)		**Planting material (Nos.)**	
5		**6**	
Target	**Achievement**	**Target**	**Achievement**
-	-	Tomato Seedling	1300
		Knol-Khol	1050
		Brinjal	900
		Cucurbits	75
		Strawberry	200
		Poplar	100

3.B. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel	Extension activity	Supply of seeds, planting materials
1.	Seed Treatment/ Pest management	Wheat Vegetables Fruits	-Pest incidence - Seed borne diseases	- Effect of weedicides (Iso-Protroun, Sengor & Whip Super) on the productivity of wheat variety PBW 343 - Evaluation of Mustard as a trap crop for Diamond Back Moth (DBM) and cabbage butterfly in knol-khol. - Management of brinjal fruit and shoot borer (*Leucinodes orbonalis*)	- INM in Maize and paddy	- Insect Pest Management in Walnut - Seed treatment method in paddy for seed borne diseases - Management of wilt disease in Chilies	- Integrated Pest and Disease Management in Paddy - Integrated Pest and Disease Management in Maize	- Field days (3) - Trainings (5) - Camps- (4)	Supply of chemical Pesticides
.2.	Prod. technology	Paddy Maize Pulses Vegetables Agroforestry	-Low productivity - Nutrient management	- Performance of different varieties of Maize - Effect of seed rate on the productivity of paddy - Varietal performance in Knol-khol - Nutritional management on the yield of strawberry - Performance of tomato cv. Avinash 2. - Effect of spacing on yield of cauliflower. - Effect of Pruning & Thinning of fruits on yield of Plum. - Effect of spacing on yield of Brinjal (Sandhya) - Economics of high density planting in knol-khol (White Vienna). - Effect of nutritional doses on cost and return on cauliflower (Snowball). - Effect of mulching on yield of Plum in Agri-horticulture based Agroforestry system. - Effect of training / pruning on leaf fodder yield of *Robinia pseudocasia.* - Effect of mulching on yield of Plum in Agri-horticulture based Agroforestry system. - Effect of training / pruning on leaf fodder yield of *Robinia pseudocasia.*	- Line sowing and Nutritional Management in Maize - Optimum seed rate and nutritional management in paddy -Varietal evaluation and nutritional management in pulses	- Introduction of high yielding wheat varieties under rainfed conditions - Role of improved varieties in increasing the yield of rice - Importance of Kitchen gardening - Introduction of Exotic vegetables - Protection of young fruit plants against adverse weather condition - Scientific cultivation of Cauliflower - Selection of tree species for crop combination on farmers' field - Management of Robinia pseudocasia on farmers field as fodder tree	- Seed production technique in tomato - Importance of integrated Nutrient Management in Vegetable production - Biotic and abiotic stresses and their impact on the yielding ability of cereals - Constraints in pulses production and their management	- Field days (5) - Training (12) - Camps- (4)	Supply of seed/ seedlings, Fertilizers

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	1	2	2	-	2	-	-	-	-	7
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	1	1	1	-	-	-	-	-	-	3
Integrated Crop Management	-	-	-	-	4	3	-	-	-	7
Integrated Nutrient Management	-	-	-	-	-	1	-	-	-	1
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	1	-	-	-	-	-	-	-	-	1
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	2	-	-	-	-	2
Integrated Disease Management	-	-	-	-	1	-	-	-	-	1
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
TOTAL	3	3	3	-	9	4	-	-	-	22

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

NIL

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

NIL

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

NIL

B. Details of each On-Farm Trial

A. Technology Assessment

Trial 1

1) Title : Effect of weedicide on the productivity of wheat variety PBW 343.
2) Problem diagnose/defined : Severe Infestation of weeds
3) Details of technologies selected for assessment /refinement :
   i. Farmer Practice (Isoproturon)
   ii. Sencor
4) Source of technology : Package of practice for field crops, SKUAST-Jammu
5) Production system/ thematic area : Rainfed
6) Thematic area : Weed Management
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there was 30.32 per cent increase in yield over farmers practice (Iso-proturon@750g/h) compared to Sencor@175-200g/h. The B:C ratio in case of Sencor was highest (4.30) as compared to Isoproturon (farmer practice) i.e. 3.21.
8) Final recommendation for micro level situation : Sencor@175-200g/ha may be used for effective control of weeds in wheat.
9) Constraints identified and feedback for research : -
10) Process of farmers participation and their reaction : Farmers were trained in application of effective pesticide through farmers' trainings and camps. They showed interest in the improved varieties and new chemicals for weed control in wheat.

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
Wheat	Irrigated	Weed Infestation	Weed Management	2	i. Farmer Practice (Isoproturon) ii. Sencor	Yield	20.25q/ha 26.39q/ha	There is 30.32 % increase in yield in case of Sencor@175-200g/h over farmer practice (Iso-proturon@750g/h)	Provision of quality chemicals and disease resistant seeds

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
i. Farmer Practice (Isoproturon) ii. Sengor	20.25q/ha 26.39q/ha	15250 21500	3.21 4.30

Trial 2

1) Title : Performance of different varieties of Maize.
2) Problem diagnose/defined : Low production of Kanchan-612 in the area.
3) Details of technologies selected for assessment : i. Kanchan - 612
ii. Kanchan -517
4) Source of technology : Package of practice for field crops, SKUAST-Jammu
5) Production system thematic area : Rainfed
6) Thematic area : Varietal Replacement
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there was 15.38 per cent increase in yield(30.50qt/ha) with KH-517 as compared to 26.50 qt/ha with farmers practice (KH-612).
8) Final recommendation for micro level situation : KH-517 should be adopted for higher yield.
9) Constraints identified and feedback for research : Less preference for yellow flint by local farmers.
10) Process of farmers participation and their reaction : Farmers were ready to adopt this variety for commercial cultivation. However, for staple food, they preferred to grow varieties with white flint..

Performance of different varieties of Maize

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Qntl/ha	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Maize	Rainfed	High yielding variety of maize is required	Performance of different varieties of Maize	2	i. KH-517 ii. KH-612	% increase in yield of KH-517 over KH-612	30.50 26.50	There is 15..38 % increase in yield of maize variety KH-517(yellow in colour) over KH-612(white in colour).	KH-517 is a high yielder as compared to KH-612

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ha	BC Ratio
11	12	13	14
i. Maize KH-517	30.50 qtl/ha	25,000	2.00
ii.Maize KH-612	26.50 qtl/ha	18,000	2.55

Trial 3

1) Title : Effect of seed rate on the productivity of paddy.
2) Problem diagnose/defined : Low production due to higher seed rate.
3) Details of technologies selected for assessment : i. Farmers practice : 100Kg/ha
ii. Seed rate : 60 Kg/ha
iii. Seed rate : 80 Kg/ha

4) Source of technology : Package of practice for field crops, SKUAST-J.

5) Production system thematic area : Irrigated

6) Thematic area : Seed rate optimization.

7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there was 17.00 per cent increase in yield(32.75qt/ha) with seed rate of 75 Kg/ha.

8) Final recommendation for micro level situation : Seed of paddy should be sown at the rate of 75 Kg/ha.

9) Constraints identified and feedback for research : Farmers were not ready to take risk as there is problem of seedling mortality and poor germination. Moreover, they used to transplant 6-7 seedlings per hill.

10) Process of farmers participation and their reaction : Farmers were initially reluctant for sowing less seed rate, however, they were satisfied with the practice after observing the results.

Effect of seed rate on the productivity of paddy

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Qtl/ha	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Paddy	Irrigated	Less yield due to the application of non optimum seed rate	Effect of seed rate on the productivity of paddy	2	i. Farmer Practice (100kg/ha)	Yield	25		A good yield is obtained when seed rate is optimum
					ii. Seed rate @50 kg/ha		28	12.00 % increase in yield over farmer practice.	
					iii. Seed rate @75 kg/ha		32.75	17% increase in yield	

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ha	BC Ratio
11	12	13	14
i. Farmer Practice @ 100Kg/ha	25 qtl/ha	15,000	1.5
ii.Sseed rate @ 50 kg/ha.	28 qtl/ha	18,000	1.8
iii. Seed rate @ 75kg/ha.	32.75 qtl/ha	22,000	2.5

Trial 4

1) Title : **Evaluation of Mustard as Trap Crop for Diamond Back Moth (DBM) and cabbage butterfly in Knol-khol.**

2. Problem Diagnosed : Low production due to damage by the insect-pest.

3. Details of technologies selected for assessment : (i) Farmers practice (Broadcasting)
(ii) Sowing of mustard around the field
(iii) One row of mustard after every five rows of knol-Khol

4. Source of technology : SKUAST-J

5. Production system thematic area : Irrigated

6. Thematic area : Evaluation of trap crop against insect pest.
7. Performance of the technology with performance indicators : Trials were conducted at two different locations on farmer's field. The results revealed that maximum yield(211 qtls/ha) was harvested when one row of mustard was sown after every five rows of knol-khol.
8. Final recommendations for micro level situation : Knol-khol should be transplanted in rows at recommended space and one row of mustard should be sown after every five rows of knol-khol.
9. Constraints identified and feedback for research : Farmer is reluctant in sowing crop in rows as the process is labour intensive.
10. Process of farmers participation and their reaction : Farmers participated actively in the trial and were enthusiastic with the results obtained. However, he was ready to sow the crop in rows subject to availability of labour.

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 (% decrease in infestation)	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Knol-khol	Irrigated	Losses due to insect pest attack	Evaluation of mustard as trap crop for Diamond back Moth (DBM) and cabbage butterfly in knoll-khol	02	(i) Farmers practice (Broadcasting) (ii) Sowing of mustard around the field (iii) One row of mustard after every five rows of knol-khol	Per cent infestation	DBM = 6% Cabbage butterfly= 30% DBM = 4 % Cabbage butterfly = 22% DBM = 4% Cabbage butterfly = 17%	8 per cent 13 per cent	Farmer is ready to adopt this practice as the results were encouraging

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Farmers Practice	172 qtl./ha	45100.00	1.78
Mustard around the field	191qtl./ha	51500.00	2.03
One row of mustard after every five rows of knol-khol	211qtl./ha	59000.00	2.27

Trial 5

1) Title : **Management of brinjal fruit and shoot borer (*Leucinodes orbonalis*)**
2) Problem diagnose/defined: Yield loss due to attack of brinjal fruit and shoot borer.
3) Details of technologies selected for assessment /refinement :
   i. Farmer Practice (Endosulphan)
   ii. Karate (Lambda Cyhalothrin) 5 EC
   iii. Hamla (Cypermethrin + Chlorpyriphos)
4) Source of technology : Package of practice for vegetable crops, SKUAST-Jammu

5)	Production system thematic area	:	Irrigated
6)	Thematic area	:	Evaluation of vegetable protection technology
7)	Performance of the Technology with performance indicators	:	Results of the trials conducted at farmers' field at three different locations revealed that there is 20.15 % increase in yield when crop was sprayed with Hamla as compared to Farmer practice (Endosulphan). The B.C ratio in case Hamla was found 1.98 compared to farmer practice i.e. 1.62.
8)	Final recommendation for micro level situation	:	Hamla (Cypermethrin + Chlorpyriphos) is more effective than endosulphan and Karate and should be used for management of brinjal fruit & shoot borer.
9)	Constraints identified and feedback for research	:	Availability of Quality plant protection chemicals in local market.
10)	Process of farmers participation and their reaction	:	Farmers were satisfied with the performance of new chemical and were ready to use it in future.

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
Brinjal	Irrigated	Yield loss due to attack of brinjal fruit and shoot borer.	Insect Management	3	i. Farmer Practice (Endosulphan) ii. Karate (Lambda Cyhalothrin) 5 EC iii. Hamla (Cypermethrin + Chlorpyriphos)	% insect incidence.	35 28 21	There is 20.15 % increase in yield when crop was sprayed with Hamla as compared to Farmer practice (Endosulphan).	Availability of Quality plant protection chemicals in local market
					i. Farmer Practice (Endosulphan) ii. Karate (Lambda Cyhalothrin) 5 EC iii. Hamla (Cypermethrin + Chlorpyriphos)	Yield	198 /ha 215q/ha 230q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ ha	BC Ratio
11	12	13	14
i. Farmer Practice (Endosulphan)	198 /ha	1,26,000	1.62
ii. Karate (Lambda Cyhalothrin) 5 EC	220q/ha	1,34,000	1.81
iii. Hamla (Cypermethrin + Chlorpyriphos)	235q/ha	1,51,000	1.98

Trial 6

1) Title : **Varietal Performance in Knol-Khol**
2) Problem diagnose/defined : Low productivity
3) Details of technologies selected for assessment :
   i. White Vienna
   ii. Purple Vienna
   iii. King of Market
4) Source of technology : Package of practice for vegetable crops 2006, SKUAST-Jammu
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that the variety Purple Vienna gave 15.21% more yield (265q/h) than white Vienna (F.P.) 230q/ha whereas the variety King of Market gave 17.85% more yield (280q/h) than white Vienna. The average knob weight of king of market appeared to be 300g compared to 225g in case of white Vienna (F.P.) and 268g in case of Purple Vienna. The B.C ratio for King of Market was highest (2.32) compared to 2.21 for purple Vienna and 1.60 for white Vienna.
8) Final recommendation for micro level situation : 'King of Market' variety may be encouraged for large scale production
9) Constraints identified and feedback for research : Unavailability of quality seeds in local market and insect pest problem
10) Process of farmers participation and their reaction : Farmers were trained in scientific cultivation of knol-khol. They showed interest in the adopting new cultivars , subject to availability of such seeds, as knol-khol is an important vegetable crop of the region

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
Knol-Khol	Irrigated	Low productivity	Varietal evaluation	2	i. White Vienna ii. Purple Vienna iii. King of Market	Knob wt.	95g 120g 145g	Purple Vienna gave 15.21% more yield than white Vienna (F.P.) whereas the variety King of Market gave17.85% more yields than white Vienna.	Provision of seedlings
					i. White Vienna ii. Purple Vienna iii. King of Market	Yield	230q/ha 265q/ha 280q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
i. White Vienna (Farmers Practice) ii. Purple Vienna iii. King of Market	230q/ha 265q/ha 280q/ha	33500 48400 57360	1.60 2.21 2.32

Trial 7

1) Title : **Nutritional Management on yield of strawberry**.

2) Problem diagnose/defined: Strawberry is not cultivated commercially in Poonch. For increasing production, the standardization of nutritional dose is required.

3) Details of technologies selected for assessment /refinement :
i. Farmer Practice (FYM & improper Inorganic fertilizers)
ii. Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha

4) Source of technology : Handbook of Horticulture, ICAR Publication

5) Production system thematic area : Irrigated

6) Thematic area : Commercial cultivation of strawberry

7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there is 46.91% increase in yield in case of Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha compared to 214.2q/ha over farmer practice (FYM & improper Inorganic fertilizers) i.e. 145.8q/ha. The B.C ratio in case of recommended dose was found highest (2.70) compared to farmer practice i.e. 1.38

8) Final recommendation for micro level situation : Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha may be used for increasing production of strawberry

9) Constraints identified and feedback for research : Availability of Quality planting material

10) Process of farmers participation and their reaction : Farmers were trained in scientific cultivation of strawberry through trainings. They are interested in taking it as an enterprise and doing its commercial cultivation. However, they need some assistance in form of inputs and marketing.

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
Strawberry	Irrigated	Low productivity	Nutritional Management	2	i. Farmer Practice (FYM & improper Inorganic fertilizers) ii. Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha	Fruit wt.	10.5g/fruit 14.7g/fruit	There is 46.91 % increase in yield of strawberry when dose of NPK (100-200-80) along with 50 t FYM/ha is used.	Provision of quality planting material
					i. Farmer Practice (FYM & improper Inorganic fertilizers) ii. Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha	Yield	145.8q/ha 214.2q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ ha	BC Ratio
11	12	13	14
i. Farmer Practice (FYM & improper Inorganic fertilizers) ii. Recommended dose (100-200-80)kg NPK along with 50 t FYM/ha	145.8q/ha 214.2q/ha	80000 120000	1.38 2.70

Trial 8

1) Title : **Response of Tomato hybrid (Shivalik) in Poonch**
2) Problem diagnose/defined : Low productivity
3) Details of technologies selected for assessment : i. Farmer Practice (Local variety)
ii. Shivalik Hybrid
4) Source of technology :
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at three different locations revealed that there is 60% increase in yield (240q/h) of tomato from Shivalik hybrid compared to the farmer practice of local variety. The B.C ratio in case of Shivalik hybrid was 4.45 whereas that of local was 3.16.
8) Final recommendation for micro level situation : Shivalik hybrid performed well under Poonch
9) Constraints identified and feedback for research : Provision of quality seed.
10) Process of farmers participation and

their reaction : Farmers were trained in scientific cultivation of tomato through farmers' trainings. They showed interest in the improved varieties and practices of tomato production.

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
Tomato	Irrigated	Low productivity	Varietal performance	3	i. Farmer Practice (Local variety) ii. Shivalik Hybrid	Yield	150 q/ha 240 q/ha	There is 60 % increase in yield of tomato from Shivalik over local variety	Provision of quality planting material

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ ha	BC Ratio
11	12	13	14
i. Farmer Practice (Local variety) ii. Shivalik Hybrid	150 q/ha 240 q/ha	57000 98000	3.16 4.45

Trial 9

1) Title : **Effect of spacing on yield of cauliflower (Snowball-16)**
2) Problem diagnose/defined : Low productivity
3) Details of technologies selected for assessment /refinement :
   i. Farmer Practice
   ii. 45 x 60 cm
   iii. 30 x 45 cm
4) Source of technology : Package of practice for vegetable crops 2006, SKUAST-Jammu
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there is 21.95% increase in yield (250q/h) of cauliflower over farmer practice when planted 45 x 60 cm apart and 29.26% increase (265q/h) when planted 30 x 45 cm apart. The B.C ratio in case of 30 x 45 cm spacing was found highest (2.45) as compared to 45 x 60 cm (1.92) & farmer practice (1.30).
8) Final recommendation for micro level situation : Cauliflower may be planted at 30 x 45 cm spacing for getting higher yield and economic returns.
9) Constraints identified and feedback for research : Severe attack of cabbage butterfly
10) Process of farmers participation and their reaction : Farmers were trained in scientific cultivation of cauliflower through farmers' trainings. They showed interest in the improved varieties and scientific cultivation of the crop.

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
Cauliflower	Irrigated	Low productivity	Effect of Spacing	2	i. Farmer Practice ii. 45 x 60cm iii. 30 x 45 cm	Yield	205q/ha 250q/ha 265q/ha	There is 21.95% increase in yield (250q/h) of c. flower over farmer practice when planted 45 x 60 cm apart and 29.26% increase (265q/h) when planted 30 x 45 cm apart.	Provision of quality seeds and plant protection chemicals.

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
i. Farmer Practice ii. 45 x 60 cm iii. 30 x 45 cm	205q/ha 250q/ha 265q/ha	30100 49700 58100	1.30 1.92 2.45

Trial 10

Effect of Pruning & Thinning of fruits on yield of Plum:
Trial was unsuccessful due to total crop failure because of unfavorable climatic conditions.

Trial 11

1) Title : **Effect of spacing on yield of brinjal (Sandhya).**
2) Problem diagnose/defined: Low Productivity.
3) Details of technologies selected for assessment /refinement :
   i. Farmer Practice (Improper spacing)
   ii. 45 X 60cm
   iii. 75 X 75cm
4) Source of technology : Package of practice for vegetable crops, SKUAST-Jammu
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at three different locations revealed that there is 34.80 % increase in yield when plants were spaced at 45 x 60 cm apart compared to Farmer practice. The B.C ratio in case of 45 x 60 cm spacing was found 4.1 compared to farmer practice i.e. 2.90.
8) Final recommendation for micro level situation : 45 x 60 cm spacing may be used for higher yield.
9) Constraints identified and feedback for research : Availability of Quality planting material
10) Process of farmers participation and their reaction : Farmers were trained in scientific cultivation of brinjal through trainings. They showed interest in such trials.

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
Brinjal	Irrigated	Low productivity	Effect of Spacing on yield of brinjal	3	i. Farmer Practice (Improper spacing) ii. 45 X 60cm iii. 75 X 75cm	Average Fruit wt.	80g 86g 90g	There is 34.80 % increase in yield when plants were spaced at 45 x 60 cm apart compared to Farmer practice	Provision of quality planting material
					i. Farmer Practice (Improper spacing) ii. 45 X 60cm iii. 75 X 75cm	Yield	204q/ha 275q/ha 254q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ ha	BC Ratio
11	12	13	14
i. Farmer Practice (Improper spacing)	204q/ha	1,20,000	2.9
ii. 45 X 60cm	275q/ha	1,60,500	4.1
iii. 75 X 75cm	254q/ha	1,49,320	3.5

Trial 12

1) Title : **Economics of High density planting in Knol-Khol (White Vienna)**
2) Problem diagnose/defined : Low productivity
3) Details of technologies selected for assessment : i. Without any particular spacing
   ii. 20 x 30 cm
   iii. 15 x 30 cm
4) Source of technology : Annual Report 2007, Division of Vegetable Science & Floriculture, FOA, Chatha, SKUAST-J.
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that the high density planting in knol-khol (15 x 30cm) gave 26.08% higher yield (290q/h) over farmer practice . The yield of knol-khol at 20 x 30cm spacing was 275q/ha. The B.C ratio with 15 x 30cm spacing was highest (2.45) as compared to 20 x 30cm spacing (2.28) & farmer practice (1.60)
8) Final recommendation for micro level situation : High density planting in knol-khol may be encouraged for increasing production.
9) Constraints identified and feedback for research : -
10) Process of farmers participation and their reaction : Farmers were trained in scientific cultivation of knol-khol through farmers trainings. They are enthusiastic in adopting the method as it gave higher economic return.

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
Knol-Khol	Irrigated	Low productivity	Economics of high density population	2	i. Without any particular spacing ii. 20 x 30 cm iii. 15 x 30 cm	Knob wt.	66g 90g 75g	High density planting in knol-khol gave 26.08% higher yield (290q/h) over farmer practice (230q/ha).	Provision of seedlings
					i. Without any particular spacing ii. 20 x 30 cm iii. 15 x 30 cm	Yield	230q/ha 275q/ha 290q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
i. Without any particular spacing	230q/ha	33500	1.60
ii. 20 x 30 cm	275q/ha	54600	2.28
iii. 15 x 30 cm	290q/ha	59900	2.45

Trial 13

1) Title : **Effect of nutritional doses on cost & return on cauliflower (Snowball-16)**
2) Problem diagnose/defined : Low productivity
3) Details of technologies selected for assessment /refinement :
   i. Farmer Practice (improper fertilizer dose)
   ii. 120-60-60 (N P K)
   iii. 150-80-60
4) Source of technology : Package of practice for vegetable crops 2006, SKUAST-Jammu
5) Production system thematic area : Irrigated
6) Thematic area : Evaluation of vegetable production technology
7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field at two different locations revealed that there is 30.24 % increase in yield (267q/h) of cauliflower over farmers practice (205q/h) when NPK was applied @ 150:80:60 and 26.83 % increase (260q/h) when NPK applied at 120:60:60. The B.C ratio in case of 150-80-60 was highest (2.21) compared to 120-60-60 (2.01) & farmer practice (1.30).
8) Final recommendation for micro level situation : N P K may be applied @ 150-80-60 for increasing production.
9) Constraints identified and feedback for research : Severe attack of cabbage butterfly
10) Process of farmers participation and their reaction : Majority of the farmers were willing to apply the recommended dose . However, a few were reluctant to use higher dose of chemical fertilizers.

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
Cauliflower	Irrigated	Low productivity	Nutritional Management	2	i. Farmer Practice ii. 120-60-60 NPK iii. 150-80-60 NPK	Curd wt.	650g 805g 850g	There is 30.24% increase in yield (260q/h) of c. flower when 120:60:60 NPK applied over farmers' practice i.e. imbalance NPK (205q/h)	Provision of seedlings
					i. Farmer Practice ii. 120-60-60 NPK iii. 150-80-60 NPK	Yield	205q/ha 260q/ha 267q/ha		

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
i. Farmer Practice	205 q/ha	30100	1.30
ii. 120-60-60 NPK	260 q/ha	42000	2.01
iii. 150-80-60 NPK	267 q/ha	46000	2.21

Trial 14

Effect of mulching on yield of Plum in Agri-horticulture based Agroforestry system

Trial was unsuccessful due to total crop failure because of unfavorable climatic conditions.

Trial 15

1) Title : **Management Effect of training / pruning on leaf fodder yield of *Robinia pseudocasia***

2) Problem diagnose/defined: Fodder scarcity.

3) Details of technologies selected for assessment :
i. Farmer Practice (No training / pruning)
ii. 50% pruning of the side branches
iii.75% pruning of the side branches

4) Source of technology : YS. Parmar University of Horticulture and Forestry

5) Production system thematic area : Rainfed

6) Thematic area : Fodder Production

7) Performance of the Technology with performance indicators : Results of the trials conducted at farmers' field revealed that there is 75 % increase in yield of ***Robinia pseudocasia*** when 75% pruning of the side branches was done compared to no pruning at all.

8) Final recommendation for micro level situation : 75% pruning of the side branches should be done.

9) Constraints identified and feedback for research : Don't give fodder in winter, have knots in wood, so can't be used for making furniture

10) Process of farmers participation and their reaction : Farmers get additional fodder and shade of plants was also minimized which help the standing maize crop.

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
Robinia pseudocasia	Irrigated/Rainfed	Scarcity of fodder	Pruning	02	i. Farmer Practice ii. 50% pruning of the side branches iii. 75% pruning of the side branches	Yield/plant	8 kg 11 kg 14 kg	There is 75 % increase in yield of ***Robinia pseudocasia*** when 75% pruning of the side branches was done compared to no pruning at all.	Farmers get additional fodder and shade also reduced which helps the standing maize crop

Technology Assessed	Production per unit	Net Return (Profit) in Rs./ plant	BC Ratio
11	12	13	14
i. Farmer Practice	8 kg	40	
ii. 50% pruning of the side branches	11 kg	55	-
iii. 75% pruning of the side branches	14 kg	70	

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 2009-10 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.	Maize	Var. Eval. Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizers	Field days, Awareness camps, Trainings	14	17	06
2.	Paddy	Var. Eval. Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizer		07	10	04
3.	Wheat	Nutrnt. Mgmt. Weed Mgmt.	Recommended dose of fertilizer Application of weedicide		09	13	04
4.	Gobhi Sarson	Nutrnt. Mgmt.	Recommended dose of fertilizer		05	10	02
5.	Toria	Nutrnt. Mgmt.	Recommended dose of fertilizer		01	10	02
6.	Rajmash	Cropping System	Mixed cropping with maize		05	06	2.5

Details of FLDs implemented during 2008-09

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reason for shortfall
					Propos-ed	Actual	SC/ST	Others	Total	
Cereals										
1.	Maize	Line sowing technology Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizers	Kharif 2009	04	04	01	10	11	
	Maize (ISOPOM)	Line sowing technology Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizers	Kharif 2009	28	28	27	60	87	
2.	Paddy	Var. Eval. Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizer	Kharif 2009	04	04	04	07	11	
3.	Wheat	Nutrnt. Mgmt. Weed Mgmt.	Recommended dose of fertilizer Application of weedicide	Rabi 2009	02	02	02	07	09	
Oilseeds										
4.	Gobhi Sarson	Nutrnt. Mgmt.	Recommended dose of fertilizer Pest Mgmt.	Rabi 2009	07	3.75	11	25	36	
5.	Mustard	Nutrnt. Mgmt.	Recommended dose of fertilizer Pest Mgmt.	Rabi 2009	09	3.8	08	25	33	
Pulses										
6.	Rajmash	Nutrnt. Mgmt	Mixed cropping with maize	Kharif 2009	02	02	09	13	22	
7.	Moong	Var. Eval. Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizers	Kharif 2009	02	02	05	14	19	
8.	Mash	Var. Eval. Nutrnt. Mgmt.	Sowing of hybrid variety. Recommended dose of fertilizers	Kharif 2009	02	02	03	14	17	
9.	Chicikpea	Var. Eval. Nutrnt. Mgmt	Sowing of hybrid variety. Recommended dose of fertilizers	Rabi 2009	02	02	07	15	22	

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					
Maize	Kharif 2009	Rainfed	Sandy Loam	-	-	-	Wheat/ Berseem	1/5/09 – 26/6/09	16- 28/10/09		
Paddy	Kharif 2009	Irrigated	Silty	-	-	-	Paddy	1/5/09 – 20/5/09	12-14/10/09		
Wheat	Rabi 2009	Rainfed	Sandy loam	-	-	-	Maize	03-/1/09 - 13/11/09	05/05/09		
Gobhi Sarson	Rabi 2009	Rainfed	Sandy loam	-	-	-	Maize	12/11/09 to 22/11/09	28/04/09 - 05/05/09		
Mustard	Rabi 2009	Rainfed	Sandy loam	-	-	-	Maize	11/11/09 to 24/12/09	28/04/09 - 10/05/10		
Rajmash beans (vegetable)	Kharif 2009	Rainfed	Sandy loam	-	-	-	-	30/04/09	12/09/09 to 18/09/09		
Moong	Kharif 2009	Rainfed	Sandy loam	-	-	-	Wheat/ Fallow	7/5/09 to 16/6/09	24/09/2009 to 29/09/2009		
Mash	Kharif 2009	Rainfed	Sandy loam	-	-	-	Wheat/ Fallow	19/6/09 to 15/7/09	2/10/2009 to 8/10/2009		

Performance of FLD (2009-10)

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	Maize	Line sowing technology Nutrnt. Mgmt.	KH-612	11	04	31.25	15.00	23.12	15.93	47.00	No. of seeds/line -28 Length of cob= 17cm	15 12cm
2	Maize (ISOPOM)	Line sowing technology Nutrnt. Mgmt.	KH-612	87	28	40.20	8.26	26.56	17.36	52.99	**No. of Cobs/plant = 1.8 Plant height = 5.36 m**	**0.80 7.02 m**
3	Paddy	Var. Eval. Nutrnt. Mgmt.	K-343	11	04	46.86	25.62	36.05	30.64	17,65	100 seed wt. – 25g HI= 5.2	18g 4.6
4	Chickpea	Nutrnt. Mgmt	PBG-5	22	02	7.25	5.30	6.28	5.50	14.00	No. of seed/pod = 12 Length of pod=15cm	08 10cm
5	Wheat	Nutrnt. Mgmt. Weed Mgmt.	PBW-527	09	02	20.75	17.5	19.12	14.50	31.86	Hi = 5 No. of florets/spike =19	4.5 12
6	Gobhi Sarson	Nutrnt. Mgmt.	GSL-1	24	2.65	10.10	5.78	7.59	5.60	35.53	No. of siliqua/plant = 1200 Ht. of plant = 1.6m	800 0.8m
7	Mustard	Nutrnt. Mgmt.	RSPR-1	22	2.5	8.00	6.50	7.25	5.50	31.81	No. of siliqua/plant = 600 Ht. of Plant = 0.80m	400 0.65
8	Lentil	Nutrnt Mgmt./Line sowing	LL-699	24	02	8.50	6.00	7.25	6.00	20.83	No. of Pods/plant=450 No. of cluisters/plant =120	300 90
9	Moong	Var. Eval. Nutrnt. Mgmt.	SML-818	19	02	7.20	4.40	5.38	4.11	30.90	**No. of pods/plant = 120**	**87**
10	Mash	Var. Eval. Nutrnt. Mgmt	Uttara	17	02	8.00	5.90	7.50	4.72	58.89	**No. of pods/plant = 143**	**95**
11	Rajmash	Var. Eval. Nutrnt. Mgmt	**Arka Komal**	22	02	95.20	65.00	83.57	72.42	15.40	**Pod Length = 8.5 cm No. of seeds /pod = 10**	**5.00 cm 6.00**

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
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
12800	10750	23120	15930	10320	5180	1.80/1.48
12800	10750	26560	15930	13760	5180	2.07/1.48
12300	11400	28840	24512	16540	13112	2.34/2.15
7500	6800	25120	22000	17620	15200	3.34/3.23
5500	4800	19000	14500	13500	9700	3.45/ 3.02
3900	3200	30540	23600	26640	20400	7.83 / 7.37
4050	3450	31000	24000	26950	20550	7.65 /6.95
4200	3500	29000	23000	24800	19500	6.90/ 6.57
5000	4600	32800	27200	27800	22600	6.56 / 5.91
6150	5500	45000	28320	38850	22820	7.31 / 5.14
25000	21240	83000	68000	58000	56760	3.32 / 3.20

Analytical Review of component demonstrations

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Maize	Kharif 2009	1. Seed/Variety 2. Fertilizer management	Rainfed	23.12	15.93	47.00
Paddy	Kharif 2009	1. Seed/Variety 2. Fertilizer management	Irrigated	36.05	30.64	17.65
Wheat	Rabi 2009-10	1. Fertilizer management 2. Plant Protection	Rainfed	19.12	14.50	31.86
Gobhi Sarson	Rabi 2009-10	1. Nutrnt. Mgmt	Rainfed	7.59	5.60	35.53
Mustard	Rabi 2009-10	1. Nutrnt. Mgmt	Rainfed	7.25	5.50	31.81
Lentil	Rabi 2009-10	High yielding variety	Rainfed	7.25	6.00	20.83
Chickpea	Rabi 2009-10	High yielding variety	Rainfed	6.28	5.50	14.00

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1. Line sowing technology in Maize	Seed drill should be given to the progressive farmers on subsidy for the large scale adoption of the technology DAP should be available in the market at the time of sowing
2. Nutritional Management in maize	Soil testing should be compulsory done before the application of NPK.
3. Nutritional Management in Paddy	Soil testing should compulsory be done before the application of NPK.
4. Hybrid variety in paddy	Hybrid variety should be preferred over open pollinated varieties due to higher yield.
5. Nutritional Management in wheat	Soil testing should compulsory be done before the application of NPK.
6. Weed Management in wheat	There is severe incidence of weeds in wheat in the region. Management of weed is very important factor for increasing the productivity
7. Nutritional Management in Gobhi Sarson	Soil testing should compulsory be done before the application of NPK.
8. Nutritional Management in Toria	Soil testing should compulsory be done before the application of NPK.
9. Nutritional Management in Til	Soil testing should compulsory be done before the application of NPK.
10. Nutritional Management in moong	Soil testing should compulsory be done before the application of NPK.
11. Hybrid variety in moong	Hybrid and improved varieties should be available in the market
12. Nutritional Management in mash	Soil testing should compulsory be done before the application of NPK.
13. Hybrid variety in mash	Hybrid varieties are high yielding, disease resistant an

Farmers' reactions on specific technologies

S. No	Feed Back
1. Line sowing technology in Maize	Farmers are only reluctant to adopt the said technology due to un-availability of labour in peak season (short span due to rainfed). Moreover very small and un-geometrical fields also hinder the adoption. Seed drill should be available on subsidy during the time of sowing
2. Nutritional Management in maize	Farmers are ready to adopt the technology but un-availability of fertilizers at right time is main limitation.
3. Nutritional Management in Paddy	Farmers are ready to adopt the technology but un-availability of fertilizers at right time is main limitation. In addition to that non availability of rice transplanter
4. Hybrid variety in paddy	Only source of seed supply is Department of Agriculture which supplies subsidized seed. Farmers are forced to sow what department is providing.
5. Nutritional Management in wheat	Farmers are ready to adopt the technology but non-availability of fertilizers at right time is main limitation
6. Weed Management in wheat	Farmers are readily adopting and they were unaware about the chemical control of weeds. Availability of such chemicals in the market needs to be ensured.
7. Nutritional Management in Gobhi Sarson	Farmers are ready to adopt the technology but non-availability of fertilizers at right time is main limitation. Aphid resistant varieties are also not available
8. Nutritional Management in Toria	Farmers are ready to adopt the technology but un-availability of fertilizers at right time is main limitation.
9. Nutritional Management in Til	D.A.P. is the least available fertilizer, hence not being applied. Since crop is rainfed and uncertainty prevails, they are not willing to invest much.
10. Nutritional Management in moong	Farmers are ready to adopt the technology but un-availability of fertilizers at right time is main limitation.
11. Hybrid variety in moong	Un-availability in the local market is the main limitation
12. Nutritional Management in mash	Farmers are ready to adopt the technology but un-availability of fertilizers at right time is main limitation.
13. Hybrid variety in mash	Un-availability in the local market is the main limitation

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	06	30/9/09, 01/10/09, 03/10/09, 12/10/09, 21/10/09, 23/10/09	91	
2	Farmers Training	33	2/4/09, 21/4/09, 1/5/09, 31/07/09, 10/08/09, 26/08/09, 27/08/09, 22/12/09, 25/02/10	175	
3	Media coverage	04	7/06/09, 21/06/09, 22/06/09, 24/02/10		
4	Training for extension functionaries	12	28/4/09, 29/0409, 26/0609, 28/07/09 29/07/09, 15/09/09, 5/10/09, 6/10/09, 14/10/09, 23/12/09, 11/01/10, 17/02/09,	181	

c. Details of FLD on Enterprises

(i) Farm Implements: Nil
(ii) Livestock Enterprises: Nil
(iii) Other Enterprises: Nil

3.3 Achievements on Training (Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit) :

A) ON Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
II Horticulture										
a) Vegetable Crops										
b) Fruits										
Plant propagation techniques	01	05	05	10	05	02	07	10	07	17
Production and management technology	01	03	00	03	10	03	13	03	13	16
V Home Science/Women empowerment										
Income generation activities for empowerment of rural Women	02	00	31	31	00	13	13	00	44	44
Total	04	08	36	44	15	18	33	13	64	77
(B) RURAL YOUTH										
Small scale processing	01	00	17	17	00	04	04	00	21	21
TOTAL	01	00	17	17	00	04	04	00	21	21
(C) Extension Personnel										
Productivity enhancement in field crops	04	61	00	61	05	00	05	66	00	66
Integrated Pest Management	02	26	00	26	05	00	06	31	00	31
Integrated Nutrient management	01	07	00	07	03	00	03	10	00	10
Information networking among farmers	02	27	00	27	05	00	05	32	00	32
Climate change in Medicinal Plants	02	33	00	33	00	00	00	33	00	33
WTO and IPR issues	01	12	00	12	01	00	01	13	00	13
TOTAL	12	166	00	166	19	00	20	185	00	185

B) **OFF Campus**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Crop Diversification	01	04	00	04	15	00	15	19	00	19
Integrated Crop Management	11	41	09	50	97	12	109	138	21	159
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	03	17	04	21	23	13	36	40	17	57
Exotic vegetables like Broccoli	03	22	02	24	32	03	35	54	05	59
B) Fruits	-	-	-	-	-	-	-	-	-	-
III Soil Health and Fertility Management										
Soil and Water Testing	02	09	01	10	18	13	31	27	14	41
VII Plant Protection										
Integrated Pest Management	02	15	00	15	24	01	25	39	01	40
X Capacity Building and Group Dynamics										
Leadership development	01	04	00	04	12	05	17	16	05	21
Formation and Management of SHGs	02	07	01	08	18	05	23	25	06	31
Entrepreneurial development of farmers/youths	03	06	01	07	19	02	21	25	03	28
XI Agro-forestry										
Production technologies	05	30	03	33	56	06	62	86	09	95
TOTAL	33	155	21	176	314	60	374	469	81	550
(B) RURAL YOUTH										
Post Harvest Technology	01	00	06	06	00	17	17	00	21	21
Total	01	00	06	06	00	17	17	00	21	21
(C) Extension Personnel	00	00	00	00	00	00	00	00	00	00

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
(A) Farmers & Farm Women										
I Crop Production										
Crop Diversification	01	04	00	04	15	00	15	19	00	19
Integrated Crop Management	11	41	09	50	97	12	109	138	21	159
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	03	17	04	21	23	13	36	40	17	57
Exotic vegetables like Broccoli	03	22	02	24	32	03	35	54	05	59
b) Fruits										
Plant propagation techniques	01	05	05	10	05	02	07	10	07	17
Production and management technology	01	03	00	03	10	03	13	03	13	16
III Soil Health and Fertility Management										
Soil and Water Testing	02	09	01	10	18	13	31	27	14	41
V Home Science/Women empowerment										
Income generation activities for empowerment of rural Women	02	00	31	31	00	13	13	00	44	44
VII Plant Protection										
Integrated Pest Management	02	15	00	15	24	01	25	39	01	40
X Capacity Building and Group Dynamics										
Leadership development	01	04	00	04	12	05	17	16	05	21
Formation and Management of SHGs	02	07	01	08	18	05	23	25	06	31
Entrepreneurial development of farmers/youths	03	06	01	07	19	02	21	25	03	28
XI Agro-forestry										
Production technologies	05	30	03	33	56	06	62	86	09	95
TOTAL	37	163	57	220	329	78	407	482	145	627
(B) RURAL YOUTH										
Small scale processing	01	00	17	17	00	04	04	00	21	21
Post Harvest Technology	01	00	06	06	00	17	17	00	21	21
TOTAL	02	00	23	23	00	21	21	00	42	42
(C) Extension Personnel										
Productivity enhancement in field crops	04	61	00	61	05	00	05	66	00	66
Integrated Pest Management	02	26	00	26	05	00	06	31	00	31
Integrated Nutrient management	01	07	00	07	03	00	03	10	00	10
Information networking among farmers	02	27	00	27	05	00	05	32	00	32
Climate change in Medicinal Plants	02	33	00	33	00	00	00	33	00	33
WTO and IPR issues	01	12	00	12	01	00	01	13	00	13
TOTAL	12	166	00	166	19	00	20	185	00	185

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self employed after training			No. of persons employed else where
					Male	Female	Total	Type of units	Num. of units	Number of persons employed	
Fruits & Vegetable	08-03-10 to 15-03-10	Fruit Preservation	Fruit & vegetable Preservation	07	00	23	23	-	-	-	-
By-products of vegetables	28-5-09 to 03-6-09	Papad and Badi making	Diversification	07	00	21	21	-	-	-	-

(E) Sponsored Training Programmes: Nil

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	Mash 30-09-09, 01-10-09	02	27	07	34	03	00	03	02	00	02	32	07	39
2.	Field Day	Maize 12-10-09, 21-10-09	02	25	10	35	00	00	00	00	00	00	25	10	35
3.	Field day	Paddy 03-10-09	01	03	00	03	11	05	16	01	00	01	15	05	20
4.	**Total**	**05**	**05**	**86**	**44**	**130**	**29**	**20**	**49**	**19**	**02**	**21**	**133**	**63**	**196**
5.	Workshop	T&V 28-04-09, 18-06-09 15-07-09, 13-08-09 14-09-09, 14-10-09, 16-12-09, 22-01-10, 19-2-10, 19-03-10	10	0	0	0	0	0	0	171	00	171	171	00	171
6.	Lectures delivered as resource persons	29/7/09, 7-9/8/09 26/8/09, 11/9/09 25/9/09, 29/9/09,10-10-09, 04-01-10,22-02,10	10	00	00	00	00	00	00	20	00	20	20	00	20
7.	Newspaper coverage	07/06/09, 14/04/09, 21/06/09, 22/06/09	04	-	-	-	-	-	-	-	-	-	-	-	-
8.	Radio talks	Apr.2,16,23,26, May 1,5, Jun. 7,11,15,21,22 Jul 4, 12, 15, Aug. 18, 21, Sep. 1, 2, Oct, 11, 18, Dec 02, 08, Jan 16, 19, Feb 22, March 16, 19	27	-	-	-	-	-	-	-	-	-	-	-	-
9.	TV talks	28-05-09	01	-	-	-	-	-	-	-	-	-	-	-	-
10.	Advisory Services	16/06/09, 06/07/09, 07/07/09, 08/08/09, 13/09/09, 19/10/09 , 20/12/09, 28/12/09, 03/01/10, 19/02/10, 28/03/10	12	-	-	-	-	-	-	97	00	97	87	00	97
11.	Scientific visit to farmers field	Apr 4, 23,May 01,04, 06, ,18,23, 26, 27 June 01,11,12, ,26,28, 30 ,July17,18 , Sept 12, 19 , Dec. 10, 16, Feb 16, 18	22	41	16	57	71	12	83				112	28	140
12.	Farmers visit to KVK	Apr. 1,23, May, 1,4, 6,7,15,18,23,26,27, Jun.11,12,13,14,15,16, 26,28,30 Jul . 17,18Aug 10,20 Sep 24,22,Oct30 Nov 10,11,,12,13,23,Dec 11, Feb 09, Mar26 Aug. 10,20, Sep. 24	39	52	06	58	98	04	102	-	-	-	150	10	160
13.	Diagnostic visits	08/05/09,11/05/09, 03/06/09, 18/06/09 02/07/09 ,22/07/09, 11/09/09, 25/12/09, 14/01/10, 22/2/10, 10/03/10	11	05	01	06	07	01	08	03	00	03	15	02	17

3.5 Production and supply of Technological products: Nil

PLANTING MATERIALS

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
VEGETABLES					
	Tomato	Shivalik	**1200**	**3170**	**20**
	Knol-khol	Purple vienna	**800**		**17**
	Chili	Pusa Jawala	**350**		**15**
	Brinjal	PPR/PPl	**500**		**20**
	Cucurbits	Punjab Komal, Long green	**120**		**25**
	Cabbage	Pride of India	**200**		**20**
FOREST SPECIES					
	Poplar	**-**	**96**	**5/-**	**480.00**

SUMMARY

Sl. No.	Major group/class	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
1	VEGETABLES	3170	3170	117
2	FOREST SPECIES	96	480	01
	TOTAL	**3266**	**3650**	**118**

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

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

(B) Literature developed/published

Item	Title	Authors name	Number of copies
Research papers	Development and evaluation of Tractor operated sugarcane cleaner	**Sanjay Khar** and L.N.Shukla	N.A.
	Study of thin layer drying characterization of brinjal slices	C.K. Lidhoo and **Sanjay Khar**	N.A.
	Genetic variability and interrelationship of traits in F_3 progenies of tomato (*Lycoperscion esculentum* Mill.) under cold desert of Leh-Ladakh. Crop Improvement 37(1):	**Sanjeev Kumar**	
	Genetic divergence studies in lentil (*Lens culinaris* medik) under different cropping systems in mid-hills of North Western Himalayas. Himachal Journal of Agricultural Research 36(**1**):	**Sanjeev Kumar** and J.K.Sharma	

	Genetic variability and association studies in lentil (*lens culinaris* medik) under mid-hill sub-temperate conditions of Himachal Pradesh. Himachal Journal of Agricultural Research 35(**2**):138-142.	**Sanjeev Kumar** and J.K.Sharma	N.A.
	Quantitative and qualitative genetic analysis in segregating generation (F_2) of rice (*Oryza sativa L.*). **Oryza** 46(3):188-192.	**Sanjeev Kumar**, H. B. Singh, J.K Sharma and Salej Sood.	
	Performance of tomato (*solanum lycopersicon formerly lycopersicon esculentum mill*) hybrids for different horticultural traits under high altitude cold desert of Leh-Ladakh. ***Environment and Ecology 34(B): 1854-1857***	**Sanjeev Kumar** and Vishal Mahajan	N.A.
	Correlation and path co-efficient analysis in non-segregating generation (F_1) of rice (*Oryza sativa* L). Himachal Journal of Agricultural Research 36(1): (Accepted)	**Sanjeev Kumar**, H.B. Singh and J.K. Sharma	N.A.
	Effect of different spacing and pruning intensities of *Casuarina equisetifolia* on growth and yield of *Trigonella foenum-graceum* grown as intercrop. ***Environment and Ecology*** *34(A): 1966-1970.*	Vishal Mahajan**,** **Sanjeev Kumar** and S K Gupta	N.A.
	Effect of different spacing and pruning intensities of *Casuarina equisetifolia* on growth and yield of *Trigonella foenum-graceum* grown as intercrop. *Ecology and Environment.*	Vishal Mahajan **Sanjeev Kumar** and S K Gupta	N.A.
	Influence of $PP3_{33}$ Nitrogen on quality, yield & economics of tomato. *Journal of Research, SKUAST-J*	Neerja Sharma	N.A.
	Performance of different varieties of pea under intermediate conditions of Poonch. *Ecology and Environment.*	Neerja Sharma, S.,S. Jamwal and R. Gupta	N.A.
Total	12		-
GRAND TOTAL	**12**		**-**
Leaflets/Pamphlets	Scientific cultivation of strawberry	Neerja Sharma	300
	Scientific cultivation of tomato in sub-temperate region	Neerja Sharma	150
	Management of Fruit Plants for sub tropical region	Neerja Sharma	120
	Scientific cultivation of Knol-khol	Neerja Sharma	200
	Pahari kshetre mein falon ki kheti	Neerja Sharma	50

(C) Details of Electronic Media Produced: Nil

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

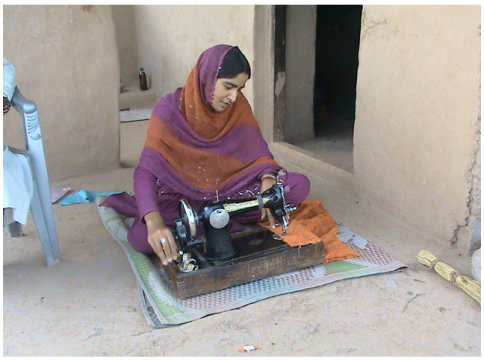
Name: Zameela Khatoon

Parentage: Mohd. Deen

Age: 19 years

Address: R/o Gulpur

Qualification: Primary



Ms. Zameela Khatoon D/o Mohd. Deen, resident of village Gulpur of Poonch district is only a primary educated youth. Her father is a mason having annual family income of Rs. 8400/-. She belongs to a marginal farmer category having farm of 7 kanals in which maize-wheat crop rotation is practiced. In base line survey, she showed interest in acquiring skills of stitching. K.V.K. Poonch has organized a 20 days vocational training on Cutting and Tailoring in March 2009 at village Gulpur. Ms. Zameela Khatoon is one of the participants in the training. After learning basic skills of cutting and tailoring for 20 days, she practiced for one month in a private tailoring shop in Poonch. In June 2009, she started works of tailoring ladies suits at her own home. Now, she is stitching 12-15 suits per month @ Rs. 75/- per suit, thus earns Rs. 750-800 per month which helps in increasing her annual family income by 6.5%

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Sources of Family Income

S.No.	**Land**	**Irrigated/Un-Irrig.**	**Crop**	**Annual Net Income**
1.	7 kanal	Un-irrigated	Maize	900/-
		Un-irrigated	Wheat	650/-
S.No.	**Animal**	**Breed**	**No.**	**Annual Net Income**
1.	Buffaloes	Local	01	1350/-
S.No.	**Others**	**-**	-	8400/-

Total Annual Income of the family before setting of enterprise: 11300/-

Date of Establishment of new enterprise: June 2009

Income per Month from new enterprise: Rs. 750/-

Total Annual Income of the family after the setting of an enterprise: 12050/-

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

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

Identification of courses for farmers/farm women

- Intensive and extensive surveys are conducted to identify the training needs of farmers and farm women keeping in view the need of area, agro-climatic conditions, interest of farmers, socio-economic condition, kinds of crops being raised.
- The responses of trainees during training programme are analyzed to bring about improvement in training programme to be conducted in future.
- The suggestions and feed back of farmers during field days, training camps, Kisan ghosties were taken into consideration.

Rural Youth

- At the start of the training, the participants are supplied with the questionnaire for testing their knowledge level and on the basis of that training methodologies are finalized.

In-service personnel

- Performa are given to the trainees to be answered which are handed back to KVK, Poonch and with the collected information adoption is calculated.

3.11 Field activities

i.	Number of villages adopted:	02
ii.	No. of farm families selected:	15
iii.	No. of survey/PRA conducted	05

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : N.A.

4.0 IMPACT

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

- Yet to be assessed.

4.2. Cases of large scale adoption

- Yet to be assessed

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

Impact Analysis of FLDs on Maize conducted by K.V.K. Poonch in Kharif 2008

Ten (10) no. of Front line demonstrations for maize were laid by K.V.K. Poonch in Kharif 2008 over 80 kanal of rainfed area of the district in which 16 no. of farmers were benefited. The average yield of small farmers was estimated at 47.78 quintal/h in demonstration plot compared to 35.68 quintal/h in plots where traditional farming was practiced. However in case of medium farmers, the average yield was 50.27 quintal/h in demonstration plot compared to 36.68 quintal/h in traditional plots (Table A).

Table A. Comparison of B: C ratio between Demonstration and traditional plots

Particulars	Small Farmers (below 20 kanals)		Medium Farmers (above 20 kanals)	
	Demonstration Plot	Traditional Plot	Demo. Plot	Traditional Plot
Yield (quintal/h)	47.78	35.68	50.27	36.68
Gross Return (Rs.)	45024	35444	47216	36024
Cost (Rs.)	28957	28407	28957	27990
Net Return (Rs.)	16067	77037	18259	8034
B:C ratio	1.55	1.24	1.63	1.28

A survey was also conducted for assessing the farmers' view point over the technology demonstrated in maize i.e. Line sowing & balance dose of fertilizers. It was observed that 67% of medium and 29% of small farmers found the technology demonstrated to be effective and were willing to adopt the same for future period. However, 33% of medium and 71% of small farmers were not willing to adopt technology on their own because of unavailability of labour at sowing time and lack of resources.

Impact Analysis of FLDs on Paddy conducted by K.V.K. Poonch in Kharif 2008

Ten (10) no. of Front line demonstrations for paddy were laid by K.V.K. Poonch in Kharif 2008 over 80 kanal of area in which 11 no. of farmers were benefited. The average yield of small farmers was estimated at 43.50 quintal/h in demonstration plot compared to 33.06 quintal/h in plots where traditional farming was practiced. However in case of medium farmers, the average yield was 47.43 quintal/h in demonstration plot compared to 34.22 quintal/h in traditional plots (Table B).

Table. B . Comparison of B: C ratio between Demonstration and traditional plots

Particulars	Small Farmers		Medium Farmers	
	Demonstration Plot	Traditional Plot	Demo. Plot	Traditional Plot
Yield (quintal/h)	43.50	33.06	47.43	34.22
Gross Return (Rs.)	69600	52896	75888	54752
Cost (Rs.)	39650	36730	39650	35976
Net Return (Rs.)	29950	16166	36238	18776
B:C ratio	1.75	1.44	1.91	1.52

A survey was also conducted for assessing the farmers' view point over the technology demonstrated in paddy i.e. variety- K-343 over Giza (traditional practice) and balance dose of fertilizers. It was observed that 58% of medium and 34% of small farmers found the technology demonstrated to be effective and were willing to adopt the same for future period. However, 42% of medium and 66% of small farmers were not willing to adopt technology because of unavailability of timely seed.

LINKAGES

5.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1. State Department of Agriculture, Poonch	participation in meeting, conducting training programmes, invitation of lectures,
2. State Department of Horticulture	participation in meeting, conducting training programmes
3. State Animal Husbandry Department	participation in meeting, invitation of lectures
4. State Sheep Husbandry Department	participation in meeting, conducting training programmes
5. Co-operatives	In-service training
6. State Department of Floriculture	Training Programmes
7. NGO	Awareness camp in far flung area

5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies: Nil

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district - Preparation of SREP
- Implemented in January 2010

5.4 Give details of programmes implemented under National Horticultural Mission - Nil

5.5 Nature of linkage with National Fisheries Development Board: Nil

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
	Under Construction								

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									
Pulses									
Pigeonpea									
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	
	N.A.				

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	
	N.A.						

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting DemonstrationUnit

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

6.5 Utilization of hostel facilities

Under Construction

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute	-	-	-
With KVK	J&K Bank	Poonch	22987

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2010
	Kharif 2009	Rabi 2009 –10	Kharif 2009	Rabi 2009-10	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL	0.585		0.02102		0.56398

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2010
	Kharif 2009	Rabi 2009 –10	Kharif 2009	Rabi 2009 –10	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL	0.225		0.020		0.205

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

Item	Released by ICAR	Expenditure	Unspent balance as on 1st April 2010
	Kharif 2009	Kharif 2009	
Inputs	N.A.		
Extension activities			
TA/DA/POL etc.			
TOTAL			

7.5 Utilization of KVK funds during the year 2009-10 (upto March 2010)

S. No.	Particulars	Sanctioned (lacs)	Release (lacs)	Expenditure (Rs.)
A. Recurring Contingencies				
1	**Pay & Allowances**	32.00	32.00	29,17,775
2	**Traveling allowances**	1.00	1.00	94,237
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.00	2.00	31705
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained)	3.00	3.00	98,940
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	
J	Library	-	-	
TOTAL (A)		**38.00**	**38.00**	**31,42,657**
B. Non-Recurring Contingencies				
1	**Works**	2.54	2.54	2.54
2	**Equipments including SWTL & Furniture**	1.75	1.75	1,62,265
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)	0.10	0.10	7,170
TOTAL (B)		**4.39**	**4.39**	**4,23,435**
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**42.39**	**42.39**	**35,66,092**

7.5 Status of revolving fund for the three years.

(Amt. in Rs)

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2007 to March 2008	Nil	Nil	Nil	Nil
April 2008 to March 2009	Nil	880	Nil	880
April 2009 to March 2010	880	38150	Nil	39030

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

8.1 Constraints

(a) **Administrative**

Delay in the recruitment of supporting staff affect the efficient functioning of K.V.K. Poonch

(b) **Financial**

- Funds are not available in time.
- Funds for vehicle are urgently required for conducting trainings, surveys, laying of FLDs and OFTs.
- Separate funds are required for incomplete boundary wall of KVK.
- Funds for Bore well are required for insured irrigation.

(c) **Technical**

- Quality inputs (seeds, pesticides and fertilizers) are not available in the market at the time of sowing.

Annexures I (District Profile)

1. General census

Population	3.71	Lacs as per 2001 Census
Number of Tehsils	04	--
Number of Blocks	06	--
Number of Pnchyats	51	--
Number of villages	178	--
Number of Households	60235	--
Area	1,14387.00	h
Area under forests	21,039.18	h
Land put to Non - Agriculture Use	19,010.20	h
Barren and Un-cultivated Land	16,796.00	h
Permanent Pastures & Grazing Land	11,240.00	h
Miscellaneous Tress etc	22,994.14	h
Net Sown Area (Khrif)	30,570.00	h
Net Sown Area (Rabi)	20,642.00	h
Gross Sown Area (Khrif & Rabi)	51,212.00	h
Cropping Intensity	166%	
Irrigated Area (Khrif)	4,250.00	h
Irrigated Area (Rabi)	580.00	h
Un-Irrigated Area (Khrif)	26,520.00	h
Un-Irrigated Area (Rabi)	19,912.00	h
Percentage (Irrigated area)		
Khrif	13.90%	
Rabi	2.80%	

2. Agricultural and allied census

PRODUCTION AND PRODUCTIVITY OF PRINCIPAL CROPS

Crop	Season	Area (h)	Production (Q)	Av Yield (Q/ h)
Paddy	Kharif 2008	4300	1,42,760	33.20
Maize	Kharif 2008	24000	8,19,360	34.14
Wheat	Rabi 2008	15,000	2,80,050	18.97

CROP WISE AREA

S.NO	Name of Crop	Season Wise Area in h		
		Khrif	Rabi	Total
1.	Paddy	4250	-	4250
2.	Maize	24000	-	24000
3.	Wheat	-	15000	15000
4.	Pulses	1585	415	2000
5.	Oil Seeds	250	4000	4250
6.	Fodder	500	1000	1500
7.	Vegetable	1000	250	1250
8.	Fallow Land	-	9928	9928
Total		**31585**	**30593**	**62178**

AREA COVERED UNDER DIFFERENT CROPS

S.No	Crops	Unit	2003-04	2004-05	2005-06
1	Paddy	h	11821	11,130	11,040
2	Maize	h	13920	14,010	14,000
3	Wheat	h	20170	16,410	20,060
4	Oilseeds	h	4150	3,710	3,815
5	Vegetable	h	560	1,000	1,025
6	Fodder	h	1570	1,750	1,680
7	Pulses	h	2947	2,450	2,495

AREA AND PRODUCTION OF PRINCIPAL FRUIT CROPS IN POONCH –2008-09

S.No.	Item	Area (Hectare)	Production (M. Tonnes)
Fresh Fruits			
1.	Apple	1700.00	2780.00
2.	Pear	1569.00	7430.00
3.	Apricot	864.00	85.00
4.	Peach	595.00	584.00
5.	Plum	1237.00	1570.00
6.	Cherry	3.00	1.00
7.	Grapes	1.00	1.00
8.	Citrus	330.00	283.00
9.	Olive	21.00	
10.	Other Fresh	1445.00	660.00
	Total	**7765.00**	**13394.00**
Dry Fruits			
11.	Walnut	7310.00	6880.00
12.	Almond	42.00	1.00
13.	Pecan nut	283.00	5.00
	Total	**7635.00**	**6886.00**
	Grand Total	**15400.00**	**20280.00**

LIVESTOCK POPULATION IN POONCH – 2007-08

Cattle Population	Local (Desi)	Cross Bred	Total
Male	64,362	15,638	80,000
Female	64,032	25,476	89508
Total	12,83,94	41,114	169508
Buffalo Population			
Male	15,894	-	15,894
Female	17,23,81	-	17,23,81
Total	18,82,75		18,82,75
Grand Total	**31,66,69**	**41,114**	**35,77,83**

STATUS OF ANIMAL PRODUCTS – 2007-08

S.No.	Item	Production
1.	Milk	82.90,000 MT
2.	Mutton	19.99 Lac kg
3.	Chicken	2.70 Lac kg
4.	Wool	4.91 Lac kg
5.	Eggs	680 Lacs

SHEEP & GOATS REARING IN POONCH – 2007-08

Sheep Rearing			
	Local	**Cross Bred**	**Total**
	102007	180964	**282971**
Goat Rearing			
	170090	-	**170090**
	Grand Total		**453061**

POULTRY POPULATION IN POONCH- 2007-08

Breed	**Numbers**
Desi	96915
Fouls	190061
Improved	44283
Total	**331259**

FISHERIES PRODUCTION IN POONCH -2007-08

Riverine Fish production	153.25 tonnes
No. of Government farms	01
Production in Government farm	4.443 tonnes
No. of private ponds	23
Production in private ponds	26.30 tonnes

3. **Agro-climatic zones**

   a. Sub-Tropical (Up to 800 m)

   b. Intermediate lower (800 to 1500)

   c. Intermediate higher (Above 1500)

4. **Agro-ecosystems**

AES-I	Plain topography with thick soil and canal irrigated
AES-II	Slopy land with thin soil cover and rainfed
AES-III	Thick growth of conifers & deciduous forests

5. **Major and micro-farming systems**

S. No	Farming system/enterprise
1	Maize – Wheat
2	Maize – Potato
3	Maize - Berseem
4	Rice – wheat
5	Rice – Fodder

6. **Major production systems**

1. Maize based: Maize + Rajmash –Maize + Rajmash
2. Maize based: Maize-Wheat, Maize- Mustard,
3. Paddy based: Paddy - Berseem

7. **Major agriculture and allied enterprises**

Agriculture: Maize, Paddy,
Horticulture: Plum, Walnut, Sandy Pear
Animal Husbandry: Cows, Buffaloes, Sheep & Goats

Annexure-II

Agro-ecosystem Analysis of the focus/target area

1. **Names of villages, focus area, target area etc.**

   Survey was conducted of villages Magnad and Ajote. The focus area was identification of problems related to agriculture in relation to small and marginal farmers.

2. **Survey methods used**

   Survey was conducted by pre-structured questionnaire and by PRA

3. **Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc.**

   Transect walk taken along with farmers to observe the facts directly on the fields. The main observations were made about problems related to two main crops of the district i.e. maize and paddy. Their source of irrigation and cropping pattern was also observed.

4. Analysis and conclusions

   - About 90% of the farmers were associated with agriculture and 85% came under marginal category. Maize and Wheat were the two major crops grown under rainfed conditions. Paddy is also grown in some area under irrigated conditions.

5. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem

   - The quality seeds of maize and paddy at the peak season were not available to the farmers
   - The farmers are not fully acquainted with plant protection measures.
   - The practice of decomposition of farm waste and animal excreta was unscientific.
   - The fertilizers usage was not as per the recommendation and is also not available during peak season
   - Farmers were not able to get fair price for their produce due to lack of any organized market.
   - Lack of farmers' interest in oilseed and pulses
   - Scarcity of green fodder during winter season

- Lack of awareness about income generating like mushroom cultivation, bee keeping, poultry, post harvest and value addition.

6. Matrix ranking of problems: -
7. List of location specific thrust areas
   - Integrated Nutrient management in paddy and maize
   - Integrated pest management in paddy, maize and vegetables
   - Adoption of pulses in cropping system
   - Promotion of horticulture
   - Adoption of income generating units other than agriculture
8. List of location specific technology needs for OFT and FLD
   - Availability of hybrids
   - Line sowing in maize and wheat
   - Weeders for paddy
   - Provision post harvest processing units
9. Matrix ranking of technologies: -
10. List of location specific training needs
    - Training on crop specific nutrient management
    - Integrated pest management
    - Commercial Nursery raising for fruits and vegetables
    - Management and marketing of fruit crops
    - Mushroom cultivation and bee-keeping

Annexure

Details of training programmes

Date	Client-ele	Title of the training programme	Discipline	Thematic area	Dur-ation in Days	Venue	Other participants			Number of SC/ST			Total number of participants		
							M	F	T	M	F	T	M	F	T
15-09-2009	Farmers/ Farm Women	Improved varieties of mustard and rapeseed for yield and resistance against aphids	Crop Production		01	Off – campus	06	04	10	03	00	03	19	04	13
17-09-2009		Introduction of high yielding wheat varieties under rainfed conditions			01	Off – campus	04	00	04	06	05	11	10	05	15
07-06-2009		Introduction of poor man's crop (Horsegram) and Moong in Poonch			01	Off – campus	16	00	16	03	00	03	19	00	19
22-08-2009					01	Off – campus	13	00	13	02	02	04	15	02	17
23-08-2009					01	Off – campus	09	00	09	08	00	08	17	00	17
28-07-2009		Role of improved varieties in increasing the yield of rice			01	Off – campus	03	16	19	00	01	01	03	17	20
25-08-2009					01	Off – campus	08	00	08	03	00	03	11	00	11
01-05-2009		Importance of Kitchen gardening	Horti-culture		01	Off – campus	08	04	12	02	00	02	14	00	14
24-07-2009		Introduction of Exotic vegetables			01	Off – campus	14	01	15	06	00	06	20	01	21
31-07-2009					01	Off – campus	14	02	16	05	00	05	19	02	21
14-09-2009					01	Off – campus	00	00	00	15	02	17	15	02	17
13-08-2009		Scientific cultivation of Cauliflower			01	Off – campus	03	09	12	09	04	13	12	13	25
26-08-2009					01	Off – campus	12	00	12	06	00	06	18	00	18

27-05-2009	Farmers/ Farm women	Insect Pest Management in Walnut	Plant Protection		01	Off – campus	03	00	03	12	00	12	15	00	15
09-06-2009		Management of Anar Butterfly in wild Pomegranate			01	Off – campus	03	00	03	10	01	11	13	01	14
12-06-2009		Seed treatment method in paddy for seed borne diseases			01	Off – campus	02	00	02	09	00	09	11	00	11
25-02-2010		Implementation of Indigenous Technical knowledge in Pest Management			01	Off – campus	11	00	11	00	00	00	11	00	11
27-08-2009		Pruning of farm trees in an Agroforestry system	Agro-forestry		01	Off – campus	07	00	07	14	00	14	21	00	21
02-04-2009		Cultivation of Ashavgandha			01	On – campus	03	00	03	10	03	13	13	03	16
20-07-2009		Selection of tree species for crop combination on farmers' field.			01	Off – campus	17	00	17	04	00	04	21	00	21
23-07-2009		Management of Robinia pseudocasia on farmers field as fodder tree			01	Off – campus	06	11	17	03	00	03	09	11	20
10-09-2009					01	Off – campus	18	00	18	03	00	03	21	00	21
20-08-2009		Leadership Development in rural youth			01	Off – campus	12	05	17	04	00	04	16	05	21
21-04-2009		Formation and strengthening of SHG's			01	Off – campus	13	00	13	02	00	02	15	00	15
18-08-2009					01	Off – campus	10	05	15	00	01	01	10	06	16
15-10-09		Orientation course on soil sampling and its importance			01	Off – campus	07	08	15	00	01	01	08	08	16
12-08-2009		Co-operative Marketing agriculture for profitable agriculture			01	Off – campus	12	00	12	01	00	01	13	00	13
24-08-2009					01	Off – campus	07	02	09	05	01	06	12	03	15
21-08-2009		Maintenance of farm records			01	Off – campus	13	02	15	03	03	06	16	05	21
22-09-2009		Estimation of cost & return on farm crops			01	Off – campus	13	04	14	00	00	00	13	04	17
12-06-2009		Availing crop insurance against natural calamities			01	Off – campus	08	01	09	05	00	05	09	05	14
10-08-2009					01	Off – campus	10	00	10	04	00	04	14	00	14
22-08-2009					01	Off – campus	05	00	05	09	02	11	14	02	16

15.10.2009		Soil Sampling and its importance			01	Off – campus	00	01	01	07	08	15	07	09	16
22.12-2009					01	Off – campus	09	00	09	11	05	16	14	11	25
28-04-09		Integrated Pest and Disease Management in Maize			01	On– campus	14	00	14	02	00	02	16	00	16
29-04-09		Integrated Pest and Disease Management in Paddy			01	On– campus	12	00	12	03	00	03	15	00	15
26-06-09		Role of ICT in Agricultural Extension			01	On– campus	07	00	07	01	00	01	08	00	08
28-07-09		Importance of integrated Nutrient Management in Vegetable production			01	On– campus	08	00	08	02	00	02	10	00	10
29-07-09		Seed production technique in tomato			01	On– campus	08	00	08	02	00	02	10	00	10
15-09-09		Biotic and abiotic stresses and their impact on the yielding ability of cereals			01	On– campus	22	00	22	03	00	03	25	00	25
05-10-09		Constraints in pulses production and their management			01	On– campus	12	00	12	00	00	00	12	00	12
24-11-2008		Indian Ag. Concerns under WTO			01	On– campus	12	00	12	01	00	01	13	00	13
06-10-09		Potential of medicinal plants as a enterprise in Poonch			01	On– campus	12	00	12	01	00	01	13	00	13
14-10-09		Use of extension methods for dissemination of agricultural technologies			01	On– campus	19	00	19	01	00	01	20	00	20
23-12-09		IPR issues under WTO			01	On– campus	12	00	12	01	00	01	13	00	13
11-01-10		Biotechnology in crop improvement			01	On– campus	19	00	19	00	00	00	19	00	19
17-02-10		Climate change in agriculture: Impact, adaptation & Mitigation			01	On– campus	21	00	21	00	00	00	21	00	21
28-5-09		Papad and Badi Making			1 week	On– campus	00	14	14	00	07	07	00	21	21
18-03-10		Preservation of Fruita & Vegetables			1 week	Off – campus	00	17	17	00	06	06	00	23	23

TRAININGS/ WORKSHOP/ SEMINARS ATTENDED BY KVK STAFF

S. No.	Topic	Date	Location	Duration
1	Eco-friendly management of pests and diseases in rice and rice based cropping systems	15th Sep. Oct.05 2009	DRR, Hyderabad	21 days
2	Training cum workshop of FLDs on "Oilseeds and Pulses" held at of, Himachal Pradesh	30th June to 1st July 2009	Krishi Vigyan Kendra, Bajaura, CSKHPKV, Palampur	2 days
3	National Level Workshop on KVKs	6th - 8th November 2009	TNAU Coimbatore	3 days
4	Enhancing skills in ICT based DSS for Market and Agri-Business Orientation of Research, and Sustaining Rural Livelihoods	9th Nov. - 18th Nov. 2009	MANAGE Hyderabad	10 days
5	Zonal Level Workshop of KVKs (Zone I)	13th -15th Nov. 2009	Conference Hall SKUAST-J R.S.Pura	3 days
6.	National Seminar on Spices	21st – 23rd Oct. 2009	Main Campus Chatha, SKUAST-J	3 days
7.	ZREAC Workshop	8th Dec. 2009	Main Campus Chatha, SKUAST-J	1 day
8.	Training on Future Trading	8th – 9th March 2010	IIM, Bangalore	2 days
9.	Training on Integrated Farming System	30th March 2010	Main Campus Chatha, SKUAST-J	1 day
10.	Training on Seed Production Technology	31st March 2010	Main Campus Chatha, SKUAST-J	1 day

Minutes of SAC Meeting for Rabi 2009 of KVK Poonch

Krishi Vigyan Kendra SKUAST-J, Qazi Morah Poonch organized its Scientific Advisory Committee (SAC) meeting for Rabi 2009 on 23rd October 2009 at Dak Bungalow Poonch. The meeting was chaired by Dr. K.S. Risam, The Director Extension Education, SKUAST-Jammu. Mr. Vishal Mahajan, SMS Agroforestry welcomed the members of the committee which include the district officers of Agriculture and allied departments, a progressive farmer and two farm women of Poonch district. Dr. Arvind Kumar Ishar, Member Secretary of Scientific Advisory Committee and I/c Programme Co-ordinator of K.V.K. then presented the Krishi Vigyan Kendra's Annual Report 2008-09 and Annual Action plan for the year 2010.

Discussing technical programme of Annual Action plan 2009 of Krishi Vigyan Kendra Dr. B.K. Thakkar, District Sheep Husbandry Officer shared the problem of scarcity of fodder in the district and asked for evaluation of some new species of fodder trees which would perform well in the district to curb the shortage of forage and fodder. Showing his concerns over increasing menace of congress grass and other weeds in pastures, he asked for its effective control to avoid any problem to the grazing animals. He informed that sheep husbandry has vast potential and efforts should be made to exploit this enterprise for the betterment of the farmers. He asked for laying Front Line Demonstrations on Goats and sheep for evaluating the qualities of meat and wool and also for their balanced nutrition. He informed that the district farmers reared only Kangani breed of goat and emphasized the introduction of some new breeds of goat for this region to be included in the FLD scheme of K.V.K. He also advised to propose some sheep husbandry camps to be organized in the different blocks of the district. Dr. S.S. Raina, Chief Animal Husbandry Officer, Poonch welcomed the efforts of KVK Poonch and advised to organize veterinary camps for the migrant Bakerwals. He also advised K.V.K. to propose some vocational training on dairy farming and backyard poultry for the rural youths and school dropouts. He suggested to take up training programmes in poultry and dairying in collaboration with their departments and assured full cooperation of his department in this regard. Mr. Manoj Dhar, SMS, from Chief Agriculture Office, Poonch emphasized the introduction of some new varieties of pulses which would enhance the production of pulses in the district. He suggested that the number

of FLDs in pulses under different schemes of K.V.K should be increased K.V.K. should undertake collection of local germplasm of cultivated crops for their conservation. He also suggested K.V.K. to propose On-farm trials for chemical control of weeds in vegetables and for introduction of winter maize in the district. Mr. V.K. Tandon, Apiculture Development Officer suggested to organize vocational trainings on Mushroom cultivation and bee keeping. He also suggested to organize exhibitions and camps in all the blocks of the district for farmers' awareness about the apiculture and mushroom cultivation. He informed about the problem of yield loss in honey in wild salai and asked for identification of cause and its remedies. Mr. G.R. Bandey, Chief Horticulture Officer suggested that there is need to increase horticultural training programme for farmers as Poonch district has a vast scope for growing horticultural crops. He also emphasized on conducting on-farm trials in fruits and organizing farmers' trainings on problem of insect-pests in walnut and other fruit plants in Mandi and Surankote tehsils of Poonch district. He also brought out the problem of rejuvenation of old nurseries for proper growth of fruit plants. He desired the inclusion of his officials in the horticulture training programmes organized by the Krishi Vigyan Kendra. Mr. Bashir Ahmed Chauhan, Assistant Director Fisheries also suggested for organizing awareness camps on fisheries and assured the cooperation of his department for farmer's trainings, if proposed by K.V.K. Mr. Shamshari Ahmed, District Forest Officer suggested to organize farmers' awareness camps on social forestry, especially for rural unemployed youth which not only help in reducing the problem of fodder scarcity but also develop interest in new generation to engage in farming activities. Mr. Suraj Gupta, AEE, Department of Irrigation emphasized upon the need of judicious use of both irrigation and domestic use water and suggested that K.V.K. should organize awareness camps for proper utilization of water for irrigating crops so that the maximum possible area could be irrigated. Mr. Bhajan Singh, Deputy Director Sericulture informed about the availability of varieties of mulberry and assured his cooperation to K.V.K. in setting up units for farmers. Mr. Raman Sharma from J&K Bank, the lead bank of the district, assured of full support from his bank in providing loans for uplifting the farm and allied activities in the district. Mr. Khan, District Information Officer also assured of his cooperation for publicity of K.V.K. activities. Dr. Amit Singh, I/c Maize Breeding Research Station, Poonch suggested for introduction of maize hybrids from Almora in the district as these varieties are performing well in other parts

of country having similar climatic conditions. S. Sardev Singh, progressive farmer of the district asked for trainings on dairy management and for conducting visits at ideal progressive farms outside the district. Farm women Smt. Bhajan Kour and Smt. Kulwant Kour asked for providing new technologies for vegetable production. Addressing to the suggestions and queries of the members, Dr. K.S. Risam, Director Extension Education, SKUAST-Jammu directed Programme Coordinator to incorporate all the suggestions given by the participants in the technical programme of KVK 2010 after considering his resources and feasibility. The meeting was over with the vote of thanks proposed by Sh. Pawan Sharma (SMS).

List of Participants attended Scientific Advisory Committee Meeting of K.V.K. Poonch for Rabi 2009 organized at Dak Bungalow on 23rd October, 2009.

S.No.	Name of the Officer	Designation/Office
1.	Dr. K.S. Risam	Director Extension Education, SKUAST-J
2.	Dr. B.K. Thakkar	District Sheep Husbandry Officer
3.	Dr. S.S. Raina	Chief Animal Husbandry Officer, Poonch
4.	Mr. Manoj Dhar,	SMS for Chief Agriculture Officer, Poonch
5.	Sh. G.R. Bandey	Chief Horticulture Officer, Poonch
6.	Mr. Bashir Ahmed Chauhan	Assistant Director Fisheries, Poonch
7.	Mr. V.K. Tandon	Apiculture Development Officer
8.	Mr. Shamshari Ahmed	District Forest Officer
9.	Mohd. Akbar Khan	District Information Officer
10.	Mr. Suraj Gupta	AEE, Department of Irrigation
11.	Mr. Bhajan Singh	Deputy Director Sericulture
12.	Sh. Raman Sharma	Branch manager, J&K Bank Ltd. Poonch
13.	Dr. A.K. Singh	I/c Maize Breeding Research Station Poonch
14.	S. Sardev Singh R/o Khorinal, Poonch	Progressive Farmer
15.	Mr. Sarfaraz Rathore R/o Bawli	Farmer
16.	Smt. Bhajan Kour R/o Magnad, Poonch	Farm Women
17.	Smt. Kulwant Kour R/o Magnad, Poonch	Farm Women
18.	Programme Coordinator, KVK Poonch	Member Secretary