

**ANNUAL REPORT**  
**(January 2019 - December 2019)**

**APR SUMMARY**

**1. Training Programmes**

Clientele	No. of Courses	Male	Female	Total participants
Farmers & Farm women	55	781	320	1101
Rural youths	9	60	30	90
Extension functionaries	18	130	50	180
Sponsored Training	--	--	--	--
Vocational Training	03	54	06	60
<b>Total</b>	<b>85</b>	<b>1025</b>	<b>406</b>	<b>1431</b>

**2. Frontline demonstrations**

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	105	30.00	--
Pulses	145	52.40	--
Cereals	200	54.00	--
Vegetables	--	--	--
Other crops (Sugarcane)	80	32.00	--
Hybrid crops	10	2.00	--
<b>Total</b>	<b>540</b>	<b>170.40</b>	<b>--</b>
Livestock & Fisheries	--	--	--
Other enterprises	--	--	--
<b>Total</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>Grand Total</b>	<b>540</b>	<b>170.40</b>	<b>--</b>

**3. Technology Assessment**

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	07	07	27
Livestock	--	--	--
Various enterprises	--	--	--
<b>Total</b>	<b>07</b>	<b>07</b>	<b>27</b>

**4. Extension Programmes**

Category	No. of Programmes	Total Participants
Extension activities	495	53185
Other extension activities	110	--
<b>Total</b>	<b>605</b>	<b>53185</b>

## 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Market- ing	Aware- ness	Other enterprise	
Nagina (Bijnor)	Text only	40	-	-	-	20	-	60
	Voice only	80	-	-	-	10	-	90
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total messages</b>	<b>120</b>	-	-	-	<b>30</b>	-	<b>150</b>
	<b>Total farmer benefitted</b>	<b>210</b>	-	-	-	<b>60</b>	-	<b>270</b>

## 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.	Distributed to No. of Farmers
Seed (q)	337.50	--	
Planting material (No.)	--	--	
Bio-Products (kg)	--	--	
Livestock Production (No.)	--	--	
Fishery production (No.)	--	--	

## 7. Soil, water & plant Analysis

Type of Samples	No. of samples analysed	No. of Beneficiaries	Value Rs.
Soil	--	--	--
Water	--	--	--
Plant	--	--	--
<b>Total</b>	<b>--</b>	<b>--</b>	<b>--</b>

## 8. HRD and Publications

SN	Category	Number
1	Workshops	07
2	Conferences	01
3	Meetings	07
4	Trainings for KVK officials	07
5	Visits of KVK officials	--
6	Book published	02
7	Training Manual	02
8	Book chapters	--
9	Research papers	--
10	Lead papers/ Invites lecture	--
11	Seminar papers/Abstract	--
12	Extension folder	16
13	Proceedings	--
14	Award & recognition	02
15	Ongoing research projects	--

# DETAIL REPORT OF APR (Jan. 2019 to Dec. 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	
Krishi Vigyan 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

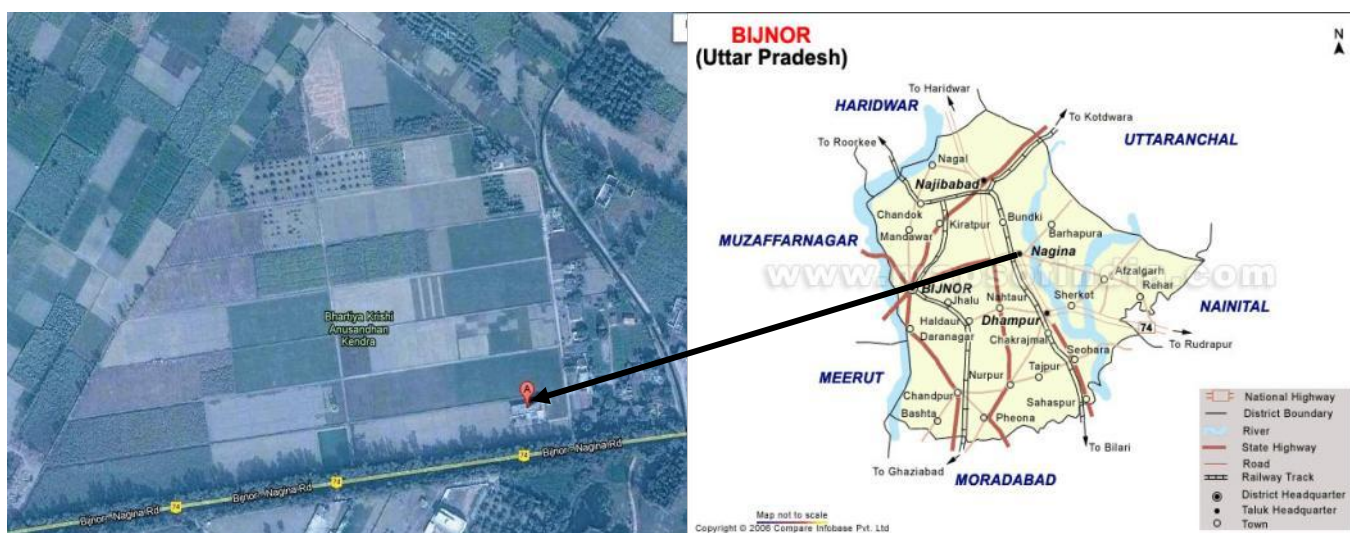
Address	Telephone		Email
	Office	FAX	
S.V.P. Univ. of Agri. & Tech., Meerut (U.P.) 250110	0121-2411511	0121- 2411511, 2411505	deesvpuat2014@gmail.com

### 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  
FNNo. 15(22)/92 Agr. Ext. -1/do Jan. 93

## Map of KVK & district – Bijnor



### 1.5. Staff Position (as on 31<sup>th</sup> December, 2019)

S N	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	65,520	11.08.08	Permanent	OBC	9720974900	52	dpsingh0107@gmail.com
2	Subject Matter Specialist	Dr. Shakuntala Gupta	SMS/Asstt. Prof.	Home Science	15600-39100	37,680	09.12.03	Permanent	Others	9412356736	54	shakuntalaguptakvk@gmail.com
3	Subject Matter Specialist	Dr. K.K. Singh	SMS/Asstt. Prof.	Plant Breeding	15600-39100	30,860	10.07.08	Permanent	Others	8630602518	43	krishna.singh1976@gmail.com
4	Subject Matter Specialist	Dr. Narendra Singh	SMS/Asstt. Prof.	Agronomy	15600-39100	30,160	15.01.09	Permanent	Others	9457168051	44	gnarendra1976@gmail.com
5	Computer Programmer	Er. S.K. Yadav	Prog. Asstt.	Computer Science	9300-34800	72,100	21.10.99	Permanent	OBC	9412117844	46	shailendrayadav31@gmail.com
6	Farm Manager	Dr. Rakesh Kumar	Prog . Asstt.	Plant Breeding	9300-34800	50,500	24.07.08	Permanent	Others	7599151951	53	rakeshnagina@gmail.com
7	Stenographer	Mr. Abdul Gaffar	Jr. Steno	--	9300-34800	56,900	29.08.95	Permanent	Others	9412452148	49	--
8	Driver	Mr. Anil Kumar	Driver	--	5200-20200	30,500	30.07.07	Permanent	SC	9359218476	40	--
10	Attendant	Mr. Satish Chandra Maurya	Attendant	--	5200-20200	35,300	01.07.98	Permanent	OBC	9410860550	54	--

**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)	Expenditure (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	6,00,000.00	--	Good
Motor Cycle	2010	46,500.00	--	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 & 11.12.2019**

Name and Designation	Salient Recommendations	Action taken
Dr. S K Sachan, Director, Extension, SVP UA&T, Meerut	Trench method of sugarcane should be more popularize with suitable intercrops by KVK scientist	03 training programme of trench method with suitable intercrops including 01 OFT (04 farmers) & 04 FLD programme are conducted during the year 2019-20 & also planned such programme next upcoming year 2020-21.
	Suggested for training on awareness about burning of crop residue and also published related literature	Scientist Plant Breeding and Scientist Agronomy conducted 03 training programme on management of crop residues during 2019-20 and also planned programme next upcoming year 2020-21. In this context The KVK organized 08 programme with 666 farmers under CRM programme during the year.
	Suggested for NAARI and VATICA programme	06 training programme of NAARI and VATICA including 10 FLD programme are conducted during the year 2019-20 and also planned such programme next upcoming year 2020-21.
	Suggested promoting Newly released bio-fortified varieties of crops district.	KVK scientists already conducted FLD on bio-fortified variety of wheat (25 FLD), mustard (30 FLD) and Lentil (10FLD) during 2019-20 and also planned such programme FLD on bio-fortified variety of wheat (40 FLD), mustard (30 FLD) and Lentil (10FLD) next upcoming year 2020-21.
	Suggested for compilation of impact assessment of conducted technology.	KVK Scientist compiled the 04 case study, 04 success stories and 03 entrepreneurs after impact assessment of technology during 2019-20.
	Suggested for more emphasize on DFI village	Such programme included in Action plan
Dr. K G Yadav, Associate Professor SVP UA&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.
	Suggested for adoption of new villages for promotion of technology	Such programme included in Action plan
	Suggested to home scientist for deletion of Maize and groundnut shelar training programme	Such programme included in Action plan
Dr. S K Sachan (DE & other SAC Members	Suggested for continue all 03 treatments in OFTs for better improvements.	KVK Scientists conducting OFT programme as per suggestions.
Sh. Vijay Pal Singh	Programme should be promoted on Women's empowerment	Such programme included in Action plan
Sh. Sharad Kumar	Suggested inclusion of ICM technology in major crops	Such programme has been plant during upcoming year.

## 2. DETAILS OF DISTRICT (2019)

### 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	<ul style="list-style-type: none"> <li>The soils are coarse to medium in texture, moderately well drained, consistently deep and neutral to slightly alkaline in nature</li> <li>Climate of the zone in general is subtropical type</li> <li>The maximum temperature of the district was 41<sup>0</sup>C while minimum was found to be 0.6<sup>0</sup>C</li> <li>Total rain fall of the district is 898.5 mm</li> <li>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</li> <li>The crops of the zone are sugarcane, rice, wheat, mustard, groundnut, field pea, gram, fodder sorghum etc.</li> </ul>
2	Tarai & Bhabar Zone	<ul style="list-style-type: none"> <li>A part of the district falls under this zone</li> <li>The highest temperature is recorded in May, June and the lowest in Dec., Jan.</li> <li>The average rainfall is 1400 mm. Eighty three percent of rains are received from south- west monsoon from June to September</li> <li>The soils are low to medium in available phosphorus, medium to high in organic carbon</li> </ul>

#### b) Topography

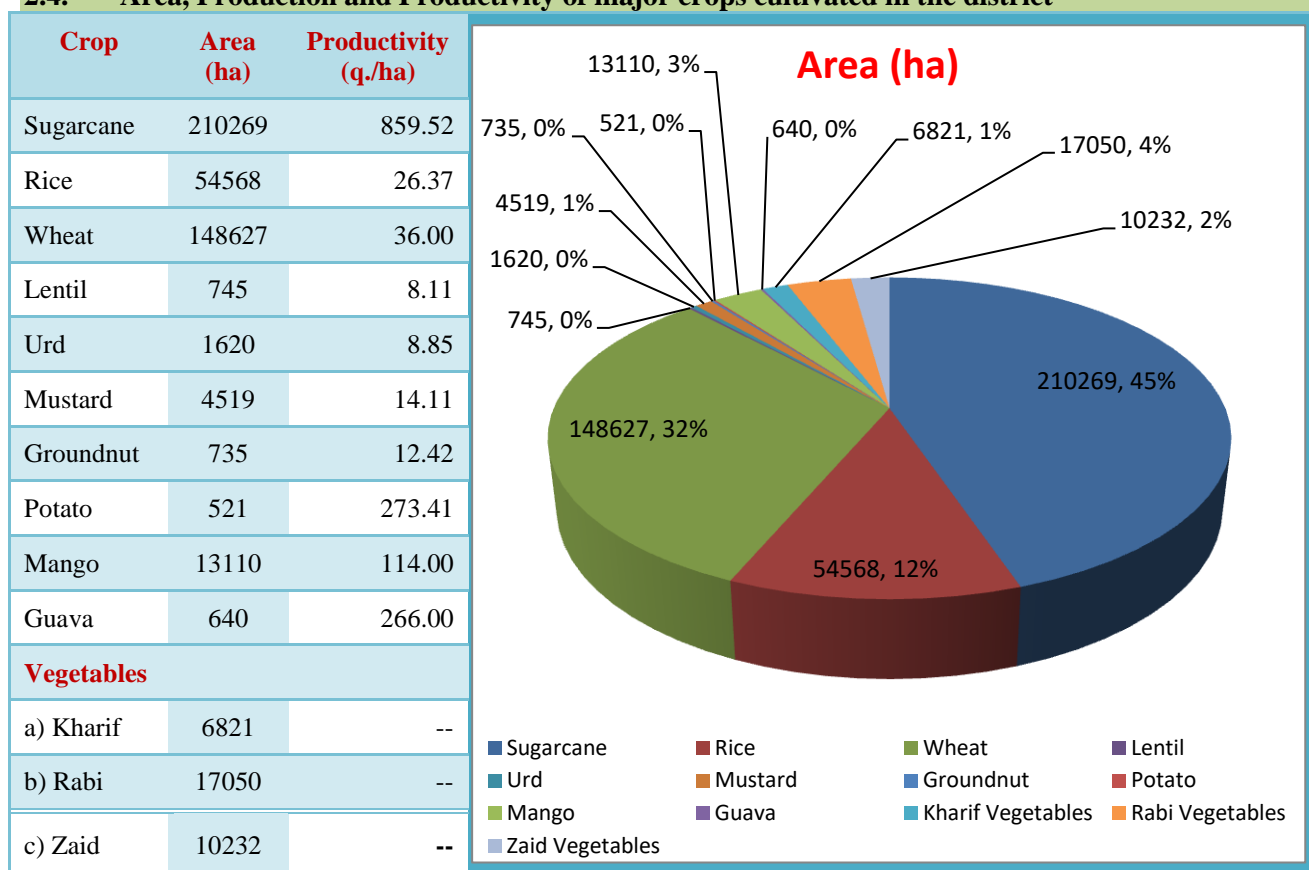
The Topography of Bijnor district is mainly a plain. The district has a pleasing climate with cool and foggy winter and generally hot and humid summer. The wet session starts from July to October during which the district receives rainfall. The temperature of the district is varies from 48<sup>0</sup>C in summer and 3<sup>0</sup>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



## 2.5. Weather data

Month	Rainfall (mm)	Rainy Days	Temperature °C		Relative Humidity (%)	
			Maximum	Minimum	0716	1416
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
April, 19	22.0	04	35.7	18.2	78	32
May, 19	3.0	01	38.9	20.3	68	26
June, 19	18.2	02	39.0	25.0	77	40
July, 19	494.6	16	32.9	25.0	93	70
August, 19	400.0	10	33.0	25.4	94	73
September, 19	120.0	09	32.8	24.6	91	70
October, 19	0.0	00	30.0	17.0	95	72
November, 19	13.4	02	26.3	10.8	96	64
December, 19	69.8	02	19.1	5.9	98	82



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

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

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

## 2.7 Details of Operational Area /Villages (2019)

SN	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Nagina	Kotwali	Harvanshpur Dhaaram, Khanpur, Saidkheri, Rajpura, Purani, Nejawali Gamdi, Fulsandha Karandachodher, Patpura and Vishoniwala etc.	Sugarcane, Rice, Wheat, French bean, Okra, Mustard, Groundnut, Urd, Moong, Mango and Guava	<ul style="list-style-type: none"> <li>• Insect &amp; Diseases</li> <li>• Old variety seed</li> <li>• Excessive and Imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment,</li> <li>• Poor Management of orchards</li> <li>• No application of micronutrients</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction and Popularization of HYV</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Popularization of intercropping</li> <li>• Promotion of self help group of farmers</li> <li>• Encouragement of Oilseed and Pulses</li> <li>• Rejuvenation of old orchards</li> </ul>
2	Dhampur	Allahapur (Dhampur)	Nayagoan and Norangabad	Sugarcane, Rice Wheat, Mustard, Vegetables	<ul style="list-style-type: none"> <li>• Insect &amp; Diseases attack</li> <li>• Excessive and imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment</li> <li>• Reliability of the farmers on chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Discriminative use of pesticides</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Improving technological skills of fruits farmers</li> <li>• Promotion of self help group of farmers</li> </ul>
3	Najibabad	Najibabad	Jattiwalla and Raipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	<ul style="list-style-type: none"> <li>• Unavailability of quality seed of vegetable</li> <li>• Insect &amp; Diseases attack</li> <li>• No seed treatment</li> <li>• Poor management of orchards</li> <li>• No application of micronutrients</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of suitable and HYV of vegetables</li> <li>• Discriminative use of pesticides</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Improving technological skills of fruits farmers</li> <li>• Promotion of self help group of farmers</li> </ul>
4	Nagina	Nehtaur	Kokapur, Begrajpur and Sarayaashnra etc.	Sugarcane, Rice Wheat, Mustard, Vegetables	<ul style="list-style-type: none"> <li>• Insect &amp; Diseases attack</li> <li>• Excessive and imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment</li> <li>• Reliability of the farmers on chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction and Popularization of HYV</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Popularization of intercropping</li> <li>• Promotion of self help group of farmers</li> <li>• Encouragement of Oilseed and Pulses</li> <li>• Rejuvenation of old orchards</li> </ul>
5	Najibabad	Kiratpur	Akbrabad and Sadipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	<ul style="list-style-type: none"> <li>• Unavailability of quality seed of vegetable</li> <li>• Insect &amp; Diseases attack</li> <li>• Excessive and imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment</li> <li>• Poor management of orchards</li> <li>• No application of micronutrients</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of suitable and HYV of vegetables</li> <li>• Adequate package and practices of vegetables and fruits</li> <li>• Discriminative use of pesticides</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Improving technological skills of fruits farmers</li> <li>• Promotion of self help group of farmers</li> </ul>

6	Dhamapur	Seohara	Jamapur, Jat Nagla and Budhanpur	Rice, Wheat, Sugarcane and orchard	<ul style="list-style-type: none"> <li>• Delayed sowing of sugarcane and wheat</li> <li>• Improper management of pests</li> <li>• Sowing of old varieties seeds</li> <li>• Imbalanced use of pesticides &amp; fertilizers</li> <li>• Poor management of orchards</li> <li>• No application of micronutrients</li> </ul>	<ul style="list-style-type: none"> <li>• Promotion of suitable and HYV of vegetables</li> <li>• Adequate package and practices of fruits</li> <li>• Discriminative use of pesticides</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Improving technological skills of sugarcane and rice farmers</li> <li>• Promotion of self help group of farmers</li> </ul>
7	Nagina	Afjalgarh	Jamanwala and Muraliwala	Sugarcane, Rice, Wheat, Mustard, Groundnut, Urd, Moong, Mango and Guava	<ul style="list-style-type: none"> <li>• Insect &amp; Diseases</li> <li>• Old variety seed</li> <li>• Excessive and Imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment,</li> <li>• Poor Management of orchards</li> <li>• No application of micronutrients</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction and Popularization of HYV</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Popularization of intercropping</li> <li>• Promotion of self help group of farmers</li> <li>• Encouragement of Oilseed and Pulses</li> <li>• Rejuvenation of old orchards</li> </ul>
8	Chandpur	Jalilpur	Bhwanipur and Laddupura	Sugarcane, Rice Wheat, Mustard, Vegetables	<ul style="list-style-type: none"> <li>• Insect &amp; Diseases attack</li> <li>• Excessive and imbalanced use of pesticides &amp; fertilizers</li> <li>• No seed treatment</li> <li>• Reliability of the farmers on chemicals</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction and Popularization of HYV</li> <li>• Promotion of IPNM, IPM, IDM, ICM</li> <li>• Popularization of intercropping</li> <li>• Promotion of self help group of farmers</li> <li>• Encouragement of Oilseed and Pulses</li> <li>• Rejuvenation of old orchards</li> </ul>

## 2.8 Priority Thrust areas

Crop/Enterprise	Thrust area
Sugarcane	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> </ul>
Paddy	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> <li>• Promoting export quality Basmati production</li> </ul>
Wheat	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> </ul>
Lentil	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> </ul>
Mustard	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> </ul>
Black Gram	<ul style="list-style-type: none"> <li>• Popularizing IPM technologies for management of insect pests</li> <li>• Popularizing new agro techniques in sugarcane for farmers doubling income</li> <li>• Promoting quality seed production at farmers field</li> </ul>
Women empowerment	<ul style="list-style-type: none"> <li>• Women empowerment through popularization of food preservation technique, NARI &amp; VATICA programme</li> </ul>
Others	<ul style="list-style-type: none"> <li>• Maintenance of soil productivity through IPNM</li> <li>• Promoting resource conservation techniques in crops</li> <li>• Promoting Group Approach of Extension through FIG</li> <li>• Diversification in orchard management</li> </ul>

## 2.9 Intervention/Programmes for the doubling the farmers income – during 2019

## 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	1114	--	--	126869.00	235181.00	2.85	--
--	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*	1306.25	181.25	1780.29	190977.75	387616.00	3.03	--
Sugarcane + Lentil	1123.75	11.50	1314.83	136622.45	290696.30	3.13	--
Sugarcane + Mustard	1135.25	12.50	1312.17	136026.82	290429.43	3.14	--
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 2019

OFT (Technology Assessment)				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
07	07	27	27	189.4	170.4	550	540

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
PF	55	55	1100	1101	495	495	53185	53185
RY	9	9	90	90				
EF	18	18	180	180				
Skill trg.	03	03	60	60				
<b>Total</b>	<b>85</b>	<b>85</b>	<b>1430</b>	<b>1431</b>				

Seed Production (Q.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	337.50	--	--	--	--

Soil/plant/water Analysis		
7		
Target	Achievement	No. of farmers covered



## 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 Clodinofof 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
<b>Total technology to be demonstrated</b>	<b>80</b>
<b>Approximately No of farmers visited</b>	<b>8500</b>

### I. 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	Assessment of nursery plantation under late sown condition on enhancement of Sugarcane yield	01	03
		Assessment of drip irrigation and fertigation on cane yield and economics	01	03
Varietal Evaluation	Wheat	Evaluation of newly released high yielding late sown wheat variety against disease resistance	01	05
	Paddy	Evaluation of newly released HYV of basmati rice against disease resistance	01	05
	Wheat	Evaluation of newly released high yielding Timely sown wheat variety against disease resistance	01	03
		Evaluation of newly released high yielding late sown wheat variety against disease resistance	01	03
Value Addition	Mango	Value addition in mango squash increase prices as well as it shelf life	01	05
<b>Total</b>			<b>07</b>	<b>27</b>

Summary of technologies assessed under **livestock** by KVKs : Nil

Summary of technologies assessed under various **enterprises** by KVKs : Nil

### I.B. TECHNOLOGY ASSESSMENT IN DETAIL

#### INTEGRATED CROP MANAGEMENT

**OFT- 1 (Agronomy)**

**Season - Rabi**

**Year: 2018-19**

**Problem definition:** Late sowing of sugarcane due to late harvesting of wheat and rice.

**Technology Assessed:** Assessment of nursery plantation under late sown condition on enhancement of 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 adversely 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. Result reveals that yield of sugarcane increased 20.40% whereas, production cost reduces 12.85%. The details information are given below:

Technology Option	No. of trials	NMC /m <sup>2</sup>	Yield (qt./ha)	Increase in yield (%)	Cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T <sub>1</sub> - FP (Normal sowing)	01 (03 farmers field)	12.5	950.00	-	122049.00	186701.00	2.53
T <sub>2</sub> -(Nursery planting)		15.6	1143.75	20.40	108549.00	263169.00	2.43



### INTEGRATED CROP MANAGEMENT

**OFT- 2 (Agronomy)**

**Season - Rabi**

**Year: 2018-19**

**Problem definition:** Enhancement in cost of cultivation and improper management of natural resources.

**Technology Assessed:** Assessment of drip irrigation and fertigation on cane yield and economics.

About 70% cropping area of Bijnor district are covered by sugarcane crop. The major parts of production cost of sugarcane crop are invested on irrigation and fertilizers and secondly three blocks of district are coming in dark zone. Keeping in mind those facts this experiment was designed by KVK, Bijnor. According to different experimental findings drip irrigation and fertigation increased water use efficiency and quality of products. The main objectives are how to reduce cost of cultivation and increase productivity. On the basis of calculation, cost of cultivation under drip irrigation system was Rs. 1,40,319.00 in which Rs. 1,20,000.00 received to farmer through government subsidy under prime minister irrigation scheme and remaining cost Rs. 15,000.00 paid by farmer, naturally production cost increased Rs. 15000.00 in first year. Results revealed that 20.71% yield increase under drip irrigation against normal irrigation method, so we can say drip irrigation system found superior. Yield may be increased due to proper timing and quantity of irrigation and fertilizers. Details are given below :-

Technology Option	No. of trials	NMC /m <sup>2</sup>	Yield (qt./ha)	Increase in yield (%)	Cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T <sub>1</sub> - FP (Trench method)	01 (03 farmers field)	12.5	1120	-	125319	238681	2.90
T <sub>2</sub> - Drip irrigation		16.2	1352	20.71	140319	299081	3.13



## VARIETAL EVALUATION

**OFT- 3 (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 <sub>1</sub> - Local (DBW-16)	01 (05 farmers field)	41.25	--	51830.00	2.06
T <sub>2</sub> - DBW-173		49.70	20.48	72032.00	2.55
T <sub>3</sub> - WH-1124		44.00	6.66	59500.00	2.25



**OFT-4 (Plant Breeding)**

**Season – Kharif**

**Year: 2019**

**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-1718, Pusa Basmati-1728 and Pusa Basmati-1121 as check. The transplanting dates of these varieties are 05 to 30 June 2019 with 12 to 15 October 2019 harvesting dates also. The results revealed that yield increase of rice varieties ranged between 8.33 to 9.37 percent over farmers practice. The variety Pusa Basmati-1718 gave highest yield of 52.50 qt. per ha with net return of Rs. 138480.00 and BCR of 4.99. The others technical data as given below:

- i. The lodging in PB-1718 is none in comparison PB-1121 (12-17%) and PB-1728 (5-10%)
- ii. Disease incidence in PB-1718 is none comparison PB-1121 (10-15%).

### 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 <sub>1</sub> - Local (PB-1121)	01	48.00	--	12-17	10-15	1,22,970.00	3.77
T <sub>2</sub> - Pusa Basmati-1718	(05 farmers field)	52.50	9.37	5-8	7-10	1,38,480.00	4.17
T <sub>3</sub> - Pusa Basmati-1728		52.00	8.33	5-10	12-15	1,36,980.00	4.12



#### OFT- 5 (Plant Breeding)

Season – Rabi

Year: 2019-20

**Problem definition:** Low Productivity of Timely Sown Wheat

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

The KVK Bijnor conducted On-farm trial on timely sown wheat varieties to find out suitable high yielding timely sown wheat varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were HD-3226, DBW-187, PBW-723 and DBW-17 as check. The sowing dates of these varieties are 15 to 20 November 2019.

**RESULT AWAITED**

#### OFT- 6 (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 PBW-752, WH-1124 and DBW-16 as check. The sowing dates of these varieties are 18 to 25 December 2019.

**RESULT AWAITED**

### VALUE ADDITION

#### OFT-7 (Home Science)

Season - Kharif

Year: 2019

**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 its 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 can not take the chemical substance sugar in right proportion a result. They approved to problem & mould attack.

Technology Option	No. of trials	Prepared squash (lit)	Total Cost (Rs.)	Total Income (Rs.)	Net Return (Rs.)	B:C Ratio
Mango squash	05	10	600.00	1400.00	800.00	2.33

## II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018 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	650	5200	15000
		Weed management	Oxadigryl 80% W.P @ 112.5 gm /ha	FLD, Training, Field day, electronic/print media	320	615	8700
2	Wheat	Timely sown	WB-02	FLD, Training, Field day, electronic/print media	110	1500	850
		Late sown	HD-3059	FLD, Training, Field day, electronic/print media	480	1800	8200
		Weed management	Clodinafop 15% WP + Metsulfuron methyl 20% WP	FLD, Training, Field day, electronic/print media	650	7500	65800
3	Mustard	Varietal development	Pusa Mustard – 31	FLD, Training, Field day, electronic/print media	105	280	580
		Nutrient management	Sulphur @ 40 kg/ha and Boron @ 1.5 kg/ha	FLD, Training, Field day, electronic/print media	150	350	700
4	Lentil	Varietal development	Pusa Masoor Ageti	FLD, Training, Field day, electronic/print media	12	40	25
5	Sugarcane	Integrated Crop Management	Trench method of sugarcane sowing	FLD, Training, Field day, electronic/print media	780	7500	62500
		Weed management	Halosulfuron methyl 75% WG @ 90gm / ha	FLD, Training, Field day, electronic/print media	80	110	150
		Intercropping	Sugarcane + Mustard intercropping system	FLD, Training, Field day, electronic/print media	250	710	12000
		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
<b>Total</b>					<b>4577</b>	<b>29725</b>	<b>183205</b>

**b. Details of FLDs implemented during 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	
<b>Cluster FLD</b>										
1	Mustard (NFSM)	ICM	Seed, sulphur, Zinc sulphate and Borax	Rabi 2018-19	10.0	10.0	5	20	25	--
2	Lentil (NFSM)	ICM	Seed and liquid bio-fertilizer	Rabi 2018-19	20.0	20.0	8	42	50	--
3	Urd (NFSM)	ICM	Seed, liquid bio-fertilizer, Trichoderma and Zinc sulphate	Zaid 2019	20.0	20.0	7	43	50	--
4	Lentil (NFSM)	ICM	Seed and liquid bio-fertilizer	Rabi 2019-20	20.0	10.0	5	20	25	--
<b>Other FLD</b>										
5	Sugarcane	Weed Management	Halosulfuron methyl 75% WG	Spring 2018	4.0	4.0	--	10	10	--
6	Sugarcane (Participatory)	Integrated Crop Management	Trench method of sugarcane sowing (30-120-30 cm spacing)	Rabi 2018-19	8.0	8.0	5	15	20	--
7	Mustard	Varietal Demonstration	To demonstrate the yield potential of Mustard variety Pusa Mustard-31	Rabi 2018-19	6.0	6.0	3	27	30	--
8	Mustard	Nutrient management	Sulphur @ 40 kg/ha and Boron @ 1.5 kg/ha	Rabi 2018-19	4.0	4.0	1	09	10	--
9	Lentil	Varietal Demonstration	To demon. the yield potential of Lentil variety	Rabi 2018-19	0.4	0.4	--	10	10	--
10	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of Bio fortified Wheat variety WB-02	Rabi 2018-19	5.0	4.0	04	16	20	--
11	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of late sown wheat variety HD-3059	Rabi 2018-19	5.0	2.0	--	10	10	--
12	Wheat	Weed management	Clodinafop 15% WP+Metsulfuron methyl 20% WP	Rabi 2018-19	8.0	8.0	2	18	20	--
13	S.cane + Mustard	ICM	Sugarcane + Mustard intercropping system	Rabi 2018-19	4.0	4.0	2	8	10	--
14	S.cane + Lentil	ICM	Sugarcane + Lentil intercropping system	Rabi 2018-19	4.0	4.0	--	10	10	--
15	S.cane + potato	ICM	Sugarcane + potato intercropping system	Rabi 2018-19	2.0	2.0	--	05	05	--
16	Sugarcane	Varietal Demonstration	To demonstrate the yield potential & popularization of Sugarcane variety CO-08272	Spring 2019	2.0	2.0	-	05	05	-
17	Sugarcane	Weed Management	Halosulfuron methyl 75% WG (Result awaited)	Spring 2019	4.0	4.0	--	10	10	--
18	Kitchen Garden	Nutritional security	Hybrid Seed	Zaid 2019	1.0	1.0	--	10	10	--
19	Basmati Rice	Varietal Demonstration	Pusa Basmati 1637	Kharif 2019	5.0	5.0	3	22	25	--
20	Hybrid Rice	Varietal Demonstration	SAVA 127	Kharif 2019	5.0	2.0	--	10	10	--

21	Paddy	Weed management	Bispyribac Sodium 10% SC @250 ml /ha	Kharif 2019	8.0	8.0	04	16	20	--
22	Paddy	Weed management	Oxadigryl 80% W.P @ 112.5 gm /ha	Kharif 2019	8.0	8.0	4	16	20	--
23	Sugarcane (Participatory)	Integrated Crop Management	Trench method of sugarcane sowing (30-120-30 cm spacing)	Rabi 2019-20	4.0	4.0	--	10	10	--
24	Mustard	Nutrient management	Sulphur @ 40 kg/ha and Boron @ 1.5 kg/ha	Rabi 2019-20	4.0	4.0	1	09	10	--
25	Mustard	Varietal Demonstration	To demonstrate the yield potential of Mustard variety Pusa Mustard-31	Rabi 2019-20	6.0	6.0	4	26	30	--
26	Lentil	Varietal Demonstration	To demonstrate the yield potential & popularization of Bio fortified Lentil variety (Technological Guidance)	Rabi 2019-20	2.0	2.0	--	10	10	--
27	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of Bio fortified Wheat variety WB-02 (Technological Guidance)	Rabi 2019-20	5.0	4.0	4	16	20	--
28	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of Bio fortified wheat variety HPBW-01	Rabi 2019-20	1.0	1.0	--	05	05	--
29	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of late sown wheat variety DBW-173	Rabi 2019-20	5.0	4.0	2	18	20	--
30	Wheat	Weed management	Clodinafop 15% WP+Metsulfuron methyl 20% WP	Rabi 2019-20	8.0	8.0	4	16	20	--
31	Kitchen Garden	Nutritional security	Hybrid Seed	Rabi 2019-20	1.0	1.0	--	10	10	--
<b>Total</b>					<b>189.4</b>	<b>170.4</b>	<b>68</b>	<b>472</b>	<b>540</b>	

### 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					
<b>Cluster FLD</b>											
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	S.cane & Mustard	15-30.03.2019	07-15.06.2019	--	--
<b>Other FLD</b>											
Sugarcane (Co-0238)	Spring 2018	Irrigated	Loam	L	M	L	Dhaincha	15.02.2018 - 15.03.2018	20.02.2019 – 30.03.2019	--	--

Sugarcane (Participatory)	Rabi 2018-19	Irrigated	Loam	L	M	L	Dhaincha	10-25.09.2018	10-30.11.2019	--	--
Mustard (P-31)	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-25.10.2018	05-10.03.2019	--	--
Mustard	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice	20-25.10.2018	01-05.03.2019	--	--
Lentil (Pusa Masoor Ageti)	Rabi 2018-19	Irrigated	Loam	L	M	L	Paddy	20-30.10.2018	20-28.02.2019	--	--
Wheat (WB-02)	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice	20-25.11.2018	04-15.04.2019	--	--
Wheat (HD-3059)	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	20-25.11.2018	04-15.04.2019	--	--
Sugarcane + Mustard	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2018	10-30.11.2019	--	--
Sugarcane + Lentil	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2018	10-30.11.2019	--	--
Sugarcane + Potato	Rabi 2018-19	Irrigated	Loam	L	M	L	Rice 1509	05-15.10.2018	10-30.11.2019	--	--
Sugarcane (Co-0238)	Spring 2019	Irrigated	Loam	L	M	L	Mustard	20-30.03.2019	Result awaited	--	--
Sugarcane (C0-08272)	Spring 2019	Irrigated	Loam	L	M	L	Mustard	01-03.03.2019	Result awaited	--	--
Kitchen Garden	Zaid 2019	Irrigated	Loam	L	M	L	--	21-24.02.2019	28.04.2019 - 07.05.2019	--	--
Basmati Rice (PB-1637)	Kharif 2019	Irrigated	Loam	L	M	L	Wheat	12-18.07.2019	25-30.10.2019	--	--
Hybrid Rice (SAVA-127)	Kharif 2019	Irrigated	Loam	L	M	L	Wheat	06-10.07.2019	01-05.10.2019	--	--
Paddy	Kharif 2019	Irrigated	Loam	L	M	L	Wheat	05-15.07.2019	25-30.10.2019	--	--
Paddy	Kharif 2019	Irrigated	Loam	L	M	L	Wheat	08-20.07.2019	22-30.10.2019	--	--
Sugarcane (Participatory)	Rabi 2019-20	Irrigated	Loam	L	M	L	Dhaincha	15-30.09.2019	Result awaited	--	--
Mustard	Rabi 2019-20	Irrigated	Loam	L	M	L	Rice	20-25.10.2019	Result awaited	--	--
Mustard (P-31)	Rabi 2019-20	Irrigated	Loam	L	M	L	Paddy	10-15.10.2019	Result awaited	--	--
Lentil (Pusa Masoor Ageti)	Rabi 2019-20	Irrigated	Loam	L	M	L	Paddy	20-30.10.2019	Result awaited	--	--
Wheat (WB-02)	Rabi 2019-20	Irrigated	Loam	L	M	L	Rice	15-20.11.2019	Result awaited	--	--
Wheat (HPBW-01)	Rabi 2019-20	Irrigated	Loam	L	M	L	Sugarcane	20-22.11.2019	Result awaited	--	--
Wheat (DBW-173)	Rabi 2019-20	Irrigated	Loam	L	M	L	Sugarcane	22-25.12.2019	Result awaited	--	--
Wheat	Rabi 2019-20	Irrigated	Loam	L	M	L	Rice	20-30.11.2019	Result awaited	--	--
Kitchen Garden	Rabi 2019-20	Irrigated	Loam	L	M	L	--	16-20.10.2019	Result awaited	--	--



### Technical Feedback on the demonstrated technologies

SN	Crop/Technology	Feed back
1	CFLD on Pulses	<ul style="list-style-type: none"> <li>Complete package and practice and financial support required for pulse production.</li> <li>Boundary Fencing are essential component for pulse production for security of wild animals.</li> </ul>
2	Sugarcane - Trench Method	<ul style="list-style-type: none"> <li>Trench method found superior against traditional method in case of productivity and resource optimization.</li> <li>Increase 35-40% sugarcane yield.</li> </ul>
3	Sugarcane + Mustard	<ul style="list-style-type: none"> <li>Intercropping system found significantly superior over the sole cropping.</li> <li>After calculation of CEY we found that farmer get 15-20% additional yield.</li> </ul>
4	Sugarcane + Lentil	<ul style="list-style-type: none"> <li>Intercropping system found significantly superior over the sole cropping.</li> <li>After calculation of CEY we found that farmer get 15-18% additional yield.</li> </ul>
5	Sugarcane + potato	<ul style="list-style-type: none"> <li>Intercropping system found significantly superior over the sole cropping.</li> <li>After calculation of CEY we found that farmer get 50-55% additional yield.</li> </ul>
6	Sugarcane - IWM (Halosulfuron methyl 75% WG)	<ul style="list-style-type: none"> <li>Cyprus rotendus weeds control effectively and farmers save Rs.10000 -12000 cost of cultivation.</li> <li>Increase 3-5% yield due to timely management of weeds.</li> </ul>
7	Kitchen Garden	<ul style="list-style-type: none"> <li>Better yield and better quality of vegetables</li> </ul>
8	Basmati Rice - (PB-1637)	<ul style="list-style-type: none"> <li>Disease incidence in PB-1509 is not seen while it is about 10-15% in PB-1</li> <li>Lodging in PB-1509 is less (0-5%) as comparison to PB-1(10-18%) due to its short stature of plant</li> </ul>
9	Hybrid Rice-(SAVA-127)	<ul style="list-style-type: none"> <li>Variety SAVA- 127 takes less crop duration (120-125) as comparison to Arize-6444 (130-135)</li> <li>Disease incidence in SAVA-127 is not seen while it is about 10-15% in Arize-6444</li> <li>Lodging in -127 is less (0-3%) as comparison to Arize-6444 (12-15%)</li> </ul>
10	Paddy - IWM (Bispyribac sodium 10% SC)	<ul style="list-style-type: none"> <li>Bispyribac sodium controlled weeds effectively during critical stage of crop weed competition (30-60 days) consequently,</li> <li>Yield increased 20-26%.</li> </ul>
11	Paddy - IWM (Oxadigryl 80% W.P)	<ul style="list-style-type: none"> <li>Oxadigryl found suitable against Butachlor in case of weed resistance and cost of weedicides</li> </ul>
12	Mustard (PM-31)	<ul style="list-style-type: none"> <li>Disease incidence in PM-31 is not seen while it is about 0-5% in check variety.</li> <li>Better yield and better quality of oil of PM-31 against check variety.</li> </ul>
13	Mustard (Sulphur and Boron)	<ul style="list-style-type: none"> <li>Sulphur and boron increase upto 24 % yield of mustard. Therefore popularity required among the farmers.</li> </ul>
14	Lentil (Pusa Masoor Ageti)	<ul style="list-style-type: none"> <li>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.</li> <li>Disease incidence in PMA is non while it is about 8-14% in check.</li> </ul>
15	Wheat (WB-02)	<ul style="list-style-type: none"> <li>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.</li> <li>Disease incidence in WB-02 is not seen while it is about 8-15% in PBW-550.</li> <li>Lodging in WB-02 is less (0-5%) as comparison PBW-550 (12-18%) due to its short stature of plant.</li> </ul>
16	Wheat (HD-3059)	<ul style="list-style-type: none"> <li>Variety HD-3059 takes more or less same crop duration as DBW-16.</li> <li>The lodging in HD-3059 is less (0-6%) in comparison to DBW-16 (20-25%)</li> <li>Yellow rust and blight incidence in HD-3059 is none, while it is about 14-18% in DBW-16.</li> </ul>
17	Wheat (Clodinafop + Metsulfuron methyl)	<ul style="list-style-type: none"> <li>Weeds are developed resistance against old weedicies (Isoproturon).</li> <li>There is no any phytotoxic effect of that weedicides Clodinafop &amp; Metsulfuron methyl.</li> </ul>

### Farmers' reactions on specific technologies

SN	Crop/Technology	Feed back
1	CFLD on Pulses	<ul style="list-style-type: none"> <li>Wild animals much more loss in pulses crops, For successful cultivation of pulse crop boundary fencing is a essentially require.</li> </ul>
2	Sugarcane - Trench Method	<ul style="list-style-type: none"> <li>Farmers feel much better due to more productivity under trench method.</li> </ul>
3	Intercropping system	<ul style="list-style-type: none"> <li>Farmers feel labour crises.</li> </ul>
4	Sugarcane - IWM (Halosulfuron methyl 75% WG)	<ul style="list-style-type: none"> <li>Farmers feel better in case of labour crises.</li> </ul>
5	Kitchen Garden	<ul style="list-style-type: none"> <li>Farm women like hybrid varieties</li> </ul>
6	Basmati Rice - (PB-1637)	<ul style="list-style-type: none"> <li>Farmers like very much basmati variety pusa basmati 1637 due to their higher yield and low incidence of diseases against PB-1.</li> </ul>
7	Hybrid Rice-(SAVA-127)	<ul style="list-style-type: none"> <li>Farmers like very much Hybrid variety SAVA-127 due to their higher yield and less crop duration against Arize-6444.</li> </ul>
8	Paddy - IWM (Bispyribac sodium 10% SC)	<ul style="list-style-type: none"> <li>The bispyribac sodium effectively control weeds as comparison to other weedicides used by farmers.</li> </ul>
9	Paddy - IWM (Oxadigryl 80% W.P)	<ul style="list-style-type: none"> <li>It is good under pre-emergence condition.</li> </ul>
10	Mustard (PM-31)	<ul style="list-style-type: none"> <li>Market potential of pm-31 is better than other mustard variety due to their high demand.</li> <li>Farmers like very much Mustard variety PM-31 due to high nutritional quality against other Mustard varieties.</li> </ul>
11	Mustard (Sulphur and Boron)	<ul style="list-style-type: none"> <li>They get more yields in comparison to without sulphur and boron.</li> </ul>
12	Lentil (Pusa Masoor Ageti)	<ul style="list-style-type: none"> <li>Market potential of PMA is better than Check due to their high demand.</li> <li>Farmers like very much Lentil variety PMA due to their short crop duration and high nutritional quality against other Lentil varieties.</li> </ul>
13	Wheat (WB-02)	<ul style="list-style-type: none"> <li>Market potential of WB-02 is better than PBW-550 due to their high demand.</li> <li>Farmers like very much Wheat variety WB-02 due to their short crop duration &amp; high nutritional quality against other wheat varieties.</li> </ul>
14	Wheat (HD-3059)	<ul style="list-style-type: none"> <li>Grain size of HD-3059 is bold and its chapatti making quality is better than DBW-16 and it has good market potential.</li> </ul>
15	Wheat (Clodinafop + Metsulfuron methyl)	<ul style="list-style-type: none"> <li>Weeds controlled effectively and no phytotoxic effect of weedicides on crop.</li> </ul>

### Extension and Training activities under FLD

SN	Crop	Activity	No. of activities organized	Date	Number of participants	Remarks
1	CFLD Lentil	Farmers Training	01	17.10.2019	20	--
2	CFLD Urd	Farmers Training	01	11.03.2019	20	
3	Sugarcane - Trench Method	Farmers Training	02	05.09.2019 & 11.09.2019	40	--
		Field days	02	15.01.2019 & 28.02.2019	50	--
4	Sugarcane intercropping system	Farmers Training	02	04.09.2019 & 16.10.2019	40	--
		Field days	01	28.02.2019	62	--

5	Sugarcane - IWM (Halosulfuron methyl 75% WG)	Farmers Training	01	06.04.2019	20	--
		Field days	01	11.04.2019	24	--
6	Kitchen Garden	Farm women Training	03	03.05.2019, 01.06.2019 & 03.12.2019	60	--
7	Basmati Rice - (PB-1637)	Farmers Training	01	12.06.2019	20	--
		Field days	01	01.09.2019	70	--
8	Hybrid Rice-(SAVA 127)	Farmers Training	01	17.05.2019	20	--
		Field days	01	01.10.2019	60	--
9	Paddy - IWM (Bispyribac sodium 10% SC) & (Oxadigryl 80% W.P)	Farmers Training	01	27.06.19	20	--
10	Mustard (PM-31)	Farmers Training	02	20.09.2018 & 10.10.2018	40	--
		Field days	02	05.03.2019	90	--
11	Mustard (Sulphur and Boron)	Farmers Training	01	22.09.2019	20	--
		Field days	01	12.04.2019	28	--
12	Lentil (Pusa Masoor Ageti)	Farmers Training	01	21.09.2018	20	--
		Field days	01	10.04.2019	75	--
13	Wheat (WB-02)	Farmers Training	02	13.11.2018 & 15.11.2018	40	--
		Field days	02	11.04.2019 & 12.04.2019	118	--
14	Wheat (HD-3059)	Farmers Training	01	08.12.2018	20	--
		Field days	02	09.04.2019	75	--
15	Wheat (Clodinafop + Metsulfuron methyl)	Farmers Training	01	09.12.2019	20	--
		Field days	01	10.04.2019	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										
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	30978.50	1.77	35225.00	51843.00	16618.00	1.47
Urd	ICM	Variety, Liquid bio-fertilizer & Zinc sulphate	PU-31	50	20	15.00	8.4	11.52	8.70	32.41	30912.00	48384.00	17472.00	1.57	29775.00	36540.00	6765.00	1.23

### 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												
<b>Cereals</b>																			
<b>Paddy</b>										<b>No. of weeds m<sup>2</sup></b>									
Paddy	Weed Management	Bispyribac Sodium 10% sc	20	8.0	70.60	59.80	65.50	53.40	22.66	10.20	60.50	54600.00	117900.00	63300.00	2.16	53200.00	96120.00	42920.00	1.81
Paddy	Weed Management	Oxadigryl 80% W.P	20	8.0	71.60	60.50	63.50	52.20	21.65	25.40	58.50	53350.50	114300.00	60949.50	2.14	53200.50	93960.00	40759.50	1.77
<b>Scented Rice</b>										<b>Disease incidence (%)</b>									
Basmati Rice	Varietal improvement	PB-1637	25	5.0	67.5	47.50	55.81	45.15	23.61	0-5	10-15	43428.00	193060.00	149632.00	4.45	45822.00	161640.00	115818.00	3.53
										<b>Lodging (%)</b>									
										0-5	10-18								
<b>Wheat</b>										<b>No. of weeds m<sup>2</sup></b>									
Wheat	Weed management	Clodinafop 15% W.P + Metsulfuron methyl 20 % W.P.	20	8.0	55.0	50.1	52.5	44.40	18.24	1.8	41.8	45307.50	106837.50	61530.00	2.36	45107.50	90354.00	45246.50	2.00
Mustard	ICM	Sulphur and Borax	10	4.0	15.2	12.5	13.98	11.54	21.14	<b>No. of grains/ siliqua</b>		28668.00	59415.00	30735.00	2.07	24967.00	49045.00	24077.00	1.96
										14.43	12.10								
										<b>No. of siliqua/ plant</b>									
										275	205								

										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	39620.00	2.38	28600.00	39620.00	11020.00	1.39	
										Disease incidence (%)										
Lentil	Varietal improvement	Pusa Masoor Ageti	10	0.40	16.25	12.50	13.62	8.50	60.24	0-3	8-14	32280.00	61312.50	29032.50	1.90	29032.50	33055.00	4022.50	1.14	
										Disease incidence (%)										
Wheat	Varietal improvement	WB-02	20	4.0	63.75	52.50	57.50	45.91	25.25	0	8-15	46345.00	137950.00	91605.00	2.98	49229.00	113032.00	63803.00	2.30	
										Lodging (%)										
										0-5	12-28									
										Disease incidence (%)										
Wheat	Varietal improvement	HD-3059	10	2.0	57.50	42.50	48.00	42.00	14.29	0	15-20	43500.00	115000.00	71500.00	2.64	44800.00	96250.0	51450.00	2.15	
										Lodging (%)										
										0-5	18-22									
<b>Fruit crops</b>																				
<b>Mango</b>																				
<b>Papaya</b>																				
<b>Commercial Crops</b>																				
<b>Sugarcane</b>										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)			Check (single crop)	% Change in Yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo					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	1135.25	12.5	1312.17	1112	18.00	136026.82	426456.30	290429.48	3.14	123220.00	361400.00	238180.00	2.93
Sugarcane + Lentil	ICM	Sugarcane + Lentil Intercropping	10	4.0	1123.75	11.5	1314.83	1108	18.67	136622.45	427318.80	290696.35	3.13	123114.00	360100.00	236986.00	2.92
Sugarcane + Potato	ICM	Sugarcane + Potato intercropping	05	2.0	1306.25	181.25	1780.29	1114	59.81	190977.75	578593.80	387616.05	3.03	126869.00	362050.00	235181.00	2.85

### 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	70.00	25.00	180.00	--	--	260.00	670.00	410.00	2.58	200.00	450.00	250.00	2.25

### FLD on Demonstration details on crop hybrids

Crop	Technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Paddy	Hybrid variety of rice	SAVA-127	10	2.0	73.75	62.59	66.62	59.20	12.53	46170.00	165256.00	119086.00	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
<b>I Crop Production</b>										
Integrated Crop Management	5	85	-	85	15	-	15	100	-	100
Resource Conservation Technologies	2	35	-	35	6	-	6	41	-	41
<b>Total</b>	<b>7</b>	<b>120</b>	<b>-</b>	<b>120</b>	<b>21</b>	<b>-</b>	<b>21</b>	<b>141</b>	<b>-</b>	<b>141</b>
<b>II Horticulture</b>										
<b>III Soil Health and Fertility Management</b>										
<b>IV Livestock Production and Management</b>										
<b>V Home Science/Women empowerment</b>										
Women and child care	3	-	35	35	-	25	25	-	60	60
Drudgery reduction	1	-	11	11	-	9	9	-	20	20
<b>Total</b>	<b>4</b>	<b>-</b>	<b>46</b>	<b>46</b>	<b>-</b>	<b>34</b>	<b>34</b>	<b>-</b>	<b>80</b>	<b>80</b>
<b>VI Agril. Engineering</b>										
<b>VII Plant Protection</b>										
<b>VIII Fisheries</b>										
<b>IX Production of Inputs at site</b>										
<b>X Capacity Building and Group Dynamics</b>										
<b>XI Agro-forestry</b>										
<b>XII Plant Breeding</b>										
Seed Production & varietal improvement	7	122	-	122	18	-	18	140	-	140
Diversification	5	88	-	88	12	-	12	100	-	100
Resource conservation	1	18	-	18	02	-	02	20	-	20
<b>Total</b>	<b>13</b>	<b>228</b>	<b>-</b>	<b>228</b>	<b>32</b>	<b>-</b>	<b>32</b>	<b>260</b>	<b>-</b>	<b>260</b>
<b>GRAND TOTAL</b>	<b>24</b>	<b>348</b>	<b>46</b>	<b>394</b>	<b>53</b>	<b>34</b>	<b>87</b>	<b>401</b>	<b>80</b>	<b>481</b>



**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
<b>I Crop Production</b>										
Integrated Nutrient Management	3	50	-	50	10	-	10	60	-	60
Weed Management	2	36	-	36	4	-	4	40	-	40
Residual Management	1	18	-	18	2	-	2	20	-	20
Resource Conservation Technologies	2	34	-	34	6	-	6	40	-	40
Integrated Crop Management	4	68	-	68	12	-	12	80	-	80
<b>Total</b>	<b>12</b>	<b>206</b>	<b>-</b>	<b>206</b>	<b>34</b>	<b>-</b>	<b>34</b>	<b>240</b>	<b>-</b>	<b>240</b>
<b>II Horticulture</b>										
<b>III Soil Health and Fertility Management</b>										
<b>IV Livestock Production and Management</b>										
<b>V Home Science/Women empowerment</b>										
Drudgery reduction	4	-	42	42	-	38	38	-	80	80
Value Addition	3	-	47	47	-	13	13	-	60	60
Women and child care	3	-	32	32	-	28	28	-	60	60
Household food security by kitchen grading & nutrition grading	2	-	27	27	-	13	13	-	40	40
<b>Total</b>	<b>12</b>	<b>-</b>	<b>148</b>	<b>148</b>	<b>-</b>	<b>92</b>	<b>92</b>	<b>-</b>	<b>240</b>	<b>240</b>
<b>VI Agril. Engineering</b>										
<b>VII Plant Protection</b>										
<b>VIII Fisheries</b>										
<b>IX Production of Inputs at site</b>										
<b>X Capacity Building and Group Dynamics</b>										
<b>XI Agro-forestry</b>										
<b>XII Plant Breeding</b>										
Seed Production & varietal improvement	2	35	-	35	05	-	05	40	-	40
Diversification	4	70	-	70	10	-	10	80	-	80
Resource conservation	1	18	-	18	2	-	2	20	-	20
<b>Total</b>	<b>7</b>	<b>123</b>	<b>-</b>	<b>123</b>	<b>17</b>	<b>-</b>	<b>17</b>	<b>140</b>	<b>-</b>	<b>140</b>
<b>GRAND TOTAL</b>	<b>31</b>	<b>329</b>	<b>148</b>	<b>477</b>	<b>51</b>	<b>92</b>	<b>143</b>	<b>380</b>	<b>240</b>	<b>620</b>

**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
<b>I Crop Production</b>										
Integrated Nutrient Management	3	50	-	50	10	-	10	60	-	60
Integrated Crop Management	9	153	-	153	27	-	27	180	-	180
Residual Management	1	18	-	18	2	-	2	20	-	20
Resource Conservation Technologies	4	69	-	69	12	-	12	81	-	81
Weed Management	2	36	-	36	4	-	4	40	-	40
<b>Total</b>	<b>19</b>	<b>326</b>	<b>-</b>	<b>326</b>	<b>55</b>	<b>-</b>	<b>55</b>	<b>381</b>	<b>-</b>	<b>381</b>
<b>II Horticulture</b>										
<b>III Soil Health and Fertility Management</b>										
<b>IV Livestock Production and Management</b>										
<b>V Home Science/Women empowerment</b>										
Drudgery reduction	5	-	53	53	-	47	47	-	100	100
Household food security by kitchen grading & nutrition grading	2	-	27	27	-	13	13	-	40	40
Value Addition	3	-	47	47	-	13	13	-	60	60
Women and child care	6	-	67	67	-	53	53	-	120	120
<b>Total</b>	<b>16</b>	<b>-</b>	<b>194</b>	<b>194</b>	<b>-</b>	<b>126</b>	<b>126</b>	<b>-</b>	<b>320</b>	<b>320</b>
<b>VI Agril. Engineering</b>										
<b>VIII Fisheries</b>										
<b>IX Production of Inputs at site</b>										
<b>X Capacity Building and Group Dynamics</b>										
<b>XII Plant Breeding</b>										
Diversification	9	158	-	158	22	-	22	180	-	180
Resource conservation	2	36	-	36	4	-	4	40	-	40
Seed Production & varietal improvement	9	157	-	157	23	-	23	180	-	180
<b>Total</b>	<b>20</b>	<b>351</b>	<b>-</b>	<b>351</b>	<b>49</b>	<b>-</b>	<b>49</b>	<b>400</b>	<b>-</b>	<b>400</b>
<b>GRAND TOTAL</b>	<b>55</b>	<b>677</b>	<b>194</b>	<b>871</b>	<b>104</b>	<b>126</b>	<b>230</b>	<b>781</b>	<b>320</b>	<b>1101</b>

**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	12	-	12	8	-	8	20	-	20
Seed production	3	25	-	25	5	-	5	30	-	30
Value addition	3	-	17	17	-	13	13	-	30	30
<b>TOTAL</b>	<b>9</b>	<b>41</b>	<b>17</b>	<b>58</b>	<b>19</b>	<b>13</b>	<b>32</b>	<b>60</b>	<b>30</b>	<b>90</b>

**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	12	-	12	8	-	8	20	-	20
Seed production	3	25	-	25	5	-	5	30	-	30
Value addition	3	-	17	17	-	13	13	-	30	30
<b>TOTAL</b>	<b>9</b>	<b>41</b>	<b>17</b>	<b>58</b>	<b>19</b>	<b>13</b>	<b>32</b>	<b>60</b>	<b>30</b>	<b>90</b>

**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	1	6	-	6	4	-	4	10	-	10
Resource Conservation Technologies	3	19	-	19	11	-	11	30	-	30
Seed Production	3	28	-	28	2	-	2	30	-	30
Varietal Diversification	5	45	-	45	5	-	5	50	-	50
<b>TOTAL</b>	<b>12</b>	<b>98</b>	<b>0</b>	<b>98</b>	<b>22</b>	<b>0</b>	<b>22</b>	<b>120</b>	<b>0</b>	<b>120</b>

**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
Integrated Crop Management	1	8	-	8	2	-	2	10	-	10
Women and Child care	4	-	28	28	-	12	12	-	40	40
Gender mainstreaming through SHGs	1	-	6	6	-	4	4	-	10	10
<b>TOTAL</b>	<b>6</b>	<b>8</b>	<b>34</b>	<b>42</b>	<b>-</b>	<b>16</b>	<b>18</b>	<b>10</b>	<b>50</b>	<b>60</b>

**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
Gender mainstreaming through SHGs	1	-	6	6	-	4	4	-	10	10
Integrated Crop Management	2	14	-	14	6	-	6	20	-	20
Resource Conservation Technologies	3	19	-	19	11	-	11	30	-	30
Seed Production	3	28	-	28	2	-	2	30	-	30
Varietal Diversification	5	45	-	45	5	-	5	50	-	50
Women and Child care	4	-	28	28	-	12	12	-	40	40
<b>TOTAL</b>	<b>18</b>	<b>106</b>	<b>34</b>	<b>140</b>	<b>24</b>	<b>16</b>	<b>40</b>	<b>130</b>	<b>50</b>	<b>180</b>

### 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 Programme (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
<b>Quality Seed Grower</b>	01	20	--	20	--	--	--	20	--	20
<b>Mushroom Growers</b>	02	24	03	27	10	03	13	34	06	40
<b>GRAND TOTAL</b>	<b>03</b>	<b>44</b>	<b>03</b>	<b>47</b>	<b>10</b>	<b>03</b>	<b>13</b>	<b>54</b>	<b>06</b>	<b>60</b>

#### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	-	-	-	-
Farmer visit at KVK	170	2800	100	2900
Diagnostic visits	10	112	20	132
Field Day	22	740	35	775
Group discussions	06	170	25	195
Kisan Ghosthi	25	17000	150	17150
Film Show	06	720	40	760
Self -help groups	-	-	-	-
Kisan Mela	5	5200	150	5350
Exhibition	2	650	29	679
Scientists' visit to farmers field	130	2750	45	2795
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	-	-	-	-
Method Demonstrations	8	122	40	162
Celebration of important days	-	-	-	-
Special day celebration/Kisan Diwas (23.12.19)	1	35	2	37
Exposure visits	0	0	-	0
Lecture Delivers by KVK scientist	110	22000	250	22250
Krishi Rath/Pre Kharif abhyan	-	-	-	-
<b>Total</b>	<b>495</b>	<b>52299</b>	<b>886</b>	<b>53185</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	--
Extension Literature	12
News paper coverage	80
Popular articles	05
Radio Talks	12
TV Talks	--
Animal health amps (Number of animals treated)	--
Research Paper	01
<b>Total</b>	<b>110</b>

### 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	40	-	-	-	20	-	60
	Voice only	80	-	-	-	10	-	90
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total messages</b>	120	-	-	-	30	-	150
	<b>Total farmer benefitted</b>	210	-	-	-	60	-	270

### 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 -1637	--	125.50	--	--
	Wheat	DBW-90	--	212.00	--	--
<b>Total</b>				<b>337.50</b>	<b>--</b>	

##### Details of participatory quality seed production at farmer's field

Crop	Variety	Production (q.)	F to F Seed distributed
Rice	PB-1509	779.00	712
	PB-1718	52.50	53
	Pusa Basmati-1637	398.00	412
	PB-1728	75.00	63
	PR-126	166.00	109
Wheat	HD-2967	740.00	732
	HD-3086	219.00	105
	DBW-88	463.00	266
	WB-02	366.00	560

	DBW-90	124.00	103
	HD-3059	259.00	175
	HPBW-01	54.00	110
	DBW-173	49.00	84
Mustard	Pusa Mustard-31	114.00	372
Lentil	Pusa Masoor Ageti	5.45	118
<b>Total</b>		<b>3444.95</b>	<b>3280</b>



#### 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
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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	--	--	--	--
<b>Total</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

#### VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
Krishi Vigyan Kendra, Nagina (Bijnor)	02

IX. NEWSLETTER/MAGAZINE : Nil

#### X. Publications

Category	Number
Research Paper	--
Book/Book chapter	02
Training Manual	02
Extension bulletins	04
Extension Literature	12
Popular articles	05
Success Story/ Case Study	09
Seminar papers (Abstract)	--
Technical reports	10
Workshop/ Conference/ Training Programme Attended	07

#### Books/Book Chapters

SN	Authors	Year	Title	Book/ Publisher's name & address	Publisher
1	समस्त वैज्ञानिक	2019	प्रमुख फसलों का बीज उत्पादन	के0वी0के0	Local



2	समस्त वैज्ञानिक	2019	मशरूम उत्पादन तकनीक	के0वी0के0	Local
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### Training Manuals

SN	Authors	Year	Title
1	डा0 नरेन्द्र सिंह	2019	गन्ना उत्पादन तकनीक
2	डा0 शकुन्तला गुप्ता	2019	मशरूम उत्पादन तकनीक

### Extension bulletins

SN	Authors	Year	Title
1	डा0 के0 के0 सिंह	2019	बासमती धान की उन्नत तकनीक
2	डा0 शकुन्तला गुप्ता	2019	ऑवले से मूल्यवर्धित उत्पाद
3	डा0 नरेन्द्र सिंह	2019	गन्ना पेड़ी प्रबन्धन
4	डा0 नरेन्द्र सिंह	2019	फसल अवशेष प्रबन्धन में चापर का प्रयोग

### Extension Literature

SN	Authors	Year	Title
1	डा0 नरेन्द्र सिंह	2019	फसल अवशेष प्रबन्धन क्यों व कैसे
2	डा0 नरेन्द्र सिंह	2019	जून माह में किसान भाई क्या करें
3	डा0 नरेन्द्र सिंह	2019	अक्टूबर माह के कृषि कार्य
4	डा0 नरेन्द्र सिंह	2019	हैप्पी सीडर मशीन द्वारा गेहूँ की सीधी बुवाई
5	डा0 शकुन्तला गुप्ता	2019	गृह वाटिका द्वारा पोषण सुरक्षा
6	डा0 शकुन्तला गुप्ता	2019	भोजन बनाते समय ईंधन तथा पौष्टिकता को बचाना
7	डा0 शकुन्तला गुप्ता	2019	गर्भवती महिलाओं में एनिमिया दूर करने के उपाय
8	डा0 शकुन्तला गुप्ता	2019	आय में वृद्धि हेतु आलू प्रसंस्करण
9	डा0 के0 के0 सिंह	2019	सरसों की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
10	डा0 के0 के0 सिंह	2019	मसूर की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
11	डा0 के0 के0 सिंह	2019	गेहूँ की बायोफोर्टिफाइड प्रजाति एवं उसका उत्पादन
12	डा0 के0 के0 सिंह	2019	अगस्त 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	2019	Summer groundnut cultivation : An option to boost the economy of farmers in north Indian condition.	Indian Farmer Digest vol. 56 No. 06 Page no. 7-12.
4	डा0 के0 के0 सिंह	2019	सरसों की उन्नत प्रजाति एवं उत्पादन तकनीक	विंध कृषि रबी 2019
5	डा0 के0 के0 सिंह	2019	मसूर की उन्नत प्रजाति एवं उत्पादन तकनीक	विंध कृषि रबी 2019

### Radio Talk / TV talks

Recording Date	Topic	Place
29.04.2019	कृषि निर्यात नीति 2018 के अनुसार भारत में निर्यात की सम्भावनाएँ	AIR, Nazibabad
03.09.2019	जल शक्ति अभियान (फोन इन प्रोग्राम)	AIR, Nazibabad
17.09.2019	फसल अवशेष प्रबन्धन क्यों और कैसे	AIR, Nazibabad
26.11.2019	सुपर SMS के संचालन के बाद हैप्पी सीडर द्वारा गेहूँ की बुवाई	AIR, Nazibabad
14.06.2019	कुटीर उद्योग एवं ग्रामीण महिलायें	AIR, Nazibabad
29.10.2019	फसल अवशेष की मशरूम उत्पादन में भूमिका	AIR, Nazibabad
25.06.2019	मृदा स्वास्थ्य कार्ड योजना पर चौपाल चर्चा कार्यक्रम	DD Kisan
25.06.2019	प्रधानमंत्री कृषि सिंचाई योजना पर चौपाल चर्चा कार्यक्रम	DD Kisan

### Workshop/ Conference/ Training Programme Attended

SN	Persons	Topic	Duration	Organizer	Place
1.	Dr. Shakuntala Gupta	National Workshop cum Training on Drudgery Assessment	26-30.08.2019	ICAR-ATARI, Kanpur	SHUATS, Prayagraj
2.	Dr. Narendra Singh	International Conference: Sugarcon 2019 Green Technologies for Sustainable Development of sugar & Integrated Industries	16-19.02.2019	Society for Sugar Research & Promotion	IISR, Lucknow
3.	Dr. Narendra Singh	Mid Term Review Workshop	29-30.11.2019	ICAR-ATARI, Kanpur	ICAR-ATARI, Kanpur
4.	Dr. Narendra Singh	HRD Training	11-12.03.2019	SVPUA&T, MEERUT	SVPUA&T, MEERUT
5.	Dr. Narendra Singh	CRM Project Review Meeting	09.05.2019	SVPUA&T, MEERUT	SVPUA&T, MEERUT
6.	Dr. Narendra Singh	CRM National Workshop	09.09.2019	NASC, New Delhi	NASC, New Delhi
7.	Dr. K.K. Singh	21 days winter school	19.11.19 to 09.12.2019	CPRI, Meerut	CPRI, Meerut

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

Activities conducted				
No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
33	--	--	5300	40

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

XIII. DETAILS ON HRD ACTIVITIES : Nil

### XIV. CASE STUDIES/SUCCESS STORY :

#### CASE STUDIES

#### 1. Varietal Diversification of Wheat change the productivity of district average yield

Demonstrated Varieties	Year	District average yield (q/ha)	Yield increased (q/ha)
WB-02	2014-15	27.03	--

HD-2967	2015-16	31.00	3.97	
HD-3086	2016-17	34.57	7.54	
WH-1105	2017-18	34.60	7.57	
HD-3059	2018-19	36.50	9.47	
DBW-88	2019-20	37.10 (Aprox.)	10.07	
DBW-90				
<b>Initiatives by the KVK for the popularization of Varietal Diversification of Wheat</b>				
<b>Programme</b>		<b>No.</b>	<b>Participant</b>	
OFT & FLD conducted		251	251	
Capacity Building	For Farmers	20	400	
	For Extension Personals	12	120	
Literature Developed & distributed	Extension Literature	10	18000 copy	
	Training Mannual	02	100	
	Buletin	04	1800	
Electronic & Print Media	TV	05	--	
	Radio	10	--	
	News Paper	95	--	
Field day		15	1450	
Lecture Delivered		70	65,000	

## 2. Pusa Basmati-1509 is Big way for District

The area under Paddy is about 55,000 ha in Bijnor district, out of that 35,000 ha is under scented rice. Commonly grown rice varieties are Pusa B-1, Pusa-1121 and Sharbati (Locally grown non released variety). Pusa Basmati -1509 variety was released in 2013 and was demonstrated by KVK during 2014 at 15 farmer's field. The average yield at farmers field was recorded 56.83 q/ha with the cost of cultivation of Rs. 32,473/-. The average net profit per ha was recorded Rs. 1, 7200/- . The variety PB-1509 found to be suitable for Rice- Autumn Sugarcane system due short duration maturity (seed to seed 115-120 days). Due to short duration, high yield and low cost of cultivation the area under this variety has now spread to more than 7500 ha in just four years.

Year	Yield (q/ha)	Area Coverage (ha)
2014	56.83	Starting Year
2015	51.90	2,900
2016	54.10	5,500
2017	52.88	7,200
2018	52.80	7,500
2019	54.50	7,800



### Initiatives by the KVK for the popularization of Pusa Basmati 1509

Programme	No.	Participant	
<b>OFT &amp;FLD conducted</b>	115	115	
Capacity Building	For Farmers	12	240
	For Extension Personals	06	60
Literature Developed & distributed	Extension Literature	07	4000 copy
	Training Manual	02	100
	Buletin	02	1000
	Popular Articles	02	--
Electronic & Print Media	TV	02	--
	Radio	02	--
	News Paper	22	--
Field day	10	815	
Lecture Delivered	51	27,500	



## 3. Wheat variety HD-2967 is Big way for District

The area under wheat is about 1, 40,000 ha in Bijnor district commonly grown wheat varieties PBW-343, PBW-550, HD-2851 and HD-2894. HD-2967 variety was released in 2011 and was demonstrated by KVK during Rabi 2014-15 at 40 farmer's field. The average yield at farmers field was recorded 48.83 q/ha (yield decrease due to heavy rainfall against potential yield). During 2015-16 the variety gave average yield 54.25 q/ha with the cost of cultivation of Rs. 43750/-. The average net profit per ha was recorded Rs. 83356.00/- . Due to disease free, high yield and give better yield in adverse condition the area under this variety has now spread to more than 65000 ha in just four years and fully replace Var.PBW-343 from district.

Year	Yield (q/ha)	Area Coverage (ha)
2014-15	48.83	Starting year
2015-16	54.25	18500
2016-17	56.45	28500
2017-18	55.00	42000
2018-19	54.35	55,000
2019-20	--	65,000



Initiatives by the KVK for the popularization of HD-2967				
Programme	No.	Participant		
OFT & FLD conducted	50	50		
Capacity Building	For Farmers	10		300
	For Extension Personals	05	50	
Literature Developed & distributed	Extension Literature	05	6000 copy	
	Training Manual	02	100	
	Buletin	03	100	
	Popular Articles	01	-	
Electronic & Print Media	TV	05	-	
	Radio	03	-	
	News Paper	30	-	
Field day	05	425		
Lecture Delivered	52	15,534		



#### 4. Trench Method in Sugarcane big way for district

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 2019-20 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.



## 5. Sugarcane + Mustard Intercropping big way for district

Technology (Sugarcane + Mustard) Intercropping is developed by the G.B.Pant University of Agriculture and Technology, Pantnagar. Due to lack proper technological guidance among the sugarcane growers they do not motivated success of intercropping, Scientist of KVK Bijnor continuously focused on farmers profitability, nutritional security and resource optimization.

Year	Yield (q/ha)	Area under Intercropping		
2015-16	Sugarcane - 1123.75, Mustard -11.50	Starting Year		
2016-17	---	850		
2017-18	--	3800		
2018-19	--	7500		
2019-20	--	12000		
Initiatives by the KVK for the popularization of Sugarcane + Mustard Intercrop				
Programme		No.	Participant	
OFT & FLD conducted		100	100	
Capacity Building	For Farmers	10	200	
	For Extension Personals	5	50	
Literature Developed & distributed	Extension Literature	03	3500 copy	
	Training Mannual	--	--	
	Buletin	01	100	
	Popular Articles	01	-	
Electronic & Print Media	TV	01	-	 
	Radio	04	-	
	News Paper	08	-	
Field day		06	270	
Lecture Delivered		35	18000	



## SUCCESS STORY

### 1. Bio Fortified Wheat Variety WB-02: A Successful cultivation

<b>Name of KVK</b>	: <b>Krishi Vigyan Kendra, Nagina (Bijnor)</b>
<b>Introduction</b>	: <b>Technology (Variety) WB-02</b> is developed by the IIWBR, Karnal released during 2017. The variety <b>WB-02</b> rich in zinc (42.00 ppm) and iron (40.00 ppm) in comparison to 32.00 ppm zinc and 28.00 ppm iron in other wheat varieties.
<b>KVK intervention</b>	: The area under Wheat is about 1,45,000 ha in district Bijnor, out of that about 75,000 ha area is Timely sown condition. Commonly grown timely sown wheat varieties are HD-2967, HD-3086, DBW-88, WH-1105, PBW-550 and DBW-17. Variety <b>WB-02</b> was introduced and demonstrated by KVK Bijnor during Rabi-2017-18 and 2018-19 at 25 farmer's field through OFT &FLD.
<b>Output</b>	: The average yield at Farmers field was 57.50 qt per ha (63.75 qt. maximum yield per ha.) with cost of cultivation of Rs. 46345.00 per ha. The average net profit per ha was recorded Rs. 91605.00 per ha. Maturing with 138-140 day crop duration, bold grained variety resistant against yellow rust and leaf blight.
<b>Outcome</b>	: This technology may be capable for increasing extra net return of farmers due higher yield and higher enrichment with zinc and iron that resulted chapatti is making better quality comparison to other varieties.
<b>Impact</b>	: The area under this variety has now spread to more than 850 ha in just two year. Farmers are all satisfied with the yield of this variety and also claim that it is better for chapatti making. The successful farmer is <b>Sri Satish Kumar</b> Village – Sidiyawali, Block – Noorpur, District- Bijnor.



### 2. Bio Fortified Mustard Variety Pusa Double Zero Mustard-31: A Successful cultivation

<b>Name of KVK</b>	: <b>Krishi Vigyan Kendra, Nagina (Bijnor)</b>
<b>Introduction</b>	: <b>Technology (Variety) Pusa Double Zero Mustard-31</b> is developed by the IARI, New Delhi released during 2016. Country's first Canola Quality Indian mustard variety. The variety <b>Pusa Double Zero Mustard-31</b> contains low erucic acid (<2.0%) in oil and glucosinolates (<30 ppm) in seed meal as compared to > 40.0% erucic acid and >120.0 ppm glucosinolates in popular varieties.
<b>KVK intervention</b>	: The area under Mustard is about 3000 ha in district Bijnor. Commonly grown Mustard varieties are PPS-1, YSH-0401 and other private company seed. Variety <b>Pusa Double Zero Mustard-31</b> was introduced and demonstrated by KVK Bijnor during Rabi-2018-19 at 30 farmer's field through FLD.
<b>Output</b>	: The average yield at Farmers field was 15.20 qt per ha (20.0 qt. maximum yield per ha.) with cost of cultivation of Rs. 28780.00 per ha. The average net profit per ha was recorded Rs. 48300.00 per ha.
<b>Outcome</b>	: This technology may be capable for increasing extra net return of farmers due higher yield and better oil quality comparison to other varieties.

<b>Impact</b>	:	The area under this variety has now spread to more than 580 ha in just one year. Farmers are all satisfied with the yield of this variety and also claim that it is better for oil quality. The successful farmer is <b>Sri Yadubir Singh</b> Village – Athai Aheer, Block – Noorpur, District- Bijnor.
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### 3. Nursery plantation of sugarcane under late sown condition : A Successful technology

<b>Name of KVK</b>	:	<b>Krishi Vigyan Kendra, Nagina (Bijnor)</b>
<b>Introduction</b>	:	<b>Spaced Transplanting Technique (STP) / Polybag seedlings</b> in sugarcane was developed by Indian Institute of Sugarcane, Lucknow. In this method settlings are raised in nursery by using single bud setts, about 50-55 days old settling are ready for plantation. Transplanting of settlings should be well fertilized and irrigated furrows. This method saves seed cost about 60-70%. For better establishment of seedling, nursery should be prepare in polybag (size 10x15cm) or portray filled with 1:1:1 ratio FYM, soil and sand. Row to row and plant to plant distance depending upon the time planting.
<b>KVK intervention</b>	:	Sugarcane is the major crop of district Bijnor and its cover about 2,12,000 ha area of the district. One of the major factor of low productivity is delayed sowing of sugarcane. So many farmers sown sugarcane after harvesting of rice under autumn sowing and wheat crop, in this condition naturally sowing of sugarcane will be late. To short out the problem of late sowing KVK Bijnor introduced this technology through ON FARM TRIAL and popularized among the farmers through different extension tools from 2016-17 to continuously.
<b>Output</b>	:	After the adoption of this particular technology among the farmers field the productivity of sugarcane was increased in increasing order. The average yield of farmers field was recorded 114.3 tons / ha where as traditional method gave only 95.0 ton / ha. The cost of cultivation was reduced about Rs. 15000/ha.
<b>Outcome</b>	:	This technology may be capable for increasing sugarcane productivity as well as sugar recovery.
<b>Impact</b>	:	The area under this technology has now spread to more than 100 ha and successfully traditional method was replaced in district by this technology. Farmers are satisfied with the yield of this technology. The successful farmer is Sri Mukesh Kumar Tomar, Village – Rampur, Block – Kiratpur and Sri Kulveer Singh, Village – Tisotra, Block –Najibabad.



#### 4. Successful cultivation: Sugarcane + Potato Intercropping

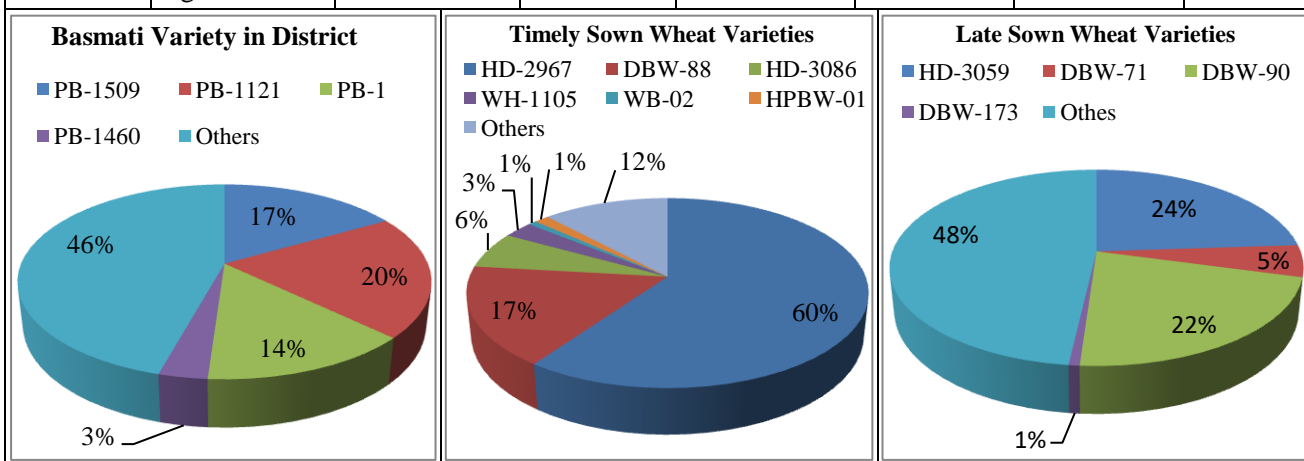
<b>Name of KVK</b>	:	<b>KrishiVigyan Kendra, Nagina (Bijnor)</b>
<b>Introduction</b>	:	Sugarcane + Potato Intercropping system was developed by the G.B.Pant University of Agriculture and Technology, Pantnagar. But due to lack proper technical knowhow among the farmers they do not motivated for adoption of intercropping, Scientist of KVK Bijnor continuously focused on farmers profitability, nutritional security and resource optimization.
<b>KVK intervention</b>	:	About 70 % cropping area of Bijnor district covered by sugarcane crop, planting to harvesting sugarcane occupies the land about 10-14 months; during the period sugarcane growers feel financial crises due to so many reasons. To enhance the system productivity, profitability and nutritional security scientist of KVK, Bijnor introduced through OFT & FLD and popularized sugarcane intercropping system among the farmers through different extension tools from 2010 to continuously. Scientists provided to farmers package of practices like seed management, nutrient management, weed management, irrigation method etc.
<b>Output</b>	:	After the adoption of intercropping system the productivity and profitability of sugarcane growers was increased in increasing order. The cane equivalent yield (CEY) was calculated 1780.29 qt per ha (sugarcane yield 1306.25 qt/ha with 181.25 qt/ha of potato) with cost of cultivation of Rs. 190,977.75 per ha. Net profit was received Rs. 3,87,616.00 per ha, where as sole crop of sugarcane gave 1114 qt/ha yield, with cost of cultivation Rs. 1,26,859.00 per ha and net profit was calculated Rs. 235181.00/ha. The difference of net profit clearly indicated that the 100% area of autumn sugarcane is required adoption under intercropping system by small and marginal farmers.
<b>Outcome</b>	:	The technology will be capable for creasing the productivity, profitability and nutritional security of sugarcane growers as well as socio economic status of farmers.
<b>Impact</b>	:	Presently about 5000-5500 ha area covered by sugarcane + potato intercropping system out of 2,12000 ha of sugarcane cultivated area of Bijnor district. The successful farmer is <b>Sri Mahendra Singh Ji</b> Village – Haijarpur, Block – Kotwali .



## Impact of evaluated, demonstrated and introduced technologies in district

### (A) Varietal diversification in crops:

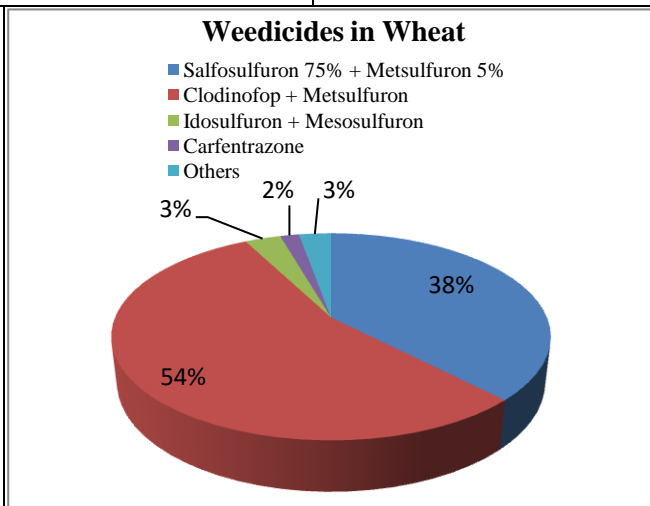
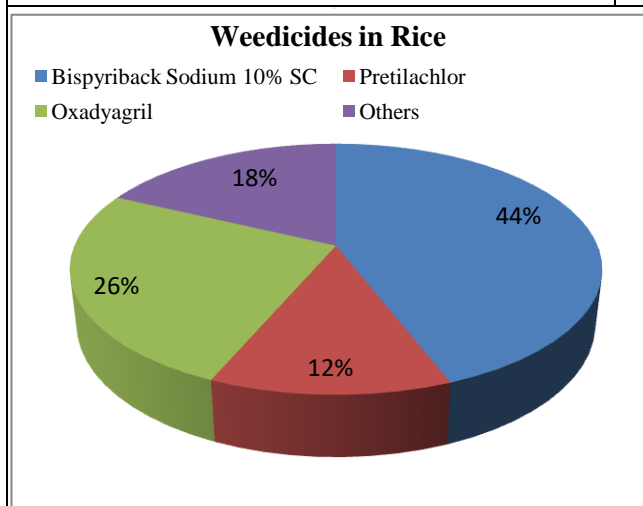
Crop	Current Technology	Introduction year	Potential of Current Tech. (q/ha)	Demo. yield of current technology (q/ha)	Net Return (Rs/ha)	Technological Gap (q/ha)	Area Covered by Tech. (ha)
Wheat	DBW-173	2018	57.00	49.70	72032.00	7.30	250
	HPBW-01	2017	64.80	54.50	84550.00	5.50	1500
	WB-02	2017	58.90	57.50	91605.50	2.50	850
	WH-1105	2016	71.60	53.37	79781.00	18.23	3050
	DBW-88	2015	69.90	54.00	81798.50	15.90	18450
	HD-3086	2015	71.10	51.50	74272.00	19.20	6800
	DBW-90	2015	66.60	46.59	69047.36	20.01	7500
	HD-2967	2014	66.60	54.25	83356.00	11.85	65000
	HD-3059	2014	59.40	47.75	71668.30	13.10	8200
	DBW-71	2014	68.90	42.00	58400.00	26.90	1800
Paddy	PB-1509	2014	60.00	54.10	102040.00	5.90	7800
	Arize-6444 Gold	2015	80.00	67.15	71636.00	12.85	590
Mustard	P-31	2018	23.00	15.20	48300.00	7.80	580
Lentil	Pusa Masoor Ageti	2018	18.00	13.62	38385.00	4.38	25



### (B) Impact of Weedicides evaluation:

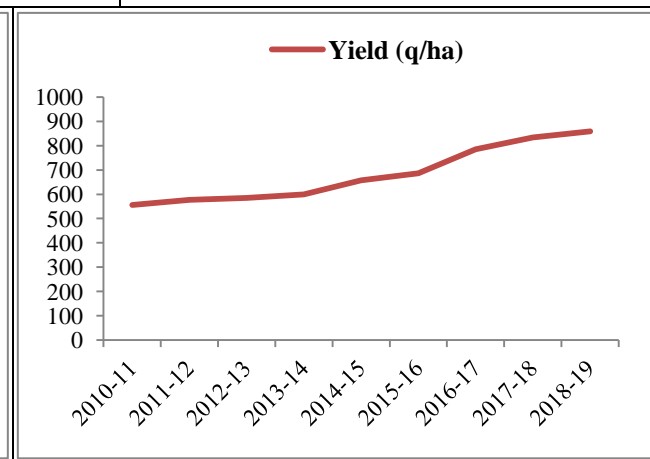
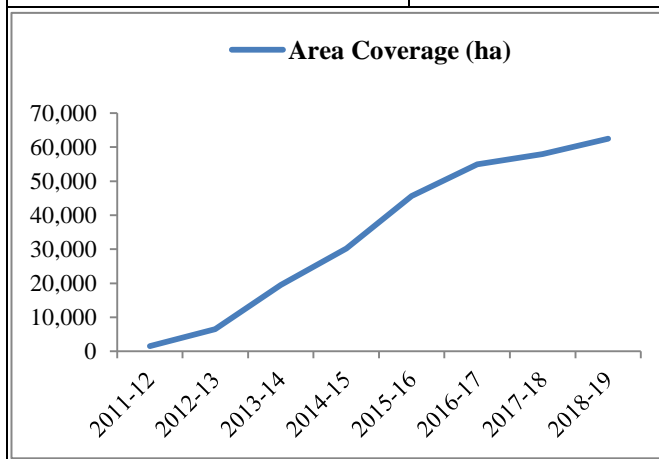
Technology	Area (ha)	No. of Village Covered
<b>Rice</b>		
Bispyriback Sodium 10% SC	15,000	650
Pretilachlor	4,200	180
Oxadyagril	8,700	320
<b>Wheat</b>		
Salfosulfuron 75% + Metsulfuron 5%	45,450	600

Clodinofofop + Metsulfuron	65,800	650
Idosulfuron + Mesosulfuron	3,800	410
Carfentrazone	2,000	90



**(C) 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
2017-18	833.96	58,000
2018-19	859.52	62,500



**(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	3652.00	2739	714	115000.00
Wheat	HD-2967	4947.00	2889	1120	44500.00
	HD-3086	683.35	365	112	
	WH-1105	119.00	74	9	
	DBW-88	1225.50	771	142	
	DBW-90	458.22	449	85	
	HD-3059	1090.30	847	125	
	WB-02	432.91	626	55	
	HPBW-01	54	110	25	

**Seed Replacement Rate (%) of Wheat and Paddy in Adopted Villages**

Year	Harganpur	Patpura	Rampur	Nansiwala	Athai Aheer	Kalakheri	Kokapur
<b>Paddy</b>							
2014-15	4.50	5.00	6.00	6.50	3.00	5.50	8.00
2015-16	27.00	16.00	26.50	19.50	22.50	18.50	29.50
2016-17	37.00	36.00	34.00	37.50	32.50	27.50	42.50
2017-18	52.50	45.50	48.00	46.00	48.00	39.00	47.00
2018-10	54.50	47.50	51.00	48.00	52.50	41.50	49.50
2019-20	58.50	52.50	56.50	54.50	57.50	45.50	51.25
<b>Wheat</b>							
2014-15	8.50	9.50	9.00	8.50	6.00	5.00	7.50
2015-16	27.50	21.00	25.00	18.00	24.50	55.00	19.00
2016-17	42.00	38.50	42.00	38.50	38.00	32.00	37.50
2017-18	65.50	60.50	55.00	52.00	55.00	48.00	47.00
2018-10	66.50	61.00	57.00	53.00	62.00	49.00	49.50
2019-20	78.55	65.50	62.00	58.00	69.50	55.00	60.25

**Impact of quality seed production on Average additional yield (qt/ha) increased in Adopted villages**

<b>Paddy</b>							
2014-15	8.00	5.00	6.50	5.00	4.00	8.00	5.00
2015-16	14.50	12.00	14.00	13.00	13.50	14.50	15.00
2016-17	19.00	17.00	15.50	20.00	15.50	18.00	21.00
2017-18	25.00	22.00	24.50	28.00	21.50	25.00	28.00
2018-10	27.00	22.50	25.25	28.75	23.00	25.25	28.75
2019-20	32.50	23.50	27.25	29.65	24.50	27.50	30.00
<b>Wheat</b>							
2014-15	5.50	4.5	3.00	4.00	2.50	2.50	5.50
2015-16	9.40	8.00	7.50	8.50	6.50	5.40	8.00
2016-17	12.00	12.00	11.50	13.00	12.50	8.00	13.00
2017-18	18.50	17.50	15.00	16.00	15.50	12.50	16.50
2018-10	22.00	18.75	16.50	16.75	16.50	14.00	17.00
2019-20	25.50	21.20	18.50	17.25	17.59	16.00	18.50

**Impact of seed production in adopted villages**

- Seed replacement rate (58.50-78.50% in rice and wheat) increased.
- Production and productivity increased (25.50-32.50 in wheat and rice%)
- Cost of cultivation reduced because of use of quality seed of recommended varieties.



## Entrepreneurship development

### (i) 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	52.00	32.00	22
		H-2967	155.00	120.00	315
		DBW-88	26.00	18.00	35
		DBW-90	24.00	10.00	22
		HD-3059	50.00	32.00	50
		WB-02	12.75	12.00	18
2018-19	Paddy	PB-1509	110.0	22.00	112
		PR-126	33.0	5.00	18
		NDR-3112	13.0	2.00	8
		PB-1637	32.0	24.00	60
		PR-126	65.0	18.00	41
	Wheat	HD-3086	54.00	28.00	22
		HD-2967	150.00	124.0	315
		DBW-88	25.00	12.00	35
		DBW-90	22.00	7.00	22
		HD-3059	50.00	33.00	50
		HD-3086	53.00	12.00	28
WB-02	12.75	12.00	28		
2019-20	Paddy	PB-1718	10.50	5.50	11
		PB-1728	10.00	3.75	8
		PB-1509	120.00	40.00	80
		PB-1637	30.00	22.00	68
		PR-126	65.00	18.00	41

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	1,85,500.00
	Wheat	6,55,000.00
2018-19	Paddy	2,35,000.00
	Wheat	5,45,000.00
2019-20	Paddy	2,10,000.00

**Recognition and Awards:** Sri Sharad Kumar Singh achieved first prize of Rs 1,00,000.00 in wheat production (Variety HD-2967) in all over Uttar Pradesh during 2016, felicitated by Uttar Pradesh government. Presently other 80 farmers fully engaged in participatory seed production mode. Some major farmers as given below :-

SN	Name of Famers	Address
1	Mr. Pankaj Kumar	Sarifpur, Kotwali
2	Mr. Mukesh Kumar	Shadipur Begam, Kiratpur
3	Mr. Yaduveer Singh	Athai Aheer, Noorpur
4	Mr. Satish Kumar	Sidiyawali, Noorpur
5	Mr. Ajay Kumar	Bagwada, Seohara
6	Mr. Badan Singh	Murliwala, Afzalgarh
7	Mr. Balram Singh	Nansiwala, Dhampur
8	Mr. Dharmandra Kumar	Pawati, Haldaur
9	Mr. Bhupendra Singh	Kalakhari, Kotwali
10	Mr. Sharwan Kumar	Jalpur, Najibabad

#### (ii) 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 2019-20. 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		
2019-20	22		



**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
<b>Total (Rs.)</b>		<b>21,800.00</b>

<b>Total Cost - Repetition of work about 9 times therefore (21,800 x 9)</b>	:	<b>1,96,200.00</b>
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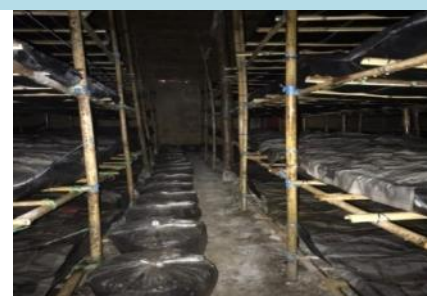
#### B Income

1 Prepare compost about 100 quintal each time (100 X 9 = 900)	:	
2 Selling Price @ 500 /quintel	:	
3 Selling Cost (Rs.) = 900 x500	:	4,50,000.00
4 Income by earthworm selling (1 quintal)	:	30,000.00
<b>Total Income (Rs.)</b>	:	<b>4,80,000.00</b>

<b>Net Profit (A-B)</b>	:	<b>2,83,800.00</b>
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#### (iii) 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
	<b>Total</b>	<b>3,900.00</b>
	<b>Gross Cost (Rs.) : 3900.00 X 25q compost</b>	<b>97,500.00</b>
v.	Average production from 5 q compost - 150 Kg Mushroom	
vi.	Price realized (Rs. per kg.)	110.00
vii.	Gross Income	16,500.00
viii.	Net Income	12,600.00
	<b>Gross Income (Rs.) : 12,600.00 X 25 q compost</b>	<b>3,15,000.00</b>



### 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

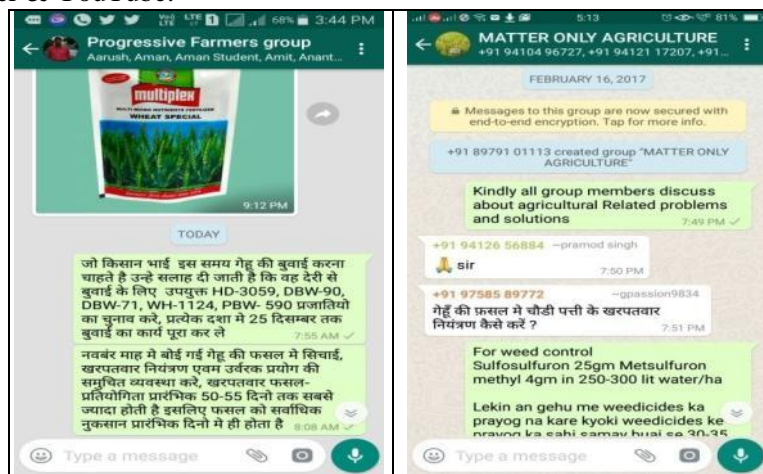


### (b) Spread of technology through Sugarcane Collection Centers

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 Assistancess	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
2019-20	2500	2700
<b>Total</b>	<b>15819</b>	<b>18784</b>

### (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.	12
TV	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	--
Newspaper	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	80

## (f) Transfer of technology through Technology Park

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

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

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

## (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	115	950
Variety and seeds	292	
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	45	

## 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	950
2	Technology Products (Publication)	1(1000)

**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	2500	1150	600	500	100	100	50
2	Video shows	01	1500	07	05	03	12	03	04
3	Letters received	01	--	--	--	--	--	--	--
4	Letters replied	01	--	--	--	--	--	--	--
5	Training to farmers / technocrats / students	01	2000	15	07	05	25	05	03

**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 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> 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	1,96,307.00	11,25,213.60	1,85,395.09
April 2018 to March19	1,85,395.09	12,88,585.00	9,82,998.00	4,90,982.55
April 2019 to December 19	4,90,982.55			

**Programmes conducted in DFI Villages**

SN	Name of Villages	Activities/Programmes	No. of Programme	No. of Participants
1	Begampur Shadi (Rampur) Block - Krithpur	Awareness Prog. about CRM	01	45
		Awareness Prog. about Jal Shakti	01	85
		Swachhta Hi Sewa Karyakram	02	88
		Technology Demonstration	03	03
		On Farm Testing	01	01
		Filed Day	02	125
		Capacity Building Program	01	20
2	Haijarpur Block- Kotwali	Awareness Prog. about CRM	01	62
		Awareness Prog. about Jal Shakti	01	76
		Swachhta Hi Sewa Karyakram	02	53
		Technology Demonstration	02	02
		On Farm Testing	01	01
		Filed Day	02	92
		Capacity Building Program	02	40

## Jal Shakti Abhiyan

No. of Programme	Date	No. of Participant
33	11.07.2019, 19.07.2019, 22.07.2019, 24.07.2019, 25.07.2019, 29.07.2019, 02.08.2019, 03.08.2019, 14.08.2019, 18.08.2019, 19.08.2019, 21.08.2019, 24.08.2019, 26.08.2019, 27.08.2019, 28.08.2019, 29.08.2019, 30.08.2019, 31.08.2019, 03.09.2019, 07.09.2019, 09.09.2019, 02.10.2019	5340



## Crop Residue Management Project

Programme Conducted	No. of Programme	No. of Participant
Awareness	07	466



## Swachhta Hi Sewa Campaign (15<sup>th</sup> September to 2<sup>nd</sup> October 2019)

No. of Programme	Villages Level	District Level	No. of Participants
05	04	01	1200






## Plantation Programme (17 Sept., 2019)

No. of Programme	No. of Participants	No. of Plant Distributed
01	130	250




## National Animal Disease Control Programme (11 Sept., 2019)

No. of Programme	No. of Participants	No. of Animals for AI and Vaccination
01	80	205

## Balance Use of Fertilizer Programme (22 Oct., 2019)

No. of Programme	No. of Participants
01	116




## Kisan Samman Diwas (23 Dec. 2019)

Name of KVK	Name of Public Representative	No. of Farmers attended the programme	No. of Government Officials
Bijnor	--	30	--



### Farmers and Science day (25 Dec. 2019)

Name of KVK	Name of Public Representative	No. of Farmers attended the programme	No. of Government Officials
Bijnor	02	40	--



### Swachhata Pakhwada Activity (16-31 Dec. 2019)

Dates	No. of Participants
16.12.2019, 17.12.2019, 18.12.2019, 19.12.2019, 20.12.2019, 21.12.2019, 22.12.2019, 23.12.2019, 24.12.2019, 25.12.2019, 26.12.2019, 27.12.2019, 28.12.2019, 29.12.2019, 30.12.2019, 31.12.2019	392

