## Compiled by

Dr. Banarsi Lal

Dr. Mandeep Singh Azad

Sh. Jagdish Kumar

Under Guidance of

Dr. R.K. Arora Associate Director Extension

### Ten Years Journey of KVK, Reasi

#### 1.Date of Establishment of KVK-13 Nov.2005

2.Detail of Benchmark survey of the district - Salient findings of baseline survey conducted in district Reasi.

The villages selected for the survey are typically hilly having scattered population. Most of the area of selected villages is rain fed (about 94%) and very little area is under irrigation (about 6%). The farming is mostly done through indigenous techniques by incorporating some new scientific techniques. In the selected villages maize-wheat cropping sequence is adopted while in some villages paddy is grown as per irrigation facilities are available. The other crops grown are pulses (mostly black gram and chickpea), oilseeds (mustard and toria), sugarcane etc. Mango, citrus, litchi, aonla and guava are grown as horticultural crops. Okra, bottle gourd, tomato, onion, brinjal and potato are mostly grown as vegetable crops. Mostly the farmers grow vegetables for their own consumption while some of the farmers sell their vegetable produce in local markets. Most of the area is used for cereals growing while some of the area is also used for pulses, oilseeds, fruits, vegetables and agro forestry. Tun, bamboo, eucalyptus, symbol, dhaman etc. are mostly grown as agro forestry trees. Tulsi, behra, alovera etc. are also grown as medicinal plants. Animals mostly are of local breeds and milk productivity is less.

The general consideration on which the baseline survey was conducted are as follows: -

- 1. Name of the village.
- 2. Number of families surveyed.
- 3. Percentage of religious population. (Hindu, Muslims, Sikhs)
- 4. Percentage of land holdings.
- 5. Percentage of families having more than 5 family members.
- 1. Nature of occupations (farmer/govt. employee/businessman)
- 2. Percentage of persons having more than 5 cattle.
- 3. Percentage of persons having more than 5 numbers of goats and sheep.
- 4. | Percentage of persons having more than 5 kanals of land under horticultural crops.
- 5. Percentage of persons having more than 5 kanals of land under vegetable crops.

The data regarding the base line survey is presented in the following table: -

Name of the villages	No. of familie s select ed	% of re	-	Percent land ho	_	having m	ige of families nore than5 members		Percentage of nature of occupation  Percentage of person having more than 5 cattles  Percentage of person having more than sheep				Percentage of person having more than 5 kanals land under horticultur e	Percentage of person having more than 5 kanls of land under veg.crops
		Hindu	Muslims	5-10 kanals	10- 20 kana Is	More than 20 kanals		Farmer	Govt. employees	Business				
Seri and Tanda	50.0	98.0	2.0	28.0	18.0	54.0	84.0	80.0	6.0	14.0	39.0	8.0	-	-
Dera baba banda	15	100.0 0	-	-	34.0	67.0	80.0	73.0	6.66	20.0	33.33	-	6.66	7.0
Mansoo	31.0	35.48	64.51	=	25.8 0	74.19	-	87.07	6.45	6.45	61.29	32.25	-	-
Chumbian	34.0	14.70	85.29	-	2.94	97.05	98.0	85.0	14.70	-	76.47	17.64	-	-
Kundra	52.0	90.38	9.61	-	40.3 8	55.76	71.15	86.53	11.53	1.92	50.0	3.84	-	-
Pahee	520	67.30	32.30	9.61	48.0 7	28.84	82.69	96.15	3.84	-	75.0	15.38	-	-
Dasanu	41	100	-	2.43	51.2 1	43.90	73.17	61.00	19.5	21.9	41.46	2.43	12.19	-
Suketar	11	100	-	-	36.3 6	64.00	91.00	64.0	28.0	9.0	55	-	-	-
Maari	82	98.78	1.21	2.43	39.0 2	59.0	89.02	70.0	20.0	9.75	28.04	1.21	2.43	-
Panasa	54	75.92	24.07	9.25	33.3 3	57.40	74.07	78.0	19.0	37.0	29.62	-	5.55	19.0
Bhabbar	43	88.37	11.62	18.60	20.9 3	39.53	46.51	67.44	18.60	13.95	18.60	2.32	4.65	4.65
Talwara	51	49.01	50.98	21.56	35.2 9	25.49	92.0	90.0	3.92	5.88	21.56	-	-	1.96

Major findings of survey & thematic areas identified-About 94% area of the district is rain fed. Major crops of the districts are maize, wheat, black gram and chickpea. The literacy rate of the selected villages is around 40%. About 65% males are literate and 35% females are literate. The majority of population is engaged in agriculture profession and very few are in jobs. The villages are lacking the facilities of electricity, water supply, phone services etc. About 95% population use toilets in open.

#### Priority/thrust areas

Crop/Enterprise	Thrust area
Cereals-Maize	Introduction of single cross commercial maize hybrids, Integrated Nutrient Management, weed management, common insect / pests management
Wheat	Introduction of new high yielding varieties of wheat, seed treatment, weed management, disease and pest management including termite control and rodents control. Seed production of new varieties.
Fodder	Promotion of new varieties, Increasing area under fodder crops. Round the year fodder production.
Oilseed	Introduction of new improved varieties, Promotion of insect pest management, control of Alternaria blight, Use of balanced nutrition. INM in oilseeds.
Pulses	Promotion of improved varieties, Weed management, insect /pest and disease management.
Vegetables	Promotion of hybrids, introduction of new varieties. Diseases and pest management. Round the year vegetable cultivation, healthy nursery raising of vegetable crops, kitchen gardening.
Animal husbandry	To increase production potential of livestock by improved breeding, feeding and management practices. Promotion of backyard poultry
Mushroom cultivation	-Promotion of mushroom cultivation, growing of more species for year round cultivation.
Floriculture	Promotion of loose flower cultivation in the district, integrated nutrient management, introduction of new varieties. Disease management in marigold.
Agro-forestry	Fodder trees, Medicinal & Aromatic plants, Environment conservation.
SHGs/Farmers clubs	Formation, management and strengthening of SHGs/farmers clubs.
Fruits	Insect-pest and disease management in fruit plants.

### 1. Staff position during the last 10 years

Position					Year & N	lames				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Programme Coordinator	Dr.SwdeshP arkash Tiwari	Dr Vikas Tandon	Dr Vikas Tandon	Dr. Vikas Tandon	Dr Vikas Tandon	Dr Vikas Tandon	Dr. Vikas Tandon	Dr Shahid Ahmed	Dr.ShahidA hamad	Dr. Shahid Ahamad
SMS (1)	Dr Anil Sharma	Dr S.K.Rai	Dr S.K.Rai	Dr. Sheetal Badyal	Dr Sheetal Badyal	Dr Sheetal Badyal	Dr. Sheetal Badyal	Dr Sheetal Badyal	Dr.Sheetal Badyal	Dr. Banarsi Lal
SMS (2)	Dr Sunil Kumar Rai	Dr Sheetal Badyal	Dr Sheetal Badyal	Dr. Banarsi Lal	Dr Banarsi Lal	Dr Banarsi Lal	Dr. Banarsi Lal	Dr Banarsi Lal	Dr.Banarsi Lal	Mr. Lalit Upadhyay
SMS (3)	Dr Banarsi Ial	Dr. Banarsi Lal	Dr Banarsi Lal	Dr. Rajesh Kumar	Dr Rajesh Kumar	Mr Lalit Upadhyay	Mr. Lalit Upadhyay	Mr Lalit Upadhyay	Mr.Lalit Upadhyay	Dr. Mandeep Singh Azad
SMS (4)	Dr Rajesh Kumar	Dr Rajesh Kumar	Dr Rajesh Kumar	Mr. Lalit Upadhyay	Mr Lalit Upadhyay	Vacant	Dr. Mandeep Singh Azad	Dr Mandeep Singh Azad	Dr.Mandee p Singh Azad	Dr.Sanjay Koushal
SMS (5)	Dr Sheetal Badyal	Mr Lalit Upadhya y	Mr Lalit Upadhyay	**Mr. Vikas Abrol	Mr Vikas Abrol	Vacant	Vacant	Vacant	Dr.SanjayK oushal	Dr. Suja Nabi Quereshi
SMS (6)		Mr Vikas Abrol	Mr Vikas Abrol	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant	Vacant
Prog. Assistant	Mohit Pandoh (computers)	Mr Satbir Singh	Mr Satbir Singh	S. Satbir Singh	Mr Satbir Singh	Mr Satbir Singh	S. Satbir Singh	Mr Satbir Singh	S. Satbir Singh	Mrs Shalini Kajuria
Prog. Assistant (Computer)		Mohit Pandoh (comput ers)	Vacant	Vacant	Vacant	Mohd Qasim	Mr. Mohd Qasim	Mr Jagdish Kumar	Mr.Jagdish Kumar	Mr. Jagdish Kumar
Prog. Assistant (Farms)		Mr Arvind Kumar	Mr Arvind Kumar	Mr. Arvinder Kumar	Mr Arvind Kumar	Mr. Arvinder Kumar	Mr Arvind Kumar	Mr. Arvinder Kumar	Mr Arvind Kumar	Mr. Arvinder Kumar
Office Superintend ent cum Accountant	Vacant	Vacant	Sh Balraj Khajuria	Sh. Balraj Khajuria	Sh Balraj Khajuria	Sh Balraj Khajuria	Sh. Balraj Khajuria	Sh Balraj Khajuria	Sh. Balraj Khajuria	Vacant
Junior Stenographer	Vacant	Vacant	Vacant	Vacant	Vacant	Mr Manhor Lal	Manhor Lal	Mr Manhor Lal	Manhor Lal	Manhor Lal
Driver (1)	Dhanater Singh	Dhanate r Singh	Sh Bhagh Hussain	Mohd Iqbal	Mohd Iqbal	Mohd Iqbal	Mohd Iqbal	Mohd Iqbal	Mohd Iqbal	Mohd Iqbal

Driver (2)		Shamas Din	Vacant	Narinder Paul Singh	Narinder Paul Singh	Tilak Raj	Manjeet Singh	Manjeet Singh	Vacant	Manjeet Singh
Supporting (1)	Shail Singh	Shail Singh	Vacant	Ashok Kumar	Ashok Kumar	Ashok Kumar	Ashok Kumar	Ashok Kumar	Vacant	Vacant
Supp0rting (2)	Mohd Majid	Anil Verma	Vacant	Sanjay Kumar	Sanjay Kumar	Sanjay Kumar	Sanjay Kumar	Sanjay Kumar	Sanjay Kumar	Sanjay Kumar

## 2. Farmers' Training Programmes conducted

Theme/Discipline					Y	ear				
•	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Crop Production	8	9	8	9	5	2	2	1	7	12
Horticulture	12	14	12	14	10	7	5	5	-	7
Livestock	2	2	2	2	2		7	10	13	13
Fisheries	-	-	-	-			2			-
Home Science	2	4	2	4	7	6		3	5	7
Agril. Engg.	3	-	3	-						-
Agro-forestry	2	2	2	2	6	6	6	15	11	8
.Ag. Extension		2	5	5	6	6	5	17	12	16
Soil science	-	-	1	1	1	3	-	-		
Plant Protection	-	2	1	3	2		-	3	12	7
Any other		1	-	-				2		
	29	35	36	40	39	30	27	56	60	70

# **Photographs of Farmers Training Programme**



**On Campus Training** 



Farmers' club members at KVK in collaboration with NABARD



**Advance Horticulture at Dharmari** 



Home Scientist interacting with women at Aghar Jitto



At Bharakh, Pouni in collaboration with NABARD



Trg. on value addition to women farmers at Talwara



Imparting training to the dairy farmers on Campus



Trg. on value addition to women farmers at Aghar Jitto



Farmers Clubs Federation at Pouni with the Distt.

Administration and NABARD



Collaborative Training Programme with Div. of Agroforestry at KVK Campus

### 3. In-service Training Programme conducted

Theme					Υe	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Crop Production		1		2	2	1	-		-	1
Horticulture		-	1	4	5	2	-		1	1
Livestock							1	1		1
Fisheries							-			
Home Science				1			-		-	
Agril. Engg.										
Agro-forestry			1	1	1	1	1	2	2	2
Ag. – Extension		1	1	2	2	1	1	1	2	2
Plant Protection				-	-			1	3	2
		2	3	10	10	5	3	5	8	9





Programme Coordinator, KVK, Reasi imparting to the Extension Personnel of State Deptt.

### 4. Vocational Training Programmes

Theme/Discipline				·	Ye	ear	·		·	
·	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Crop Production		-	-	-						2
Horticulture		-	1	1	1	1	1			
Livestock		-	1				1	2		2
Fisheries		-	-	-						
Home Science		-	-	-	1	1	1		2	3
Agril. Engg.		-	-	-						
Agro-forestry		-	-	-	1	1	1	1	1	1
Any other		1	-	1	1	1	1	2	2	
1.Mushroom										1
2.Beekeeping		2	-	1						
3.Seed/Plant Production										
4.Value addition		1	-	1						1
5.Foriculture										2
6.Organic farming		-	1	-						
		4	3	4	4	4	5	5	5	12

## **Photographs of Vocational Training Programme**



Vocational training on mushroom cultivation



**Vocational Training Programme on value addition** 



Farmers of Udhampur in Vocational Trg on Advance horticulture



**Vocational Training Programme on mushroom cultivation** 



**Vocational Training Programme on mushroom cultivation** 



Value addition in fruits and vegetables

### 5. Technology assessment & refinement

Theme					Υe	ar				
	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-
	07	80	09	10	11	12	13	14	15	16
Varietal	1	1	7	22	17	32	9		1	1
Nutritional		1				3	3	2	1	2
management										
Disease		1	1		3	2	2	2	3	5
management										
Insect-pest	1		1	1	2		2			
management										
Animal										
Husbandry										
Plant Production			1	5	7	9	6			1
ICM		1	9	11	10	1		2	3	1
IWM				1		1	1			2

# **Photographs of OFTs**



**Turmeric OFT** 













OFT on weed management in vegetables

### 5.1. Salient Recommendations of technology Assessment & refinement conducted during the last 10 years

### 6. Front Line Demonstrations (crop-wise)

Crop 1: Maize

Particulars	Year													
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16				
Area		10	.10	5	5	5	5	5	5	5				
No. of farmers		37	35	20	16	39	42	84	33	43				
Yield under demo		12.5	13.5	20	19	26	25	23	20	22.5				
C:B ratio		1:2.1	1:2.43	1:2.10	1:2.78	1:2.73	1:3.21	1:3.43	1:2.80	1:2.72				
Yield under local		9.5	9.5	14	14	14	15	15	12	14				
C:B ratio						1:I.95	1:2.34	1.2.02	1:1.89	1:1.77				

Crop 2: Sorghum

Particulars	Year											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area						2	2			2		
No. of farmers						24	24			20		
Yield under						280	275			262		
demo												
C:B ratio						1:3.18	1:3.33			1:1.65		
Yield under local						225	225			220		
C:B ratio						1:2.05				1:1.30		

Crop 3: Moong

Particulars		Year											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16			
Area		10	10	2		2	1			1			
No. of farmers		35	35	9		24	12			10			
Yield under		5.1	5.4	2.95		4.2	4.90			4.5			
demo													
C:B ratio				1:2.37		1:2.12	1:2.06			1:2.59			
Yield under local		3.6	4.0	2.00		3.0	3.0			3.1			
C:B ratio										1:2.92			

Crop 4: Gobi Sarson

Particulars					Υe	ear							
	2006-07	06-07   2007-08   2008-09   2009-10   2010-11   2011-12   2012-13   2013-14   2014-15   2015-16											
Area		2 2 2 2.2											

No. of farmers	12	15	33	13		
Yield under	8.82	8.2	6.9	7.05		
demo						
C:B ratio		1:1.54	2.92	1:3.88		
Yield under local	5.82	5.6	5.25	5.35		
C:B ratio						

## Crop 5: Wheat

Particulars					Ye	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area			11	5	6.65	5	6	6	5	5
No. of farmers			55	25	52	51	40	40	42	45
Yield under			14.95	14	16	19	21.5	23	23	25.50
demo										
C:B ratio				1:3.03		1:3.72	1:4.22		1:2.60	1:2.82
Yield under local			12	10	10	12	14	16	14	16
C:B ratio									1:2.36	1:2.25

## Crop 6: Barseem

Particulars					Υe	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area				2						
No. of farmers				21						
Yield under				488.85						
demo										
C:B ratio				1:4.21						
Yield under local			350	350						
C:B ratio										

Crop 7: Oats

Particulars					Ye	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area			2	2	2	1.5	1.0	2	0.5	2
No. of farmers			17	17	25	20	13	28	10	20
Yield under			477.76	477.76		455	510	500	445	465
demo										
C:B ratio				1:3.70		1:3.62	1:4.22	1:2.72		1:2.1
Yield under local			360	360		350	350	350	350	350
C:B ratio								1:2.36		1:1.5

Crop 8: Til

Particulars					Ye	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area			2	2	2	5	2	2	2	
No. of farmers			10	10	9	12	31	17	24	
Yield under			1.8	1.8	5.1	5.6	5.5	5.75	5.3	
demo										
C:B ratio				1:1.28	1:2.64	1:2.30	1:2.69		1:1.93	
Yield under local			1.4	1.4	3.4	3.2	3.2	3.5	4.0	
C:B ratio									1:1.69	

Crop 9: Mash

Particulars					Υe	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16

Area			7	7	5	5	5	2.85	2
No. of farmers			42	39	37	50	42	30	31
Yield under			3.4	4.5	5.3	5.70	5.5	4.2	4.8
demo									
C:B ratio			1:2.37		1:2.85	1:2.06	1:2.72	1:2.21	1:2.72
Yield under local			2.5	3.0	3.5	3.60	4.0	2.8	3.2
C:B ratio							1;1.95	1:1.90	1:2.15
		Acti	on Photog	raphs with	n caption	•	•	•	•

Crop 10: Paddy

Particulars					Υe	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area					5		3.10	0.95		
No. of farmers					0.75		15	12		
Yield under					30		30	34		
demo										
C:B ratio					1:3.71		1:3.57	1:3.55		
Yield under local					18		23	19		
C:B ratio								1:2.15		

Crop 11: Soybean

Particulars		Year									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	
Area					1						
No. of farmers					10						
Yield under					1.5						
demo											
C:B ratio					1:1.33						

Yield under local							
C:B ratio							
		Acti	on Photogr	aphs with c	aption		

## Crop12: Chicks

Particulars					}	⁄ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area					200		1000birds	1000birds	2000	1705
					chicks				birds	birds
No. of farmers					20		83	83	188	152
Yield under							195	200	160	165
demo										
C:B ratio							1:2.77			
Yield under local							95	100	75	80
C:B ratio										

Crop 13: Chickpea

Particulars					Y	ear				
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area				5	3	2.5	2.7	2.0		1.2
No. of farmers				33	17	33	25	14		12
Yield under				6.40	6.5	5.35	5.55	6.00		6.2
demo										
C:B ratio				1:1.70		1:4.00	1:2.57	1:3.12		1:4.01
Yield under local				5.1	5.0	4.20	4.10	4.50		4.4
C:B ratio								1:2.23		1:2.92

Crop 14: Toria

Particulars	Year									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area				5	5	4	5.5	1.5		
No. of farmers				44	44	12	44	20		
Yield under				7.2	7.2	6.50	6.9	6.5		
demo										
C:B ratio				1:2.69	1:1.38	1:2.86	1:3.88			
Yield under local				5.44	5.3	4.80	5.0	4.8		
C:B ratio										

Crop 15: Mustard

Particulars	Year									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area				2	5.85	4	0.8	4	2	6
No. of farmers				20	51	26	6	36	30	43
Yield under				9.20	6.5	6.75	6.95	6.75		6.0
demo										
C:B ratio				1:3.20		1:2.88	1:2.75			1:3.1
Yield under local				7.10	5.2	5.00	5.10	5		4.5
C:B ratio										1:1.77

Crop 16: Marigold

Particulars	Year									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area						1.00	1	2.0		
No. of farmers						17	20	50		
Yield under						70	240	80		
demo										
C:B ratio						1:4.00	1:4.36	1:11.03		
Yield under local						35	190	40		
C:B ratio								1:8.00		

Crop 17: Turmeric

Particulars	Year											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area					0.2	0.2	0.1	0.1				
No. of farmers					37	37	33	40				
Yield under					95	110	135	155				
demo												
C:B ratio						1:2.16	1:2.75	1:5.05				
Yield under local					75	80	110	100				
C:B ratio								1:4.84				

Crop 18: Ginger

Particulars	Year									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Area							0.1	0.1		
No. of farmers							33	33		
Yield under							70	70		
demo										
C:B ratio							1:4.40			
Yield under local							55	55		
C:B ratio										

Crop 19: Lentil

Particulars		Year										
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area						0.65	1	3.8	2.80			
No. of farmers						13	10	44	34			
Yield under						4.3	4.55	4.9	4.1			
demo												
C:B ratio						1:2.64	1:3.09		1:2.21			
Yield under local						2.5	2.70	3.0	2.5			
C:B ratio									1:1.90			

Crop 20: Dhingri

Particulars	Year											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area						280	200			64 bags		
						bags	bags					
No. of farmers					70	70	50			16		
Yield under						4.2	4.5			5.0		
demo												
C:B ratio							1:3.17					
Yield under local						3.5	3.1			3.0		
C:B ratio												

Crop 21: Okra

Particulars		Year										
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area				1	1	2	1		0.5	3		
No. of farmers				15	23	43	120		35	90		
Yield under				60	60	61	60		68	70		
demo												
C:B ratio				1:2.79	1:2.83	1:3.00	1:2.57					
Yield under local				40	45	44	40		45	50		
C:B ratio												

Crop 22: Bottlegourd

Particulars	Year										
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	
Area				1	0.5		1				
No. of farmers				15	8		115				
Yield under				60	180						
demo											
C:B ratio					1:4.03						
Yield under local				40	120		85				
C:B ratio											

Crop 23: Cucumber

Particulars	Year											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16		
Area				1	0.5							
No. of farmers				15	18							
Yield under				60	70							
demo												
C:B ratio					1:2.77							
Yield under local				40	42							
C:B ratio												

## **Photographs of Front Line Demonstrations**



**KVK** scientists monitoring the marigold FLDs



KVK scientist monitoring the organic vegetables



Farmer in chilli FLDs field



With ACTECH manager at Kanah, monitoring the organic vegetables



Scientist(Animal Sci) monitoring the backyard poultry FLDs



KVK scientist monitoring the wheat FLDs



KVK scientist monitoring the wheat FLDs



KVK scientists monitoring the sesamum FLDs









**KVK** scientist monitoring the maize FLDs



KVK scientists monitoring the mushroom FLDs



KVK scientists monitoring the maize FLDs



**KVK** scientists monitoring the Wheat FLD



FLDs on Okra





PC KVK, Reasi in marigold field demonstrated by KVK



**FLDs under Polyhouse** 









**FLDs on Chikpea** 

### 6.1. Criteria adopted for distribution of FLDs

We contact to the progressive farmers', Panches and Sarpanches for the selection of farmers for FLDs. Area for FLDs is selected according to the crop to be sown. Meanwhile in SAC meetings, we take the opinion of different district head for further dissemination of technology through FLDs.

### 6.2. Mention the major and successful technologies up-scaled through FLDs in the district in last 10 years

#### 1. Hybrid maize adoption

KVK Reasi is laying out the demonstrations of single cross maize hybrids from the last five years. Every year more than 10 hectares of hybrid maize is laid out at the farmers fields. These are followed by the trainings imparted to the farmers and awareness camps and field days organized to promote hybrid maize culture in the district. Data collection and regular monitoring of crop has resulted in establishing of the facts that these hybrids have the potential to change the maize culture in hilly districts of J&K. people of the district were very less aware of the yield potentials of the hybrid maize and less than 10 percent farmers were sowing the hybrid maize. But now with the strenuous efforts of the KVK more than eighty per cent of the

farmers are sowing these single cross hybrids. The farmer is so impressed with the hybrids that they are ready to pay the high prices for single cross hybrids maize seeds.

The yellow seeded maize hybrids have found special have found special preference from the poultry industry in the district. The buyers are satisfied with the grain size and offer good price to growers at their farm itself. People have preference to white maize for their own consumptions and white hybrids are also gaining popularity. KVK's efforts were synergized by the activities of the state department of Agriculture. Seeing the need the government also offered subsidy on these seeds. This year more than 1200 qts of maize single cross hybrid seeds were lifted from the government stores in district Reasi alone and similar was the position in district Udhampur as well. The productivity which used to hover around 10-12g/ha is now raised to 18-20g/ha and in some demonstrations we have harvested up to 45g/ha of maize grain.

Cultivation of these new hybrids has also increased the fodder availability in the district. These hybrids are tall and sturdy and along with higher yield also offer higher biomass and thus solve the fodder problems in these hilly districts. We may say that Hybrid maize culture is the single technology that has spread very quickly to far furlong areas of the districts.

### 2. Development of floriculture in the district:

Another case of large scale adoption is cultivation of marigold in the district Reasi especially in Katra area. KVK Reasi actively took up promotion of Floriculture since 2009. Through continuous trainings and awareness camps people of the area were motivated to cultivate marigold on commercial scale. Since the area is famous for holy shrine of vaishno Devi there is immense demand of flowers which are often imported from other states. Thus efforts were made to encourage farmers to this enterprise. A village Chamera in Reasi was particularly chosen for laying out demonstrations and also for creating awareness about benefits of flower cultivation. Improved seeds of new varieties were brought from IARI, New Delhi and were distributed among growers who were till then growing local marigold breeds. Farmers were convinced about the yield potential and the quality of the bloom.

An average farmer gets around Rs 6to8 thousand from one kanal flower cultivation and this income increases to about 10,000 per kanal in Diwali season. No other enterprise is giving this return to farmers of this area. Many families are now cultivating marigold and they earn anything between 50,000 to 75,000 within three months during the festival season. KVK is also introducing new cultivars so that the season of cultivation may further be increased. Presently there is 25ha area under marigold cultivation in the district.

- **3. Organic Vegetables Growing:** KVK, Reasi has formed farmers clubs/SHGs along with the NABARD, ACTECH &NGOs who produce organic vegetables at the large scale. KVK provides technical guidelines for the growing of organic vegetables in scientific way by laying out of FLDs/trainings/OFTs/awareness/K.Ghosties etc. The organic farms have been certified by the APEDA. The farmers sail their organic vegetables not only in the local markets but also in Narwal Mandi, Jammu.
- **4. Seed treatment in Wheat:** The farmers of hilly district Reasi were unaware about the seed treatment in wheat. KVK Scientist conducted campaign, awareness, Trainings, diagnostic field visit etc for seed treatment in wheat as the district is infested with the loose smut of wheat and other seed borne diseases. Though demonstration, it was shown the excellent result of seed treatment fungicides viz. vitavax @ 0.2% per kg seed. Now many farmers have adopted this technology.
- **5. Adoption of Uttra variety of Black gram:** KVK has introduced Uttra variety of mash in the district which has been adopted in more than 25 per cent area of Kharif pulses in the district.
- **6. Adoption of mustard var. RSPR-01**: KVK has introduced rspr-01 variety of mustard in the district and presently more than 30% area of the district under *Rabi* Oilseed has been covered by this variety.

#### 7. Extension activities conducted

Particulars		Kisan mela Kisan mela organized participated			Field days organised		Kisan Goshties organised		Farmer-Scientist interactions		Exposure visits	
	No.	Participants		Participants		Participants	No.	Participants	No.	Participants	No.	Participants
2006-07		•		•			2	213	1	50		
2007-08					1	185	2	70	1	20		
2008-09					7	315			1	21		
2009-10			1	250	8	375	1		1	21		
2010-11			6	1250	8	269	3	137	1	30	3	150
2011-12			4	550			1					
2012-13			3	1000	6	231	2	35	1	25		
2013-14			5	550	9	368	3	88			1	29
2014-15			2	750	7	268	2	32	1	34	2	100
2015-16			2	1450	6	182	2	237	1	50	2	250

Photographs of other extension activities



Kisan Ghosti



KVK scientists interacting with the farmers



**Director Extension in Field Day on Toria** 



Agril. Minister inspecting KVK, Reasi stall



Hon'ble Governor, VC and DE inspecting Stalls at Kisan mela Fair



Collaborative programme with the Deptt. of Floriculture



VC,SKUAST-J in KVK, Reasi



KVK scientist diagnosing the animal



SKUAST-J scientist diagnosing the animal



**Animal health Camp** 



KVK scientists interacting with the farmers



Kissan Ghosti



Field Day on Wheat



Field Day on Maize



Field Day on Wheat



Hon'ble State Min. inspecting KVK stall in a Kisan Mela



Hon'ble J&K Min. inspecting KVK stall in a Kisan Mela



Hon'ble J&K Min. inspecting KVK stall in a Kisan Mela



Collaborative programme with the Deptt. of Floriculture



Collaborative programme with the Nehru Yuva Kendra



Collaborative programme for women SHGs with the Deptt. of Floriculture



**Scientific Advisory Committee meeting** 



Farmers from Himachal Pradesh in KVK, Reasi



Diagnosing the wheat disease





**Vermibed Unit at Farmer Field** 

**Scientist Delivering Lecture at Farmer Fair** 

DG, ICAR in KVK,Reasi











Hon'ble Union Minister of State in PMO Dr. Jatinder Singh at KVK, Reasi during Kisan Mela on Pradhan Mantri Fasal Beema Yojna

#### 8. Other activities

					Year				
2006- 07	2007- 08	2008- 09	2009-10	2010- 11	2011-12	2012-13	2013-14	2014-15	2015-16
102	121	320	425	422	195	1383	600	250	750
5	7	10	13	14	14	16	17	17	17
				1		1	1		1
Seri,T anda, Bhabb er,Kun dra,De ra Baba, Kanjli	Seri,T anda, Bhab ber,K undra ,Dera Baba, Kanjli ,Sirla, Pana sa	Seri,Ta nda,Bh abber, Kundra ,Dera Baba,K anjli,Sir la,Pana sa,Pou ni,Dhra mthal,T alwara	Sirla,Panasa, Pouni,Dhramt hal,Talwara,B harakh,Tikri,G oleetc.	Dera, Rajwal ,Fade ha,Ta nda, Dharm ari,Ma hore,R itti,Ku h etc.	Numain, Sirah,Tikr i,Lehnu,S erwad,Ag har Jitto,Agh ar Ballian etc.	Muttal,Gole,Ri tti,Roundomail ,Panasa,Kahn ah,Talwara,Ka nsi Patta etc.	Serwad,G ranmore, Vijaypur, Malad,Ca mble Danga,Sir ah,Painth al etc.	Sirah,Sool,Dh irti,Kandyar,P omote,Muttal, Mahore,Dhar mari etc.	Mahore, Sirah,Tal wara,Gra nmore,K ansi Patta,Khi aral,Kah nah,Dhirt i etc.
	5 Seri,T anda, Bhabb er,Kun dra,De ra Baba,	07 08 102 121  5 7  Seri,T anda, Bhabb er,Kun dra,De ra Baba, Kanjli Sirla, Pana	07 08 09 102 121 320  5 7 10  Seri,T 3	070809102121320425571013Seri,T anda, Bhabb er,Kun dra,De ra Baba, Kanjli ,Sirla, Kanjli ,Sirla, Pana saSeri,Ta nda,Bh abber, Kundra nda,Bh abber, Kundra nda,Pana hal,Talwara,B harakh,Tikri,G oleetc.	0708091110212132042542257101314Seri,T anda, Bhabb er,Kun dra,De ra Baba, Kanjli Sirla, Pana saSeri,Ta anda,Bh abber, Kundra ,Dera Baba,K anjli,Sir Kanjli sa,Pou ni,Dhra saSirla,Panasa, Pouni,Dhramt hal,Talwara,B harakh,Tikri,G oleetc.Dera, Rajwal ,Fade ha,Ta nda, Dharm ari,Ma hore,R itti,Ku h etc.	2006- 07         2007- 08         2008- 09         2009-10         2010- 11         2011-12           102         121         320         425         422         195           5         7         10         13         14         14           Seri,T anda, Bhabb er,Kun dra,De ra Baba, Kanjli Sirla, Pora pana sa         Sirla,Panasa, Pouni,Dhramt hal,Talwara,B harakh,Tikri,G oleetc.         Dera, Rajwal ,Fade ha,Ta nda, Dharm ari,Ma hore,R itti,Ku h etc.         Numain, Sirah,Tikr i,Lehnu,S erwad,Ag har Jitto,Agh ar Ballian etc.	2006- 07         2007- 08         2009-10 09         2010- 11         2011-12         2012-13           102         121         320         425         422         195         1383           5         7         10         13         14         14         16           Seri, T anda, Bhabb er, Kun dra, De ra gra         Seri, Ta anda, Bhab ber, K undra ndra, Dera na poera na poer	2006-   07	2006-   2007-   08

Data base of contacted farmers with KVK till date (No.)

## 9. Seed/Planting material introduced by KVK in the district

S. No.	Crop	Variety	Procured from	Year	Quantity	Beneficiaries
1.	Wheat	PBW-175,PBW- 343	Deptt. Of Agri.&Multiplied at KVK,Reasi	2008	6qt.	Farmers
2.	Maize	Kanchan- 612,Kh.517	Deptt. Of Agri	2008-09	4qt	Farmers
3.	Maize	HQPM-1	Green Gold Ltd. Aurangabad	2010	1qt.	Farmers
3.	Mash	Uttra	Pulse Res.Station Samba &Multiplied at KVK,Reasi	2008	0.30qt.	Farmers
3.	Green gram	SML-667	Deptt. Of Agri.	2008	0.20qt.	Farmers
4.	Chickpea	GNG-469	Deptt. Of Agri.&Multiplied at KVK,Reasi	2008	1.00qt.	Farmers
5.	Marigold	Pusa Basanti, P.Narangi	Deptt. Of Flor.	2008	0.02	Farmers
6.	Til	Sesamum	Deptt. Of Agri&Multiplied at KVK,Reasi	2008	0.05qt	Farmers
7.	Paddy	PRH-10	Deptt. Of Agri.	2010	0.10 qt.	Farmers
8.	Poultry	Vanraja,Chabro	Deptt. Of AH	2011	1000 birds	Farmers
9.	Sorghum	MP Chari and SSG	Deptt. Of Agri	2011	1.20qt	Farmers
10.	Oats	Kent	Deptt. Of Agri.	2011	1.6qt.	Farmers
11.	Mustard	RSPR-01	SKUAST-J,Div. of PBG	2011	0.10Kg.	Farmers
12.	Okra	Varsha Uphar, Seli Special	SKUAST-J	2011	0.20qt.	Farmers
13.	Turmeric	Sugandha	Deptt. Of Agri.	2012	2qt.	Farmers

## 10. Seed Production by KVK

Particulars	Crop I	Variety	Qty.	Value	Crop II	Variety	Qty.	Value	Crop III	Variety	Qty.	Value
2006-07												
2007-08												
2008-09	Wheat	PBW- 343,Raj 3077	50qt	64500	Gobi Sarson	DGS-1	4.98qt	10558				
2009-10	Mash	Uttra	2.5	15,000	Til	Pb.Til1	0.2qt.	2000				
2010-11	Wheat	PBW- 175,pbw- 527	10qt	22000	Chickpea	GNG- 469	1.70qt.	10,200	Mash	Uttra	1.20	7000
2011-12	Wheat	PBW- 175,PBW- 527	7qt.	22000	Til	Pb.Til1	0.25qt.	2500	Mash	Uttra	2	12000
2012-13	Wheat	PBW-175	50qt.	1,12,500	Mash	Uttra	1.5	6500	Chickpea	GNG- 469	1.6	5500
2013-14	Wheat	PBW-175	38.50qt.	42,796	Mash	Uttra	0.70	14,000	Pigeon pea	UPAS- 120	1.50	10,500
2014-15												
2015-16												

## 11. Linkages developed in last 10 years

S. No.	Name of organization	Type of linkage
1.	Department of Agriculture	Trainings/FLDs/OFTs/Kissan Melas /ATMA/ RKVY etc.
2.	Department of Horticulture	Trainings/FLDs/OFTs/ Kissan Melas/ ATMA/RKVY etc.
3.	Department of Animal	Vet. Camps/backyard poultry
	Husbandry	

4.	Department of Fisheries	Participation in meetings/technology week/ATMA/RKVY etc.
5.	Department of forests	Participation in SAC meetings/supply of planting material
6.	NABARD	Formation of farmers clubs/SAC meeting
7.	District cooperative societies	Participation in meetings/Supply of inputs
8.	SKUAST-Jammu	Collaborative programmes/supply of important inputs etc.
9.	Marketing development board	Participation in meetings
	Lead banks	Participation in meetings
10.	Rural sef-employment training	Trainings to the farmers
	institute	
11.	Department of floriculture	Camps/supply of planting materials

## 12. Dignitaries' visits to KVK in last 10 years

S.	Name of dignitary	Date	Event (if any)
No.			
1.	Hon'ble Sh. Gulam Nabi Azad, former Chief minister, J&K.	14.2.2008	For Foundation stone
2	Sh. Jugal Kishore, Hon'ble minister (R&B) J& K govt.	14.2.2008	For Foundation stone
3.	Sh. Abdul Aziz Zargar, Hon'ble Agriculture Minister ,J& K govt. Sh.Aizaz Khan,Min.J&K Govt.	14.2.2008	For Foundation stone
4.	Dr.Nagender Sharma, Hon'ble Vice Chancellor, SKUAST-J.	14.2.2008	For Foundation stone
5.	DDC,Reasi,Sh.Sanjeev Verma	14.2.2008	For Foundation stone
6.	Hon'ble Dr. S Ayyappan, Secretary Dare and DG ICAR (two times).	18.4.2010	For Foundation stone
7.	Dr. H. P. Singh, D.D.G. Horticulture, ICAR	2010	For inauguration of KVK
8.	Dr. B. Mishra, Hon'ble Vice Chancellor, SKUAST-J.	2012	For visit

9.	Dr.P.K. Sharma, Hon'ble Vice Chancellor, SKUAST-J.	2014	For visit
10.	Dr.Narula,ZPD,Ludh.	2014	For visit
11.	Dr.Prabhu,ZPD,Ludh.	2014	For visit
12.	Sh.Baldev Sharma,MLA,J&K Govt.	2014	For Visit
13.	Hon'ble Dr. S Ayyappan, Secretary Dare and DG ICAR	8.2.2016	For Visit To interact with the farmers

## 13. Publications in last 10 years

- 13.1. Research-40
- 13.2. Extension-55
- 13.3. Others (Books/Book Chapters)-4

## 14. Awards/Recognition

Name of Award/Recognition	Awarding Institute	Year of Award
Awards to KVK		
(1)Recognisations of KVK, Reasi-(a) On 8th of Feb.2016 ex-Director	ICAR	2015-16
General ICAR, Dr.S.Ayappan visited KVK, Reasi. He interacted with the		
farmers of Reasi who assembled there at KVK, Reasi.He applauded the		
KVK efforts		
2.On 24th of March, 2016 KVK, Reasi participated in the Kisan Mela	J&K Ministry	2015-16
held at Seela, Reasi. KVK efforts were appreciated by the Hon'ble		
Minister of J&K, Sh.Ajay Nanda and other dinatries in the Mela.		
Awards to Scientists/Staff		

Awards to Farmers of the district		
Gulzar Ahmed R/O Tanda, Teh. and Distt. Reasi(J&K)	SKUAST-J	2015-16
Angrej Singh,R/O Panchari, Teh. Panchari Distt. Udhampur(J&K)	SKUAST-J	2015-16
Ram Lal R/O Kansi Brahmna, Teh. Pouni And Distt. Reasi(J&K)	SKUAST-J	2015-16
Ram Lal R/O Kansi Brahmna, Teh. Pouni and Distt. Reasi(J&K)	SKUAST-J	2015-16
Ram Lal R/O Kansi Brahmna, Teh. Pouni and Distt.Reasi(J&K)	SKUAST-J	2015-16
Shail Singh R/O Sirah, Teh. Katra and Distt.Reasi(J&K)	SKUAST-J	2015-16
Bimla Devi R/O Malad, Teh. Pouni And Distt.Reasi(J&K)	SKUAST-J	2015-16
Shiv Kumar R/O Kundra, Teh. and Distt.Reasi(J&K)	SKUAST-J	2015-16

#### 15. Success stories in last 10 years (in 1500 words with Action Photographs)

#### Success Story 1: Backyard Poultry: A source of sustainable income generation:

In the North West hilly areas of Jammu region agriculture is the main occupation and way of life for the poor farmers. Decreasing size of land holdings per family (77.97 per cent of farmers have less than 1 hectare of land) and increasing intensity of drought situations for the last few years has resulted in crop failures putting enormous economic pressure on these small farmers. So there is a need of alternative approach for sustainable development in these hilly areas. One of the best option seems to be revival of backyard poultry farming specially with improved breeds like vanraja.,RIR. Total number of Laying Birds (Hens +Ducks) of the State was 35.161 lakhs out of which 83.23% (29.264 lakhs) are of desi category while as 16.77% (5.897 lakhs) are of improved stock as per ISS estimates for the year 2010-11. Estimated total egg production of the State for the year 2010-11 was 6209.333 lakhs out of which 5874.271 lakhs (94.60%) were laid by Hens and 335.062 lakhs (5.40%) by Ducks as per the latest Integrated Sample Survey Report (ISS), 2010-11. Total estimated meat production of State was worked out to be 308.986 lakh Kg consisting of 80.30% of (248.105 lakh Kg) red meat and 19.70% (60.881 lakh Kg) of white meat. The Jammu region accounted for 51.45% (158.978 lakh Kg), Kashmir region accounted for 41.55% (128.368 lakh Kg) while as Ladakh Region accounted for 7.00% (21.641 lakh Kg) of total meat production. Total eggs availability per person was worked out to be 53 (number) per year for the State as a whole as per the ISS report 2010-11. Growth in this sector has been mainly driven by large-scale commercial farms while small and landless farmers have been neglected.

Migrant, landless and marginal farmers of Reasi and Udhampur district are having a low source of income as they are having no or marginal agricultural land for farming purpose. They mainly work as farm labours in local farmer's field. Women either remain at home or accompany men to farmer's field. Thus in order to provide these farmer's with specialized farming which does not require land and also generates good source of income for Improving their livelihood security. Krishi Vigyan Kendra, Reasi made an attempt to improve socio-economic status of these migrant landless women with following objectives in mind.

☐ To encourage these farmers especially women to contribute to families income.

$\ \sqsupset$ To provide these women with small, steady and sustainable source of $\ $ income round the year.	
☐ To improve nutritional requirement of their family	

#### Poultry farming by migrant and small marginal farm women in Reasi & Udhampur

Socially we are having male dominating family system in which all income from agricultural produce is in hands of male farmer's. It is observed that there is always shortage of money in the hands of rural farm women. However poor farm women have maintained local desi poultry strains with traditional management having low productivity & low level of income. There is a need to replace these low producing breeds with high egg laying varieties like Vanraja, RIR. Thus in order to improve socio-economic status of rural farm women of district Reasi and Udhampur, KVK Reasi has made an attempt by propagation of backyard poultry farming using Vanraja and RIR poultry birds. It was observed that poultry keeping is the women's domain which helped in empowering them socially as well as economically. The results support the possibilities of establishing this neglected sector as a better alternative for sustainable rural development in these undeveloped areas of J&K state So, keeping in view the above facts about Vanraja birds, backyard poultry production system was taken into consideration. With improved variety of vanraja birds.

#### **Promising features of Vanaraja:**

- > Can thrive well and perform better even in adverse environmental conditions.
- > Sturdy and resistant to most of the common poultry diseases because of its high immune competence.
- It has better feed efficiency even with diets containing low energy and protein which are based on common feed ingredients available in rural tribal areas like rice bran, broken rice, crushed maize etc
- > It can perform better in backyard conditions by eating green grass and insects available in the fields.
- > Natural color combination in this bird is more attractive than the Desi hen.
- It starts producing eggs at the age of 175 to 185 days of age and produces about 150 to 180 eggs in a year.
- > Vanaraja eggs are heavier (55 to 63 g) and their color is more attractive than the eggs of desi hen.
- An adult hen weighs about 3 to 4 kg, and cock weighs about 3.5 to 4.5 kg at 6 months of age.
- ➤ Broodiness is absent in Vanaraja, however, Vanaraja chicks can be hatched out from fertile eggs from Vanaraja bird by brooding the eggs with Desi hen. Fertility & Hatchability of eggs are 90-95% and 82-87% respectively.

#### Comparison of Vanraja and Desi local breeds

Parameter	Vanraja	Local desi Birds
Mortality up to 10 weeks %	Less than 5%	Less than 4%
Mortality during laying stage %	Less than 12%	Less than 10%

Average age at first lay (days)	175-185	220
Average body weight at first lay (kg)	2.30	1. 25
Average annual egg production (no.)	150-180	60
Colour of egg	Tinted	Tinted
Average Egg weight at 40th weeks (g)	54	41
Dressed weight, %	72 %	64%
Survivability,%	98%	90%
Hatchability, %	82-87%	72-77%
Fertility, %	90-95%	86-88%

#### Methodology

A survey was carried out and Performa based information regarding the socio-economic status of poultry farmers as well as the percentage of farmers interested in backward poultry farming was generated. Households having no income source and interested in poultry rearing were randomly selected. More than **205** number of house holds were distributed Vanraja and RIR from 2012-2014. To avoid mortality at early age because of infectious diseases and predators attack, it was planned to distribute the grown up poultry birds to the farmers. Cross bred poultry stock comprising of Vanraja, Rhode Island Red (RIR) of age group approx 1 month was procured from Department of Animal Husbandry, Reasi District. It was observed that about 50% of the farmers gave supplementary feed in the form of crushed maize, wheat and rice to the chickens. Rest of the farmers did not provide any supplementary feed and birds usually fed themselves on kitchen and farm waste. Most of the farmers (90%) kept the birds free during day time and provided shelter only at night in the farm of small wooden cages. Some farmers (20%) kept the birds in the same shed along with large animals. Only 5 % of the farmers had built a separate shed for chicken.

Each family was given 10 nos. of Vanraja and RIR birds. Regular and timely monitoring of birds was done. These varieties represents a stock that is scientifically developed and has all the attributes of the village chicken in terms of colour, hardiness and ability to thrive in scavenging conditions without any major change in traditional husbandry practices. At the same time, it has the advantage of higher weight gain yields and egg production capacity.

Vanraja males attain body weight of 1.4 to 2.5 kg and female birds attain weight 1.12 kg at the age of 16-18 weeks, whereas the same weight was attained by desi breed at the age more than 240 days i.e 34 weeks. Egg laying capacity is 150 to 180 eggs compared to the 60 eggs produced by traditional village chicken in a one year laying period. The average age at sexual maturity was 175 days, with an average egg weight of 53-58 g. In these hilly areas meat demand is much higher than plain areas as a result price of meat is Rs. 130-150 /kg and egg is Rs. 5-6 /egg. Average body weight of the male birds at the age of 16-18 weeks was 1.4-

2.4 kg. At this age most of the farmers market their birds for meat purpose. Average age at which female started laying eggs was 175-185 days, with average egg production of 150 eggs/ hen/ annum.

#### **Trainings Imparted on Poultry**

Year	Farmers Trainings		Farmers Trainings Vocational T		nal Trainings
	Nos	Participants	Nos.	Participants	
2012	04	74	-	-	
2013	02	37	02	31	
2014	02	42			

#### Impact of KVK

Farmers were imparted training for rearing these birds and were advised to make use of waste material to prevent predation. Women were encouraged to rear these birds mainly for egg purpose and they showed keen interest in care, feeding and management of these birds. KVK, Reasi scientists imparted regular trainings, vocational trainings, group discussion and conducted diagnostics visits. Regular and timely visits are made to these farmers houses and are given necessary instructions regarding feeding and disease management. Disease diagnostic visits are made in case of disease outbreak and proper medication is given by KVK free of cost. Data was collected on regular basis on weight gain, egg weight ,growth and egg production. In order to encourage farmers for starting Backyard poultry farming as an enterprise. KVK, Reasi has initiated and started their own poultry demonstration cum training unit for these local farmers.

In this unit Vanraja birds are being reared in a low cost poultry shed specifically made using locally available materials. The demo poultry unit with Vanraja poultry birds is a source of attraction and encouragement for local farmers and they are now *ready to start their own vanraja birds poultry units*.



#### Monitoring and trainings by KVK Reasi

Households engaged in BYP obtain a small but steady flow of income by selling of eggs almost daily, at the rate of Rs. 5 to 6 per egg. The total gross income from eggs per bird @ 5 Rs /egg was about Rs. 750/-. Farmers also sell live birds, at a price ranging between Rs. 130 to 150/ kg live weight. It was observed that on an average 4 birds were sold for meat purpose where as 6 birds were kept for egg purpose. Average annual income generated from backyard poultry birds per unit(10 birds) was calculated to be Rs. 5228 per household although high variation among households was observed. A positive association between economic condition, availability of grains, literacy of family farmers and total income generated from birds was observed. Most of the households disposed their produce like eggs or chickens in nearby markets, whereas, those away from the towns sold at door steps.

Annual income generated by each household by adopting backyard poultry farming

	<u> </u>
Number of house holds engaged in backyard poultry farming in total	208 Nos
Average flock size (No. of Birds)	10 Nos
Average birds Sold	04 Nos
Average body weight of bird at the time of marketing	1.4 Kg
Average market price per bird	Rs. 182
Total benefit from birds/ Household	Rs. 728
Average number of eggs sold/self consumption	150Nos
Average no. of birds kept for egg purpose	06 Nos.
Average market price per egg	Rs. 5.00
Benefit from eggs/ Bird	Rs. 750

Total benefit from eggs/ Household	Rs. 4500.
Net income generated(egg + meat)	Rs.5228

Based on study, it was concluded that Poultry keeping in backyard gives high returns as the investment is very low. Beneficiary households get food security and steady flow of income making this practice an effective means to reduce poverty in the rural hilly areas. Mainly women of household were responsible for poultry raising and marketing of eggs so it helped in empowering women socially as well as economically. With regular Veterinary services in the adopted villages mortality among birds was very low. Although major reason for mortality in birds was predation by wild animals mainly cats, so a proper management and housing activities should be implemented. The results strongly supports possibilities of establishing this neglected sector as a better alternative by the national as well as international development agencies as an element of sustainable development in the rural hilly areas of Jammu and Kashmir.

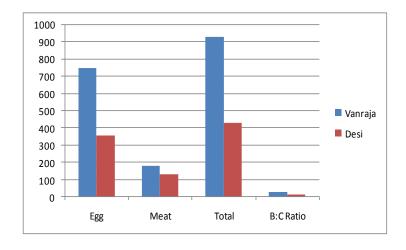
#### **Details of Birds distributed under FLDs**

S.No	Village/District	No. of Farmers	No. of Birds
1	QassiPatta (Reasi)	33	370
2	Talwara(Reasi)	16	240
3	Zero MorhTalwar(Reasi)	34	390
4	Gool (Udhampur)	20	200
5	Pagyal/Jhakar(Udhampur)	30	300
6	Dharmari/Thoru(Udhampur)	25	250
7	Bhabbar/Mansoo(Reasi)	50	500
ТОТ	ΓAL	208	2250

# 

S.No	Cost per bird	Name	Village/District	No.of eggs
1	30 Rs	Nirmla Devi w/o Bodh Raj	Gool (Udhampur)	150-180 eggs/year
2	30 Rs	Kamlesh Devi w/o Arjan Singh	Gool (Udhampur)	150-180 eggs/year
3	30 Rs	Neelam Devi w/o Gopal Singh	Gool (Udhampur)	150-180 eggs/year
4	30 Rs	KhurshadBibi w/o MohdBashr	Talwara (Reasi)	150-180 eggs/year
5	30 Rs	SaleemaBibi w/o MohdSadeeq	Talwara (Reasi)	150-180 eggs/year
6	30 Rs	NaseemAkhtar w/o RafiqChoudhary	Talwara (Reasi)	150-180 eggs/year

@ 1.4 kg \*\* @ 1 kg



#### Poultry distribution as FLDs among women farmer





### **Success Story 2:Selp Help Groups for self employment:**

Kashmir where about 39% of people are below poverty line. Gender streamlining strategy aims at provision of benefits of growth process to women by socio -economic background in terms of income, labour, credit, investment, etc. Self help groups strategy also adopts the same philosophy and aims at bringing the neglected woman into main stream of economic development through saving and income generation strategy. Self help group formation is a significant instrument in the process of women empowerment. It is a process which ultimately leads to self fulfilment of each member of society.

who voluntarily come together for saving of credit and enhance the members financial security as primary focus. These groups are called solidarity groups as they provide monitory and moral support to individual members in times of difficulties. Women's SHGs are transforming the face of the Indian villages. Trainings and economic independence have empowered the women. With SHGs the lives of women from underprivileged groups have undergone a sea change. SHGs are considered as self-driven movements impacting specially the rural poor people. SHGs formation provide an opportunity to women to interact with each other, understand their common problems, channel their savings and encourage for development. SHGs provide the benefits of economics in certain areas by undertaking common action programmes like cost effective credit delivery system, generating a forum for collective learning with rural people, creating democratic culture, developing entrepreneurial culture, providing a base for dialogue so cooperation, developing credibility and power to assure participation..Self Help Groups have been recognised in all over India as one of the most suitable tools for delivering microfinance to the poor people. The SHGs are like precious diamond whose quality depends on the way they are shaped.

Methodology applied: KVK ,Reasi has made strenuous efforts in gender streamlining .It has endeavoured to aware , train and motivate the women farmers in the hilly districts of Reasi and Udhampur. Keeping the scope of SHGs in the district, KVK, Reasi has made rigorous efforts to form and manage the SHGs. The study was conducted in Serwad village of Reasi. A baseline survey of the village was done. Village Serwad was purposively selected as it is very near to world famous holy town Katra for Shri Mata Vaishno Devi Shrine where Prashad making/food processing has immense scope. Thus farmers of this village were encouraged and motivated by KVK, Reasi to start a SHG for Prashad making. Apart from training programme, KVK conducted farmers-scientists interaction, employed print media coverage radio talk, tv talks ,film shows special group meeting etc for SHGs formation.formation and management played a pivotal role to raise the economic status of SHG group members. The objective of group were cleared to women members and they were taught the full methodology for group formation. The advantages of groups were elaborated to them and SHGs principal detail was given to them. The group president, secretary, treasurer were selected and group members were advised for saving the money. The homogeneity of groups interms of their socio economic status was taken into greater accounts. They were advised for proper book keeping. The name of the group was decided by the group members as "Vaishno Devi Mahila Group" which started in 2007 with 10 members. They were advised for fortnightly meeting and Rs 2 fine was kept for absentees. After 6 months the worker started inter loaning @2% .training programme conducted by KVK on formation and management of SHG proved to be convincing tool and played a great role in creating interest and capacity building of group members. The extension literature and information through TV/Radio played a catalytic role in SHG formation.

Table 1

S. No.	Enterprises taken	Operational Expenditure (Rs.)	Total Output (Rs.)	Net profit during (Rs.)
1	Year	(2013-14)	(2013-14)	(2013-14)
2	Prasad making	188000	360000	1,72,000

## Table 2Farmers Trainings on Self Help Group

Year	Farmers Trainings on SHGs		
	Nos.	Participants	
2009	1	34	
2011	4	90	
2012	3	76	
2013	2	28	
2014	1	20	

## Table-3

S.no	Nasme	Parentage and place
1	Smt.SudeshKumari	W/o sh.Prem Singh
2	Smt.RajKumari	W/o ShDaler Singh

3	Smt.Moni Devi	W/o Sh.Laxman Singh
4	.Smt.RatnoDevo	W/o Sh.Kaka Ram
5	. Smt.Rani Devi	D/o Sh.Prem Singh
6	Smt.Babli Devi	W/o Sh. MadanLal
7	Smt.Sushma Devi	W/o Sh Sham Singh
8	Smt. Darshna Devi	W/o Sh.Bittu Ram
9	Smt.Gita Devi	W/o Sh. Jagdish
10	Smt.Kamlesh Devi	D/o Sh.Madan Singh

#### **Impact of KVK**

11 trainings in form of small courses have been imparted till date by KVK experts for formation of SHGs, more than 200 participants till date have been given training for SHG formation in district Reasi and Udhampur. Around Rs 80/kg are consumed in .preparing Parshad and it is sold @ Rs.100/kg. In 2013-14 the group earned Rs.1,72000/- net profit. With increase in the income of group, the women members get respect from their families and were recognised by other members of community as working women. By observing the successful result of SHG in Serwad the other women of the area are showing keen interest in SHG formation. With the formation of SHG women developed confidence to solve their problems. A self- reliance and entrepreneurial spirit was developed among the group members. Their new attitude for saving was developed.KVK, Reasi is striving very hard for women empowerment through SHGs/farmers club formation in both the hilly districts Reasi and Udhampur.





## Success Story 3: Title: Sericulture Living with cocoon Introduction:

The Aryans discovered silkworm in sub Himalayas beyond Kashmir. Despite, the long history of Indian sericulture it is only after independence that efforts were initiated for developing sericulture industry on the scientific lines. India has a unique distinction of producing all the five known varieties of silk viz. Mulberry, Oak Tasar, Tropical tasar, Eri&Muga. Sericulture is a labour intensive agro-industry in all its phase, viz. food plant cultivation, silkworm rearing, silk reeling & other off farm activities such as twisting, dyeing, weaving and printing. Sericulture has considerable socio-economic importance in Indian socio-economy largely due to its suitability for small & marginal farm holdings, self employment& low investment with high returns. Raw silk production to great extent depends on higher yields and quality mulberry leaves. In eastern india, the local mulberry was cultivated till 1960 with a very poor leaf yield of around 8-10 mt per hectare per year depending on the availability of irrigation. Sericulture is a sustainable farm based economic enterprise, which provides ample work for women folks in the rural areas. India is in II<sup>nd</sup> position after China in silk production. The present production of silk is 918320 mt against an estimated an annual demand of 26000 mt.

#### Scenario of Sericulture in district Reasi:

Sericulture is an age old practice in district Reasi. It is practiced in the area for last 50 years. Earlier due to non scientific approach the cocoon production was very low and the quality was poor. With the intervention of KVK and Division of Sericulture SKUAST and Deptt. of Sericulture the new selections of mulberry were provided to the farmers. Scientific knowledge of sericulture was given to improve the quality of cocoons. At present sericulture is practicing in more than 120 villages of Reasi. They produce 20 MT of cocoon annually. There are 12 mulberry nurseries in the district spread over 317 kanals.

Kanjali is a remote village falls under tehsil Reasi of the district Reasi. Due to unavailability of proper road network the village is poorly developed. The main source of earning of the villagers is agriculture. An educational facility in the village is upto class 10<sup>th</sup>. The farmers were practicing maize- wheat cropping system with small production of pulses and vegetables for their own use. After establishment of Krishi Vigyan Kendra at village Seri Tanda, the farmers contacted the scientists of KVK to guide them regarding the improved varieties of crops to increase their income. KVK scientist suggests the farmers to use hybrid varieties of the maize & vegetables and HYV of cereals & pulses for higher yield and income.

For socio-economic upgradation scientists suggest to start some agriculture related enterprises so that farmers can earn from some other sources. Farmers were guided to adopt Sericulture, Bee keeping, mushroom cultivation and floriculture. With the guidance of these institutions in village kanjali, awareness programme were organized, which impacted on farmers a lot.

Regular training, regular visits regarding feeding and management of these cocoons encouraged farmers of Kanjli village by experts from SKUAST-J .Farmers adopted sericulture because of availability of lot of Shahtoot (*Morus alba*) trees on their farm bunds and started the cocoon production. They were guided for proper use of medicines and hygiene for better production. On demand of the farmers a camp was organized by the KVK with the help of division of sericulture SKUAST Jammu at the village kanjli. In the camp

farmers were guided regarding the whole process of sericulture. Scientists of the division discussed the farmers regarding their problems in this field and then suggested the farmers about the improved selections of Shahtoot trees to plant for feeding purpose.

This valuable guidance helped the farmers to improve the production of cocoons. Scientists also guided them for proper handling of "Khoontis", so that the farmers can get best price in the market. Now every household has 10-20 trays and producing cocoons of high quality giving them a very good result in terms of money. Every year these farmers are selling the cocoons of more than 10 lacs

The farmers started the work with 2-4 trays and now they are having around 20 trays for cocoon production. They are producing around 2 kg cocoon per tray having the market price of Rs.500 per kilogram. Every farmer is earning around Rs. 20000 by selling these cocoons. This income is other then the farm income generated by selling other crops. As the female members can also handle the trays easily, the work is easily adopted by the farm women also. Some other farmers have also started the sericulture practices in the area after watching the success. Regular diagnostic visits about diseases were made and market led linkages available were also made which helped these farmers to have good price of their silk produce.

#### **Results and Economy:**

Following neighboring farmers of kanjali are continuing the sericulture practices.

S.No.	Name with parentage	Production (Kg)	Earning (Rs.)
1	Vichitraram S/o Krishanlal	50	25000
2	Raj kumar S/o Omprakash	35	17500
3	Kewalkrishan S/o Mansukh	40	20000
4	SohanLal S/o Gian Chand	50	25000
5	Mahinder Kumar S/o Vichitraram	45	22500

### Cost benefit of cocoon production

Cost of production/ tray (Rs)	Cocoon production(Kg)/ tray	Cost of cocoon/ Tray (Rs)	Benefit (Rs)	BC ratio
300	2	1000	700	1:2.33

#### Impact:

Due to better return in sericulture, farmers are sowing keen interestin this enterprise. Some farmers have started planting their own

shahtoot trees to start the sericulture. Some landless farmers are continuing the work by purchasing shahtoot leaves. Day by day the involvement of farmers increasing.

#### **Mushroom Cultivation: A Commercial Venture for the Farmers of Hilly Areas**

Dr. Banarsi Lal\*, Dr. Vikas Tandon\*\* and Dr. Shahid Ahamad\*\*\*

Reasi is the hilly district of Jammu and Kashmir. Most of the farmers of this district are small and marginal and crops are mostly cultivated under rain fed conditions. Major crops grown in this area are maize, wheat, paddy, mash and potato. Farmers of this district are having very limited resources and mostly they adopt the traditional system of agriculture. The yield of all the crops is low as compared to the national and state average yields. The adoption of modern technologies is very less resulting low production and low socio-economic status of the farmers. There are severe insect-pests and disease problems and also the boars and monkeys menace add up the problem of this particular district.

Sh. Romesh Kumar is a progressive farmer of village Gharn (Aghar Jitto) which is 10 km away from famous religious place Katra in Reasi district of Jammu and Kashmir. His family comprises his wife and two children. He is having 5 acres of land. He was growing maize, wheat and few local varieties of vegetables. He was using the traditional technologies in his fields and monkeys and boars were the great problems in his fields. All the agricultural produce was consumed by his family with very little surplus to sell. His farming system was collapsing and he was unable to mitigate the basic needs of his family.



Sh. Romesh Kumar in his mushroom unit with PC,KVK, Reasi

#### Romesh Kumar's Effort and KVK interventions

In 2007-08 he initiated the mushroom cultivation. He used local resources and started a small unit for mushroom growing. He was using the poultry manure from his own poultry farm .Initially he got mediocre results and also faced some failures. He was lacking the scientific knowledge of mushroom cultivation. Then he came in contact with the KVK scientists. KVK scientists started constantly visiting his farm and they scientifically guided him and motivated him to grow it round the year. He made 500 sq. feet of shed and now he grows 400 trays. He has also developed a marketing channel to sell his produce. Mushroom cultivation has changed his life. There is a great demand of mushroom in Jammu region. In the year (2011-12), he has earned Rs.2.50 lakhs by selling about 25qt of white button mushroom. He has also started growing dhingri and raised 400 poly bags. The crop was satisfactory and he has earned Rs.25, 000 from the sale of dhingri cultivation. Now he was feeling more confident as his income increased. He has become the motivating factor for other farmers in his area. KVK scientists motivated other farmers also to cultivate mushroom as it can change their socio-economic status.

KVK in the form of farmers' trainings, vocational trainings, front line demonstrations, farmer-scientists interaction, farmers' exposure visit, dissemination of production technologies through radio, TV, literature has led to increase in mushroom and dhingri cultivation. Slowly but surely many more farmers of the area are becoming interested in this viable and sealable agro-product.



Sh. Romesh Kumar in his dhingri unit

#### Honours to Sh. Romesh Kumar

Sh. Romesh Kumar success in mushroom cultivation is inspiring the other farmers of his area in shifting the villagers to mushroom and dhingri cultivation for better economic returns. Sh. Romesh Kumar has received the award from Agriculture Minister of State (J&K) Sh. Gulam Hasan Mir as mushroom entrepreneur in a farmer fair organised by department of agriculture. He was felicitated by the Governor of State Sh. N.N. Vohra in a farmer fair organised by the Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu as a mushroom entrepreneur. He is having good rapport with the KVK scientists and always participates in the training programmes and other activities organised by the Krishi Vigyan Kendra, Reasi.

#### Summary

Efforts of the Krishi Vigyan Kendra scientists and Sh. Romesh Kumar have given new shape to the mushroom growing venture. The quantity and quality of Sh. Romesh mushroom unit has increased by their efforts. Their efforts are attracting the other farmers of this hilly area towards mushroom cultivation.

#### **Vegetable Growing for Farmers Prosperity**

Sh.Allarakha is a progressive farmer of village Bhabber which is 30 km away from Katra in Reasi district of Jammu and Kashmir. His family comprises his wife and three sons. He is having 4 acres of land holding. He was growing maize, wheat, paddy and few local varieties of vegetables. All this agricultural produce was almost consumed by the family with very small surplus. Thus he was unable to mitigate the basic needs of his family with the traditional farming.

#### Krishi Vigyan Kendra Intervention

A base line survey was conducted in the village Bhabber and it was observed that majority of varieties of different cops including vegetables were traditional which their forefathers were using from years ago. There were no proper scientific agricultural technologies to be utilized by the villagers and production was very poor. The Krishi Vigyan Kendra scientists along with the allied departments introduced the improved and hybrid seeds of the vegetables for commercial purpose. It was intensively done to improve the vegetable production so that the farmers can earn their livelihood and improve their socio-economic status and can also mitigate their own nutritional problems. The Krishi Vigyan Kendra Scientists were constantly assessing and refining the technologies suitable for the farmers of that particular region.



Sh. Allah Rakha in his onion nursery

## Improved /hybrid varieties introduced by the KVK

Crop variety	Variety	Crop
Okra	Varsha Uphar,Seali Special	
Radish	Punjab Pasand	
Bottle Gourd	CBG-50,Pant-3,	

	Punjab Long
Cauliflower	Punjab Ketki
Cucumber	Long Green
Muskmelon	Punjab Hybrid Hara Madhu Punjab Sunhari
Tomato	DVRT-2,Roma,H-86 Kashi Vishesh, Kashi Sharad Hisar Arun
Chilli	CCH-01
Brinjal	Sada Bahar
Potato	Kufri Sinduri

25 interested vegetable growers (including Sh. Allah Rakha) were identified and hybrid /improved vegetables seeds were provided by the KVK scientists with technical guidelines. They were also guided how to save their vegetable crops from insect-pests and diseases. They were constantly motivated how they can raise their socio-economic status by growing the vegetable crops.

Table 2: Income difference between the traditional method of vegetables growing and scientific of vegetables method provided by the KVK.

Component	Area	Intervention	Gross cost	Gross retu	ırn
Net profits	B:C	Ratio			
Traditional	0.5 ha	Use of local varie	eties 3880	7200	
3320		1:1.85			
Method		seeds .No scientific o	ultivation		
New method	0.5ha	Use of hybrid seeds.	Scientific 32000	113000 81000	1:3.53

**Production Technology** 

Sh.Allah Rakha was having very fertile 10 Kanal of land which was very much suitable for the vegetable growing. When he initiated the vegetables growing in 10 Kanal of land he was using the traditional technologies. The result was that the yield was very poor. As is evident from the table 2, by using the local varieties he was able to earn only Rs.3220 annually from 10 Kanal of land. But when he followed the scientific guidelines of KVK and he used the hybrid varieties of vegetable he was able to earn Rs.81000 annually from the same piece of land. Now Sh.Allah Rakha was confident as his income has increased and he was feeling more secure by growing the vegetables under the guidance of KVK. Now Sh.Allah Rakha has become a motivating factor for other farmers of his area and they are following the same technologies as used by Allah Rakha .

#### Recognition

SH.Allah Rakha has gained recognition by winning many exhibition awards in many farmers' fairs at district and state level. He has exhibited some outstanding materials in different exhibitions conducted by the agricultural university, Jammu and also state department of agriculture. He has emerged as a progressive farmer of his area.

#### **Organic Farming in Talwara village of Reasi Distt.**

#### Introduction

The farmers of Jammu & Kashmir can tap the opportunity of growing demand of organic products. Organic agriculture is generally environment friendly maintains soil health and enhance biodiversity. Already large numbers of farmers of the state are growing spices, basmati rice, walnuts, herbs etc. organically. There is need to introduce organic farming commercially, scientifically and in a systematized way so that the farmers can get rich dividends and farming can become sustainable. Keeping the importance of organic products there is need to shift from chemical to organic farming. Organic farming system is not new and it is being followed from ancient times. It is a method of farming system which primarily aimed at cultivating the land in such a way so that the soil health can be maintained. There is an immense scope for organic Basmati rice in the state which is grown on more than 35,000 hectares of land in the state and has a production of over 88,000 metric tonnes, besides rajmash, spices, saffron, pulses and potato. There is need to provide logistic support for organic farming to the farmers so that they can maximum benefits from it.

Modern crop farming has enhanced the food grain production but it has caused many problems to the environment and human health. Besides, it has contributed to global warming. The imbalanced use of agro-chemicals in soil and on plants is not only

damaging the soil bacteria, fungi, actinomycetes etc. but has given rise to phenomenon like pest resistance and pest resurgence. Dependence on the external inputs like fertilizers, pesticides, machines etc. have increased rural indebtedness and created dependencies. Our farmers have indulged in indiscriminate use of chemical fertilizers and pesticides. In order to increase the agricultural production and control of insect-pests and diseases, our farmers are increasingly depending on agro-chemicals. Now the people are questioning the impact of modern agriculture on environment, economic and social aspects. Many farmers are seeking the alternative practices that would make agriculture more sustainable and productive. Organic farming is the only alternative taking care of all ecological aspects. A natural balance needs to be maintained for sustainability of crop production system. Therefore, recycling of resources through organic farming approach is of paramount importance.

#### **KVK** intervention

#### **Organic Village Talwara of Distt. Reasi**

Talwara is a village which is around 4km away from Reasi town of Jammu and Kashmir. In 2007, baseline survey of village Talwara was done by the KVK experts and it was found that the farmers of the village were interested for the organic farming especially vegetables and spices. Krishi Vigyan Kendra, Reasi scientists approached to the farmers of this village and motivated them for the organic farming. The KVK scientists frequently visited the village and trained the farmers for the organic farming emphasizing on organic vegetables growing. The farmers clubs formation was initiated in the village with the co-ordination of NABARD. The farmers clubs were encouraged for the organic vegetables growing in the village. In the beginning the farmers were advised to avoid the agro-chemicals in the vegetables so that they can be organically grown. The farmers were motivated for the establishment of vermicompost units in the village so that the required soil nutrients can be provided to the farmers. In the beginning the farmers faced lot of problems as they were not getting the desired yield of the vegetables. The management of insect-pests and plant diseases was done by using the organic inputs. The quality vegetables seeds were provided to the farmers. After four years the certification of their products was done by APEDA. Now the farmers of the village are selling the organic vegetables at the large scale. Their vegetables are marked as organic vegetables by the APEDA and they are sold in the local market and also in Jammu at a good price. There are 8 farmers clubs and one SHG of women who are working excellently for the vegetables production.KVK has also established an Integrated Farming System model in the village which attracts the other farmers of the area for the IFS system. This IFS model is producing the organic crops and also has a high tech dairy farm. The farmers' clubs/SHG maintain the records and have fortnightly meetings. The credibility of the members on each other was increasing and everything regarding accounts was transparent. The group was technically guided by the KVK experts to prepare the organic vegetables growing. Now every farmer is earning more than 1 lakh in every season by selling the organic vegetables. By this entrepreneurship the farmers generated the income which developed the confidence and reconisation of the farmers in the nearby areas.

Introduction of Protected Cultivation: Farmers of this area were lacking the awareness on protective vegetables growing. As the hilly district Reasi is prone to frost in winters which has inverse impact on the growth of vegetables causing a huge loss to the vegetables. Also the farmers were unable to produce the off —season vegetables. So, there was dire need to introduce the protected cultivation in the area. Low cost poly houses were established at the farmers' field which changed the way of their traditional method of vegetables growing. Under polyhouses the farmers area able to grow the vegetables seedlings on time and that too without the infestation of insect-pests and diseases. Now, the farmers of the village getting extra income by growing the organic vegetables under polyhouse. By observing the results of polyhouse the farmers of the nearby villages also showed curiosity for the protected vegetables growing.

Output –With KVK efforts farmers were able to generate extra.e.2,55,000/ha income by growing the organic vegetables.

Outcome-With the growing the organic vegetables farmers developed the confidence as they generate the extra income resulting in the recognisation in the district. The other farmers of the surrounding villages were inspired by these farmers.

## Impact

#### **Impact of KVK Activities**

S. No.	Enterprises taken	Operational Expenditure/ha (Rs.)	Total Output (Rs.)/ha	Net profit (Rs.)/ha
1	Year	(2014-15)	(2014-15)	(2014-15)
2	Organic vegetables	1,20,000	3,75,000	2,55,000

KVK Reasi imparted the trainings/awareness programmes/Kisan ghosties on organic farming in the village Talwara of Reasi distt. Till date by KVK experts have trained more than 300 participants till date has been given training for organic farming in district Reasi. In 2014-15 it has been observed that the total annual income of the organic vegetables growers was Rs. 2, 55,000/ha. By growing the organic vegetables the farmers are fetching more prices. With increase in the income of group, the organic vegetables growers get respect from their families and were recognised by other members of community. By observing the successful result of organic vegetables growers in Talwara village the other farmers of the area are showing keen interest in organic vegetables. With the introduction of polyhouse technique of vegetables growing the farmers are able to generate extra income by growing the vegetables even in the off-seasons. With the generation of extra income organic vegetables growers developed confidence to solve their problems. With the introduction of vermicompost units the farmers are able to mitigate the need of required soil nutrients required for the vegetables growing. A self- reliance and entrepreneurial spirit was developed among the group members. Their new attitude for organic farming was developed. KVK Reasi is striving very hard for farmers' welfare through organic farming in the hilly district Reasi of Jammu and Kashmir.





### Poultry farming in Village Tanda, Reasi

#### Introduction

Tanda village has been selected purposefully as the poultry village because few years back it used to be a effective poultry farming belt but due to heavy losses due to disease occurrence and less cost for their produce about 10-12 farms were forced to close their farms .KVK, Reasi took the initiative to restart these poultry farms and use scientific poultry farming practices for increasing income returns to these farmers

#### Major problems faced by poultry broiler farmers in these areas

- Use of mixed maize ration which has low growth rate and also resulted in increased incidence of fungal and respiratory disease.
- Mortality rate among young chicks was too high due to non use of vaccination.
- · Heavy expenses due to use of medicine
- Poor Market linkage which forced famers to sell their produce @50-60 Rs/kg
- Poor weight gain due to use of maize mixed ration feeding as a result birds used to attain a weight of 1-1.2 kg in a period of 38-40 days which in turn increased production cost.

#### **KVK** interventions

- Regular farmer trainings, disease diagnostic visits, regular counseling of farmers to increase their faith in poultry farming enterprise
- Farmers were advised to use standardized ration i.e .Pre-starter, Starter, Finisher ration which resulted in increase weight again and birds attain a weight of1-1.2kg in 28-30 days in respect to 40 days by maize feeding.
- Twice vaccination was advised which resulted in less mortality among young ones.
- Market linkage was developed with buyers from Reasi, Rajouri, Sunderbani, Chanderkot, Udhampur, Akhnoor, Kashmir. These buyers now come and lift farmers produce from door step at cash.

Output: Developing poultry broiler farming increased the net profit 1to 1.25 lac per year per 1000 birds in 6-7 lots.

**Outcome**: Seeing the effective income returns of poultry farmers other nearby farmers were also motivated and were regularly visiting KVK experts for starting poultry farming as an enterprise.

#### **Impact**

Tanda village has been selected purposefully as the poultry village because few years back it used to be a effective poultry farming belt but due to heavy losses due to disease occurrence and less cost for their produce about 10-12 farmers were forced to close their farms .KVK, Reasi took the initiative to restart these poultry farms and use scientific poultry farming practices for increasing income returns to these farmers. At present 8-10 farms are running with annual net profit of 1 lac to 1.25 lac per 1000 birds per anum.

#### Name of the Beneficiaries

Name	Earlier farm capacity	After intervention	Earlier Income	Income after intervention
Mushtaq Ahmed s/o Gulab din	1000(1 farm)	4500(3 farms)	4-5 Rs/Bird	10-15 Rs/Bird
Guchu rams/o Shabu Ram	500	1000	4-5 Rs/Bird	10-15 Rs/Bird
Balwant Singh s/o Lachman Dass	Nil	1000	4-5 Rs/Bird	10-15 Rs/Bird
Badri Nath/o Munchi Ram	Nil	1500	4-5 Rs/Bird	10-15 Rs/Bird
Sham Lal s/o Balku	Nil	500	4-5 Rs/Bird	10-15 Rs/Bird
Sham Lal s/o Shibu	500	1000	4-5 Rs/Bird	10-15 Rs/Bird
Rashpal Kumar s/o Rattan lal	Nil	1000	4-5 Rs/Bird	10-15 Rs/Bird



**Adopted Poultry village Tanda** 



#### 16. Major Constraints/Limitations faced by KVK in last 10 years

- 1. Land erosion of KVK land.
- 2. No e-connectivity in KVK.
- 3. Difficult to approach for the farmers.
- 4.Lack of electricity availability in the area.

#### 17. Future Plans/Major Emphasis

- 1. Introduction of new hybrid/high yielding varities of cereals.
- 2. Introduction of new improved varities of pulses and oilseeds
- 3. Promotion of Scientific floriculture in the district
- 4. Popularization of high egg laying varities of Backyard poultry in the districts.
- 5. Organization of Kissan Mela.
- 6. Introduction of Systematic turmeric Intensification (STI).
- 7. Introduction of Direct seeded rice (DSR)
- 8. Introduction of Conservation agriculture
- 9. Soil Testing of all the clusters.
- 10. Introduction of bio fertilizers
- 11. Promotion of organic farming in the district.
- 12. Formation, Management and strengthening of SHGs
- 13. Scientific mushroom cultivation.