ANNUAL REPORT
(April-2018-March-2019)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & Farm women	54	700	380	1080
Rural youths	09	60	30	90
Extension functionaries	17	220	30	250
Sponsored Training	--	--	--	--
Vocational Training	03	54	06	60
Total	**83**	**1034**	**446**	**1480**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	65	20.00	--
Pulses	160	60.04	--
Cereals	111	35.00	--
Vegetables	--	--	--
Other crops (Sugarcane)	85	34.00	--
Hybrid crops	10	2.00	--
Total	**431**	**151.04**	**--**
Livestock & Fisheries	--	--	--
Other enterprises	--	--	--
Total	**--**	**--**	**--**
Grand Total	**431**	**151.04**	**--**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	05	05	23
Livestock	--	--	--
Various enterprises	--	--	--
Total	**05**	**05**	**23**
Technology Refined			
Crops	--	--	--
Livestock	--	--	--
Various enterprises	--	--	--
Total	**--**	**--**	**--**
Grand Total	**05**	**05**	**23**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	416	24294
Other extension activities	89	--
Total	**505**	**24294**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Market-ing	Aware-ness	Other enterprise	Total
Nagina (Bijnor)	Text only	55	-	-	-	15	-	70
	Voice only	100	-	-	-	15	-	115
	Voice & Text both	-	-	-	-	-	-	-
	Total messages	**150**	**-**	**-**	**-**	**25**	**-**	**175**
	Total farmer benefitted	**200**	**-**	**-**	**-**	**50**	**-**	**250**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	387.00	--
Planting material (No.)	--	--
Bio-Products (kg)	--	--
Livestock Production (No.)	--	--
Fishery production (No.)	--	--

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	--	--
Water	--	--
Plant	--	--
Total	**--**	**--**

8. HRD and Publications

SN	Category	Number
1	Workshops	04
2	Conferences	02
3	Meetings	07
4	Trainings for KVK officials	06
5	Visits of KVK officials	--
6	Book published	02
7	Training Manual	03
8	Book chapters	--
9	Research papers	01
10	Lead papers/ Invites lecture	--
11	Seminar papers/Abstract	05
12	Extension folder	07
13	Proceedings	--
14	Award & recognition	02
15	Ongoing research projects	--

DETAIL REPORT OF APR (2018-2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		Email
	Office	FAX	
KrishiVigyan Kendra, Nagina (Bijnor) (U.P.) - 246762	01343-250489	01343-250489	bijnorkvk@gmail.com

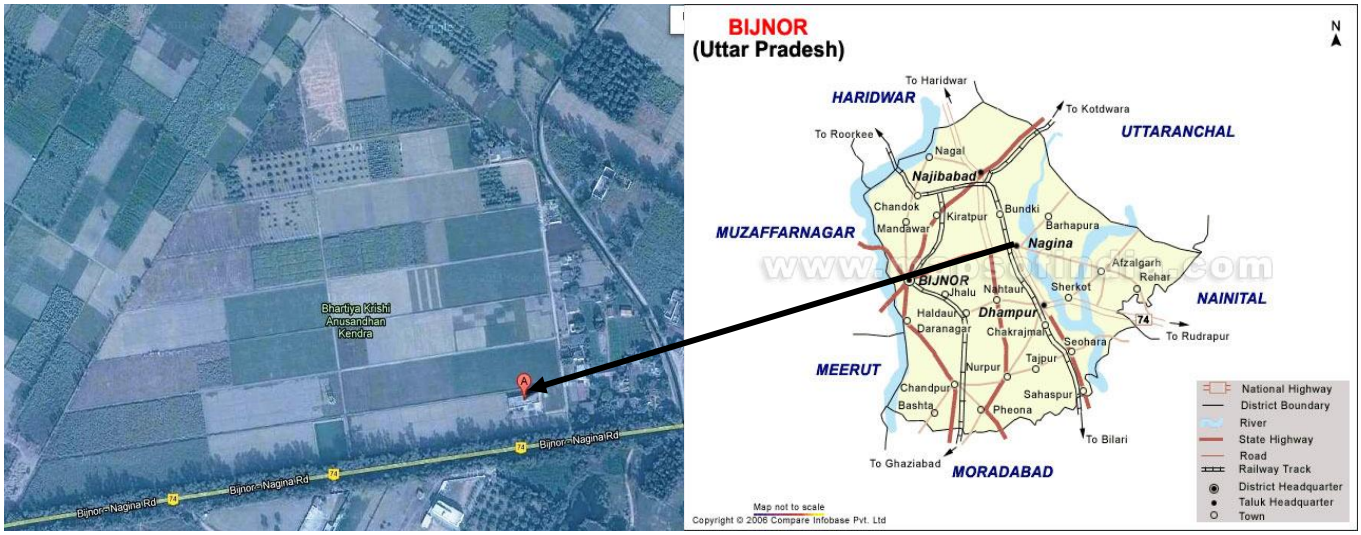
1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		Email
	Office	FAX	
S.V.P. Univ. of Agri.& Tech., Meerut (U.P.) 250110	0121-2411511	0121- 2411511, 2411505	deesvpuat2014@gmail.com

1.3. Name of the Head with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. D.P. Singh	--	9720974900	dpsingh0107@gmail.com

1.4. Year of sanction : FN5 (108)/90 KVK date 22.04.92
FNo. 15(22)/92 Agr. Ext. -1/do Jan. 93



1.5. Staff Position (as on 30th March, 2019)

SN	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present Basic (Rs.)	Date of Joining	Permanent/ Temporary	Category (SC/ST/OBC/ Others)	Mobile	Age	Email-Id
1	Sr. Scientist & Haed	Dr. D.P. Singh	Professor & Head	Horticulture	37400-67000	1,67,200	11.08.08	Permanent	OBC	9720974900	51	dpsingh0107@gmail.com
2	Subject Matter Specialist	Dr. Shakuntala Gupta	Asstt. Prof.	Home Science	15600-39100	1,43,600	09.12.03	Permanent	Others	9412356736	52	shakuntalaguptakvk@gmail.com
3	Subject Matter Specialist	Dr. K.K. Singh	Asstt. Prof.	Plant Breeding	15600-39100	89,800	10.07.08	Permanent	Others	8979101113	41	krishna.singh1976@gmail.com
4	Subject Matter Specialist	Dr. Narendra Singh	Asstt. Prof.	Agronomy	15600-39100	84,800	15.01.09	Permanent	Others	9457168051	42	gnarendra1976@gmail.com
5	Computer Programmer	Er. S.K. Yadav	Prog. Asstt.	Computer Science	9300-34800	70,000	21.10.99	Permanent	OBC	9412117844	43	shailendrayadav31@gmail.com
6	Farm Manager	Dr. Rakesh Kumar	Prog . Asstt.	Plant Breeding	9300-34800	47,600	24.07.08	Permanent	Others	7599151951	50	rakeshnagina@gmail.com
7	Accountant / OS	Mr. Rajpal Singh	OS/Acctt.	--	9300-34800	47,600	26.07.08	Permanent	SC	9411078113	57	--
8	Stenographer	Mr. Abdul Gaffar	Jr. Steno	--	5200-20200	55,200	29.08.95	Permanent	Others	9412452148	50	agkhan1970@rediffmail.com
9	Driver	Mr. Anil Kumar	Driver	--	5200-20200	29,600	30.07.07	Permanent	SC	9359218476	43	--
10	Attendant	Mr. Satish Chandra Maurya	Attendant	--	5200-20200	34,300	01.07.98	Permanent	OBC	9410860550	53	--

1.6. Total land with KVK (in ha) : 13.35 ha

SN	Item	Area (ha)
1	Under Buildings	0.40
2	Under Demonstration Units	1.70
3	Under Crops	9.80
4	Orchard	1.20
5	Fish Pond	0.247

1.7. Infrastructural Development :

(A) Buildings

SN	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expend-iture (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1	Administrative Building	ICAR	1999	550	--	--	--	--
2	Farmers Hostel	ICAR	2006	300	--	--	--	--
3	Staff Quarters (6)	ICAR	--	400	--	Nov. 2006	--	Completed
4	Demo. Units (2)	ICAR	--	160	--	Nov. 2006	--	Completed
5	Fencing/Boundary wall	ICAR	--	500 rm	--	Feb. 2007	--	Completed
6	Threshing floor	ICAR	Completed	300	--	Nov. 2006	--	Completed
7	Farm godown	ICAR	--	60	--	June 2006	--	Completed
8	Irrigation Channel	ICAR	--	1000 rm	--	May 2007	--	Completed

(B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep	2009	600000.00	--	Good
Motor Cycle	2010	46500.00	--	Good
Tractor	1995	--	--	Not working

(C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Diesel engine pump set	1995	--	Poorly working
Zero till ferti seed drill	1998	11,255.00	Poorly working
	1999	11,300.00	Working
	2010	19,500.00	Working
Cultivator	1995	6,000.00	Poorly working
Disc harrow	1995	4,700.00	Poorly working
	2008	22,000.00	Working
Bund maker	1995	3,400.00	Working
Labeller	1995	47,500.00	Working
Tractor trolley	1995	46,000.00	Poorly working
Sugarcane cutter planter	2000	--	Poorly working
Bed Planter	2010	57,500.00	Working
Thresher	1995	17,000.00	Poorly working
Computer	2003	--	Poorly working
LCD	2007	--	Working
ERNET setup (05 Computer, 01 Server & 01 VSAT)	2009	--	Computer working, VSAT not working

1.8. A). Detail of SAC meeting conducted in the year : Date: 30.01.2019

Name and Designation	Salient Recommendations	Action taken
Dr. S K Sachan, Director, Extension, SVPUA&T, Meerut	Trench method of sugarcane should be more popularize with suitable intercrops by KVK scientist	04 training programme of trench method with suitable intercrops including 01 OFT (04 farmers) and 04 FLD programme are conducted during the year 2018-19 and also planned such programme next upcoming year 2019-20.
	Suggested for training on awareness about burning of crop residue and also published related literature	Scientist Plant Breeding and Scientist Agronomy conducted 02 training programme on management of crop residues during 2018-19 and also planned programme next upcoming year 2019-20. In this context The KVK organize CRM programme during the year.
	Suggested for NAARI and VATICA programme	The programme follow up next year 2019-20
	Suggested promoting Newly released biofortified varieties of crops district.	KVK scientists already conducted FLD on biofortified variety of wheat (20 FLD), mustard (30 FLD) and Lentil 910FLD) during 2018-19 and also planned such programme FLD on biofortified variety of wheat (25 FLD), mustard (30 FLD) and Lentil (10FLD) next upcoming year 2019-20.
Dr. P K Singh, Associate Professor SVPUA&T, Meerut	KVK scientists should be develop literature based on modern agricultural technologies for farmers purpose	Modern agro technological literature developed by the KVK Scientist based on district and farmers demand during the whole year.
	Suggested for promoting newly varieties in district for better adaption and yield performance.	KVK scientists conducting FLD & OFT programme only newly released varieties.
Smt. Poonam Chaudhary, SAC Member	Programme should be promoted on Women's empowerment	Training, Demo. & OFT is designed in annual action plan on women's empowerment
Sh. Sharad Kumar, Farmer	Suggested inclusion of ICM technology in major crops	Such programme has been plant during upcoming year.

2. DETAILS OF DISTRICT (2018-19)

2.1 Major farming systems/enterprises

SN	Farming system/enterprise
1	Integrated agriculture farming systems
2	Integrated crop-livestock-fish farming systems
3	Dairy farming systems
4	Agro-forestry systems

2.2 Description of Agro-climatic Zone & major agro ecological situations

SN	Agro-climatic Zone	Characteristics
1	Mid Western Plain Zone	• The soils are coarse to medium in texture, moderately well drained, consistently deep and neutral to slightly alkaline in nature • Climate of the zone in general is subtropical type • The maximum temperature of the district was 41^{0}C while minimum was found to be 0.6^{0}C • Total rain fall of the district is 898.5 mm • The fertilizer consumption of the area is 143 kg/ha 83% farmers are having less than 2 ha land, 8% farmers are having 2-4 ha land, while the rest 9% have more than 4 ha land • The crops of the zone are sugarcane, rice, wheat, mustard, groundnut, field pea, gram, fodder sorghum etc.
2	Tarai & Bhabar Zone	• A part of the district falls under this zone • The highest temperature is recorded in May, June and the lowest in Dec., Jan. • The average rainfall is 1400 mm. Eighty three percent of rains are received from south- west monsoon from June to September • The soils are low to medium in available phosphorus, medium to high in organic carbon

b) Topography

The Topography of Bijnor district is mainly a plain. The district has a pleasing climate with cool and foggy winter and generally hot and humid summer. The wet session starts from July to October during which the district receives rainfall. The temperature of the district is varies from 48^{0}C in summer and 3^{0}C in winter. These districts have the highest density of population which gives the lowest per capita land. The other two regions, the central and the western are comparatively better with a well-developed irrigation system.

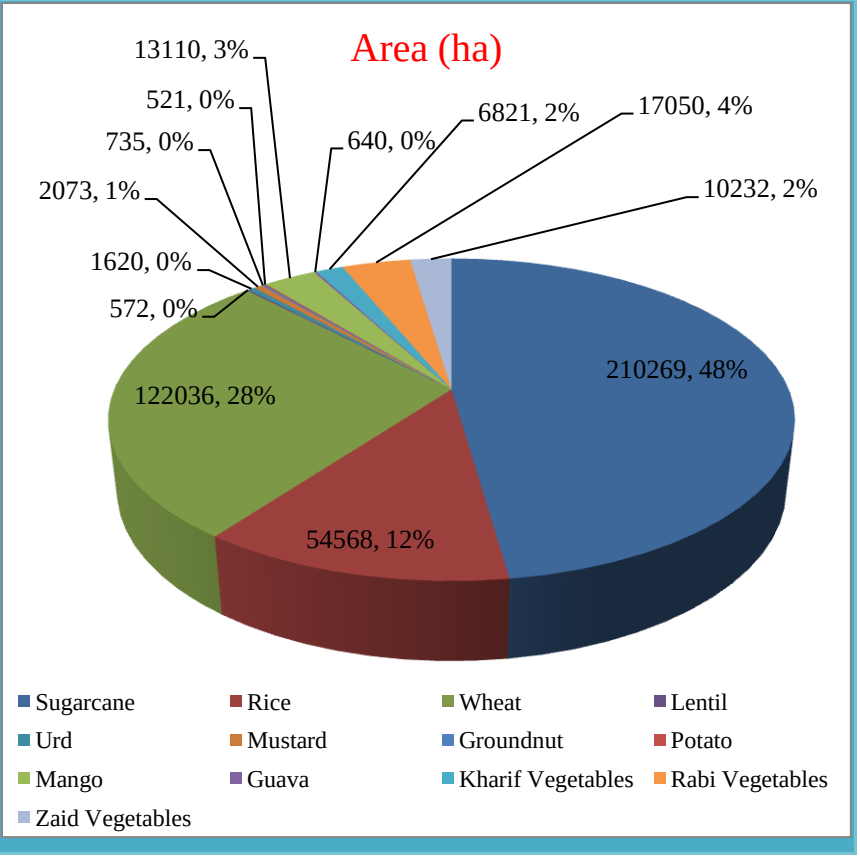
SN	Agro ecological Situation	Characteristics
1	AES-1	Irrigated Sandy Loam, Loam (S.cane predominant)
2	AES-2	Irrigated Loam, Clay Loam soils

2.3 Soil type/s

SN	Soil type	Characteristics	Area in ha
1	Clay loam	Fine-grained minerals, organic matter medium, variable range of water content, clay minerals polar attraction.	179652
2	Sandy loam	Fertile soil with rich nutrient, organic matter medium to high suitable for all arable crops	172428
3	Sandy	Low organic matter content, high porosity, contains large particles, usually light in color. stay loose and allow moisture to penetrate easily	84272

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

Crop	Area (ha)	Productivity (q./ha)
Sugarcane	210269	784.97
Rice	54568	26.37
Wheat	122036	27.39
Lentil	572	4.85
Urd	1620	8.85
Mustard	2073	9.32
Groundnut	735	12.42
Potato	521	273.41
Mango	13110	114.00
Guava	640	266.00
Vegetables		
a) Kharif	6821	--
b) Rabi	17050	--
c) Zaid	10232	--



2.5. Weather data

Month	Rainfall (mm)	Rainy Days	Temperature ^{0} C		Relative Humidity (%)	
			Maximum	Minimum	0716	1416
April, 18	15.6	03	34.4	18.1	75	34
May, 18	5.6	01	37.9	23.0	71	36
June, 18	52.0	04	37.3	25.9	81	49
July, 18	379.0	18	33.4	25.9	91	73
August, 18	516.6	13	31.6	24.7	96	74
September, 18	211.2	08	31.8	23.7	96	71
October, 18	43.2	02	30.4	14.8	93	47
November, 18	00.0	00	26.4	9.6	94	49
December, 18	00.0	00	21.7	4.1	96	50
January, 19	77.0	03	20.3	4.9	97	52
February, 19	60.0	08	21.6	9.2	96	61
March, 19	1.0	01	27.5	11.5	92	38

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

Category	Population	Production (LMT)	Productivity (kg/day/animal)
Cattle			
Crossbred	41490	--	3.0
Indigenous	223258	--	1.5
Buffalo	526188	127.56	4.3
Cow	223258	33.52	2.5
Sheep			
Crossbred	8286	--	--
Indigenous	5599	--	--
Goats	104429	10.93	0.729
Pigs			
Crossbred	5427	--	--
Indigenous	24938	--	--
Rabbits	495	--	--
Poultry	152327	--	--

Category	Area	Production (qt.)	Productivity (qt./ha)
Fish	1306.60 ha	45404.35	34.75

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

SN	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Kotwali	Harvanshpur Dhaaram, Khanpur, Saidkheri, Rajpura, Purani, NejowaliGamdi, Fulsandha Karandachodher, Patpura and Vishoniwala etc.	Sugarcane, Rice, Wheat, French bean, Okra, Mustard, Groundnut, Urd, Moong, Mango and Guava	• Insect & Diseases • Old variety seed • Excessive and Imbalanced use of pesticides & fertilizers • No seed treatment, • Poor Management of orchards • No application of micronutrients	• Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self-help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
2	Allahapur (Dhampur)	Nayagoan and Norangabad	Sugarcane, Rice Wheat, Mustard, Vegetables	• Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals	• Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self-help group of farmers
3	Najibabad	Jattiwalla and Raipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	• Unavailability of quality seed of vegetable • Insect & Diseases attack • No seed treatment • Poor management of orchards • No application of micronutrients	• Promotion of suitable and HYV of vegetables • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self-help group of farmers
4	Nehtaur	Kokapur, Begrajpur and Sarayaashnra etc.	Sugarcane, Rice Wheat, Mustard, Vegetables	• Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals	• Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self-help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
5	Kiratpur	Akbrabad and Sadipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	• Unavailability of quality seed of vegetable • Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Poor management of orchards • No application of micronutrients	• Promotion of suitable and HYV of vegetables • Adequate package and practices of vegetables and fruits • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self-help group of farmers

6	Seohara	Jamapur, JatNagla and Budhanpur	Rice, Wheat, Sugarcane and orchard	• Delayed sowing of sugarcane and wheat • Improper management of pests • Sowing of old varieties seeds • Imbalanced use of pesticides & fertilizers • Poor management of orchards • No application of micronutrients	• Promotion of suitable and HYV of vegetables • Adequate package and practices of fruits • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of sugarcane and rice farmers • Promotion of self-help group of farmers
7	Afjalgarh	Jamanwala and Muraliwala	Sugarcane, Rice, Wheat, Mustard, Groundnut, Urd, Moong, Mango and Guava	• Insect & Diseases • Old variety seed • Excessive and Imbalanced use of pesticides & fertilizers • No seed treatment, • Poor Management of orchards • No application of micronutrients	• Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self-help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
8	Nehtaur	Kokapur, Begrajpur and Sarayaashnra etc.	Sugarcane, Rice Wheat, Mustard, Vegetables	• Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals	• Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self-help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
9	Jalilpur	Bhwanipur and Laddupura	Sugarcane, Rice Wheat, Mustard, Vegetables	• Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals	• Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self-help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards

2.8 Priority Thrust areas

Crop/Enterprise	Thrust area
Sugarcane	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field
Paddy	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field • Promoting export quality Basmati production
Wheat	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field
Lentil	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field
Mustard	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field
Black Gram	• Popularizing IPM technologies for management of insect pests • Popularizing new agro techniques in sugarcane for farmers doubling income • Promoting quality seed production at farmers field
Women empowerment	• Women empowerment through popularization of food preservation technique, NARI & VATICA progrmme
Others	• Maintenance of soil productivity through IPNM • Promoting resource conservation techniques in crops • Promoting Group Approach of Extension through FIG • Diversification in orchard management

2.9 Intervention/Programmes for the doubling the farmers income – during 2018-19 **Demonstrations**

Before Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent Yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Sole cropping of sugarcane	1110	--	--	123524.00	237226.00	2.92	--
--	Mango Squash	--	--	Market available product mango Squash	126.00 (750 ml)	--	--

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

After Interventions	**Main crop Yield(q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Intercropping System (Autumn Sugarcane)							
Sugarcane + Potato*	1280	168.75	1721.35	186854.00	559437.50	2.99	--
Sugarcane + Lentil	1096	12.80	1277.17	133985.57	415080.00	3.10	--
Sugarcane + Mustard	1085	11.20	1277.98	135403.70	415345.00	3.07	--
Assessment of income generating activity value addition and capacity building	Value addition of mango product	--	--	780.00	1390.00	1.78	--

*Net profit depends on selling price; sometimes farmers get more profit and sometimes less profit

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

Before Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Mono Cropping System (Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

After Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Mono Cropping System (Kharif-Rabi-Zaid) - Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

Before Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Relay Cropping System (Kharif-Rabi-Zaid) -Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

After Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Relay Cropping System(Kharif-Rabi-Zaid)-Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

Before Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Mixed Farming System (Kharif-Rabi-Zaid)-Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

After Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
Mixed Farming System (Kharif-Rabi-Zaid)-Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

Before Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
IFS System (Kharif-Rabi-Zaid) - Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

After Interventions	**Main crop Yield (q/ha)**	**Inter crop Yield (q/ha)**	**Equivalent yield (q/ha)**	**Cost of cultivation (Rs/ha)***	**Net income (Rs/ha)**	**B:C Ratio**	**Remark if any**
IFS System (Kharif-Rabi-Zaid) - Livestock etc.							

Discussion: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease)*

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		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
05	05	20	23	158.4	151.4	431	431

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	Achiev-ement	Targets	Achiev-ement	Targets	Achiev-ement	Targets	Achiev-ement
PF	54	54	1080	1080	416	416	24294	24294
RY	9	9	90	90				
EF	17	17	250	250				
Skill trg.	03	03	60	60				
Total	**83**	**83**	**1480**	**1480**				

Seed Production (Q.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	387.00	--	--	--	--

Technology Demonstrated and disseminated through Technology Park

Crop	Technology /Variety
Wheat (Varietal)	WB-02,HPBW-01, DBW-173, HD-2967, HD-3086, DBW-88, PBW-621, PBW-550, DBW-17, PBW-590, DBW-71, DBW-90 and HD-3059
Wheat (Weed Management)	Isoproturan 75 WP @ 1.5 kg/ha, Sulfosulfuran 75% + Metsulfuron 5% @ 40 gm/ha, Mesosulfuranmethyal 3% + Idosulfuranmethyal 0.6% at 400 gm/ha and Clodinofop 15% WP + Metsulfuron 20% @ 40 gm/ha
Paddy (Varietal)	HKR-127, NDR-359, NDR-2008, NDR-2064, PR-113, NB-3,PR-111, HKR-97, SuskSamrat.Arize 6444 Gold, PAC-801, VNR-2335, NPH-150, TEJ Gold, Swift Gold, Prima,VNR-2245, Pusa Basmati-2511, Pusa Basmati-1637,Pusa Basmati-1121, Pusa Basmati-01, PB-1509 T-21, Sharbati (Local grown) and Chandan-21
Paddy (Weed Management)	Bispyribac sodium 10%SC 250 ml/ha, Pretilachlor 2.0 lit/ha and Oxadiagril 112.5gm/ha
Total technology to be demonstrated	**80**
Approximately No of farmers visited	**8500**

I.A TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Crop Management	Sugarcane	Impact of nursery plantation under late sown condition on sugarcane yield	01	03
Varietal Evaluation	Paddy	Evaluation of newly released HYV of rice	01	05
	Paddy	Evaluation of newly released HYV of basmati rice against disease resistance	01	05
	Wheat	Evaluation of newly released HYV of Late sown wheat	01	05
Value Addition	Mango	Value addition in mango squash increase prices as well as it shelf life	01	05
Total			**05**	**23**

Summary of technologies assessed under livestock by KVKs : Nil

Summary of technologies assessed under various enterprises by KVKs : Nil

I.B. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops by KVKs : Nil

Summary of technologies refined under various livestock by KVKs : Nil

Summary of technologies refined under various enterprises by KVKs : Nil

I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

INTEGRATED CROP MANAGEMENT

OFT- 1 (Agronomy) Season - Rabi Year: 2017-18

Problem definition: Due to late sowing of sugarcane farmers get low yield

Technology Assessed: Impact of nursery plantation under late sown condition on sugarcane yield.

Sugarcane is a major crop of Bijnor district and most of the farmers follow sugarcane – wheat cropping system. Due to adoption of sugarcane – wheat cropping system the sowing of both crops are depend on harvesting of subsequent crop consequently sowing of both crops are delayed and productivity affected directly and same situation are coming in autumn sowing, because sowing of sugarcane are done after harvesting of paddy crop so low temperature affected germination percent and tillering. To short out the problem KVK scientist designed this trial. The details are given below:

Technology Option	No. of trials		Yield (qt./ha)	Increase in yield (%)	Cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T_1- FP (Normal sowing)	01 (03 farmers field)	12.2	937.50	--	1,18,749.00	1,85,938.00	2.57
T_2- (Nursery planting)		14.8	1131.25	20.66	1,05,249.00	2,62,407.00	3.49

VARIETAL EVALUATION

OFT- 2 (Plant Breeding) Season – Kharif Year: 2018

Problem definition: Low Productivity of Rice

Technology Assessed: Evaluation of newly released high yielding Rice varieties against disease resistance.

The KVK Bijnor conducted On-farm trial on Rice varieties to find out suitable high yielding rice varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were PD-24, PR-126 and PR-113 as check. The transplanting dates of these varieties are 20 to 30 June2018 with 1 to 15 October 2018 harvesting dates also. The results revealed that yield increase of rice varieties ranged between 4.23 to 9.74 percent over farmers practice. The variety PR-126 gave highest yield of 64.75 qt. per ha with net return of Rs. 105907.50 and BCR of 3.39. The others technical data as given below:

i. Variety PR-126 takes less crop duration as comparison PD-24 and PR-113

ii. The lodging in PR-126 is less (2-6) in comparison PD-24 (4-7) and PR-113 (7-11%)

iii. Disease incidence in PR-126 is none while it is about 5-11% in PR-113.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T_1- Local (PR-113)	01 (05 farmers field)	59.00	--	7-11	5-11	91085.00	3.01
T_2- PR-126		64.75	9.74	2-6	0-2	105907.50	3.39
T_3- PD-24		61,50	4.23	4-7	2-5	96685.00	3.10


OFT- 3 (Plant Breeding) Season – Kharif Year: 2018

Problem definition: Low Productivity of Rice

Technology Assessed: Evaluation of newly released high yielding Basmati Rice varieties against disease resistance.

The KVK Bijnor conducted On-farm trial on Rice varieties to find out suitable high yielding basmati rice varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were Pusa Basmati-1637, Pant Basmati-02 and Pusa Basmarti-1 as check. The transplanting dates of these varieties are 25 to 10 July 2018 with 10 to 20 October 2018 harvesting dates also. The results revealed that yield increase of rice varieties ranged between -5.23 to 17.61 percent over farmers practice. The variety Pusa Basmati-1637 gave highest yield of 61.75 qt. per ha with net return of Rs. 172330.00 and BCR of 4.99. The others technical data as given below:

i. Variety PB-1637 takes more or less same crop duration as comparison PB-1 and Pant Basmati-2
ii. The lodging in PB-1637 is none in comparison PB-1 (8-15%) and Pant Basmati-02 (11-17%)
iii. Disease incidence in PB-1637 is none comparison PB-1 (11-16%) and Pant Basmati-02 (10-18

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T_1- Local (PB-1)	01 (05 farmers field)	52.5	--	8-15	11-16	144050.00	4.30
T_2- Pusa Basmati-1637,		61.75	17.61	2-5	0-2	172330.00	4.99
T_3- Pant Basmati-02		49.75	-5.23	11-17	10-18	133600.00	4.04

OFT- 4 (Plant Breeding) Season – Rabi Year: 2018-19

Problem definition: Low Productivity of Late Sown Wheat

Technology Assessed: Evaluation of newly released high yielding late sown wheat variety against disease resistance

The KVK Bijnor conducted On-farm trial on late sown wheat varieties to find out suitable high yielding Late sown wheat varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were DBW-173, WH-1124 and DBW-16 as check. The sowing dates of these varieties are 15 to 25 December 2018 with 08 to 14 April 2019 harvesting dates also. The results revealed that yield increase of Late sown wheat varieties ranged between 14.03 to 18.70 percent over farmers practice. The variety WB-02 gave highest yield of 53.30 qt. per ha with net return of Rs. 76665.50 and BCR of 2.68. The others technical data as given below:

i. Variety DBW-173 takes more or less same crop duration as comparison to WH--1124 and DBW-16.
ii. The lodging in DBW-173 is none (0-2%) in comparison WH-1124 (3-6) and DBW-17 (14-17%)
iii. Yellow rust incidence in DBW-173 is none while it is about 7-10% in DBW-16.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T_1- Local (DBW-16)	01 (05 farmers field)	41.25	--	51830.00	2.06
T_2- DBW-173		49.70	20.48	72032.00	2.55
T_3- WH-1124		44.00	6.66	59500.00	2.25

VALUE ADDITION

OFT- 5 (Home Science) Season - Kharif Year: 2018

Problem definition: Low income of farm women due to preservation and value addition

Technology Assessed: Value addition in mango squash increase prices as well as it shelf life.

The KVK Bijnor conducted On-farm trial on Assessment of mango squash making and its marketing for addition income. Farm women provided with elaborative and view of making mango squash found to be safe for about four months. In demonstration the amount of potassium meta bi sulphate and sugar was taken in accurate amount the attack of mould get reasoned. It was also found that the farm women while making the mango squash con not take the chemical substance sugar in right proportion a result. They approved to problem & mould attack.

Crop	No. of Demon.	Parameter	Storage Period (Month)			
			I	II	III	IV
Mango squash	05	Potassium meta bi sulphate	Safe	Safe	Safe	Safe

II. FRONTLINE DEMONSTRATION

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2017-18 and recommended for large scale adoption in the district

SN	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in (ha)
1	Paddy	Basmati Rice	Pusa Basmati-1509	FLD, Training, Field day, electronic/print media	850	3580	7800
		Hybrid Rice	Arize 6444 Gold	FLD, Training, Field day, electronic/print media	50	360	550
		Weed management	Bispyribac Sodium 10% SC @250 ml /ha	FLD, Training, Field day, electronic/print media	450	4000	8500
		Weed management	Oxadigryl 80% W.P @ 112.5 gm /ha	FLD, Training, Field day, electronic/print media	100	600	4000
2	Wheat	Timely sown	DBW-88	FLD, Training, Field day, electronic/print media	950	3800	16500
		Late sown	DBW-90	FLD, Training, Field day, electronic/print media	480	1055	3800
		Weed management	Clodinafop 15% WP + Metsulfuron methyl 20% WP	FLD, Training, Field day, electronic/print media	450	4500	15000
3	Mustard	Varietal development	Variety - YSH - 0401	FLD, Training, Field day, electronic/print media	100	250	500
		Nutrient management	Sulphur @ 40 kg/ha and Boron @ 1.5 kg/ha	FLD, Training, Field day, electronic/print media	150	350	700
4	Sugarcane	Integrated Crop Management	Trench method of sugarcane sowing	FLD, Training, Field day, electronic/print media	750	6500	65000
		Weed management	Halosulfuron methyl 75% WG @ 90gm / ha	FLD, Training, Field day, electronic/print media	50	100	100
		Intercropping	Sugarcane + Mustard intercropping system	FLD, Training, Field day, electronic/print media	150	500	5000
		Intercropping	Sugarcane + Lentil intercropping system	FLD, Training, Field day, electronic/print media	50	100	250
		Intercropping	Sugarcane + potato intercropping system	FLD, Training, Field day, electronic/print media	40	80	100
				Total	**4620**	**25775**	**127800**

b. Details of FLDs implemented during 2017-18 to 2019

SN	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demon.			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Cluster FLD										
1	Urd (NFSM)	ICM	Seed, Zinc sulphate and liquid bio-fertilizer	Zaid 2018	20.00	20.00	6	44	50	--
2	Mustard (NFSM)	ICM	Seed, sulphur, Zinc sulphate and Borax	Rabi 2018-19	10.0	10.0	5	20	25	--
3	Lentil (NFSM)	ICM	Seed and liquid bio-fertilizer	Rabi 2018-19	20.0	20.0	8	42	50	--
4	Urd (NFSM)	ICM	Seed, liquid bio-fertilizer, Trichoderma and Zinc sulphate	Zaid 2019	20.0	20.0	7	43	50	--
Other FLD										
5	Sugarcane (Participatory)	ICM	Trench method of sugarcane sowing (30-120-30 cm spacing)	Rabi 2017-18	8.0	8.0	2	18	20	--
6	S.cane + Mustard	ICM	Sugarcane + Mustard intercropping system	Rabi 2017-18	4.0	4.0	--	10	10	--
7	S.cane + Lentil	ICM	Sugarcane + Lentil intercropping system	Rabi 2017-18	4.0	4.0	--	10	10	--
8	S.cane + potato	ICM	Sugarcane + potato intercropping system	Rabi 2017-18	4.0	4.0	--	10	10	--
9	Sugarcane	Weed Management	Halosulfuron methyl 75% WG	Spring 2018	4.0	4.0	--	10	10	--
10	Hybrid Rice	Varietal Demonstration	ARIZE-6444 Gold	Kharif 2018	5.0	2.0	--	10	10	--
11	Basmati Rice	Varietal Demonstration	Pusa Basmati 1509	Kharif 2018	5.0	5.0	3	22	25	--
12	Paddy	Weed management	Bispyribac Sodium 10% SC @250 ml /ha	Kharif 2018	8.0	8.0	4	16	20	--
13	Paddy	Weed management	Oxadigryl 80% W.P @ 112.5 gm /ha	Kharif 2018	8.0	8.0	4	16	20	--
14	Sugarcane (Participatory)	Integrated Crop Management	Trench method of sugarcane sowing (30-120-30 cm spacing)	Rabi 2018-19	10.0	10.0	5	20	25	--
15	Mustard	Nutrient management	Sulphur @ 40 kg/ha and Boron @ 1.5 kg/ha	Rabi 2018-19	4.0	4.0	1	09	10	--
16	Mustard	Varietal Demonstration	To demon. the yield potential of Mustard variety Pusa Mustard-31	Rabi 2018-19	6.0	6.0	3	27	30	--
17	Lentil	Varietal Demonstration	To demon. the yield potential of Lentil variety	Rabi 2018-19	0.4	0.4	--	10	10	--
18	Wheat	Varietal Demonstration	WB-02	Rabi 2018-19	5.0	4.0	--	16	16	--
19	Wheat	Varietal Demonstration	HD-3059	Rabi 2018-19	5.0	2.0	--	10	10	--
20	Wheat	Weed management	Clodinafop 15% WP+Metsulfuron methyl 20% WP	Rabi 2018-19	8.0	8.0	2	18	20	--
	Total				**158.4**	**151.4**	**50**	**381**	**431**	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Urd (NFSM)	Zaid 2018	Irrigated	Loam	L	M	L	Sugarcane & Mustard	15-30.03.2018	5-25. June.2018	--	--
Mustard (NFSM)	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-30.10.2018	05-10.03.2019	--	--
Lentil (NFSM)	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-30.10.2018	05-10.03.2019	--	--
Urd (NFSM)	Zaid 2019	Irrigated	Loam	L	M	L	Sugarcane & Mustard	15-30.03.2019	-	--	--
Sugarcane (Co-0238)	Rabi 2017-18	Irrigated	Loam	L	M	L	Dhaincha	15-30.09.2017	10-25.11.2018	--	--
Sugarcane + Mustard	Rabi 2017-18	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2017	10-30.11.2018	--	--
Sugarcane + Lentil	Rabi 2017-18	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2017	10-30.11.2018	--	--
Sugarcane + potato	Rabi 2017-18	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2017	10-30.11.2018	--	--
Sugarcane (Co-0238)	Spring 2018	Irrigated	Loam	L	M	L	Mustard	20-30.03.2018	10-28.02.2019	--	--
Hybrid Rice	Kharif 2017	Irrigated	Loam	L	M	L	Wheat	10-16.07.2018	20-26.10.2018	--	--
Basmati Rice	Kharif 2017	Irrigated	Loam	L	M	L	Wheat	07-10.07.2018	01-07.10.2018	--	--
Paddy	Kharif 2018	Irrigated	Loam	L	M	L	Wheat	05.07.2018	25-30.10.2018	--	--
Paddy	Kharif 2018	Irrigated	Loam	L	M	L	Wheat	08.07.2018	22-30.10.2018	--	--
Sugarcane (Participatory)	Rabi 2018-19	Irrigated	Loam	L	M	L	Dhaincha	10-25.09.2018	--	--	--
Mustard	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice	20-25.10.2018	01-05.03.2019	--	--
Mustard	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-25.10.2018	05-10.03.2019	--	--
Lentil	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-30.10.2018	20-28.02.2019	--	--
Wheat	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice	20-25.11.2018	04-15.04.2019	--	--
Wheat	Rabi 2018-19	Irrigated	Loam	L	M	L	Sugarcane	20-26.12.2018	07-15.04.2019	--	--
Wheat	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice	20-30.11.2018	04-20.04.2019	--	--

Technical Feedback on the demonstrated technologies

SN	Crop/Technology	Feed back
1	Sugarcane - Trench Method	• Trench method found superior against traditional method in case of productivity and resource optimization. • Increase 35-40% sugarcane yield.
2	Sugarcane + Mustard	• Intercropping system found significantly superior over the sole cropping. • After calculation of CEY we found that farmer get 15-20% additional yield.
3	Sugarcane + Lentil	• Intercropping system found significantly superior over the sole cropping. • After calculation of CEY we found that farmer get 15-18% additional yield.
4	Sugarcane + potato	• Intercropping system found significantly superior over the sole cropping. • After calculation of CEY we found that farmer get 50-55% additional yield.
5	Sugarcane - IWM (Halosulfuron methyl 75% WG)	• Cyprus rotendus weeds control effectively and farmers save Rs.10000 -12000 cost of cultivation. • Increase 3-5% yield due to timely management of weeds.
6	Corse Rice (NDR-3112)	• Variety NDR-3112 takes less crop duration (130-132) as comparison to NDR-359 (130-135) • Disease incidence in NDR-3112 is not seen while it is about 8-12% in NDR-359 • Lodging in NDR-3112 is less (3-7%) as comparison to NDR-359 (15-18%)
7	Hybrid Rice-(ARIZE-6444 Gold)	• Variety ARIZE-6444 Gold takes less crop duration (125-130) as comparison to Arize-6444 (128-132) • Disease incidence in ARIZE-6444 Gold is not seen while it is about 10-12% in Arize-6444 • Lodging in ARIZE-6444 Gold is less (3-5%) as comparison to Arize-6444 (11-15%)
8	Basmati Rice - (PB-1509)	• Variety PB-1509 takes less crop duration (115-119) as comparison to pusa-1121 (140-143). Due to short duration PB-1509 is suitable for adverse environment condition. • Disease incidence in PB-1509 is not seen while it is about 12-18% in Pusa-1121 • Lodging in PB-1509 is less (0-5%) as comparison to pusa-1121(15-21%) due to its short stature of plant
9	Paddy - IWM (Bispyribac sodium 10% SC)	• Bispyribac sodium controlled weeds effectively during critical stage of crop weed competition (30-60 days) consequently, • Yield increased 20-26%.
10	Paddy - IWM (Oxadigryl 80% W.P)	• Oxadigryl found suitable against Butachlor in case of weed resistance and cost of weedicides
11	Mustard (Sulphur and Boron)	• Sulphur and boron increase upto 24 % yield of mustard. Therefore popularity required among the farmers.
12	Mustard (PM-31)	• Disease incidence in PM-31 is not seen while it is about 0-5% in Check variety. • Better yield and better quality of oil of PM-31 against check variety.
13	Lentil (Pusa Masoor Ageti)	• Variety PMA takes less crop duration (105) as comparison to check (125-130). Due to this crop duration it is suitable for adverse environment condition and for Sugarcane cropping system. • Disease incidence in PMA is non while it is about 8-14% in Check.
14	Wheat (WB-02)	• Variety WB-02 takes less crop duration (135-140) as comparison to PBW-550 (140-148). Due to this crop duration it is suitable for adverse environment condition.

		• Disease incidence in WB-02 is not seen while it is about 8-15% in PBW-550. • Lodging in WB-02 is less (0-5%) as comparison PBW-550 (12-18%) due to its short stature of plant.
15	Wheat (HD-3059)	• Variety HD-3059 takes more or less same crop duration as DBW-16. • The lodging in HD-3059 is less (0-6%) in comparison to DBW-16 (20-25%) • Yellow rust and blight incidence in HD-3059 is none, while it is about 14-18% in DBW-16.
16	Wheat (Clodinafop + Metsulfuron methyl)	• Weeds are developed resistance against old weedicies (Isoproturon). • There is no any phytotoxic effect of that weedicides Clodinafop & Metsulfuron methyl.

Farmers' reactions on specific technologies

SN	Crop/Technology	Feed back
1	Sugarcane - Trench Method	• Farmers feel much better due to more productivity under trench method.
2	Intercropping system	• Farmers feel labour crises.
3	Sugarcane - IWM (Halosulfuron methyl 75% WG)	• Farmers feel better in case of labour crises.
4	Corse Rice (NDR-3112	• Rice of NDR-3112 is medium cylindrical and its yield better than NDR-359.
5	Hybrid Rice-(ARIZE-6444 Gold)	• Rice of ARIZE-6444 Gold is medium cylindrical and its yield better than Arize-6444. • Market potential of ARIZE-6444 Gold is better than Arize-6444 due to better rice quality.
6	Basmati Rice - (PB-1509)	• Rice of PB-1509 is longer than pusa-1121. • Market potential of PB-1509 is better than pusa-1121 due to their high demand. • Farmers like very much basmati varieties pusa basmati 1509 due to their short crop duration, which is fit for early crop rotation.
7	Paddy - IWM (Bispyribac sodium 10% SC)	• The bispyribac Sodium effectively control weeds as comparison to other weedicides used by farmers.
8	Paddy - IWM (Oxadigryl 80% W.P)	• It is good under pre-emergence condition.
9	Mustard (Sulphur and Boron)	• They get more yields in comparison to without sulphur and boron.
10	Mustard (PM-31)	• Market potential of pm-31 is better than other mustard variety due to their high demand. • Farmers like very much Mustardvariety PM-31 due to high nutritional quality against other Mustard varieties.
11	Lentil (Pusa Masoor Ageti)	• Market potential of PMA is better than Check due to their high demand. • Farmers like very much Lentil variety PMA due to their short crop duration and high nutritional quality against other Lentil varieties.
12	Wheat (WB-02)	• Market potential of WB-02 is better than PBW-550 due to their high demand. • Farmers like very much Wheat variety WB-02 due to their short crop duration & high nutritional quality against other wheat varieties.
13	Wheat (HD-3059)	• Grain size of HD-3059 is bold and its chapatti making quality is better than DBW-16 and it has good market potential.
14	Wheat (Clodinafop + Metsulfuron methyl)	• Weeds controlled effectively and no phytotoxic effect of weedicides on crop.

Extension and Training activities under FLD

SN	Crop	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Sugarcane - Trench Method	Farmers Training	02	05.09.2018, 11.09.2018	40	--
		Field days	03	16.10.2018,15.12.2018, 15.01.2019	80	--
2	Sugarcane intercropping system	Farmers Training	02	04.10.2018, 10.10.2018	40	--
		Field days	03	22.12.2018	25	--
3	Sugarcane - IWM (Halosulfuron methyl 75% WG)	Farmers Training	02	05.03.2018, 07.02.2018	40	--
		Field days	01	22.04.2018	96	--
4	Corse Rice (NDR-3112	Farmers Training	01			--
		Field days	01			--
5	Hybrid Rice-(ARIZE-6444 Gold)	Farmers Training	01	22.05.2018	20	--
		Field days	01	08.10.2018	60	--
6	Basmati Rice - (PB-1509)	Farmers Training	01	12.06.2018	20	--
		Field days	02	04.10.2018	89	--
		Field days	01	--	50	--
7	Paddy - IWM (Bispyribac sodium 10% SC) & (Oxadigryl 80% W.P)	Farmers Training	01	20.07.2017	20	--
		Field days	01	30.09.2017	40	--
8	Mustard (Sulphur and Boron)	Farmers Training	01	23.09.2017	20	--
		Field days	01	29.12.2017	25	--
9	Mustard (PM-31)	Farmers Training	01			--
		Field days	01	--		--
10	Lentil (Pusa Masoor Ageti)	Farmers Training	01			--
		Field days	01	--		--
11	Wheat (WB-02)	Farmers Training	02	13.11.2018 & 15.11.2018	40	--
		Field days	02	11.04.2019& 12.04.2019	118	--
12	Wheat (HD-3059)	Farmers Training	01	08.12.2017	20	--
		Field days	02	09.04.2018	75	--
13	Wheat (Clodinafop + Metsulfuron methyl)	Farmers Training	03	13.10.2017, 10.11.2017, 08.12.2017	60	--
		Field days	01	21.12.2017	20	--

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops:

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check(Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard	ICM	Seed, Sulphur, Borax and Zinc sulphate	YSH-0401	25	10.0	18.80	12.5	15.69	11.46	36.91	26436.00	62993.00	36557.00	2.38	24684.00	45840.00	21156.00	1.86

Frontline demonstrations on pulse crops:

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Urd	ICM	Variety, Liquid bio-fertilizer & Zinc sulphate	PU-31	50	20	14.60	8.6	11.44	8.6	33.02	30622.00	45762.00	15097.00	1.49	29525.00	34400.00	4875.00	1.17
Lentil	ICM	Seed and liquid bio-fertilizer	PL-08	50	20	16.25	10.62	15.50	11.25	37.78	40223.00	71202.50	30978.80	1.77	35225.00	51843.00	16618.00	1.47
Urd	ICM	Variety, Liquid bio-fertilizer & Zinc sulphate	PU-31	50	20	Result awaited												

FLD on Other Crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy										No. of weeds m^2									
Paddy	Weed Management	Bispyribac Sodium 10% sc	20	8.0	64.50	58.80	62.30	49.14	26.82	11.20	55.80	53380.00	105795.00	52414.50	1.98	52030.00	83581.00	31550.50	1.61
Paddy	Weed Management	Oxadigryl 80% W.P	20	8.0	63.80	58.90	61.08	49.20	24.36	28.40	57.20	52130.50	103782.00	51651.50	1.99	52030.00	83680.22	31649.50	1.61
Coarse Rice										Disease incidence (%)									
Coarse Rice	Varietal improvement	NDR-3112	10	2.0	70.0	60.0	65.0	59.6	9.02	0	8-12	44770.00	150250.00	105480.00	3.35	46210.00	137193.80	90983.75	2.96
										Lodging (%)									
										3-7	15-18								

Scented Rice										**Disease incidence (%)**								
Basmati Rice	Varietal improvement	PB-1509	25	5.0	62.5	45.0	52.80	42.03	25.81	0	12-18	41148.00	188550.00	147402.00	4.58	44742.00	156880.00	112138.00	3.51
										Lodging (%)								
										0-5	15-21							
Wheat										**No. of weeds m^2**								
Wheat	Weed management	Clodinafop 15% W.P + Metsulfuron methyl 20 % W.P.	20	8.0	57.0	50.2	54.5	45.40	20.04	1.6	40.2	45307.50	112760.00	67452.50	2.49	45107.50	94132.00	49024.50	2.09
Mustard	ICM	Sulphur and Borax	10	4.0	17.80	12.6	15.61	11.42	36.69	--	--	26436.00	62992.00	36556.00	2.35	24685.00	45842.00	21155.00	1.85
										Disease incidence (%)								
Mustard	Varietal improvement	PM-31	30	6.0	20.0	12.0	15.20	11.50	32.17	--	3-5	28780.00	68400.00	48300.00	2.37	28600.00	39620.00	19699.67	1.68
										Disease incidence (%)								
Lentil	Varietal improvement	Pusa Masoor Ageti	10	0.40	16.25	12.50	13.62	8.50	60.23	0-3	8-14	32280.00	61312.50	38385.00	1.90	29032.50	33055.00	4022.50	1.05
Wheat Timely Sown										**Disease incidence (%)**								
Wheat	Varietal improvement	WB-02	20	4.0	63.75	52.50	57.50	45.91	25.26	0	8-15	46345.00	137950.00	91605.00	2.98	49229.00	113032.00	63803.00	2.30
										Lodging (%)								
										0-5	12-28							
Wheat Late Sown										**Disease incidence (%)**								
Wheat	Varietal improvement	HD-3059	10	2.0	57.50	42.50	48.00	42.00	14.28	0	15-20	43500.00	115000.00	71500.00	2.64	44800.00	96250.0	51450.00	2.16
										Lodging (%)								
										0-5	18-22							
Millets																			
Vegetables																			
Flower crops																			
Fruit crops																			
Mango																			
Papaya																			
Spices & condiments																			

Commercial Crops																			
Sugarcane										**Cane wt. (Kg)**									
Sugarcane	ICM	Trench method of sugarcane sowing	20	8.0	1973	1285	1475	1062.5	38.82	1.62	1.08	136124.00	464625.00	328501.00	3.41	121686.00	334687.00	213001.00	2.75
										No. of hoeing									
Sugarcane	Weed Management	Hellosulfuron methyl	10	4.0	1025	800	956.25	925.00	3.38	02	03	110549.00	310781.25	200232.25	2.81	120299.00	300625.00	180326.00	2.50

Category & Crop	**Thematic Area**	**Name of the technology**	**No. of Farmers**	**Area (ha)**	**Yield (q/ha)**				**% Change in Yield**	**Economics of demonstration (Rs./ha)**				**Economics of check (Rs./ha)**			
					Demo			**Check (single crop)**		**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**
					Cane yield	**Intercrops yield**	**CEY**										
Sugarcane + Mustard	ICM	Sugarcane + Mustard intercropping	10	4.0	1094.00	12.80	1275.17	1104.00	15.60	134055.57	414430.00	281024.43	3.10	123220.00	358800.00	235580.00	2.91
Sugarcane + Lentil	ICM	Sugarcane + Lentil Intercropping	10	4.0	1085.00	11.20	1277.98	1096.00	16.40	135403.70	415345.00	279941.30	3.07	123114.00	356200.00	233086.00	2.89
Sugarcane + Potato	ICM	Sugarcane + Potato intercropping	05	2.0	1280.00	168.75	1721.35	1110.00	55.08	186854.00	559437.50	372583.50	2.99	123524.00	360750.00	237226.00	2.92

FLD on Livestock

Category	**Thematic area**	**Name of the technology demonstrated**	**No. of Farmer**	**No. of Units (Animal/ Poultry/ Birds, etc)**	**Major parameters**		**%change in major parameter**	**Other parameter**		**Economics of demonstration (Rs.)**				**Economics of check(Rs.)**			
					Demon	**Check**		**Demo**	**Check**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**

FLD on Fisheries

Category	**Thematic area**	**Name of the technology demonstrated**	**No. of Farmer**	**No. of units**	**Major parameters**		**% change in major parameter**	**Other parameter**		**Economics of demonstration (Rs.)**				**Economics of check(Rs.)**			
					Demon	**Check**		**Demo**	**Check**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**

FLD on Other Enterprises

Category	**Name of the technology demonstrated**	**No. of Farmer**	**No. of units**	**Major parameters**		**% change in major parameter**	**Other parameter**		**Economics of demonstration (Rs.) or Rs./unit**				**Economics of check (Rs.) or Rs./unit**			
				Demo	**Check**		**Demo**	**Check**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**
Value Addition																

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total

FLD on Other Enterprise: Kitchen Gardening

Category &Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration(Rs./ha)				Economics of check(Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Kitchen Garden	Nutritional security	Seed of vegetables	10	10	120	78	90	320.00	450.00	320.00	1100.00	780.00	3.46	376.00	960.00	580.00	2.55

FLD on Demonstration details on crop hybrids

Crop	Technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Paddy	Hybrid variety of rice	ARIZE-6444 Gold	10	2.0	73.75	60.00	69.75	57.35	21.62	44970.00	161247.50	132187.50	3.58

Glimpses of Technology Demonstrations during the Year

III Training Programme

Farmers' Training including Sponsored Training Programmes (On Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Integrated Crop Management	5	80	-	80	20	-	20	100	-	100
Integrated Nutrient Management	1	16	-	16	4	-	4	20	-	20
Resource Conservation Technologies	2	32	-	32	8	-	8	40	-	40
Total	**8**	**128**	**-**	**128**	**32**	**-**	**32**	**160**	**-**	**160**
II Horticulture										
III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Drudgery reduction	1	-	16	16	-	4	4	-	20	20
Women and child care	3	-	48	48	-	12	12	-	60	60
Total	**4**	**-**	**64**	**64**	**-**	**16**	**16**	**-**	**80**	**80**
VI Agril. Engineering										
VII Plant Protection										
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
XII Plant Breeding										
Seed Production & varietal improvement	4	69	-	69	11	-	11	80	-	80
Diversification	6	105	-	105	15	-	15	120	-	120
Resource conservation	2	36	-	36	04	-	04	40	-	40
Total	**12**	**210**	**-**	**210**	**30**	**-**	**30**	**240**	**-**	**240**
GRAND TOTAL	**24**	**338**	**64**	**402**	**62**	**16**	**78**	**400**	**80**	**480**

Farmers' Training including Sponsored Training Programmes (Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Integrated Nutrient Management	3	48	-	48	12	-	12	60	-	60
Weed Management	2	40	-	40	-	-	-	40	-	40
Residual Management	1	11	-	11	9	-	9	20	-	20
Resource Conservation Technologies	2	32	-	32	8	-	8	40	-	40
Integrated Crop Management	3	48	-	48	12	-	12	60	-	60
Total	**11**	**179**	**-**	**179**	**41**	**-**	**41**	**220**	**-**	**220**
II Horticulture										
III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Drudgery reduction	4	-	62	62	-	18	18	-	80	80
Women and child care	2	-	32	32	-	8	8	-	40	40
Minimization of nutrient loss in processing	1	-	16	16	-	4	4		20	20
Household food security by kitchen grading & nutrition grading	5	-	80	80	-	20	20	-	100	100
Small Scale processing	3	-	45	45	-	15	15	-	60	60
Total	**15**	**0**	**235**	**235**	**-**	**65**	**65**	**-**	**300**	**300**
VI Agril. Engineering										
VII Plant Protection										
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
XII Plant Breeding										
Seed Production & varietal improvement	3	49	-	49	11	-	11	60	-	60
Resource conservation	1	18	-	18	2	-	2	20	-	20
Total	**4**	**67**	**-**	**67**	**13**	**-**	**13**	**80**	**-**	**80**
GRAND TOTAL	**30**	**246**	**235**	**481**	**54**	**65**	**119**	**300**	**300**	**600**

Farmers' Training Including Sponsored Training Programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Integrated Nutrient Management	4	64	-	64	16	-	16	80	-	80
Integrated Crop Management	8	128	-	128	32	-	32	160	-	160
Residual Management	1	11	-	11	9	-	9	20	-	20
Resource Conservation Technologies	4	65	-	64	16	-	16	80	-	80
Weed Management	2	40	-	40	-	-	-	40	-	40
Total	**19**	**307**	**-**	**307**	**73**	**-**	**73**	**380**	**-**	**380**
II Horticulture										
III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Drudgery reduction	5	-	78	78	-	22	22	-	100	100
Minimization of nutrient loss in processing	1	-	16	16	-	4	4	-	20	20
Women and child care	5	-	80	80	-	20	20	-	100	100
Household food security by kitchen grading & nutrition grading	5		80	80	-	20	20	-	100	100
Small scale food processing	3		45	45	-	15	15	-	60	60
Total	**19**	**-**	**299**	**299**	**-**	**81**	**81**	**-**	**380**	**380**
VI Agril. Engineering										
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XII Plant Breeding										
Seed Production & varietal improvement	7	118	-	118	22	-	22	140	-	140
Diversification	6	105	-	105	15	-	15	120	-	120
Resource conservation	3	54	-	54	6	-	6	60	-	60
Total	**16**	**277**	**-**	**277**	**43**	**-**	**43**	**320**	**-**	**320**
GRAND TOTAL	**54**	**584**	**299**	**883**	**116**	**81**	**197**	**700**	**380**	**1080**

Training for Rural Youths Including Sponsored Training Programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Organic Farming	1	4	-	4	6	-	6	10	-	10
Precision Farming	2	11	-	11	9	-	9	20	-	20
Seed production	3	25	-	25	5	-	5	30	-	30
Value addition	3	-	25	25	-	5	5	-	30	30
TOTAL	**9**	**40**	**25**	**65**	**20**	**5**	**25**	**60**	**30**	**90**

Training for Rural Youths Including Sponsored Training Programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Organic Farming	1	4	-	4	6	-	6	10	-	10
Precision Farming	2	11	-	11	9	-	9	20	-	20
Seed production	3	25	-	25	5	-	5	30	-	30
Value addition	3	-	25	25	-	5	5	-	30	30
TOTAL	**9**	**40**	**25**	**65**	**20**	**5**	**25**	**60**	**30**	**90**

Training Programmes for Extension Personnel Including Sponsored Training Programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated Crop Management	4	21	-	21	19	-	19	40	-	40
Resource Conservation Technologies	2	18	-	18	2	-	2	20	-	20
Seed Production	4	68	-	68	12	-	12	80	-	80
Varietal Diversification	4	68	-	68	12	-	12	80	-	80
TOTAL	**14**	**175**	**0**	**175**	**45**	**0**	**45**	**220**	**0**	**220**

Training Programmes for Extension Personnel Including Sponsored Training Programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Women and Child care	3	-	23	23	-	7	7	-	30	30
TOTAL	**3**	**-**	**23**	**23**	**-**	**7**	**7**	**-**	**30**	**30**

Training Programmes for Extension Personnel Including Sponsored Training Programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated Crop Management	4	21	-	21	19	-	19	40	-	40
Resource Conservation Technologies	2	18	-	18	2	-	2	20	-	20
Seed Production	4	68	-	68	12	-	12	80	-	80
Varietal Diversification	4	68	-	68	12	-	12	80	-	80
Women and Child care	3	-	23	23	-	7	7	-	30	30
TOTAL	**17**	**175**	**23**	**198**	**45**	**7**	**52**	**220**	**30**	**250**

Glimpses of Training Programmes during the Year

Sponsored Training Programmes : **Nil**

Details of vocational training programmes carried out by KVKs for rural youth : **Skill Development Progrmme (200 hr) - 03**

Name of sponsoring agencies involved : **Agriculture Skill Council of India**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Quality Seed Grower	01	20	--	20	--	--	--	20	--	20
Mushroom Growers	02	24	03	27	10	03	13	34	06	40
GRAND TOTAL	**03**	**44**	**03**	**47**	**10**	**03**	**13**	**54**	**06**	**60**










IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	-	-	-	-
Farmer visit at KVK	188	2008	50	2058
Diagnostic visits	06	60	5	65
Field Day	17	670	07	677
Group discussions	04	158	08	166
Kisan Ghosthi	08	6700	357	7057
Film Show	04	680	20	700
Self -help groups	-	-	-	-
Kisan Mela	1	500	50	550
Exhibition	2	650	29	679
Scientists' visit to farmers field	145	1950	25	1975
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	-	-	-	-
Method Demonstrations	5	115	15	130
Celebration of important days	-	-	-	-
Special day celebration/Kisan Diwas (23.12.18)	1	35	2	37
Exposure visits	0	0	-	0
Lecture Delivers by KVK scientist	35	10000	200	10200
Krishi Rath/Pre Kharif abhyan	-	-	-	-
Total	**416**	**23526**	**768**	**24294**

Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	--
Extension Literature	16
News paper coverage	55
Popular articles	07
Radio Talks	10
TV Talks	--
Animal health amps (Number of animals treated)	--
Research Paper	01
Total	**89**

Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Market-ing	Aware-ness	Other enterprise	Total
Nagina (Bijnor)	Text only	55	-	-	-	15	-	70
	Voice only	100	-	-	-	15	-	115
	Voice & Text both	-	-	-	-	-	-	-
	Total messages	150	-	-	-	25	-	175
	Total farmer benefitted	200	-	-	-	50	-	250

Glimpses of Extension Activities during the Year

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organized Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies	-	-	-
	Lectures organized	-	-	
	Exhibition	-	-	
	Film show	-	-	
	Fair	-	-	
	Farm Visit	-	-	
	Diagnostic Practical's	-	-	
	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	-	-	

VI. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Rice	Pusa Basmati -1509	--	175.00	--	--
	Wheat	DBW-90	--	212.00	--	--
Total				**387.00**	--	

Details of participatory quality seed production at farmer's field

Crop	Variety	Produced Seed (qt)	F to F seed distribution
Paddy	PB-1509	865	911
	Pant Basmati-02	49	33
	Pusa Basmati-1637	125	191
	PR-123	238	147
	PR-126	195	126
	NDR-3112	160	112
Wheat	HD-2967	740	732
	HD-3086	219	105
	DBW-88	463	266
	WB-02	366	310
	DBW-90	124	103
	HD-3059	259	175
	HPBW-01	54	65
	DBW-173	49	44
	WH-1124	44	32
Mustard	Pusa Mustard-31	114.00	212
Lentil	Pusa Masoor Ageti	5.45	76
	PL-8	25.00	45
	Total	**4094.45**	**3685**

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers

Production of Bio-Products : Nil
Production of livestock materials : Nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	--	--	--	--
Total	--	--	--	--

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
Krishi Vigyan Kendra, Nagina (Bijnor)	01

IX. NEWSLETTER/MAGAZINE : Nil

X. Publications

Category	Number
Research Paper	01
Book/Book chapter	02
Training Manual	03
Extension bulletins	07
Extension Literature	16
Popular articles	07
Success Story (Innovative Farmer)	01
Seminar papers (Abstract)	05
Technical reports	10
Workshop/ Conference/ Training Programme Attended	12

Research Papers published

SN	Authors	Year	Title	Journal with volume, number & page number	NAAS Rating	Impact factor
1	K. K. Singh, D.P. Singh, Narendra Singh, A.V. Singh, S. K. Yadav, Balraj Singh, Vivek Yadav & Rajendra Singh	2018	Adoption of wheat variety HD-3059 in district Bijnor with the special reference to analysis of yield gap and their performance.	International Journal of Agriculture Sciences : Vol-10, Issue-07	4.20	

Books/Book Chapters

SN	Authors	Year	Title	Book/ Publisher's name & address	Publisher (recognized or local)
1	समस्त वैज्ञानिक	2019	प्रमुख फसलों का बीज उत्पादन	के0वी0के0	Local
2	समस्त वैज्ञानिक	2019	मशरूम उत्पादन तकनीक	के0वी0के0	Local

Training Manuals

SN	Authors	Year	Title
1	डा0 शकुन्तला गुप्ता एवं डा0 डी0 पी0 सिंह	2018	मधुमक्खी पालन आय का साधन
2	डा0 के0 के0 सिंह	2018	सरसों की बीजोत्पादन तकनीक
3	डा0 नरेन्द्र सिंह	2019	गन्ना उत्पादन तकनीक

Extension bulletins

SN	Authors	Year	Title
1	डा0 के0के0 सिंह	2018	बासमती धान की उन्नत तकनीक
2	डा0 शकुन्तला गुप्ता	2018	ऑवले से मूल्यवर्धित उत्पाद
3	डा0 शकुन्तला गुप्ता	2018	सुरक्षित अनाज भंडारण
4	डा0 शकुन्तला गुप्ता	2018	संतुलित आहार तथा उसके महत्व
5	डा0 शकुन्तला गुप्ता	2018	टमाटर के उत्पाद
6	डा0 नरेन्द्र सिह	2018	मृदा परीक्षण एवं नमूना एकत्रीकरण
7	डा0 नरेन्द्र सिंह	2018	पराली जलाने से मानव स्वास्थ्य पर पड़ने वाले दुष्प्रभाव

Extension Literature

SN	Authors	Year	Title
1	डा0 नरेन्द्र सिंह	2018	फसल अवशेष प्रबन्धन क्यों व कैसे
2	डा0 नरेन्द्र सिंह	2018	अप्रैल माह में किसान भाई क्या करें
3	डा0 नरेन्द्र सिंह	2018	जून माह में किसान भाई क्या करें
4	डा0 नरेन्द्र सिंह	2018	जुलाई माह के कृषि कार्य
5	डा0 नरेन्द्र सिंह	2018	हैप्पी सीडर मशीन द्वारा गेहूँ की सीधी बुवाई
5	डा0 नरेन्द्र सिंह	2018	गन्ने की नर्सरी कैसे तैयार करें
6	डा0 नरेन्द्र सिंह	2018	सरसों में सल्फर एवं बोरोन के प्रयोग से लाभ
7	डा0 नरेन्द्र सिंह	2018	गेहूँ में खरपतवार प्रबन्धन
8	डा0 शकुन्तला गुप्ता	2018	ऑवले से मूल्यवधित उत्पाद
9	डा0 शकुन्तला गुप्ता	2018	सुरक्षित अनाज भण्डारण
10	डा0 शकुन्तला गुप्ता	2018	टमाटर के उत्पाद
11	डा0 शकुन्तला गुप्ता	2018	सन्तुलित आहार तथा उसके महत्व
12	डा0 के0 के0 सिंह	2018	सरसों की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
13	डा0 के0 के0 सिंह	2018	मसूर की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
14	डा0 के0 के0 सिंह	2018	गेहूं की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
15	डा0 के0के0 सिंह	2018	अगस्त माह के कृषि कार्य
16	डा0 के0के0 सिंह	2018	अक्टूबर माह के कृषि कार्य

Popular articles

SN	Authors	Year	Title	Journal with volume, number & page number
1	डा0 शकुन्तला गुप्ता	2019	संतुलित भोजन के लिए उगाये पोषण वाटिका में फल एवं सब्जियां	विंध कृषि पृष्ठ सं0 87–90
2	डा0 शकुन्तला गुप्ता	2019	उत्तम व स्वास्थ्य वर्धक गाजर के पौष्टिक व्यंजन	विंध कृषि पृष्ठ सं0 77–83
3	डा0 नरेन्द्र सिंह	2018	स्वरोजगार सृजन हेतु करें वर्मी कम्पोस्ट उत्पादन	इक्षू जनवरी–जून, 2018 पेज 48
4	डा0 के0 के0 सिंह	2018	गन्ना बीज उत्पादन तकनीक	विंध कृषि पृष्ठ.स.54–68
5	डा0 के0 के0 सिंह	2018	जैविक खेती	विंध कृषि पृष्ठ.स.54–68
6	डा0 शकुन्तला गुप्ता	2018	शुद्व घी बनाइएः मिलावट पहचानिए	विंध कृषि पृष्ठ सं0 35–38
7	डा0 शकुन्तला गुप्ता	2018	करौदाः एक पंथ दो काज	विंध कृषि पृष्ठ सं0 43–47

Success Story Published

SN	Authors	Year	Title	Journal with volume, number & page number
1	डा0 नरेन्द्र सिंह	2018	One success story Intensive Intercropping in Sugarcane (Potato–Onion–Turmeric) Published in Learning Experiences of farm Innovators	ICAR-ATARI, Kanpur Page no. 31.

Research papers (Abstract) in seminars

SN	Authors	Year	Title
1	K.K. Singh: Invited Talk	2018	Participatory quality seed production is helpful for faster seed replacement ratio, rural development and rural employment. 20th Indian Agricultural Scientist & Farmer's Congress. Feb. 17-18, 2018 at Allahabad, Pp-16.
2	A.V. Singh, K.K. Singh, D.P. Singh, Narendra Singh and Balraj Singh	2018	Varietal evaluation of timely sown wheat varieties for better yield, economics and adoption in district Bijnor. 20th Indian Agricultural Scientist & Farmer's Congress. Feb. 17-18, 2018 at Allahabad, Pp-30.
3	K.K. Singh, Narendra Singh, D.P. Singh, A.V. Singh, Balraj Singh and Vivek Yadav	2018	Assessment of efficacy of different insecticides in sugarcane against top borer. 20th Indian Agricultural Scientist & Farmer's Congress. Feb. 17-18, 2018 at Allahabad, Pp-30.
4	Narendra Singh *et. al.*	2019	Assessment of intercrop for enhancing the productivity of sugarcane growers. International Conference: Sugarcon-2019. Feb. 16-19, 2019
5	Narendra Singh *et. al.*	2019	Impact of improved package of practices on sugarcane yield under western U.P.. International Conference: Sugarcon-2019. Feb. 16-19, 2019

Workshop/ Conference/ Training Programme Attended:

SN	Persons	Topic	Duration	Organizer	Place
1.	Dr. Shakuntala Gupta	Participated on Food Safety and Addition and Quality Standards	04-24.09.2018	ICAR New Delhi	Centre of Food Science and Tech. I A S B.H.U Varanasi
2.	Dr. Shakuntala Gupta	Participated on Food Safety management System With reference to Hazard Analysis and Critical Control Points	13-15.09.2018	ICAR New Delhi	Centre of food Science and Tech. I A S B.H.U Varanasi
3.	Dr. K K Singh	Attended Mid Term Riview Workshop	23-24 Oct2018	ATARI, Kanpur	SVPUA&T, MEERUT

4.	Dr. K K Singh	Technology displayed in Kisan Mela	12-14 Oct 2018	SVPUA&T, MEERUT	SVPUA&T, MEERUT
5.	Dr. K K Singh	Attended Trainers Training Programme	15-17 Oct 2018	ASCI	BUA&T, Banda
6.	Dr. K K Singh	Attended two days training programme of CRM	09-10.08.2018	PAU, Ludhiana	PAU, Ludhiana
7.	Dr. K K Singh	Attended Meeting of Vallabh Advisory group members	28.09.2018	SVPUA&T, MEERUT	SVPUA&T, MEERUT
8.	Dr. Narendra Singh	For development of scheduled cast community of district Bijnor	16.04.2018	Kanha Hotal, Bijnor	National Scheduled Cast Finance & Development Corporations
9.	Dr. Narendra Singh	Review meeting of annual reports	25-26.04.2018	Directorate Meeting Hall	Director Extension
10.	Dr. Narendra Singh	Review meeting of KVKs	25.07.2018	Shri U.P.Shahi ji, Hon'ble Agriculture Minister U.P	Krishi Bhawan, Lucknow
11.	Dr. Narendra Singh	How attached MANREGA to Agriculture	14.08.2018	Farmer's, Govt. officer and Scientist	Meerut
12.	Dr. Narendra Singh	CFLD, Workshop	9-10.10. 2018	ATARI & Banda Uni. of Agri & Tech., Banda	Banda
13.	Dr. Narendra Singh	International Conference: Sugarcon-2019	16-19.02.2019	Society for Sugar Research & Promotion	IISR, Lucknow

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	**No. of Demonstration s**	**No. of plant materials produced**	**Visit by farmers (No.)**	**Visit by officials (No.)**
04	--	--	60	05

XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/ HAILSTORM/COLD WAVES ETC : Nil

XIII. DETAILS ON HRD ACTIVTIES : Nil

XIV. CASE STUDIES/SUCCESS STORY : 05 villages adopted for survey of technological gap

1. Successful cultivation: Hybrid Rice Variety Arize-6444 Gold

Name of KVK	**:**	**Krishi Vigyan Kendra, Nagina (Bijnor)**
Introduction	**:**	**Technology (Variety) Arize-6444 Gold** is developed by the BAYRE Crop Sciences and released during 2015. Arize-6444 Gold with medium slender grains and 130- 140 day duration. In case of BLB attack, the yield advantage provided by Arize 6444 Gold goes up significantly compared to other traditional inbred or hybrid varieties.
KVK intervention	**:**	The area under Rice is about 54,000 ha in district Bijnor, out of that about 4000 to 6000 ha area is hybrid rice. Commonly grown hybrid rice varieties are Arize 6444, PHB-71, VNR-2245. Variety **Arize-6444 Gold** was introduced and demonstrated by KVK Bijnor during Kharif 2016 at 25 farmer's field through FLD.

Output	**:**	The average yield at Farmers field was 67.15 qt per ha (78.75 qt. maximum yield per ha.) with cost of cultivation of Rs. 37804.00 per ha. The average net profit per ha was recorded Rs. 71636.00 per ha. due to lodging resistant nature, lodging in ARIZE-6444 Gold is less (4-8%) as comparison to local check (15-18%) and Disease incidence in ARIZE-6444 Gold is not seen while it is about 14-19% in local check.
Outcome	**:**	This technology may be capable for increasing extra net return of farmers.
Impact	**:**	The area under this variety has now spread to more than 550 ha in just two year. Farmers are all satisfied with the yield of this variety and also claim that it is free from BLB disease. The successful farmer is **Sri Nitin Kumar** Village – Chandupura, Block – Kotwali.

2. Successful cultivation: Wheat Variety DBW-90

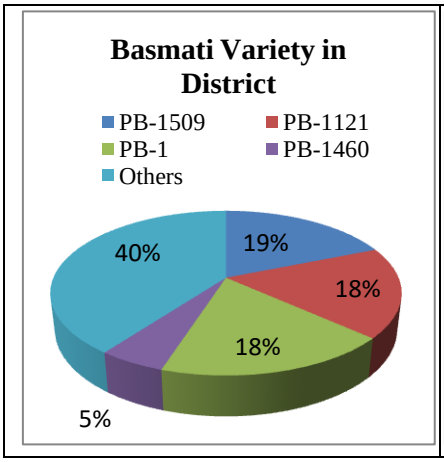
Name of KVK	**:**	**Krishi Vigyan Kendra, Nagina (Bijnor)**
Introduction	**:**	**Technology (Variety) DBW-90 is** developed by the IIWBR, Karnal and released during 2014. It has medium dwarf plant stature (Plant Height 91 cm), 121 days seed to seed maturity. Quality wise it has good degree of heat tolerance, resistance to stripe and leaf rusts might be helpful in minimizing disease losses. This variety is good for chapatti, bread and biscuit and has better nutritional quality.
KVK intervention	**:**	The area under wheat is about 118,000 ha in district Bijnor, out of that about 65,000 ha area is under late sown condition due to Sugarcane – Wheat cropping system. Commonly grown late sown wheat varieties are PBW-226, DBW -16, PBW-373, and PBW-590. Variety DBW-90 was introduced and demonstrated by KVK Bijnor during Rabi 2015-16 at 05 farmer's field through OFT and 14 farmers field during 2016-17 through FLD.
Output	**:**	The average yield at Farmers field was 46.75 qt per ha (56.25 qt. maximum yield per ha.) with cost of cultivation of Rs. 40982.14 per ha. The average net profit per ha was recorded Rs. 69047.36 per ha. Due to medium-dwarf nature the lodging in DBW-90 is less (0-5% in comparison to local check (12-18%). Maturing with 120-125 day crop duration, bold grained variety that possesses high degree of resistant against yellow rust and leaf blight (Yellow rust and blight incidence in DBW-90 is none, while it is about 9-11% in local check).
Outcome	**:**	This technology may be capable for increasing seed replacement ratio in district with extra net return. Due to higher demand of seeds of this variety emerged an entrepreneurship programme of seed production at farmer's field for better income.

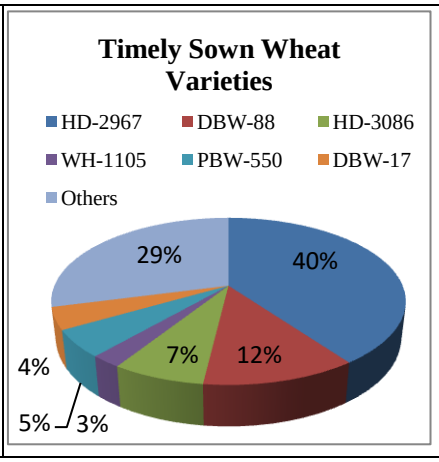
Impact	**:**	The area under this variety has now spread to more than 3800 ha in just three year. Farmers are all satisfied with the yield of this variety and also claim that it is free from most of the disease. This variety increased seed replacement rate about 12 to 18 % in operational area of KVK and also emerged entrepreneurs of seed production of this variety. The successful farmer is **Sri Mukesh Kumar** Village – Rampur, Block – Kiratpur.

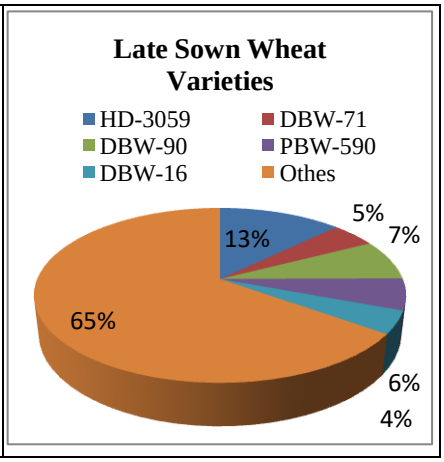
Impact of evaluated, demonstrated and introduced technologies in district

(A) Varietal diversification:

Crop	Current Technology	Potential of Current Tech. (q/ha)	Demo. yield of current technology (q/ha)	Net Return (Rs/ha)	Technological Gap (q/ha)	Area Covered by Tech. (ha)
Wheat	HD-2967	66.10	54.25	83356.00	11.85	49000
	WB-02	60.00	53.30	76665.50	6.40	250
	DBW-88	69.90	54.00	81798.50	15.90	9450
	HD-3086	71.10	51.500	74272.00	19,20	2000
	WH-1105	71.60	53.37	79781.00	18.23	1350
	DBW-90	66.60	46.59	69047.36	20.01	3300
	HD-3059	59.40	47.75	71668.3	13.10	5800
	DBW-71	68.90	42.00	58400.00	26.90	1200
Paddy	PB-1509	60.00	54.10	102040.00	5.90	7300
	Arize-6444 Gold	80.00	67.15	71636.00	12.85	590



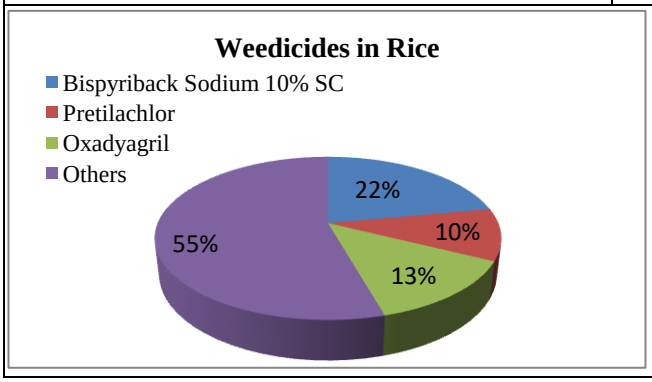


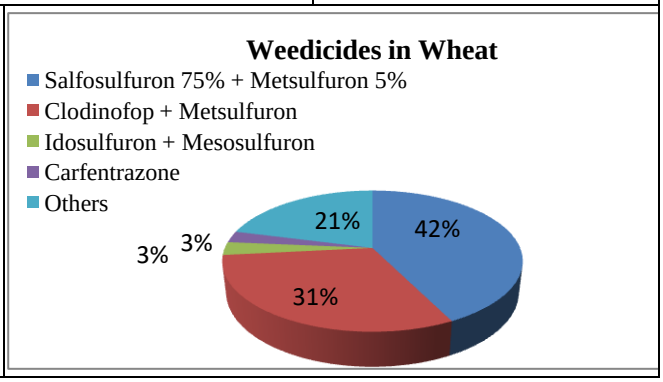


(B) Impact of Weedicides evaluation:

Horizontal Spread of weedicides

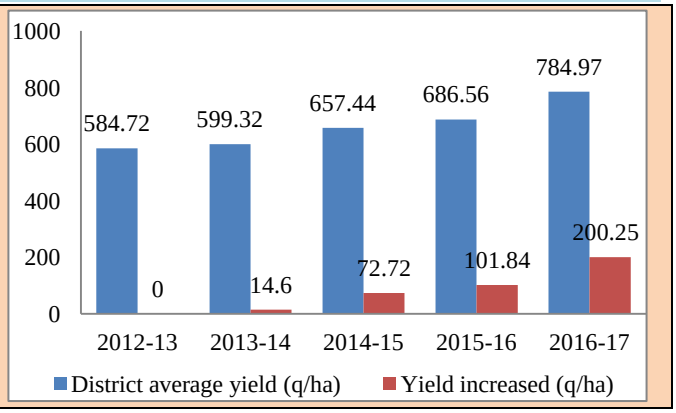
Technology	Area (ha)	No. of Village Covered
Rice		
Bispyriback Sodium 10% SC	8,500	490
Pretilachlor	4,200	180
Oxadyagril	4,700	210
Wheat		
Salfosulfuron 75% + Metsulfuron 5%	55,450	600
Clodinofop + Metsulfuron	42,800	450
Idosulfuron + Mesosulfuron	3,800	410
Carfentrazone	3,800	90





(C) Impact of Trench Method in Sugarcane

Technology	Year	District average yield (q/ha)	Yield increased (q/ha)
Trench Method	2012-13	584.72	0
	2013-14	599.32	14.60
	2014-15	657.44	72.72
	2015-16	686.56	101.84
	2016-17	784.97	200.25



Horizontal spread of Technologies in district after assessment and demonstration

(i) Trench Method in sugarcane is Big way for district Bijnor

It is well known that the sugarcane is the major crop of district Bijnor and its cover 2,10,269 ha area in district. The production and productivity is very low in comparison to National average yield due to traditional planting method and delayed sowing. Keeping in mind that facts, KVK introduce new planting techniques i.e Trench Method & September sowing in 2010-11. The average yield gradually increased from 2010-11 to 2016-17 and average yield in demonstrated field was recorded 1415q/ha, the enhancement in productivity due to adoption of Trench method and

September sowing and farmers got highest yield. Presently the area covered under Trench method is 55,000 ha in district Bijnor.

Horizontal spread of Trench Method and Present Status of Productivity

Year	Yield (q/ha)	Area Coverage (ha)
2010-11	555.52	Starting Year
2011-12	576.88	1,500
2012-13	584.72	6,500
2013-14	599.32	19,500
2014-15	657.44	30,200
2015-16	686.56	45,600
2016-17	784.97	55,000

(D) Impact of Participatory Seed Production in adopted villages

Crop	Variety	Seed Produced (q)	Seed distributed Farmers to Farmers	No. of Village Covered	Additional net income per year (Rs)
Paddy	PB-1509	2873.00	2027	315	115000.00
Wheat	HD-2967	4207.00	2157	287	44500.00
	HD-3086	464.35	260	42	
	WH-1105	119.00	74	9	
	DBW-88	762.50	505	110	
	DBW-90	334.22	346	77	
	HD-3059	831.30	672	88	
	WB-02	66.91	66	12	

Seed Replacement Rate (%) of Wheat and Paddy in Adopted Villages							
Year	**Harganpur**	**Patpura**	**Rampur**	**Nansiwala**	**Khusalpur**	**Kalakheri**	**Kokapur**
Paddy							
2014	4.50	5.00	6.00	6.50	3.00	5.50	8.00
2015	27.00	16.00	26.50	19.50	19.50	18.50	29.50
2016	37.00	36.00	34.00	37.50	32.50	27.50	42.50
2017	52.50	45.50	48.00	46.00	42.00	39.00	47.00
2018	54.50	47.50	51.00	48.00	43.50	41.50	49.50
Wheat							
2014	8.50	9.50	9.00	8.50	6.00	5.00	7.50
2015	27.50	21.00	25.00	18.00	22.50	55.00	19.00
2016	42.00	38.50	42.00	38.50	38.00	32.00	37.50
2017	65.50	60.50	55.00	52.00	53.00	48.00	47.00
2018	66.50	61.00	57.00	53.00	55.00	49.00	49.50
Impact of quality seed production on Average additional yield (qt/ha) increased in Adopted villages							
Paddy							
2014	8.00	5.00	6.50	5.00	4.00	8.00	5.00
2015	14.50	12.00	14.00	13.00	13.50	14.50	15.00
2016	19.00	17.00	15.50	20.00	15.50	18.00	21.00
2017	25.00	22.00	24.50	28.00	21.50	25.00	28.00
2018	27.00	22.50	25.25	28.75	23.00	25.25	28.75

Wheat							
2014	5.50	4.5	3.00	4.00	2.50	2.50	5.50
2015	9.40	8.00	7.50	8.50	6.50	5.40	8.00
2016	12.00	12.00	11.50	13.00	12.50	8.00	13.00
2017	18.50	17.50	15.00	16.00	15.50	12.50	16.50
2018	22.00	18.75	16.50	16.75	16.50	14.00	17.00

Impact of seed production in adopted villages

- Seed replacement rate (54.50-66.50%) increased.
- Production and productivity increased (22-37%)
- Cost of cultivation reduced because of use of quality seed of recommended varieties.

Entrepreneurship development

(i) High Density Orcharding in Fruits

The KVK initiated High Density Orcharding technique of Fruits in the district during 2014-15 to 2018-19. The identified farmers of different villages were trained on different aspects of High Density Orcharding in Fruits.

Crop	No. of Farmers Adopted	Present Status
Mango	15	40
Guava	22	55
Mango+ Guava	25	52
Mango+ Guava + Papaya	03	05

Major Entrepreneurs Developed through High density planting of Guava

A progressive farmer Mh. Samsuden attended training Programmes at Krishi Vigyan Kendra, Bijnor and learnt the skill of growing high density orcharding of guava technique. The high density orcharding activity is supervised by the KVK scientists.

High density Techniques of Guava with intercrops

Production system	Ist Year			IInd Year			IIIrd Year		
	Prod. (q/ha)	Gross Cost (Rs/ha)	Net Return (Rs/ha)	Prod. (q/ha)	Gross Cost (Rs/ha)	Net Return (Rs/ha)	Prod. (q/ha)	Gross Cost (Rs/ha)	Net Return (Rs/ha)
Guava	20	1,12,000	-82,000	48	20,000	82,000	85	18,000	1,55,000
Gram (Green Leaf)	72	42,000	50,000	60	40,000	45,000	42	28,000	35,000
Chilli	160	1,32,000	1,94,000	120	1,10,000	1,32,000	125	78,000	85,000
Cauliflower	170	60,000	68,000	125	42,000	45,000	80	38,000	40,000
Total		**3,46,000**	**2,30,000**		**2,12,000**	**3,04,000**		**1,62,000**	**3,15,000**



(ii) Nursery Raising as Entrepreneurship

The KVK initiated Nursery Raising of Vegetable and Plantation crop, in the district during 2014-15 to 2018-19. The identified farmers of different villages were trained on different aspects of Nursery Raising of Vegetable and Plantation crop. After taking training programme on Nursery Raising of Vegetable and Plantation crops the trained farmers are engaged in Nursery Raising

Name of Unit	No. of Unit	Total Sapling sold	Income generated by the farmers
Vegetables	25	05 Lack	1,25,000.00 (Each unit)
Plantation tree	08	2.50 Lack	5,00,000.00 (Each unit)

Major Entrepreneurs Developed through Nursery Raising

A progressive farmer Mr. Harish Kumar attended training Programmes at Krishi Vigyan Kendra, Bijnor and learnt the skill of Nursery Raising technique. The nursery raising activity is supervised by the KVK scientists.

Production system	Initial Cost	Ist Year			IInd Year			IIIrd Year		
		Sapling Prod. (No.)	Gross Cost (Rs)	Net Return (Rs)	Sapling Prod. (No.)	Gross Cost (Rs)	Net Return (Rs)	Sapling Prod. (No.)	Gross Cost (Rs)	Net Return (Rs)
Mango	4,50,000.00	--	40,000	--	--	80,000	--	3,000	55,000	1,50,000
Guava		--	--	--	--	70,000	--	8,000	50,000	2,35,000
Burma Deak		10,000	45,000	1,50,000	15,000	60,000	2,25,000	20,000	55,000	3,20,000
Leman		--	--	--	--	40,000	--	3,000	35,000	1,10,000
Jak Fruit		--	--	--	--	65,000	--	500	50,000	1,80,000
Eucalyptus		1,25,000	1,10,000	5,20,000	1,65,000	1,45,000	7,12,000	5,00,000	3,15,000	18,00,000
Total		**1,35,000**	**1,95,000**	**6,70,000**	**1,80,000**	**4,60,000**	**9,37,000**	**5,34,500**	**5,60,000**	**27,95,000**

(iii) Vermi-compost Production as Entrepreneurship

Krishi Vigyan Kendra, Bijnor taken initiatives about establishment of Vermi-compost Production units, in the district during 2012-13 to 2018-19. The identified farmers of different villages were trained on different aspects of Vermi-compost Production techniques. After training the trained farmers are established Vermi-compost production units. Details are as below:

Year	No. of Unit	Production (qt)	Income generated by the farmers
2012-13	02	250 - 500 qt per unit per year	1.25 - 2.50 Lac per unit per year
2013-14	07		
2014-15	10		
2015-16	12		
2016-17	15		
2017-18	17		
2018-19	20		

A success full farmer: Vermi compost production at commercial level started by Sh. Virendra Kumar after motivation and training of KVK, Bijnor. Father of Mr. Virendra Kumar doing job in Katai Mill (Co-operative sector), due to some unfortunate reason mill has close and family of Mr. Virendra Kumar suffering for livelihood, than his father came to KVK with Virendra Kumar. Than Scientist of KVKs motivated to Virendra and given support to all technical aspect, his father arrange Rs. 25,000.00 (Twenty Five Thousand) for Virendra. Than Virendra take a old building on hire and purchase one quintal worm and purchase dairy dung and arrange self work wastage of mundi Smaiti and started a vermin compost unit. At present he is earned about 2, 83,800.00 every year.

Detail of Vermi-Compost Unit

- 15 Feet long and 3 feet width, having 30 beds.

A	Cost of production		
1	Dairy Dung 200 quintal @ Rs. 40/ q	:	8,000.00
2	Transportation cost Rs. 10@quintel	:	2,000.00
3	6 Labour @ Rs. 300/day for Mixing, Bed filling and punging	:	1,800.00
4	20 Labour for packaging & Filtering @ Rs. 300/ day	:	6,000.00
5	Other Cost	:	4,000.00
		Total (Rs.)	**21,800.00**

	Total Cost - Repetition of work about 9 times therefore (21,800 x 9)	:	**1,96,200.00**
B	**Income**		
1	Prepare compost about 100 quintal each time (100 x9 =900)	:	
2	Selling Price @ 500 /quintal	:	
3	Selling Cost (Rs.) = 900 x500	:	4,50,000.00
4	Income by earthworm selling (1 quintal)	:	30,000.00
	Total Income (Rs.)	**:**	**4,80,000.00**
	Net Profit (A-B)	**:**	**2,83,800.00**

(iv) Entrepreneurship through Mushroom cultivation

Mushroom production promoted by the KVK in the district Bijnor. Regular rural youth trainings for self employment generation were conducted for the popularization of Mushroom production. Sh. Vikas Kumar a progressive and educated farmer started a commercial unit of Mushroom production & all technical support provided by the KVK. He was properly trained by the KVK, Nagina on every minute aspect of commercial mushroom production. The unit producing mushroom throughout the year and one unique example of Mushroom production is giving here under:–

Detail of Results obtained due to the adoption of technologies

SN	Particular	Amount (Rs.)
i.	Cost of production per 5 q compost	1,800.00
ii.	Spawn	700.00
iii.	Labour	1,000.00
iv.	Other expenses	400.00
	Total	**3,900.00**
	Gross Cost (Rs.) : 3900.00X 25q compost	**87,500.00**
v.	Average production from 5 q compost - 140 Kg Mushroom	
vi.	Price realized (Rs. per kg.)	80.00
vii.	Gross Income	11,200.00
viii.	Net Income	7,300.00
	Gross Income (Rs.) : 7,300.00 X 25 q compost	**1,82,500.00**

(v) Entrepreneurs Developed through Participatory Seed Production

A progressive farmer Sharad Kumar Singh, attended training Programmes at Krishi Vigyan Kendra Bijnor during 2014 and learnt the skill of growing quality Seed Production technique. Due to high demand of seeds newly released wheat and paddy varieties, Sharad Kumar Singh has taken own field for seed production. The seed production activity is supervised by the KVK scientists.

Seed production and seed supply of farmers to farmers

Year	Crop	Varieties	Seed Produced (q)	Total distributed seed (q)	Seed Supplied to farmers
2014-15	Paddy	PB-1509	180.00	52.00	112
	Wheat	HD 2967	110.50	62.50	70
		DB W 88	87.00	32.00	45
		WH 1105	98.00	24.00	40
		HD 3086	91.00	18.50	32
2015-16	Paddy	PB-1509	71.00	40.75	80
	Wheat	HD-2967	300.00	159.50	125
		HD-3086	26.25	18.80	35
		DBW-88	24.25	20.00	16
		DBW-90	22.50	18.75	19
		DBW-71	21.25	4.00	10
		HD-3059	75.00	52.00	60
2016-17	Paddy	PB-1509	188.00	40.00	93
	Wheat	HD-3086	29.00	17.00	11
		HD-2967	160.00	125.00	92
		HD-3059	48.00	34.00	46
		DBW-88	56.00	41.50	55
		DBW-90	46.00	39.85	48
2017-18	Paddy	PB-1509	110.00	45.00	112
		PB-1637	32.00	32.00	60
	Wheat	HD-3086	54.00	20.00	22
		H-2967	150.00	110.00	315
		DBW-88	25.00	15.00	35
		DBW-90	22.00	10.00	22
		HD-3059	50.00	15.00	50
		HD-3086	53.00	13.00	28
		WB-02	12.75	12.75	18

425.00 qt. of seed supplied to Singhal Seed Company in 2017-18 and get Extra income from produced seeds:

Extra income through Participatory seed production

Year	Crop	Extra income through seeds Rs.
2014-15	Paddy	2,84,000.00
	Wheat	6,50,600.00
2015-16	Paddy	80,875.00
	Wheat	6,91,490.00
2016-17	Paddy	2,92,000.00
	Wheat	5,83,230.00
2017-18	Paddy	185500.00
	Wheat	655000.00

Recognition and Awards: Sri Sharad Kumar Singh achieved first prize of Rs 10,0000.00 in wheat production (Variety HD-2967) in all over Uttar Pradesh during 2016, felicitated by Uttar Pradesh government.

Innovative methodology for Transfer of Technology

(a) Progressive and leader farmers developed as Extension Agents

During 2014 the KVK developed 100 progressive farmers as Extension agents for the dissemination of new technologies in other fellow farmers of the district. The trained farmers came to KVK time to time for update their skills through newly developed agro-techniques.

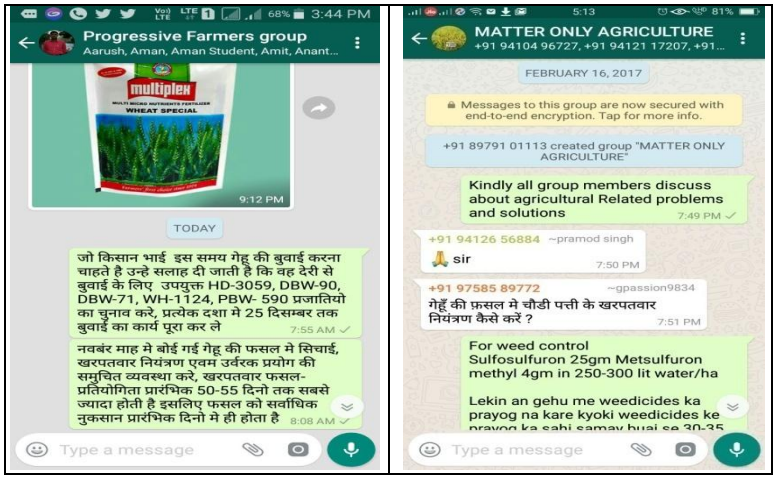
Thematic Area	No. of expert farmers	Interaction with another farmers	No. of village covered
Trench method and intercropping in sugarcane	75	4800	65
IPNM in crops	40	3600	45
Varietal diversification and seed production	60	4500	65
IPM technique	15	800	20
New orcharding techniques	20	430	10
Micro irrigation system	05	450	08

(b) Spread of technology through Sugarcane Collection Centers

The district Bijnor has 760 sugarcane collection centres. KVK prepares one page technology message which is pasted on the walls of the centre where farmers from the area Jurisdiction come for delivering sugarcane for onward transportation to factories. Many times farmers enquire through mobiles of Scientists as per need. This method is adopted during sugarcane harvesting time starting from November – April. This is one of the most effective technology transfers in the shortest time period.

(c) Technological message delivered through Social Media

The KVK scientist prepares technological message and sends it to directly Farmers of the district. Presently KVK scientists govern 04 Whatsapp groups with 500 farmers and also use of other social media like Facebook, Twitter & YouTube.



Facebook : https://www.facebook.com/Bijnor-KVK-309300895907675/
Twitter : https://twitter.com/KVKBijnor
YouTube : https://www.youtube.com/watch?v=5W7h9dx5vWs&pbjreload=10

(d) Problem diagnosed/technology popularized through Phone calls

Year	No. of phone calls/ Requests received from farmers for farm Assistances	No. of problems addressed
2012-13	1750	2150
2013-14	1882	2282
2014-15	1605	2005
2015-16	2042	2542
2016-17	2230	2730
2017-18	2050	2230
2018-19	2120	2145
Total	**13679**	**16084**

(e) Transfer of technology through Electronic &Print Media

Media	Thematic area of Talk	No. of Talk/ Print
Radio	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	10
TV	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	--
Newspaper	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	55

(f) Transfer of technology through Technology Park

1. Technological display on Wheat Crops (Total Visitors: 8200)

Thematic Area	No. of Tech. display	Major Highlighting Technology
Varietal	35	**Timely Sown:** HD-2967, HD-3086, DBW-88, WB-01, HPBW-01 & WH-1105 **Late Sown:** HD-3059, DBW-90, WH-1124 and DBW-71

Weed Management	07	**Post Emergence :** Sulfosulfuran75% + Metsulfuron 5% @ 40 gm/ha, Mesosulfuran methyal 3% + Idosulfuran methyal 0.6% @ 400 gm/ha, Clodinofop 15% WP @ 400 gm/ha + Metsulfuron 20% @ 20 gm/ha

IPM	02	Propiconazol 1ml/lit water, Tebuconazol 1ml/lit water

2. Technological display on Rice Crops (Total Visitors: 8450)

Thematic Area	Tech. display	Major Highlighting Technology
Varietal	30	**Scented Rice:** Pusa Basmati -1637, PB-1121, PB-1509, PB-1, PB-1460 **Coarse Rice:** Nagina-22, Nagina-12 NDR-3112, PR-123, PR-124, PR-126 **Hybrid Rice**: Arize 6444 Gold , VNR-2245

Weed Management	05	**Post Emergence :** Bispyribac sodium 10%SC @250 ml/ha **Pre-Emergence :** Pretilachlor @ 2.0 lit/ha, Bensulfuron + Pretilaclore @ 10 kg/ha and Oxadiagril 112.5gm/ha

		
IPM	05	**Fungicides :** Validamycin 400gm + Carbendazim 200gm/ha, Tricyclazole 120gm/ha, Copper Oxichliride 500gm + Streptomycin 15gm/ha **Insecticides :** Corazen 150 ml/ha and Fipronil18 kg/ha
		
Organic	01	Organic Basmati Production
		

3. Technological display on Lentil & Mustard Crops (Total Visitors: 2400)

Thematic Area	No. of Tech. display	Major Highlighting Technology
Varietal	03	PL-8, PL-7 and Pusa Masoor Ageti
		
Varietal	11	Pusa Mustard-31, Pusa Mustard-26, Pusa Mustard-27, Pusa Mustard-30, NRCHB-101, PYS-1, YSH-0401, Pusa-25, PR-19 & PR-20

ICM	02	Mustard + Lentil, Mustard + Gram

(g) Transfer of technology through ATIC

Agricultural technology information center established at KVK, Bijnor during March, 2017. At ATIC different visitors & farmers visited and raised the problem based on agricultural related.

Thematic Area	No. of Question raised	No. of visitors
Trench Method & suitable Intercrop in Sugarcane	90	960
Variety and seeds	160	
Proper weed management in crop	75	
Disease and Insect management in crops	270	
Management in orchard	35	
Management in vegetables	30	
Related to women empowerment	25	
Related to High Tech Agriculture	15	

1,000 copy distributed in visitors

LINKAGES

Functional linkage with different organization

The KVK has very strong linkage with different line departments and stake holders. The KVK is involved in technical backstopping of the line departments officials and regular participation in the programmes and vice versa. The linkages with stake holders are as under.

Name of Organization	Nature of Linkage
Deptt. of Agriculture	Diagnostic survey, training, gosthi/Seminar/ Farmers Fair
Deptt. of Horticulture	Participation in meeting/demonstration/training/ Farmers Fair
Cane Deptt. & Sugar industries	Gosthies& Trainings
NABARD	Technical Support to Kisan Clubs
ETV	Technical recordings & News coverage

Radio	Technical recordings & News coverage
NHM	Capacity building & Nursery management
UPDASP	Trainings, Meeting, Demonstration, Validation trial
IFFCO, KRIBHCO	Trainings/Gosthi
Deptt. of Animal Science	Trainings/Seminar/Animal Exhibition
NGO	Trainings/Gosthi

XIV. AGRICULTURAL TECHNOLOGY INFORMATION CENTRE :

A. Details on ATICs

SN	Name of the ATIC	Name of the Host Institute	Name of the ATIC Manager
1	KVK Bijnor	SVPUAT, Meerut	Dr. K. K. Singh

B. Details on Farmer's visit

SN	Purpose of visit	Number of farmer's visited
1	Technology Information	1250
2	Technology Products	--

C. Facilities in the ATIC which are in operation

SN	Particulars	Availability (Please √ mark)	Number of ATICs
01	Reception counter	√	01
02	Exhibition / technology museum	√	
03	Touch screen Kiosk	--	
04	Cafeteria	√	
05	Sales counter	--	
06	Farmer's feedback register	√	

D. Technology information provided

D.1. Details on technology information

SN	Information category	Number of ATICs	Total number of farmers benefitted	Category of information					
				Varieties / hybrids	Pest management	Disease management	Agro-techniques	Soil and water conservation	Post Harvest technology and Value addition
1	Kisan Call Centre / other Phone calls from farmers	01	3975	980	650	720	1400	180	45
2	Video shows	01	1900	08	07	05	11	02	02
3	Letters received	01	--	--	--	--	--	--	--
4	Letters replied	01	--	--	--	--	--	--	--
5	Training to farmers / technocrats / students	01	2200	14	05	05	22	02	02

D.2 . Publications (Print & Electronic media) : Nil

E. Technology Products provided : Nil

F. Technology services provided

SN	Particulars	Number of farmers benefited
1	Soil and water testing	--
2	Plant diagnostics	48
3	Details about the services to line Departments	150

XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION : N.A

Status of revolving fund (Rs. in lakhs)

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 2011 to March12	10,27,297.54	9,89,554.00	12,33,093.00	7,83,759.54
April 2012 to March13	7,83,759.54	6,75,002.00	12,82,714.00	1,76,047.54
April 2013 to March14	1,76,047.54	15,40,487.00	12,90,660.00	4,25,874.45
April 2014 to March15	4,25,874.45	10,29,033.00	13,52,613.00	1,02,294.45
April 2015 to March16	1,02,294.45	9,47,854.00	9,22,097.95	1,28,050.50
April 2016 to March17	1,28,050.50	7,68,723.94	7,82,472.24	1,14,301.70
April 2017 to March18	1,14,301.70	--	--	1,85,395.09
April 2018 to March19	1,85,395.09	--	--	4,90,982.55

Utilization of KVK funds during the year 2018-19

A	Recurring items	B.E. 2018-19	RE 2018-19	Actual Expdt. on 31 March, 2019	Balance
1	Pay & Allowances	**119.00**	103,00,000.00	102,90,062.00	**9,938.00**
2	Travelling Allowances	**1.20**	1,50,000.00	84,162.00	**65,838.00**
3	HRD	**0.50**	50,000.00	27,617.00	**22,383.00**
4	**Contingencies**				
a	Stationery, Telephone, postage and other expenditure on office running including printing of reports including minor repair and white washing of Admn. Building	**2.50**	2,90,000.00	1,67,644.00	**1,22,356.00**
b	P.O.L, Repair of Vehicles, Tractor and Equipment	**1.20**	1,00,000.00	82,726.00	**17,274.00**
c	**Vocational Training**				
	(i) Meals /refreshment for trainees (ceiling upto Rs. 150.00/ day/trainee for the training programmes of residential nature and Rs. 40.00/day/trainee for the training programmes of non-residential nature)	**1.00**	1,00,000.00	49,600.00	**50,400.00**
	(ii) Training material (Posters, charts, demonstrations material including chemicals etc. required for conducting the Training)	**0.30**	30,000.00	9,260.00	**20,740.00**
d	Front line demonstration excluding Oilseeds and Pulses	**1.00**	1,00,000.00	88,043.00	**11,957.00**
e	On Farm Trial (On need based , location specific and newly generated information in the major production systems of area)	**0.50**	50,000.00	7,610.00	**42,390.00**
f	Training of extension functionaries (ceiling upto Rs. 150.00/ day/trainee for the training programmes of residential nature and Rs. 40.00/day/trainee for the training programmes of non-residential nature)	**0.45**	45,000.00	4,800.00	**40,200.00**
g	Library (Purchase of Journal, News Paper & Magazines)	**0.05**	5,000.00	-	**5,000.00**
h	Farmers' Fair	**-**	-	-	**-**
i	EFC Special Programme Contingency	**-**	-		
j	Misc. Expenditure	**-**	-		
	Total (A)	**127.70**	**112,20,000.00**	**108,11,524.00**	**4,08,476.00**
B	**Non-Recurring items**				
a	Equipments	**1.30**	**-**		
b	Works	**-**	-		
c	Library	**-**	-		
d	Vehicle	**-**			
	Total (B)	**1.30**	**-**	**-**	**-**
C	**Revolving fund**	**-**	-		
D	**TSP**				
a	General Contingency	**-**	-		
b	Capital	**-**	-		
	Total (D)	**-**	**-**	**-**	**-**
	Grand Total (A+B+C+D)	**129.00**	**112,20,000.00**	**108,11,524.00**	**4,08,476.00**

फसल अवशेष प्रबन्धन परियोजना के अन्तर्गत किये गये कार्य

कार्यक्रम विवरण	संख्या	आयोजन दिनांक	प्रतिभागियों की संख्या
जागरूकता कार्यक्रम	05	06.08.2018, 07.08.2018, 08.08.2018, 13.08.2018, 31.08.2018	227

कृषक वैज्ञानिक संवाद	02	12-13.09.2018, 15-16.01.2019	55

स्कूल के विद्यार्थियों हेतु जागरूकता कार्यक्रम	01	14.09.2018	280

कालेज के विद्यार्थियों हेतु जागरूकता कार्यक्रम	01	18.09.2018	168

किसान मेला	01	24.09.2018	353


			
कृषि विज्ञान केन्द्र, नगीना पर रेडियो कृषि पाठशाला का सीधा प्रसारण	01	15.01.2019	30
			

Swachhta Hi Sewa Campaign (from 15th September to 2nd October 2018)

Activity	No of Villages Involved	No. of Participants
Celebration of Sewa Divas (17th Sept. 2017)	--	--
Celebration of Samagra Swatchhta Diwas 24th Sept. 2017	03	108
Celebration of Sarwatra Swatchhta 25th Sept. 2017	02	55
Swachhta of nearby Tourist Spots.	--	--
Public Function/ Award Ceremony	--	--
Other Misc. activities: Swatchhta diwas programme on Mahatma Gandhi Jayanti (2nd Oct.)	KVK	35

Glimpses of activities

Celebration of World Soil Day on 05.12.2018

Name of KVK	No. of MLAs participated	No. of Govt. Officials, PRI members etc. participated	No. of farmer participated	Total No. of Participants	No. of Soil Health Cards distributed
Bijnor	--	25	100	125	20