

PROFORMA FOR ANNUAL REPORT 2018-19

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
KrishiVigyan Kendra, Reasi Vill. Tanda ,P/o Dera Baba Banda Bahadur Teh.and Distt. Reasi Pin: 182311	01991-287802	01991-287802	kvkreasi@gmail.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 and Technology of Jammu. Main Campus, Chatha.	0191-2262133 2262134	0191-2262028	vcskuastj@gmail.com

1.3. Name of the Programme Coordinator with phone, mobile No & e-mail

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr .Banarsi Lal	01991-287802	07889875590	dr.banarsi2000@gmail.com

1.4. Year of sanction:2005

1.5. Staff Position (as on 31st March 2019)

S. No .	Sanctioned post	Name of the incumbent	Age	Discipline with highest degree obt.	Pay Band & Grade Pay (Rs.)	Present basic (Rs.)	Date of joining at present post	Permanent /Temporary	Category (SC/ST / OBC/ Others)
1	Programme Coordinator	Dr. Banarsi Lal	41	Ph. D. Agril Extension	15600-39,100 (8000)	31040	21.06.07	Permanent	Gen
2	Subject Matter Specialist	Mr. Lalit Upadhyay	40	M.Sc. Agroforestry	15600-39,100 (6000)	27390	06.12.07	Permanent	Gen
3	Subject Matter Specialist	Dr. Mandeep Singh Azad	35	M.V. Sc. (Genetics & Breeding)	15600-39,100 (5400)	22960	04.04.12	Permanent	Gen
4	Subject Matter Specialist	Dr.Sanjay Koushal	40	Ph.D. Agronomy	15600-39,100 (5400)	21630	25.06.14	Permanent	Gen
5	Subject Matter Specialist	Dr. Suja Nabi Quereshi	40	Ph.D Fruit Sciences	15600-39,100 (5400)	21630	19.06.15	Permanent	Gen
6	Subject	Vacant				-	-	-	-

	Matter Specialist								
7	Subject Matter Specialist								
8	Programme Assistant								
9	Computer Programmer	Mr. Jagdish Kumar	44	M.Sc. IT	9300-34800 (4200)	15470	03.06.13	Permanent	SC
10	Farm Manager	Mr. Arvinder Kumar	40	M.Sc. Agril. Extension	9300-34800 (4200)	15470	11.08.08	Permanent	Gen
11	Accountant / Superintendent	Vacant							
12	Stenographer	Manhor Lal	31	B.Com.	9300-34800 (4200)	13500	19.01.12	Permanent	SC
13	Driver	Mohd Iqbal	45	10th	5200-20200 (1900)	8990	23.7.2010	Permanent	Gen
14	Driver	Sanjeet Kumar	27	12th	5200-20200 (1900)		24.9.2018	Permanent	Gen
15	Supporting staff	Vacant							
16	Supporting staff	Sanjay Kumar	40	10th	5200-20200(1300)	6680	1.06.2010	Permanent	Gen

1.6. Total land with KVK (in ha):

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S. No.	Item	Area (ha)
1	Under Buildings	0.118
2.	Under Demonstration Units	0.008
3.	Under Crops	5.00
4.	Orchard/Agro-forestry	0.36
5.	Others (specify)	Rest uncultivable. More than 5 ha eroded in floods.

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	Feb,2009	500	62.49	-	-	-

2.	Farmers Hostel	ICAR	Feb,2009	305	43.85	-	-	-
3.	Staff Quarters	ICAR	Feb,2009	400	30.17	-	-	-
	1	ICAR						
	2	ICAR	Feb,2008	85 (1)	4.87	-	-	-
	3	KVK	Jan, 2014		0.50			
	4	KVK	Feb, 2014		0.30			
	5	KVK	Nov. 2013		0.05			
	6	ICAR	-	-	-	-	-	Incomplete / broken
4.	Demonstration Units		-	-	-	-		
	1		-	-	-	-		
	2		-	-	-	-	-	
	3	ICAR	Feb,2009	500	62.49	-	-	-
	4	ICAR	Feb,2009	305	43.85	-	-	-
5	Fencing	ICAR	Feb,2009	400	30.17	-	-	-
6	Rain Water harvesting system	ICAR						
7	Threshing floor	ICAR	Feb,2008	85 (1)	4.87	-	-	-
8	Farm godown	KVK	Jan, 2014		0.50			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
1.Tractor H.M.T.	2006	422650	73 hrs (app) (2017-18)	Working
2.TATA Sumo Victa	2006	500000	9330 km (2017-18)	Working
3. Hero Honda motorcycle	2011	50000		Working

C) Equipment including Tractor & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Leveller	2006	7000	Good
Disc Harrow	2006	23100	Good
Disc plough	2006	20750	Good
Cultivator	2006	15600	Good
Trolley	2006	74000	Good
HP Computer (1 No)	2007	40000	Good
LCD Projector	2007	100387	Good
Printer (hp Laserjet)	2007	13520	Good
HP Computer (1 No) (old)	-	-	Unserviceable
HP Computer (01 no) & printer & UPS	2010	42457	Good
SLR Digital camera (Sony)	2010	24900	Good
Xerox Machine	2011	-	Good
HP Computer	2012	410000	Good
Weighing balance (100 kg)	2012	8000	Good
Compaq LED monitor	2013	11000	Good
HP colorjet printer	2013	15000	Good

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Sony handycam camcorder	2013	19990	Good
Podium	2013	11000	Good
Poly green house structure (1 no)	2015	29582	Good
Laptop (HP & Lenovo)	2017	49900	Good
Laptop (Lenovo)	2018	46000	Good
Laptop(Acer)	2019	49000	Good
Computer(All-in-One) Acer	2019	37848	Good
Portable Project(Viewsonic)	2019	35721	Good

1.8. A). Details SAC meeting* conducted in the year 2017-18

S. No.	Date	Name and Designation of Participants	No. of absentees	Salient Recommendations	Action taken
1.	9.03.2018	1. Dr. R.K Arora, Assoc. Director Extension& I/C KVKs 2. Sh. Sh. VK Gupta, CHO, Reasi 3. Sh. Omkar Singh Chaudhary, Chief Agriculture Officer Reasi 4. Sh. Bansilal, FDA, Fisheries Deptt., Reasi 5. Dr. Rohit Kumar, VAS, CAHO, Reasi 6. Sh. Romesh Khosa, Dy. Project Director, ATMA, Reasi 7. Sh. A.P. Singh, Branch Manager, J&K Bank Dera 8. Dr. Sarfaraz Naseem Chaudhary, DSHO, Reasi 9. Sh. Sudesh Kumar, Range Officer, Social Forestry, Reasi 10. Sh. Mohd. Ayoob, Social Forestry 11. S. Jatinder Pal Singh Sodhi, Progressive Farmer 12. Smt. Sunita Devi, Progressive farmer 13. Dr. Banarsi Lal, PC	02	Annexure Minutes attached	Annexure

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

2. DETAILS OF DISTRICT (2018-19)

The twin districts of Reasi and Udhampur falls in the mid hill zone of the state. Most part both the districts is rain fed with only 7 per cent irrigated area in Reasi and about twenty percent area is irrigated in Udhampur. Major crops of the districts are Maize, Wheat, Paddy, Mustard and Pulses like black gram (mash) and Green gram (moong). The other crops which have been making a significant impact on economy of the farmers are seasonal vegetables, potato, and fodder. There is ample scope for growing mushrooms, apiaries for honey and backyard poultry. Horticulture is another very important part of agriculture in these districts. Citrus and mango are important crops in Reasi and Pouni blocks while stone fruits and walnuts have great scope in higher

elevations. The district has immense potential for growing spices namely Onion, garlic, ginger and turmeric in specific pockets. The major crop rotations followed are as follows.

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

S. No	Farming system/enterprise
1	Maize-Wheat
2	Paddy-Wheat
3	Mash-Wheat
4	Maize- Mustard
5	Horticulture crops a: (Vegetables like Tomato, Cole crops, cucurbits, Brinjal and chilies. b. Fruit crops like Mango, Citrus, Guava, Litchi, Peach, plum and apricot. c. Garlic, Ginger and Turmeric are potential spices of some pockets

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1	Subtropical zone	This includes areas between 380-800m amsl. The lower belt of Reasi where the KVK is located falls in this zone. This area experiences hot summers followed by cold winters and area also experiences autumn frost. The major chunk of precipitation is received during monsoons. The soils are mostly sandy loam and clay loam with normal OM. Most of the area is rain fed with very little irrigation. The annual rainfall of the district is 1000 to 1100 mm. major chunk of it is received from may-September. The mean maximum and minimum temperature ranges between 35- 40 0C and 10-12 0C respectively. Agriculture in this area is diverse and is completely rain fed. The area has low productivity and low input usage.
2	Intermediate Zone	Situated between 800-1500m, amsl, this area experiences definite winters and a hot spell of summer. The major chunk of precipitation is received in July-Aug. Most part of Udhampur and Reasi falls in this zone. The annual rainfall of the district is about 1100 mm. The mean maximum and minimum temperature ranges between 35- 40 0C and 10-12 0C respectively. Agriculture in this area completely rain fed.
3	Temperate zone	It includes few areas falling above 1500m amsl. This area experiences chilling winters and major cropping season is Kharif, during which moisture is available for growing crops. These areas also experiences snow in winter thus minimum temperatures falls below zero degrees during these months.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Sandy loam	Medium O. M. content, Low to medium N and Medium phosphorus and High in K content. Illite is dominate clay mineral. The soils are slightly acidic.	
2	Clay loam	Medium O. M. content, Low to medium N and Medium phosphorus and High in K content. Illite is dominating clay mineral. The soils are slightly acidic.	

2.4 Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtls)	Productivity (Qtls /ha)
1	Maize	19800	396000	20.00
2	Wheat	14343	322075	22.46
2	Paddy	893	20092	22.50

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4	Pulses	2050	15150	7.00
5	Millets	12428	-	-

2.5 Weather data

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	79476 (Udh) 15889 (Reasi)		
<i>Indigenous</i>	316099 (Udh) 126575 (Reasi)		
Buffalo	136104 (Udh) 78780 (Reasi)		
Sheep			
<i>Crossbred</i>	175337 (Udh) 210382 (Reasi)		
<i>Indigenous</i>	245268 (Udh) 300474 (Reasi)		
Goats	161432 (Udh) 174774 (Reasi)		
Pigs			
<i>Crossbred</i>			
<i>Indigenous</i>			
Rabbits			
Poultry			
Hens	117564 (Udh) 89767 (Reasi)		
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

2.7 Details of Operational area / Villages (2018-19)

S.N o.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas

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1	Reasi	Reasi	Dasanu, Panasa, Gran More, Seela and Mari	Wheat, maize, Dhingri, black gram, green gram, Chickpea, fruits and vegetables.	1.Low production 2. Lack of awareness on improved varieties of pulses. 3. Insect-pest and disease attacks.. 4. No information on Weed management in cereals and pulses. 5. Low egg laying in local breeds of poultry.	1. Promotion of improved varieties of pulses. 2. Promotion of high yielding/improved varieties of cereals. 3. Integrated disease and insect-pest management. 4. Weed management in cereals and pulses. 5. Promotion of backyard poultry. 6. Management of loose smut and yellow rust of wheat. (7)Introduction of hybrid/improved varieties of vegetables
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2	Reasi	Pouni	Chaiter,Dadua,Judd, Lehar, Bharaoh, Malad, Talwara,Pouni,Kanha, Bhambla,Khairlad, Khairal, , Kansipatta, Kansibrahma	Wheat, maize, vegetables, Dhangri, spices, oilseeds, poultry farming.	1. Lack of knowledge of hybrid varieties of maize. 2. Use of conventional planting material for the spices. 3. Diseases in turmeric and ginger. 4. Occurrence of Paddy blast. 5. Loose smut and yellow rust diseases in wheat crop. 6. Lack of knowledge of scientific cultivation of vegetables. 7. Lack of knowledge of improved varieties of oilseeds and pulses. 8.Lack of knowledge on commercial organic vegetables growing 9.Senile orchards	1. Promotion of hybrid varieties of maize. 2. Promotion of backyard poultry. 3. Replacement of spices varieties. 4. Management of Rhizome rot in spices. 5. Promotion of improved varieties of improved varieties of oilseeds and pulses. 6. Management of loose smut and yellow rust of wheat. 7.Scientific mushroom cultivation 8.Promotion of commercial organic farming 9.Promotion of rejuvenation of orchards
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3	Reasi	Reasi	,Shafanoo.Fadeha,Rajwal,Dera, Tanda, Seri, Chumbian,Mansoo, Kanjali, Bhabbar, Kundra	Maize/wheat/vegetables/ poultry production/ sericulture/ dhingri/floriculture	1. Lack of availability of hybrid/high yielding varieties of cereals. 2. Lack of knowledge of scientific breeding, feeding and management of animals. 3. Lack of diseases and insect-pests management in crops. 4. Lack of awareness for fruit and vegetables processing. 5. Sericulture related seasonal problems. 6. Lack of knowledge of hybrid varieties of marigold. 7. Lack of knowledge of weedicides in cereals. 8. Lack of knowledge of scientific marigold cultivation	1. Promotion of new single cross hybrids of maize and high yielding varieties of wheat. 2. Insect and disease management in cereals. 3. Promotion and formation of SHGs. 4. Fruit and vegetable processing techniques. 5. Promotion of improved sericulture. 6. Promotion of hybrid varieties/improved varieties of marigold. 7. Management of weeds in cereals. 8. Promotion of scientific marigold cultivation

4.	Udhampur	Tikri	Chirai Muthal,Lehnu/Sundrani,Tikri	Maize/wheat/pulses/oilseeds/Poultry	1. Low yield of cereals due to unscientific cultivation. 2. Lack of awareness on improved varieties of oilseeds and pulses. 3. Lack of awareness on seed treatment in cereals. 4. Lack of awareness on weed management in maize. 5. Lack of knowledge of egg laying varieties of poultry.	1. Promotion of new varieties of cereals in the area. 2. Promotion of improved varieties of oilseeds and pulses. 3. Seed treatment in cereals. 4. Weed management in maize. 5. Promotion of egg laying varieties of poultry.
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5	Udhampur	Chenani	Dharamthal, Sudhmahadev, Basht, Chenani, ,Beli	Vegetables Maize/mash	Poor yields Old varieties Poor soil management and indiscriminate plant protection. Lack of knowledge of fruit processing. Lack of single cross new hybrids of maize.	1. Promotion of new hybrids of maize, integrated pest management. 2. introduction of new variety of mash 3. Promotion of olive cultivation. 4. Promotion of fruit processing in the area. 5. Introduction and evaluation of new vegetable hybrids.
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6.	Udhampur	Panchari	Panchari, Mir, Saddal, Dubi Galli	Poultry/maize/wheat/dairy	1. Low yield of cereals due to unscientific cultivation. 2. Lack of awareness on improved varieties of oilseeds and pulses. 3. Lack of awareness on seed treatment in cereals. 4. Lack of awareness on weed management in maize. 5. Lack of knowledge of egg laying varieties of poultry.	1. Awareness on new varieties of cereals in the area. 2. Awareness on new varieties of oilseeds and pulses. 3. Seed treatment in cereals. 4. Weed management in maize. 5. Awareness on egg laying varieties of poultry.
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7.	Reasi	Katra	Serwad/Numain/Bhangal/ Gern/Chamba,chakbhakta/ Moori/ Didimorh/ Agharjitto, Chamarya	Wheat, maize, vegetables, oilseeds,pulses,floricultu re, poultry	Low productivity of flowers. Low production of cereals. Lack of availability hybrid/impr oved varieties' of vegetables Lack of awareness of dhingri/mus hroom cultivation Lack of knowledge of scientific cultivation of oilseeds and pulses. Lack of knowledge of high yielding/hy brid varieties of horticultural crops Lack of scientific knowledge diversified agriculture	Awareness on hybrid/impr oved varieties of marigold in the area. Introduction of single cross maize hybrids. Superior vegetable seeds. Introduction of hybrid varieties of vegetables Promotion of improved varieties of oilseeds and pulses. Promotion of egg laying varieties of poultry. Introduction of new fruit crops varieties. Promotion of scientific diversificati on in agriculture
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8.	Reasi	Thuroo	Maslote/Khad/Padder/Dharmari/Sajoga/Thuroo	Maize/wheat/veg./poultry/mushroom cultivation/pulses	1. Low productivity of maize crop. 2. Lack of awareness of improved/hybrid varieties of vegetables. 3. Low production of pulses. 4. Lack of awareness of egg laying varieties of poultry 5. Lack of knowledge in scientific cultivation of dhingri/mushroom 6. Lack of technical knowledge of temperate fruits.	1. Introduction of single cross hybrids of maize. 2. Introduction of improved varieties of pulses. 3. Introduction of hybrid var. of vegetables. 4. Introduction of egg laying variety of poultry 5. Scientific cultivation of dhingri. 7. Promotion of scientific cultivation of temperate fruits
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9.	Reasi	Mahore	Shajroo/Sungdi/Bandi/Mahore	Maize/veg./poultry/mushroom cultivation/pulses/fruits	1. Low productivity of maize crop. 2. Lack of awareness of improved/hybrid varieties of vegetables. 3. Low production of pulses. 4. Lack of awareness of egg laying varieties of poultry 5. Lack of knowledge in scientific cultivation of dhingri/mushroom 6. Lack of knowledge of training and pruning in temperate fruits.	1. Introduction of single cross hybrids of maize. 2. Introduction of improved varieties of wheat. 3. Introduction of hybrid var. of vegetables. 4. Introduction of egg laying variety of poultry 5. Scientific cultivation of dhingri. 6. Scientific cultivation of fruit plants 7. Introduction of pruning and training of temperate fruits.
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10	Reasi	Paint hal	Paintha/Painthal, Dheerti, Sool and Sirah	Wheat, maize, vegetables, oilseeds,pulses,floricultu re, poultry	Low productivity of flowers. Low production of cereals. Lack of availability hybrid/impr oved varieties' of vegetables Lack of awareness of dhingri/mus hroom cultivation Lack of knowledge of scientific cultivation of oilseeds and pulses. Lack of knowledge of high yielding/hy brid varieties of horticultural crops Lack of scientific knowledge diversified agriculture	Awareness on hybrid/impr oved varieties of marigold in the area. Introduction of single cross maize hybrids. Superior vegetable seeds. Introduction of hybrid varieties of vegetables Promotion of improved varieties of oilseeds and pulses. Promotion of egg laying varieties of poultry. Introduction of new fruit crops varieties. Promotion of scientific diversificati on in agriculture
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11.	Reasi	Arnas	Arnas/Salal	Maize/veg./poultry/mushroom cultivation/pulses/fruits	1. Low productivity of maize crop. 2. Lack of awareness of improved/hybrid varieties of vegetables. 3. Low production of pulses. 4. Lack of awareness of egg laying varieties of poultry 5. Lack of knowledge in scientific cultivation of dhingri/mushroom (6) Lack of knowledge in scientific cultivation of temperate fruit plants	1. Introduction of single cross hybrids of maize. 2. Introduction of improved varieties of wheat. 3. Introduction of hybrid var. of vegetables. 4. Awareness on egg laying variety of poultry 5. Scientific cultivation of dhingri. 6. Scientific cultivation of fruit plants (7) Scientific cultivation of fruit plants.
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2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Cereals-Maize	Introduction of single cross commercial maize hybrids, Integrated Nutrient Management, weed management, common insect / pests and diseases 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.
Organic Farming	Promotion of organic farming, preparation of organic inputs

* An example for guidance only

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2018-19

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	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	16	40	61	90	403	90	403

3.A.1 FLDs Conducted under CFLDs on Oilseed

FLD (Oilseeds)			
Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement

3.A.2 FLDs Conducted under CFLDs on Pulses

FLD (Pulses)			
Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	45	62	800	1303	28	94	2800	8950

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Rural youth	8	6	120	136				
Extn. Functionaries	7	6	120	80				
Skill Dev.	2	2	40	40				

Livestock, poultry strains and fingerlings (No.)				Bio-products (Kg)			
7				8			
Target		Achievement		Target		Achievement	
						4000	

3.B. Abstract of interventions undertaken

Overall Record of Interventions Undertaken															
S. No	Thrust area	Crop/Enterprise	Identified Problem	Interventions											
				Title of OF T if any	Title of FL D if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products		
														N o.	K g

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	Tuber Crops	TOTAL
Varietal Evaluation	1								1
Seed / Plant production					1				1
Weed Management	2		1						3
Integrated Crop Management						1			1
Integrated Nutrient Management				1					1
Integrated Farming System						1			1
Mushroom cultivation									
Drudgery reduction									
Farm									

machineries									
Value addition									
Integrated Pest Management					2				2
Integrated Disease Management					3				3
Resource conservation technology									
Small Scale income generating enterprises									
TOTAL	3		1	1	6	2			13

* Any new technology, which may offer solution to a location specific problem but not tested earlier in a given micro situation.

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Tuber Crops	TOTAL
Varietal Evaluation									
Seed / Plant production									
Weed Management									
Integrated Crop Management					1				1
Integrated Nutrient Management									
Integrated Farming System									
Mushroom cultivation									
Drudgery reduction									
Farm machineries									
Post Harvest Technology									
Integrated Pest Management					1				1
Integrated Disease Management									

Resource conservation technology									
Small Scale income generating enterprises									
TOTAL					2				2

* Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	1							1
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL								

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL								

3.2. Achievements on technologies Assessed and Refined

3.2.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation		Varietal evaluation in wheat crop	4	4	0.4
Integrated Pest Management		Management of red pumpkin beetle in bottle gourd	4	4	0.2
		Organic management of fruit and shoot borer in brinjal.	4	4	0.2
		Organic management of pod borer in chickpea.	4	4	0.2
Integrated Crop Management					
		Application of different sprays for management of mango malformation	4	4	0.5
Integrated Disease Management		Early Detection of mastitis using California Mastitis Test and comparison of different antibiotics	4	4	20 Animals
		Management of rhizome rot in ginger	4	4	0.2
		Management of chilli wilt	4	4	0.2
Small Scale Income Generation Enterprises					
Weed Management		Evaluation of farmer practice with different weedicides in maize	4	4	0.4
		Integrated weed management in mash	4	4	0.4
		Weed management in wheat	4	4	0.4
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System		Application of NAA for management of fruit cracking in Litchi var. Dehradun	4	4	0.5
Seed / Plant					

<i>Thematic areas</i>	<i>Crop</i>	<i>Name of the technology assessed</i>	<i>No. of trials</i>	<i>Number of farmers</i>	<i>Area in ha (Per trail covering all the Technological Options)</i>
production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

3.2.2. Technologies Refined under various Crops

<i>Thematic areas</i>	<i>Crop</i>	<i>Name of the technology assessed</i>	<i>No. of trials</i>	<i>Number of farmers</i>	<i>Area in ha (Per trail covering all the Technological Options)</i>
Integrated Nutrient Management					
		Nutrient management using bio fertilizer organic inputs in ginger.	4	4	0.4
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises		Effect of transplanting time on yield of onion	4	4	0.2
Weed Management					
Resource Conservation Technology		Use of different mulching materials in tomato crop for higher yields	4	4	0.2

<i>Thematic areas</i>	<i>Crop</i>	<i>Name of the technology assessed</i>	<i>No. of trials</i>	<i>Number of farmers</i>	<i>Area in ha (Per trail covering all the Technological Options)</i>
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

3.2.3. Technologies assessed under Livestock and other enterprises

<i>Thematic areas</i>	<i>Name of the livestock enterprise</i>	<i>Name of the technology assessed</i>	<i>No. of trials</i>	<i>No. of farmers</i>
Evaluation of breeds				
Nutrition management	Poultry	Performance of Panchgavya in poultry production	5	5
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

3.2.4. Technologies Refined under Livestock and other enterprises

<i>Thematic areas</i>	<i>Name of the livestock enterprise</i>	<i>Name of the technology assessed</i>	<i>No. of trials</i>	<i>No. of farmers</i>
Evaluation of breeds				
Nutrition management	Livestock	Effect & Role of leaf meals on growth, production and parasitic control in sheep and	5	5

		goat		
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

B. Details of each On Farm Trial to be furnished in the following format

A. Technology Assessment

Trial 1

- 1) Title : Weed management in maize
- 2) Problem diagnose/defined : Low productivity due to weed in maize crop
- 3) Details of technologies selected for assessment
 /refinement : T1 Farmer's Practice: Two Hand weeding and hoeing after 20 and 45 DAS
 T2 Recommended: Pre-emergence Atrazine 1.5kg / ha
 T3 :Laudis 42% SC (tembotrione) 120 g /ha 25 DAS
- 4) Source of technology : SKUAST-J
- 5) Production system : Wheat-maize
 thematic area :
- 6) Thematic area : Weed management
- 7) Performance of the Technology with performance indicators :
 T1:20.4q/ha
 T2: 22.6 q/ha
 T3: 29.6 q/ha
- 8) Final recommendation for micro level situation : T3 gave the better results and farmers can use it for the eradication of weeds
- 9) Constraints identified and feedback for research : Lack of knowledge of weedicides and lack of availability of weedicides
- 10) Process of farmers participation and their reaction : Framers were keenly interested to use the quality weedicides as they were ready to adopt technology

B). 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
Maize	Rainfed	Low productivity due to weed in maize crop	Weed management in maize	4	T1 Farmer's Practice: Two Hand weeding and hoeing after 20 and 45 DAS T2 Recommended: Pre-emergence Atrazine 1.5kg / ha T3 :Laudis 42% SC (tembotrione) 120 g /ha 25 DAS	Yield	T1:20.4q/ha T2: 22.6 q/ha T3: 29.6 q/ha	T3 gave the better results and farmers can use it for the eradication of weeds gave the better results and farmers can use it for the eradication of weeds	Farmers were satisfied with

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1 Farmer's Practice: Two Hand weeding and hoeing after 20 and 45 DAS T2 Recommended: Pre-emergence Atrazine 1.5kg / ha T3 :Laudis 42% SC (tembotrione) 120 g /ha 25 DAS	T1:20.4q/ha T2: 22.6 q/ha T3: 29.6 q/ha	T1-26500 T2-29800 T3-33840	T1-1:2.28 T2-1:2.78 T3-1:3.02

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

Trial 2

- 1) Title : Integrated weed management in mash
- 2) Problem diagnose/defined : Low productivity due to weed in pulses
- 3) Details of technologies selected for assessment
/refinement : T1Farmer's Practice One Hand weeding after 30DAS
T2 Recommended:Pendimethalin@30 EC 1ltr/ha +1 HW 30 DAS
T3 :Imazethapyr100g/ha 15 and 30 DAS (50 g each)
- 4) Source of technology : SKUAST-J
- 5) Production system
thematic area : Rainfed
- 6) Thematic area : Integrated weed management
- 7) Performance of the
5.45 q/ha
7.2 q/ha
8.4 q/ha
- 8) Performance indicators :
Final recommendation for Technology with Imazethapyr100g/ha gave the better results as compared to T2 and T3
micro level situation :
- 9) Constraints identified and
feedback for research : Lack of knowledge of weedicides and lack of availability of weedicides
- 10) Process of farmers
participation and
their reaction : Farmers were satisfied with the results and were ready to use this
technology on their fields

B). 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
Mash(Black gram)	Rainfed	Low productivity due to weed in pulses	Integrated weed management in mash	4	T1Farmer's Practice One Hand weeding after 30DAS T2 Recommended:Pendimethalin@30 EC 1ltr/ha +1 HW 30 DAS T3 :Imazethapyr100g/ha 15 and 30 DAS (50 g each)	yield	5.45 q/ha 7.2 q/ha 8.4 q/ha	Imazethapyr100g/hagave the better results as compared to T2 and T3	Farmers were satisfied with the results and were ready to use this technology on their fields

*** No. of farmers**

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1Farmer's Practice One Hand weeding after 30DAS T2 Recommended:Pendimethalin@30 EC 1ltr/ha +1 HW 30 DAS T3 :Imazethapyr100g/ha 15 and 30 DAS (50 g each)	T1-5.45 q/ha T2-7.2 q/ha T3-8.4 q/ha	 T1-25500 T2-34500 T3-39700	 T1-1:2.21 T2-1:2.72 T3-1:3.12

***Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.**

**** Give details of the technology assessed or refined and farmer's practice**

Trial 3

- 1) Title : Management of red pumpkin beetle in bottle gourd
- 2) Problem diagnose/defined : Low productivity in bottle gourd due to red pumpkin beetle
- 3) Details of technologies selected for assessment
/refinement : T1-Farmer practice
T2-Acetamitrid 1gm/litre of water
T3-Spray of Chloropyriphos 20 EC@2ml/litre of water
- 4) Source of technology : SKUAST-J
- 5) Production system
thematic area : Rainfed
- 6) Thematic area : Integrated pest management
- 7) Performance of the Technology with
Performance indicators : T1:165 qt/ha
T2:210 qt/ha
T3:193 qt./ha
- 8) :Final recommendation for Technology with
micro level situation : T2 gave better results (210 qt./ha) as compared to T1(165 qt./ha) & T3 (193 qt./ha)
- 9) Constraints identified and
feedback for research : Lack of knowledge of pesticides and lack of availability of pesticides
- 10) Process of farmers
participation and
their reaction : Farmers were satisfied with the results and were ready to use this
technology on their fields

B). 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
Bottle gourd	Rainfed	Low productivity in bottle gourd due to red pumpkin beetle	Management of red pumpkin beetle in bottle gourd	4	T1-Farmer practice T2-Acetamitrid 1gm/litre of water T3-Spray of Chloropyriphos 20 EC@2ml/litre of water	yield	T1:165 qt/ha T2:210 qt/ha T3:193 qt./ha	T2 gave better results (210 qt./ha) as compared to T1(165 qt./ha) & T3 (193 qt./ha)	Farmers were satisfied with the results and were ready to use this technology on their fields

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1-Farmer practice T2-Acetamitrid 1gm/litre of water T3-Spray of Chloropyriphos 20 EC@2ml/litre of water	T1:165 qt/ha T2:210 qt/ha T3:193 qt./ha	T1-10100 T2-17200 T3-14100	T1-1:2.23 T2-1:2.82 T3-1:3.18

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

Trial 4

- 1) Title : Management of fruit cracking in Litchi var. Dehradun
- 2) Problem diagnose/defined : Low production in litchi due to fruit cracking.
- 3)Details of technologies selected for assessment
/refinement :T0= farmer practice (control)
T1=20ppm
T2= 30ppm
T3= 40ppm
- 4.Production system
thematic area : Rainfed
5. Thematic area : Fruit Production
6. Performance of the
Technology with
performance indicators T2 (30ppm) gave the better results(18.75 qt/ha) as compared to
T1(17.60qt./ha) ,
T3(16.1 qt./ha) & T0(14.67 qt./ha) .
7. Final recommendation for
micro level situation : T2 (30ppm) gave the better results(18.75 qt/ha) as compared to
T1(17.60qt./ha) ,T3(16.1 qt.
/ha) & T0(14.67 qt./ha) .
.
8. Constraints identified and
feedback for research : Lack of availability of quality growth regulators in Reasi distt.
- 9.Process of farmers
participation and
their reaction : Farmers were satisfied after observing the demonstrated fields of OFTs.

B). 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
Litchi	Rainfed	Low production in litchi due to fruit cracking	Management of fruit cracking in Litchi var. Dehradun	4	T0= farmer practice (control) T1=20ppm T2= 30ppm T3= 40ppm	Yield	T0-14.67 qt./ha T1- 17.60qt./ha T2- 18.75 qt/ha T3-16.1 qt./ha	T2 (30ppm) gave the better results(18.75 qt/ha) as compared to T1(17.60qt./ha) ,T3(16.1 qt./ha) & T0(14.67 qt./ha) .	Farmers were satisfied with the results and were ready to use this technology on their fields

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T0= farmer practice (control) T1=20ppm T2= 30ppm T3= 40ppm	T0-14.67 qt./ha T1-17.60qt./ha T2-18.75 qt/ha T3-16.1 qt./ha	T0-54000/ha T1-62400/ha T2-71500/ha T3-61300/ha	1:2.27 1:3.18 1:2.79

Trial 5
Technology Assessment

- 1) Title : Management of Ginger Rot.
- 2) Problem diagnose/defined : Low productivity due to weed in pulses
- 3) Details of technologies selected for assessment /refinement :
T1-Farmers' practice
T2-Recommended practice
(Seed treatment with Mancozeb+bavistin or Ridomil)
T3-Recommended practice + Drenching bavistin or ridomil
- 4) Source of technology : SKUAST-J
- 5) Production system
thematic area : Rainfed
- 6) Thematic area : Spices production
- 7) Performance of the Technology with performance indicators :
T1- 90 q/ha
T2- 125 q/ha
T3-140 q/a:
- 8) Final recommendation for micro level situation : T3-Recommended practice + Drenching bavistin or ridomil gave the \ better results
- 9) Constraints identified and feedback for research : Lack of availability of quality fungicides
- 10) Process of farmers participation and their reaction : Farmers were satisfied after observing the results of OFTs.

B). 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
Ginger	Rainfed	Low productivity of ginger due to rhizome rot of ginger	Management of Rhizome rot in Ginger.	3	T1-Farmers' practice T2-Recommended practice (Seed treatment with Mancozeb + bavistin or Ridomil) T3-Recommended practice + Drenching bavistin or ridomil	Yield	T1- 90 q/ha T2- 125 q/ha T3-140 q/a :	T3- Recommended practice + Drenching bavistin or ridomilgave the beter results	Farmers atisfied bserving ults of

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1-Farmers' practice T2-Recommended practice (Seed treatment with Mancozeb + bavistin or Ridomil) T3-Recommended practice + Drenching bavistin or ridomil	T1- 90 q/ha T2- 125 q/ha T3-140 q/a :	3,00,000 3,60,000 4,1,0000	1:2.48 1: 3.01 1: 3.35

Trial 6

- 1) Title : Early Detection of mastitis using California Mastitis Test and comparison of different antibiotics
- 2) Problem diagnose/defined : Low growth and milk productivity due to mastitis
- 3). Details of technologies selected for1 assessment/refinement:
 - T1: Enrofloxacin
 - T2:Gentamycin
 - T3: intramamry Cephalosporins
4. Source of technology : SKUAST-J
5. Production system thematic area: Poor milk yield due to mastitis
6. Thematic area : Disease Management
7. Performance of the Technology with performance indicators : Initial results were satisfactory and the whole year results awaited
8. Final recommendation for micro level situation : In progress
9. Constraints identified and feedback for research : Lack of awareness on use of antibiotic for mastitis control
10. Process of farmers participation and their reaction : Initial results were effective with good monitorial returns

2). Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology assessment	Parameters	Data on the parameter	Results of assessment	Feedback from the farmer	Justifi cation for refinement
1	2	3	4	5	6	7	8	9	10	11
Livestock		Low growth and milk production	Early Detection of mastitis using California Mastitis Test and comparison of different antibiotics	5	T1: Enrofloxacin T2:Gentamycin T3: intramammary Cephalosporins	Weight gain,growth,disease incidence ,milk yield	Disease diagnosis and normal milking	Early mastitis detection helped in timely use of antibiotics	T2 gave the best results with 80 % improvement in cases followed by T1 and T3.	40 per cent of cases of subclinical cases which were considered fit having one or two degree of positive samples.

* No. of farmers

Technology Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
12	13	14	15
T1: Enrofloxacin T2:Gentamycin T3: intramammary Cephalosporins	In progress	In progress	In progress

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

Trial 7:

- A. Technology Assessment
- 1) Title : Chilli wilt disease management.
 - 2) Problem diagnose/defined : Low yield of chilli due to chilli wilt
 - 3) Details of technologies selected for assessment
/refinement : T1-Farmers' practice (without Seed treatment).
T2-Recommended practice(Seed treatment with Carbendazim+Thiram 1:1 ratio) .
T3- T2 + Drenching with Carbendazim)
 - 4) Source of Technology: SKUAST-J
 - 5) Production system
thematic area : Rainfed
 - 6) Thematic area : Spices production
 - 7) Performance of the Technology with
performance indicators : Farmers were satisfied after observing the results of T3 i.e.130qt/ha
 - 8) Final recommendation for micro level situation : T3- T2 + Drenching with Carbendazim gives the better results
 - 9) Constraints identified and
feedback for research : Lack of knowledge of seed treatment in chilli
 - 10) Farmer participation and
their reaction : Farmers were satisfied after observing the results of OFTs.

B). 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
Chilli	Rainfed	Low productivity of chilli due to chilli wilt	Chilli wilt disease management.	3	T1-Farmers' practice (without Seed treatment). T2-Recommended practice(Seed treatment with Carbendazim+Thiram 1:1 ratio) .T3- T2 + Drenching with Carbendazim)	Yield	75.0 q/ha 105. q/ha 150.0 q/ha	T3 gave the better results	Farmers were satisfied after observing the results of OFTs.

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1-Farmers' practice (without Seed treatment). T2-Recommended practice(Seed treatment with Carbendazim+Thiram 1:1 ratio) .T3- T2 + Drenching with Carbendazim)	75.0 q/ha 105. q/ha 150.0 q/ha	3,05,000 3,65,000 4,20,000	1:2.65 1: 3.50 1:3.85

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

- A. Technology Assessment
- 1) Title : Organic management of pod borer in chickpea.
 - 2) Problem diagnose/defined : Low yield of organic chickpea due to pod borer
 - 3) Details of technologies selected for assessment
/refinement : T1-farmers practice
T2-Spray Neem Oil (3ml/lit. of water)
T3-Spray of panchgavya(10%)
 - 4) Source of Technology: SKUAST-J
 - 5) Production system
thematic area : Rainfed
 - 6) Thematic area : Pulses production
 - 7) Performance of the Technology with
performance indicators : Farmers were satisfied after observing the results of T2 i.e.19.70 qt/ha
 - 8) Final recommendation for micro level situation : T2(19.70 qt/ha) gave the best results as compared to
T1(7 qt/ha),T3-(17.6 qt.ha)
 - 9) Constraints identified and
feedback for research : Lack of knowledge of organic treatment of pod borer
 - 10) Farmer participation and
their reaction : Farmers were satisfied after observing the results of OFTs.

B). 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
Chilli	Rainfed	Low yield of organic chickpea due to pod borer	Organic management of pod borer in chickpea.	4	T1-farmers practice T2-Spray Neem Oil (3ml/lt. of water) T3-Spray of panchgavya(10%)	Yield	T2(19.70 qt/ha) gave the best results as compared to T1(7 qt/ha),T3- (17.6 qt.ha)	T2 gave the better results	Farmers were satisfied after observing the results of OFTs.

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1-farmers practice	7.0 q/ha	47400	1:2.21
T2-Spray Neem Oil (3ml/lt. of water)	19.70 q/ha	143000	1: 3.57
T3-Spray of panchgavya(10%)	17.6 q/ha	119400	1:3.10

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

Trial 9

- A. Technology Assessment
- 1) Title : Organic management of fruit and shoot borer in brinjal.
 - 2) Problem diagnose/defined : Low yield of organic brinjal due to fruit and shoot borer
 - 3) Details of technologies selected for assessment /refinement :
 - T1-farmers practice
 - T2-Spray Neem Oil (3ml/lt. of water)
 - T3-Spray of panchgavya(10%)
 - T4-Installation of pheromone traps.
 - 4) Source of Technology: SKUAST-J
 - 5) Production system thematic area : Rainfed
 - 6) Thematic area : Vegetables production
 - 7) Performance of the Technology with performance indicators : Farmers were satisfied after observing the results of T2 i.e.180 qt/ha
 - 8) Final recommendation for micro level situation : T2 T2(180 qt/ha) gave the best results as compared to T1-(95 qt/ha), T3 -(167.6 qt/ha) & T4(163.2 qt/ha) 1
 - 9) Constraints identified and feedback for research : Lack of knowledge of organic treatment of fruit and shoot borer
 - 10) Farmer participation and their reaction : Farmers were satisfied after observing the results of OFTs.

B). 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
Chilli	Rainfed	Low yield of organic brinjal due to fruit and shoot borer	Organic management of fruit and shoot borer in brinjal.	4	T1-farmers practice T2-Spray Neem Oil (3ml/lt. of water) T3-Spray of panchgavya(10%) T4-Installation of pheromone traps.	Yield	T2 T2(180 qt/ha) gave the best results as compared to T1-(95 qt/ha),T3 -(167.6 qt/ha) & T4(163.2 qt/ha)	T2 gave the better results	Farmers were satisfied after observing the results of OFTs.

* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
T1-farmers practice	95.0 q/ha	131000	1:2.10
T2-Spray Neem Oil (3ml/lt. of water)	180 q/ha	238000	1: 3.87
T3-Spray of panchgavya(10%)	167.0 q/ha	199200	1:3.21
T4-Installation of pheromone traps.	163.20 q/ha	177800	1:2.89

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

B. Technology Refinement

Trial 1

- 1) Title : Effect & Role of leaf meals on growth, production and parasitic control in sheep and goat
- 2) Problem diagnose/defined: Low growth and productivity due to nutrient and mineral deficiency
- 3) Details of technologies selected for assessment/refinement: T1-Farmer practice
T2-Leaf meal
T3-Complete Feed block
- 4) Source of technology : SKUAST-Jammu
- 5) Production system thematic area: Mal nourished animals due to nutrient and mineral deficiency in feed and fodders
- 6) Thematic area : Feed and nutrient management in sheep and goat
- 7) Performance of the Technology with performance indicators : T2 gave the better result and helped in small control of parasitic load in sheep and goats.
Decrease load of Eggs in feaces and overall improvement in health status and weight gain in comparison to other animals
- 8) Final recommendation for micro level situation : T2 gave the better result and helped in small control of parasitic load in sheep and goats.
- 9) Constraints identified and feedback for research : Lack of awareness on use of balanced ration and quality feed and fodders.
- 10) Process of farmers participation and their reaction : Farmers were satisfied with the results and were ready to use this technology on their fields

2). Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justifi cation for refinement
1	2	3	4	5	6	7	8	9	10	11
Sheep and goat		Low growth and production	Effect & Role of leaf meals on growth, production and parasitic control in sheep and goat	5	T1-Farmer practice T2-Leaf meal T3-Complete Feed block	Improved overall health status, increase feeding, drinking, increase milk yield,	Eggs count	T1-No decrease in eggs count T2-40 % decrease in egg count T3-10 % decrease in eggs count	Results were satisfactory and farmers were ready to adopt technology	Feed block and leaf meal can help to improve the health status of the animals

* No. of farmers

Technology Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
12	13	14	15
T1-Farmer practice T2-Leaf meal T3-Complete Feed block	Under process	Under process	Under process

*Field crops – kg/ha, * for horticultural crops -= kg/t/ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.

** Give details of the technology assessed or refined and farmer's practice

Trial 2

1	Title of Technology Assessed	Effect of transplanting time on the yield of onion.
2	Problem Definition	: Low yield of onion due to untimely transplanting.
3	Details of technologies selected for assessment	: T1-Farmers practice T2-25 th Dec. T3-15 th Jan. T4-25 th Jan.
4	Source of technology	: SKUAST-J
5	Production system and thematic area	: Wheat-maize veg.system
6	Performance of the Technology with performance indicators	: T1-140 qt/ha T2-285qt/ha T3-271 qt/ha T4-263 qt/ha
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Farmers are satisfied with the result of OFT and are ready to transplant the onion in time
8	Final recommendation for micro level situation	: Transplanting time 3rd week of Dec.(25 th of Dec.) was found best with the maximum result.
9	Constraints identified and feedback for research	:
10	Process of farmer's participation and their reaction	Farmers were satisfied with the result of OFT and were ready to transplant the onion crop in time.

<i>Crop/ enterprise</i>	<i>Farming situation</i>	<i>Problem definition</i>	<i>Title of OFT</i>	<i>No. of trials</i>	<i>Technology Refined</i>	<i>Parameters of refinement</i>	<i>Data on the parameter</i>	<i>Results of refinement</i>	<i>Feedback from the farmer</i>
1	2	3	4	5	6	7	8	9	10
Wheat	Rain fed	Low yield of onion due to untimely transplanting.	Effect of transplanting time on the yield of onion.	4	T1-Farmers practice T2-25 th Dec. T3-15 th Jan. T4-25 th Jan.	Yield	T1-140 qt/ha T2-285qt/ha T3-271 qt/ha T4-263 qt/ha	T2 gave the better results.	Farmers were satisfied after observing the results of OFT

<i>Technology Refined</i>	<i>Source of Technology</i>	<i>Production</i>	<i>Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)</i>	<i>Net Return (Profit) in Rs. / unit</i>	<i>BC Ratio</i>
11	12	13	14	15	16
T1-Farmers practice T2-25 th Dec. T3-15 th Jan. T4-25 th Jan.	SKUAST-Jammu	T1-140 qt/ha T2-285qt/ha T3-271 qt/ha T4-263 qt/ha	Qt/ha	115000 201000 172000 158000	1:2.17 1:3.69 1:3.11 1:2.82

Trial 3

1	Title of Technology Assessed	Use of different mulching materials in tomato crop for higher yields
2	Problem Definition	: Low yield of potato due to poor moisture
3	Details of technologies selected for assessment	: T1= Rice straw T2=Maize straw T3=Sawdust T4- farmers practice
4	Source of technology	: SKUAST-J
5	Production system and thematic area	: Wheat-maize veg.system
6	Performance of the Technology with performance indicators	: T1-240 qt/ha T2-270qt/ha T3-237 qt/ha T4-185 qt/ha
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Farmers are satisfied with the result of OFT and are ready to transplant the onion in time
8	Final recommendation for micro level situation	: Transplanting time 3rd week of Dec.(25 th of Dec.) was found best with the maximum result.
9	Constraints identified and feedback for research	:
10	Process of farmer's participation and their reaction	Farmers were satisfied with the result ofOFT and were ready to transplant the onion crop in time.

<i>Crop/ enterprise</i>	<i>Farming situation</i>	<i>Problem definition</i>	<i>Title of OFT</i>	<i>No. of trials</i>	<i>Technology Refined</i>	<i>Parameters of refinement</i>	<i>Data on the parameter</i>	<i>Results of refinement</i>	<i>Feedback from the farmer</i>
1	2	3	4	5	6	7	8	9	10
Wheat	Rain fed	Low yield of potato due to poor moisture	Use of different mulching materials in tomato crop for higher yields	4	T1= Rice straw T2=Maize straw T3=Sawdust T4- farmers practice	Yield	T1-240 qt/ha T2-270qt/ha T3-237 qt/ha T4-185 qt/ha	T2 gave the better results.	Farmers were satisfied after observing the results of OFT

<i>Technology Refined</i>	<i>Source of Technology</i>	<i>Production</i>	<i>Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)</i>	<i>Net Return (Profit) in Rs. / unit</i>	<i>BC Ratio</i>
11	12	13	14	15	16
T1= Rice straw T2=Maize straw T3=Sawdust T4- farmers practice	SKUAST-Jammu	T1-240 qt/ha T2-270qt/ha T3-237 qt/ha T4-185 qt/ha	Qt/ha	197000 211000 189000 148000	1:3.10 1:3.72 1:3.01 1:2.59

PART 4 - FRONTLINE DEMONSTRATIONS

4.A. Summary of FLDs implemented during 2018-19

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	OB C	Others	Total	
	Oilseeds	Rainfed	Kharif 2018												
		Rainfed	Rabi 2018	Gobi Sarson	DGS-1	-	Improved varieties	Improved variety	6	6	22	4	54	53	
		Rainfed	Rabi 2018	Sesamum	Pb. Til 2	-	Improved varieties	Improved variety	2	2				21	
	Pulses	Rainfed				-									
		Rainfed	Rabi 2018	Chickpea	GNG-1581	-	Improved varieties of pulses	Improved var. of chickpea	2	1.4	5	1	20	26	
		Rainfed	Kharif 2018	Black Gram	PU-31,Shekher-3	-	Improved varieties of Pulses	Improved var. of black gram	2	2.5	25	2	27	54	
	Cereals	Rainfed	Rabi 2018	wheat	WH-1080	-	High yielding varieties of wheat	Improved varieties	5	5	16	0	38	54	
		Rainfed	Kharif 2018	Maize	Double Deklab	Hybrid	Hybrid var.	Hybrid var	5	5	20	0	19	39	
	Millets														
	Floriculture	Rainfed	Kharif												

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	OB C	Others	Total	
		d	2018-19												
	Vegetables	Rainfed	2018-19	Okra, bottle gourd, bitter gourd, winter vegetables	ParavaniKranti, King of Market, Pride of India, Purple Vienna, Purple Top, VarshaUp haar etc. etc		Hybrid var. of vegetables	Hybrid var and improved varieties	2	2				45	
	Flowers														
	Fruit														
		Rainfed	2018-19	Dhingri	Pleoratus sp.		Scientific mushroom cultivation	Pleoratus sp.	-	460 bags	35	0	11	46	
	Spices and condiments														
	Commercial														

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Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	OB C	Others	Total	
	Medicinal and aromatic														
	Fodder	Rainfed	Rabi 2018-19	Oats	Kent	Improved variety	Improved varieties	Improved varieties	2	3	22	0	8	30	
		Rainfed	Kharif 2018-19	Sorghum	KH-105	Hyb.	Improved varieties	Improved varieties	2	2	15	0	5	20	
	Dairy														
	Poultry		2018-19	Back yard Poultry birds	Chabrown		Backyard Poultry framing	Chabrwon birds	3000	1200	90	5	25	120	
	Piggery														
	Sheep and goat														

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration				Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	OB C	Others	Total	
	Button mushroom														
	Vermicompost														
	IFS														
	Apiculture														
	Implements														
	Others (specify)														

4.A. 1. Soil fertility status of FLDs plots during 2018-19

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil (Kg/Acre)			Previous crop grown
									N	P	K	
	Oilseeds											

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Sl. N o.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil (Kg/Acre)			Previous crop grown
									N	P	K	
	Pulses											
	Cereals											
	Millets											
	Vegetables											
	Flowers											
	Fruit											
	Spices and condiments											
	Commercial											
	Medicinal and aromatic											

Sl. N o.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil (Kg/Acre)			Previous crop grown
									N	P	K	
	Fodder											
	Plantation											
	Dairy											
	Poultry											
	Piggery											
	Sheep and goat											
	Button mushroom											
	Vermicompost											

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil (Kg/Acre)			Previous crop grown
									N	P	K	
	IFS											
	Apiculture											
	Implements											
	Others (specify)											

B. Results of Frontline Demonstrations

4.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR

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							H	L	A										
Oilseeds	Improved varieties	Seasmum	-	Rainfed	21	2	6.6	5.2	6.0	3.6	38.88	12900	47100	34200	01:3.65	10800	27400	16600	01:2.53
	Improved varieties	DGS-1			53	6	13.0	7.0	10.0	5.9	69.49	13500	47300	33800	01:3.50	12200	31040	18840	01:2.54
			-	Rainfed															
Pulses	Improved var. of Black Gram	PU-31,Shekher-3	-	Rainfed	54	2.5	7.5	5.9	6.9	4.6	50.0	13200	47100	33900	01:3.56	13200	35500	22300	01:2.68
	Improved var. of Chickpea	GNG-1581	-	Rainfed	26	1.4	11.0	6.4	8.7	5.7	52.63	9750	44200	34450	01:04.53	8950	32600	23650	01:3.64
Cereals	Scientific maize cultivation	Double Deklab		Rainfed	39	5	39	17	28.0	16	75.0	14800	41500	26700	01:2.80	11080	21300	10220	01:1.92
	High yielding variety wheat	WH-1080		Rainfed	54	5	39.00	19.0	29.0	20	45.00	14050	38800	24750	01:2.76	9910	22500	12590	01:2.27
Millets																			

Crop	Name of the technology demonstrated	Variety	Hybrid	Farm ing situation	No. of De mo.	Ar ea (ha)	Yield (q/ha)				% Incre ase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Che ck		Gro ss Cos t	Gro ss Retu rn	Net Retu rn	** BCR	Gro ss Cos t	Gro ss Retu rn	Net Retu rn	** BCR
							H	L	A										
Vegetab les	High Yielding/ Hyb. Varieties of vegetable s	ParavaniKran ti, King of Market, Pride of India, Purple Vienna, Purple Top,,Varsha Uphaar etc. etc	Hyb./Impr oved	Rainf ed	45	2			220	160	50								
			-	Rainf ed															
Mushro om	Improved var. of Dhingri	Pleoratus	-	Rainf ed	46	46 0 ba gs			3Kg/ bag	-	-	-							
Flowers	Improved varieties of marigold																		
Fruit																			

Crop	Name of the technology demonstrated	Variety	Hybrid	Farm ing situation	No. of De mo.	Ar ea (ha)	Yield (q/ha)				% Incre ase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Che ck		Gro ss Cos t	Gro ss Retu rn	Net Retu rn	** BCR	Gro ss Cos t	Gro ss Retu rn	Net Retu rn	** BCR
							H	L	A										
Spices and condiments																			
Commercial																			
			-	Rainfed															
Medicinal and aromatic																			
Fodder	High Yielding varieties	KH-105	-	Rainfed	20	2	460	350	410	315	43.8	34500	61500	27000	1:1.78	30500	47250	16750	1:1.54
	High Yielding varieties	Sabzar		Rainfed	30	3	367	245	306	176	42.5	24700	48880	24120	1:1.97	22500	33500	13000	1.143

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST ; H – Highest Yield, L – Lowest Yield A – Average Yield

Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/ diseases etc.)

<i>Data on other parameters in relation to technology demonstrated</i>					
<i>Crop</i>	<i>Technology to be demonstrated</i>	<i>Variety/ Hybrid</i>	<i>Parameter with unit</i>	<i>Demo</i>	<i>Check</i>

4.B.2. Livestock and related enterprises

4.B.2. Livestock and related enterprises																	
Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy																	
Poultry	Back Yard Poultry	Chabrown	120	120			110	70	57.14	350	1215	900	01:03.6	210	500	290	01:02.4
Rabbitry																	
Pigerry																	
Sheep and goat																	
Duckery																	

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Others (pl.specify)																	
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* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)

<i>Data on other parameters in relation to technology demonstrated</i>																
<i>Parameter with unit</i>					<i>Demo</i>					<i>Check if any</i>						

4. B.3. Fisheries

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit) or (Rs./m2)				*Economics of check Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Common carps																	
Others (pl.specify)																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.)

<i>Data on other parameters in relation to technology demonstrated</i>																
<i>Parameter with unit</i>					<i>Demo</i>					<i>Check if any</i>						

4.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/species	No. of Demo	Units/ Area {m ² }	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)				*Economics of check (Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Button mushroom																	
Vermicompost																	
Apiculture																	

Others (pl.specify)																	
------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.)

<i>Data on other parameters in relation to technology demonstrated</i>		
<i>Parameter with unit</i>	<i>Demo</i>	<i>Local</i>

4.B.5. Extension and Training activities under FLD

<i>Sl.No.</i>	<i>Activity</i>	<i>No. of activities organised</i>	<i>Number of participants</i>	<i>Remarks</i>
1	Field days	8	168	
2	Farmers Training	62	1303	
3	Media coverage	55	Mass Scale	
4	Training for extension functionaries	6	80	
5	Others (Please specify) Campaigns	5	81	

5. 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										
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Water management										
Seed production										
Nursery										

management										
Integrated Crop Management										
Fodder production										
Production of organic inputs										
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										

Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
f) Spices										
Production and Management technology										
Processing and value addition										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
III Soil Health and Fertility Management										
Soil fertility management	1	22	3	25	9	0	9	31	3	34
Soil and Water Conservation										
Integrated Nutrient Management										
Production and use of organic inputs	1	13	1	14	8	1	9	21	2	23
Management of Problematic soils										
Micro nutrient deficiency in										

crops										
Nutrient Use Efficiency										
Soil and Water Testing										
IV Livestock Production and Management										
Dairy Management	1	4	7	11	0	4	4	4	11	15
Poultry Management										
Piggery Management										
Rabbit Management										
Disease Management	3	19	15	33	20	1	21	39	16	55
Feed management										
Production of quality animal products										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Income generation										

activities for empowerment of rural Women										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										

Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
X Capacity Building and Group Dynamics										
Leadership										

development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths	1	0	0	0	6	6	12	6	6	12
WTO and IPR issues	1	10	0	10	8	0	8	18	0	18
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
TOTAL	8	68	26	94	51	12	63	119	38	157
(B) RURAL YOUTH										
Mushroom Production										
Bee-keeping										
Integrated farming										
Seed production										
Production of organic inputs										
Integrated Farming										
Planting material production										
Vermi-culture										
Sericulture										
Protected cultivation of vegetable crops										
Commercial fruit production										
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Value addition										

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Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
TOTAL										
(C) Extension Personnel										
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected										

cultivation technology										
Formation and Management of SHGs										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
TOTAL										

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										
Weed Management	2	23	16	39	12	0	12	35	28	63
Resource Conservation Technologies	2	11	1	12	31	0	31	42	1	43

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Cropping Systems	1	1	0	1	29	2	31	30	2	32
Crop Diversification	1	10	3	13	4	0	4	17	0	17
Integrated Farming	2	5	23	28	16	4	20	21	27	48
Water management										
Seed production										
Nursery management										
Integrated Crop Management	1	7	0	7	10	2	12	17	2	19
Fodder production										
Production of organic inputs	1	7	3	10	7	0	7	14	3	17
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising	1	2	2	4	9	0	9	11	2	13
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
b) Fruits										
Training and Pruning	1	0	0	0	21	0	21	21	0	21
Layout and Management of Orchards	1	17	0	17	0	0	0	17	0	17
Cultivation of Fruit	1	0	0	0	17	7	24	17	7	24
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	1	0	0	0	10	5	15	10	5	15
Plant propagation techniques	3	21	1	22	41	0	41	62	1	63

c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
f) Spices										
Production and Management technology										
Processing and value addition										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition	1	19	4	24	6	4	10	25	8	33
III Soil Health and Fertility Management										
Soil fertility management	1	19	4	23	6	4	10	25	8	33
Soil and Water Conservation	1	16	9	25	0	0	0	16	9	25
Integrated Nutrient Management	1	10	3	13	12	9	21	22	12	34
Production and use of organic inputs	1	20	0	20	3	0	3	23	0	23
Management of										

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Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency	1	6	0	6	21	0	21	27	0	27
Soil and Water Testing	1	24	0	24	0	0	0	24	0	24
IV Livestock Production and Management										
Dairy Management	1	2	0	2	14	3	17	16	3	19
Poultry Management	1	11	0	11	8	0	8	19	0	19
Piggery Management										
Rabbit Management										
Disease Management	2	0	0	0	43	0	43	43	0	43
Feed management										
Production of quality animal products	1	16	0	16	3	0	3	19	0	19
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	5	16	21	0	0	0	5	16	21
Income generation										

activities for empowerment of rural Women										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish										

culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	2	37	1	38	9	0	9	46	1	47
Organic manures production	1	17	4	21	4	0	4	21	4	25
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
X CapacityBuilding and Group Dynamics										
Leadership development	2	8	0	8	11	8	19	19	8	27

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Group dynamics	1	9	5	14	7	14	21	16	19	35
Formation and Management of SHGs	5	0	34	34	0	3	3	0	37	37
Mobilization of social capital	3	47	0	47	48	10	58	95	10	105
Entrepreneurial development of farmers/youths	6	59	6	65	29	12	41	88	18	106
WTO and IPR issues	3	26	0	26	38	0	38	64	0	64
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
TOTAL	54	455	135	590	469	87	556	924	222	1146
(B) RURAL YOUTH										
Mushroom Production										
Bee-keeping										
Integrated farming										
Seed production										
Production of organic inputs										
Integrated Farming										
Planting material production										
Vermi-culture	1	7	1	8	19	2	21	26	3	29
Sericulture										
Protected cultivation of vegetable crops	1	0	0	0	15	5	20	15	5	20
Commercial fruit production	1	11	0	11	3	0	3	11	3	14
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	1	21	1	22	3	0	3	24	1	25
Training and pruning of orchards										
Value addition	1	2	25	27	0	1	1	2	26	28
Production of quality animal products										

Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	16	2	18	2	0	2	18	2	20
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
TOTAL	6	57	29	86	42	8	50	99	37	136
(C) Extension Personnel										
Productivity enhancement in field crops	1									10
Integrated Pest Management										
Integrated Nutrient management	1									14
Rejuvenation of old orchards										
Protected cultivation technology										
Formation and Management of SHGs										
Group Dynamics										

and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals	1									15
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs	1									14
Gender mainstreaming through SHGs	2									27
TOTAL	6									80

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										
Weed Management	2	23	16	39	12	0	12	35	28	63
Resource Conservation Technologies	2	11	1	12	31	0	31	42	1	43
Cropping Systems	1	1	0	1	29	2	31	30	2	32
Crop Diversification	1	10	3	13	4	0	4	17	0	17
Integrated Farming	2	5	23	28	16	4	20	21	27	48
Water management										
Seed production										
Nursery										

management										
Integrated Crop Management	1	7	0	7	10	2	12	17	2	19
Fodder production										
Production of organic inputs	1	7	3	10	7	0	7	14	3	17
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising	1	2	2	4	9	0	9	11	2	13
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
b) Fruits										
Training and Pruning	1	0	0	0	21	0	21	21	0	21
Layout and Management of Orchards	1	17	0	17	0	0	0	17	0	17
Cultivation of Fruit	1	0	0	0	17	7	24	17	7	24
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	1	0	0	0	10	5	15	10	5	15
Plant propagation techniques	3	21	1	22	41	0	41	62	1	63
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of										

ornamental plants										
Propagation techniques of Ornamental Plants										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
f) Spices										
Production and Management technology										
Processing and value addition										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition	1	19	4	24	6	4	10	25	8	33
III Soil Health and Fertility Management										
Soil fertility management	2	41	7	48	15	4	19	56	11	67
Soil and Water Conservation	1	16	9	25	0	0	0	16	9	25
Integrated Nutrient Management	1	10	3	13	12	9	21	22	12	34
Production and use of organic inputs	2	33	1	34	11	1	12	44	2	46
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency	1	6	0	6	21	0	21	27	0	27
Soil and Water Testing	1	24	0	24	0	0	0	24	0	24

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IV Livestock Production and Management										
Dairy Management	2	6	7	13	14	7	21	20	14	34
Poultry Management	1	11	0	11	8	0	8	19	0	19
Piggery Management										
Rabbit Management										
Disease Management	5	19	15	34	43	20	64	82	35	117
Feed management										
Production of quality animal products	1	16	0	16	3	0	3	19	0	19
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	5	16	21	0	0	0	5	16	21
Income generation activities for empowerment of rural Women										
Location specific drudgery reduction technologies										
Rural Crafts										

Women and child care										
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
VII Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										

Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	2	37	1	38	9	0	9	46	1	47
Organic manures production	1	17	4	21	4	0	4	21	4	25
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
X Capacity Building and Group Dynamics										
Leadership development	2	8	0	8	11	8	19	19	8	27
Group dynamics	1	9	5	14	7	14	21	16	19	35
Formation and Management of SHGs	5	0	34	34	0	3	3	0	37	37
Mobilization of social capital	3	47	0	47	48	10	58	95	10	105
Entrepreneurial development of	7	59	6	65	35	18	53	94	24	118

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farmers/youths										
WTO and IPR issues	4	36	0	36	46	0	46	82	0	82
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
TOTAL	62	523	161	684	520	99	619	1043	260	1303
(B) RURAL YOUTH										
Mushroom Production										
Bee-keeping										
Integrated farming										
Seed production										
Production of organic inputs										
Integrated Farming										
Planting material production										
Vermi-culture	1	7	1	8	19	2	21	26	3	29
Sericulture										
Protected cultivation of vegetable crops	1	0	0	0	15	5	20	15	5	20
Commercial fruit production	1	11	0	11	3	0	3	11	3	14
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	1	21	1	22	3	0	3	24	1	25
Training and pruning of orchards										
Value addition	1	2	25	27	0	1	1	2	26	28
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										

Poultry production	1	16	2	18	2	0	2	18	2	20
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
TOTAL	6	57	29	86	42	8	50	99	37	136
(C) Extension Personnel										
Productivity enhancement in field crops	1									10
Integrated Pest Management										
Integrated Nutrient management	1									14
Rejuvenation of old orchards										
Protected cultivation technology										
Formation and Management of SHGs										
Group Dynamics and farmers organization										
Information networking among farmers										

Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals	1									15
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs	1									14
Gender mainstreaming through SHGs	2									27
TOTAL	6									80

Note: Please furnish the details of above training programmes as Annexure in the proforma given below

Date	Clientele	Title of the training programme	Discipline	Thematic area	Duration in days	Venue (Off / On Campus)	Number of other participants			Number of SC/ST			Total number of participants		
							Male	Female	Total	Male	Female	Total	Male	Female	Total
10.04.2018	Farmers	Health and disease management in animals	Animal Husbandry	IDM	1	On Campus	5	0	5	5	0	5	10	0	10
18.04.2018	Farmers	Integrated nutrient management in fruit crops	Horticulture	INM	1	Off Campus	0	0	0	17	7	24	17	7	24
20.04.2018	Farmers	New released varieties in vegetable crops	Horticulture	SHGs	1	Off Campus	2	2	4	9	0	9	11	2	13

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20.0 4.20 18	Farm ers	commeri cal methods of grafting	Horticul ture	Propagatio n Technique s	1	Off Camp us	0	0	0	20	0	20	20	0	20
	Farm ers	training program me on self help groups manage ment	Extensio n Educati on	SHGs	1	Off Camp us	0	14	14	0	0	0	0	14	14
27.0 4.20 18	Farm ers	Role of vermico mpost Inimprov ing soil health	Agrono my	Organic Farming	1	Off Camp us	27	1	28	0	0	0	27	1	28
11.0 5.20 18	Farm ers	Methods ad time for collectio n of soil and water samples	Horticul ture	Soil Sampling	1	Off Camp us	24	0	24	0	0	0	24	0	24
14.0 5.20 18	Farm ers	Training on soil testing and its importan ce	Agrono my	Layout and manageme nt of orchards	1	Off Camp us	18	2	20	0	0	0	18	2	20
16.0 5.20 18	Farm ers	Entrepre neurship develop ment in agricultu re	Extensio n Educati on	Entrepre neurship developm ent	1	Off Camp us	4	4	8	5	4	9	9	8	17
21.0 5.20 18	Farm ers	Scientific interactio n of Kharif crops	Agrono my	ICM	1	Off Camp us	7	0	7	10	2	12	17	2	19
29.0 5.20 18	Farm ers	Entrepre neurship develop ment in organic vegetable s	Extensio n Educati on	Entrepre neurship developm ent	1	Off Camp us	9	5	14	0	1	1	9	6	15
30.0 5.20	Farm ers	Formatio n and	Extensio n	SHGs	1	Off Camp	9	5	14	7	14	21	16	19	35

18		management of farmers club	Education			us									
01.0 6.20 18	Farmers	Micro irrigation and its benefits in Horticulture		Micro irrigation	1	Off Campus	0	0	0	10	5	15	10	5	15
06.0 6.20 18	Farmers	commercial methods of propagation	Horticulture	methods of propagation	1	Off Campus	18	0	18	18	0	18	36	0	36
07.0 6.20 18	Farmers	Formation of self help groups	Extension Education	SHGs	1	Off Campus	21	0	21	3	0	3	24	0	24
28.0 6.20 18	Farmers	zero budgeting and natural farming	Agronomy	Organic Farming	1	Off Campus	17	4	21	4	0	4	21	4	25
06.0 7.20 18	Farmers	organic farming and sustainable agriculture	Extension Education	Organic Farming	1	On Campus	13	1	14	8	1	9	21	2	23
10.0 7.20 18	Farmers	Training programme on agri entrepreneurship development in rural areas	Extension Education	Entrepreneurship development	1	Off Campus	12	1	13	2	0	2	14	1	15
12.0 7.20 18	Farmers	Health disease management in large ruminants	Animal Science	IDM	1	On Campus	0	15	15	2	1	3	2	16	18
18.0 7.20	Farmers	Training program	Extension	ICT	1	Off Campus	17	0	17	0	0	0	17	0	17

18		me on various agriculture schemes for rural development	Educational			us									
27.0 7.20 18	Farmers	Disease management in poultry farming	Animal Science	IDM	1	Off Campus	0	0	0	7	9	16	7	9	16
30.0 7.20 18	Farmers	Training programme on marketing led extension	Extension Education	Marketing led extension	1	Off Campus	10	0	10	11	0	11	21	0	21
31.0 7.20 18	Farmers	Layout and design of citrus planting material for orchards	Horticulture	Layout and design of for orchards	1	Off Campus	17	0	17	3	0	3	20	0	20
16.0 8.20 18	Farmers	Integrated farming system model for rural areas	Agronomy	IFS	1	Off Campus	0	23	23	0	0	0	0	23	23
24.0 8.20 18	Farmers	role of vermicompost in soil health	Extension Education	Organic Farming	1	Off Campus	7	3	10	7	0	7	14	3	17
30.0 8.20 18	Farmers	Training programme on different Agr information sources for rural development	Extension Education	ICT	1	Off Campus	0	0	0	6	8	14	6	8	14
07.0 9.20 18	Farmers	Value addition of fruit	Hort.	Value addition	1	Off Campus	5	16	21	0	0	0	5	16	21

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		and vegetables													
12.0 9.20 18	Farm ers	Potential of organic farming availabili ty of organic inputs	Agrono my	SHGs	1	Off Camp us	20	0	20	3	0	3	23	0	23
27.0 9.20 18	Farm ers	integrate d nutrient manage ment in Rabi crops	Agrono my	INM	1	Off Camp us	10	3	13	12	9	21	22	12	34
05.1 0.20 18	Farm ers	Climate change and sustainable agriculture	Extensio n Educati on	Organic Farming	1	On Camp us	10	10	20	8	0	8	18	10	28
13.1 0.20 18	Farm ers	Scientific cultivat ion of crops	Agrono my	ICM	1	Off Camp us	10	3	13	4	0	4	14	3	17
09.1 0.20 18	Farm ers	Training program me on various agricultu re schemes	Extensio n Educati on	Agril. Schemes/ Programm es	1	Off Camp us	14	0	14	4	0	4	18	0	18
10.1 0.20 18	Farm ers	Entrepre neurship develop ment in agricultu re	Extensio n Educati on	Sustainabl e agriculture	1	On Camp us	4	0	4	6	6	12	10	6	16
16.1 0.20 18	Farm ers	Skill develop ment in grafting and budding of fruit crops	Hort.	Propagatio n techniques	1	Off Camp us	21	1	22	3	0	3	24	1	25
23.1 0.20 18	Farm ers	Trainig program me on farmer produce organisti on	Extensio n Educati on	FPOs	1	Off Camp us	16	0	16	20	1	21	36	1	37
25.1	Farm	Climate	Extensio	Climate	1	Off	16	0	16	5	0	5	21	0	21

0.20 18	ers	change and sustainab le agricultu re	n Educati on	Change		Camp us									
06.1 1.20 18	Farm ers	Entrepre neurship develop ment in floricultu re	Extensio n Educati on	Entrepren eurship developm ent	1	Off Camp us	13	0	13	7	0	7	20	0	20
15.1 1.20 18	Farm ers	Formation manageme nt and strengtheni ng of SHGs	Extensio n Educati on	SHGs	1	Off Camp us	0	9	9	0	3	3	0	12	12
18.1 1.18	Farm ers	Dairy manage ment and hygenic milk productio n	Animal Science	Dairy Farming	1	On Camp us	0	4	4	4	11	15	4	15	19
2.11 .18	Farm ers	Intergrat ed weed manage ment in Rabi crops	Agrono my	IWM	1	Off Camp us	10	15	25	3	0	3	13	15	28
29.1 1.18	Farm ers	Sciemtifi c cultivatio n of Rabi Crops	Agrono my	ICM	1	Off Camp us	1	0	1	29	2	31	30	2	32
30.1 1.18	Farm ers	Disease manage ment in sheep and goat farming	Animal Science	IDM	1	Off Camp us	16	0	16	3	0	3	19	0	19
4.12 .18	Farm ers	Intergrated farming system for sustainable livelihood	Agrono my	IFS	1	Off Camp us	5	0	5	16	4	20	21	4	25
5.12 .18	Farm ers	Importan ce of soil health & Soil health	Agrono my	ICT	1	On Camp us	22	3	25	9	0	9	31	3	34

		card													
6.12.18	Farmers	Commercial floriculture Marigold cultivation as enterprise	Hort.	Entrepreneurship development	1	Off Campus	19	4	23	6	4	10	25	8	33
15.12.18	Farmers	Poultry vaccination and disease control	Animal Science	IDM	1	Off Campus	11	0	11	8	0	8	19	0	19
14.12.18	Farmers	Soil health improvement through organic farming	Agronomy	Soil health	1	Off Campus	15	1	16	9	1	10	24	2	26
15.12.18	Farmers	Clean and hygienic milk production	Animal Science	Dairy Farming	1	Off Campus	0	0	0	21	0	21	21	3	3
16.12.18	Farmers	Training and pruning of deciduous fruit crops	Hort.	Training and pruning in fruit crops	1	Off Campus	2	0	2	14	3	17	16	0	0
18.12.18	Farmers	Sustainable agriculture and environment protection	Extension Education	Sustainable agriculture	1	Off Campus	0	0	0	22	0	22	22	0	22
11.1.19	Farmers	Intergated weed management in rabi Crops	Agronomy	IWM	1	Off Campus	13	1	14	9	0	9	22	1	23
14.1.19	Farmers	Soil health management and sustainable production	Soil Science	Soil health management	1	Off Campus	16	9	25	0	0	0	16	9	25
22.1.19	Farmers	Entrepreneurship development in floriculture	Extension Education	Entrepreneurship development	1	Off Campus	0	0	0	9	3	12	9	3	12
17.1.19	Farmers	conservation agriculture for sustainable agriculture	Agronomy	conservation agriculture	1	Off Campus	9	1	10	8	0	8	17	1	18
21.1.19	Farmers	Disease management in	Animal Science	IDM	1	On Campus	14	0	14	13	0	13	27	0	27

		small ruminants													
23.1.19	Farmers	Vermicompost production techniques	Agronomy	Organic Farming	1	Off Campus	11	0	11	0	0	0	11	0	11
30.1.19	Farmers	Formation, Management and Strengthening of SHGs	Ext.Edu.	SHGs	1	Off Campus	0	11	11	0	0	0	0	11	11
1.2.19	Farmers	Formation, Management and Strengthening of SHGs	Extension Education	SHGs	1	Off Campus	0	12	12	0	0	0	0	12	12
11.2.19	Farmers	Disease Management in Livestock	Animal Science	IDM	1	Off Campus	0	0	0	26	0	26	26	0	26
15.2.19	Farmers	Formation management of Farmer Club	Extension Education	SHGs	1	Off Campus	8	8	16	5	0	5	13	8	21
27.2.19	Farmers	IFS for livelihood of farmers	Agronomy	IFS	1	Off Campus	21	0	21	2	0	2	23	0	23
8.3.19	Farmers	zero budgeting and natural farming	Agronomy	Organic Farming	1	Off Campus	15	0	15	6	0	6	21	0	21
23.3.19	Farmers	Training prog. on various agril. Schemes and programmes	Ext.Edu.	ICT	1	Off Campus	24	9	33	0	0	0	24	9	33
12.12.18	Ext. Personnel	SHGs/FP Os formation	Ext.Edu.	SHGs	1										14

		n and women empowerment													
17.1 2.18		INM in fruit crops	Hort.	INM	1										14
4.1. 19		Formation, management and strengthening of SHGs	Ext.Edu.	SHGs	1										12
4.2. 19		conservation agriculture for sustainable agriculture	Agronomy	conservation agriculture	1										10
12.3 .19		Organic farming - principles & practices	Agronomy	Organic farming	1										14

(D) Vocational training programmes for Rural Youth

Crop / Enterprise	Date	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self employed after training			Number of persons employed elsewhere
					Male	Female	Total	Type of units	Number of units	Number of persons employed	
Floriculture	21-24-5-18	Entrepreneurship in post harvest management & processing for value addition of fruits	Value addition	4 days	2	26	28		10	10	2
Fruit	19-	Vermicompost	Organic	4 days	26	3	29		12	6	1

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Crops	24.7.18	ost as an enterprise for rural youth	farming								
Fruit Crops	21-24.8.18	Poultry farming as an enterprise	BYP	3 days	18	2	20		8	3	1
Floriculture	12-15.9.18	Entrepreneurship development in vegetables growing	Entrepreneurship development	4 days	15	5	20		20	14	2
Floriculture	4-8.10.2019	Skill dev. Training on grafting & budding	Propagation techniques	4 days	24	1	25		5	3	2
Vermicomposting	17-20.10.18	Entrepreneurship dev. In horticulture	Entrepreneurship dev.	4 days	14	0	14		14	4	0

*training title should specify the major technology /skill transferred

(E) Sponsored Training Programmes conducted by KVK

Sl.No	Date	Title	Discip line	Them atic area	Durati on (days)	Client (PF/R Y/EF)	No. of course s	No. of Participants									Spo nsor ing Age ncy	A mo unt of fund recei ved (Rs.)
								Others			SC/ST			Total				
								Male	Fema le	Total	Male	Femal e	Total	Male	Femal e	Total		
1	13-9-2018 to 17-10-2018	Skill dev.tra ining progra mme on propag ation of sub- tropica l fruit plants	Hort.	propag ation of sub- tropica l fruit plants	35 days	RY	10	22	1	23	2	0	2	24	1	25	Dept t. of Hort. ,Udh .	.55 lack
2.	17-9-2018 to 26-10-2018	Skill dev.tra ining progra mme on propag ation of sub- tropica l fruit plants	Hort.	propag ation of sub- tropica l fruit plants		RY	10	17	0	17	5			22	0	22	Deptt . of Hort. ,Reas i	.55 lack

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7	Dec.2018	Training programme on commercial agriculture	Agri.	Commercial agriculture	1	Farmers	3	35	0	35	8			43	0	43	Deptt. of Agri., Reasi	
8.	Jan.,2019	Training programme on commercial agriculture	Agri.	Commercial agriculture	1	Farmers	2	15	10	25	10			22	13	35	Deptt. of Agri., Reasi	
9	Jan.2019	Commercial floriculture	Floriculture	floriculture	1	Farmers	3	50	25	75	49			80	44	124	Deptt of floriculture	
10	Jan.,2019	Commercial hort.	Hort.	Hort.	1	Farmers	2	20	7	27	17			28	16	44	Deptt. of Hort.	
11	Feb,2019	Commercial floriculture	Floriculture	floriculture	1	Farmers	4	25	8	33	21			40	14	54	Deptt of floriculture	

(F) Skill Development Training under ASCI Conducted by selected KVKs

Sl.No	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/RV/EF)	No. of Participants								
							Others			SC/ST			Total		
							Male	Female	Total	Male	Female	Total	Male	Female	Total
1	3.12.2018 to 11.01.2019	Vermicompost producer	Agronomy	Organic Farming	30 day	RY	15	14	0	14	6	0	6	20	0
2.	11.1.2019 to 10.2.2019	Small Poultry farmer	Animal Science	BYP	30	RY	16	8	0	8	12	0	12	20	0
Total															

6. Extension Activities (including activities of FLD programmes)

Sl. No.	Nature of Extension Activity	Topic/ crop	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	Wheat,5-4-2018	1	12	5	17	-	-	--	-	-	-	12	5	17
2	Field Day	Oat,12-4-2018	1	2	0	3	19	12	31	-	-	-	21	12	33
3	Field day	Chickpea,11-4-2018	1	10	11	21	-	-		-	-	-	10	11	21
4	Field Day	Mustard,14-04-2018	1	12	1	13	0	0	0	-	-	-	12	1	13
5	Field Day	Maize,27-9-2018	1	13	3	16	5	0	5	-	-	-	18	3	21
6	Field Day	Mash,8-10-2018	1	11	0	11	6	0	6	-	-	-	17	0	17
7	Field Day	Sorghum,12-10-2018	1	20	0	20	6	0	6	-	-	-	26	0	26
8	Field Day	Maize,22-10-2018	1	13	0	13	7	0	7	-	-	-	20	0	20
	Total		8	93	20	113	43	12	55	--	-	-	136	32	168
9	KisanMela														
1	KisanMela(attended)		7												2800
	Total		7												2800
1	KisanGhosthi		2												48
1	Exhibition		12												3240

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1	Film Show		11												270
1	Method Demonstrations														
1	Farmers Seminar														
1	Workshop		4												
1	Group meetings		4												170
1	Lectures delivered as resource persons		28												390
1	Newspaper coverage		59												
2	Radio talks		1												
2	TV talks		11												
2	Popular articles		90												
2	Extension Literature		8												3000
2	Advisory Services		15												
2	Scientific visit to farmers field		32												83
2	Farmers visit to KVK														1080
2	Diagnostic visits														73
2	Exposure visits		2												50
2	Ex-trainees Sammelan														
3	Soil health Camp		1												89
3	Animal Health Camp		1												50
3	Agri mobile clinic														
3	Soil test campaigns		2												85
3	Farm Science Club Conveners meet														
3	Self Help Group Conveners meetings		6												62
3	Mahila Mandals Conveners meetings		5												40

3	Celebration of important days (specify) ICAR Foundation Day, World Soil Day, World ,Mahila Kisan Divas, Nutrition Week, National Youth Day etc.															450
	Grand Total															

* Example for guidance only

6. B. Kisan Mobile Advisory Services

Kisan Mobile Advisory									
Name of the KVK	No. of farmers Covered	No. of Advisories Sent	Type of messages						
			Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Any other
KVK, Reasi	75	75	30	25		10	10		

6.C. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS during 2018-19

No. of Technology week celebrated	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies			
	Lectures organised			
	Exhibition			
	Film show			
	Fair			
	Farm Visit			
	Diagnostic Practicals			
	Distribution of Literature (No.)			
	Distribution of Seed (q)			
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)			
	Bio Fertilizers (q)			
	Distribution of fingerlings			
	Distribution of Livestock specimen (No.)			
	Total number of farmers visited the technology week			

7. Production and supply of Technological products

A) SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS					
	Wheat	WH-1080	25qt(approx.)	40600	70
	Maize	Double Deklab	25qt.	24000	
	Oat	Sabzar	3 qt		52
OILSEEDS					
	Mustard	DGS-1	0.80 qt		
PULSES					

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	Blackgram	PU-31	0.85	14400	101
	Chickpea	GNG-1581	0.70 qt.	18294	50
	Pea	Parkash	0.15 qt		24
VEGETABLES					
	Okra	Varsha Uphar	0.15 qt	900	15
FLOWER CROPS					
OTHERS (Specify)					
	Daincha		0.60 qt		

*An example for guidance only

B) PLANTING MATERIALS

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS					
SPICES					
VEGETABLES					
	Vegetables Seedlings	Rupali, King of Market, Pride of India,N-53 etc	2000		
FOREST SPECIES					
ORNAMENTAL CROPS					
	Marigold Seedlings	Hybrid,Pusa Narangi & Pusa Basati	7500		
PLANTATION					

CROPS					
	Fruit plant seedlings	Amrapali,peacn nut,walnut etc.	1800		
Others (specify)					

*An example for guidance only

C) BIO PRODUCTS

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

D) LIVESTOCK

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
Cattle						
SHEEP AND GOAT						

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POULTRY						
FISHERIES						
Others (Specify)						

* An example for guidance only

PART 8 – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION

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

(A) **KVK News Letter** – (Name, Date of start, periodicity, number of copies distributed, etc.)

(B) **KVK e-News Letter** – (Name, Date of start, periodicity, Name of the Website uploaded)

(C) Literature developed/published

<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
Research papers(published in 2018-19)	Use of Information and Communication Technologies by the farmers of hilly areas of J&K. Journal of Krishi Vigyan.pp.244-246	Dr.Banarsi Lal & Sh. Jagdish Kumar	
	Training strategies preferred by the Horticulture Extension Personnel in Jammu region of Jammu and Kashmir State. Journal of Krishi Vigyan.pp238-243	Dr.Arinder Kumar,Dr. SK Kher, Dr.Banarsi Lal,Dr.Rakesh Nanda, Dr.R.Sharma & Dr.Akash Sharma	
	Information source utilization pattern of horticulture extension personnel for seeking and dissemination of horticultural technology in Jammu region of J&K, India. International Journal of Current Microbiology and Applied Science pp.33-38	Dr.Arinder Kumar, Dr. SK Kher, Dr.Rakesh Nanda,Dr. Akash Sharma, Dr.SEH Rizvi &Dr. Hafeez Ahmad	
	Exploring the differences in agricultural productivity among Northern states of India, Maharashtra Jr. of Agril. Economics 172-177.	Dr. Pawan Kumar Sharma, Dr. RK Arora, Dr. RG Deshmukh, Dr.SC Nagpure and Dr.Banarsi Lal	
2018-19	.Fungicidal management of powdery mildew disease in Jammu. Research	Ahamad, Shahid.,Sharma Jag Paul,Pandey MK, Lal,B; Sharma, S;	

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<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
	in Environment and life science pp.292-295.	Sharma, A.	
	A STUDY ON MEDIA PREFERENCES OF ORGANIC FARMERS OF HILLY AREAS OF J&K, Journal of Innovative Farming(submitted)	Banarsi Lal* and Dr.Vikas Tandon**	
	A STUDY TO DEVELOP AN APPROPRIATE MODEL FOR IMPROVING THE COMMUNICATION BEHAVIOUR OF FARMERS, Journal of Krishi Vigyan(submitted)	Banarsi Lal*	
Abstracts(2018-19)	Media Preferences of Women Farmers in Reasi Distt. of J&K, National Conference on Women Empowerment through Argo-entrepreneurship for livelihood security” (WE-2019) held at Main Campus, SKUAST-Jammu, Chatha, J&K, on February 07-08, 2019.	Banarsi Lal*, Suja Nabi Qreshi**, RK Arora*** and Jagdish Kumar****	
	Communication Behaviour of Dairy Farmers in Reasi District of J&K, National Conference on Women Empowerment through Argo-entrepreneurship for livelihood security” (WE-2019) held at Main Campus, SKUAST-Jammu, Chatha, J&K, on February 07-08, 2019.	Banarsi Lal*, Mandeep Singh Azad ** and RK Arora***	
Books			
	Rural Sociology and Educational Psychology, Published by Write and Print Publications, New Delhi.	Banarsi Lal and Arvinder Kumar	
	Technical Report Writing and Research Methodology . Bioscientific Publisher, New Delhi.	Naushad Alam,QJ Ahmad Peer and Banarsi Lal	
Book Chapters			
	Women Empowerment and Self Help Groups (SHGs) for Rural Transformation (2019).	Banarsi Lal and Shahid Ahamad	
	Transformation in Indian Agriculture through Innovative Technologies. Astral International Publisher, New Delhi pp.225-248.	Banarsi Lal and Shahid Ahamad	
	Empowerment of Rural Youths for Rural Transformation (2019). Transformation in Indian Agriculture through Innovative	Banarsi Lal and Shahid Ahamad	

<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
	Technologies. Astral International Publisher, New Delhi pp.		
	Boost the Agriculture for Rural Development(2019). Transformation in Indian Agriculture through Innovative Technologies. Astral International Publisher, New Delhi pp.311-313.	Banarsi Lal and Shahid Ahamad	
	Role of Markets and Market Led Extension in Doubling the Farmers Income(2019). Transformation in Indian Agriculture through Innovative Technologies. Astral International Publisher, New Delhi pp.465-471.	Banarsi Lal and Shahid Ahamad	
	Krishi Vigyan Kendras: Hub of Technology Transfer& Agricultural Transformation (2019).Integrated Transformation of Agriculture. New India Publishing Agency, New Delhi.pp.407-426.	Banarsi Lal and Shahid Ahamad	
Technical reports			
Technical bulletins	1.Vermicomposting	Smt.Shalini Khajuria and Dr.Banarsi Lal	300
	2.Badam ki sciencedani kheti	Dr.Suja Nabi Qureshi and Dr.Banarsi Lal	350
	3. Pecannut ki sciencedani kheti	Dr.Suja Nabi Qureshi and Dr.Banarsi Lal	350
	4.Akhrot ki sciencedani kheti	Dr.Suja Nabi Qureshi and Dr.Banarsi Lal	350
	5.Commercial marigold cultivation	Dr.Banarsi Lal and Dr.Suja Nabi Qureshi	100
2018-19	Commercial cultivation of marigold in Jammu.	Dr.RK Pandey, Dr.Shahid Ahamad and Dr.Banarsi Lal	100
Popular articles			Mass Scale dailies of J&K
(2018-19)	Empowering Rural Women Farmers for Food Security	Dr.Banarsi lal & Pawan Sharma	Early Times
	Water and Sustainable Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Avoid Wastage of Food	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Skill Development for Rural Youths	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Agricultural Extension Strategies for Rural Prosperity	Dr.Banarsi lal & Pawan Sharma	State Times
	Krishi Vigyan Kendras(KVKs) for Rural Prosperity in J&K	Dr.Banarsi lal & Pawan Sharma	Early Times
	Inclusive Growth in J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Empowering Rural Youths for	Dr.Banarsi lal & Pawan Sharma	Early Times

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<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
	Development		
	Rabindranath Tagore-A Champion of Universal Brotherhood	Dr.Banarsi lal & Pawan Sharma	Early Times
	Heinous Crimes against Women	Dr.Banarsi lal & Pawan Sharma	State Times
	Gender Equality-Need of the Hour	Dr.Banarsi lal & Pawan Sharma	Early Times
	Technologies for Rural Transformation	Dr.Banarsi lal & Pawan Sharma	Early Times
	Issues of Food and Nutrition Security	Dr.Banarsi lal & Pawan Sharma	Early Times
	Eco-friendly Farming in J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Explore the Beauty of Bakkaal	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Urban Forestry for Pollution Mitigation	Dr.Banarsi lal & Pawan Sharma	Early Times
	Conserving the Biological Diversity	Dr.Banarsi lal & Pawan Sharma	Early Times
	Development in Hilly Areas of J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Environment Versus Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Forest Fire Management in J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Milk- A Global Food	Dr.Banarsi lal & Pawan Sharma	Early Times
	Plastic Pollution and Environment	Dr.Banarsi lal & Pawan Sharma	Early Times
	Impact of Modern Agricultural Technologies in Rural Development	Dr.Banarsi lal & Pawan Sharma	State Times
	Apiculture for Rural Livelihood Security	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Vocalization of Education	Dr.Banarsi lal & Pawan Sharma	State Times
	Climate Change and Its Impact on Agriculture	Dr.Banarsi lal & Pawan Sharma	Early Times
	Yoga-Harmony between Mind and Body	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to Develop and Disseminate Location Specific Technologies	Dr.Banarsi lal & Pawan Sharma	Early Times
	Baba Jitto Mela-Tribute to a Revolutionary Farmer	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Agricultural Technologies for Development of Hilly Areas	Dr.Banarsi lal & Pawan Sharma	Early Times
	From Waste to Wealth	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Promotion of Food Processing in Agriculture	Dr.Banarsi lal & Pawan Sharma	State Times
	Harnessing of Information and Communication Technologies(ICTs) for Rural Transformation	Dr.Banarsi lal & Pawan Sharma	Early Times
	Rural-urban Linkages for Sustainable Development	Dr.Banarsi lal & Pawan Sharma	State Times
	Make Mushroom Cultivation as Enterprise in J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior

<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
	Potential of Blue Revolution(Fish Production) in J&K	Dr.Banarsi lal & Pawan Sharma	State Times
	Burgeoning Population Growth-A Global Challenge	Dr.Banarsi lal & Pawan Sharma	Early Times
	Self-Help Groups(SHG) for Women Empowerment	Dr.Banarsi lal & Pawan Sharma	Early Times
	Importance of Distance Education	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Healthy Soils for Healthy Life	Dr.Banarsi lal & Pawan Sharma	Early Times
	Environmental Protection	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	From Green to Ever-Green Revolution in Agriculture	Dr.Banarsi lal & Pawan Sharma	State Times
	Parthenium Management of Parthenium(Congress grass) Weed	Dr.Banarsi lal & Pawan Sharma	Early Times
	Rural Youths Empowerment	Dr.Banarsi lal & Pawan Sharma	Early Times
	Towards Participatory Environmental Protection	Dr.Banarsi lal & Pawan Sharma	Early Times
	Parthenium Weed Menace in J&K	Dr.Banarsi lal & Pawan Sharma	State Times
	Role of Nanotechnology in Agriculture	Dr.Banarsi lal & Pawan Sharma	State Times
	Scope of medicinal plants in J&K	Dr.Banarsi lal & Pawan Sharma	State Times
	Teachers Day-A Tribute to Dr.Sarvepalli Radhakrishnan	Dr.Banarsi lal & Pawan Sharma	State Times
	Technologies for Rural Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to tackle hunger and malnutrition	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to Empower the Nomadic Tribes of J&K	Dr.Banarsi lal & Pawan Sharma	State Times
	Challenges and Opportunities in Organic Farming	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to prevent violence against women	Dr.Banarsi lal & Pawan Sharma	Early Times
	Swachhata Hi Sewa Movement	Dr.Banarsi lal & Pawan Sharma	Early Times
	Nutrition value of fruits	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Climate change in J&K	Dr.Banarsi lal & Pawan Sharma	State Times
	Need to combat malnutrition in children	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Skill Development Trainings for Rural Youths	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to Eliminate the Cancer of Corruption	Dr.Banarsi lal & Pawan Sharma	State Times
	Promotion of Commercial Poultry Farming in J&K	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need to Harness the Bamboo Mission	Dr.Banarsi lal & Pawan Sharma	Early Times
	Bael-A Wonderful Fruit	Dr.Banarsi lal & Pawan Sharma	Daily

<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
			Excelsior
	Scope of Rural Tourism	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Child Care	Dr.Banarsi lal & Pawan Sharma	Early Times
	KVKs-Effective Tools for Human Resource Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Jhiri Mela-A Saga of Supreme Sacrifice	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Television-An Agent of Social Change	Dr.Banarsi lal & Pawan Sharma	Early Times
	Empowering the Tribes of J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Solution of Soil Pollution for a Healthy Life	Dr.Banarsi lal & Pawan Sharma	Early Times
	Saffron farming in J&K	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Sustainable Horticulture for Rural Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Challenge of Zero Hunger	Dr.Banarsi lal & Pawan Sharma	State Times
	Strategy to Empower Villages	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Scope of Rural Tourism	Dr.Banarsi lal & Pawan Sharma	Early Times
	Celebrating National Farmers Day	Dr.Banarsi lal & Pawan Sharma	Early Times
	Scope of Floriculture in J&K	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Sustainable Ever-Green Revolution (cont.)	Dr.Banarsi lal & Pawan Sharma	State Times
	Need of Sustainable Ever-Green Revolution(concluded)	Dr.Banarsi lal & Pawan Sharma	State Times
	Empowering rural youths for sustainable development	Dr.Banarsi lal & Pawan Sharma	State Times
	Technology Transfer for Rural Development	Dr.Banarsi lal & Pawan Sharma	Early Times
	Diversity in Reasi	Dr.Banarsi lal & Pawan Sharma	State Times
	Employment through Agricultural Industry	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Sustainable Development and Disaster Management	Dr.Banarsi lal & Pawan Sharma	State Times
	Impact of Climate Change in J&K	Dr.Banarsi lal & Pawan Sharma	Early Times
	Need of Soil and Water Conservation	Dr.Banarsi lal & Pawan Sharma	Early Times
	Floriculture-An Innovative Industry for Farmers Prosperity	Dr.Banarsi lal & Pawan Sharma	Early Times
	Climatic variability and agriculture	Dr.Banarsi lal & Pawan Sharma	State Times
	Strengthening capacity of PRIs	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Organic farming: A step towards healthy world	Dr.Banarsi lal & Pawan Sharma	State Times
	Shiv Khori Mela-A Socio-religious event	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Empowering Women for Poverty	Dr.Banarsi lal & Pawan Sharma	Early Times

<i>Item</i>	<i>Title</i>	<i>Authors name</i>	<i>Number of copies</i>
	Reduction		
	Rural Women Empowerment	Dr.Banarsi lal & Pawan Sharma	State Times
	Need to Eliminate Malnutrition	Dr.Banarsi lal & Pawan Sharma	Early Times
	Menace of Yellow Rust Disease of Wheat	Dr.Banarsi lal & Pawan Sharma	Early Times
	Role of Rural Women in Agricultural Development	Dr.Banarsi lal & Pawan Sharma	State Times
	Menace of Wheat Disease in Jammu	Dr.Banarsi lal & Pawan Sharma	Daily Excelsior
	Empowering Rural Youths for Livelihood Security	Dr.Banarsi lal & Pawan Sharma	Early Times
Training Manual	5 days training programmes at Talwara	Dr.Banarsi Lal & Dr. R K Arora	
Extension literature			
Folders /leaflets			
TOTAL			

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / Software)	Title of the programme	Number

(D) Mobile App developed by KVK

S.No.	Name of KVK	Name of Mobile App Developed	Year in which App is Developed	No. of Users downloaded the App	Type of information offered by the App(seeds, fertilizers, market prices, weather etc.)

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

The success stories/case studies with good action photographs (with captions) should be on the following topics

- a) Effective popularization on a larger scale of any one FLD technology and its role in transformation of district agriculture with respect to that particular crop or enterprise*
- b) Performance of the end results of any one technology assessed, its refinement if any and its impact in district agriculture with respect to that crop or enterprise*
- c) Effect of production and supply of seeds and planting material / animal breed / or bio-product and its impact on district agriculture with respect to that crop/ enterprise/ bio-product*

The general format for preparing the above success stories/case studies are furnished below

TITLE

Introduction

KVK intervention

Output

Outcome

Impact

SUCCESS STORY

**Commercial Floriculture in Kanjali Village of Reasi District of J&K
(Adopted by KVK, Reasi)**

Introduction: Jammu and Kashmir is a mountainous state in which Jammu region is predominantly sub-tropical while Kashmir and Ladakh regions are temperate. The state is blessed with an immense natural beauty and is located between 32.17 and 37.06 North latitude and 73.2 and 80.36 East longitude in the Himalayan region. This state is characterized by benevolent people, scenic natural beauty, natural waterfalls, folded mountains, alpine pastures, lush green forests, rich wild life, snow clad fields, carpet green turfs, gushing fountains, lofty skying grounds, charming gardens, cool pollution free fresh air, fresh cool water, shimmering lakes, apple orchards etc. The state has 1069mm average annual rainfall in sub-tropical Jammu region, 660mm in temperate valley and 80-90mm in arid Ladakh region respectively. The average temperatures of these three regions are 24.5, 13.3 and 5.3 centigrade respectively. The state is endowed with ample natural resources including soil, water, climatic condition, diversity, topography, rich natural flora etc. which are conducive for the cultivation of a wide range of flowers. The state is considered as the paradise on the earth because of its natural glamour. The state has undergone many changes through the ages, influenced by the different kinds of cultures, religions and rulers during various periods of history. It is this scenic beauty and bountiful nature that lured the Mughals and they were impressed by the beauty of the state and they established many gardens in the valley along their main sites and journey routes. Beautiful gardens in the state are being enjoyed by the tourists across the globe. Keeping the demand of flowers in view there is need to increase the flower production in the state. With the strenuous efforts of government organizations awareness on floriculture industry has been created among the farmers and some farmers especially from the young generation are showing keen interest in floriculture sector. A good number of progressive farmers in almost all the districts of the state have been trading flowers in the local and outside markets. In 1990 the area under floriculture in J&K was only 80 ha and now it has increased around 350 ha with an annual turnover of about 1350 lakhs.

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Flowers have their importance because of their aesthetic value in their use in decorating homes, in social events such as marriages, social gathering and funerals, in religious rituals etc. Main floriculture crops such as marigold, gladiolus, lilies, tulips, carnations, roses and gerberas are being cultivated in the state to generate additional income. KrishiVigyanKendras(KVKs) of SKUAST-J and State Department of Floriculture provide technical assistance to the floriculture farmers and impart training to start the entrepreneurship in floriculture in the region. Technical guidelines on cut flowers, seeds, bulbs and ornamental plants, introduction of new technologies like high-tech poly structures etc. are provided to the farmers by these organizations. These organizations also demonstrate some advance floriculture farms to the farmers through exposure visits.

There is dire need to increase the income and employment of the farmers of the hilly state of J&K. There is possibility to increase the production and productivity of floricultural crops and to enable the farmers to diversify their crops production by adopting the modern technologies and establishing the infrastructure for the farm production in hilly areas of J&K. There is urgent need to promote the commercial cultivation of marigold in the state as there is immense potential of marigold cultivation in the state. It is matter of grave concern that the interest of younger generation in the state is dwindling towards agriculture.

Reasi is a hilly district of Jammu and Kashmir which is located around 72 km away from Jammu and is at 1528 meter above mean sea level. Its population is 3, 14,714 as per 2011 census. It was carved from Udhampur district on 1st April, 2007. This district is surrounded by Udhampur, Rajouri, Jammu, Ramban and Shopian districts. This district of Jammu and Kashmir is world famous because of Shri Mata Vaishno Devi Shrine. Every year millions of devotees visit this holy shrine to pay homage. The Chenab River passes through this district which is another centre of attraction in the district. Salal Power Project has been constructed over this river and this generates around 690 MW power. Reasi district of Jammu and Kashmir is an abode of Mata Vaishno Devi and blessed with vast biodiversity. Internationally renowned places like Mata Vaishno Devi, Katra along with some historical places like Shiv Khori Shrine, Dera Baba Banda Bahadur, Baba AgharJittoji, Siarh Baba, NaoDevian, Dhansar Baba, ZiaratBaji Ismail etc. come under Reasi district and tourists from all over the world used to come in the district throughout the year. Being the hub of religious spots, Reasi district is having immense scope in floriculture. The prestigious Salal Hydro Electric Project located at Jyotipuram, Shri Mata Vaishno Devi University, Katra, KrishiVigyan Kendra, Tanda, and Cancer Hospital, Katra are centres of attraction in the district. The proposed train to Kashmir passes through this district and makes it an important place in the national atlas. The district is watershed of the River Chenab and its major tributaries are Banganga, Anji, Ans, Rudd, Plassu and Pai.

Most of the farmers of Reasi district are small and marginal and crops are mostly cultivated under rain fed (about 94%) 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 percentage of modern agricultural technologies is low resulting in the low socio-economic status of the farmers. There are various insect-pests and disease problems in the district. Boars and monkeys too damage the crops to a large extent in this particular district causing a huge loss to the farmers.

Kanjali village is about 36 km away from world famous religious place Katra in Reasi district of Jammu and Kashmir. The village is around 6 km. away from KrishiVigyan Kendra (KVK), Reasi. This village is situated in the remote area of Reasi district and is lacking the road and communication connectivity. There are around 150 families in the village. The major occupation of the people is agriculture and there is a natural source of irrigation in the village where the marigold cultivation can be done. There are two Govt. schools, three Angadwadicentres and one PanchayatGhar in the village. There are many progressive floriculturists in the village who are producing the marigold flowers at a commercial level. The village is having around 150 hectares of land. Initially the villagers were growing maize, wheat and few local varieties of vegetables as their forefathers were doing. They were using the traditional agricultural technologies in their fields and monkeys and wild boars were the great threats in their fields. All the agricultural produce was consumed by their families with very little surplus to sell. Their farming system was deteriorating and they were unable to mitigate the basic needs of their families. Some farmers of the village were on the threshold to leave the agriculture profession.

KVK intervention

Before the KVK interventions the farmers of Kanjali village were doing the unscientific agriculture on a small scale. They were endeavouring to increase their farm income. They were using the local resources and were

growing the maize, wheat, fruits, vegetables, marigold etc. with the traditional methods resulting in the poor yield of the crops. They were lacking the scientific knowledge in agriculture. After establishing the Krishi Vigyan Kendra (KVK), Reasi near their village, they came in contact with the KVK, Reasi scientists. KVK, Reasi became a ray of hope for these farmers. KVK scientists started regularly visiting their farms and developed a good rapport with the farmers of this village. A benchmark study was conducted by the KVK scientists in the village. The farmers were guided and motivated for the scientific marigold cultivation. They were encouraged for commercial marigold cultivation. KVK, Reasi organised the trainings/awareness programmes/kisanghosties/field days/exposure visits/farmers fairs etc. on commercial floriculture at Kanjali village of Reasi distt of J&K. KVK, Reasi scientists laid Front Line Demonstrations (FLDs) and On Farm Trials (OFTs) on marigold crop in the village. The technical guidelines on marigold cultivation were provided to the farmers. The farmers were fascinated by observing the results of FLDs and OFTs on marigold crop and they showed keen interest in the adoption of the technologies for marigold crop. The technical literature on commercial floriculture was provided to the farmers of the village and special video shows on scientific floriculture were organised for them. The KVK work was synergised by the Department of Floriculture. Scientific cultivation of marigold changed their life. KVK, Reasi also introduced some new varieties of marigold in the area gave some scientific recommendations on commercial marigold farming. Marigold cultivation helped to overcome the problem of monkeys menace in the village as the crop is not damaged by the monkeys.

Output

Before KVK interventions farmers of Kanjali village were growing only maize, wheat and few vegetables by using the traditional technologies and they were lacking the technical skills and knowledge on agriculture. There was heavy infestation of diseases and insects-pests and farmers were earning only Rs.81, 200/ha as their crops productivity was low but with the commercial marigold cultivation they raised their annual income up to Rs. 2,53,000/ha in 2014-15, Rs.2,73,900/ha in 2015-16 to Rs.3,00,500 in 2016-17. By growing the marigold crop, the farmers are generating more income as compared to their traditional farming.

Before KVK intervention:

S. No.	Enterprise taken	Operational Expenses(Rs./ha)	Total Output(Rs./ha)	Net Profit(Rs./ha)
1.	Traditional methods of agriculture	82,500	1,63,700	81,200

After KVK Intervention:

S. No.	Year	Enterprise taken	Operational Expenses(Rs./ha)	Total Output(Rs./ha)	Net Profit(Rs./ha)
1.	2014-15	Scientific methods of marigold cultivation	1,18,000	3,71,000	2,53,000
2.	2015-16	Scientific methods of marigold cultivation	1,21,100	3,95,000	2,73,900
3.	2016-17	Scientific methods of marigold cultivation	1,23,200	4,23,700	3,00,500

Outcome

By observing the successful results of marigold crop in Kanjali village, the other farmers of the district villages such as Rajwal, Bhabber, Bhakta, Sool, Kansipatta etc. are also showing keen interest in marigold cultivation.

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With the introduction of scientific technologies for marigold cultivation the farmers are able to generate extra income and employment. With the generation of extra income, the farmers developed confidence to mitigate their basic problems. A self-reliance and entrepreneurial spirit has been developed among the farmers. Their new attitude towards scientific marigold cultivation has been developed. Kanjali farmers' success in commercial floriculture is inspiring the other farmers of the area and they are shifting towards the commercial floriculture in a scientific way for better economic returns. The other farmers of the area take opinion from them about the scientific marigold cultivation practices. With the scientific marigold cultivation, the socio-economic status of the farmers has been improved.

Impact

KVK in the form of farmer's trainings, vocational trainings, Front Line Demonstrations (FLDs), On Farm Trials (OFTs), farmers-scientists interaction, farmers' exposure visit, field days, Kisan Ghoshties, campaigns, dissemination of production technologies through radio, TV, extension literature etc. have led to start the commercial floriculture in Kanjali village. Gradually many farmers of the area are becoming interested in scientific marigold cultivation. They have developed a good rapport with the KVK scientists and always participate in the agricultural extension activities conducted by the Krishi Vigyan Kendra (KVK), Reasi. Year-by-year they have started to generate more income and employment by growing the marigold crop at commercial level. Number of farmers including Sh. Shail Singh, a progressive floriculturist in the village was highly impressed with the technical guidelines given by the KVK scientists and presently he is guiding the other farmers of the area on commercial marigold cultivation. He grows marigold in around 60 Kanals of the area. He has established one vermicompost unit at his home. There are many other farmers in the village who have become entrepreneurs in floriculture like Sh. Shail Singh. They used to sale their marigold flowers at world famous place Katra, Udhampur and Jammu. Now the village farmers have developed confidence in themselves and they are having lot of credibility on KVK scientists as from time to time they provide technical advice on commercial marigold cultivation. The village farmers have become an example of success and motivating factor for other farmers in adjoining areas. KVK scientists also motivated other farmers of the village for the commercial floriculture as it can change their socio-economic status. Farmers were facilitated to develop the marketing channels to sale their farm produce in local markets, Katra and even in Jammu. Katra has an immense potential for the marketing of marigold flowers as the tourists from across the globe visit this holy spot and pay homage to the Vaishno Devi Shrine.

Sh. Shail Singh, a progressive farmer of this village was felicitated by the Hon'ble Union Minister of India, Sh. Jatinder Singh in a farmer fair organised by the Krishi Vigyan Kendra (KVK), Reasi of Sher-e-Kashmir University of Agricultural Sciences and Technology, Jammu (SKUAST-J) as a progressive floriculturist in the year 2016-17. He was also appreciated by the Hon'ble Ex-Director General of the ICAR, Dr. S. Ayappan and Hon'ble Vice Chancellor of SKUAST-Jammu Dr. P. K. Sharma for his efforts for commercial floriculture during their visit at KVK, Reasi. Smt. Maya Devi, a woman farmer from the same village was also appreciated by the Hon'ble Ex-Director General of the ICAR, Dr. S. Ayappan for her efforts for commercial floriculture during his visit at KVK, Reasi. Efforts of the Krishi Vigyan Kendra (KVK), Reasi scientists and progressive farmers of Kanjali village have given a new shape to the marigold farming and the quantity and quality of marigold crop have been increased with new interventions. By observing the results of scientific marigold cultivation at Kanjali village the other farmers of the adjoining villages are also attracted towards scientific marigold cultivation. With the increase in the income of the farmers by growing the marigold crop their respect and recognition have also been increased in the society. They have built their Pucca houses and their children education status is also improving year after year. They exhibit their marigold produce in different farmers' fairs organised by SKUAST-J & allied departments and recognised by the different organisations. Their efforts for commercial farming were highly appreciated by Hon'ble ex-DG, ICAR, Dr. S. Ayappan, Hon'ble Union Minister, Dr. Jatinder Singh, Hon'ble Vice Chancellor of SKUAST-J Dr. P. K. Sharma and Hon'ble J&K Min., Sh. Ajay Nanda during the farmers' fairs and other extension activities conducted by KVK, Reasi. KVK, Reasi is making strenuous efforts for the farmers' welfare through commercial floriculture in the hilly district Reasi of Jammu and Kashmir.











Success Story

Scripting Success through Commercial Vegetables Cultivation in Hilly Areas

Writers are: Dr. Banarsi Lal, I/C, Sr., Scientist & Head, Dr. Suja Nabi Qureshi, SMS, Dr. Sanjay Kaushal, SMS & Sh. Jagdish Kumar, Computer Programmers, KVK, Reasi, SKUAST-J.

Introduction:

S. Gurdev Singh S/O S. Chatter Singh is a 62 years old progressive farmer of village Bharakh which is about 40 km away from Reasi town of Jammu and Kashmir. His family comprises his wife, one daughter and one son. He is having 4 acres of land holding. He was growing maize, wheat, few medicinal and aromatic plants and few local varieties of vegetables. All his agricultural produce was almost consumed by his family with very small surplus. The traditional farming was not generating extra income for him.

Krishi Vigyan Kendra Intervention

A base line survey of village Bharakh was done by the KVK scientists and it was observed that majority of varieties of different crops including vegetables used by the farmers 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, Reasi scientists along with the allied departments imparted awareness/ training programmes on “Commercial Vegetables Growing” and introduced the improved and hybrid seeds of the vegetables by laying Front Line Demonstrations (FLDs). The farmers were also taken for the exposure visits at KVK, Reasi and SKUAST-J. It was intensively done to improve the vegetable production in the village 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 guiding the farmers for the scientific commercial vegetables growing and assessing and refining the new technologies suitable for the farmers of Bharakh village.

Output

20 interested vegetable growers (including S. Gurdev Singh) 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: Income difference between the traditional methods of vegetables growing and scientific methods vegetables growing provided by the KVK.

S. No.	Component	Intervention	Gross Cost(Rs./ha)	Gross Return(Rs./ha)	Net Profit(Rs./ha)	B:C Ratio
1.	Traditional method of vegetables growing	Use of local varieties seeds of vegetables	79700	1,45,400	65,700	1:1.82
2.	New method of vegetables growing	Use of improved/hybrid varieties of seeds of vegetables	1,17,300	3,54,600	2,37,300	1:3.02

S. Gurdev Singh is having around 4 acres of fertile land which is suitable for the vegetable growing. When he initiated the vegetables growing in his land, he was using the traditional technologies. The result was that the yield was very poor. He was not having assured source of irrigation. As is evident from the above table, by using the local varieties he was able to earn only Rs.65, 700/ha annually. Then he established a bore well at his farm. He followed the scientific guidelines provided by the KVK, Reasi scientists and he used the improved/hybrid varieties of vegetables he was able to earn Rs.2, 37,300/ha annually from the same piece of land. A transformation happened in his life. Now S. Gurdev Singh is confident as his income has increased and he is feeling more secure by growing the vegetables under the guidance of KVK scientists. He has started applying FYM and other organic inputs in his fields for organic vegetables. S. Gurdev Singh has established a vegetables sale counter at his home which he uses to sale his vegetables. Now S. Gurdev Singh has become a motivating factor for other farmers of his area and they have started to adopt the same technologies as used by him. A self-reliance and entrepreneurial spirit has been developed by him.

Outcome

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S. Gurdev Singh has gained recognition by winning many exhibition awards farmers' fairs held at district and state level. He has exhibited some outstanding materials in different exhibitions conducted by the SKUAST-J and also by state department of agriculture/horticulture. He has emerged as a progressive farmer of his area. With the increase in his income by the vegetables growing his respect and recognition has also been increased in the area. Keeping his performance in vegetables growing in view, he was awarded by Hon'ble Union Minister, Dr. Jatinder Singh as progressive vegetables grower in the farmers fair organised by Krishi Vigyan Kendra, Reasi at its campus in 2016-17. S. Gurdev Singh is very eager to learn scientific vegetables growing. He is very hard working and has a positive attitude towards agriculture. He has become a role model farmer of his area.





Scripting Success through Innovative Horticulture in Reasi District
Dr.Banarsi Lal, Dr.Suja Nabi Qureshi

Background: Reasi district of J&K is an abode of Mata Vaishno Devi and endowed with vast bio-diversity and agro-climatic diversity. This hilly district lies between 33°05" N Latitude and 74°50" E Longitude. Total geographical area of the district is nearly 1700 Sq. Km. and is spread over the three main agro-climatic zones. The lower hills of Katra, Painthal, Reasi, Pouni, Talwara fall in the subtropical belt while Arnas, Kanthan, Thanpal, Judda, Dharmari etc. fall in the higher intermediate zone. Buddan, Mahore, Chasana, Lar, Deval etc. comprises of higher temperate zone. Mean annual rainfall varies from 1000-1100mm with intensity ranging from the drizzling to the torrential rain in the district. Rainfall is well distributed from May-September, July being the wettest. Rainfall is moderate in other months of the year. Sometimes dry spell prevails from the month of Dec-March. Large variation in agro-climatic conditions at micro level are observed due to mountainous terrain and high peaks in the district. The district has immense potential in horticultural crops as every year lakhs of devotees visit at Vaishno Devi Shrine, Shiv Khori and various other religious spots of the district and there is great demand of fruit crops in the district. Irrigation is a major constraint for the fruit crops production in the district as major area of the district is rain fed with only about 7 per cent irrigated area. Sh.Harjeet Singh applied his technical knowledge to develop underground method of irrigation especially for the fruit plants. This method of irrigation is safe, cheap and can be applied by the illiterate and small orchardists. He has also installed CCTV cameras in his orchard to keep vigilance at his orchard.

Innovation: Irrigation is primarily required for the horticultural crops. Reasi district of J&K is lacking the irrigation resources as most part of the district is rain fed. Due to deficient irrigation sources, spreading system of irrigation is not successful. Also due to uneven distribution of land (sloppy and hilly) and small and marginal farmers sprinkler and drip irrigation systems are also not successful. In order to overcome all these problems, S.Harjeet Singh designed and developed an innovative underground method of irrigation especially for the orchardists. This is a unique method of irrigation especially for the fruit plants by utilizing the iron pipes (underground) by which the fruit plants can be irrigated efficiently with the least wastage of water and labour. Under this method, every fruit plant is having a common source of irrigation but every fruit plant can be irrigated individually according to the need as there are different underground points for irrigation in the orchard. This method of irrigation is very cheap, efficient and simple and can be used even by the small orchardists. S.Harjeet Singh has also installed CCTV cameras in his orchard in order to overcome the problem of fruit thefts and also for the care of his orchard.

Significance: Use of underground method of irrigation in the orchards increases the yield of fruit crops with the least wastage of water and labour. This method is safe, cheap and can be implemented by the illiterate, small and marginal farmers and even by the female orchardists. The underground pipes are not affected by the animals and have a long lasting life. Use of underground method of irrigation and CCTV cameras in the orchards can sustain the horticultural crops production and thus can enhance the income and employment among the farmers of the area. CCTV cameras also help to increase the profit from the fruit crops as the crops can be protected from the trespassers and wild animals. Both the techniques are environment friendly and accepted by the farming community. By observing the successful results of this method of irrigation and use of CCTV cameras in the orchards, the other farmers of the area are also coming forward to use these innovations in their orchards. Underground method of irrigation can reduce the conflicts over irrigation and it is totally safe and cheap. S.Harjeet Singh has made not only his horticultural crops sustainable but has also shown a new path to other farmers of the area who can also reap the benefits of these innovations. These innovations can increase the area under horticultural crops in the district and thus can help to uplift the socio-economic status of the farmers. Due to these innovations, S.Harjeet Singh has been appreciated many times by the KVK, Reasi scientists, Department of Agriculture and allied sectors officials. He has also been awarded as the 'Best Innovator Award' by the

Hon'ble VC of SKUAST-J during the National Conference organized by SIDAVES at SKUAST-J on 7-8th of Feb., 2019.

Way-forward: Underground method of irrigation and use of CCTV cameras in the orchards can directly enhance the income and employment of the farmers of hilly areas. Underground method of irrigation is very efficient, cheap and labour saving. CCTV cameras can protect the crops from thefts and even from the wild animals. Hence, both the innovations can be boon for the orchardists. These innovations can be implemented by the orchardists to uplift their socio-economic status. Both these innovations are eco-friendly and can sustain the livelihood of the farmers.

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An underground point of water in S. Harjeet Singh orchard

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I/C Sr.Scientist-cum-Head, KVK, Reasi observing the CCTV cameras installed at S.Harjeet Singh home and orchard



S.Harjeet explaining the benefits of CCTV cameras to the I/C, Sr.Scientist-cum-Head, KVK, Reasi

Augmenting the Income of Rural Women of Hilly Areas through SHG: A Success Story

Introduction: SHG is an informal association of 10-15 women who voluntarily come together for saving of credit and enhances the members' financial security. SHGs are called solidarity groups as they provide monetary

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and moral support to individual members in times of difficulties. Self Help Group formation is a significant instrument in the process of women empowerment. Self Help Groups' strategy aims at bringing the neglected women into main stream of economic development through saving and income generation activities. It is a process which ultimately leads to a self fulfilment of each member of group and helps to transform the face of rural areas. SHGs are considered as the self-driven movements impacting specially the rural poor women. These are the most suitable tools for delivering microfinance to the poor people. SHGs are like precious diamonds whose quality depends on the way they are shaped.

Methodology applied: KVK, Reasi has made strenuous efforts in gender main 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 these districts, KVK, Reasi has made strenuous efforts to form, manage and strengthen the SHGs. Malad village is around 20 km away from the hilly district Reasi of Jammu and Kashmir. KVK, Reasi scientists frequently visited Malad village of Pouni block in Reasi district of J&K and motivated women farmers for the formation of Self Help Group. KVK scientists trained the women of the village for the formation and management of SHG. The group was constituted of 10 women farmers. The group name was kept as Nisha group. The group President, Secretary and Treasurer were selected and they were advised for the saving of money for at least six months. The group started their proper book keeping records. The group started fortnightly meetings. The credibility of the females on each other was developed and everything regarding accounts was kept transparent. The group was linked with the State Bank of India for the financial aid.

Impact of KVK: KVK scientists trained the women on candy making, juice making and pickle making and facilitated them to market their farm produce. Besides training programmes, KVK scientist also conducted farmers-scientists interactions, organised film shows and exposure visits for the group members. The extension literature played a catalytic role in SHG in the entrepreneurship development in value added fruit products. By this entrepreneurship the women generated the income which developed the confidence among themselves and gained recognition in the nearby areas. Annually the net profit of SHG is 2,40,000. 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 Malad village the other women of the area are showing keen interest in SHG formation. A self-reliance and entrepreneurial spirit was developed among the group members. The group was appreciated by the Ex-DG of ICAR, Dr.S.Ayappan during his visit at KVK, Reasi. The group President Smt. Bimla Devi was awarded by SKUAST-J during the Kisan Mela held at SKUAST-J in 2017 for her endeavours on value addition. She was also awarded by SKUAST-J during the National Conference organised by SIDAVES at SKUAST-J in 2019 for her efforts on value addition in fruit crops.

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Inspired by: Dr.KS Risam, Hon'ble Vice Chancellor,SKUAST-J.













Empowering the Rural Women of Hilly Areas through Parshad Making-A Success Story

INTRODUCTION: Self Help Groups (SHGs) have been instrumental in women empowerment by enabling them to work together. It is a process which ultimately leads to self fulfilment of each member of group. Poverty continues to be a serious problem in hilly district Reasi of Jammu and Kashmir where about 37.93% of people are below poverty line. Gender mainstreaming 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.

SHG is an informal association of 10-15 women who voluntarily come together for saving of credit and enhances the members' financial security as primary focus. The primary purpose of SHG is to improve the socio-economic status of poor rural women, especially to increase their income. SHG provide monetary and moral support to individual members. 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 and 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. The extension literature and information through TV/Radio played a catalytic role for the SHG. Keeping the scope of SHGs in APR 2018-19

Reasi district, KVK, Reasi has made rigorous efforts to form, manage and strengthen the SHGs. Serwad village is around 4 km away from holy town Katra. A baseline survey of the village was done by the KVK team. Holy town Katra has immense scope of Prashad making/food processing for Shri Mata Vaishno Devi Shrine. Women farmers of this village were encouraged and technically supported by KVK, Reasi the SHG for Prashad making. They were guided to have fortnight meetings to develop a healthy rapport among themselves. The name of the group was decided by the group members as “Vaishno Devi Mahila Group” by its 10 members. Apart from training programme, KVK conducted farmers-scientists interaction, employed print media coverage radio talk, TV talks, film shows, special group meeting etc. for the SHGs. The advantages of groups were elaborated to SHG members. The group president, secretary, treasurer were selected and group members were advised for saving the money. The homogeneity of groups in terms of their socio- economic status was also taken into consideration. They were guided for the proper book keeping. Training programme conducted by KVK for SHG proved a convincing tool and played a significant role in creating interest and capacity building among the group members. “Vaishno Devi Mahila Group” has proved that how women can organise together to beat the poverty and despair. This group is progressing day-by-day.

Impact of KVK

KVK, Reasi regularly impart trainings on SHGs especially for the women farmers. KVK, Reasi also provided extension literature and organized farmers-scientists interaction for the SHG. Around Rs 80/kg are consumed in preparing Parshad and it is sold @ Rs.120/kg. Presently the annual income of group is Rs.2, 62,000/- .SHG helped to brought the economic upliftment, developed leadership qualities and inculcated great confidence among the group members. With increase in the income of group, the women members get respect from their families and were recognised by other members of community. By observing the successful result of “Vaishno Devi Mahila Group” in Serwad, the other women of the area are showing keen interest in SHG formation. With the formation of SHG women developed confidence to mitigate their basic needs. A self-reliance and entrepreneurial spirit has been developed among the group members. The members of this SHG has become pillars for growth and sustainability of their families. They have become torchbearers for the other women of the area and now they are advising the other women to form SHGs to come out from the poverty. KVK, Reasi is striving hard for women empowerment through SHGs in Reasi district. The group was awarded by the Union Minister, Dr.Jitendra Singh during his visit at KVK, Reasi in 2016.

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Inspired by: Dr.KS Risam, Hon’ble Vice Chancellor, SKUAST-J.





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Empowering Rural Women through Kadaknath Farming-A Success Story

Backyard poultry plays an important role in sustaining the livelihood of farmers. Kadaknath is a very popular breed of poultry and its meat is highly nutritious with many medicinal qualities. It is considered as the only black meat in India. Consuming black meat not only fulfils the nutritional requirements of the family but also provides a source of subsistence income, especially for rural women. Dhirthi is a small village located near Shri Mata Vaishno Devi University (SMVDU), Kakaryal, Reasi. Poor women of the village were rearing the indigenous poultry birds with traditional technologies. The result was poor egg and meat productivity. Realizing an immense scope and demand for kadaknath in the area, KVK, Reasi decided to adopt this village for Kadaknath farming for augmenting and sustaining the income of farm women of the area.

KVK, Reasi Interventions

KVK, Reasi laid out OFTs and FLDs and organised a chain of extension activities especially on Kadaknath farming in Dhirthi village. Women farmers were encouraged and guided for the scientific Kadaknath farming. KVK, Reasi scientists also facilitated the rural women to create the marketing channels for the Kadaknath eggs and meat in Shri Mata Vaishno Devi University (SMVDU) Hostels, Banks, Army areas, Shri Mata Vaishno Devi Narayana Super Speciality Hospital, Jammu etc.

Impact:

Kadaknath farming entirely transformed the lives of the rural women of Dhirthi village. With the conventional backyard poultry farming they were generating only Rs.3800/ unit of 10 birds annually which improved exponentially with the Kadaknath farming to the tune of Rs. 11160/ unit of 10 birds in 2017-18. Kadaknath farming provided a steady income round the year for farm women. This was possible because of technical backstopping and encouragement from KVK scientists. Women farmers from adjoining villages were highly inspired by observing the results of Kadaknath farming in Dhirthi village and they are coming forward in good numbers to adopt and replicate this venture in their respective villages.

Recognition:

Efforts of women farmers for the Kadaknath farming were highly appreciated by Hon'able Ex-Governor of J&K, Sh. N.N. Vohra. They were also appreciated by many officers from different departments during their visit in the village.

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9.B. Give details of innovative methodology/technology developed and used for Transfer of Technology during the year

9.C. 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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Vegetables	Use of ash to control red pumpkin beetle in cucurbits	to control red pumpkin beetle in cucurbits
2	-do-	Use of ash to supply nutrients in cucurbits and vegetable crops to increase the yield	to supply nutrients in cucurbits and vegetable crops to increase the yield

3	Maize	Control of weeds in maize crop by ploughing in between the plants of maize crop	Control of weeds
4	Cucurbits	Sorghum and cucurbits are sown together to control the insects-pests	to control the insects-pests
5	Cereals	Leaves of trees are used to increase the fertility in maize and wheat crop	to increase the fertility in maize and wheat crop
6	Wheat	Leaves of Neem plant , Bana(Vytusnigundu) and Eucalyptus sp. plant are used to store the wheat grains and protect from stored grain pests	to store the wheat grains and protect from stored grain pests
7	Cereals	Use of kerosene oil to protect the field crops from termite attack	to protect the field crops from termite attack
8	Wheat	Protection of wheat crop from rabbits attack by using the white cloths and polythene sheets on sticks	Protection of wheat crop from rabbits attack
9	Maize	Mixed cultivation of maize and cowpea to protect the maize crop from boars	to protect the maize crop from boars
10	Vegetables	Staking of cucurbits, peas and tomato to increase the yield and also to get the good quality of crop	to get the good quality of crop
11	Maize	Use of cow urine mix with the cow dung to control the insect-pests in maize crop	to control the insect-pests in maize crop
12	Animals	Use of saunf, gur and mustard oil after boiling it and then filtering it to control bloating in animals	to control the insect-pests in maize crop
13	livestock	Bleeding from certain parts of animals to control the bloating in animals	animals to control the bloating in animals
14	Livestock	Mixture of cotton and ghee to control the diarrhoea in animals	animals to control the bloating in animals
15	Livestock	Use of Methi and gur mixture to control the diarrhoea in animals in winters	to control the diarrhoea in animals in winters
16	Livestock	Gur and saunf mixture to control the diarrhoea in animals in winters	to control the diarrhoea in animals in winters
17	Livestock	17. Use of mixture of mustard oil and lassi to control the Diarrhoea in animals in summers	to control the Diarrhoea in animals in summers

18	Livestock	Hooka (tobacco) water is used to save the animal if bitten by snake or any other poisonous organism	to save the animal if bitten by snake or any other poisonous organism
19	Livestock	Use of kerosene oil to control the ticks and mites in animals	to control the ticks and mites in animals
20	Livestock	Use of Dhaman plant leaves to increase the yield of milk in animals	to increase the yield of milk in animals
21	Livestock	Use of mixture of salt, mustard oil and turmeric to control the foot and mouth disease in animals	to control the foot and mouth disease in animals
22	Livestock	Black ink and ghee or oil to protect the animals from wounds infection	to protect the animals from wounds infection
23	Fruits	Use of ripening of mango by using the wheat straw	Use of ripening of mango
24	Livestock	Use of protein rich concentrate (mixture of wheat brawn, cotton cakes, mustard cakes, salt and chickpea bran) to increase the milk yield in animals	Use of ripening of mango
25	Cereals	Protect wheat crop from rabbits attack by sowing lentil in fields	Protect wheat crop
26	Wheat	Protection of wheat crop from rodents by giving the flour with ghee	Protect wheat crop

9.D. Indicate the specific training need analysis tools/methodology followed for

- Identification of courses for farmers/farm women:-we do the base line survey of the villages where we have to introduce the technology. Through base line survey we assess the felt and unfelt need of the villagers. We consult with the village head and progressive farmers. We also consider the opinion of distt. Heads and progressive farmers in SAC meeting for deciding the training courses.
- Rural Youth:We consider the interest of the rural youth in particular location. Also we consider the availability of markets of the particular products which they can produce after getting vocational trainings. While consider the vocational trainings of the rural youth, we take the local available materials for the training purpose.
- In-service personnel: We provide the abreast knowledge of different agricultural activity according to the needs of the district.

9.E. Field activities

- i. Number of villages adopted-8
- ii. No. of farm families selected-120
- iii. No. of survey/PRA conducted-16

9.F. Activities of Soil and Water Testing Laboratory / Plant Health Clinic

Status of establishment of Lab :The soil testing lab has been established and is in working condition

1. Year of establishment :2016-17
2. List of equipments purchased with amount :Different reagents, soil testing equipment, weighing machine etc.

Sl. No	Name of the Equipment	Qty.	Cost
1	Soil Testing Kit	1	86,000
2	Soil Testing Kit	1	86,000
3	Soil Testing Kit	1	86,000
Total		3	2,58,000

3. **Details of samples analyzed / Soil Health Cards issued during 2017-18 :**

Details	No.	No. of Farmers	No. of Villages	Amount realized
Soil Samples	120	120	8	
Water Samples				
Plant Samples	22	22	5	
Soil Health Cards Issued	120	120	8	

10. **IMPACT**

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Commercial organic vegetables growing	85	52	1,27,000	2,91,000
Commercial floriculture	53	12	77,000/ha	2,32,000
Scientific mushroom cultivation	14	12	-	83,000/unit
Fruit and vegetables processing	46	22	-	91,000
Poultry farming	159	34	40,000-50,000/per year/per 1000bird unit	100000-1,25000/per year/per 1000 bird unit(6-7 lots per year)

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

10.2. **Cases of large scale adoption** (Please furnish detailed information for each case) 1. **Hybrid maize adoption**

KVK Reasi is laying out the demonstrations of maize hybrids from the last seven years in both the districts Udhampur and Reasi. Every year more than 5 hectares of hybrid maize is laid out at the farmers'

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fields as FLDs. 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 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 huge quantity of maize 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 10-12q/ha is now raised to 20-25 q/ha and in some demonstrations we have harvested up to 40q/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. Organic Vegetables Growing: KVK has developed certain pockets for organic vegetables where the farmers are producing the organic vegetables and fetching more prices. .KVK scientists imparted specific trainings on organic vegetables growing. They were trained for the preparation of organic inputs such as Panchgavaya, Jeevamrit, Beejamrit, Cow Urine, Neemoil, Vermicompost etc. Now the farmers are growing commercial vegetables and selling in local market and also in Jammu. An organic training centre established at Talwara village is also co-ordinated by the KVK where the farmers from every nook and corners are coming for the training purpose on organic farming. Farmers are selling their organic farm produce in nearby army camps, local market and even at Jammu.

3. 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 awareness and trainings 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 Chamyara 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 8to10 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.

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.

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

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11.0 LINKAGES

11.1 Functional linkage with different organizations

Name of organization	Nature of linkage
1.Department of Agriculture	Trainings/FLDs/OFTs/KissanMelas /ATMA/ RKVY etc.
2.Department of Horticulture	Trainings/FLDs/OFTs/ KissanMelas/ ATMA/RKVY etc.
3.Department of Animal Husbandry	Vet. Camps/backyard poultry
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
10.Lead banks	Participation in meetings
11.Rural self-employment training institute	Trainings to the farmers
12.Department of floriculture	Camps/supply of planting materials

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

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

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

11.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	Remarks
1.	Kisan Ghosties	Deptt. of agriculture	KVK experts gave the technical advice to the farmers
2.	FFS	Deptt. of agriculture	Provided technical guidelines to the farmers
3.	Farmers-Scientist Interaction	Deptt. of agriculture	Interacted with the farmers on scientific agriculture in the district

Coordination activities between KVK and ATMA during 2018-19

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S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	4	4		
02	Research projects				
03	Training programmes	6	6	2	
04	Demonstrations	4	4	1	
05	Extension Programmes				
	KisanMela	1	1		
	Technology Week				
	Exposure visit	4	4		
	Exhibition	4	4		
	Soil health camps				
	Animal Health Campaigns				
	FFS	3	3		
06	Publications				
	Video Films	4			
	Books				
	Extension Literature	700			
	Pamphlets	100			
	Others News coverage	7			
07	Other Activities				

11.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
1.	Awareness/training programmes on organic horticulture	Provided technical guidelines on organic horticulture	

11.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks

11.6. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	Awareness programmes	Provided technical guidelines			

12. PERFORMANCE OF INFRASTRUCTURE IN KVK

12.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit (Mention the name of Demo Unit)	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Vermicompost unit	2015				40qt.			
2.	Dhingri unit	2016				50 bags			
3	Poultry	2014	100 birds	Chabrown, NakedneckVan raja and Kadaknath		100 chicks			
4.	Greenshade/poly house net unit	2016		For hort. Crops seedlings	In progress	1500 plants of pecan nut walnut and almond			

12.2 Performance of instructional farm (Crops) including seed production

Name Of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals	Nov. 26	April, 25	1.5 ha	WH-1080	Seed and straw	25qt seed, 25 qt straw,	21500	57850	
Maize	June 10	Sept.28	1.5 ha	Double Deklab	Grain and straw	25qt.	13,800	25600	

Oat	Nov. 5	April.23	0.2 ha	Sabzar	Seed & straw	3 qt seed 3 qt straw.	5200	11436	
Pulses									
Black gram	June 17	Oct.8	0.3 ha	PU-31	Seed	0.85 qt.	3500		
Chickpea	Nov. 11	April 15	0.3 ha	GNG-1581	Seed	0.70 qt.	1200	5506	
Pea	Nov. 10	April 17	0.1	Parkash	Seed	0.25	430	952.50	
Oilseeds									
	Nov. 7	April 8	0.3	DGS-1	Seed	0.80	4100		
Fibers									
Floriculture									
Fruits									
Vegetables	Nov. 8 and 5 April	March. 10 and June 15	0.1	Varsha Uphar	Vegetables	0.15	300	930	
Others (specify)									
Oat fodder	Nov. 6	Feb.23	0.4 ha	Sabzar	Fodder	150 qt.	9000	21000	
Chari Fodder	June 04	Aug. 10	0.4 ha	SSG-1	Fodder	250 qt	3100	8000	

12.3 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	
1	Vermicompost	40 qt			

12.4 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	

12.5 Utilization of hostel facilities:

Accommodation available (No. of beds) =

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018			
May 2018			

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June 2018			
July 2018			
August 2018			
September 2018			
October 2018			
November 2018	15	3days	KVK is located in the far-flung area of the district.
December 2018			
January 2019			
February 2019			
March 2019			

12.6. Database management

S. No	Database target	Database created by the KVK

12.7 Rainwater Harvesting

Training programmes conducted using Rainwater Harvesting Demonstration Unit

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

Demonstrations conducted using Rainwater Harvesting Demonstration Unit

Date	Title of the Demonstration	Client (PF/R/EF)	No. of Demos.	No. of Participants including SC/ST			No. of SC/ST Participants		
				Male	Female	Total	Male	Female	Total

Seed produced using Rainwater Harvesting Demonstration Unit

Name of the crop	Quantity of seed produced (q)

Plant materials produced using Rainwater Harvesting Demonstration Unit

Name of the crop	Number of plant materials produced

Other activities organized using Rainwater Harvesting Demonstration Unit

Activity	No. of visitors
Visit of farmers	
Visit of officials	

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13. FINANCIAL PERFORMANCE

13.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute	J&K Bank	Chatha	SB 003
With KVK	J&K Bank	Reasi	0029040500018557 IFSC- JAKA0REASSI
	J&K Bank	Dera Baba	0707040500000036 JAKA0DERABAB

13.2 Utilization of KVK funds during the year 2018-19 (up to March 2019)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	111.49	111.49	108.60
2	Traveling allowances	1.00	1.00	1.00
3	Contingencies	10.30	10.30	
	10.30			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		10.30	10.30	10.30
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)		3.85	3.85	3.50
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		126.64	123.76	123.37

13.3 Status of revolving fund (Rs. in lakhs) for the last five years

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 2013 to March 2014	4,68156.00	2,07781.00	27,559.00	6,48378.00
April 2014 to March 2015	6,48378.00	1,93250.00	323413 + (1 lac paid to ICAR)=423413.00	4,16,092.00
April 2015 to March 2016	4,16,092.00	213855.00	50799.00	6,22,829.00
April 2016 to March 2017	6,22,829.00	130256.00	5880.00	768531.00
April 2017 to March 2018	768531.87	149770 .00	-	933274.87
April 2018 to March 2019	933274.87	199676.00	Nil	1132950.87

14. Details of HRD activities attended by KVK staff during 2018-19

Name of the staff	Designation	Title of the training programme	Institute where attended	Date
Dr.Banarsi Lal	I/C,KVK,Reasi	Action Plan Meeting of KVKs	SKUAST -Jammu	18-4-2018
Dr.Sanjay Kaushal	SMS	21 days training programme on organic farming	MPUAT-Udaipur	1-21 June,2018
Dr.Sanjay Kaushal& Dr.MS Azad	SMSs	ASCI training prog.	PAU-Ludh.	29 th -1 st Sept.,2018
Dr.Banarsi Lal, Dr.SN Qureshi	I/C,PC and SMSs	Training programme on CeRA	SKUAST -Jammu	29-8-2018
Dr .Banarsi Lal	I/C, Sr.Scientist-cum-Head	Training programme on TCS	SKUAST -Jammu	31—8-2018
Dr.Suja Nabi Qureshi	SMS	21 days training programme on advance horticulture	MPKV, Maharashtra	14 th Nov.-4 th Dec.,2018
Dr.Banarsi Lal and Dr.Arvinde Kumar	SMS	National Seminar of RASSA	SKUAST -Jammu	19-20-Nov.,2018
Dr.Banarsi Lal, Dr.Sanjay Kaushal and Dr.Suja Nabi Qureshi	I/C,Sr.Scientist-cum-Head, SMSs	Workshop on medicinal plants	SKUAST -Jammu	3-1-2019
Dr.Banarsi Lal	I/C,PC	Ext. Council Meeting	SKUAST -Jammu	4-1-2019
Dr.Banarsi Lal, Dr.Sanjay Kaushal, Dr. Mandeep Singh Azad and Dr.Suja Nabi Qureshi	I/C,PC and SMSs	National Conference of SIDAVES	SKUAST -Jammu	7-8 Feb.,2019

Dr.Banarsi Lal, Dr.Sanjay Kaushal, Dr. Mandeep Singh Azad and Dr.Suja Nabi Qureshi	I/C,PC and SMSs	Training programme of SAMETI	SKUAST -Jammu	6-7-3-2019
Dr.Banarsi Lal, Dr.Sanjay Kaushal	I/C & SMS	Seminar on PMKSY	SDAO, Udh.	11-3-2019
Dr.Banarsi Lal, Dr.Sanjay Kaushal, Dr. Mandeep Singh Azad and Dr.Suja Nabi Qureshi	I/C,PC and SMSs	Univ. level workshop of KVKs	SKUAST -Jammu	29-3-2019
Dr.Banarsi Lal, Dr.Sanjay Kaushal, Dr. Mandeep Singh Azad and Dr.Suja Nabi Qureshi	I/C,PC and SMSs	SAMETI training programme	SKUAST -Jammu	30-3-2019

15. Please include any other important and relevant information which has not been reflected above (write in detail).

Annexures

District Profile - I**Include the details of**

1. General census :District Udhampur and Reasi extending over an area of 4550 sq. Kms comprises of 645 villages which includes both Udhampur and Reasi as a new district Reasi has been carved out of the combined district, for development purpose. Both the district have a population of 869652 lakhs as per 2011 census. The district has recorded population growth rate of 27.73% during the decade 1991-2001. population is mostly rural and only 15.68% of it resides in the towns. Udhampur district had 23 blocks and Reasi has 12 blocks.
2. Agricultural and allied census: Agriculture is the main source of livelihood in the district as in the rest of the state. The agriculture however, is not very developed and hence productivity of major crops is below the national average. The net area sown in both the districts is 116323 hectares, with 10513 hectare of fallow land. Out of the net sown area 11596 hectare is under food crops and 494 hectare is under fruits and vegetables, 3066 hectares is under oilseeds and 842 hectares is under fodder crops. Most of the land holding is marginal to small while there are only 133 large land holdings.
The area signifies only low input usage i.e. fertiliser usage is low, new high yielding seeds are lesser taken, plant protection is followed only in specific pockets etc. Thus the yield of major crops is less. The district Udhampur and Reasi falls in the mid hill zone. Most part of the district is rain fed and major crops grown here are Maize, Wheat, Paddy, Mustard and Pulses like black gram (mash) and Green gram (moong). The crops of irrigated area are paddy, *barseem*, and Seasonal vegetables besides horticulture. There is ample scope for growing mushrooms, apiaries for honey and backyard poultry.

3. Agro-climatic zones

Sl. No	Agro-climatic Zone	Characteristics
1	Subtropical zone	This includes areas between 380-800m, amsl. The lower belt of Reasi where the KVK is located falls in this zone. This area experiences hot summers followed by cold winters and area also experiences autumn frost. The major chunk of precipitation is received during monsoons. The soils are mostly sandy loam and clay loam with normal OM. Most of the area is rain fed with very little irrigation. The annual rainfall of the district is 1000 to 1100 mm. major chunk of it is received from may-September. The mean maximum and minimum temperature ranges between 35-40 °C and 10-12 °C respectively. Agriculture in this area is diverse and is completely rain fed. The area has low productivity and low input usage.
2	Intermediate Zone	Situated between 800-1500m, amsl, this area experiences definite winters and a hot spell of summer. The major chunk of precipitation is received in July-Aug. Most part of Udhampur and Reasi falls in this zone. The annual rainfall of the district is about 1100 mm. The mean maximum and minimum temperature ranges between 35- 40 °C and 10-12 °C respectively. Agriculture in this area completely rain fed.

3	Temperate zone	It includes few areas falling above 1500m amsl. This area experiences chilling winters and major cropping season is kharif, during which moisture is available for growing crops. These areas also experiences snow in winter thus minimum temperatures falls below zero degrees during these months.
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4. Agro-ecosystems

5. Major and micro-farming systems

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

S. No	Farming system/enterprise
1	Maize-Wheat
2	Rice-Wheat
3	Mash-Wheat
4	Maize- Mustard
5	Horticulture crops a: (vegetables like Tomato, Cole crops, cucurbits, Brinjal and chillies. b. Fruit crops like Mango, Citrus, Guava, Litchi, Peach, plum and apricot. c. Garlic, Ginger and Turmeric are potential crops of some pockets

7. Major production systems like rice based (rice-rice, rice-green gram, etc.), cotton based, etc.

Backyard poultry, organic vegetables and fishery in some pockets of the district. Some enterprises like seasonal floriculture, dairy farming, sericulture and vegetable cultivation has been adopted as the major production systems like rice based (rice-rice, rice-green gram, etc.), cotton based, etc. includes wheat based and maize based farming systems. However, in very few pockets rice based system is also followed.

8. Major agriculture and allied enterprises: District Udhampur and Reasi people have adopted vegetable cultivation as an enterprise, in some areas olive cultivation is being practised commercially. In certain pockets seasonal flowers(marigold) is being cultivated for religious purposes. Pickles, Tiki masala and chutney preparation has also been taken up as enterprise in the district.

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

Include

1. Names of villages, focus area, target area etc. Talwara, Dheerti, Judd, Bharakh, Gran More, Tanda, Sirah, Bhakta, Kanshi Patta
2. Survey methods used (survey by questionnaire, PRA, RRA, etc.) :PRA, base line survey
3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc. :Transact walk, social mapping, timeline gap
4. Analysis and conclusions
5. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem
6. Matrix ranking of problems
7. List of location specific thrust areas-Mahore, Dharmari, Chenanai, Talwara, Bharakh
8. List of location specific technology needs for OFT and FLD
9. Matrix ranking of technologies
10. List of location specific training needs

Technology Inventory and Activity Chart - III

Include

1. Names of research institutes, research stations, regional centres of NARS (SAU and ICAR) and other public and private bodies having relevance to location specific technology needs
 - b. Regional research laboratory Jammu.
 - c. Central institute of temperate horticulture, (CITH) Srinagar.
 - d. Pulses research station samba.
 - e. regional research station and KVK Gurdaspur.
 - f. CSK, HPKV, Palampur.
 - g. PAU, Ludhiana.

Inventory of latest technology available *

Sl. No	Technology	Crop/enterprise	Year of release or recommendation of technology	Source of technology	Reference/citation
1	Seed treatment in various crops	Cereals/pulses/vegetables	-	SKUAST-J	
2	Introduction of high yielding varieties in different crops	Wheat, Paddy, pulses, oilseed		SKUAST-J, PAU, CSKHPKV	
3	Introduction of hybrids in maize	Maize	-	PAU	
4	Introduction of high yielding vegetable varieties.	Cucurbits, okra, tomato, capsicum, brinjal etc.	-	-	
5	Management of rhizome rot in Ginger.	Ginger	-	SKUAST-J	
6	Introduction of new varieties of ginger.	Ginger			
7	Promotion of round the year mushroom cultivation.	Mushroom	-	SKUAST-J, NRC mushroom	
8	Promotion of backyard poultry in Reasi	Poultry		SKUAST-J	
9	Fodder	Fodder spp.	-	SKUAST-J	

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	management for round the year availability.				
10.	Introduction of high yielder marigold in the district.	Merigold		IARI, New Delhi	

PS * an example for guidance only

2. Activity Chart

Crop/Animal/Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Wheat	Low productivity of wheat under rainfed conditions	1) Imbalance fertilizer application 2) disease occurrence 3) Low yield due to nutrient deficiency	1.Application of recommend dose of Nutrients 2.Integrated Disease Management	1. Single component FLD to demonstrate effect of recommended dose of nutrients 2. Training and FLD programme on integrated disease management in wheat 3. OFT on disease management in wheat	
Soybean					
Mulberry					
Jersey Cow					

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

Include

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

1.8. A). Details SAC meeting* conducted in the year 2017-18

PROCEEDINGS OF THE 10TH SCIENTIFIC ADVISORY COMMITTEE MEETING OF KVK, REASI

The 10th Scientific Advisory Committee (SAC) meeting of Krishi Vigyan Kendra Reasi was held in the meeting hall of KVK, Reasi on 09-03-2018 under the chairmanship of Dr. R.K. Arora, Associate Director Extension

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(KVKs)& I/C KVKs. District Heads and officers of various line departments of Agriculture, Horticulture, Animal husbandry, Forestry, Soil conservation, Social forestry, Social welfare, Lead bank, Fisheries, Small scale industries etc. and progressive farmers attended the meeting (List of participants enclosed).

Dr.BanarsiLal, I/C, Sr. Scientist & Head, KVK, Reasi formally welcomed the chairman and members of Scientific Advisory Committee. He then apprised the house about the importance of SAC meeting and sought valuable suggestions in reforming the action plan of KVK, Reasi for the year 2018-19.

Agenda Item No.1. Confirmation of the Proceedings

The proceedings of 9th Scientific Advisory Committee (SAC) of KVK Reasi held on 08-03-2017 at KVK, Reasi have already been circulated to all the SAC members. Since no comments were received from the members, the proceedings were unanimously confirmed by the house.

Agenda Item No.2. Action Taken Report and Presentation of Annual Progress Report.

Dr.BanarsiLal,I/C, Sr. Scientist & Head, KVK Reasi presented the action taken report on the issues raised in the 9th SAC meeting. He apprised the house about the various activities undertaken by the KVK in two districts of Reasi and Udhampur.The glimpses of all the activities including awareness/training programmes, important days, field days, campaigns, KisanGhosties etc. were also shown during the presentation.The action taken points were discussed in detail by the members of the SAC.The various suggestions and recommendations given by the Chairman and others members are given below:

- Chairman instructed for the mapping/demarcation of KVK land by the revenue deptt.**(Action: KVK, Reasi)**
- Chairman suggested to provide the dubbed CDs/DVDs in Dogri language to the farmers and line departments.**(Action: KVK, Reasi)**
- CAO, Reasi suggested to adopt a village near Dera Baba for the demonstration of hybrid maize variety.**(Action: KVK, Reasi)**
- CAO, Reasi asked for the study and documentation of the success story on pickle making of Karua farmer.**(Action: KVK, Reasi)**
- DDM, NABARD asked for the submission of project on the entrepreneurship development for rural development.**(Action: KVK, Reasi)**
- Chairman asked for the promotion of Composite Variety JMC-3.**(Action: KVK, Reasi)**
- CAO, Reasi asked for the promotion of electric fencing to overcome the problem of monkey menace.**(Action: KVK, Reasi)**
- Chairman asked to replace wheat var. PBW-175.**(Action: KVK, Reasi)**
- CAO, Reasi asked for the OFT on PBW-154 and VL-907.**(Action: KVK, Reasi)**
- Chairman asked to demonstrate the SKUAST-J recommended varieties of different crops.**(Action: KVK Reasi)**
- Chairman asked for the documentation of village wise record of Kadaknath beneficiaries.**(Action: KVK Reasi)**
- Chief Sheep Husbandry, Reasi asked for the initiatives for the eradication of Lantana Camera.**(Action: KVK Reasi)**
- Chairman instructed to conduct training programmes in both Udhampur and Reasi distts.**(Action: KVK, Reasi)**
- Chairman asked to organise animal clinical camps in the infested villages after doing the benchmark survey.

(Action: KVK, Reasi)

- Chairman suggested to incorporate soil solarisation treatment in the OFT on management of rhizome rot in ginger. **(Action: KVK, Reasi)**
- Chairman instructed to consult with the HOD of Div. of Plant Pathology for the OFT on management of chilli.

(Action: KVK, Reasi)

- Chairman suggested to adopt 5 villages near KVK under Unnat Bharat Abhiyan. **(Action: KVK Reasi)**
- Chairman instructed to submit the per day income of poultry unit and find out B:C ratio. **(Action: KVK, Reasi)**
- Chairman suggested to contact with the Div. of Entomology for the OFT on management of pod borer in chickpea.

(Action: KVK, Reasi)

- CHO, Reasi asked for the recommendation of new varieties of citrus and olives and suggested to recommend zone wise varieties of fruit crops.

(Action: KVK, Reasi)

- J&K Bank Manager said that farmers should be guided to use the crop loan properly and repay their dues as per the bank norms. **(Action: KVK, Reasi)**
- Chairman asked for the water testing of Gran More village so that crop damaged by the infected water can be prevented.

(Action: KVK, Reasi)