# KRISHI VIGYAN KENDRA MEERUT

# ANNUAL PROGRESS REPORT

(2017-18)

#### PROFORMA FOR PREPARATION OF ANNUAL REPORT (April-2017-March-2018)

#### **APR SUMMARY**

#### **Training Programmes** Clientele No. of Courses Male Female **Total participants** 70 1069 330 1399 Farmers & farm women Rural youths 7 58 22 80 Extension functionaries 18 303 60 363 Sponsored Training 9 618 32 650 Total 104 2048 444 2492

#### 1. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units / Animals
Oilseeds	32	14.0	02 Buffaloes
Pulses	58	40.0	15 Goats
Cereals	31	12.57	01 NADEP
Vegetables	50	11.8	01 Vermi Compost
Other crops	30	0.1	
Flowers	10	1.0	
Total			
Grand Total	211	79.47	

#### 2. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	08	67	27
Various enterprises	01	10	05
Total	09	77	32
Technology Refined			
Crops	0	0	0
Various enterprises	0	0	0
Total	09	77	32

#### 3. Extension Programmes

Category	No. of Programmes	Total Participants		
Extension activities	1695	11859		
Other extension activities	89	Mass		
Total	1784	11859		

#### 4. Mobile Advisory Services

			Type of Messages								
Name of KVK	Message Type	Сгор	Crop Livestock		Marke- ting	Aware-ness	Other enterprise	Total			
	Text only							2286			
Meerut	Voice only							312			
	Voice & Text										
	both										
	Total Messages	1025	33	14	11	1095	524	2598			
	Total farmers Benefitted							2598			

## 5. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	250	604000.00
Planting material (No.)	23000	6510.00
Fodder		
	Total	610510.00

#### 6. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	1299	95100.00
Water		
Plant		
Total	1299	95100.00

#### 7. HRD and Publications

Sr. No.	Category	Number
1	Workshops	
2	Conferences	
3	Meetings	
4	Trainings for KVK officials	
5	Visits of KVK officials	
6	Book published	
7	Training Manual	
8	Book chapters	
9	Research papers	
10	Lead papers	
11	Seminar papers	
12	Extension folder	
13	Proceedings	
14	Award & recognition	
15	On going research projects	

#### 1. GENERAL INFORMATION ABOUT THE KVK

Address	Telep	hone	E mail		
	Office	FAX			
Krishi Vigyan Kendra, Hastinapur, Meerut	01233-280605	01233-280605	meerutkvk@gmail.com		

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

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

Address	Telep	hone	E mail			
	Office	FAX				
SardarVallabhbhai Patel University of Agriculture & Technology, Meerut	0121-2888522, 2888511	0121-2888505, 2888540	deesvpuat2014@gmail.com			

### 1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact							
	Residence	Mobile	Email					
Dr. Omvir Singh	09412109215	09412109215	dr_omveer07@yahoo.in					

#### 1.4. Year of sanction: 1992

S N	Sanctioned post	Name of the incumbent	Design- ation	Discipline	Pay Scale (Rs.)	Presen t basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)	Mobile no.	Age (Yr)	Email id
1	Sr. Scientist and Head	Dr. Omvir Singh	Professor and Head	Horticulture	37400- 67000	64300	07.01.2004	Permanent	OBC	9412109215	52	dr_omveer07@ya hoo.in
2	Subject Matter Specialist	Dr Sandeep Chaudhary	Assoc.Dir. (Agronomy)	Agronomy	15600- 39000	55440	01.01.1996	Permanent	OBC	9412311502	48	sundeep.baraut@g mail.com
3	Subject Matter Specialist	Dr.Rakesh Tiwari	S.M.S/ Asstt. Professor	Soil Science	15600- 39000	29080	21.06.2008	Permanent	Gen	9411820189	48	rakeshtiwari_19@ rediffmail.com
4	Subject Matter Specialist	Smt. VeenaYadav	S.M.S/ Asstt. Professor	Home Science	15600- 39000	27390	23.06.2008	Permanent	OBC	9457263482	46	veenayadav10@g mail.com
5	Subject Matter Specialist	Dr. Virendra Pal	S.M.S/ Asstt. Professor	Horticulture	15600- 39000	29080	20.08.2008	Permanent	OBC	9456662212	39	dvpgangwar77@g mail.com
6	Subject Matter Specialist	Dr. Naveen Chandra	S.M.S/ Asstt. Professor	Entomology	15600- 39000	27390	23.06.2008	Permanent	OBC	9450803857	39	nchandra120@gm ail.com
7	Subject Matter Specialist	Dr. P. S. Tiwari	S.M.S/ Asstt. Professor	Ag. Engineering	15600- 39000		01.07.1998	Permanent	Gen.	9412311560	50	drpsteng@gmail.c om

8	Programme Assistant	Smt. Vibha Sahu	Prog. Assistant	Computer	9300- 34800	66000	21.10.1999	Permanent	OBC	9410456174	42	vibhasahu.1@ gmail.com
9	Programme Assistant	Dr. Ashish Tyagi	Farm Manager/ Prog. Assistant	Plant Protection	9300- 34800	44900	22.07.2008	Permanent	Gen	9837474493	38	green.ashsihtyagi @gmail.com
10	Accountant / Superintendent	Sh Amit Chaudhary	O.S. Cum Accountant	-	9300- 34800	56900	10.12.2003	Permanent	OBC	9761444004	36	amitsvpuat@ gmail.com
11	Stenographer	Sh. M.N.Dimri	Stenograph er	-	5200- 20200	42800	05.09.2000	Permanent	Gen	9458610511	49	Dimri @ yahoo .com
12	Driver	Sh. Amrish Sharma	Tractor Driver	-	5200- 20200	39200	01.07.1998	Permanent	Gen	9997889985	44	-
13	Driver	Sh. Upendra Kumar	Jeep Driver	-	5200- 20200	26800	02.08.2007	Permanent	OBC	9837194455	45	-
14	Supporting staff	Sh. Hari Das	Sweeper	-	5200- 20200	32300	01.07.1998	Permanent	SC	9760855760	44	-
15	Supporting staff	Sh. T B Ale	Cook	-	5200- 20200	31400	01.07.1998	Permanent	Gen	9997611921	53	-
16	Other( if any)	Sh. Amar Singh	Field Attended	-	5200- 20200	24900	13.12.1999	Permanent	OBC		50	-

#### S. No. Item Area (ha) Under Buildings 1. 2.00 Under Demonstration Units 2. 1.00 Under Crops 5.50 3. Orchard/Agro-forestry 4. 0.40 5. 0.30 Others Total 9.20

#### 1.6. Total land with KVK (in ha): 9.20

#### **1.7. Infrastructural Development:**

#### A) Buildings

S.	Name of	Source		Stage				
N.	building	of	Complete		Incomplete			
		funding	Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting date	Plinth area (Sq.m)	Status of constru ction
1.	Administrative Building	ICAR	23.05.2009	510	54.88	-	-	-
2.	Farmers Hostel	ICAR	30.06.2007	300	22.92	-	-	-
3.	Staff Quarters (6)	ICAR	30.06.2007	400	26.72	-	-	-
4.	Demonstration Units (2)	ICAR	30.06.2007	160	11.06	-	-	-
5	Fencing	ICAR	30.06.2007	1000	13.77	-	-	-
6	Threshing floor	ICAR	30.06.2007	300	2.34	-	-	-
7	Farm godown	ICAR	30.06.2007	60	3.63	-	-	-
8	Soil testing lab	ICAR	30.05.2006	80	3.20	-	-	-
		Total			138.52			

#### **B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms.	Present status
			Run	
Tractor	2017	5,20,000	11 hours	working
Jeep (Bolero)	2007	5,32,000	142824	Working
Motor cycle	1992	28,000	80000	Condemn

### C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Cultivator	2017	-	working
Disk Harrow	2017	-	working
Rotavator	2017	-	working
Ridge Maker disc type	2017	-	working
Seed dril	1993	-	Non-working

Seed cum fertilizer drill 11 tiyen	1993	-	Non-working
Trolly (Tractor)	1994	-	Working
Paddy Puddler (Cage Wheel)	1994	-	Working
Potato Planter	1998	-	Working
ThresserSonalika	1998	-	Working
Oven	1993	-	Working
LCD Projector	2007	125000	Working
Over Head Projector	1995	12000	Working
TV	1995	18000	Working
Disc Harrow (14 Wheel)	2006	27000	Working
DVD/CD Player	2007	2500	Working
Taka Machine (Chef Cutter)	2008	8700	Working
Computer	2011	20000	Working
Camera Sony	2011	11428	Working

# 1.8. A). Details of SAC meeting conducted on 12.03.2018A. Details of Participants:Total No. of Participants: 35

S. No.	Name of Participants	Designation	Department
1.	Dr. Gopal Singh	Professor/ Joint Director Extension	Directorate of Extension
			SVPU.A.&T., Meerut
2.	Dr. Omvir Singh	Head & Sr. Scientist	KVK, Hastinapur, Meerut
3.	Sh. Ramvir Singh Rathore	District Horticulture Officer	
4.	Dr. Nazim Ali	Professor & Head, Animal Science	SVPU.A.&T., Meerut
5.	Dr. R. K. Naresh	Professor, Agronomy	SVPU.A.&T., Meerut
6.	Dr. Sunil Malik	Professor, Horticulture	SVPU.A.&T., Meerut
7.	Dr. Ashok Chauhan	СТО	CPRS, Modipuram, Meerut
8.	Sh. Pramod Sirohi	District Agriculture Officer	District Agriculture Office, Meerut
9.	Sh. Anil Kumar	Technical Assistant	District Agriculture Office, Meerut
10.	Sh. Vivek Nigam	Fisheries Development Officer	Deptt. of Fisheries, Meerut
11.	Dr. K.K. Gupta	Veterinary Officer	Deptt. of Veterinary, Meerut
12.	Dr. S. K. Lodhi	Asisstant Director (Extension)	Directorate of Extension
			SVPU.A.&T., Meerut
13.	Sh. Kartar Singh	Member / Progressive Farmer	Village Pali
14.	Sh. Subhash	Member / Progressive Farmer	Village Pali
15.	Sh. Jai Kumar Yadav	Member / Progressive Farmer	Village Pali
16.	Smt. Kalpana Yadav	Member / Progressive Farmer	Village Mataura
17.	Sh. Kailash	Pradhan	Village, Ikvara
18.	Sh. Hem Singh	Progressive Farmer	Village, Ikvara
19.	Smt. Meera	Progressive Farmer	Village,Lukadhari
20.	Sh Somera Chaudhary	Progressive Farmer	Village, Rehmapur
21.	Sh. Rajeev Chaudhary	Progressive Farmer	Village, Rehmapur
22.	Sh. Kashi Ram	Progressive Farmer	Village, Rehmapur
23.	Sh. Deepak Kumar	Progressive Farmer	Hastinapur
24.	Sh. Tejpal	Progressive Farmer	Hastinapur
25.	Sh. Amrish Sharma	Progressive Farmer	Hastinapur
26.	Dr. Rakesh Tiwari	SMS/Assistant Professor	KVK, Hastinapur

27.	Dr. Virendra Pal	SMS/Assistant Professor	KVK, Hastinapur
28.	Smt. Veena Yadav	SMS/Assistant Professor	KVK, Hastinapur
29.	Dr. Virendra Kumar	Programme Assistant	KVK, Hastinapur
30.	Dr. Virendra Pal Gangwar	SMS/Assistant Professor	KVK, Hastinapur
31.	Smt. Vibha Sahu	Programme Assistant	KVK, Hastinapur
32.	Sri Amit Chaudhary	Accountant	KVK, Hastinapur
33.	Sri M.N. Dimri	Steno Cum Comp Operator	KVK, Hastinapur
34.	Dr. Ashish Tyagi	Prog. Asstt./Farm Manager	KVK, Hastinapur
35.	Sh. Upendra Yadav	Driver	KVK, Hastinapur

# (b)Recommendations of SAC held on March 12, 2018

S.N.	Recommendations
1	Head quarter mushroom unit may be used for training programmes of KVK.
2	Total mushroom units initiated / supported by KVK and university in the distt. should be listed
3	Trainings/demonstrations on management of Hopper and Thrips in mango should be included
	in the action plan of Plant Protection discipline.
4	Trainings/demonstrations related to Mango pest management should be organized in dense
	mango orchards areas like Kithor and Shahajahpur.
5	Trainings/demonstrations on pest control by bio- pesticides should be included in the action
	plan of Plant Protection discipline.
6	Recommendations must be given on the basis of soil testing.
7	Liquid fertilizers may be incorporated in trials if authentic recommendations are available.
8	The mission of Hon'ble Prime minister "Per drop more crop" should be promoted.
9	Linkage should be maintain with women entrepreneurs specially Honey bee keepers and
	mushroom growers.
10	Tomato processing training programmes may be included under Home Science discipline.
11	Chipsona variety of potato should be promoted.
12	Staff available at Veterinary college may be utilized for completion of training programmes
	under Animal science discipline.
13	Preparation of nutritional diets like laddu, sprouts etc and proper cooking of pulses for
	retaining the nutritional values should be included under the training programmes of Home
	Science discipline.



# 2. DETAILS OF DISTRICT (2017-18)

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

SN	Farming system/enterprise					
1	Cropping (Sugarcane- Ratoon - Wheat) + Live Stock					
2	Crop Cultivation (Rice-Wheat) + Live Stock					
3	Horticulture (Vegetable) + Live Stock					
4	Horticulture (Flower) + Live Stock + Cropping					

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

S N	Agro-climatic Zone	Characteristics
1	Western plain zone	1. The zone includes districts of Muzaffarnagar, Meerut, Baghapat, Ghaziabad,
		Gautam Budh Nagar, Panchsheel Nagar, Bulandshahr and parts of Saharanpur
		located between the Ganga and Yamuna River and their tributaries.
		2. The zone is highly productive with light coloured loam soil. The average annual rainfall is 795 mm.
		3. Relative humidity range from 32 to 85% and the temperature ranges from 2.5° C to 43°C. Rice wheat sugarcane based cropping system is prevalent in the zone.

Situation	Soil Type	P <sup>H</sup>	Farming system	Major crops	Live stock	Block
AES I	Loam	7.5-8.5	Sugarcane-Ratoon-	Sugarcane,	Buffalo,	Mawana,
			Wheat, Agro	wheat, Paddy,	cow,	JaniPariksheetgarh,
			forestry and/or	potato,	Poultry,	Machhra,
			Jower-wheat (2-3	vegetable,	Sheep &	Kharkoda, Rajpura,
			Graded buffalo/1	Jower	Goat	Meerut, Duaralla,
			Cross bread cow)			Sardhana,
						Saroorpur, Rohta,
AES II	Loam	7.0-8.0	Sorghum-Potato-	Sugarcane,	Buffalo,	Hastinapur,
	Sand		Cucurbits and/or	Potato, Wheat,	cow,	Pariksheetgarh,
			Sugarcane-Ratoon-	Mango, Bajra,	Poultry,	Machhra,
			Wheat (2-3 Graded	Jower	Sheep &	Kharkhoda, Jani,
			buffalo/ 1 Cross		Goat	Rohta, Saroorpur,
			bred cow)			Sardhana
AES II	Sandy	7.5-7.9	Paddy-wheat and/or	Sugarcane,	Buffalo,	Hastinapur,
	loam,		Jower-Wheat-	Paddy, Wheat,	cow,	Pariksheetgarh
	Silty		Sugarcane –Ratoon-	Jower,	Poultry,	
	loam,		Wheat (2-3 Graded	Vegetable	Sheep &	
	Clay laom		buffalo/ 1 Cross		Goat	
			bred cow)			

# 2.3 Soil type/s

SN	Soil type	Characteristics	Area in ha
1	Sandy	The soils have enough clay to store adequate amounts of	Total -259000
	loam to	water and plant nutrients for optimum plant growth. They	a) Cultivated Land-
	loam with	contain enough silt to hold sufficient available water for	2,00,000
	normal P <sup>H</sup>	plants, to gradually from more clay and to release fresh	b) Forest area- 21314
		plant nutrients by weathering. Clay content is not much as	c) Horticulture- 2266
		to cause poor aeration or to make working with them	d) Other- 35420
		difficult. A soil containing between 7 to 27% clay and	
		approximately equal amount of silt and sand has a loam	
		texture. Organic content in the soil is 0.3 to 0.4%.	

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

SN	Сгор	Area (ha)	Production (Qtl)/ha	Productivity (Qtl /ha)
1	Sugarcane	120624	832.28	668.00
2	Wheat	77570	3503836.0	45.17
3	Rice	14152	401775.0	28.39
	Maize	571	13789.0	24.15
	Barely	55	2112.00	38.40
4	Oil seed: Mustard	5331	83003.00	15.57
5	Pulses			
	• Urd	1009	5549.0	5.50
	• Masoor	473	5557.0	11.75
	• Gram	3	40.0	13.33
	• Moong	122	74	6.00
	• Pea	168	2518.0	14.99
	• Arhar	1031	13403.0	13.00
6	Millet	25	369.0	14.76
7	Potato	5548	1219510	219.81
8	Others	11258	-	-
	Total			

### 2.5. Weather data (April, 2017 to March, 2018)

Month	Av.Temp	erature (°C)	WS	Rainfall	Av.R	H (%)	Av. Sun shine
Montin	Max	Min	(km/hr)	(mm)	Max	Min	(hr/day)
April - 2017	37.7	19.8	4.22	8.1	73.6	41.9	9.1
May- 2017	38.4	22.8	3.19	17.4	71.8	42.2	7.4
June - 2017	36.7	24.4	4.38	60.9	81.4	55.8	6.9
July- 2017	33.7	25.3	2.79	118.3	92.8	72.2	6.1
August- 2017	33.4	25.3	2.80	202.5	94.7	73.3	4.8
September- 2017	33.0	23.8	1.53	230.6	93.2	71.2	5.9
October -2017	32.5	18.1	0.34	0.0	95.1	49.3	7.6
November- 2017	25.7	11.6	0.58	0.0	93.5	51.7	3.7
December- 2017	22.8	8.0	1.16	7.2	94.4	49.0	5.24
January -2018	20.0	5.7	1.33	2.9	94.5	55.6	5.7
February-2018	24.2	10.6	1.63	3.3	89.8	47.8	7.6
March- 2018	30.1	15.2	1.96	0.0	90.4	42.7	8.7

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

Category	Population	Production (Lt/day)	Productivity (Lt/day)
Cattle			
Crossbred	133279	1299470.25	9.75
Indigenous	76049	475306.25	6.25
Buffalo	567070	4820095	8.50
Sheep		· · ·	
Crossbred	482	771.20	1.60
Indigenous	3490	7852.50	2.25
Goats	44353	66529.50	1.50
Pigs			
Crossbred	8947		
Indigenous	12388		
Poultry (Egg)		· · ·	
Hens	85565		273 egg/year
Desi			79 egg/year
Improved (Dual			167 egg/year
Purpose)			
Turkey and others	2483		
Category	Area	Production	Productivity
Inland			33.00 q/ha

# 2.7 Details of Operational area villages (2017-18)

S	Taluk	Name of	Name of the village	Major	Major problem	Identified Thrust
Ν		the block		crops & enterprises	identified	Areas
1	Meerut	Kharkhoda	Piplikhera, Kelli, Gheza, KankerKhera, Ataula, Khandawali, Jhinjharpur, Nirpura	Sorghum, Potato Wheat, Mustard Livestock production (2-3-Graded buffalo / 1- Crossbred cow)	<ul> <li>sugarcane</li> <li>Low production of milk in Cow and Buffaloes</li> <li>Deficiency of miner elements and organic matter in soils</li> </ul>	<ul> <li>management</li> <li>Management of infertility and repeat heat in Cattle and</li> </ul>
		Rajpura	Salarpur, Muzaffarpur Saini, Rajpura, Morna, Kastla, Mameypur, Incholi, Kaserukhera	Sugarcane, Pigeon pea, Potato & Wheat	• Reducing production area of pulses due to blue horse.	<b>1</b>

			Nihori Lorrod	Vecetables		Dodday and
			Nihori, Lawad,	Vegetables,	• Red rot and grassy	-
			Mahalka, Macchri,	Sugarcane,	shoot in sugarcane	Sugarcane
			Rasoolpur,	Wheat	• No use of Potash	
		Daurala	Walidpur, Panvari,	Mustard,	and micro elements	e
			Meetheypur,		in crops	vegetable crops.
			Andawali, Eloi,		• Low production of	• Promotion of
			Daurala, Rassolpur		old orchards	Oilseed and Pulses
			Chandsara, Alipur,	S/cane,	• Unorganized	crops.
			Gagol, Phafunda,	Urd, Rice	marketing system	• Crop productivity
			Fatehullahpur,	Wheat	of agriculture	enhancement in late
			Noornagar,		produce	sown wheat.
			TarapuriRasidnagar		-	
			1 and and and an		•Long dry period	
					and infertility in	management among
					milch animals	farm women and
		Meerut			•Weed infestation in	children
					wheat.	• Introduction of
					• Depletion of ground	HYV/Hybrids in
					water	vegetables.
					•Insect attack in	• Promotion of green
					vegetables	manuring.
					6	• Managements of
						Mango orchards.
		Sardhana	Mahadev, Kushawli,	S/cane,	• Late sowing of	• Intercropping with
		Suranuna	Begumabad, Nahli,	Wheat,	sugarcane	sugarcane
			Pali	Vegetables,	• Low production of	•
			1 un	Flower	milk in Cow and	
		Suroorpu	Pawarsa, Ikdri,	-do-		e
		-	, , , , , , , , , , , , , , , , , , , ,	-00-	Buffaloes	• Management of
		r Dalata	PanchiBuzurg	<b>C</b> /	• Deficiency of miner	• 1
		Rohta	Rohata, Arnavali,		elements and	
			Rasana, Shahapur	wheat	organic matter in	
			jain pur,		soils	• Weed management
	Ia	Jani	Baffar, Meerpur,	S/cane,	• Attack of white grub	in Paddy and Wheat
	Sardhana		MohammadpurDhu	wheat,	in sugarcane	• Balance use of
	Ird		mi, Khumbha,	mustard,	Reducing	fertilizer
	Sa		SiwalKhas,	paddy &Urd	production area of	• Crop residues
			NaglaKumbha,		pulses due to blue	
			Bhola Ki Jhal		horse.	• Pest management in
					• Red rot and grassy	-
					shoot in sugarcane	Sugarcane
					• No use of Potash	U
					and micro elements	C
					in crops	vegetable crops.
2					• Low production of old orchards	• Promotion of Oilseed and Pulses

					TT • 1	
					• Unorganized	crops.
					marketing system	Crop productivity
					of agriculture	enhancement in late
					produce	sown wheat.
					•Long dry period	
					and infertility in	management among
					milch animals	farm women and
					•Weed infestation in	children
					wheat.	• Introduction of
					• Depletion of ground water	HYV/Hybrids in vegetables.
					•Insect attack in	• Promotion of green
					vegetables	manuring.
						• Mngt.of Mango
						orchards.
			Jhal	Sugarcane,	• Late sowing of	• Intercropping with
			Ganeshpur, Saifpur	Wheat	sugarcane	sugarcane
			MeewaMammudpur	Rice,	• Low production of	
			Latiffpur,	potato,	milk in Cow and	e
			Makannagar	Mustard,	Buffaloes	• Management of
			Pali, Naglagusai,	Chickpea,	• Deficiency of miner	
			Rani nagla, Matora, BasturaNarang,	Urd, Moong	elements and	heat in Cattle and
			Nagala Chand,	Woong	organic matter in	
			Sikhera,		soils	• Weed management
			RathoraKhurd,		• Attack of white grub	•
3		Hastinap	JoraJalapur, Seena,		in sugarcane	• Balance use of
		ur	Tajpura, More		• Reducing production area of	fertilizer
			Khurd, Rampur		pulses due to blue	1
	Mawana		Ghoria,		horse.	e
	awa		MohammadpurSikha		• Red rot and grassy	• Pest management in Paddy and
	Ν		st, Nagli, Karimpur,		shoot in sugarcane	Sugarcane
			Bhadrakali,		• No use of Potash	e
			Behsuma, Tarapur,		and micro elements	
			Pandwan,		in crops	vegetable crops.
			Makhdoompur,		• Low production of	<b>U</b> 1
			KundaChetawala,		old orchards	Oilseed and Pulses
			BamnoliBadahuakhe		• Unorganized	crops.
			ri, Latifpur,		marketing system	• Crop productivity
			Bheemkhund	Cuerca	of agriculture	enhancement in late
			Geshupur, Bonda,	Sugarcane,	produce	sown wheat.
		Parikshitga	Kalirampur, Neemka, Khajuri,	Wheat Rice,	•Long dry period	• Nutritional
		rh	Dhanpura, Jithola,	potato,	and infertility in	management among
			Anwarpur, Kohla	Mustard,	milch animals	farm women and
			. mwarpar, ixoina			

		Chickpea, Urd,	• Weed infestation in	children
		Moong	<ul> <li>wheat.</li> <li>Depletion of ground water</li> <li>Insect attack in</li> </ul>	• Introduction of HYV/Hybrids in vegetables.
Mawana Kala	Meewa,Assa,Matoura,Tatina,Niloha,Pilona,Baizadka,Kunda,AkbarpurGhari,Bhaisa,Nidawali,Tigri,Geshupur,Sirjepur,Meerpur,AkbarpurShadat,Mubareekpur,NagalaAjedi,NagalaHareur,Phalawada,ChotaMawana,	Sugarcane, Wheat Rice, potato, Mustard, Chickpea, Urd, Moong	<ul> <li>vegetables</li> <li>Late sowing of sugarcane</li> <li>Low production of milk in Cow and Buffaloes</li> <li>Deficiency of miner elements and organic matter in soils</li> <li>Attack of white grub in sugarcane</li> <li>Reducing production area of pulses due to blue</li> </ul>	<ul> <li>Promotion of green manuring.</li> <li>Managements of Mango orchards.</li> <li>Intercropping with sugarcane</li> <li>Soil health management</li> <li>Management of infertility and repeat heat in Cattle and Buffaloes</li> <li>Weed management in Paddy and Wheat</li> </ul>
Machara	MaukhasHasanpur, Kaili Rampur, Dabthala, Behlolpur, Shahjahanpur,	Crops, Vegetables, Bee keeping	<ul><li>horse.</li><li>Red rot and grassy shoot in sugarcane</li></ul>	<ul> <li>fertilizer</li> <li>Crop residues management</li> <li>Pest management in Paddy and Sugarcane</li> <li>Disease management in vegetable crops.</li> </ul>

# **Priority Thrust Areas**

S N	Crop/Enterprise	Thrust area
1	Pulses	Promotions of pulses as intercrop with sugarcane and
		integrated diseases management.
2	Flower production	Promotion of floriculture.
3	Wheat, Paddy, Sugarcane	Improving soil health through balance fertilization and
		green manuring.
4	Cattle and Buffaloes	Controlling anestrous and repeat breeding in cattle and
		buffaloes, low milk production due to imbalance
		feeding in Milch animals.
5	Tomato and Cabbage	Enhancement of production potential in vegetable and
		IPM in vegetable.
6	Kitchen Gardening	Malnutrition among rural masses specially belonging
		to lower strata of the society.
7	Sugarcane	White grub and IPM in sugarcane.
8		Shifting of planting time to increase productivity and
		sugar recovery

#### 2.9 Intervention/ Programmes for the doubling the farmers income – during 2017-18

<b>Before Interventions</b>	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
Sugarcane as Sole crop	945.0	-	-	75460.00	222215.00	3.94	

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

After	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
Interventions	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Intercropping (Garden Pea with October sown sugarcane 1:1)	896.0	96.38	1354.95	93400.00	333409.00	4.57	

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

<b>Before Interventions</b>	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
Sugarcane as Sole crop	882.0	-	-	75460.00	202370.00	3.68	

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

After	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
Interventions	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Intercropping (Garlic with October sown sugarcane1:2)	872.0	136.5	1955.33	144360.00	471568.95	4.26	

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

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent Yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Sugarcane as Sole crop	935.4.	-	-	93621.00	181956.00	2.94	

**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	918.85	18.25	992.59	102438.00	258737.00	3.52	
(Mustards with October							
sown sugarcane1:1)							

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

<b>Before Interventions</b>	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
	Yield(q/ha)	Yield(q/ha)	Yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Sugarcane as Sole	760.85	-	-	93621.00	146046.00	2.56	
crop(Spring season)							

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

After	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
Interventions	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Intercropping (Black	776.35	6.96	904.50	94821.00	190096.00	3.00	
gram with February							
sown sugarcane 1:1)							

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

Before Interventions	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if any
	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	
Parwal + Chemical	86.5	-	-	35960.00	93790.00	1:3.60	
control of fruit fly							

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

	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 Crop +Use of1Pheromone traps (2 timeslure change)	113.8	-	-	32740.0	137510.0	1:5.20	

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

<b>Before Interventions</b>	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
Paddy (Pusa 1121)	43.18	-	-	54198	36480	1:1.56	

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

After	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
Interventions	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Paddy with Application of Zinc @ 25Kg/ha.	45.69	-	-	55573	49514	1:1.80	

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

<b>Before Interventions</b>	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
Mango fresh fruit sale	100 Kg/tree	-	100 Kg/tree	1100/tree	1400	1:2.30	

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

After	Main crop	Inter crop	Equivalent	Cost of	Net income(Rs/ha)	B.C:	Remark if
Interventions	Yield(q/ha)	Yield(q/ha)	yield(q/ha)	cultivation(Rs/ha)*		Ratio	any
Mango (Value addition through Amchoor)	20 kg (Amchoor/tree)	-	-	1500	4500	1:4.0	

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

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Mango (No value addition)	100 Kg/tree	-	100 Kg/tree	1100/tree	1400	1:2.30	

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
Mango ( Value addition through Mango squash)	90 (Bottle /tree)	-	-	4700	8800	1:2.80	

**Discussion**: Irrigation, Fertilizers, Labour, Land Preparation, Seed, Plant protection (Weed, Pest, disease) \* Note- Same format may be used for OFT.

## **TECHNICAL ACHIEVEMENTS**

# Details of target and achievements of mandatory activities by KVK during 2017-18

(Tecl	O hnology Assessn	FT nent and R	efinement)	FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)				
		1		2				
Numb	er of OFTs	Total	no. of Trials	Area in (ha) Number of Farmers				
Targets	Achievement	vement Targets Achievement			Achievement	Targets	Achievement	
12	09	50	77	63	79.47	100 - 200	211	

· • •	· · ·	Training vocational and n water harves		0		Extensior	n Activitie	2S
Num	3 Number of Courses Number of Participants Clientele				4 Number of activities Number of participants			
Clientele	Targets	Achievement	Targets	Achievement	Targets Achievement		Targets	Achievement
Farmers		70		1399				
Rural youth		7	-	80				
Extn. Functionaries	100	18	2000	363	400	1695	5000	11859
Sponsored		9		650				
Total		104		2492	400	1695	5000	11859

	Seed Product	ion (Qtl.)		Planting mat	erial (Nos.)
	5			6	
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	250.00	-	20000	23000	-

# TECHNOLOGY ASSESSMENT

# Summary of technologies assessed under various crops by KVKs

TL	Crop/		No. of	No. of
Thematic areas	Enterprise	Name of the technology assessed	trials	farmers
Varietal Evaluation	Tomato	Varietal evaluation of Hybrid tomato	09	03
Varietal Evaluation	Gladiolus	Varietal evaluation of Gladiolus	09	03
Household Food Security	Kitchen Garden	Assessment of house hold food security through nutritional garden	10	05
Integrated Pest Management	Black Gram	Assessment of insecticides to control white fly in Black Gram	12	04
Integrated nutrient management	Paddy	Assessment of fertilizer dose in Paddy	06	03
Integrated nutrient management	Sugarcane	Assessment of fertilizer dose in Sugarcane	06	03
Drudgery reduction	Milching animals	To assess the role of revolving stool for drudgery reduction while milching	10	05
Integrated pest management	Brinjal	Assessment of pesticides to control         fruit and shoot borer in Brinjal	6	03
Varietal Evaluation	Black Gram	Varietal evaluation of Black Gram	09	03
			77	32

#### I.C Technology Assessment and Refinement in detail

### **On Farm Trial –1**

#### **THEMATIC AREA: Varietal Evaluation**

Problem definition: Low yield of tomato due to use of traditional varieties.

Technology Assessed: Assessment of Hybrid varieties of Tomato.

To assess the performance of hybrid varieties of tomato On Farm Trial was conducted to with 03 varieties of tomato under field condition. Data collected revealed that Pusa Hybrid- 2 was adjudged as better performer with 375.50 qt. production and Rs. 152500 net profit per ha. While other varieties under trial Raja and Pusa hybrid – 1 produced 305.0 and 362.50 qt. per ha., respectively.

Table: Performance of different Hybrid varieties of Tomato.

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross income (Rs)	Net returns (Rs)	BC ratio (Rs)
T <sub>1</sub> : Farmer Practice (Variety - Raja)		305.00	-	67500	183000	115500	2.71
T <sub>2:</sub> Variety – Tomato Pusa Hybrid - 1	09	362.50	18.68	72500	217500	145000	3.00
T <sub>3:</sub> Variety – Tomato Pusa Hybrid - 2		375.50	23.11	72500	225000	152500	3.10

**Feed Back:** Fruits of variety Tomato Pusa Hybrid-2 is medium in size, round, deep red after ripening with good keeping quality. It is suitable for processing and distance market.

# **On Farm Trial –2** THEMATIC AREA: Varietal Evaluation

Problem definition: Low yield Gladiolus due to traditional variety.

#### Technology Assessed: Evaluation of different varieties of gladiolus

Production potential of gladiolus varies with the variety grown. Therefore, keeping in consideration about the fact, an On Farm Trial was conducted to evaluate the performance of 03 varieties of gladiolus under field condition. Data collected revealed that Pusa Kiran was adjudged as better performer with 1.30 spikes/corm and Rs. 182050 net profit per ha. In comparison to traditional variety Sancerre with 1.05 spikes/corm and Rs. 125550 net profit per ha.

Table: Production performance and economic parameters of different varieties of gladiolus

Technology Option	No. of trials	No. of spikes/ plant	No. of flowers/ spike	Length of spike (cm)	Spike Yield (No./ha)	Percent increase	Cost of Cultivation	Gross Return (Rs)	Net Returns (Rs./ha)	B:C Ratio
T <sub>1</sub> -Use of Sancerre (Farmer Practice)		1.05	10.00	42.50	100140	-	124800	250350	125550	2.00
T <sub>2</sub> - Use of Pusa Kiran	09	1.30	13.80	55.71	128520	28.34	139500	321300	182050	2.30
T <sub>3</sub> - Use of Pusa Chandini		1.21	13.22	52.82	121000	17.23	130000	302500	172500	2.22

Sale price: Rs. 30/dozen of spike

**Feed Back:** Spikes of Pusa Chandni is more attractive, having better vase life and more florets/spike but due to lower production than Pusa Kiran, its commercial acceptance is low.



#### THEMATIC AREA: HOUSE HOLD FOOD SECURITY

Problem definition: Malnutrition in farm women and rural children

Technology Assessed: Assessment of house hold food security through nutritional garden

Five units of kitchen garden were assessed at different locations in comparison to often in practice. Planned kitchen garden was found better in respect of production, total days of availability of green vegetables and general health. Production was 166 % higher and availability is 245 days in comparison to 65 days in farmer practice.

	No. of	Yield	Increase	Performance	indicators	Cost of	Gross	Net	B:C
Technology Option	trials	(kg/100 sqm)	in yield (%)	Indicator	Performance	cultivation (Rs)	return (Rs)	Profit (Rs)	Ratio
Production of some leafy and cucurbitaceous vegetables only (Farmers Practice)	10	45		<ul> <li>Availability of green vegetables</li> <li>General health</li> <li>Disease occurrence</li> </ul>	65 days Comparatively poor Comparatively more	250	1125	875	4.5
Enhance household food security through Nutritional Garden throughout the year	10	120	166	<ul> <li>Availability of green vegetables</li> <li>General health</li> <li>Disease occurrence</li> </ul>	245 days Comparatively good Comparatively less	450	3000	2550	6.6

#### Table: Production performance of nutritional garden at household level

Sale Price: @ Rs 25 per kg

**FEED BACK:** *Remarkable acceptance of kitchen gardening due to readily availability of fresh and hygienic vegetables almost free of cost. The practice ensures the regular consumption of vegetables to family members. Save time for purchasing the vegetables from the distant market.* 

#### THEMATIC AREA: INTEGRATED PEST MANAGEMENT

Problem definition: High infestation of white fly resulting mosaic disease in Black Gram.

Technology assessed: Assessment of insecticides to control white fly in Black Gram.

KVK Hastinapur (Meerut) has conducted "On Farm Trial" entitled Assessment of insecticides to control white fly in Black Gram by comparing newer insecticide Imidachlorprid 17.8 % S.L @ 200 m.l./ ha with Monocrotophos @ 1000 m.l./ha 15 days interval as farmer practice along with Difenthuron @ 500 m.l./ ha. at 15 days interval up to flowering stage. An appraisal of data collected, Difenthuron has quite edge over the chemical insecticides in terms of insect incidence, yield potential and economic returns.

Table: Effectiveness, yield and economic parameters of different treatments for the management of white fly in Black Gram

Technology Option	No. of trials	Insect incidence (%)	Yield q./ha	% age increased	Cost of Cultivation	Gross Return (Rs)	Net Return (Rs)	B:C Ratio
T <sub>1</sub> - Spraying of Monocrotophos @ 1000 m.l./ha 15 days interval		12.3	7.90	-	30834	39500	8666	1.28
T <sub>2</sub> - Spraying of Imidacloprid 17.8 % S.L @ 200 m.l./ ha at 15 days interval	12	4.35	9.50	20.25	32584	47500	14916	1.45
T <sub>3</sub> - Spraying of Difenthuron @ 500 m.l./ ha. at 15 days interval		3.25	10.80	36.70	35209	54000	18791	1.53

**Farmers Feedback:** Imidachlorprid is easly available in local market and cheaper than Monocrotophos because it is used in less quantity. It is highly effective to manage white fly in Black Gram crop.

#### THEMATIC AREA: INTEGRATED NUTRIENT MANAGEMENT

Problem definition: Imbalanced use of fertilizer Paddy (1121).

Technology assessed: Assessment of fertilizer dose in Paddy.

KVK Hastinapur (Meerut) has conducted "On Farm Trial" entitled Assessment of fertilizer dose in Paddy by soil testing based incorporation of micronutrients Zn, S, Fe with N:P:K compared with improper use of N:P:K without as micronutrients as farmer's practice. An appraisal of data collected, balance use of fertilizer i.e. N:P:K:Zn:S:Fe @ 80:60:60:25:30:25 increased yield potential and economic returns.

Technology Option	No. of trials	Yield q./ha	% age increased	Cost of Cultivation (Rs.)	Gross Return (Rs)	Net Return (Rs)	B:C Ratio
T <sub>1</sub> - Imbalance use of fertilizers (Farmer practices) N:P:K:Zn 150:60:00 :25		40.10	-	49271	92230	42959	1.87
T2- Soil testing based           N:P:K:Zn:S:Fe         @           80:60:60:25:30:25         (0)	06	43.25	7.85	50406	99475	83669	1.97

#### Table: Effect of balanced use of fertilizer

Variety- Pusa-1121, Sale price- Paddy@ Rs. 2300/Qt.

S.No.	Name of Farmer	pН	EC	OC(%)	P (Kg/ha)	K (Kg/ha)	Zn	S	Fe
							(Kg./ha)	(Kg./ha)	(Kg./ha)
1	Ram das Kukreja	7.55	0.24	0.39	20.0	145	0.42	6.5	2.9
2	Surjeet Singh	7.65	0.22	0.35	21.0	150	0.44	5.2	2.5
3	Harjeet Singh	7.55	0.20	0.37	24.0	153	0.43	6.3	3.1

Feed back: It is difficult for farmer of interior location to reach the soil testing laboratory.

#### THEMATIC AREA: INTEGRATED NUTRIENT MANAGEMENT

**Problem definition:** Imbalanced use of nutrients in Sugarcane.

Technology assessed: Assessment of dose of micro nutrients in Sugarcane.

#### Table: Assessment of micro nutrients dose in sugarcane

Technology Option	No. of trials	Yield q./ha	% age increased	Cost of Cultivation (Rs./ha)	Gross Return (Rs)	Net Return (Rs)	B:C Ratio
T1-Imbalance use of fertilizers(Farmer practices)N:P:K:Zn180:60:00:30	06	587.20	-	48670	184968	136298	3.80
T <sub>2</sub> -N:P:K:Zn:S:Fe@ 120,60,60:30:40:25	00	675.24	14.99	49735	212700	162965	4.27

Sale price: 315/qt

S.No.	Name of Farmer	pН	EC	OC(%)	P (Kg/ha)	K (Kg/ha)	Zn	S	Fe
							(Kg./ha)	(Kg./ha)	(Kg./ha)
1	Abhishek Bhadana	7.45	0.26	0.55	22.0	110	0.42	4.9	2.5
2	Khushi Ram,	7.55	0.20	0.52	19.0	125	0.40	5.2	2.9
3	Arun Kumar	7.40	0.22	0.47	20.0	119	0.44	6.1	2.2

Feed back: It is difficult for farmer of interior location to reach the soil testing laboratory.

#### **THEMATIC AREA: Drudgery Reduction**

Problem definition: Reduction of work efficiency and drudgery

Technology assessed: To assess the effectiveness of revolving stool to reduce drudgery while milching.

An on farm trial has been conducted to reduced drudgery reduced during milking of animal by sitting over revolving stool in comparison with traditional sitting position, on the basis of recorded data the technology was found highly acceptable and significantly reduced physical and bio mechanical stress and improved work output of the milking person.

Table –

Incidence of muscular	skeletal proble	m during	g milking of	animal	with existin	g (squat pos	ition) and	improved technolog	y sitting over re	evolving stool
1. Physical Stress										
Body Parts	Existing (sq	uat posit	ion)			improved	technology	y (sitting over revolv	ving stool)	
	Very sever pain	Sever pain	Mode ratre pain	Mild Pain	Low/No pain	Vsever pain	Sever pain	Mode ratre pain	Mild Pain	Low/No pain
Neck Pain			4	1				1	-	4
Shoulder Pain			3	2				-	2	3
Back Pain	1	3	1	-				-	4	1
Thumb Pain	-	-	1	4				-	2	3

Bio mechanical

Opinion	Existing (R	espondent 5)	Improved(Respondent 5)		
	Yes	No	Yes	No	
Maintain comfortable body posture	-	5	5	-	
Twisting of trunk easily during activity	-	5	5	-	
Easy to synchronize with movement of animal	1	4	4	1	

#### 2. Work Output

Opinion	Existing (Respondent 5)		Improved(Respon	ident 5)
	Yes No Y		Yes	No
Tool is effective as per time cost	NA	NA	4	1
Tool is effective in improving the production efficiency	NA	NA	1	4

#### 3. Tool factor

Opinion	Existing (Respon	ident 5)	Improved(Respondent 5)		
	Yes	No	Yes	No	
The milking activity is light enough while using the revolving stool	NA	NA	5	-	
Height of the stool needs to be adjusted	NA	NA	3	2	

Feed back: Recommended technology of using revolving stool while milching is highly appreciated by farm women to reduce their drudgery.

#### THEMATIC AREA: INTEGRATED PEST MANAGEMENT

Problem definition: Low yield due to severe infestation of fruit and shoot borer in Brinjal

Technology assessed: Assessment of insecticides to control fruit and shoot borer in Brinjal

KVK Hastinapur (Meerut) has conducted "On Farm Trial" entitled Assessment of insecticides to control fruit and shoot borer in Brinjal by comparing newer insecticide Clorantraniliprole (Coragen) 18.5 SC @ 125 m.l./ ha with Profenophos @ 1000 m.l./ha 15 days interval as farmer practice, three sprays at 15 days interval. An appraisal of data collected, Clorantraniliprole has quite edge over the chemical insecticide being used as farmer's practice in terms of insect incidence, yield potential and economic returns.

Technology Option	No. of trials	Insect incidence (%)	Yield q./ha	% age increased	Cost of Cultivation	Gross Return (Rs)	Net Return (Rs)	B:C Ratio
T <sub>1</sub> - Three Spraying of Profenophos @ 1000 m.l./ha 15 days interval		17.67	249.50	-	43547	112275	68728	2.57
T <sub>2</sub> - Three Spraying of Coragen @ 125 m.l./ ha at 15 days interval	06	11.45	296.75	18.93	45403	133537	88134	2.94

**Farmers Feedback:** Farmers were not aware about the use of Coragen in vegetables. They found that coragen is highly effective to manage fruit and shoot borer in Brinjal.

#### **On Farm Trial –9** THEMATIC AREA: Varietal Evaluation

**Problem definition:** Low yield of black gram due to use of traditional varieties. **Technology Assessed:** Assessment of improved varieties of Black gram.

To assess the performance of hybrid varieties of Black gram, On Farm Trial was conducted with 03 varieties of Black gram under field condition. Data collected revealed that Shekhar- 2 was adjudged as better performer with 9.85qt/ha. production and Rs. 16260 net profit per ha. While other varieties under trial Type - 9 and Pusa urd – 31 produced 6.77 and 8.25 qt. per ha, respectively.

Table: Performance of different varieties of Black Gram.

Technology Option		Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross income (Rs)	Net returns (Rs)	BC ratio (Rs)
T <sub>1</sub> : Farmer Practice (Variety – Type - 9)		6.77	-	30834	33850	3016	1.09
T <sub>2</sub> : Variety – Pusa Urd - 31	09	8.25	21.86	32990	41250	8260	1.25
T <sub>3:</sub> Variety – Shekhar - 2	]	9.85	45.49	32990	49250	16260	1.49

**Feed Back:** Variety Shekhar – 2 gave maximum yield (9.85/ha.) in comparison of local variety Type -9 and PU - 31. It is also found tasty than other varieties compared in trial.

# **II. FRONTLINE DEMONSTRATION**

List of technologies demonstrated during previous year & popularized during 2016-17 and recommended for large scale adoption in the district

SN	Crop/	Thematic Area	Technology demonstrated	Details of popularization		ntal spread chnology	d of	
BIN	Enterprise	Themauc Area	recimology demonstrated	methods suggested to the Extension system	No. of villages	No. of farmers	Area (ha)	
1	Lentil	Varietal evaluation	Promotion of improved variety PL-8		7	26	15.0	
2	Urd	Varietal evaluation	Promotion of improved variety PU-31		5	40	16.0	
3	Mustard	INM	Use of Sulphour @ 40 kg/ha.		5	10	4.0	
4		Varietal evaluation	Introduction of high yielding RH-749		4	43	20.0	
5		Varietal evaluation (PO)	Introduction of high yielding PM- 26	Demonstration, Training and Advisory Services	2	4	4.0	
6	Paddy	INM	Application of Ferrus sulphate @ 25 kg/ha		8	10	4.0	
7	,	Varietal evaluation (PO)	Introduction of high yielding Pusa Basmati-1121 as replacement of PB - 1		3	4	2.77	
8	Wheat	Varietal evaluation (PO)	Introduction of high yielding timely sown variety HD- 3086		2	5	1.00	

	Crop/			Details of popularization		ontal spre echnology	
SN	Enterprise	Thematic Area	Technology demonstrated	methods suggested to	No. of	No. of	Area
9	Moong	IPM	Improved variety of IPM- 02-3	the Extension system	villages 8	<b>farmers</b> 50	(ha) 20.0
10	Okra	Varietals Evaluation	Improved variety of Pusa A4 of Okra		02	10	1.00
11	Marigold	Varietals Evaluation	Popularization of improved variety Pusa Narangi		04	10	1.00
12	Bottlegaurd	Varietals Evaluation	Hybrid variety (Anokhi- F1) of Bottlegaurd	Demonstration,	02	10	1.0
13	Parwal	IPM	Management of fruit fly in Parwal	Training and Advisory Services	03	10	4.0
14	Brinjal	IPM	Management of sucking insects through yellow stricky traps @ 20 traps/ha.	. Services	02	10	2.0
15	Paddy	IDM	Control of Sheet blight in Paddy spraying of Validamycin @ 1 lit./ha		03	10	2.0
16	Kitchen Garden	House hold food security	Establishment of kitchen Garden in 200 $m^2$ to fulfill nutritional need round the year.		04	10	0.10
17	Kitchen Garden	House hold food security	Establishment of kitchen Garden in 200 $m^2$ to fulfill nutritional need round the year.		04	10	0.10
				Total		272	97.97

# b. Details of FLDs implemented during 2017-18

SN	Crop/	Thematic area	Technology Demonstrated	Season / year	Area (ha)		). of farmer monstratio	
	Enterprise					SC/ST	Others	Total
Pulse	es							
1	Urd	Varietal evaluation	Promotion of improved variety PU-31(NFSM)	Zaid 2017	20.0	03	24	27
2	Lentil	Varietal evaluation	Promotion of improved variety PL-8 (NFSM)	Rabi 2017 - 18	20.0	03	28	31
Oilse	eeds			· · · · ·				
3	Mustard	Varietal evaluation	Introduction of high yielding RH-401 (NFSM)	Rabi	10.0	03	19	22
				2017-18				
4		INM	Has of Sulphur @ 20 Katha	Rabi	4.0	03	07	10
		IINIVI	Use of Sulphur @ 30 Kg/ha.	2017-18				
Cere	als							
5		Varietal evaluation	Introduction of Pusa-1612 (Post office)	Kharif	1.10	_	2	2
		Valicial evaluation	introduction of Pusa-1012 (Post office)	2017	1.10	-	2	2
6		Varietal evaluation	Introduction of Pusa-1121(Post office)	Kharif	2.37		07	07
	Paddy	varietar evaluation	introduction of Pusa-1121(Post office)	2017	2.57	-	07	07
7		INM	Application of Zinc sulphate in Paddy @ 25 kg	Kharif	4.0	0.1	09	10
			/ha	2017	4.0	01	09	10
8		IDM		Kharif	4.0	-	00	10
			Application of Tricyclazol @ 300 gm/ ha	2017	4.0		09	10
9	Wheet	Variatel analystic -	Introduction of high yielding timely sown variety	Rabi	1.10	-	02	02
	Wheat	Varietal evaluation	HD-3086 (Post office)	2017				

Hor	ticultural crops							
10	Marigold	Varietal Evaluation	Popularization of improved variety Pusa Narangi	Rabi 2017	1.0	4	6	10
11	Bottlegourd	Varietal Evaluation	Hybrid variety (Anokhi- F1) of Bottlegaurd	Kharif 2017	1.0	_	10	10
12	Garlic	Varietal Evaluation	Intercropping of variety G -282 @ 250 kg/ha. with autumn planted sugarcane	Rabi 2017	0.4	-	05	05
13	Vegetable Pea	Varietal Evaluation	Intercropping of variety PS – 10 @ 50 kg/ha. with autumn planted sugarcane	Rabi 2017	0.4	-	05	05
14	Parwal	IPM	Management of fruit fly by installation of eco friendly Cue lure traps @ 5 traps/acre	Kharif 2017	4.0	2	8	10
15	Brinjal	IPM	Management of sucking insects through yellow sticky traps @ 20 traps/ha.	Rabi 2016-17	2.0	3	7	10
16	Potato	IDM	Management of late blight in potato by spraying Metalyxyl + Mancozeb 64 % twice at 15 days interval.	Rabi 2016-17	4.0	3	7	10
17	Mango	Value addition	Preparation of Mango Amchur	Kharif 2017	-	5	5	10
18	Mango	Value addition	Preparation of Mango squash	Kharif 2017	-	5	5	10
19	Kitchen garden	House hold food security	Demonstration of well planned Kitchen Garden (100 m <sup>2</sup> )	Rabi 17	0.1	3	7	10
			Total		79.47			211

# Details of farming situation

		Farming		St	atus of s	soil	Previous		Harvest	Seasonal	No. of
Сгор	Season	situation (RF/Irrigated)	Soil type	Ν	Р	K	crop	Sowing date	date	rainfall (mm)	rainy days
					Pulse	es					
Urd	Summer 2017	Irrigated	Sandy loam	174	35	211	Sugarcane	20-03-17 to 06-04-2017	16-06-17 to 09-07-17	74.1	14
Lentil	Rabi 2017-18	Irrigated	Sandy loam	187	24	217	Paddy, Jowar	15-11-17 to 13-12-17	27-03-18 to 15-04-18	21.2	6
					Oilsee	eds					
Mustard	Rabi 2017-18	Irrigated	Sandy loam	129	29	257	Jowar	10-30Oct. .2017	24Feb12 Mar. 2018	16.8	3
Mustard	Rabi 2017-18	Irrigated	Sandy loam	165	28	228	Jowar	10-30Oct. .2017	22Feb 10Mar. 2018	16.8	3
	·		·		Cere	al		•			
Paddy	Khairf 2017	Irrigated	Sandy Loam	199	22	235	Sorghum	10-15 June 2017	25-28 Oct 2017	411.0	29
Paddy (1612)	Khairf 2017	Irrigated	Sandy Loam	155	41	224	Green mannuring	8-19 June 2017	18-28 Oct 2017	409.2	30
Paddy (Pusa-1121)	Khairf 2017	Irrigated	Sandy Loam	178	32	227	Sorghum	02-07-16	15-11-16	401.7	29
Paddy	Khairf 2017	Irrigated	Sandy Loam	172	28	230	Sorghum	10-15 June 2017	25-28 Oct 2017	410.4	29
Wheat (HD-3086)	Rabi 2017-18	Irrigated	Sandy loam	208	29	218	Sorghum (Fodder)	22 Nov., 2017	-	21	6

				Co	mmercia	al crops					
				Hor	ticultur	al crops					
Marigold	Rabi 2017-18	Irrigated	Sandy Loam	173	28	227	Dhaincha	16.07.2017	12.11.2017	183.7	21
Bottlegourd	Kharif 2017	Irrigated	Sandy Loam	246	35	228	Mustard	16.05.2017	20.08.2017	51.1	11
Garlic	Rabi 2017 -18	Irrigated	Sandy Loam	184	23	190	Brinjal	6.10.2017	10.3.2018	45.1	11
Vegetable Pea	Rabi 2017 -18	Irrigated	Sandy Loam	158	19	188	Brinjal	13.10.2017	7.2.2018	42.6	14
Plant Protection	I I						ł	I			
Parwal	Kharif 2017	Irrigated	Sandy Loam	239	25	120	Paddy	12.03.2017	18.08.2017	21.2	4
Brinjal	Rabi 2017-18	Irrigated	Sandy Loam	174	27	221	Potato	17.03.2017	08.07.2017	173.7	19
Potato	Rabi 2017-18	Irrigated	Sandy Loam	209	34	229	Jowar	22.09.2017	28.01.2018	27.2	11
	• I			Kit	chen ga	rdening		1			
Kitchen garden	Kharif 2017	Irrigated	Sandy Loam	165	28	228	NA	26.06.2016	June to Nov. 2016	355.9	27

SN	Crop/ Animal	Feed Back
1	Urd	Variety PU-31 is susceptible to mosaic disease.
2	Lentil	Wilting disease appeared in some fields just after irrigation and highly damaged by blue bulls at the stage of pod formation. Production of PL-8
		variety is 29.04% higher over check var. K-75.
3	Mustard	Variety YSH- 401 under demonstration has shown more yield (57.97 %) than local variety (Pusa bold). Sowing after first week of October leads Aphid attack.
4	Mustard	An application of sulfur 40 kg/ha. Resulted 10.64 % more yield along with little bit higher oil content in the mustard grains in the same variety RH-749
5	Paddy	Variety 1612 gives more yield than other varieties.
6	Paddy	Variety 1121 is more prone to pest attack but having good market value.
7	Paddy	An increase 5.18 % in yield of paddy was recorded after application of Zinc Sulphate @ 25Kg./ ha. in Pusa-1121 variety.
8	Paddy	Tricylazole was found very effective to control blast resulting 8.08 % increased yield.
9	Wheat	17.46 % increase in yield of HD 3086 varieties observed under demonstration over locally grown variety. Rust disease did not appear in the variety while Aphid attacks at milking stage.
10	Marigold	Near about three times more yield was adjudged through Pusa Narangi hybrid variety in comparison to local variety Jafri and market demand is higher due to attractive color, size, good keeping quality and compactness of flower.
11	Bottle gourd	Recommended for summer season and first fruiting in 55 days. Fruits are straight, cylindrical and free from crookneck. Edible is about 30 cm., fruits are long and dark green in color.
12	Garlic	G – 282 variety is particularly recommended for inercropping with autumn sugarcane.
13	Vegetable Pea	Variety PS – 10 gave additional income and also causes nitrogen fixation in soil= resulting less use of urea.

### Technical Feedback on the demonstrated technologies

14	Parwal	Use of bio agents as Installation of 07 traps /acre were proved very effected and feasible for the management of fruit fly in parwal and give 21.46
	r ai wai	% increase in yield.
15	Brinjal	Use of yellow stricky traps 20 traps/ha. Were proved very effected and feasible in field for the management of white fly and give 10.68 % higher
	Drinjai	yield. Its gives longer protection against white fly while chemical control causes resistance, proved expenses and needed repeatedly.
16	Dotato	An increase 28.86 % increase in yield of potato was recorded after application of spraying of Metalyxyl + Mancozeb @ 1 lit./ha to control Late
	Potato	blight.
17	Mango	Value addition of Mango through preparation of Amcoor increased gradational income as compared to direct selling of mango in local market.
18	Mango	Value addition of Mango through preparation of Squash increased gradational income as compared to direct selling of mango in local market.
19		Under the demonstration on household food security the respondents are getting fresh and potable green seasonal vegetables throughout the year.
	Kitchen Garden	In addition to this, a handsome amount is being saved by using the home produced vegetables. Farm women were very much happy by getting
		plenty of vegetable and fruits.

# Farmers' reactions on specific technologies

S. No	Сгор	Feed Back
1	Urd	Severe infestation of YVM.
2	Lentil	Production of demonstrated variety is significantly higher than their local variety.
3	Mustard	Mustard is persuading as a good oil seed crop & farmers are keen to incorporation as a rabi crop in existing sugarcane based cropping system. Easy availability and cheaper technology favors its adoption among farmers.
4	Mustard	Sulpher is easily available in local market and cheaper technology to increase oil content resulting higher income.
5	Paddy	Variety 1612 is less sensitive to pest incidence in comparison of other varieties.

6	Paddy	Variety Pusa 1121 is most popular in Basmati group in this area.
7	Paddy	Application of Zinc Sulphate gave good results it reflects In productivity as well as checks Khaira disease in rice.
8	Paddy	Tricylazole was found very effective and economic to control Blast disease in rice.
9	Wheat	Farmers found variety HD-3086 gives good yield in late sown condition and there is no rust disease found in the field.
10	Marigold	The yield performance of Pusa narangi was highly appreciated due to its standard size of flowers, attractive color and market value. Thereby the same is getting space among the farming community.
11	Bottlegaurd	Due to medium and manageable size, softness, darkness in color and market price acceptance is better.
12	Garlic	Increased income due to intercropping and also checks the incidence of early shoot borer in sugarcane.
13	Vegetable Pea	Sowing of garden pea with sugarcane decreased the gross cost of cultivation as use of urea is almost half.
14	Parwal	Application of traps is feasible for the management of fruit fly in parwal and easily available in the market.
15	Brinjal	Its gives longer protection against white fly while chemical control causes resistance, proved expenses and needed repeatedly
16	Potato	Metalyxyl + Mancozeb is very effective to manage late blight resulting higher yield.
17	Mango	Preparation of Amchoor is not difficult, easily sold in the market at better price.
18	Mango	Preparation of Squash is easy to prepare and proved a viable technology to get additional income by selling it in nearby market.
19	Kitchen Garden	Farmers enjoyed the sufficient, chemical free, cheaper and quality green fresh vegetables for almost throughout the year.

### **Performance of Frontline demonstrations Pulse crops**

	Thematic	Technology		No. of	Area		Yiel	d (q/ha)		% Increas	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Сгор	Area	demonstrated	Variety	Farmers	(ha)	High	Dem Low	0 Average	Check	e in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return		BCR
Urd	Varietal evaluation	Popularizati on of improved variety	PU-31	27	20.0	7.35	6.55	6.96	5.17	34.62	24952	40386	15416	1:1.61	24760	29886	5226	1.20
Lentil	Integrated Crop Management	Scientific Production of Lentil variety- PL-8	PL-8	31	20.0	11.45	8.15	9.37	7.85	19.36	28450	39822	11372	1:1.39	25780	30111	4331	1.16

\* Sale price – Urd (Demo.)- @ 10000/qtl, & Local @ 9000/qtl. Lentil (Demo.)- @ 4250/qtl



# **Oilseed crops**

~	Thematic	Technology		No. of	Area		Yiel	d (q/ha)		% Increa	Econon	nics of d (Rs./		ration	Ec	onomics (Rs./l		k
Crop	Area	demonstrated	Variety	Farme rs	(ha)		Dem	0	Check	se in	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
						High	Low	Average		yield	Cost	Return	Return	$(\mathbf{R}/\mathbf{C})$	Cost	Return	Keturn	$(\mathbf{K}/\mathbf{C})$
Mustard	Varietal evaluation	Popularizatio n of improved variety	YSH - 401	22	10.0	19.20	18.25	18.72	11.85	57.97	17635	74880	57245	1:4.24	17598	47400	29802	2.69
Mustard	INM	Use of Sulphur @ 40 Kg/ha.	Pusa Mahak	10	4.0	16.25	9.25	12.58	11.37	10.64	16032	44659	28627	1:2.78	15998	40365	24367	2.52

\* Sale price of Mustard: @ Rs 4000/



# FLD on Other crops: Cereals

Crop	Thematic	Name of the technology	No. of	Area		Yield	(q/ha)		% Economics of demonstration increase (Rs./ha)					, , , , , , , , , , , , , , , , , , ,				
Стор	Area	Name of the technology	Farmers	(ha)	High	Demo Low	Av.	Check	in Yield	Gross Cost	Gross Return		BCR (R/C)	Gross Cost	Gross Return	Net	BCR (R/C)	
Paddy	Varietal evaluation	Introduction of Pusa-1612	02	1.10	47.15	46.27	46.27	38.57	19.96	50406	106421	56015	1:2.11	49271	88711	39440	1.80	
Paddy	Varietal evaluation	Introduction of Pusa-1121	07	2.37	41.76	36.35	39.70	35.75	11.04	38600	79400	40800	1:2.05	37400	71500	34700	1.91	
Paddy ( Pusa- 1121)	INM	Application of Zinc sulphate in Paddy @ 25kg /ha	10	4	48.25	43.15	45.69	43.18	5.18	55573	105087	49514	1:1.80	54198	90678	36480	1.56	
Paddy ( Pusa- 1121)	IDM	Management of paddy blast by spraying of Tricylazol @ 300gm/ha	10	4.0	49.2	39.6	44.4	41.08	8.08	39400	106560	67160	1:2.70	37300	98592	61292	2.64	
Wheat	Varietal Evaluation	Improved variety HD- 3086 (Pusa Gautami)	2	1.10	63.0	60	61.35	52.23	17.46	44701	121166	76465	1:2.71	44701	103154	58453	2.30	

\* Sale price -Paddy @ Rs2080/qt



# Horticultural crops

Category	Thematic		No. of	Area		Yield (	q/ha)		%	ange			Economics of check (Rs./ha)				
& Crop	Area	Name of the technology	Farmers			Demo			Change in Yield	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
					High	Low	Av.	oncon		Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Marigold	Varietal Evaluation	Popularization of improved variety Pusa Narangi	10	1.0	186.2	148.50	167.35	123.0	36.05	48600	251025	202425	1:5.16	41500	184500	143000	4.44
Bottle gourd	Varietal Evaluation	Hybrid variety (Anokhi-F1) of Bottlegaurd	10	1.0	207.0	130.0	168.75	130.0	29.80	34600	168750	134150	1:4.87	26900	130000	103100	4.83
Garlic	Varietal Evaluation	Intercropping of variety G-282 @ 500 kg/ha with autumn planted sugarcane	06	0.4	141.8	131.2	136.5	104.3	30.87	68900	341250	272350	1:4.95	49370	208600	159230	4.22
Garden Pea	Varietal Evaluation	Intercropping of variety PS -10 @ 80 kg/ha with autumn planted sugarcane (1:6)	05	0.4	98.1	95.8	96.95	74.6	29.95	31400	145425	114025	1:4.63	25400	111900	86500	4.40

Sale price : Marigold : @ Rs 1500/qtl , Bottlegaurd @ 1000, Garlic @ 2500, Garden Pea @ 1500



Category	Thematic		No. of	Area		Yield (	(q/ha)		%		omics of	demo. Rs	s./ha)	Econ	omics of	check (Rs.	./ha)
& Crop	Area	Name of the technology	Farmers		Demo				Change in Yield	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
					High	Low	Av.			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Parwal	IPM	Management of fruit fly in Parwal	10	4.0	112.50	98.5	105.5	86.50	21.96	38550	158250	119700	1:4.10	35960	129750	93790	3.60
Brinjal	IPM	Management of sucking insects through yellow stricky traps @ 20 traps/ha.	10	4.0	328.35	243.85	286.10	231.20	10.68	52490	228880	176390	1:4.36	42960	184960	141000	4.20
Potato	IDM	Application of Metalyxyl + Mancozeb 64 % @ 2.5 kg/ha	10	4.0	292.4	255.0	273.7	212.4	28.86	68800	218960	150160	1:3.18	58700	169920	111220	2.89

Sale price : Parwal @ Rs 1500, Paddy @ Rs 2400/qtl., Brinjal @ Rs.800/qtl, Potato @ 800/Qt.



# FLD on Other Enterprise: Kitchen Gardening

Category		Thematic area	Name of the technology	No. of	No. of	f Yield (Kg)		%	Economics of demonstration (Rs./ha)			ration	Economics of check (Rs./ha)			
	nd Crop	I nematic area	demonstrated	Farmer	Units	Demo.	Check	change in yield	Gross	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
	Kitchen garden	House hold food security	Kitchen gardening	10	10	70	25	180	450	1750	1300	1:3.8	250	500	250	1:2.0









Category and	Thomastic and	Name of the technology	No. of	No. of	Yield	Economics of demonstration (Rs./ha)					
Crop	Thematic area	demonstrated			Demo.	Gross Cost	Gross Return	Net Return	BCR (R/C)		
Manag	Value Addition	Gradational income though Mango by preparing Amchoor	10	10	2 Kg	620	1200	580	1:1.9		
Mango	Value Addition	Gradational income though Mango by preparing Mango squash	10	10	10 lit	800	1500	700	1:1.8		

# **III. Training Programme**

# Farmers' Training including sponsored training programmes (On campus)

	ON CAMPUS									
	No.					Participan	ts			
	of		Others			SC/ST		(	Grand Tota	al
Thematic area	cours es	Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production			•				•			
Nursery management	1	11	0	11	9	0	9	20	0	20
Crop management	3	51	0	51	10	0	10	61	0	61
Total	4	62	0	62	19	0	19	81	0	81
II Horticulture										
Layout and Management of Orchards	1	13	0	13	7	0	7	20	0	20
Methods of spices	1	5	0	5	14	1	15	19	1	20
Management of young plants/orchards	1	9	0	9	10	1	11	19	1	20
Others( Nursery raising)	1	2	0	2	16	2	18	18	2	20
Total (b)	4	29	0	29	47	4	51	76	4	80
III Soil Health and Fertility Ma	nagemer	nt	•				•			
Integrated Nutrient Management	1	17	0	17	3	0	3	20	0	20
Production and use of organic inputs	1	15	0	15	5	0	5	20	0	20
Micro nutrient deficiency in crops	1	18	0	18	2	0	2	20	0	20
Soil and Water Testing	1	15	0	15	5	0	5	20	0	20
Total	4	65	0	65	15	0	15	80	0	80
IV Home Science/Women empo	owermen	t								
Household food security by kitchen gardening and nutrition gardening	1	0	8	8	0	12	12	0	20	20
Designing and development for high nutrient efficiency diet	1	0	15	15	0	5	5	0	20	20
Minimization of nutrient loss in processing	1	0	11	11	0	9	9	0	20	20
Adulteration	1	0	17	17	0	3	3	0	20	20
Total	4	0	51	51	0	29	29	0	80	80
GRAND TOTAL	16	156	51	207	<u> </u>	33	114	237	84	321





# Off Campus:

I Crop Production           Resource Conservation Technologies         1         23         0         23         0         0         0         23         0         2           Resource Conservation Technologies         1         20         0         20         0         0         0         20         20         20         20         20         20         22         0         22         0         22         0         23         0         33         20         0         20         0         20         0         20         0         20	Thematic area	No. of	Participants							- 1			
I Crop Production           Residue management         1         23         0         23         0         0         0         23         0         2           Resource Conservation Technologies         1         20         0         20         0         0         0         20         20         0         20         0         20         0         20         0         20         0         20         0         20         0		courses		Others	•		SC/ST	-		Grand Tota	ıl		
Residue management         1         23         0         23         0         0         0         23         0         2           Resource Conservation Technologies         1         20         0         20         0         0         0         20         20         23         00         23         40         0         44         44         44         54         0         40         0         44         70         10         10         10         10         10         10         10         10         10 <td< th=""><th>L Cause Day herether</th><th>I</th><th>Male</th><th>Female</th><th>Total</th><th>Male</th><th>Female</th><th>Total</th><th>Male</th><th>Female</th><th>Total</th></td<>	L Cause Day herether	I	Male	Female	Total	Male	Female	Total	Male	Female	Total		
Resource Conservation Technologies         1         20         0         20         0         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20	-		1	1				I	1				
Technologies         1         20         0         20         0         0         20         20         20         0         20         20         20         20         20         20         20         20         20         20         20         20         20         20         20         22         00         12         10         11         10         11         22         00         23           Integrated Crop Management         8         133         0         137         33         0         33         00         33         100         33         232         00         232         00         232         00         232         00         232         00         232         00         23         100	-	1	23	0	23	0	0	0	23	0	23		
Nursery management         2         21         0         21         1         0         1         22         0         2           Integrated Crop Management         8         133         0         133         34         0         34         167         0         16           Total         12         197         0         197         35         0         35         232         0         23           I Horticulture         - <td></td> <td>1</td> <td>20</td> <td>0</td> <td>20</td> <td>0</td> <td>0</td> <td>0</td> <td>20</td> <td>0</td> <td>20</td>		1	20	0	20	0	0	0	20	0	20		
Integrated Crop Management         2         21         0         133         34         0         34         167         0         12           Total         12         197         0         197         35         0         35         232         0         23           I Horticulture         12         197         0         197         35         0         35         232         0         23           a) Vegetable Crops         1 <t< td=""><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>20</td></t<>	0										20		
Total         12         197         0         197         35         0         34         0         14           II Horticulture         12         197         0         197         35         0         35         232         0         23           II Horticulture         12         197         0         197         35         0         35         232         0         23           II Horticulture         12         10         0         40         0         40         6         0         6         46         0         44           Nursery raising         2         40         0         40         0         0         40         0         40         0         40         0         44           Methods of sowing techniques         2         38         0         38         2         0         2         40         0         44           Total (a)         6         118         0         118         8         0         8         126         0         12         2         0         2         0         2         0         2         0         2         0         2         0											167		
I Horticulture         I J         J <thj< th="">         J         J</thj<>											232		
a) Vegetable Crops         Image of the second		12	197	0	197	- 55	0	- 33	232	0	232		
Production of low value and high volume crops         2         40         0         40         6         0         6         46         0         4           Nursery raising         2         40         0         40         0         0         0         0         4													
high volume crops         2         40         0         40         6         0         6         46         0         40           Nursery raising         2         40         0         40         0         0         0         0         40         0													
Methods of sowing techniques         2         38         0         38         2         0         2         40         0         44           Total (a)         6         118         0         118         8         0         8         126         0         12           b) Fruits         6         118         0         118         8         0         8         126         0         12           Layout and Management of Orchards         1         20         0         20         0         0         0         20         20         20         20         20         20         20         20         20         20         20         20         20         20		2	40	0	40	6	0	6	46	0	46		
Methods of sowing techniques         2         38         0         38         2         0         2         40         0         44           Total (a)         6         118         0         118         8         0         8         126         0         12           b) Fruits         -		2	40	0	40	0	0	0	40	0	40		
Total (a)         6         118         0         118         8         0         8         126         0         12           b) Fruits	Methods of sowing techniques		38	0	38	2	0	2	40	0	40		
b) Fruits         Image: constraint of Orchards         Image: constraint of O	Total (a)								-		126		
Orchards         1         5         0         5         15         0         15         20         0         22           Rejuvenation of old orchards         1         20         0         20         0         0         0         20         0         40         40         40         40         40         20         0         20         0         20         0         20         0         20         0         20	b) Fruits					-							
Rejuvenation of old orchards         1         20         0         20         0         0         0         20         0         40         0         44           Nursery Management         1         17         0         17         3         0         3         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         0         20         20         20         20         20         20         20         20         20         20         22         20         22         20         22         20         22         20         22         20         22         22         0         22<	Layout and Management of												
Total (b)       2       25       0       25       15       0       15       40       0       44         c) Ornamental Plants       .		1	5	0	5	15	0	15	20	0	20		
c) Ornamental Plants         2         2.5         6         2.5         1.5         6         1.5         40         6         40         40         6         40         40         6         40         40         6         40         6         10         40         6         10         10         6         10         10         6         10         10         6         10         10         10         10         10         10         10         11         11         11         17         0         17         3         0         3         20         0         21           Others (Fertilizer management)         1         17         0         17         3         0         3         20         0         20         0         340         0         44           d) Spices         1         20         0         20         0         0         0         20         0         20         0         20         0         20         0         20         0         22         0         22         0         22         0         22         0         22         0         22         0         22         0	•	1	20	0	20	0	0	0	20	0	20		
Nursery Management         1         18         -         18         2         -         2         20         -         22           Others (Fertilizer management)         1         17         0         17         3         0         3         20         0         29           Total (c)         2         35         0         35         5         0         5         40         0         44           d) Spices         -         20         0         20         0         0         0         20         20         0 <td< td=""><td>S 7</td><td>2</td><td>25</td><td>0</td><td>25</td><td>15</td><td>0</td><td>15</td><td>40</td><td>0</td><td>40</td></td<>	S 7	2	25	0	25	15	0	15	40	0	40		
Others (Fertilizer management)       1       17       0       17       3       0       3       20       0       21         Total (c)       2       35       0       35       5       0       5       40       0       44         d) Spices       1       20       0       20       0       0       35       5       0       5       40       0       44         Production and Management technology       1       20       0       20       0       0       0       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20       20 <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td>	,										<u> </u>		
Total (c)       2       35       0       35       5       0       5       40       0       44         d) Spices       20       0       35       5       0       5       40       0       44         d) Spices       1       20       0       20       0       5       40       0       44         Production and Management technology       1       20       0       20       0       0       20       20       0       20       0		1	18	-	18	2	-	2	20	-	20		
1         2         33         0         33         3         0         3         40         0         4           d) Spices         - <t< td=""><td>Others (Fertilizer management)</td><td>1</td><td>17</td><td>0</td><td>17</td><td>3</td><td>0</td><td>3</td><td>20</td><td>0</td><td>20</td></t<>	Others (Fertilizer management)	1	17	0	17	3	0	3	20	0	20		
Production and Management technology         1         20         0         20         0         0         0         2	Total ( c)	2	35	0	35	5	0	5	40	0	40		
technology       1       20       0       20       0       0       20       0       20	d) Spices												
GT (a-d)       11       198       0       198       28       0       28       226       0       22         III Soil Health and Fertility Mangmt.         Soil fertility management       2       30       0       30       10       0       10       40       0       44         Integrated Nutrient       2       32       0       32       8       0       8       40       0       44         Management       2       32       0       32       8       0       8       40       0       44         Micro nutrient deficiency in crops       2       34       0       34       6       0       6       40       0       44         Nutrient Use Efficiency       2       33       0       33       7       0       7       40       0       44         Balance use of fertilizers       3       54       0       54       6       0       6       60       0       64         Soil and Water Testing       2       32       0       32       8       0       8       40       0       44         Total       13       215       0       215       45	e			_		_		_		_			
III Soil Health and Fertility Mangmt.       100 </td <td></td> <td>20</td>											20		
Soil fertility management       2       30       0       30       10       0       10       40       0       44         Integrated Nutrient       2       32       0       32       8       0       8       40       0       44         Management       2       32       0       32       8       0       8       40       0       44         Micro nutrient deficiency in crops       2       34       0       34       6       0       6       40       0       44         Nutrient Use Efficiency       2       33       0       33       7       0       7       40       0       44         Balance use of fertilizers       3       54       0       54       6       0       6       60       0       6         Soil and Water Testing       2       32       0       32       8       0       8       40       0       44         Total       13       215       0       215       45       0       45       260       0       26			198	0	198	28	0	28	226	0	226		
Integrated Nutrient       2       30       0       30       10       10       10       10       40       00       44         Integrated Nutrient       2       32       0       32       8       0       8       40       0       44         Micro nutrient deficiency in crops       2       34       0       34       6       0       6       40       0       44         Nutrient Use Efficiency       2       33       0       33       7       0       7       40       0       44         Balance use of fertilizers       3       54       0       54       6       0       6       60       0       6       60       0       44         Total       13       215       0       32       8       0       8       40       0       44		_	1					1					
Management         2         32         0         32         8         0         8         40         0         44           Micro nutrient deficiency in crops         2         34         0         34         6         0         6         40         0         44           Nutrient Use Efficiency         2         33         0         33         7         0         7         40         0         44           Balance use of fertilizers         3         54         0         54         6         0         6         60         0         6           Soil and Water Testing         2         32         0         32         8         0         8         40         0         44           Total         13         215         0         215         45         0         45         260         0         26		2	30	0	30	10	0	10	40	0	40		
Micro nutrient deficiency in crops         2         34         0         34         6         0         6         40         0         44           Nutrient Use Efficiency         2         33         0         33         7         0         7         40         0         44           Balance use of fertilizers         3         54         0         54         6         0         6         60         0         40         0         44           Soil and Water Testing         2         32         0         32         8         0         8         40         0         44           Total         13         215         0         215         45         0         45         260         0         26		2	32	0	32	8	0	8	40	0	40		
Nutrient Use Efficiency         2         33         0         33         7         0         7         40         0         40           Balance use of fertilizers         3         54         0         54         6         0         6         60         0         6           Soil and Water Testing         2         32         0         32         8         0         8         40         0         44           Total         13         215         0         215         45         0         45         260         0         26	*	_		Ű	02		Ű						
Balance use of fertilizers       3       54       0       54       6       0       6       60       0       6         Soil and Water Testing       2       32       0       32       8       0       8       40       0       40       6         Total       13       215       0       215       45       0       45       260       0       26		2	34	0	34	6	0	6	40	0	40		
Soil and Water Testing         2         32         0         32         8         0         8         40         0         40           Total         13         215         0         215         45         0         45         260         0         46         66	· · ·	2	33	0	33	7	0	7	40	0	40		
Total         13         215         0         215         45         0         46         0         44		3	54	0	54	6	0	6	60	0	60		
	-	2	32	0	32	8	0	8	40	0	40		
V Home Science/Women empewerment	Total	13	215	0	215	45	0	45	260	0	260		
	V Home Science/Women empoy	werment											
Household food security by													
kitchen gardening and nutrition gardening 2 0 28 28 0 12 12 0 40 40		2	0	28	28	0	12	12	0	40	40		
gattering     2     0     28     28     0     12     12     0     40     40       Minimization of nutrient loss		2	0	20	20	0	12	12	0	שד	UT		
in processing 2 0 17 17 0 23 23 0 40 4	in processing	2	0	17	17	0	23	23	0	40	40		
Storage loss minimization10141406602020		1	0	14	14	0	6	6	0	20	20		
	*										40		

Women and child care	3	0	55	55	0	5	5	0	60	60
Drudgery reduction	1	0	8	8	0	12	12	0	20	20
Value Additrion	1	0	15	15	0	5	5	0	20	20
Total	12	0	177	177	0	63	63	0	240	240
V Plant Protection										
Integrated Pest management	3	54	-	54	-	6	6	54	6	60
Integrated Diseases management	3	59	-	59	1	-	1	60	-	60
Total	6	113	-	113	1	6	7	114	6	120
<b>Grand Total</b>	54	723	177	900	109	69	178	832	246	1078



















### Consolidated (On + Off)

Thematic area	No.				1	Participa	nts			
	of		Others			SC/ST		(	Frand To	tal
	cour ses	Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production	565									
Nursery management	3	32	0	32	10	0	10	42	0	42
Crop management	3	51	0	51	10	0	10	61	0	61
Residue management	1	23	0	23	0	0	0	23	0	23
Resource Conservation	1	23	0	23		0	0	23	0	23
Technologies	1	20	0	20	0	0	0	20	0	20
Integrated Crop										
Management	8	133	0	133	34	0	34	167	0	167
Total	16	259	0	259	54	0	54	313	0	313
II Horticulture										
a) Vegetable Crops										
Production of low value										
and high value crops	2	40	0	40	6	0	6	46	0	46
Nursery raising	3	42	0	42	16	2	18	58	2	60
Method of sowing									_	
technique	2	38	0	38	2	0	2	40	0	40
Total (a)	7	120	0	120	24	2	26	144	2	146
b) Fruits										
Layout and Management										
of Orchards	2	18	0	18	22	0	22	40	0	40
Management of young			0		10			10		• •
plants/orchards	1	9	0	9	10	1	11	19	1	20
Rejuvenation of old orchards	1	20	0	20	0	0	0	20	0	20
Total (b)	4	<b>47</b>	0	<b>47</b>	32	1		79		<u> </u>
c) Ornamental Plants	4	4/	U	4/	32	1	33	19	1	00
Nursery Management	1	10	0	10		0	2	20	0	20
Others (Fertilizer	1	18	0	18	2	0	2	20	0	20
management)	1	17	0	17	3	0	3	20	0	20
Total ( c)	2	35	0	35	5	0	5	40	0	40
d) Spices	4	55	U	- 33	5	U	5	-10	U	70
Production and										
Management technology	2	25	0	25	14	1	15	39	1	40
G.T	15	227	0	227	75	4	79	302	4	306
III Soil Health and Fertili	-		1	20	10	<u>^</u>	10	40		4.0
Soil fertility management	2	30	0	30	10	0	10	40	0	40
Integrated Nutrient										
Management	3	49	0	49	11	0	11	60	0	60
Micro nutrient deficiency										
•	1	50		50			0	<b>CO</b>		<i>c</i> 0

in crops

Nutrient Use Efficiency	2	33	0	33	7	0	7	40	0	40
Balance use of fertilizers	3	54	0	54	6	0	6	60	0	60
Soil and Water Testing	3	47	0	47	13	0	13	60	0	60
Production and use of										
organic input	1	15	0	15	5	0	5	20	0	20
Total	17	280	0	280	60	0	60	340	0	340
V Home Science/Women										
empowerment										
Adulteration	1	0	17	17	0	3	3	0	20	20
Household food security										
by kitchen gardening and										
nutrition gardening	3	0	36	36	0	24	24	0	60	60
Design and development										
of low/minimum cost diet	1	0	15	15	0	5	5	0	20	20
Minimization of nutrient										
loss in processing	3	0	28	28	0	32	32	0	60	60
Storage loss minimization										
techniques	1	0	14	14	0	6	6	0	20	20
Women empowerment	2	0	40	40	0	0	0	0	40	40
Women and child care	3	0	55	55	0	5	5	0	60	60
Drudgery reduction	1	0	8	8	0	0	12	12	20	20
Value addition	1	0	15	15	0	0	5	5	20	20
Total	16	0	228	228	0	0	92	92	320	320
V Plant Protection										
Integrated Pest										
management	3	54	-	54	-	6	6	54	6	60
Integrated Diseases										
management	3	59	-	59	1	-	1	60	-	60
Total	6	113	-	113	1	6	7	114	6	120
Grand Total	70	879	228	1107	190	102	292	1069	330	1399

# Training for Rural Youths including sponsored training programmes (On campus)

	No.				No. of	f Partici	pants			
Area of training	of		Genera	1		SC/ST		<b>Grand Total</b>		
Area of training	Cou	Male	Femal	Total	Male	Female	Total	Male	Femal	Tota
	rses	Wale	e	Total	Male	Temale	Total	Iviale	e	1
Seed Production	2	12	-	12	8	-	8	20	0	20
Women Empowerment	1	-	7	7	-	13	13	-	20	20
Soil Testing	1	8	-	8	2	0	2	10	0	10
Vermin Compost	1	7	-	7	3	0	3	10	0	10
Nursery raising under poly house	2	18	2	20	1	-	1	18	2	20
Total	7	45	9	54	14	13	27	58	22	80

# Training programmes for Extension Personnel including sponsored training programmes (on campus)

		ON CAMPUS											
Area of Training	No.					Participant	s						
	of cour		Others			SC/ST		Grand Total					
	ses	Male	Male Female Total M			Female	Total	Male	Female	Total			
Crop Management	4	87	0	87	22	0	22	109	0	109			
Integrated Nutrient management	5	76	0	76	26	0	26	102	0	102			
Rejuvenation of old orchards	1	13	0	13	7	0	7	20	0	20			
Protected cultivation technology	2	36	0	36	6	0	6	42	0	42			
Women and Child care	4	0	0 50 50 0 10 10 0 60 6										
Integrated Pest Management	2	30 - 30 0 0 30 0								30			
TOTAL	18	242         50         292         61         10         71         303         60         36							363				









# Sponsored training programmes

		No. of Participants										
Area of training	Sponsoring Agency	No. of Courses	General				SC/ST	Г	Grand Total			
	8		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Protection of plant variety and farmers right	Ministry of agricultural, GOI	01	80	0	80	20	0	20	100	0	100	
Horticulture training under NHM	Deptt. Of horticulture, Meerut	02	10 0	-	100	25	-	25	125	-	125	
Farmers Technical Training	U.P. Government	04	14 0	10	150	28	22	50	168	32	200	
Basmati Rice Production	BEDF, Meerut	01	93	-	93	32	-	32	125	-	125	
Judicious use of Pesticides	HIL, New Delhi	01	78	-	78	22	_	22	100	-	100	
TOTAL		09	491	10	501	127	22	149	618	32	650	

# **IV. Extension Programme**

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1105	1099	33	1132
Diagnostic visits	13	39	5	44
Field Day	5	221	0	221
Group discussions	9	98	0	98
Kisan Ghosthi	42	2545	0	2545
Film Show	1	70	0	70
Self -help groups	2	65	3	68
Kisan Mela (Attended)	9	3044	84	3128
Exhibition	5	2430	31	2461
Scientists' visit to farmers field	273	595	0	595
Plant/animal health camps	0	0	0	0
Farm Science Club	1	20	1	21
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	1	48	0	48
Method Demonstrations	0	0	0	0
Celebration of important days	1	443	38	481
Special day celebration	1	305	45	350
Exposure visits	5	365	0	365
Others(Farmer visited KVK)	222	222	10	232
Total	1695	11609	250	11859

# Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	9
News paper coverage	55
Popular articles	19
Radio Talks	0
TV Talks	6
Animal health amps (Number of animals treated)	0
Others(Success Story,Book Published)	0
Total	89











# Mobile Advisory Services

			Type of Messages						
Name of KVK	Message Type	Crop	Livestock	Weather	Marke- ting	Aware- ness	Other enterprise	Total	
	Text only	1264	212	48		326	436	2286	
Meerut	Voice only	225	3	12		35	37	312	
	Voice & Text both								
	Total Messages	1489	215	60	0	361	473	2598	
Total farm	ers Benefitted							2598	



## VI. PRODUCTION OF SEED/PLANTING MATERIAL AND FODDER

### Production of seeds by the KVKs

Сгор	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)
Rabi 2017-18	Wheat	HD - 2967	-	250.0	500000.00
	Jowar	PC - 9	-	Auction	1,04,000.00
Total				250.00	604000.00





Crop	brop Name of the crop Name		Name of the hybrid	Number	Value (Rs.)
	Tomato	Selection 22	-	1000	640
	Cauliflower	Pusa Early kuwari	-	1000	620
	Cabbage	Kaveri	Kaveri	2000	1000
	Brinjal	Nav Kiran	Nav Kiran	2000	400
Vegetables	Chilli	Soldier	Soldier	1000	400
	Onion	Pusa Red	-	5000	1250
Flowers	Marigold	Pusa Narangi	-	2500	700
	Gailardia	Normal	-	4500	650
	Kochia	Normal	-	2000	450
	Zinnea	Normal	-	2000	400
Total	1		1	23000	6510







### **Production of Bio-Products: Nil Performance of Crop Cafeteria**

	Kharif		Rabi
Name of crop	Variety	Name of crop	Variety
Brocolli	1. Green curd		1. YSH 401
			2. Giriraj (DMR-IJ-31)
		Mustard	3. RH 749
Brinjal	1. Navkiran		
			4. RH 406
			5. NRCDR -2
Chilli	1. Ashwarya		6. NRCHB-101
			7. PM 26
Tomato	1. Ajanta	Timely sown	1. Adhik (Dayal)
		wheat	2. Shriram - 272
Onion	1. Pusa Red		3. HD - 2851
			4. HD - 2967
Cauliflower	1. K - 10		
			5. DBW 17
Cabbage	1. Parvati	Late sown wheat	1. PBW 292
			2. PBW 226
			3. WH 1124
Garden Pea	1. Pusa Pragati		
			4. DBW 16
			5. DBW 71



### VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	1299	2935	29	95100
Water				
Plant				
Total	1299	2935	29	95100

### VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
Meerut	1 (12.03.2018)

### IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution

### X. PUBLICATIONS

Category	Number
Books	1
Training Manual	1
Book Chapter	11
Research papers	9
Seminar Papers	2
Technical bulletins	5
Technical reports	5

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

Activities conducted							
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)			
Under construction							

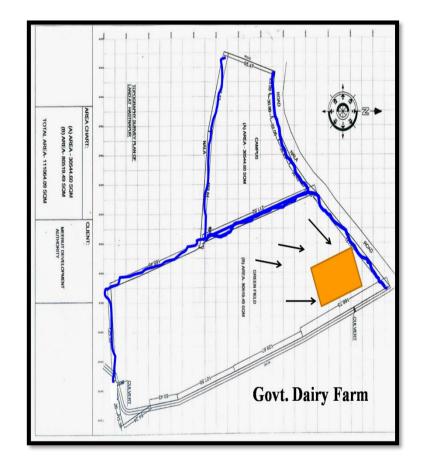
### Rain Water Harvesting at KVK

Water is becoming a scare commodity and it is considered as a liquid god in the country. Demand of water is also increasing day by day not only for irrigation but also for household and industrial purposes. At the same time more area should be brought under irrigation to feed the increasing population of the country, which also needs more water. But we are not going to get 11iter more water than we get at present though the demand is alarming.

### **Objectives**

- To demonstrate the technology among farmers
- To avoid water stagnation and crop damage
- Recycling of waste drain water
- To utilize the stored water for irrigation and other farm purposes during dry season
- To avoid sole dependency
   on electricity to irrigate farm as
   well as reducing costly electricity
   charges

#### **Total Encatchment Area – 6**



Summarv	of	project	for	water	harvesting	structure:
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S. N.	Item	Amount (Rs)
(A)	Cost of ponds	
1	Cost of ponds	834440.00
2	Cost of barbed wire fencing	132452.70
3	Cost of Syphon work	51476.00
4	Cost of sign board	5000.00
	Total	1023368.70

(B) Additional charges	
Cost of labour cess @ 1 % on A	10233.68
Centage charges @ 6.875 % on A	70556.60
Total	80970.28
(C) Cost of Percolation treatment	
Filling of clay soil and common salt in bottom of pond to prevent water percolation	100000.00
( <b>D</b> ) Cost of Solar pump	
Cost of solar pump (3 HP)	434000.00
Cost of trolley for panel installation	42000.00
	476000.00
Grand Total = A + B + C + D =	1680338.98
Say = Rs Sixteen lac and eighty thousand only	1680000.00

It is very important to make water everybody's business. It means a role for everybody with respect to water. Every household and community has to become involved in the provision of water and in the protection of water resources. As far as the KVK is concern, a water harvesting being a long life structure at KVK, not only useful for irrigation and money saving asset but also may serve the farming community to aware them about conservation of natural resources to counter water crises in future and may be integrate as component to develop integrated farming system as entrepreneurship development.

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

Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
Total			

Major area coverage under alternate crops/varieties

Crops	Área (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

#### Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Total		

Animal health camps organised

Number of camps	No.of animals	No.of farmers
Total		

Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Total			

#### Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Total		

Awareness campaign

Meet	ings	Gost	hies	Field	l days	Farr	ners fair	Exhib	ition	Film	show
No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers

#### XIII. DETAILS ON HRD ACTIVITIES

#### A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension

Name of the	Title of the training	No of	No. of	No. of KVKs
SAU	programmes	programmes	Participants	involved
Total				

#### HRD activities organized in identified areas for KVK staff by Zonal Project Directorate

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Total			

### **Success Story : 1**

#### Diversification In Agriculture Has Become A Need Of Hour: A Success Story

A marginal farmer, Sh Jallaludin belongs to the belt in which the farmers have been sticking to the crops like wheat, rice and sugarcane. But as per farmer's feedback, now these crops are not proving cost effective for them. Neither, farmers are getting timely and justified payment for their main sugarcane crop, nor having satisfying prizes in spite of producing improved varieties of basmati rice and wheat at their fields. Moreover, the cost of production of the traditional crops is also increasing year by year. This is compelling farmers either to switch on cultivation of other crops or migrating towards towns or cities for their livelihood.

Shri Jallaludin was not satisfied with the income he used to obtain by growing traditional crops and keen to get a feasible alternate horticultural crop which may meet the expenditures of his family and lift his socio economic status as well. Once, during a training programme of Krishi Vigyan Kendra at village Ganeshpur, he came into contact with KVK scientists where he was told that the ginger crop may serve him as a fruitful alternate in comparison of existing traditional crops. Initially, he was a bit confused regarding the feasibility of the suggested crop as he had not ever experienced this crop in his area. KVK scientists not only apprised him of the technology of ginger production but also assured him the cooperation of KVK for this innovative approach. Besides, he was also imparted technical know how of cultivation of ginger and the source of quality seed. Finally, as per the guidance, he arranged the seed from Dehradun and sown ginger in his 1.5 bigha of land first time in the area. Following were the technological interventions made by KVK.

### Technological interventions suggested by KVK

- Ensured the availability of healthy and disease free seed.
- Summer ploughing of fallow field during March and April to expose the immature stages of soil inhabiting pest for predators.
- Rhizomes were sown on raised beds of at least 20 25 cm to avoid the water stagnation.
- Application of well decomposed 250 qtls of farm yard manure per hectare, 15 days previously mixed with 3 kg. Trichoderma.
- Seed treatment with Mancozeb (0.3 %) and shade drying before sowing.
- Selection of healthy and bold rhizomes for seed for next season crop.

#### Role of KVK in dissemination of technology

For implementation of technological interventions, KVK emphasized on conducting its Horticultural and Plant Protection disciplines related extension activities to support the farmer technically and for the promotion of the innovative technology among other progressive farmers of the district. Following activities were carried out KVK during the crop period

- Farmers were trained how to prepare mixture of Trichoderma with FYM and proper application at right time in the fields.
- Scientists conducted 04 field visits along with farmers to identify the pest, diseases and proper monitoring of irrigation schedule.
- 02 field days were conducted at farmer's field for the dissemination of technology.
- 03 training programmes conducted on integrated pest management of disease and pest management viz. Rhizome rot, Bacterial wilt, Rhizome scale and white grub.

Farmer reported a problem of yellowing of 29 plants and rotting of rhizomes in the month of July in his field which was identified the initial stage of Rhizome rot. He was advised soil drenching of Copper oxy chloride @ 3gm/lit of water at 15 days interval during the months of July – August. Problem was countered successfully. In spite of applying all technological interventions properly, farmer complained regarding the issue of under growth of rhizomes still in the month of October. Scientists visited the field and observed that due to climatic change, the average recorded temperature up to the month of early November, 2016 of Meerut district was comparatively higher in comparison of general trend of comparatively cooler climate in the month of November every year. Farmer was advised to have patience and to wait for decrease in temperature which is needed for the proper growth of rhizome. The problem was sorted out with the decrease of temperature in the first fortnight of November. By the end of last of December month, farmer reported the development of healthy medium size rhizomes on an average of 300 to 500 gms per plant. A number of exposure visits of farmers at his field, press releases in news papers and other extension activities were conducted to high light the innovation and achievement of Sh. Jallaludin and to motivate the farmers for dissemination of this fruitful technology in the district. Farmers interacted with Jallaludin and it was eye opener for them by learning the fact that he had booked all his produce for seed purposes by the fellow farmers of his village and nearby area. He claimed to get a handsome amount of 1.3 lack by spending Rs. 35000/- from his 1.5 bigha of land. The farmer got the key to improve his socio economic status and he was awarded by Krishi Vigyan Kendra as an "Innovative Farmer of the district" on the occasion of Kissan Samman Diwas, 23rd Dec, 2016 among progressive farmers and the officers of various line departments. Now, many farmers of the district are approaching Sh. Jallaludin and Krishi Vigyan Kendra to procure seed, knowledge sharing and valuable experience.



### **Success Story: 2**

### **Doubling Income through Sugarcane value addition**

A farmer Sh. Naresh sirohi S/o Sh Mahavir Singh R/o hitkari, block Sardhana, Distt. Meerut has 1.25 acre land with canal irrigation facility. Earlier he was growing traditional crops like Sugarcane – wheat by which he was getting approximately 50.00 thousands per year. The annual earning of Sh. Sirohi was insufficient to met out the expenditure required for smoothly running of the family.

Sh. Sirohi is a graduate and ambitious person with a zeal to do something better for the family. Being a educated person he contacted to KVK, Meerut and got idea to process the sugarcane. He started preparation of vinegar with the technical support of KVK, and first time in 2015 started with Only 1.5 Qtl. Sugarcane, by which he extracted 100 lit. juice and finally prepared 90.0 lit. Vinegar. He got total Rs. 3150 after sale of vinegar @ Rs. 35/ Lit, and Rs. 1440.00 net profit after deduction of all expenses on equipments and labour etc in comparison of Rs. 420.00 total income from direct sale of 1.5 Qntl. Sugarcane.

Now Sh. Sirohi is preparing 4500 lit. vinegar from 75 Qtl. Produced in 0.08 ha. land. Sugarcane produced in his own field and getting total Rs. 157500.00 with net profit of Rs. Rs. 67500.00 only from Sugarcane vinegar, besides this he is preparing vinegar from Jamun, Pine Apple and Apple, fortified with Tulsi extract and getting Rs. 2 lacks additional income in a year.

For publicity, he started putting exhibition in Kisan mela organized by KVK and Deptt. Of Agriculture in Meerut and nearby districts. He has registered his products with the trade name of *Village Vinegar* with GST No. also and These products are being supplied in several sized packing with brand name at Ayurvedic stores, Grossary stores, Medical stores and road side dhabas. Keeping in mind the demand of products, Sh. Sirohi is planning to double the production.He honoured with silver medal in North Zone Krishi Mela held at Vegetable Research Institute from 23-25 Feb, 2018 by Hon'ble minister of Agriculture, Govt. of India.





# **Additional Activities**

### Krishi Unnati Mela

150 farmers were moved to the Krishi Unnati mela At IARI from 15 - 18, March 2018 by three buses from district Meerut. Direct telecast of Hon'ble Prime Minister's innaugral speech on 17.03.2018 on the occasion of Krishi Unnati Mela were arranged to the farmers gathered at KVK, Hastinapur .



### Kisan samman divas evam kisan mela organized

Date	:	23 <sup>rd</sup> Dec., 2017
Occasion	:	115 <sup>th</sup> Birth Day of former Prime Minister, Ch Charan Singh
Chief Guest	:	Sh. Arun Kumar, Chairman Nagar Panchayat, Hastinapur
Media persons	:	Denik Jagran, Amar Ujala, Janvani, Hindustan
No. of farmers registered	:	429 (500 approx)

### **Progressive farmers honored:**

Total numbers of 05 progressive farmers under the jurisdiction of KVK Hastinapur have been honored for their remarkable efforts in various agricultural activities on the occasion of kisan samman divas with the following details.

### **Celebration of World Soil Health Day**

World Soil Health Day was celebrated on 05, Dec. 2017 at Krishi Vigyan Kendra, Meerut. On the occasion 115 farmers were participated and provided Soil Health Card to them. The occasion was graced by Dr. Ravi Kumar, Ex Professor, Soil Science HAU, Hissar (HR.).



Joint Director Agriculture, Meerut, Deputy Director Agriculture, Meerut and other officials from different line departments also participated in the programme.

### Awards / Achievements:

Efforts of KVK, Meerut were recognized by Prof. Gaya Prasad, Hon'ble Vice Chancellor in All India farmer's fair at Sardar Vallabhbhai Patel Univ. of Agric. & Technology, Meerut during 07-09 October, 2017. The centre was not only awarded with first prize for its Best Murrah Breed Buffalo in an animal completion event but also secured second prize for best KVK stall in farmer fair.



### **Establishment of IFS Model**

S.No.	Component	Area in ha	% share
I.	CROP PRODUCTION	0.4	40
A.	Wheat	0.3 (Rabi)	
B.	Paddy	0.3 (Kharif)	
с.	Fodder	0.1 (whole year)	
II.	HORTICULTURE:	0.5	50
А.	Vegetable Pea	0.1 ( Rabi)	
B.	Marigold	0.1 ( Kharif & Rabi )	
с.	Bhindi	0.1(Summer & Kharif)	
d.	Radish, Carrot, Onion, Garlic	On ridges	
e.	Mango Orchards	0.1	
f.	High Density Guava Orchard	0.15	
g.	Nursery	0.05	
III.	Fodder on Bund		
IV.	COMPOSITE FISH FARMING	0.07	7
<b>V.</b>	LIVE-STOCK	0.02	2
А.	Buffallow	02 no.	
B.	Goats	5+1 no.	
VI	Other units	0.01	1
А.	VermiCompost	01 unit ( 06 beds)	
B.	NADEP	01 unit	
VII	Layout, Road, Irrigation Channel, Fencing		
TOTAL		1.0	100

Dr. Atar Singh, Principal Scientist ATARI, Kanpur visited KVK on 19.12.2017 as pre decided programme. He visited KVK campus including soil testing lab, bio control lab, library, ATIC, Meeting Hall and display material at the KVK, He appreciated the newly established the ATIC and advised some points for the systemic arrangement of exhibits .



### XIV. AGRICULTURAL TECHNOLOGY INFORMATION CENTRE

Prof. Gaya Prasad, Hon'ble Vice Chancellor, Sardar Vallabhbhai Patel University of Agriculture and Technology, Modipuram, Meerut inaugurated "Agriculture Technology Information Centre cum Museum" at KVK Meerut on 7<sup>th</sup> of July 2017. The ATIC established at KVK campus demonstrating the latest sustainable technologies and other farmer's oriented activities based on priority thrust areas covering various aspects of Crop Production, Plant Protection, Animal Husbandry, Horticulture and Home Science by displaying live demos, models, flex charts comprising information on livestock based entrepreneurship development, women empowerment, alternate cropping systems, various tools of bio intensive pest management, protected cultivation of horticultural crops, soil health management and technical literature.





#### A. Details on ATICs

S. No	Name of the ATIC	Name of the Host Institute	Name of the ATIC Manager	
1	KVK, Meerut	SVPUA&T, Meerut	Dr. Omvir Singh	

#### B. Details on Farmer's visit

S. No	Purpose of visit	Number of farmer's visited
01	Technology Information	2025
02	Technology Products	
03	Others if any pl. specify	

#### Facilities in the ATIC which are in operation

S. No	Particulars	Availability (Please $\sqrt{\text{mark}}$ )	Number of ATICs
01	Reception counter	V	1
02	Exhibition / technology museum	V	
03	Touch screen Kiosk		
04	Cafeteria	√	
05	Sales counter	√	
06	Farmer's feedback register	V	
07	Others if any (Visitor Register)	V	

### **D.2**. Publications (Print & Electronic media)

S. No	Particulars	Number sold	Revenue generated in	Number of farmers
			Rs.	benefited
01	Books	1		
02	Technical bulletins	11		
03	Technology Inventory			
04	CDs			
05	DVDs			
06	Video films			
07	Audio CDs			
08	Others if any (please specify)			

### **Technology Products provided**

Particulars	Quantity	Unit of quantity	Value in Rs.	Number of farmers benefited
Seeds	250.0	Quintal	604000.00	-
Planting materials	23000	Numbers	6510.00	54
Livestock		Numbers		
Poultry birds		Numbers		
Bio-products		Quintals		
Others pl. specify				

### F. Technology services provided

S. No	Particulars	Number of farmers benefited
01	Soil and water testing	1299
02	Plant diagnostics	63
03	Details about the services to line Departments	
04	Others if any (please specify)	

### XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATE OF EXTENSION States covered: Number of Directorates of Extension:

#### A. Details on Directors of Extension

S. No	Name of the SAU	Name of the Director of Extension	Number of KVKs for which technological backstopping is provided					
			SAU/CAU	DU	ICAR	NGO	SDA	Others (pl. specify)

#### B. Workshops / meetings organized

S. No.	Details of workshop/meeting conducted	No. of KVKs participated

#### C. Visits made by DE / Officials in the Directorate to KVKs

S. No.	Particulars	Number of visits
01	SAC meetings	
02	Field days	
03	Workshops / seminars	
04	Technology week	
05	Training programmes	
06	Others pl. specify	

#### D. Overseeing of KVKs activities

S. No.	Particulars	Number of fields visited	Major observations / remarks	Major suggestions given
01	On Farm Trials			
02	Front Line			
	Demonstration			
03	Others pl. specify			

### C. Publication on Technology inventory

S. No.	Particulars	Number
01	Directorates published the	
	technological inventory	
02	Directorates constantly updating the	
	technological inventory	

### F. Technological Products provided to KVKs

S. No.	Major technologies provided	Number of KVKs
01	Seeds	
02	Planting materials	
03	Bio-products	
04	Livestock breed	
05	Livestock products	
06	Poultry breed	
07	Poultry products	
08	Others pl. specify	

-----XXXXXXX

# **Budget:**

SN	Particulars	Grant Sanctioned for 2017-18	Actual Expenditure for 2017-18	Balance
Α	Recurring Items			
1	Pay & Allowances	13371286.00	13371286.00	0.00
2	Travelling Allowances	100000.00	97981.00	2019.00
3	HRD	50000.00	16000.00	34000.00
4	Contingencies			
	a) Expenditure on Office Running	685000.00	684900.00	100.00
	b) POL	120000.00	98429.00	21571.00
	c) Vocational Training			
	i) Meals/Refreshment for trainees	80000.00	79629.00	371.00
	ii) Training/Demonstration Material	30000.00	29800.00	200.00
	d) F.L.D.(Other than oil seed & pulses)	100000.00	99450.00	550.00
	e) On Farm Trial	50000.00	49178.00	822.00
	f) Training of Extn. Functionaries	30000.00	29853.00	147.00
	g) Library maintenance	5000.00	2543.00	2457.00
	Total (A)	14621286.00	14559049.00	62237.00
В	Non-Recurring items			
	a) Equipment (Biometric Machine	0.00	0.00	0.00
	b) Drudgery of Farm Women	0.00	0.00	0.00
	c) Tractor With Equipment	0.00	0.00	0.00
	d) E-Extension	0.00	0.00	0.00
	e)Rain Water Harvesting	0.00	0.00	0.00
	f) Library			
	g) Vehicle			
	Total (B)	0.00	0.00	0.00
С	Revolving Fund			
	Total (C)			
	Grand Total (A+B+C)	14621286.00	14559049.00	62237.00

# Others Receipt & Expenditure

	Grand Total (A+B+C+D)	824779.00	281004.00	253996.00
	Total (D)			
5	PPV & FR	80000.00	64963.00	15037.00
4	Sankalp se sidhhi	75000.00	74641.00	359.00
3	Cluster FLD of Oilseeds (Mustard)	60000.00	43400.00	16600.00
2	Cluster FLD of Pulses (Urd)	120000.00	18000.00	102000.00
1	Cluster FLD of Pulses (Lentil)	200000.00	80000.00	120000.00