

ANNUAL REPORT
(January to December, 2022)
APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & Farm women	61	935	360	1295
Rural youths	11	73	37	110
Extension functionaries	23	210	50	260
Sponsored Training	2	40	10	50
Vocational Training	--	--	--	--
Total	97	1258	457	1715

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	112	41.2	--
Pulses	175	70.0	--
Cereals	150	28.0	--
Vegetables	16	4.5	--
Other crops (Sugarcane)	65	19.0	--
Hybrid crops	--	--	--
Total	518	162.7	--
Livestock & Fisheries	--	--	--
Other enterprises	100	0.8	--
Total	100	0.8	--
Grand Total	618	163.5	--

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	10	56	56
Livestock	--	--	--
Various enterprises	01	05	05
Total	11	61	61

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	282	43195
Other extension activities	138	--
Total	427	43195

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Market-ing	Aware-ness	Other enterprise	Total
Nagina (Bijnor)	Text only	80	-	-	-	15	-	95
	Voice only	8	-	-	-	05	-	13
	Voice & Text both	-	-	-	-	-	-	-
	Total messages	88	-	-	-	20	-	108
	Total farmer benefitted	1800	-	-	-	1800	-	3600

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	252.00	--
Planting material (No.)	1500	750.00
Bio-Products (kg)	--	--
Livestock Production (No.)	--	--
Fishery production (No.)	--	--

7. Soil, water & plant Analysis

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

8. HRD and Publications

SN	Category	Number
1	Workshops	04
2	Conferences	04
3	Meetings	15
4	Trainings for KVK officials	06
5	Visits of KVK officials	04
6	Book published	--
7	Training Manual	02
8	Book chapters	--
9	Research papers	--
10	Lead papers/ Invites lecture	--
11	Seminar papers/Abstract	04
12	Extension folder	23
13	Proceedings	--
14	Award & recognition	03
15	Ongoing research projects	03

DETAIL REPORT OF APR (January to December 2022)

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	--	bijnorkvk@gmail.com

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

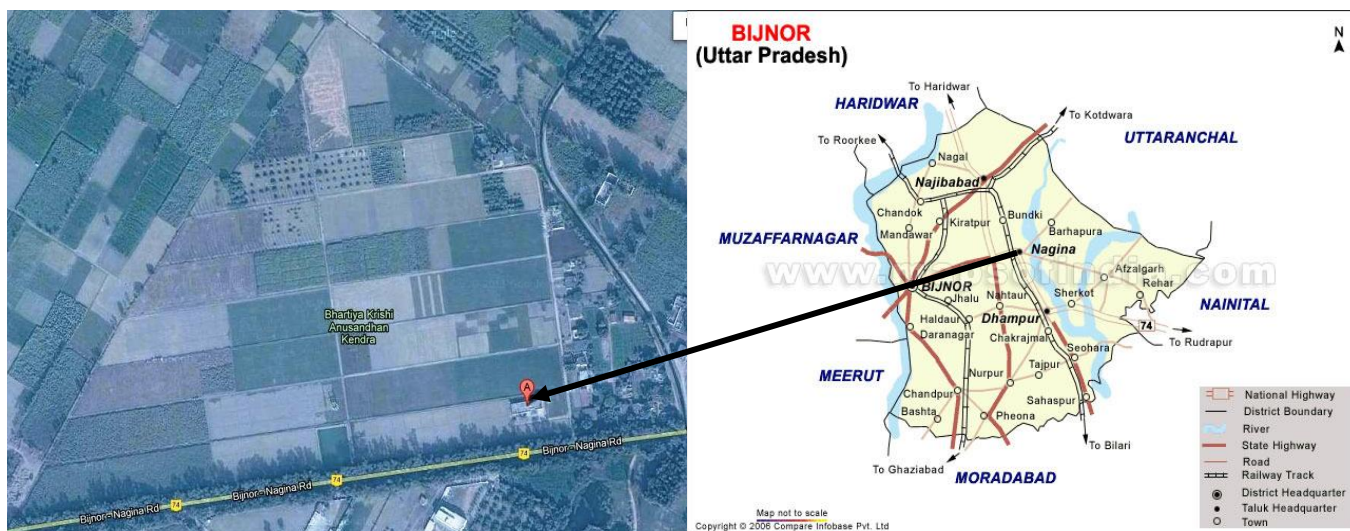
Address	Telephone		Email
	Office	FAX	
S.V.P. Univ. of Agri. & Tech., Meerut (U.P.) 250110	0121-2411511	0121- 2411511, 2411505	deesvpuat2014@gmail.com

1.3. Name of the Head with phone & mobile No






Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Shakuntala Gupta	--	8630984814	shakuntalaguptakvk@gmail.com







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

Map of KVK & district – Bijnor



1.5. Staff Position (as on 31.12.2022)

S. N.	Sanctioned Post	Name of the incumbent	Designation	Subject	Pay Scale	Grade Pay	Present Basic (Rs.)	Date of Joining	Permanent / Temporary	Category	Mobile No.	Age	Email ID	Photograph
1.	SMS	Dr. Shakuntala Gupta	SMS/Asstt. Prof.	Home Science	37400-67000	9,000	1,61,600	09.12.03	Permanent	OBC	9412356736	57	shakuntalaguptakvk@gmail.com	
2.	SMS	Dr. K. K. Singh	SMS/Asstt. Prof.	Plant Breeding	15600-39100	8,000	1,01,100	10.07.08	Permanent	Gen.	8630602518	46	krishna.singh1976@gmail.com	
3.	SMS	Dr. Pratima Gupta	SMS	Horticulture	15600-39100	5,400	56,100	01.07.22	Permanent	Gen.	9389727659	33	gpratima41@gmail.com	
4.	SMS	Dr. Shivangi	SMS	Agronomy	15600-39100	5,400	56,100	01.07.22	Permanent	Gen.	9455005082	29	singhshivangi.agri@gmail.com	
5.	SMS	Dr. Pintoo Kumar	SMS	Plant Protection	15600-39100	5,400	56,100	08.07.22	Permanent	Gen.	9628289157	39	kumarpintoo06@gmail.com	

6.	Prog. Asstt.	Er. S.K. Yadav	Prog. Asstt.	Computer Science	9300-34800	4,800	78,800	21.10.99	Permanent	OBC	9412117844	49	shailendrayadav31@gmail.com	
7.	Prog. Asstt./ Farm Manger	Dr. Bhupendra Kumar	Farm Manger	Plant Breeding	9300-34800	4,600	55,200	03.09.08	Permanent	SC	9368651430	47	bkdheeraniya75@gmail.com	
8.	Assistant	Sh. Sevaram Arya	OS/ Accountant	--	9300-34800	4,800	72,100	09.09.00	Permanent	OBC	9457046522	50	--	
9.	Jr. Steno	Mr. Abdul Gaffar	Jr. Steno	--	9300-34800	4,200	64,100	29.08.95	Permanent	Gen.	9412452148	52	--	
10.	Driver	Mr. Anil Kumar	Driver	--	5200-20200	2,400	33,300	30.07.07	Permanent	SC	9359218476	43	--	
11.	Attendant	Mr. Satish Chandra Maurya	Attendant	--	5200-20200	2,400	38,600	01.07.98	Permanent	OBC	9410860550	57	--	

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
9	Seed Store	UPCAR	March 2022	--	--	--	--	--
10	Vermi Compost	UPCAR	March 2022	--	--	--	--	--

(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	--	Not working
LCD	2007	--	Working
ERNET setup (05 Computer, 01 Server & 01 VSAT)	2009	--	Not working

1.8. A). Detail of SAC meeting conducted in the year :**Date : 25.11.2022**

Name and Designation	Salient Recommendations	Action taken
Dr. P K Singh, Director, Extension, SVPUA&T, Meerut	More focus on mushroom production and small millets production technology for farming community.	Such programme included in KVK Action plan.
	Suggested promoting rural entrepreneurship programme for farming community.	Such programme included in KVK Action plan.
	Suggested promoting Newly released bio-fortified varieties of crops district.	Such programme included in KVK Action plan.
	Suggested for compilation of impact assessment of conducted technology.	Such programme included in KVK Action plan.
Dr. P. K. Singh, Associate Director, SVPUA&T, Meerut	KVK scientists should be produce more than 20000 plants seedling for farmers.	Such programme included in KVK Action plan.
Dr. D. K. Singh, Professor, Collage Veterinary, SVPUA&T, Meerut	Scientist horticulture include production technology of cut flowers, exotic vegetables and flower cultivations	Such programme included in KVK Action plan.
Dy. CVO, Nagina	KVK scientist focus on production technology of forage crop for farming community.	Such programme included in KVK Action plan.
Sh. Bijendra Kumar, Farmer	Demand fish farming training programme by KVK	Such programme has been plant during upcoming year.

2. DETAILS OF DISTRICT

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
5	Sugarcane - Horticulture

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"> The soils are coarse to medium in texture, moderately well drained, consistently deep and neutral to slightly alkaline in nature Climate of the zone in general is subtropical type The maximum temperature of the district was 41⁰C while minimum was found to be 0.6⁰C Total rain fall of the district is 898.5 mm The fertilizer consumption of the area is 143 kg/ha 83% farmers are having less than 2 ha land, 8% farmers are having 2-4 ha land, while the rest 9% have more than 4 ha land The crops of the zone are sugarcane, rice, wheat, mustard, groundnut, field pea, gram, fodder sorghum etc.
2	Tarai & Bhabar Zone	<ul style="list-style-type: none"> A part of the district falls under this zone The highest temperature is recorded in May, June and the lowest in Dec., Jan. The average rainfall is 1400 mm. Eighty three percent of rains are received from south- west monsoon from June to September The soils are low to medium in available phosphorus, medium to high in organic carbon

b) Topography

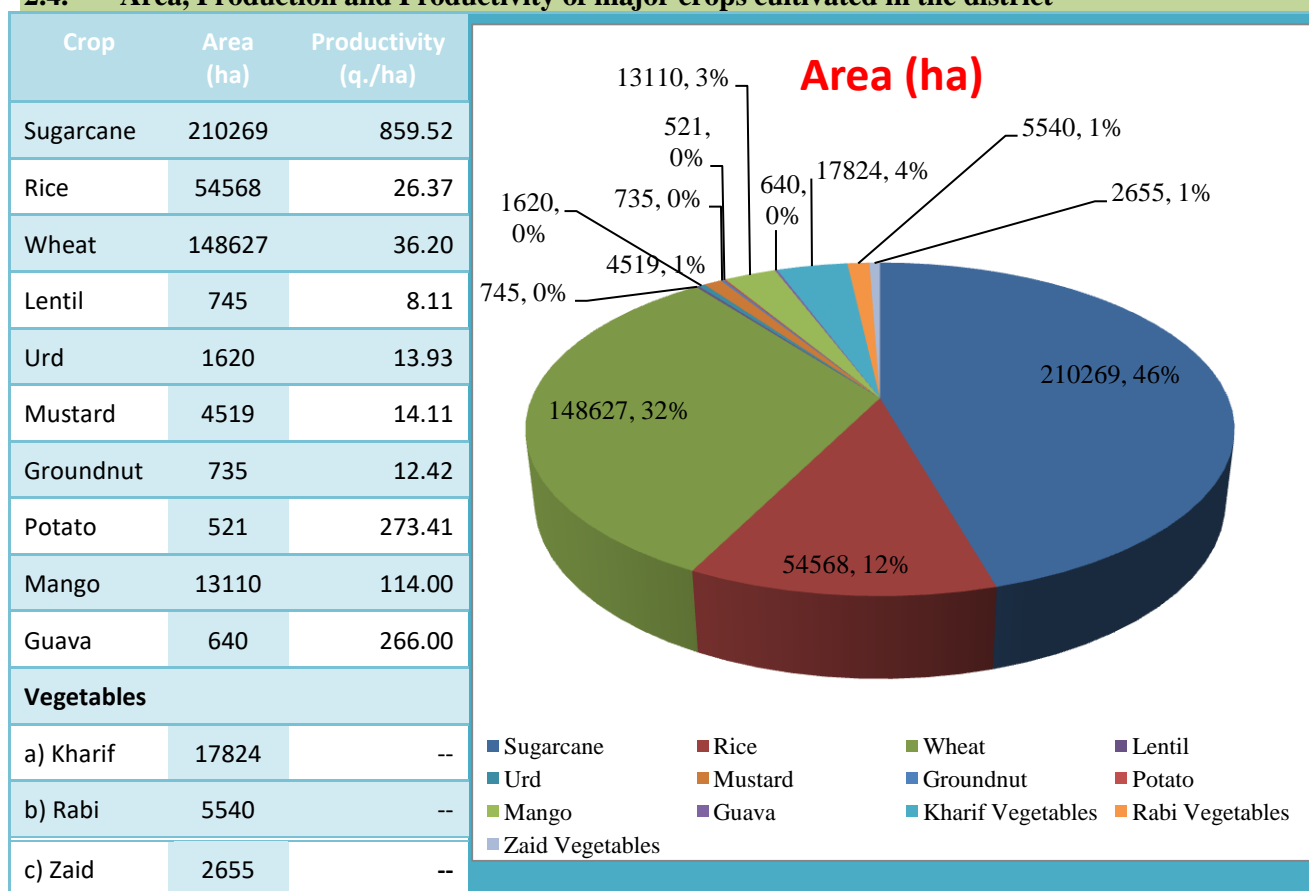
The Topography of Bijnor district is mainly a plain. The district has a pleasing climate with cool and foggy winter and generally hot and humid summer. The wet session starts from July to October during which the district receives rainfall. The temperature of the district is varies from 48⁰C in summer and 3⁰C 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, 22	146.80	11	16.7	7.9	95	68
February, 22	9.20	02	22.4	7.5	84	61
March, 22	0.00	--	31.9	14.4	94	42
April, 22	1.00	01	37.0	17.4	79	30
May, 22	55.00	03	34.0	24.9	80	50
June, 22	116.20	06	36.0	24.5	84	54
July, 22	127.00	09	33.1	25.6	88	73
August, 22	79.00	05	32.5	25.6	91	68
September, 22						
October, 22						
November, 22						
December, 22						

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

Category	Population
Cow	303396
-Crossbred	95083
-Indigenous	208313
Buffalo	663348
Sheep	7704
-Crossbred	471
-Indigenous	7233
Goats	137355
Horse	6006
Pigs	24222
-Crossbred	6065
-Indigenous	18157
Others	1708
Total Cattle	1143739
Poultry	275579

Category	Area	Production (qt.)
Fish	78.12 ha	6,310.70

2.7 Details of Operational Area /Villages						
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, Nejowali 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"> • Insect & Diseases • Old variety seed • Excessive and Imbalanced use of pesticides & fertilizers • No seed treatment, • Poor Management of orchards • No application of micronutrients 	<ul style="list-style-type: none"> • Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
2	Dhampur	Allahapur (Dhampur)	Nayagoan and Norangabad	Sugarcane, Rice Wheat, Mustard, Vegetables	<ul style="list-style-type: none"> • Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals 	<ul style="list-style-type: none"> • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self help group of farmers
3	Najibabad	Najibabad	Jattiwalla and Raipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	<ul style="list-style-type: none"> • Unavailability of quality seed of vegetable • Insect & Diseases attack • No seed treatment • Poor management of orchards • No application of micronutrients 	<ul style="list-style-type: none"> • Promotion of suitable and HYV of vegetables • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self help group of farmers
4	Nagina	Nehtaur	Kokapur, Begrajpur and Sarayaashnra etc.	Sugarcane, Rice Wheat, Mustard, Vegetables	<ul style="list-style-type: none"> • Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Reliability of the farmers on chemicals 	<ul style="list-style-type: none"> • Introduction and Popularization of HYV • Promotion of IPNM, IPM, IDM, ICM • Popularization of intercropping • Promotion of self help group of farmers • Encouragement of Oilseed and Pulses • Rejuvenation of old orchards
5	Najibabad	Kiratpur	Akbrabad and Sadipur	Vegetable, Fruits, Rice, Wheat and Sugarcane	<ul style="list-style-type: none"> • Unavailability of quality seed of vegetable • Insect & Diseases attack • Excessive and imbalanced use of pesticides & fertilizers • No seed treatment • Poor management of orchards • No application of micronutrients 	<ul style="list-style-type: none"> • Promotion of suitable and HYV of vegetables • Adequate package and practices of vegetables and fruits • Discriminative use of pesticides • Promotion of IPNM, IPM, IDM, ICM • Improving technological skills of fruits farmers • Promotion of self help group of farmers

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

2.8 Priority Thrust areas

Crop/Enterprise	Thrust area
Sugarcane	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in sugarcane for farmers doubling income• Promoting quality seed production at farmers field
Paddy	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in paddy for farmers doubling income• Promoting quality seed production at farmers field• Promoting export quality Basmati production
Wheat	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in wheat for farmers doubling income• Promoting quality seed production at farmers field
Pulses	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in pulses for farmers doubling income• Promoting quality seed production at farmers field
Oilseeds	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in oilseeds for farmers doubling income• Promoting quality seed production at farmers field
Small millets	<ul style="list-style-type: none">• Popularizing new agro techniques in small millets for farmers doubling income• Promoting quality seed production at farmers field
Women empowerment	<ul style="list-style-type: none">• Women empowerment through popularization of food preservation technique, NARI & VATICA programme
Vegetable & Horticultural Crops	<ul style="list-style-type: none">• Popularizing IPM technologies for management of insect pests• Popularizing new agro techniques in vegetable & Horticulture crops for farmers doubling income
Others	<ul style="list-style-type: none">• Maintenance of soil productivity through IPNM• Promoting resource conservation techniques in crops• Promoting Group Approach of Extension through FIG, FPO, custom hiring centers• Diversification in crops• Promoting natural farming techniques for sustainable agriculture

2.9 Intervention/Programmes for the doubling the farmers income

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	1127.50	--	--	1,38,811.00	2,27,626.00	2.64	--
Old varieties of wheat	38.5	--	--	48,500.00	55,000.00	1.95	--
Mustard	11.83	--	--	29,841.67	29,325.00	1.98	--
--	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 + Lentil	1142.00	9.38	1272.31	156102.62	257397.38	2.65	--
Sugarcane + Mustard	1132.50	8.13	1252.50	154806.02	254693.98	2.65	Due to heavy rainfall during the Rabi season, lentil crop affected adversely
Sugarcane + Potato	1317.50	187.50	2182.88	192411.95	517025.55	3.69	Net profit depends on selling price; sometimes farmers get more profit and sometimes less profit
High yielding wheat varieties	61.80	--	--	47,516.67	1,04,636.10	3.20	--
Bio-fortified mustard variety	20.10	--	--	29,525.00	81,047.91	3.74	--
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

Programmes conducted in DFI Villages

SN	Name of Villages	Activities/Programmes	No. of Programme	No. of Participants
1	Athai Aheer Block – Noorpur	Swachhta Hi Sewa Karyakram	03	72
		Technology Demonstration	04	04
		On Farm Testing	02	02
		Filed Day	02	110
		Capacity Building Program	04	15
2	Haijarpur Block- Kotwali	Swachhta Hi Sewa Karyakram	03	55
		Technology Demonstration	03	03
		On Farm Testing	02	02
		Filed Day	01	70
		Capacity Building Program	03	15

Scenario at benchmark (2018-19)		Present Scenario (December 2022)	
Farming Systems	Annual income (Rs./ha)	Farming Systems	Annual income (Rs./ha)
Sugarcane Sole crop	235181.00	Sugarcane + Potato	387616.00
		Sugarcane + Lentil	290696.30
		Sugarcane + Mustard	290429.43
Wheat	63803.00	Bio fortified Wheat cultivation	91605.00
Oilseed	11020.00	Bio fortified Mustard cultivation	81047.00
Pulses	4022.50	Bio fortified Lentil cultivation	29032.50
Paddy	78500.00	Crop diversification (Banana cultivation)	7,20,000.00
Mango Squash	126.00	Value addition of mango product	1390.00

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK

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
9	11	45	61	100	163.5	400	618

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	100	61	2000	1295	200	427	22460	43195
RY		11		110				
EF		23		260				
Other		2		50				
Skill trg.		--		--				
Total	100	97	2000	1715				

Seed Production (Q.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	252	--	20000	1500	60

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
Total technology to be demonstrated	80
Approximately No of farmers visited	8500

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
Varietal Evaluation	Wheat	Evaluation of newly released high yielding timely sown wheat variety against disease resistance and better yield.	01	10
		Evaluation of newly released high yielding very late sown wheat variety against disease resistance and better yield.	01	10
		Evaluation of newly released high yielding timely sown wheat variety against disease resistance and better yield.	01	05
		Evaluation of newly released high yielding late sown wheat variety against disease resistance and better yield.	01	05
	Potato	Evaluation of newly released high yielding processing Potato varieties	01	03
		Evaluation off newly released high yielding potato varieties.	01	04
	Sugarcane	Evaluation of newly released high yielding Sugarcane varieties against disease resistance.	01	05
	Basmati Rice	Evaluation of newly released high yielding Basmati rice varieties against disease resistance.	01	05
Integrated Crop Management	Wheat	Evaluation of suitable plant growth hormone and fungicide for optimizing maximum yield of wheat crop.	01	04
Integrated Disease Management	Basmati Rice	Evaluation of suitable fungicides for management of blast diseases.	01	05
Value Addition	Mango	Value addition in Mango	01	05
Total			11	61

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

VARIETAL EVALUATION

OFT-1 (Plant Breeding)

Season – Rabi

Year: 2021-22

Problem definition: Low Productivity of Timely Sown Wheat

Technology Assessed: Evaluation of newly released high yielding timely sown wheat variety against disease resistance and better yield.

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 DBW-303 and HD-2967 as check. The sowing dates of these varieties are 10 to 20 November 2021 with 05 to 10 April 2022 harvesting dates also. The results revealed that yield increase of Timely sown wheat varieties 7.2 percent over farmers practice. The variety DBW-303 gave highest yield of 50.60 qt. per ha with net return of Rs. 96990.00 and BCR of 3.0. The others technical data as given below:

- Variety DBW-303 takes more or less same crop duration as comparison to HD-2967.
- The lodging in DBW-303 is none in comparison HD-2967 (5-7%)
- Karnal bunt incidence in DBW-303 is none while it is about 3-15% in HD-2967.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (HD-2967)	01 (10 farmers field)	47.20	---	5-7	3-15	88210.00	2.79
T ₂ - DBW-303		50.60	7.2	2-5	0	96990.00	3.00



OFT-2 (Plant Breeding)

Season – Rabi

Year: 2021-22

Problem definition: Low Productivity of Very Late Sown Wheat

Technology Assessed: Evaluation of newly released high yielding very late sown wheat variety against disease resistance and better yield.

The KVK Bijnor conducted On-farm trial on very late sown wheat varieties to find out suitable high yielding very late sown wheat varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were HD-3298 and PBW-226 as check. The sowing dates of these varieties are 28 December 2021 to 10 January 2022 with 04 to 15 April 2022 harvesting dates also. The results revealed that yield increase of very late sown wheat varieties 31.66 percent over farmers practice. The variety HD-3298 gave highest yield of 39.50 qt. per ha with net return of Rs. 77025.00 and BCR of 2.79. The others technical data as given below:

- Variety HD-3298 takes less crop duration (105 days) as comparison to PBW-226 (115-120 days).
- The lodging in HD-3298 is none in comparison PBW-226 (10-18%).
- Yellow rust incidence in HD-3298 is none while it is about 9-15% in PBW-226.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (PBW-226)	01 (10 farmers field)	30.00	--	10-18	9-15	58500.00	2.49
T ₂ - HD-3298		39.05	31.66	00.00	0.00	77025.00	2.79



OFT-3 (Plant Breeding)

Season – Rabi

Year: 2021-22

Problem definition: Low Productivity in Potato

Technology Assessed: Evaluation of newly released high yielding Potato varieties.

The KVK Bijnor conducted On-farm trial on Potato varieties to find out suitable high yielding Potato varieties for better yield with disease resistance. The varieties tested were Kufari Frysona and Kufari Chipsona-1 as check. The sowing dates of these varieties are 25 to 30 October 2021. The results revealed that yield increase of Kufri Frysona is 12.06 percent over farmers practice. The variety Kufri Frysona gave highest yield of 325.00 qt. per ha with net return of Rs. 165000.00 and BCR of 2.08. The others technical data as given below:

- Disease incidence in Kufri Frysona is very less while it is about 3-10% in Kufari Chipsona-1.
- Kufri Frysona is like by farmers due to their better keeping quality and valuable for market.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (Kufari Chipsona-1)	01 (03 farmers field)	290.00	--	03-10	55000.00	1.72
T ₂ - Kufri frysona		325.00	12.06	0-2	165000.00	2.08



OFT-4 (Plant Breeding)**Season – Spring****Year: 2022****Problem definition:** Low Productivity Sugarcane due to high disease infestations.**Technology Assessed:** Evaluation of newly released high yielding Sugarcane varieties against disease resistance.

The KVK Bijnor conducted On-farm trial on Sugarcane varieties to find out suitable high yielding Sugarcane varieties for better yield with disease resistance at farmer's field situation. The varieties tested were CoS-13235, CoLk-14201, and Co-0238 as check. The Sowing dates of these varieties are 05 to 30 March 2021 with 10 to 25 March, 2022 harvesting date also. The results revealed that yield increase of sugarcane varieties ranged between 1.27 to 2.54 percent over farmers practice. The variety CoS-13235 gave highest yield of 1210.00 qt. per ha with net return of Rs. 277750.00 and BCR of 3.40. The others technical data as given below:

- The top borer incidence in Cos-13235 is less (10-12%) in comparison Co-0238 (25-45%) and CoLk-14201 (14-28%)
- Red root incidence in Cos-13235 is less while it is about 35-55% in Co-0238.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Insect incidence (%)	Disease incidence (%)	Cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (Co-0238)	01 (05 farmers field)	1180.00	--	25-45	35-55	128500.00	255000.00	2.98
T ₂ - CoS-13235		1210.00	2.54	10-12	0-5	115500.00	277750.00	3.40
T ₃ -CoLk-14201		1195.00	1.27	14-28	0-8	116500.00	271875.00	3.33

**OFT-5 (Plant Breeding)****Season – Kharif****Year: 2022****Problem definition:** Low Productivity of Basmati 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-1885, Pusa Basmati-1886 and PB-1 as check. The transplanting dates of these varieties are 05-25 June, 2022 with harvesting 10-18 October, 2022. The results revealed that yield increase of rice varieties ranged between 9.42-15.22 percent over farmers practice. The variety Pusa Basmati-1886 gave highest yield of 55.02 qt. per ha with net return of Rs. 148055.00 and BCR of 4.19. The others technical data as given below:-

- i. The lodging in PB-1886 is none in comparison PB-1 (9-13%) and PB-1885 (3-5%)
- ii. Disease incidence in PB-1886 is none comparison PB-1 (10-17%).

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (PB-1)	01 (05 farmers field)	47.75	--	9-13	10-17	1,22,185.00	3.57
T ₂ - Pusa Basmati-1885		52.25	9.42	3-5	2-4	1,38,410.00	3.85
T ₃ - Pusa Basmati-1886		55.02	15.22	0-2	0-3	1,48,055.00	4.19



OFT-6 (Plant Breeding) Season – Rabi Year: 2022-23

Problem definition: Low Productivity of Timely Sown Wheat

Technology Assessed: Evaluation of newly released high yielding timely sown wheat variety against disease resistance and better yield.

The KVK Bijanor 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 DBW-327, DBW-332 and HD-2967 as check. The sowing dates of these varieties are 05 to 15 November 2022.

Result Awaited

OFT-7 (Plant Breeding) Season – Rabi Year: 2022-23

Problem definition: Low Productivity of Very Late Sown Wheat

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

The KVK Bijanor 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-771 and PBW-226 as check. The sowing dates of these varieties are 18-25 December 2022.

Result Awaited

OFT-8 (Horticulture) Season – Rabi Year: 2022-23

Problem definition: Low Productivity in potato

Technology Assessed – Evaluation off newly released high yielding potato varieties.

The KVK, Bijanor conducted on farm trial on potato varieties to find out suitable high yielding potato varieties for better yield with disease resistance. The varieties tested were Kufri Mohan and Kufri Badsah as check. The sowing dates of these varieties are 20-22 Nov., 2022.

Result Awaited

INTEGRATED CROP MANAGEMENT

OFT-9 (Agronomy) Season – Rabi Year: 2022-23

Problem definition: Low productivity in high yielding wheat variety

Technology Assessed: Evaluation of suitable plant growth hormone and fungicide for optimizing maximum yield of wheat crop.

KVK, Bijanor conducted on-farm trial on wheat crop for optimizing maximum yield through assessment of suitable plant growth hormone and fungicide. The application of suitable plant growth hormone and fungicide on wheat crop at tillering and boot leaf stage.

Result Awaited

INTEGRATED DISEASE MANAGEMENT

OFT-10 (Plant Pathology)

Season – Kharif

Year: 2022

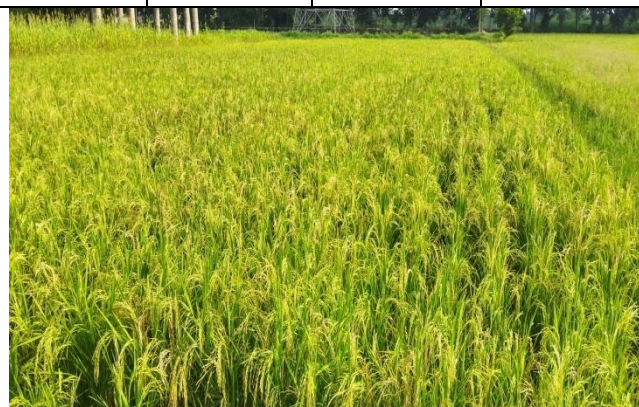
Problem definition: Low Productivity in Basmati Rice due to heavy infestation of Blast

Technology Assessed: Evaluation of suitable fungicides for management of blast diseases.

The KVK Bijnor conducted on-farm trial on management of blast diseases through suitable fungicides. The chemical tested were Azoxistrobin 11% + Tebuconazole 18.2% SC and Tricyclazole as check. The application dates of fungicides 15-20 September, 2022 with harvesting 15-20 October, 2022. The results revealed that yield increase of chemical apply paddy ranged between 9-18 percent over farmers practice. The chemical applied field gave highest yield of 45.25 per ha with net return of Rs. 113460.00 and BCR of 2.4. The others technical data as given below:-

- i. Disease incidence in Azoxistrobin 11% + Tebuconazole 18.2% SC treated crops is 0-3% comparison none treated crops 9-18%.

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - FP (Tricyclazole)	01	40.75	--	9-18	99,235.00	2.12
T ₂ - Azoxistrobin 11% + Tebuconazole 18.2% SC	(05 farmers field)	45.25	11.4	0-3	1,13,460.00	2.4



OFT-11 (Home Science)

Season – Kharif

Year: 2022

Problem definition: Original color deterioration of Awala Laddu after long term storage

Technology Assessed: KVK Bijnor provided training and practical exposure for preparation of Awala Laddu to 5 farm women. Result indicates that Awala Laddu original colour doesn't deteriorate till 6 month by scientific method. For preservation sodium benzoate was used hence no blackness in it. Farm women earlier don't use any chemical for preservation.

Technology adopted	Number of farm women	Awala Laddu kg	Total expenditure	Total income	Net income	B:C Ratio
T ₁ - Awala Laddu	01 (05 farmers)	22 Kg	1600.00	2200.00	600.00	3.66



II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2021-22 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-1718	FLD, Training, Field day, electronic/print media	350	1580	4200
2	Wheat	Timely sown	DBW-187	FLD, Training, Field day, electronic/print media	140	2500	62500
		Late sown	DBW-173	FLD, Training, Field day, electronic/print media	380	3800	15700
3	Mustard	Varietal development	Pusa Mustard – 31	FLD, Training, Field day, electronic/print media	105	290	3350
4	Lentil	Varietal development	Pusa Masoor Ageti	FLD, Training, Field day, electronic/print media	44	115	610
5	Sugarcane	Varietal development	Co - 15023	FLD, Training, Field day, electronic/print media	25	150	680

b. Details of FLDs implemented

SN	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demon.			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Cluster FLD										
1	Lentil (NFSM)	ICM	Seed	Rabi 2021-22	10.0	10.0	-	25	25	--
2	Mustard (NFSM)	ICM	Seed	Rabi 2021-22	10.0	10.0	-	25	25	--
3	Urd (NFSM)	ICM	Seed	Zaid 2022	10.0	10.0	-	25	25	--
4	Moong (NFSM)	ICM	Seed	Zaid 2022	10.0	10.0	-	25	25	--
5	Urd (NFSM)	ICM	Seed	Kharif 2022	20.0	20.0	-	50	50	--
6	Til (NFSM)	ICM	Seed	Kharif 2022	10.0	10.0	-	25	25	--
7	Mustard (NFSM)	ICM	Seed (Result Awaited)	Rabi 2022-23	20.0	20.0	-	50	50	--
8	Lentil (NFSM)	ICM	Seed (Result Awaited)	Rabi 2022-23	20.0	20.0	-	50	50	--
	Total				110.0	110.0	-	275	275	--

Other FLD										
9	Sugarcane	ICM	Demonstration of Ring Pit method in Sugarcane	Spring 2021	4.0	4.0	--	10	10	--
10	Sugarcane	Varietal Demonstration	To demonstrate the yield potential of sugarcane variety Co-15023	Spring 2021	2.0	2.0	--	5	5	--
11	Mustard	Varietal Demonstration	To demonstrate the yield potential of Mustard variety Pusa Mustard-32	Rabi 2021-22	1.2	1.2	1	11	12	--
12	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization high yielding bio-fortified wheat variety DBW-187	Rabi 2021-22	3.5	3.5	3	32	35	--
13	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization of late sown wheat variety DBW-173	Rabi 2021-22	5	2.5	4	21	25	--
14	Kitchen Garden	Nutritional security	Seed of vegetables & Vermi-compost	Rabi 2021-22	0.2	0.2	--	20	20	--
15	Mushroom production	Income generation	Spawn ,Compost & formalin	Rabi 2021-22	--	--	--	10	10	--
16	Sugarcane	Varietal Demonstration	To demonstrate the yield potential of sugarcane variety Co-15023 (Result Awaited)	Spring 2022	4.0	4.0	2	8	10	
17	Kitchen Garden	Nutritional security	Seed of vegetables & Vermi-compost	Zaid 2022	0.2	0.2	--	20	20	--
18	Basmati Rice	Varietal	To demonstrate the yield potential of high yielding Basmati Rice variety Pusa Basmati-1692	Kharif-2022	5.0	5.0	3	22	25	--
19	Paddy	Insect Management	To demonstrate the efficacy of suitable pesticides for better yield in Basmati Rice.	Kharif 2022	4.0	4.0	2	18	20	--
20	Kitchen Garden	Nutritional security	Seed of vegetables & Vermi-compost	Kharif 2022	0.2	0.2	--	20	20	--
21	Sugarcane + Mustard	ICM	Demonstration of Mustard as intercrop in Sugarcane for better income security. (Result Awaited)	Rabi 2022-23	8.0	8.0	5	15	20	--
22	Sugarcane	Nursery Plantation	Nursery plantation under late sown condition in sugarcane. (Result Awaited)	Rabi 2022-23	1.0	1.0	2	18	20	--
23	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization high yielding bio-fortified wheat variety DBW-187 (Result Awaited)	Rabi 2022-23	5.0	2.0	4	16	20	--

24	Wheat	Varietal Demonstration	To demonstrate the yield potential & popularization high yielding late sown bio-fortified wheat variety HD-3298 (Result Awaited)	Rabi 2022-23	5.0	1.0	1	9	10	--
25	Wheat	Weed Management	To demonstrate the efficacy of suitable weedicide (Clodinafop 15% WP + Metsulfuron methyl 20% WP) for better yield in wheat. (Result Awaited)	Rabi 2022-23	8.0	8.0	2	8	10	--
26	Barley	Varietal Demonstration	To demonstrate the yield potential & popularization high yielding Barley variety (Result Awaited)	Rabi 2022-23	2.0	2.0	1	4	5	--
27	Kitchen Garden	Nutritional security	Seed of vegetables & Vermi-compost (Result Awaited)	Rabi 2022-23	0.2	0.2	--	20	20	--
28	Onion	Varietal Demonstration	To demonstrate the yield potential & popularization Onion variety NHRDF-3 (Result Awaited)	2022-23	4.0	4.0	2	8	10	--
29	Cauliflower	Integrated nutrient management	Demonstration of Micronutrient (Boron) in Cauliflower (Result Awaited)	2022-23	0.5	0.5	1	5	6	--
30	Mushroom Production	Income generation	Demonstration of Mushroom for income securing (Result Awaited)	2022-23	--	--	3	7	10	--
	Total				63.0	53.5	36	307	343	--
	Grand Total				173	163.5	36	582	618	

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					
Cluster FLD											
Lentil (NFSM)	Rabi 2021-22	Irrigated	Loam	L	M	L	Paddy	20.10.2021 - 05.11.2021	25-28.02.2022	--	--
Mustard (NFSM)	Rabi 2021-22	Irrigated	Loam	L	M	L	Paddy	10-25.10.2021	10-15.03.2022	--	--
Urd (NFSM)	Zaid 2022	Irrigated	Loam	L	M	L	Mustard	25-30.03.2022	05-10.06.2022	--	--
Moong (NFSM)	Zaid 2022	Irrigated	Loam	L	M	L	Mustard	01-10.04.2022	20-25.05.2022	--	--
Urd (NFSM)	Kharif 2022	Irrigated	Loam	L	M	L	Wheat	02-07.07.2022	10-15.10.2022	--	--

Til (NFSM)	Kharif 2022	Irrigated	Loam	L	M	L	Wheat	08-15.07.2022	20-27.09.2022	--	--
Mustard (NFSM)	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	15-25-10.2022	--	--	--
Lentil (NFSM)	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	27-31.10.2022	--	--	--
Other FLD											
Sugarcane (ICM)	Spring 2021	Irrigated	Loam	L	M	L	Paddy	01-08.03.2021	20-25.03.2022	--	--
Sugarcane (Co-15023)	Spring 2021	Irrigated	Loam	L	M	L	Paddy	15-20.03.2021	25-30.03.2022	--	--
Mustard (PM-32)	Rabi 2021-22	Irrigated	Loam	L	M	L	Paddy	15-20.10.2021	15-28.02.2022	--	--
Wheat (DBW-187)	Rabi 2021-22	Irrigated	Loam	L	M	L	Paddy	15-20.11.2021	10-15.04.2022	--	--
Wheat (DBW-173)	Rabi 2021-22	Irrigated	Loam	L	M	L	Paddy	20-28.12.2021	05-12.04.2022	--	--
Kitchen Garden	Rabi 2021-22	Irrigated	Loam	L	M	L	--	15-20-10.2021	08-10.02.2022	--	--
Mushroom production	Rabi 2021-22	Irrigated	Loam	L	M	L	--	10-15.10.2021	20-25.01.2022	--	--
Sugarcane (Co-15023)	Spring 2022	Irrigated	Loam	L	M	L	Mustard	15-20.03.2022	--	--	--
Kitchen Garden	Zaid-2022	Irrigated	Loam	L	M	L	--	15-20.02.2022	04-06.06.2022	--	--
Paddy (PB-1692)	Kharif 2022	Irrigated	Loam	L	M	L	Wheat	25-30.06.2022	02-05.10.2022	--	--
Paddy	Kharif 2022	Irrigated	Loam	L	M	L	Wheat	15-20.06.2022	10-15.10.2022	--	--
Kitchen Garden	Kharif-2022	Irrigated	Loam	L	M	L	--	03-05.07.2022	25-30.10.2022	--	--
Intercropping	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	07-10.11.2022	--	--	--
Sugarcane	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	20-25.10.2022	--	--	--
Wheat (DBW-187)	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	08-15.11.2022	--	--	--
Wheat (HD-3298)	Rabi 2022-23	Irrigated	Loam	L	M	L	Sugarcane	02-05.01.2023	--	--	--
Wheat (WM)	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	25-30.11.2022	--	--	--
Barley	Rabi 2022-23	Irrigated	Loam	L	M	L	Paddy	15-20.11.2022	--	--	--
Kitchen Garden	Rabi 2022-23	Irrigated	Loam	L	M	L	--	10-12.10.2022	--	--	--
Onion	2022-23	Irrigated	Loam	L	M	L	Paddy	25-30.10.2022	--	--	--
Cauliflower	2022-23	Irrigated	Loam	L	M	L	Paddy	15-20.10.2022	--	--	--
Mushroom	2022-23	Irrigated	Loam	L	M	L	--	30.12.2022	--	--	--

Technical Feedback on the demonstrated technologies

SN	Crop/Technology	Feed back
1	CFLD on Pulses (Lentil)	<ul style="list-style-type: none"> Timely nutrient management and used high yielding biofortified varieties increase the lentil yield.
2	CFLD on Oilseed (Mustard)	<ul style="list-style-type: none"> Timely nutrient management and used high yielding biofortified varieties increase the mustard yield.
3	CFLD on Pulses (Urd)	<ul style="list-style-type: none"> Complete package and practice and financial support required for pulse production.
4	CFLD on Pulses (Moong)	<ul style="list-style-type: none"> Complete package and practice and financial support required for pulse production.
5	CFLD on Pulses (Urd)	<ul style="list-style-type: none"> Complete package and practice and financial support required for pulse production.
6	CFLD on Oilseed (Till)	<ul style="list-style-type: none"> Timely nutrient management and used high yielding varieties increase the till yield.
7	Sugarcane (ICM)	<ul style="list-style-type: none"> Rig pit method increased yield percentage with higher income due to maximum no of tillers and suitable intercrops
6	Sugarcane (Co-15023)	<ul style="list-style-type: none"> The top borer incidence in Co-15023 is less (0-3%) in comparison Co-0238 (30-42%). Red root incidence in Co-15023 is less while it is about 40-70% in Co-0238.
7	Mustard (PM-32)	<ul style="list-style-type: none"> Disease incidence in PM-32 is not seen while it is about 4-15% in Check variety. Better yield of PM-32 against check variety.
8	Wheat (DBW-187)	<ul style="list-style-type: none"> Variety DBW-187 takes more or less crop duration (140-145) as comparison to PBW-550 (141-146). Due to this crop duration it is suitable for adverse environment condition. Disease incidence in DBW-187 is not seen while it is about 5-15% in PBW-550. Lodging in DBW-187 is less (0-3%) as comparison PBW-550 (10-18%).
9	Wheat (DBW-173)	<ul style="list-style-type: none"> Variety DBW-173 is resistant to temperature fluctuation. Due to this crop is suitable for adverse environment condition. Disease incidence in DBW-173 is not seen while it is about 7-18% in PBW-226. Lodging in DBW-173 is less (0-5%) as comparison PBW-226 (9-18%).
10	Kitchen Garden	<ul style="list-style-type: none"> Good quality hybrid seed appreciated by farm women.
11	Mushroom production	<ul style="list-style-type: none"> Income increased due to new entrepreneurship.
12	Basmati Rice (PB-1692)	<ul style="list-style-type: none"> Variety PB-1692 takes less crop duration (110-116) as comparison to PB-1121 (140-146). Due to this crop duration it is suitable for adverse environment condition. Disease incidence in PB-1692 is not seen while it is about 9-18% in PB-1121. Lodging in PB-1692 is less (0-3%) as comparison PB-1121 (8-17%).
13	Paddy	<ul style="list-style-type: none"> Cartep Hydrochloride 50% SP capable of controlling the stem borer in paddy more effectively than the farmer's method.

Farmers' reactions on specific technologies

SN	Crop/Technology	Feed back
1	CFLD on Pulses	<ul style="list-style-type: none"> Farmers like high yielding disease resistant variety with timely intergraded crop management.
2	CFLD on Oilseeds	<ul style="list-style-type: none"> Farmers like high yielding disease resistant variety with timely intergraded crop management.
3	Sugarcane (ICM)	<ul style="list-style-type: none"> Farmers like rig pit method technology in sugarcane due to taking higher yield.
4	Sugarcane (Co-15023)	<ul style="list-style-type: none"> Farmer like variety Co-15023 due to less incidence of disease and insects.
5	Mustard (PM-32)	<ul style="list-style-type: none"> Market potential of PM-32 is better than other mustard variety due to their high demand. Farmers like very much mustard variety PM-32 due to high nutritional quality against other Mustard varieties.
6	Wheat (DBW-187)	<ul style="list-style-type: none"> Market potential of DBW-187 is better chapatti quality than PBW-550 due to their high demand Farmers like very much Wheat variety DBW-187 due to their high nutritional quality against other wheat varieties.
7	Wheat (DBW-173)	<ul style="list-style-type: none"> Market potential of DBW-173 is better than DBW-16 due to their higher yield potential.
8	Kitchen Garden	<ul style="list-style-type: none"> Farm women like hybrid varieties.
9	Mushroom production	<ul style="list-style-type: none"> Farmers like this technology.
10	Basmati Rice (PB-1692)	<ul style="list-style-type: none"> Farmers like variety PB-1692 due to their high yielding and short crop duration nature.
11	Paddy	<ul style="list-style-type: none"> Cartep Hydrochloride 50% SP is preferred by farmers as it is suitable for pest control as well as environment friendly.

Extension and Training activities under FLD

SN	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	11	As per crop harvesting days	950	--
2	Farmers Trainings	35	--	700	--
3	Media Coverage	25	--	--	--
4	Training for extension functionaries	15	--	150	--

Performance of 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	PM-31	25	10.0	22.5	17.0	19.08	11.79	52.41	30556.00	152640.00	122084.00	4.99	29609.20	94320.00	64710.80	3.18
Till	ICM	Seed	Shekhar	25	10.0	10.5	7.5	8.80	5.52	68.29	27734.00	88000.00	60626.00	3.21	26406.00	55200.00	28794.00	2.09

Performance of Frontline demonstrations on Pulses 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	L-4717	25	10.0	18.5	15.0	16.84	11.28	49.29	31108.00	84200.00	53092.00	2.70	31910.00	56400.00	24490.00	1.76
Urd	ICM	Seed	PU-31	25	10.0	17.50	11.50	14.28	9.70	47.21	32454.00	91392.00	58938.00	2.81	31388.00	62080.00	30692.00	1.97
Moong	ICM	Seed	Pusa Moong-1431	25	10.0	14.25	10.50	12.18	9.46	28.75	31787.60	88305.00	56517.40	2.77	31064.00	68585.00	37521.00	2.20
Urd	ICM	Seed	PU-31	50	20.0	16.50	11.25	13.65	9.41	45.05	32468.00	87392.00	54924.00	2.69	31376.00	60224.00	28848.00	1.91

FLD on Other Crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy																			
Scented Rice																			
Basmati Rice (PB-1692)	VE	Pusa Basmati - 1692	25	5.0	55.00	45.00	50.70	41.22	22.98	Disease incidence (%)		46386.00	179864.10	133478.10	3.87	47198.00	147720.00	100522.00	3.12
										0-2	9-18								
										Lodging (%)									
										0-3	8-17								
Coarse Rice																			
Paddy	IPM	IPM	20	4.0	62.50	54.50	59.17	53.96	9.65	--	--	46905.00	149931.52	103016.25	2.19	46305.00	13715.00	90845.00	1.96
Wheat																			
Timely Sown										Disease incidence (%)									
Wheat (DBW-187)	VE	DBW-187	35	3.50	65.00	55.00	60.57	42.08	43.94	0	5-15	48197.14	173862.90	125665.70	3.60	49598.00	125607.10	76009.14	2.53
										Lodging (%)									
										0-3	10-18								

Late Sown										Disease incidence (%)									
Wheat (DBW-173)	VE	DBW-173	25	2.5	47.50	35.00	43.64	37.43	16.59	0	7-18	46983.30	130574.00	83590.60	2.77	48225.00	115114.00	66889.00	2.38
										Lodging (%)									
										0-5	9-18								
Oilseed										Disease incidence (%)									
Mustard	VE	PM-32	12	2.0	19.50	13.50	16.50	12.20	35.24	0	4-15	31500.00	132000.00	100500.00	4.19	32350.00	97600.00	65250.00	3.01
Commercial Crops																			
Sugarcane										Cane wt. (Kg)									
Sugarcane	ICM	Ring Pit	05	2.0	1750.0	1250.0	1500.0	980.00	15.06	1.85	1.01	118500.00	487500.00	369000.00	4.11	115750.00	318500.00	202750.00	2.75
Sugarcane	VE	Co-15023	05	2.0	1470.0	1150.0	1350.0	1250.0	8.0	Disease incidence (%)		114500.00	438750.00	324250.00	3.82	128000.00	406250.00	278250.00	3.17
										0-3	40-70								
										Insect incidence (%)									
										5-10	30-42								

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)
Button Mushroom																
Mushroom production	Spawn, Compost & formalin	10	10	3.5	2.0	3.0	4.00	2.50	210.00	625.00	415.00	2.97	210.00	400.00	190.00	1.90
Value Addition																
Vermi Compost																

FLD on Other Enterprise: Kitchen Gardening

Category and 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 & Vermicompost	20	10	240.00	190.00	220.00	205.00	218.00	556.00	3635.00	3079.00	6.53	492.00	1995.00	1503.00	5.05
Kitchen Garden	Nutritional security	Seed of vegetables & Vermicompost	20	10	225.00	180.00	200.00	125.00	170.00	868.00	2624.00	2156.00	5.60	1702.00	3160.00	1240.00	3.68
Kitchen Garden	Nutritional security	Seed of vegetables & Vermicompost	20	10	200.00	150.00	150.00	170.00	180.00	860.00	2715.00	2255.00	5.90	1806.00	3160.00	1341.00	3.88

Glimpses of Frontline Demonstrations



III Training Programme

Farmers' Training including Sponsored Training Programmes (On Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Resource Conservation Technologies	1	8	2	10	9	1	10	17	3	20
Crop Diversification	2	22	1	23	15	2	17	37	3	40
Integrated Nutrient Management	2	28	-	28	11	1	12	39	1	40
Total	5	58	3	61	35	4	39	93	7	100
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	20	-	20	-	-	-	20	-	20
Total (a)	1	20	-	20	-	-	-	20	-	20
b) Fruits										
Others (pl specify)	1	20	-	20	-	-	-	20	-	20
Total (b)	1	20	-	20	-	-	-	20	-	20
Total (a+b)	2	40	-	40	-	-	-	40	-	40
III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Women and child care	2	-	26	26	-	14	14	-	40	40
Drudgery reduction	1	-	15	15	-	5	5	-	20	20
Value Addition	1	-	15	15	-	5	5	-	20	20
Total	4	-	56	56	-	24	24	-	80	80
VI Agril. Engineering										
VII Plant Protection										
Integrated Pest Management	1	16	-	16	4	-	4	20	-	20
Integrated Disease Management	1	18	-	18	2	-	2	20	-	20
Bio-control of pests and diseases	1	20	-	20	-	-	-	20	-	20
Others (pl specify)	2	27	7	34	4	2	6	31	9	40
Total	5	81	7	88	10	2	12	91	9	100
VIII Fisheries										

IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
XII Plant Breeding										
Seed Production & varietal improvement	10	240	-	240	35	-	35	275	-	275
Diversification	3	49	-	49	11	-	11	60	-	60
Resource conservation	1	18	-	18	2	-	2	20	-	20
Total	14	307	-	307	48	-	48	355	-	355
GRAND TOTAL	30	486	66	552	93	30	123	579	96	675

Farmers' Training including Sponsored Training Programmes (Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	16	-	16	4	-	4	20	-	20
Resource Conservation Technologies	1	12	-	12	8	-	8	20	-	20
Integrated Crop Management	1	14	-	14	6	-	6	20	-	20
Total	3	42	-	42	18	-	18	60	-	60
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	19	-	19	1	-	1	20	-	20
Others (pl specify)	1	20	-	20	-	-	-	20	-	20
Total (a)	2	39	-	39	1	-	1	40	-	40
b) Fruits										
Layout and Management of Orchards	1	14	1	15	5	-	5	19	1	20
Cultivation of Fruit	1	14	-	14	6	-	6	20	-	20
Management of young plants/orchards	1	20	-	20	-	-	-	20	-	20
Others (pl specify)	1	18	-	18	2	-	2	20	-	20
Total (b)	4	66	1	67	13	-	13	79	1	80
Total (a+b)	6	105	1	106	14	0	14	119	1	120

III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Drudgery reduction	3	-	51	51	-	9	09	-	60	60
Value Addition	3	-	58	58	-	2	2	-	60	60
Women and child care	2	-	40	40	-	-	-	-	40	40
Household food security by kitchen grading & nutrition grading	5	-	91	91	-	9	9	-	100	100
Total	13	-	240	240	-	20	20	-	260	260
VI Agril. Engineering										
VII Plant Protection										
Integrated Pest Management	1	20	-	20	-	-	-	20	-	20
Integrated Disease Management	1	-	-	-	20	-	20	20	-	20
Others (pl specify)	1	-	-	-	17	3	20	17	3	20
Total	3	20	-	20	37	3	40	57	3	60
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
XII Plant Breeding										
Seed Production & varietal improvement	2	32	-	32	8	-	8	40	-	40
Diversification	2	32	-	32	8	-	8	40	-	40
Resource conservation	2	32	-	32	8	-	8	40	-	40
Total	6	96	-	96	24	-	24	120	-	120
GRAND TOTAL	31	263	241	504	93	23	116	356	264	620

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Crop Diversification	2	22	1	23	15	2	17	37	3	40
Integrated Crop Management	1	14	-	14	6	-	6	20	-	20
Integrated nutrient management	2	28	-	28	11	1	12	39	1	40
Resource Conservation Technologies	2	20	2	22	17	1	18	37	3	40
Weed Management	1	16	-	16	4	-	4	20	-	20

Total	8	100	3	103	53	4	57	153	7	160
II Horticulture										
Others (pl specify)	1	20	-	20	-	-	-	20	-	20
Production of low value and high valume crops	2	39	-	39	1	-	1	40	-	40
Total (a)	3	59	0	59	1	0	1	60	0	60
b) Fruits										
Cultivation of Fruit	1	14	-	14	6	-	6	20	-	20
Layout and Management of Orchards	1	14	1	15	5	-	5	19	1	20
Management of young plants/orchards	1	20	-	20	-	-	-	20	-	20
Others (pl specify)	2	38	-	38	2	-	2	40	-	40
Total (b)	5	86	1	87	13	0	13	99	1	100
Total (a+b)	8	145	1	146	14	0	14	159	1	160
III Soil Health and Fertility Management										
IV Livestock Production and Management										
V Home Science/Women empowerment										
Drudgery reduction	4	-	66	66	-	14	14	-	80	80
Household food security by kitchen grading & nutrition grading	5	-	91	91	-	9	9	-	100	100
Value Addition	4	-	73	73	-	7	7	-	80	80
Women and child care	4	-	66	66	-	14	14	-	80	80
Total	17	0	296	296	0	44	44	0	340	340
VI Agril. Engineering										
VII Plant Protection										
Bio-control of pests and diseases	1	20	-	20	-	-	-	20	-	20
Integrated Disease Management	2	18	-	18	22	-	22	40	-	40
Integrated Pest Management	2	36	-	36	4	-	4	40	-	40
Others (pl specify)	3	27	7	34	21	5	26	48	12	60
Total	8	101	7	108	47	5	52	148	12	160
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XII Plant Breeding										
Diversification	5	81	-	81	19	-	19	100	-	100
Resource conservation	3	50	-	50	10	-	10	60	-	60
Seed Production & varietal improvement	12	272	-	272	43	-	43	315	-	315
Total	20	403	0	403	72	0	72	475	0	475
GRAND TOTAL	61	749	307	1056	186	53	239	935	360	1295

Training for Rural Youths Including Sponsored Training Programmes – On

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Seed production	3	25	-	25	5	-	5	30	-	30
Nursery Management of Horticulture crops	2	13	4	17	-	3	3	13	7	20
Integrated farming	1	6	-	6	4	-	4	10	-	10
Production of organic inputs	1	6	2	8	2	-	2	8	2	10
Mushroom Production	2	11	2	13	1	6	7	12	8	20
Value addition	2	-	14	14	-	6	6	-	20	20
TOTAL	11	61	22	83	12	15	27	73	37	110

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
Seed production	3	25	-	25	5	-	5	30	-	30
Nursery Management of Horticulture crops	2	13	4	17	-	3	3	13	7	20
Integrated farming	1	6	-	6	4	-	4	10	-	10
Production of organic inputs	1	6	2	8	2	-	2	8	2	10
Mushroom Production	2	11	2	13	1	6	7	12	8	20
Value addition	2	-	14	14	-	6	6	-	20	20
TOTAL	11	61	22	83	12	15	27	73	37	110

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	2	16	-	16	4	-	4	20	-	20
Integrated Pest Management	3	24	-	24	6	-	6	30	-	30
Nursery Management	2	15	-	15	5	-	5	20	-	20
Seed Production	8	72	-	72	18	-	18	90	-	90
Varietal Diversification	3	45	-	45	5	-	5	50	-	50
TOTAL	18	172	-	172	38	-	38	210	-	210

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
Gender mainstreaming through SHGs	1	-	6	6	-	4	4	-	10	10
Storage	1	-	6	6	-	4	4	-	10	10
Women and Child care	3	-	17	17	-	13	13	-	30	30
TOTAL	5	-	29	29	-	21	21	-	50	50

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	16	-	16	4	-	4	20	-	20
Integrated Pest Management	3	24	-	24	6	-	6	30	-	30
Nursery Management	2	15	-	15	5	-	5	20	-	20
Seed Production	8	72	-	72	18	-	18	90	-	90
Storage	1	-	6	6	-	4	4	-	10	10
Varietal Diversification	3	45	-	45	5	-	5	50	-	50
Women and Child care	3	-	17	17	-	13	13	-	30	30
TOTAL	23	172	29	201	38	21	59	210	50	260

Sponsored Training Programmes : 02 (50)

Details of vocational training programmes carried out by KVKs for rural youth : Nil

Glimpses of Training Programmes during the Year



IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	28	410	120	530
Diagnostic visits	10	90	25	115
Field Day	11	880	70	950
Group discussions	2	30	5	35
Kisan Ghosthi	10	6700	800	7500
Film Show	--	--	--	--
Self -help groups	--	--	--	--
Kisan Mela	5	8200	800	9000
Exhibition	--	--	--	--
Scientists' visit to farmers field	85	1850	350	2200
Farmers Visit at KVK	65	9250	250	9500
Method Demonstrations	4	80	15	95
Celebration of important days (World Environment day)	1	20	0	20
Special day celebration	4	120	30	150
Exposure visits	2	100	--	100
Others (Technology popularization as resource person)	55	12500	500	13000
Total	282	40230	2965	43195

Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	--
Extension Literature	10
News paper coverage	110
Popular articles	04
Radio Talks	13
TV Talks	01
Animal health camps (Number of animals treated)	--
Other	7
Total	145

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	80	-	-	-	15	-	95
	Voice only	8	-	-	-	05	-	13
	Voice & Text both	-	-	-	-	-	-	-
	Total messages	88	-	-	-	20	-	108
	Total farmer benefitted	1800	-	-	-	1800	-	3600

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	Wheat	HD-3086	--	142.00	--	--
	Paddy	PB-1692/PB-1847	--	110.00	--	--
Total				252.00	--	

Details of participatory quality seed production at farmer's field

Crop	Variety	Production (q.)	F to F Seed distributed
Rice	PB-1509	350.50	210
	PB-1637	250	180
	PB-1718	225	150
	PB-1692	550.00	350
	PB-1121	110	40
	PB-1885	52.00	15
	PB-1886	55.00	18
Wheat	HD-2967	515	378
	HD-3226	1409	881
	DBW-187	2029	2013
	DBW-222	164	268
	DBW-303	50.60	90
	HD-3298	40	100
	WB-02	177	257
	HPBW-01	150	160
	DBW-173	686	774
Mustard	Pusa Mustard-31	240	810
	Pusa Mustard-32	2.50	25
Lentil	Pusa Masoor Ageti	350	650
Potato	Kufri Neelkanth	15.00	55
	Kufri Frysona	110.00	55
Total		8070.00	8219



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
Vegetable seedlings	Cauliflower, Tomato, Brinjal, Chilli, Shimla Mirch, Cabbage	Arka, Rakshak, Pusa Purple long, Sultan	--	1500	750	60

Production of Bio-Products : Nil

Production of livestock materials : Nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

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

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted	Date of SAC
Krishi Vigyan Kendra, Nagina (Bijnor)	01	25.11.2022

IX. NEWSLETTER/MAGAZINE : Nil

X. Publications

Category	Number
Research Paper/ Abstract	02
Books/Book Chapters	--
Training Manual	03
Leaflet/Extension Literature etc.	23
Popular articles	04
Ratio Talk	13

Research Paper/Abstract:

Authors	Year	Topic	Conference/ Seminar
Shakuntala Gupta	2022	Evaluation of traditional nourishment propensities over modern dietary pattern of lactating mothers of Bijnor district	International conference on AAFS Aug. 22- 24th, 2022. Pp-884
Sourabh Maheshwari & Shakuntala Gupta	2022	Impact of Environmental Stresses on human and Disaster Management	Jan. 2022 page no 46

Books

Training Manuals

SN	Author	Year	Title	Publishers
1	DR K K Singh & Er. S K Yadav	2022	Ganna ki Ucch Utpadan Taknik	KVK
2	डा० शकुन्तला गुप्ता	2022	मौसम में खराब होने वाले फलों एवं सब्जियों का प्रसंस्करण	KVK
3	डा० के० के० सिंह एवं अन्य	2022	फसल अवशेष प्रबन्धन क्यों और कैसे	KVK

Leaflet/Extension Literature etc:

SN	Authors	Year	Title
1	डा० के० के० सिंह एवं अन्य	2022	गौ आधारित प्राकृतिक खेती
2	डा० के० के० सिंह एवं अन्य	2022	फसल अवशेष प्रबन्धन क्यों और कैसे
3	डा० के० के० सिंह एवं अन्य	2022	पूसा वेस्ट डी कम्पोजर बनाने की विधि
4	डा० के० के० सिंह एवं अन्य	2022	फसल अवशेषों के संग्रहण हेतु उन्नत कृषि यंत्र
5	डा० के० के० सिंह एवं अन्य	2022	गन्ने में फसल अवशेष प्रबन्धन
6	डा० के० के० सिंह एवं अन्य	2022	उन्नत मशीनों द्वारा फसल अवशेष प्रबन्धन
7	डा० के० के० सिंह एवं अन्य	2022	फसल अवशेष जलाने से उपलब्ध पोषक तत्वों के नुकसान का आकलन
8	डा० के० के० सिंह	2022	जनवरी माह के कृषि कार्य
9	डा० के० के० सिंह	2022	फरवरी माह के कृषि कार्य
10	डा० के० के० सिंह	2022	मार्च माह के कृषि कार्य
11	डा० के० के० सिंह	2022	अप्रैल माह के कृषि कार्य
12	डा० के० के० सिंह	2022	मई माह के कृषि कार्य
13	डा० के० के० सिंह	2022	जून माह के कृषि कार्य
14	डा० के० के० सिंह	2022	जुलाई माह के कृषि कार्य
15	डा० के० के० सिंह	2022	अगस्त माह के कृषि कार्य
16	डा० शकुन्तला गुप्ता	2022	कोविड-19 टीकाकरण
17	डा० शकुन्तला गुप्ता	2022	वर्ष भर गृहवाटिका से आय अर्जन का स्रोत
18	डा० शकुन्तला गुप्ता	2022	अमचुर उत्पादन तकनीक
19	डा० के० के० सिंह, डा० शकुन्तला गुप्ता एवं अन्य	2022	गौ आधारित प्राकृतिक खेती
20	डा० शकुन्तला गुप्ता एवं अन्य	2022	फसल अवशेष प्रबन्धन हेतु मशरूम उत्पादन तकनीक
21	डा० शकुन्तला गुप्ता एवं अन्य	2022	बटन मशरूम उत्पादन हेतु कम्पोस्ट तैयार करना
22	डा० के० के० सिंह, डा० शकुन्तला गुप्ता एवं अन्य	2022	बासमती धान की संस्तुत प्रजातियाँ
23	डा० के० के० सिंह, डा० शकुन्तला गुप्ता एवं अन्य	2022	खरीफ फसलों में बीज उपचार की महत्व एवं तरीका

Popular Articles

क्र. स.	शीर्षक	वर्ष	पत्रिका का नाम	पृष्ठ.स.	पंजीकृत न०.	लेखक/लेखिका का नाम
1	शहद का घरेलू स्तर पर परीक्षण कैसे करें	जनवरी-जून 2022	गोरखनाथ कृषि दर्पण	67-68	--	सौरभ माहेश्वरी एवं डा० शकुन्तला गुप्ता
2	बच्चों में टीकाकरण का महत्व तथा रोग के लक्षण व बचने के उपाय	जून 2022	कृषि कुंभ	12-15	E-ISSN: 2582-9769	डा० शकुन्तला गुप्ता

3	करौंदा का महत्व	मई-जून 2022	मरुधरा कृषि	1-3	E-ISSN: 2583-1410	डा० शकुन्तला गुप्ता एवं सौरभ माहेश्वरी
4	Food processing	July 2022	Food processing	121-122	E-ISSN: 2583-0791	सौरभ माहेश्वरी एवं डा० शकुन्तला गुप्ता
5	अंगूर का मूल्यवर्धन करके आय में वृद्धि	July 2022	कृषि एवं किसान	143-145	E-ISSN: 2583-0937	सौरभ माहेश्वरी एवं डा० शकुन्तला गुप्ता

Radio Talk / TV talks (Specify Date, topic and place)

क्र०सं०	विषय	रिकॉर्डिंग तिथि	स्थान
Radio Talk			
1	गौ आधारित प्राकृतिक खेती	06.05.2022	आकाशवाणी, नजीबाबाद
2	खेती के माध्यम से महिला सशक्तिकरण	06.05.2022	आकाशवाणी, नजीबाबाद
3	फसल अवशेष को जलाने से होने वाली हानि एवं पर्यावरण पर उसका प्रभाव	23.08.2022	आकाशवाणी, नजीबाबाद
4	फसल अवशेष प्रबन्धन का महत्व एवं तरीका	23.08.2022	आकाशवाणी, नजीबाबाद
5	फसल अवशेष प्रबन्धन हेतु प्रचार प्रसार तकनीकी एवं महत्व	23.08.2022	आकाशवाणी, नजीबाबाद
6	कृषि अपशिष्ट से समृद्धि	23.08.2022	आकाशवाणी, नजीबाबाद
7	गेहूँ की बुवाई में हैप्पी सीडर का प्रयोग व महत्व	23.08.2022	आकाशवाणी, नजीबाबाद
8	कम्प्यूटराईज्ड लेजर लैवलर का कृषि में महत्व	23.08.2022	आकाशवाणी, नजीबाबाद

Participation in National/ International seminar/ Conference/ Special Courses:

SN	Seminar	Topic of Paper/ Lecture	Place	Duration	Organized By
1	International Conference	AATM NIRBHAR BHARAT: Present Status, Constraints and Solutions	Jabalpur (Online mode)	25-27 March 2022	EDWIN Group
2	Seminar	Interactive program me	SVPUA &T Meerut, U.P	4-5 March, 2022	DE, Meerut

Training/ Summer/ Winter courses/ Workshop. Meeting attended:

SN	Topic	Place	Duration	Organized By
1	CFLD Review Meeting	ATARI, Kanpur (Online)	28.02.2022	ATARI, Kanpur
2	CRM Review Meeting	ATARI, Kanpur (Online)	26.02.2022	ATARI, Kanpur

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.)
--	--	--	--	--

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

: Nil

XIII. DETAILS ON HRD ACTIVITIES

: Nil

XIV. CASE STUDIES/ SUCCESS STORY

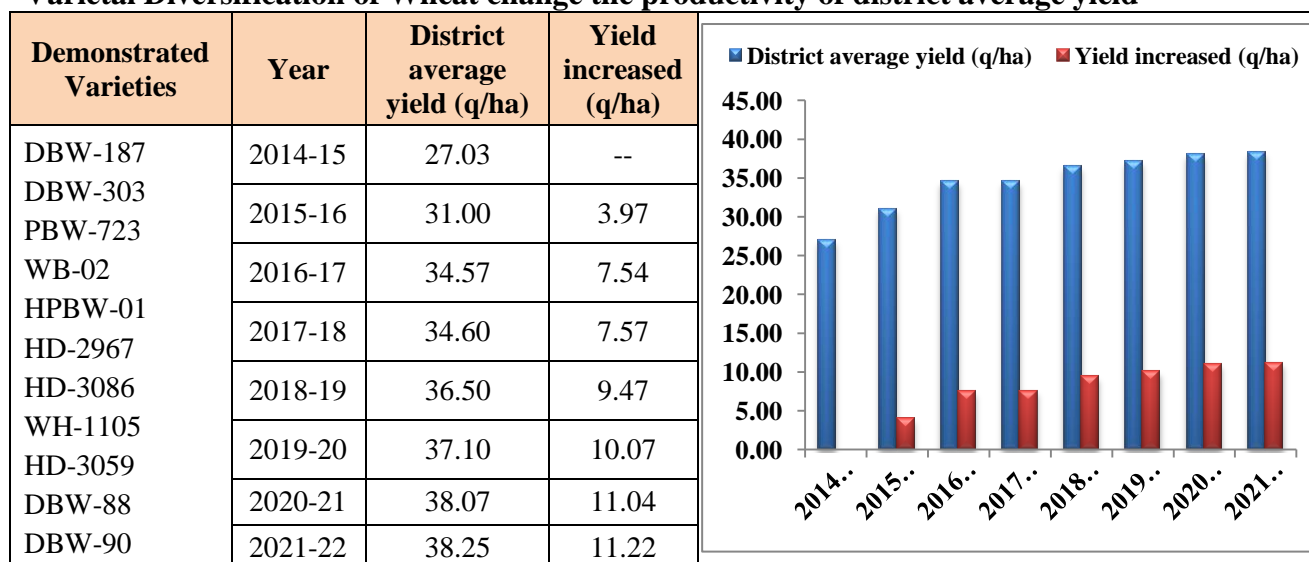
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Impact of evaluated, demonstrated and introduced technologies in district

1. Varietal Adoption and Expansion in District






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-187	2019	96.66	71.00	119825.00	25.66	62500
	HD-3226	2019	79.60	57.00	91125.00	22.60	3500
	PBW-723	2019	63.20	51.00	76975.00	12.62	250
	DBW-303	2021	96.80	50.60	96990.00	46.20	6800
	HD-2967	2014	66.10	54.25	89372.50	11.85	38000
	WB-02	2017	58.80	53.87	84354.74	4.93	4700
	HPBW-01	2017	64.80	52.50	81240.00	12.30	5200
	DBW-88	2016	69.90	54.00	86900.00	15.90	650
	HD-3086	2016	71.10	51.50	84275.00	19.60	2500
	WH-1105	2015	71.60	53.37	87734.50	18.23	850
	DBW-173	2017	57.00	46.62	72500.00	10.38	15700
	PBW-752	2019	60.00	46.00	67983.00	14.00	180
	DBW-90	2016	66.60	46.59	72191.50	20.01	300
	HD-3059	2014	59.40	47.75	74337.50	11.65	4200
Rice	PB-1509	2014	60.00	54.50	145500.00	5.50	7800
	PB-1637	2018	65.00	57.50	155632.00	7.50	3650
	PB-1718	2019	60.00	52.50	138480.00	7.50	4200
	PB-1692	2021	62.00	50.70	133478.10	11.30	2200
Mustard	PM-31	2018	23.00	17.33	112000.00	5.67	3050
	PM-32	2022	22.00	16.50	105000.00	5.50	150
Lentil	L-4717	2018	20.00	14.86	38528.00	5.14	610

Varietal Diversification of Wheat change the productivity of district average yield




Initiatives by the KVK for the popularization of Varietal Diversification of Wheat

Programme	No.	Participant	
OFT & FLD conducted	350	350	

Capacity Building	For Farmers	35	680	
	For Extension Personals	25	250	
Literature Developed & distributed	Extension Literature	25	20000 copy	
	Training Mannual	02	100	
	Buletin	04	2000	
Electronic & Print Media	TV	05	--	 
	Radio	20	--	
	News Paper	350	--	
Field day		25	2100	
Lecture Delivered		105	85,000	

2. Wheat variety DBW-187 is Big way for District

The area under wheat is about 1, 55,000 ha in Bijnor district commonly grown wheat varieties PBW-550, PBW-723, HD-2967, HD-3086 and WH-1105. DBW-187 variety was released in 2019. Variety **DBW-187** was introduced and demonstrated by KVK Bijnor during Rabi-2019-20 through On Farm Testing & 2020-21 to 2022-23 at 91 farmer's field through FLD. The average yield at farmers field was recorded 71.00 q/ha. The average net profit per ha was recorded Rs. 119825/- . Due to disease free, high yield and give better yield in adverse condition the area under this variety has now spread to more than 62500 ha in just four years.

Year	Yield (q/ha)	Area Coverage (ha)	
2019-20	71.00	Starting year	
2020-21	68.00	18500	
2021-22	65.00	37500	
2022-23	55.00	62500	

Initiatives by the KVK for the popularization of DBW-187					
Programme		No.	Participant		
OFT & FLD conducted		91	91		
Capacity Building	For Farmers	12	250		
	For Extension Personals	05	50		
Literature Developed & distributed	Extension Literature	06	10000 copy		
	Training Mannual	02	100		
	Buletin	01	100		
	Popular Articles	02	-		
Electronic & Print Media	TV	02	-		
	Radio	05	-		
	News Paper	42	-		
Field day		05	550		
Lecture Delivered		45	35,500		



2. Basmati Rice for Higher Economic Gain in District Bijnor (U.P):

The area under paddy is about 55,000 ha in district Bijnor, out of that 35,000 ha is under scented rice. Commonly grown scented rice varieties Pusa Basmati – 1, Pusa Basmati-1121 and Sarbati (Local, non identified and having 40% area in scented rice). The KVK, Bijnor demonstrated newly released high yielding basmati rice varieties for getting extra income from in comparison to other varieties. The successful farmer is Sri Pankaj Rana, Village- Sarifpur Khoraj, Block-Kotwali, District- Bijnor. Presently More than 150 farmers are growing the high yielding newly Basmati Rice varieties (Pusa Basmati-1509, Pusa Basmati-1637 and Pusa Basmati-1718) for marketing in form of rice instead of paddy.

Initiatives by the KVK for popularization of the technology

Technology	Programme conducted from 2014 to till date				Lecture delivered
	Training	OFT	FLD	Extension activities	
Pusa Basmati-1509	10 (with 200 participants)	---	115 FLD Organized at farmer's field	12 Field day programme organized with 2250 farmers	75 (with 28550 participants)

Pusa Basmati-1637	04 (with 80 participants)	01 (with 05 farmers)	30 FLD Organized at farmer's field	02 Field day programme organized with 140 farmers	35 (with 10500 participants)
Pusa Basmati-1718	05 (with 60 participants)	01 (with 05 farmers)	55 FLD Organized at farmer's field	04 Field day programme organized with 250 farmers	35 (with 10500 participants)
Pusa Basmati-1692	05 (with 100 participants)	01 (with 05 farmers)	25 FLD Organized at farmer's field	02 Field day programme organized with 240 farmers	40 (with 15500 participants)

Economics of Basmati Rice

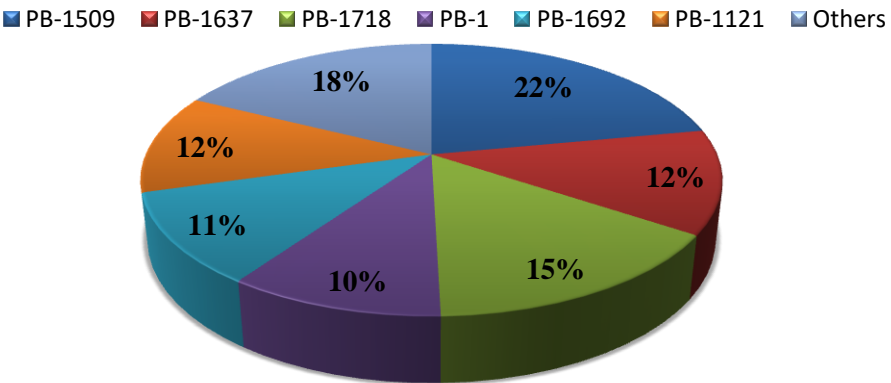
Varieties	Grain Yield (qt/ha)	Cost of cultivation (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	BCR	% of Yield over local check (qt/ha)	Additional Net Return (Rs/ha)	Technol-ogical Expansion (ha)
Pusa Basmati-1509	54.50	43000.00	175500.00	132500.00	4.08	26.74	59000.00	7800
Pusa Basmati-1637	57.50	43428.00	193060.00	149632.00	4.44	33.72	76132.00	3550
Pusa Basmati-1718	52.50	43870.00	180850.00	136980.00	4.12	22.09	63480.00	3200
Pusa Basmati-1692	50.70	46386.00	179864.00	133478.10	3.81	22.09	63480.00	2200
Sarbati (Local non identified variety)	43.00	42500.00	116000.00	73500.00	2.72	--	--	--



Horizontal Spread of Basmati Rice in District Bijnor

Year	Initial Interventions			Lateral Spread in new areas		
	Area (ha)	No. of villages	No. of Farmers	Area (ha)	No. of villages	No. of farmers
2014	4.0	5	20	-	-	-
2015	5.0	8	25	1100.0	45	105
2016	5.0	10	25	4500.0	67	245
2017	5.0	11	25	5650.0	110	166
2018	5.0	13	25	6575.00	185	350
2019	5.0	14	25	8250.00	315	840
2020	5.0	15	25	11245.00	585	1250
2021	5.0	16	25	19250.00	810	1550
2022	5.0	15	25	22500.00	1150	1840

Varietal Adoption (ha) of Basmati Rice Varieties in District

Name of Variety	Adoption (ha)	<p>Basmati Variety in District</p>  <p>■ PB-1509 ■ PB-1637 ■ PB-1718 ■ PB-1 ■ PB-1692 ■ PB-1121 ■ Others</p>
PB-1509	6500	
PB-1637	3650	
PB-1718	4500	
PB-1	3000	
PB-1692	3200	
PB-1121	3500	
Others	5200	

3. Bio-fortified Varieties of crops for nutritional security and getting extra income:

Malnutrition has emerged as one of the most serious health issues worldwide. The consumption of unbalanced diet poor in nutritional quality causes malnutrition. Deficiency of proteins, essential amino acids, vitamins and minerals leads to poor health and increased susceptibility to various diseases, which in turn lead to significant loss in farm family income and affect the socio-economic structure. The newly developed biofortified crop varieties besides serving as an important source for livelihood to poor people assume great significance in nutritional security and gaining extra income.

The KVK, Bijnor demonstrated newly released Biofortified varieties (Wheat- WB-02 & HPBW-01, DBW-187, DBW-173, Mustard: Pusa Double Zero Mustard-31, Lentil: L-4717) from for getting extra income with nutritional security in comparison to other varieties.

Initiatives by the KVK for popularization of the technology

Crop	Variety	Nutrient enriched	Programme conducted from 2017 to till date				Lecture Delivered No (Farmers)
			Training No (Farmers)	OFT No (Farmers)	FLDs	Field days No (Farmers)	
Wheat	WB-02	Rich in zinc 42.0 ppm) and iron (40.0 ppm) in comparison to 32.0 ppm zinc and 28.0 ppm iron in other varieties.	06 (120)	01 (05)	40	05 (272)	45 (35500)

	HPBW-01	Rich in zinc 40.6 ppm) and iron (40.0 ppm) in comparison to 32.0 ppm zinc and 28.0 ppm iron in other varieties.	06 (120)	01 (05)	25	04 (155)	45 (35500)
	DBW-187	Rich in iron (43.1 ppm) in comparison 28.0 ppm iron in other varieties.	15 (300)	01 (05)	91	04 (350)	45 (35500)
	DBW-303	Rich in Protein (12.50%).	05 (100)	01 (05)	--	--	15 (15500)
	DBW-173	Rich in iron (40.7 ppm) and Protein (12.50%)	08 (160)	01 (05)	45	4 (280)	45 (35500)
	HD-3298	Rich in iron (40.7 ppm).	02 (20)	01 (10)	10	--	15 (15500)
Mustard	Pusa Double Zero Mustard-31	Low erucic acid (<2.0%) in oil and glucosinoltes (<30 ppm) in seed meal as compared to >40.0% erucic acid and >120 ppm glucosinolates in popular varieties.	04 (80)	--	72	05 (210)	40 (25500)
	Pusa Double Zero Mustard-32	Low erucic acid (<2.0%) in oil compared to >40.0% erucic acid in popular varieties.	04 (80)	---	12	01 (110)	10 (5500)
	Pusa Double Zero Mustard-33	Low erucic acid (<2.0%) in oil and glucosinoltes (<30 ppm) in seed meal as compared to >40.0% erucic acid and >120 ppm glucosinolates in popular varieties.	10 (350)	---	50	--	30 (15500)
Lentil	Pusa Masoor Ageti (L-4717)	Contains 65.0 ppm iron as compared to 55.0 ppm iron in popular varieties.	03 (60)	---	30	02 (380)	40 (25500)

Economics and Area Expansion of the Bio fortified varieties

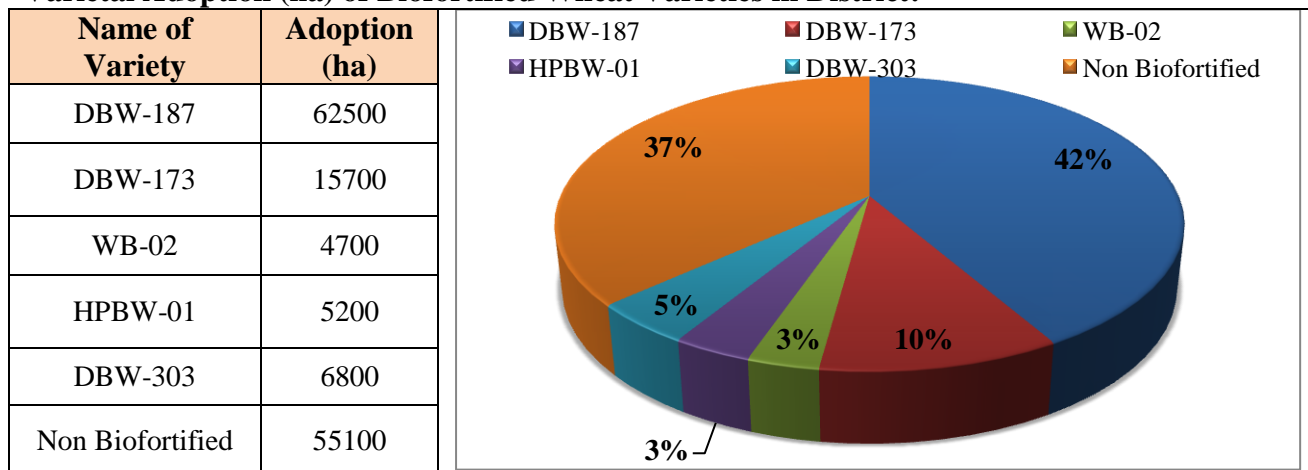
Demonstrated Technologies	Old Technologies	Productivity/Yield of the Crop (q/ha.)		Increase in Net Return (Rs./ha)	Expansion area (ha.)
		Old Tech.	Assessed Tech.		
Wheat (WB-02)	DBW-17	44.90	53.30	89372.50	4700
Wheat (HPBW-01)	DBW-17	44.90	52.50	81240.00	5200
Wheat (DBW-187)	DBW-17	44.90	71.00	119825.00	62500
Wheat (DBW-173)	DBW-16	38.50	46.62	72500.00	15700
Wheat (DBW-303)	HD-2967	47.50	55.00	82240.00	6800
Mustard (PM-31)	PYS-01	11.37	17.33	7460.00	3050
Lentil (L-4717)	NL-1	9.03	14.86	28869.00	610



(i) Horizontal Spread of Biofortified Wheat Varieties in District Bijnor

Year	Initial Interventions			Lateral Spread in new areas		
	Area (ha)	No. of villages	No. of farmers	Area (ha)	No. of villages	No. of farmers
2017-18	2.0	5	5	-	-	-
2018-19	5.0	8	25	250.0	44	80
2019-20	7.0	12	35	2600.0	110	550
2020-21	9.2	18	72	11350.0	665	915
2021-22	6.9	21	69	65200.00	1780	8510
2022-23	4.5	10	30	95080.00	2500	15500

Varietal Adoption (ha) of Biofortified Wheat Varieties in District:



(ii) Horizontal Spread of Biofortified Mustard Varieties in District Bijnor

Year	Initial Interventions			Lateral Spread in new areas		
	Area (ha)	No. of villages	No. of farmers	Area (ha)	No. of villages	No. of farmers
2018-19	6.0	10	30	--	--	--
2019-20	6.0	13	30	580.0	215	410
2020-21	5.2	10	22	910.0	735	1100
2021-22	11.2	20	37	3350.00	1120	3510
2022-23	10.00	15	25	3500	1250	3840

Varietal Adoption (ha) of Biofortified Mustard Varieties in District:

Name of Variety	Adoption (ha)		
Pusa Mustard-31	3050		
Pusa Mustard-32	150		
Pusa Mustard-30	210		
Non Biofortified	3400		

(iii) Horizontal Spread of Biofortified Lentil Varieties in District Bijnor

Year	Initial Interventions			Lateral Spread in new areas		
	Area (ha)	No. of villages	No. of farmers	Area (ha)	No. of villages	No. of farmers
2018-19	1.0	08	10	0	0	0
2019-20	2.0	08	10	210.0	40	80
2020-21	5.0	12	20	450.0	85	120
2021-22	10.0	14	25	610.0	140	213
2022-23	20.0	18	50	625.0	152	283

Varietal Adoption (ha) of Biofortified Lentil Varieties in District:

Name of Variety	Adoption (ha)		
Pusa Massoor Aheti	610		
Non Biofortified	840		

SUCCESS STORY

:

1. Basmati rice variety Pusa Basmati 1692 : A successful cultivation

Introduction	:	Technology (Variety) Pusa Basmati 1692 is developed by the IARI New Delhi and released during 2021. It is an early maturing Basmati rice variety with a seed to seed maturity of 110-115 days with high yield potential (73.0 qt/ha). It possesses semi-dwarf, non-lodging and non-shattering habit.
KVK intervention	:	The area under paddy is about 53,000 ha in district Bijnor, out of that about 35,000 ha area under scented rice. Commonly grown scented rice varieties are Pusa Basmati-1, Pusa Basmati-1121 and Sarabati (Non identified and locally grown large scale). Pusa Basmati 1692 variety was developed and released by IARI, New Delhi during 2021 and was introduced and demonstrated by KVK Bijnor during Kharif 2021 at 05 Farmers field and Kharif 2022 at 25 farmers field also.
Output	:	The average yield at Farmers field was 56.50 qt per ha (62.50 qt. maximum yield per ha.) with cost of cultivation of Rs. 44920.00 per ha. The average net profit per ha was recorded Rs. 127455.00 per ha. Due to semi-dwarf plant stature the lodging in Pusa Basmati 1692 is none as comparison to pusa-1121(12-17%). Early maturing (112-115 day crop duration), Disease incidence in PB-1692 is not seen while it is about 15-25% in Pusa-1121.
Outcome	:	This technology may be capable for increasing seed replacement ratio in district with extra net return. Due to higher demand of seeds of this variety emerged an entrepreneurship programme of seed production at farmer's field for better income.
Impact	:	The area under this variety has now spread to more than 3200 ha in just two year. Farmers are all satisfied with the yield of this variety and also claim that it is free from most of the disease. This variety increased seed replacement rate about 25 to 30 % in operational area of KVK and also emerged entrepreneurs of seed production of this variety. The successful farmer is Sri Rituraj Singh Village – Umari, Block – Nehtor.



2. Bio Fortified Wheat Variety DBW-173: A Successful cultivation

Name of KVK	:	Krishi Vigyan Kendra, Nagina (Bijnor)
Introduction	:	Technology (Variety) DBW-173 is developed by the IIWBR, Karnal released during 2018. The variety DBW-173 rich in iron (40.70 ppm) and protein (12.50%) in comparison to 28.00 ppm iron 8-10 % protein in other wheat varieties.
KVK intervention	:	The area under Wheat is about 1,45,000 ha in district Bijnor, out of that about 80,000 ha area is Late sown condition. Commonly grown timely sown wheat varieties are HD-3059, DBW-16, and PBW-226. Variety DBW-173 was introduced and demonstrated by KVK Bijnor during Rabi-2018-19, 2019-2020, 2021-22 and 2022-23 at 55 farmer's field through OFT & FLD.
Output	:	The average yield at Farmers field was 47.62 qt per ha (55.00 qt. maximum yield per ha.) with cost of cultivation of Rs. 46780.00 per ha. The average net profit per ha was recorded Rs. 71585.63 per ha. Maturing with 120-122 day crop duration, bold grained variety resistant against yellow rust and leaf blight.

Outcome	:	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.
Impact	:	The area under this variety has now spread to more than 17500 ha in just four 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 Sri Ajay Kumar Village – Bagwada, Block – Noorpur, District- Bijnor.



Entrepreneurship Development :

1) Vermicompost Production and Marketing:

Year	Unit/Farmers	Production (qt.)	Yearly Net Income (Rs.) from system
2015-16	05	1,500	6,30,000.00
2016-17	11	2,700	10,80,000.00
2017-18	19	3,250	13,00,000.00
2018-19	27	4,890	24,25,000.00
2019-20	30	5,200	26,00,000.00
2020-21	42	6,100	30,50,000.00
2021-22	60	6,550	32,75,000.00

Successful Farmer Sh. Vinod Kumar, Village-Dharmasagali, Kotwali, Bijnor

Total Production: 600 qt. with Rs 300000.00 Income.



2) Sugarcane Plant Nursery Production and Marketing

Year	Unit/Farmer	Production (qt.)	Yearly Net Income (Rs.) from system
2015-16	03	25,000	75,000.00
2016-17	09	60,000	1,80,000.00
2017-18	15	1,25,000	3,75,000.00
2018-19	21	2,10,000	6,30,000.00

2019-20	28	2,80,000	8,40,000.00
2020-21	40	3,65,000	10,95,000.00
2021-22	60	5,25,000	15,75,000.00

Successful Farmer Sh. Amrik Singh, Village-Premपुरी, Afjalgarh, Bijnor
Total Production: 60000 Pnat. with Rs 180000.00 Income during 2021-22.



3) Basmati Rice Production and Marketing:

Basmati Rice Area in district : 35,000 ha.

Major Varieties in district : Pusa Basmati-1121, Pusa Basmati-1637, Pusa Basmati-1718, Pusa Basmati-1509, Pusa Basmati-1692, Pusa Basmati-1, Pusa Basmati-1401

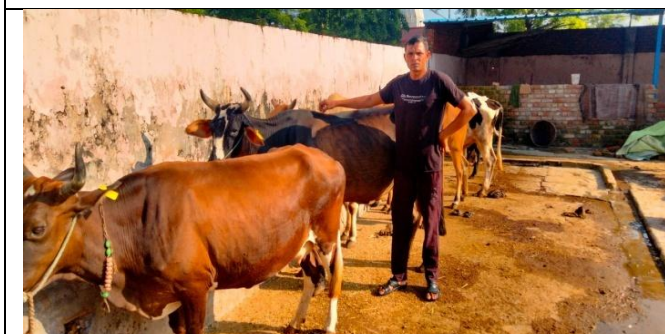
Year	Unit/Farmer	Production (qt.)	Yearly Net Income (Rs.) from system
2015-16	10	300	15,00,000.00
2016-17	16	512	25,60,000.00
2017-18	35	1,155	63,52,500.00
2018-19	44	1,540	84,70,000.00
2019-20	60	2,040	1,22,40,000.00
2020-21	65	2,340	1,40,40,000.00
2021-22	75	2,625	1,57,50,700.00

Successful Farmer Sh. Pankaj Rana, Village-Sarifpur, Kotwali, Bijnor
Total Production: 140 qt Rice with Rs 840000.00 Income during 2021-22.



4) Integrated Farming System:

Successful Farmer Narendra Singh Hakikatpur, Kiratpur (Bijnor)		Area: 9.0 Acer Major Crops: Sugarcane, Wheat and Paddy Total Income in One Year: 795000.00)	
After adopting Integrated Farming System			
Crop/ Enterprises	Unit/Farmer	Production (qt.)	Yearly Net Income (Rs.) from system
Vermicompost Production	24 Beds	1200	5,00,000.00
Fish Farming	1.0	12.50	1,50,000.00
Singhara Production	1.8	25.00	70,000.00
Poultry Production	250	3000 Eggs	3,00,000.00
Dairy	10	5000 Lit. Milk	1,50,000.00
Basmati Rice Production	2.0	40.00	70,000.00
Sugarcane	5.0	2400.00	3,75,000.00
Wheat Production	2.0	35.00	48,000.00
Mustard Production	1.0	8.00	9,000.00
Total			16,72,000.00



5) Organic Farming:

Total area Under Organic Farming in District: 3550 ha Major Product : Basmati Rice, Jeggry , Vinegar, Mustard Oil and Vegetables Total Earning during year : 42.0 Crore (Export value: 8.0 Crore)		
Brand based Major Producer		
Brand	Major Product	Annual Turnover (Rs)
Singh Brand	Basmati Rice, Mustard Oil, Deshi Ghee	7,50,000
Satyom	Basmati Rice, Mustard Oil, Gur, Pickles, Turmeric	6,50,000
Umari Organics	Basmati Rice, Mustard Oil, Gur, Turmeric	5,80,000
Kaka	Basmati Rice, Vinegar	3,50,000
Pingaksh	Basmati Rice, Mustard Oil	6,25,000



6) Agriculture Diversification:

Crop/ Enterprises	Unit/ Area (ha)	Annual Return (Rs)	Successful Farmer
Dragon Fruit Farming	03	1,35,000-3,50,000	Rituraj Singh Umari, Nehtor
Banana Cultivation	115	3,50,000-6,75,000	Jahid Hussain Budhanagla, Seohara
Pearl Farming	01	1,25,000	Bijendra Singh Ramthera, Dhampur



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 10 Whatsapp groups with 1800 farmers and also use of other social media like Facebook, Twitter & YouTube.



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

(d) Problem diagnosed/technology popularized through Phone calls

Year	No. of phone calls/ Requests received from farmers for farm Assistances	No. of problems addressed
2013-14	1750	2150
2014-15	1882	2282
2015-16	1605	2005
2016-17	2042	2542
2017-18	2230	2730
2018-19	2050	2230
2019-20	2120	2145
2020-21	2500	2700
2021-22	1800	1872
Total	17619	20656

(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.	04
TV	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	--
Newspaper	Varietal, Weed Management, ICM, IPM, Horticultural Crops.	165

(f) Transfer of technology through Technology Park

1. Technological display on Wheat Crops (Total Visitors: 650)

Thematic Area	Tech. display	Major Highlighting Technology
Varietal	45	Timely Sown: HD-2967, HD-3226, DBW-303, DBW-187, PBW-723, HD-3086, DBW-88, WB-02, HPBW-01 & WH-1105 Late Sown: HD-3059, DBW-90, WH-1124, DBW-173, PBW-752
Resource Conservations	07	Zero Tillage+ DBW-303, Zero Tillage+ DBW-187, Zero Tillage + DBW-222, Zero Tillage + HD-3226, Zero Tillage + HD-3086, Zero Tillage + HD-2967.



2. Technological display on Lentil & Mustard Crops (Total Visitors: 650)

Thematic Area	Tech. display	Major Highlighting Technology
Varietal	03	PL-8, PL-7 and Pusa Masoor Ageti
Varietal	11	Pusa Mustard-32, Pusa Mustard-31, Pusa Mustard-26, Pusa Mustard-27, Pusa Mustard-30, NRCHB-101, PYS-1, YSH-0401, Pusa-25, PR-19 & PR-20
ICM	02	Mustard + Lentil, Mustard + Gram



3. Technological display on Rice Crops (Total Visitors: 3550)

Thematic Area	Tech. display	Major Highlighting Technology
Varietal	30	Scented Rice: PB-1692, PB-1718, PB1728, PB-1637, PB-1509, PB-1121, PB-1, PB-1460, Basmati-370, T-3, Pant Basmati-1, Pant Basmati-2 Coarse Rice: Nagina-22, Nagina-12 NDR-3112, PR-123, PR-124, PR-126 Hybrid Rice: Arize 6444 Gold, VNR-2245, SAVA-127
Resource Conservation	05	DSR+ PB-1692, DSR+ PB-1718, DSR+ PB-1637, DSR+ PB-1509,
Organic	01	Organic Basmati Production





Other Activities

Aajaadee Ka Amrt Mahotsav

SN	Date	Particular	Place	No. of Participant
1	11.08.2022	Singing of flag song at the center	KVK, Nagina	12
2	12.08.2022	Distribution of flag & saplings of fruit plant and appreciation certificate to the progressive farmers. Taking out the Tiranga yatra with the farmers at presence of Chief Gust CDO, Bijnor.	KVK, Nagina	103
3	13.08.2022	Singing of flag song	KVK, Nagina	12
4	14.08.2022	Vibhajan Vibhishika Smriti Diwas	KVK, Nagina	53
5	15.08.2022	Flag hoisting and national anthem on the occasion of Independence Day at the center	KVK, Nagina	18
		Flag hoisting, national anthem and Tiranga rally with students on the occasion of Independence Day	Hakikatpur Sahsu	148
6	16.08.2022	Singing of flag song	KVK, Nagina	12
7	16.08.2022	Singing of flag song	KVK, Nagina	12





Gau - Adharit Natural Farming : Training and demonstration unit

SN	Unit	
1	Insecticide, fungicide and biofertilizer production and training unit for natural farming	
2	Demonstration Unit under Cow Based Natural Farming (0.4 ha)	

Program organized under Natural Farming






SN	Program Name	No	Participant	
1	Farmers Training	10	310	
2	Awareness Programme	04	250	
2	Skill Training Programme	04	80	
				

3	Gau Adharit Natural farming at farmer's field	20	20		
4	Natural farming demonstration	08	8.0		
4	Gau Adharit natural farming of Basmati rice at Krishi Vigyan Kendra (1.0 acre) Gau Adharit natural farming of Wheat at Krishi Vigyan Kendra (1.0 acre)				

Center of Excellence on Basmati Rice

SN	Units	
1	Seed Processing & Storage Unit	
2	Vermi Compost Production Unit	

Program organized under Center of Excellence

SN	Program Name	No	Participant	
1	Farmer Training	07	285	
2	Skill Training Programme	04	70	
3	Basmati rice nursery management at farmer's field	10	150	
5	Seed production at Krishi Vigyan Kendra	--	4.5 ha	
6	Quality Basmati production at farmer's field : 185 farmers, on 180 ha area			
7	Quality seed production at farmer's field : 100 farmers, 1000 kg seed production target			



रोपाई मशीन का प्रदर्शन करते कृषि वैज्ञानिक। संवाद

मशीन से धान रोपाई करने का तरीका बताया

संवाद न्यूज एजेंसी

नगीना। कृषि विज्ञान केंद्र नगीना के वैज्ञानिकों द्वारा क्षेत्र के ग्राम हसनपुर में किसान शरद सिंह के खेत पर धान की रोपाई करने वाली मशीन का प्रदर्शन कराया गया।

वैज्ञानिकों द्वारा मशीन के बारे में एवं उसके द्वारा रोपाई की विधि के बारे में किसानों को

बताया गया। धान रोपाई मशीन में होने वाली सावधानी और उसकी उपयोगिता के बारे में व बासमती धान की उत्पादकता सुनिश्चित करने के बारे में भी समझाया। बताया कि इस बार बासमती की तीन प्रजातियों के पूसा बासमती 1885, 1886, 1847 पका प्रदर्शन जनपद में पहली बार करवाया जा रहा है। मौके पर केके सिंह, डॉक्टर शकुंतला गुप्ता आदि मौजूद रहे।

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	1500
2	Technology Products (Publication)	7 (10000 copies)

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

: Nil

D.2 . Publications (Print & Electronic media)

: 165

E. Technology Products provided

: Nil

F. Technology services provided

SN	Particulars	Number of farmers benefited
1	Soil and water testing	--
2	Plant diagnostics	35
3	Details about the services to line Departments	205

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

Status of revolving fund (Rs. in lakhs)

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2011 to March 2012	10,27,297.54	9,89,554.00	12,33,093.00	7,83,759.54
April 2012 to March 2013	7,83,759.54	6,75,002.00	12,82,714.00	1,76,047.54
April 2013 to March 2014	1,76,047.54	15,40,487.00	12,90,660.00	4,25,874.45
April 2014 to March 2015	4,25,874.45	10,29,033.00	13,52,613.00	1,02,294.45
April 2015 to March 2016	1,02,294.45	9,47,854.00	9,22,097.95	1,28,050.50
April 2016 to March 2017	1,28,050.50	7,68,723.94	7,82,472.24	1,14,301.70
April 2017 to March 2018	1,14,301.70	1,96,307.00	11,25,213.60	1,85,395.09
April 2018 to March 2019	1,85,395.09	12,88,585.00	9,82,998.00	4,90,982.55
April 2019 to March 2020	4,90,982.55	8,26,076.55	11,04,560.26	2,12,498.29
April 2020 to March 2021	2,12,498.29	14,12,668.00	12,63,010.00	3,62,156.29
April 2021 to March 2022	3,62,156.29	4,59,213.00	1,79,308.00	4,79,256.69
April 2022 to December 2022	4,79,256.69	2,16,833.00	6,15,595.00	80,494.69
April 2022 to	4,79,256.69	6,69,443.00	7,15,595.00	4,33,104.69

XVI Achievement of Special programmes

1) Achievement of skill development training funded by DAC& FW : NA

2) Achievements under Crop Residue Management (CRM) Project by KVKs

a) CRM Machinery procured by KVKs

S.No.	Name of the Machine/ Equipment	No. of machines procured
1	Happy Seeder	0
2	Reversible M.B. Plough	0
3	Paddy Straw Chopper/ Shredder / Mulcher	0
4	Zero Till Drill	0
5	Rotavator	0
6	Tractor	0
	Total	0

b) IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities	No. of Participants
1	Kisan Melas organized	01	400
2	Awareness programmes conducted at Village Panchayat/ Block/ District Level	09	1175
3	Mobilization of schools and colleges through essay completion, painting, debate etc.	05	833
4	Demonstration conducted (ha)	02	150
5	Training Programmes conducted	02	50
6	Exposure visits organized	02	100
7	Field /harvest days organized	--	--
8	Other Extension Activities Conducted with collaboration of district line departments	55	13000
	Total	76	15708

c) Other IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities
1	Advertisement in Print media	125
2	Column/ Articles in newspaper and magazines etc.	10
3	Hoarding fixed (at Mandi/ Road side/Market/ Schools/ Petrol pump/ Panchayat etc.)	25 (Fixed in 35 Villages)
4	Poster/Banner placed	0
5	Publicity material - leaflets/ pamphlets etc. distributed	05 Types (10000 copies)
7	TV programmes/ panel discussions Doordarshan/ DD-Kisan and other private channels/ Radio telecast	45 Episode
8	Wall writing	30 (10 Villages)
	Total	240

Glimpses of CRM Activities



- 3) Achievement of TSP (Tribal Sub Plan) : NA
- 4) Achievement of KSHAMTA (Knowledge Systems And Home Based Agricultural Management in Tribal Areas) : NA
- 5) Achievements of SCSP KVKs : NA
- 6) Achievement under IFS KVKs : NA
- 7) Achievements under Mera Gaon Mera Gaurav (MGMG) project : NA
- 8) Achievements of Farmers FIRST programme : NA
- 9) Activities performed under NARI programme

Table-9.1: Details of activities performed under NARI programme

Nutritional Garden		Bio-fortified crops		Value addition		Training programmes		Extension activities	
No of Established	No. of farmers/ beneficiaries	No of activity	No. of farmers/ beneficiaries	No of activity	No. of farmers/ beneficiaries	No of activity	No. of farmers/ beneficiaries	No of activity	No. of farmers/ beneficiaries
60	60	6	187	2	10	15	300	20	2500

Table-9.2: Details of Bio-Fortified Crops used for nutritional security under NARI programme

Category	Bio Fortified Crop	Variety	Area (ha)	No of Beneficiaries
Cereals	Wheat	DBW-187, DBW-303, DBW-173	7.0	125
Oilseed	Mustard	Pusa Mustard-31, PusaUstard-32	11.20	37
Pulses	Lentil	Pusa Masoor Ageti	10.00	25
Total			28.20	187

Activities	Number of activity	No. of farmers/ beneficiaries
OFTs - Nutritional Garden (activity in no. of Unit)	--	--
OFTs - Bio-fortified Crops (activity in no. of Unit)	02	20
OFTs - Value addition (activity in no. of Unit/ Enterprise)	02	10
OFTs - Other Enterprises (activity in no. of Unit/Enterprise)	--	--
FLDs - Nutritional Garden (activity in no. of Unit)	02	60
FLDs - Bio-fortified Crops (activity in no. of Unit)	04	167
FLDs - Value addition (activity in no. of Unit/ Enterprise)	-	-
FLD- Other Enterprises (activity in no. of Unit/Enterprise)	-	-
Trainings	15	300
Extension Activities	20	2500
Grand Total	45	2857



10) Achievements of Soil, water, plant and manure samples analyzed by KVKs and soil health cards issued

Sample	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs. in lakhs)	No. of Soil Health Cards issued
Soil	--	--	--	--	--
Total	--	--	--	--	--

- 11) Achievements under NICRA Project : NA
 12) Achievements under ARYA Project : NA
 13) Achievements under Rainwater Harvesting Structures : NA
 14) Achievements under Pulses Seed Hub programme : NA

15) NEMA (New Extension Methodologies and Approaches)

Name of Crop with variety	No. of districts	No. of Villages selected	No. of Blocks	No. of household selected	
				Adapter household	Non adapter household
Rice : PB-1509, PB-1637, PB-1718, PB-1692	01	10	05	20	20
Wheat : Biofortified Varieties- DBW-303, WB-02, HPBW-01, DBW-187, DBW-173	01	10	05	20	20

- 16) Achievements under CSISA (Cereal System Initiative for South Asia) project : NA
 17) Achievements under NIFTD (National Initiatives for fodder technology demonstrations) : NA

18) Achievements under Swachhata Abhiyan Mission

S.No.	Items	No. of Programmes	No. of persons
1	Toilet maintenance		
2	Road, drain cleaning	15	350
3	Garbage disposal		
4	Door to door awareness		
5	Awareness campaign	30	800
6	Nookkad Drama		
7	Writing painting slogans	5	--
8	Composting	23	23
9	Other	4	



19) Achievements under Aspirational District Scheme

: NA

20) Achievements under Natural Farming

Name of KVK	Number of awareness / training programmes organized	No. of Participants	Number of demonstrations organized at farms of KVKs	Number of farmers visited demonstration plots
Bijnor	14	560	02	2500

21) Awards

S.No.	Name of Award received	Name of KVK/farmer	Year of Award	Date on which award received
1	International Young Educationist and Motivator Award	Dr. K. K. Singh	2022	29.07.2022
2	KVK Extension Innovation Award	KVK Bijnor	2022	05.08.2022
3	Best Farmers award	Sh. Sharad Kumar (KVK Adopted farmers)	2022	05.08.2022

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