ANNUAL REPORT (January-December 2020)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	64	1000	280	1280
Rural youths	8	75	35	110
Extension functionaries	15	140	30	170
Sponsored Training	18	512	18	530
Vocational Training	--	--	--	--
Total	**105**	**1727**	**363**	**2090**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	--	--	--
Pulses	125	50.00	--
Cereals	39	16.00	--
Vegetables	--	--	--
Flower	--	--	--
Hybrid crops	--	--	--
Fruits	--	--	--
Total	**264**	**66.00**	--
Livestock & Fisheries	30	--	55
Other enterprise- H.Sc	20	--	20
Total	**50**	**--**	**75**
Grand Total	**314**	**66.00**	**75**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	5	5	14
Livestock	2	2	20
Other enterprises	1	1	5
Total	**8**	**8**	**39**
Technology Refined			
Crops	--	--	--
Livestock	--	--	--
Various enterprises	--	--	--
Total	--	--	--
Grand Total	**8**	**8**	**39**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	269	6839
Other extension activities	57	667
Total	**326**	**7506**

4. Mobile Advisory Services

55 Message Type	Type of Messages						
	Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Text only	--	--	--	--	--	--	--
Voice only	860	140	30	20	70	207	1327
Voice & Text both	--	--	--	--	--	--	--
Total Messages	860	140	30	20	70	207	1327
Total farmers Benefitted	860	140	30	20	70	207	1327

5. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	---	--
Planting material (No.)	8000	2700.00
Bio-Products (kg)	1000 kg	--
Honey Processing (Kg)	800 Kg	9600.00
Fishery production (No.)	--	--

6. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil- Macro/Micro Nutrient	870	125460.00
Soil Health Card Issued	870	
Total – Soil Health Card	**870**	120090.00

7. HRD and Publications

Sr. o.	Category	Number
1	Workshops	
2	Conferences	
3	Meetings	
4	Trainings for KVK officials	
5	Visits of KVK officials	
6	Book published	
7	Training Manual-02	
8	Book chapters	
9	Research papers	
10	Lead papers	
11	Seminar papers	
12	Extension folder/ Tech Card	
13	Proceedings	
14	Award & recognition	
15	On going research projects	

PROGRESS REPORT

(January to December 2019)

1. General Information about the KVK

1.1. Name and address of the KVK

Address	Telephone		E-Mail
	Office	FAX	
SWAMI KALYAN DEV KRISHI VIGYAN KENDRA, BAGHRA, DISTT.- MUZAFFARNAGAR (U.P.) PIN- 251306	0131-2466362 9411078115		kvkmuzaffarnagar@gmail.com muzaffarnagarkvk@gmail.com

1.2. Name and address of the host organization

Address	Telephone		E-Mail
	Office	**FAX**	
DIRECTORATE OF EXTENSION S.V.P.Univ. of Agril. & Tech., Meerut.	0121- 2888511	0121- 2888505 2888540	deesvpuat2014@gmail.com

1.3. Name of the Professor & Head

Name	Telephone/ Contact		
	Residence	**Mobile**	**E-Mail**
Dr. P.K.Singh	--	09411078115	kvkmuzaffarnagar@gmail.com muzaffarnagarkvk @gmail.com

1.4 . Year of Sanction : December 1995

Location

KVK BAGHRA, MUZAFFARNAGAR, WESTERN PLAIN ZONE (UP)

1.5. Staff Position (as on December 2020) :

S. No	Sanctioned Post	Name of incumbent	Designation	Discipline	Pay Scale Present Grade Pay	Date of Joining	Category
1.	Sr. Scientist & Head	Dr. P.K.Singh	Professor & Head	Agronomy	37400-67000 10000	02.02.95	GEN
2.	Training associate/ Asstt Prof./ SMS	Dr. A. K. Katiyar	Professor	Soil Science	37400-67000 10000	16.01.95	OBC
3.	SMS	Dr. Savita Arya	SMS/Asstt. Prof.	H.Sc.	15600-39100 7000	08.03.96	OBC
4.	SMS	Dr. R.C.Rathi	SMS/Asstt. Prof.	Animal Science	15600-39100 8000	09.12.03	OBC
5.	SMS	Dr. Sripal	SMS/Asstt. Prof.	Plant Breeding	15600-39100 6000	01.07.08	OBC
6.	Programme Asstt.	Dr. J.K.Arya	Programme Asstt.	Horticulture	9300-34800 4800	22.12.95	OBC
7.	Computer Programmer	Sh. A.K Singh	Programme Asstt.,Comp	Computer Application	9300-34800 4800	16.10.99	GEN
8	Acctt./ Suptd	Sh. S.K.Dubey	O.S/Acctt.	--	9300-34800 4200	01.07.92	GEN
9	Stenographer	Sh. Chandra Shekhar	Typist/ Clerk	--	5200-20200 2800	29.03.97	GEN
10	Driver	Sh. Vijendra Singh	Driver	--	5200-20200 2800	22.12.95	OBC
11	Supporting Staff	Sh. Ajesh Sharma	Attendant	--	4440-7440 2400	16.01.95	GEN
12	--do--	Sh. Udaiveer	--do--	--	4440- 7440 2400	15.01.96	OBC

1.6. Total land with KVK (in ha) : 0.70 ha.

S.No	Item	Area (ha)
1.	Under Building	0.20
2.	Under Demonstration Units	0.50

1.7. Infrastructure Development :

A). Building

S. No.	Name of the building	Source of fund	Stage		
			Complete		
			Completion date	Plinth area in Sqm.	Sanctioned budget (Rs)
1.	Administrative Building	ICAR	March 1998	510 sqm	15.84 lac
2.	Farmers Hostel	ICAR	31.03.10	300	---
3.	Staff Quarters (6)	ICAR	31.03.08	400 sqm	26.71 lac
4.	Demonstration Unit (2)	ICAR	31.03.08	160 sqm	11.58 lac

B). Vehicles

Type of Vehicle	Year of Purchase	Cost (Rs.)	Total KMS Run	Present Status
Jeep UP12 S 2012	2009	507000.00	217498 KM	Working
Tractor	1996	261685.00	--	Working
Bicycle	1995	2390.00	--	Working
Motorcycle (Hero Honda- UP 12 W 9367)	2010	52000.00	25396 Km	Working

DEMONSTRATION UNITS AT KVK

Honey Processing Unit

Agriculture Technology Information Center

Soil Testing Unit

Vermi Compost Unit

Medo Garden

Herbal Garden

Automatic Weather Station

Nutritional Kitchen Garden

c). Equipments & AV Aids

Name of Equipment	Year of Purchase	Cost (Rs.)	Present Status
Equipments			
Weighing Balance with weight	20.05.98	505.00	Working
Sewing Machine	06.02.98	268.00	Working
P.A. Set	30.03.98	6327.00	Working
Water Tank	30.06.97	6200.00	1 Working
Diesel Engine with Alternator	30.03.98	19931.00	Working
Generator	24.03.04	28900.00	Working
Submercible T/Well	31.03.05	35500.00	Working
Soil Testing Laboratory (Furniture, Equipment complete accessories)	2004-05	860000.00	Working
V.C.D.	26.03.04	2450.00	Working
Camera	26.03.04	5800.00	Working
Camera (Digital)	01.02.07	19990.00	Working
Colour T.V.	07.02.04	16990.00	Working
Fax Machine	27.03.04	11000.00	Working
Scanner, C.D. Writer, UPS for Computer	31.03.05	7490.00	Working
Demonstration Material (Digital Poster 10 No., 3 D Models 6 No.)	23.03.04	14570.00	Working
LCD With Memory Card	30.03.07	68125.00	Working
42 CDs (ICAR Literature)	26.10.05	Provided by ICAR	Working
Farm Implements :			
Harrow	30.03.96	8500.00	Condemn
Tiller	30.03.96	10500.00	Working
Ridger	30.03.96	5700.00	Working
Laveller	30.03.96	9000.00	Working
Ridge Maker	30.03.96	4500.00	Working
Bogi	23.09.97	5025.00	Working
Foot Sprayer (Maruti)	14.03.97	1850.00	Working
Napsake Sprayer (Aspee)	14.03.97	865.00	Working
Jubliee Duster (Aspee)	14.03.97	900.00	Working
Harrow (11 disc)	01.08.03	11500.00	Working
Weighing Machine	06.08.04	2880.00	Working
Trolley	30.11.04	61500.00	Working
Zero Till Ferti Seed Drill	30.03.05	22500.00	Working
Raised- bad- planter	31.03.10	55000.00	Working
Soil Micronutrients unit	31.03.10	2480000.00	Working
Honey Processing Unit	31.03.10	760000.00	Working

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

Sl. No.	Date	Name and Designation of Participants	Sailent Recommendation	Action taken
1.	11.02.2019	1. Sh. Narendra Kumar, DD Agriculture, MZN 2. Sh. Arvind Kumar Sharma, Dy PD, ATMA , MZN 3. Dr. Chanderbhanu, Scientist, PDFSR, Meerut. 4. Dr. D.K.Singh, Assoc. Professor, Veternary Sc. SVPUA&T, Meerut 5. Dr. U.P.Sahai, Associate Professor, SVPUA&T, Meerut 6. Dr. S.K.Tripathi, Associate Director, SVPUA&T, Meerut 7. Sh.Shailendra,DDM, NABARD, Muzaffarnagar 8. Dr. Harsh Vardhan, VIMCO 9. Dr. J.P.Singh, Joint Director, Sugercane Research, MZN 10.Sh. Rajkumar gautam, DHO, Muzaffarnagar 11. Sh. R.K.Dhuria, DGM Dhanuka 12. Sh. Arun Kumar, SCCDI, Tiawi Suger Mill 13. Sh. Rajeev Kumar, Veternery Officer 14.Sh. Vijendra Singh, SPPA, Muzaffarnagar 15. Sh. K.P.Saini, President 16. Sh. Privardhan Pawar, ABDM, Dhanuka Agritak 15. Five progressive Farmers of Distt & All Scientist & Staff of KVK Muzaffarnagar Total 36 members. .		

	Salient Recommendations	**Action Taken**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

2. Details of District

2.1 Major Farming System/ enterprises (based on analysis made by KVK)

- S. Cane based + A.H+ Horticulture
- S. Cane based + A.H+ Vegetable + Floriculture
- A.H + Labour

2.2 Description of Agro climatic Zone & major agro ecological situations

Sl. No.	AES	Characteristics of AES	Major Commodities	Farming System	Blocks
1.	AES-1	More than 95% irrigated, Loam	S.Cane, Wheat, Rice, Jowar, Mango,Guava, Litchi , Frenchbean	S. Cane based + A.H+ Horticulture	Baghra & Sadar
2.	AES-2	More than 95%, Sandy Loam	S.Cane, Wheat, Jowar, Brinjal, Cabbage, Gladiolus, Tuberose,	S. Cane based + A.H+ Vegetable+ Floriculture	Charthawal, Khatauli
3.	AES-3	Low Water table area, Loam & Sandy Loam soil	S. Cane, Wheat, Blackgram, Jowar, Mango	S. Cane based + A.H + Horticulture	Budhana & Shahpur

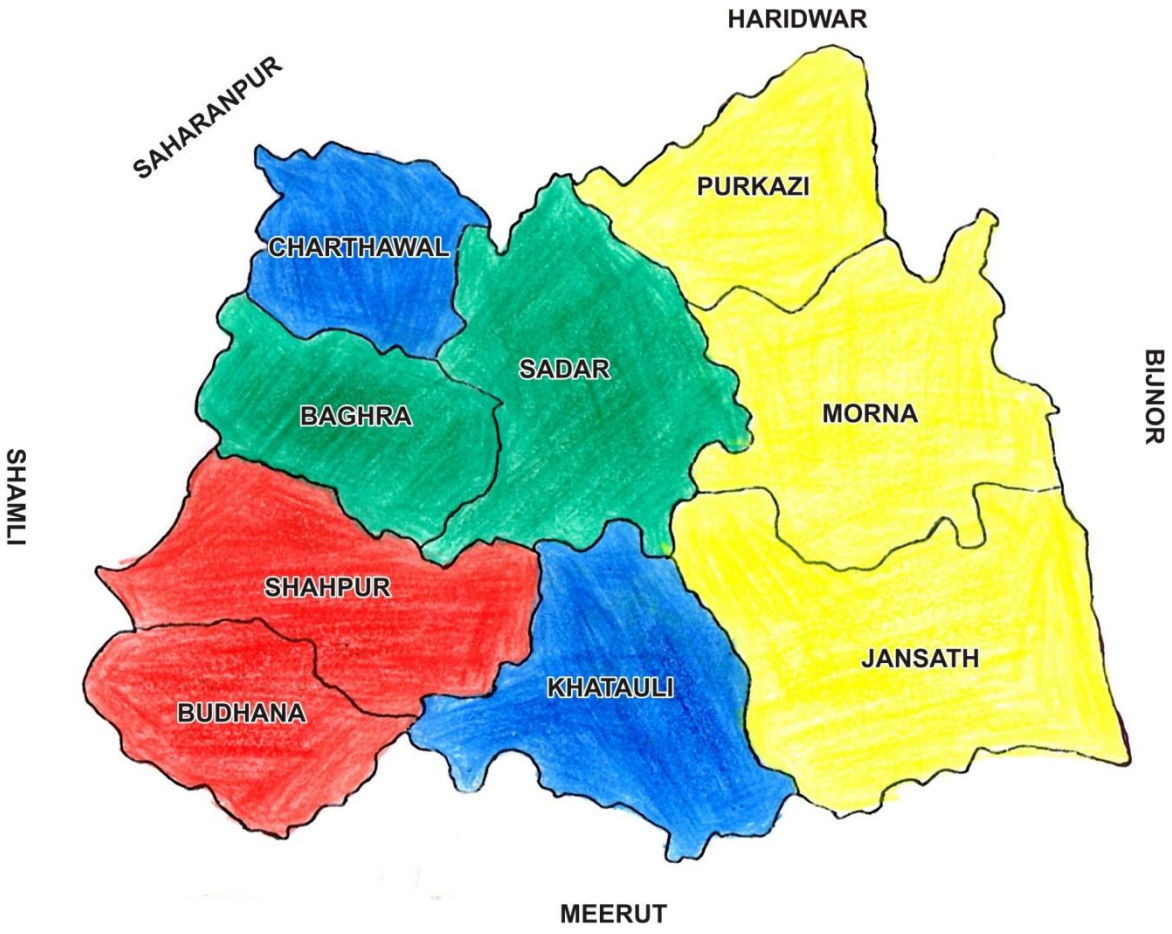
2.3 Soil Type/s

S.No.	Soil Type	Characteristics		Area (ha)
		Soil particle Diameter (mm)	Water holding capacity	
1.	Sandy	2 - 0.2 mm,	Poor	17633
2.	Sandy loam	0.2 - 0.02 mm,	Medium	128334
3.	Loam	0.02 - 0.002 mm	Average	78186
4.	Clay loam	>than 0.002 mm	Good	5126
		Total		**219269**

MUZAFFARNAGAR DISTRICT

(AGRO-ECOLOGICAL WISE MACRONUTRIENT FERTILITY MAP)

Colour	AES	Nitrogen	Phosphorus	Potassium
Yellow	I	Low	Low - medium	Low - medium
Green	II	Low - medium	Low - medium	Low - medium
Blue	III	Low - medium	Low - medium	Low - medium
Red	IV	Low - medium	Low - medium	Low - medium



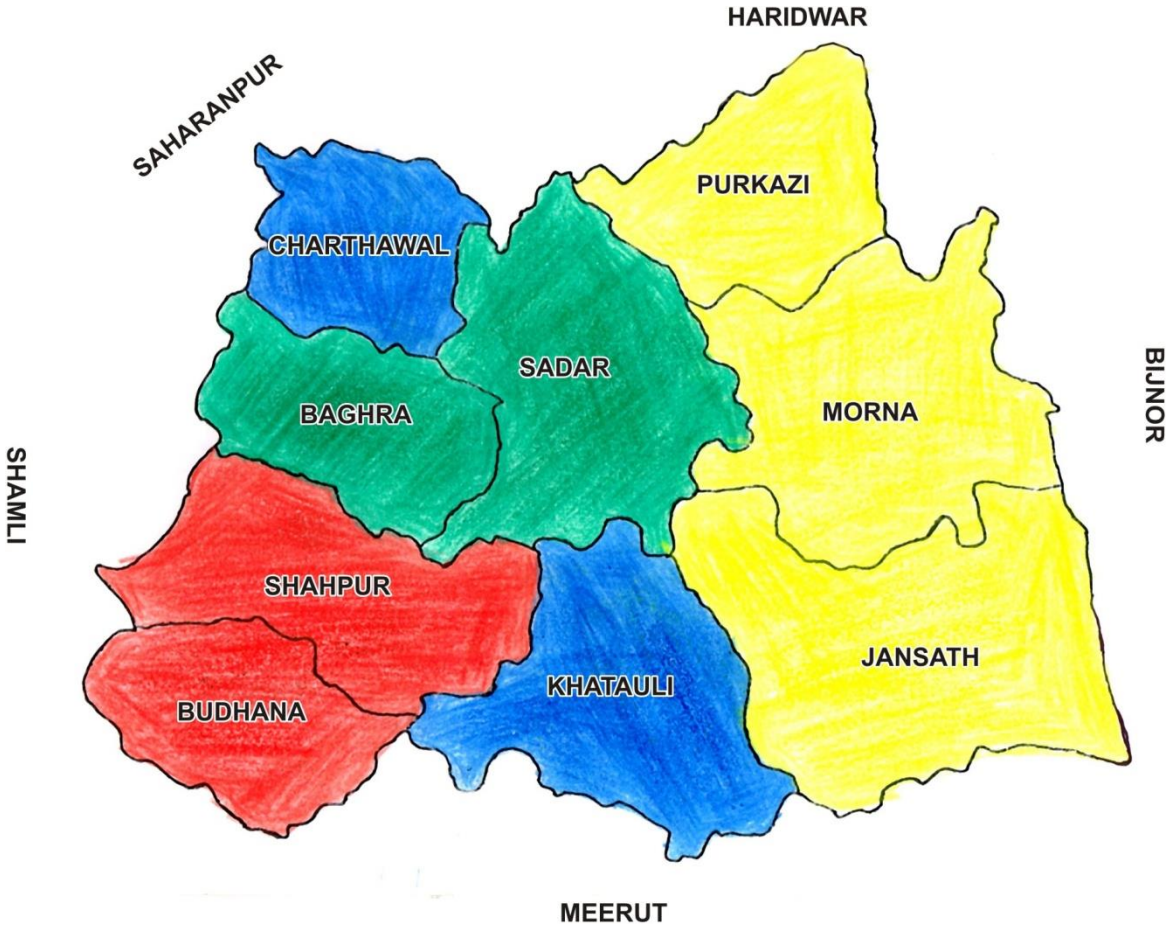
Soil Micronutrient Testing:

Nutrients	Categories		
	Low	Medium	High
Available N (kg ha$^{-1)}$	<280	280-560	>560
Available P(kg ha$^{-1)}$	< 10	10- 25	> 25
Available K (kg ha$^{-1)}$	< 120	120-280	>280

MUZAFFARNAGAR DISTRICT

(AGRO-ECOLOGICAL WISE MICRONUTRIENT FERTILITY STATUS)

Colour	AES	Per cent deficient samples					
		Zn	Fe	Mn	Cu	B	Mo
Yellow	I	92	82	48	35	10	7
Green	II	89	84	52	38	12	5
Blue	III	95	77	46	33	9	6
Red	IV	97	79	47	36	11	4



Micronutrient Tested	Normal Soil Range (ppm)
Zn	>1.2
Fe	>8.0
Mn	>4.0
Cu	>0.4
B	>0.5
Mo	>0.2

2.4. Area, Production & Productivity of major crops cultivated in the district in 2019-20

S.No	Crop	Area (ha)	Productivity (Qt./ha)
1.	Sugarcane	132004.00	812.00
2.	Wheat	80254	41.17
3.	Paddy	11580	23.36
4.	Blackgram	717	5.40
5.	Greengram	100	4.14
6.	Lentil	285	6.91
7.	Gram	270	1074
8.	Pea	360	13.89
9.	Pigeon Pea	37	8.04
10	Mustard	4018	12.35
11	Potato	3260	230.01
12	Cotton	274	1.30
13	Maize	250	15.75

2.5 Weather Data

Month	Rainfall (mm)	Temperature ^{o} C		Relative Humidity (%)
		Maximum	Minimum	
October 2019	0.6	30.7	18.2	83
November 2019	33.2	26.7	13.2	83
December 2019	35.6	17.4	6.7	90
January 2020	59.8	17.6	6.5	91
February 2020	40.0	22.4	7.8	87
March 2020	116.0	26.4	12.4	80
April 2020	35.8	32.6	17.7	64
May 2020	53.4	35.6	21.4	64
June 2020	87.6	35.3	24.5	78
July 2020	324.8	33.0	23.9	79
August 2020	240.0	32.5	24.7	90
September 2020	40.0	34.1	23.8	87
October 2020				
November 2020				
December 2020				

2.6 Production & Productivity of Livestock, Poultry, Fisheries in the district

Category	Population	Production	Productivity
Cows			
Crossbred	35460	413514 liter/day	1800-3178 liter/lactation
Indigenous	133459		1200-2270 liter/lactation
Buffalo	194306	1790140 liter/day	1360-2270 liter/lactation
Sheep		--	--
Crossbred	223	Wool - 11873 kg/ year	--
Indigenous	8478		
Goats	20429	5294 mt	180-544 lit/lactation
Pigs			
Crossbred	10543	12012000 kg meat	--
Indigenous	24856		
Rabbits	281	--	--
Poultry			
Hens			
Desi	54502	163589 kg meat	1.0 kg
Improved	109087		
Ducks	1642	--	--
Turkey	19	--	--
Camel	41	--	--

Fisheries

Category	Area (ha)	Production	Productivity
Fish	1239	40887 qt	30-35

2.7 Details of Operation area/ Villages (2020)

S. No.	Taluk	Name of Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust areas
1.	Sadar	Baghra	Narottampur Haidernagar	Sugarcane	Low yield due to imbalance fertilizer	Balance use of fertilizer
				Wheat	Low yield due to high infestation of weeds	Weed management
				Mustard	Poor yield due to aphid infestation	Insect mgt.

				Mango	Poor yield due to no use of micronutrients	Fertilizer management
				Guava	Poor quality yield due to fruit fly infestation	Fruit fly management
				Cauliflower	Poor yield due to use of local variety	Introduction of HYV
				Brinjal	Poor quality of fruits due to foot & shoot borer	IPM
2.	Khatauli	Khatauli	Bhangela	Sugarcane	High infestation of insect & disease	Insect & disease mgt. through IPM
				Gladiolus	Low yield due to use of local variety and rotten corm	Introduction of HYV Disease mgt.
				Vegetables	Local variety, Imbalance fertilizer application, Infestation of pest	Introduction of HYV IPNM IPM
3.	Jansath	Jansath	Mantodi	Sugarcane	Poor yield due to no use of organic matter	Promoting of organic manure
				Wheat	Low yield due to imbalance use of fertilizer	IPNM in Wheat
				Merigold	Use of local seed High infestation of disease	Introduction of HYV Disease mgt.
				Vegetables	Local variety, Imbalance fertilizer application, Infestation of pest	Introduction of HYV IPNM IPM
				Barseem	Low yield due to local seed	Introduction of HYV
4.	Budhana	Budhana Shahpur	Salakhedi Sohjani Tagan	Sugarcane	Low yield of Sugarcane	Introduction of HYV Balance fertilizer application IPNM & IPM

				Mango	Low yield of Mango	IPNM & IPM Rejuvenation of old orchard Introduction of regular bear variety
				Wheat	Low yield	Water management IPM Weed mgt. Introduction of HYV
				Barseem	Low fodder production	Timely sowing Introduction of HYV
5.	Sadar	Charthawal	Rohana kala Dudhali Badhai Kala	Sugarcane	Low yield due to imbalance fertilizer	Balance use of fertilizer
				Wheat	Low yield due to high infestation of weeds	Weed management
				Mustard	Poor yield due to aphid infestation	Insect mgt.
				Makhan Grass	Low fodder production	Introduction of new Fodder

2.8 Priority Thrust Areas.

Crop/Enterprise	**Thrust area**
Sugarcane	IPNM, SSNM, Weed management, IPM, IDM, Seed production
Wheat	Integrated Nutrient Management, Weed management, IPM, IDM, Seed production, Foliar application of Micronutrients
Rice	IPNM, Weed management, Hybrid rice, IPM, IDM, Seed production
Vegetables	IPNM & IPM
Oilseeds & Pulses crop	Sulphur, Zinc application & IPM
Animals	Endo & Ecto parasite control, Improving fertility

1. Maintenance of soil productivity through soil test based nutrient management.
2. Promoting intercropping modules with Sugarcane
3. Popularizing Bio- pesticides for management of insect pests
4. Promoting quality floriculture as diversification enterprise for extra income generation.
5. Promoting quality vegetable nursery
6. Mineral mixture supplementation among animals for improving fertility
7. Promoting Group Approach of Extension through Women SHGs and Vallabh Krishak Clubs

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

Before Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent Yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Sugarcane	825.00	--	----	108373.00	159782.00	2.47:1	--

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

After Interventions	Main crop Yield(q/ha)	Inter crop Yield(q/ha)	Equivalent yield(q/ha)	Cost of cultivation(Rs/ha)*	Net income(Rs/ha)	B.C: Ratio	Remark if any
Intercropping System(Kharif-Rabi-Zaid) -Livestock etc.							
Sugarcane + Greengram	825.00	8.00	141.58	Main crop 108343.00	151532.00	2.40	Rate of S. Cane@ Rs. 315/ qt & Green Gram @ Rs. 5575/- qt
				Intercrop 18166.00	26434.00		
				Total – 126509.00	**177966.00**		
Sugarcane + Blackgram	825.00	7.25	124.28	Main crop – 108343.00	151532.00	2.37	Rate of Urd @ Rs. 5400/- qt
				Intercrop- 14500.00	21650.00		
				Total – 125843.00	**173182.00**		
Sugarcane + Lentil	825.00	9.00	121.45	Main crop - 104343.00	151532.00	2.36	Rate of Lentil @ Rs. 4250/- qt
				Intercrop – 17850.00	20400.00		
				Total – 126193.00	**171932.00**		
Sugarcane + Mustard	825.00	12.00	152.38	Main crop – 108343.00	151532.00	2.35	Rate of Mustard @ Rs. 4000/- qt
				Intercrop- 22560.00	25440.00		
				Total – 130903.00	**176972.00**		
Sugarcane + Frenchbean	825.00	250.00	793.65	Main crop – 108343.00	151532.00	2.50	Rate of Frenchbean @ Rs. 1000/- qt
				Intercrop – 95150.00	154850.00		
				Total – 203493.00	306382.00		

3.A. Details of target and achievements of mandatory activities by KVK during 2019

OFT (Technology Assessment and Refinement)		FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)				
1		2				
Number of OFTs		Achievements		Shortfall		
Targets	Achievement	Crop/Enterprise	No of Demo./ Farmer	Targets		Achievement
12-14	7	Cereals	54	Demo	200	329
		Pulses	125	Area (ha)	100	72
		Oilseeds	--			20 Unit +
		Fruits	--			55 Animal
		Other crops	--			
		H.Sc	20			
		Buffalo/ Cattle	30			
12-14		**Total**	**329**			

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	100	64	2000	1280	---	326	4000	7506
Rural youth		8	--	110				
Extn. Functionaries		15	--	170				
Sponsored		18	--	530				
Total:	**100**	**105**	**2000**	**2090**	**--**	**326**	**4000**	**7506**

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200 Q.	--	Supplied to Beej Vikas Nigam	20000 No.	8000	25
Total :	**--**		**20000 No.**	8000	25

Soil Samples (Nos.)			
5			
Target	Achievement	No. of farmers	Amount
1200	870	825	125460.00
Total :	870	825	125460.00

Technology Demonstrated and disseminated through Technology Park

Crop	Technology /Variety
Pigeon Pea	I.P.A 203, P.A 1
Mustard	JSH- 401, NRCDR-02, RH-406, DRNIJ-03, RH- 749, NRCHB-101
Blackgram	Kalagarh, Uttra, PU 31, IPU 94-1, IPU 2-4
Maize	Kanchan,Ashwariya & Shipra
Greengram	IPM 2-3, IPM 2-14, Samrat
Fodder	Makkhan Grass, Cow Pea , Hybrid Napiar Grass, Barseem
Potato	Kufari bahar, Kufari Khyati & Kufri Frysona
Garlic	Yamuna Safed-2(G 50),G-189, Yamuna Safed3(G 283), Yamuna Safad4 (G 323)
Onion	Agri found Light Red
Guawa	Medow orchard of Shweta Variety
Banana	G-9
Other Technologies	Zero Energy Cool Chamber, Nutritional garden, Herbal garden, Vermi Composting ,Shadenet house

TECHNOLOGY PARK

I.A TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Varietal Evaluation	Paddy	Evaluation of High Yielding variety of Paddy	1	3
	Wheat	Evaluation of High Yielding variety of Wheat in timely sown Condition	1	3
		Evaluation of High Yielding variety of Wheat in Late sown Condition	1	3
INM	Wheat	Soil Health Card based Nutrient management in Wheat	1	5
Durgery reduction technologies	H.Sc	Assessment of Hanging Shieve for drudgery reduction and efficiency enhancement of farm women	1	5
Total			5	19

Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management	Buffaloes	Assessment of clinical and non-clinical treatment for post-calving anoestrous	01	10
Disease Management	Buffaloes	UMMB feeding to Control of Repeat breeding in Boffaloes	01	10
Total			02	20

I.B. TECHNOLOGY REFINEMENT- Nil

I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

VARIETAL EVALUATION (Rabi 2019-20)

Problem identifinition: Lower productivity and profitability of Wheat due to use of old & disease prone variety (PBW- 550).

Technology Assessed: Introduction of timely sown HYV variety of Wheat PBW 725

Wheat is main crop of distt. Muzaffarnagar. Due to lack of technical knowledge like broadcasting method of sowing and use of old variety, the productivity level is low. An On farm trial was conducted during Rabi 2019-20 at three location to evaluate high yielding variety of Wheat under irrigated condition. The variety PBW 725 recorded highest tillers (222/sqm), spike length (10.6) cm, grains /spike (42.0) , yied (43.20.00 qt/ha) and 1000 grain weight (40.0 gm) which increased 10.48 % yield in comparison to check variety PBW 550. PBW 725 was not affected by Yellow rust. Maximum net return of Rs. 60160 .0 /ha was obtained from PBW 725 followed by Rs. 53267.0/ha from PBW 550.

Table : Evaluation of high yielding variety of Wheat

Technology Option	Yield (qt./ha)	Gross Return (Rs/ha)	Net income (Rs/ha)	B:C Ratio
T1- Farmers practice (PBW-550)	39.10	75267.5	53267.5	3.42
T2- PBW 725	43.20	83160.0	60160.0	3.78

DOS : 18.11.19 **DOH 5.4.2020**

Observation Recorded :

Technology Option	Tillers/m^2	Spike length (cm)	No of grains/ spike	1000 grain weight (gm)	Maturity duration (days)	Yellow rust incidence (%)	Lodging %
T1- Farmers practice (PBW-550)	207	9.0	39.0	38.0	150	3-4	6
T2-PBW 725	222	10.6	42.0	40.0	150	Nil	Nil

Result :

1. PBW 725 variety gave highest yield of 43.20 qt/ha with maximum net return Rs. 60160/ha followed by PBW 550 (Rs 53267.00)
2. Variety PBW 725 gave 10.48 % more yield in comparison to PBW 550.

Farmers Reaction :

1. Due to higher yield farmers like PBW 725
2. Variety PBW725 was not affected by yellow rust disease
3. There was no lodging seen in PBW 725

VARIETAL EVALUATION (Rabi 2019-20)

Problem identification: Lower productivity and profitability in late sown Wheat variety PBW 509

Technology Assessed : Introduction of late sown HYV variety of Wheat DBW 90

About 70% of Wheat area in the district is late sown which results in poor productivity. Some of the farmers sow the crop till end of January. PBW 509 and other old varities of wheat covers about 55% area under late sown but these varieties is highly susceptible to yellow rust. An On farm trial was conducted to assess the suitability of newly released variety DBW 90 under late sown condition after Sugarcane crop in irrigated situation. The variety DBW 90 gave highest yield of 38.60 qt/ha with maximum net income of Rs.51305.00 /ha followed by PBW 509.The incidence of yellow rust was recorded 3 % in PBW 509 while DBW 90 did not show any symptom. The 1000 grain weight of DBW 90 was highest i.e 38.00 gm while it was 34.10 gm only in farmers practice.

Table : Evaluation of high yielding variety of Wheat

Technology Option	Yield (qt./ha)	Gross Return (Rs/ha)	Net income (Rs/ha)	B:C Ratio
T1- Farmers practice (PBW 509)	35.40	68145.0	46145.0	3.09
T2- DBW 90	38.60	74305	51305.0	3.23

DOS : 9.12.2019 ***DOH : 21.4.2020***

Observation Recorded

Technology Option	Tillers/m^2	Spike length (cm)	No of grains/ spike	1000 grain weight (gm)	Maturity duration (days)	Yellow rust incidence (%)	Lodging %
T1- Farmers practice (PBW 509)	203	8.0	33.3	34.10	130	3-5	6
T2- DBW 90	210	9.0	37.0	38.00	130	Nil	Nil

Result :

1.DBW 90 variety gave maximum yield 38.60 and net return Rs.51305/ha and also proved resistant against yellow rust.
2.There was no lodging seen during the crop period..
3.Variety DBW 90 gave 9.03 % more yield in comparison to PBW 509

Farmers Reaction :

1. The bold grain size of DBW 90 led to better price in the market.
2. The straw quality was best.
3. Due to higher protein content of 13.8 % in, farmers preferred it for household consumption.

SOIL HEALTH CARD BASED FERTILIZER APPLICATION IN WHEAT
(Rabi 2019-20)

Problem definition: Low yield of wheat due to area specific nutrient deficiency of Sulphur, NPK, and Boron.

Technology Assessed: Nutrient management on soil test basis through foliar and broad cast application in standing crop at different stage of crop growth in late sown Wheat under irrigated farming situation.

Wheat is second major crop of district Muzaffarnagar. It is grown on 82000 ha area of the district under 100% irrigated farming situation. The productivity of wheat in district is 40.50 q/ha. The reduction in yield of wheat is mainly due to area specific nutrient deficiency mainly by sulphur, potash and newly emerging boron. The KVK conducted On Farm Trial (OFT) during Rabi 2019-20 to assess the contribution of nutrients after soil health card based area specific recommendation. The farmers of the district are not using nutrients on soil health card basis.

Technology option	Yield q/ha	Gross return Rs./ha	Net return Rs./ha	% Yield increase	BC Ratio
T1-Farmers practice (no soil test based nutrient management using only 125 kg DAP and 250 kg urea/ hectare)	42.13	77510	45093.0	-------	2.39
T2- FP+ Soil test based apply additional Sulphur WDG 5kg+ Boron 1.25 kg Broadcast with Urea and NPK 19:19:19 5 kg per ha applied as foliar .	48.62	89455	55438.0	15.41	2.63

Recommendation: Nutrients should be used on the basis of Soil health card after soil test and area specific.

Magnitude of OFT:

1. Additional saving Rs. 10345 /ha over to farmers practice.
2. Area under wheat can be reduced to 15000 ha with same production of the district.
3. District productivity can be increased up to 15.41 percent.
4. Additional 6.49 q wheat can be produced by adoption of OFT in Muzaffarnagar district.
5. All the experimental site were sown DBW-71 wheat variety.

(Note= Demo. Additional input cost Rs.1600/ha, wheat sale price Rs. 1840/q,)

VARIETAL EVALUATION

Problem definition: Lower productivity and profitability of Basmati (PB 1)

Technology Assessed : Varietal Evaluation of Basmati varieties PB 1718

An On Farm Trial was conducted in sandy loam soil under irrigated condition for the evaluation of high yielding and disease resistant varieties of Pusa Basmati 1718 at three locations in Rice-wheat cropping system during Kharif 2020. The variety Pusa Basmati 1718 recorded highest yield of (43.50 q/ha) . PB 1718 matured in 130-135 days while PB 1 took 145 days for maturity. PB 1718 has Medium tall plants height but found slightly lodging, while 5 -10 % lodging was recorded in PB 1 . PB1718 is resistant for neck blast and leaf blast..

Table : Evaluation of high yielding variety of Paddy

Technology Option	Yield (qt./ha)	% increase in yield	Net income (Rs/ha)	B:C Ratio
T1- Farmers practice - Pusa Basmati 1	38.15	---	49264.0	2.23
T2- Pusa Basmati 1718	43.50	14.02	61258.0	3.06

Date of Transplanting : 8.07.2020 DOH : 30 Oct. 2020

Observation Recorded :

Technology Option	Tillers/ hill	No of Penicles /Sqm	Lodging %	Disease incidence (%)		Maturity duration (days)	Plant height (cm)	Head Rice Recovery (%)
				Bakane	Sheath Blight			
T1- Farmers practice - Pusa Basmati 1	10-15	240	5	6	13	145	125	43
T2- Pusa Basmati 1718	15-20	265		--		135	125	45-50

Result :

1. The PB 1718 variety gave 14.02 % more yield in comparison to PB 1
2. PB 1718 matured in 135 days where as PB 1 took 140-145 days for maturity.
3. The net return from PB 1718 was higher (Rs. 61258.0/ha).

Farmers Reaction :

1. Due to shorter duration farmers like PB 1718 in comparison to PB1.
2. The higher rice recovery was observed (45-50 %)in PB 1718

LIVE STOCK

Problem definition: Higher incidences of post-calving anestrous.

Technology Assessed: Evaluation of clinical and non-clinical treatment for post-calving anestrous in Buffaloes.

The trial was conducted during December 2019-20 on 10 post calving anestrus buffaloes (buffaloes do not show anestrus between 3-4 months after calving in second to fifth lactation) at six location village wise, to evaluate the remedial measures for curing post calving anestrus.

Table: Effect of minerals mixture+ Vetmate cure/minimize the post-calving anestrous

Technology Option	**No. of Animals**	Per cent Responded & conceived
T1- Farmers practice (Use of choker and common salt)	--	--
T2- Mineral mixture supplementation @ 50 g/ /day/ animal for 75 days	5	80 % responded &conceived , 20% neither responded nor conceived,
T3- T_2 + Vetmate (Gonadotrophin hormone) inj @ 2 ml (72 hrs before AI) after 75 days of calving.	5	100 % responded & 80% conceived, 20% not conceived

Result :

1. In treatment one i.e.T1 which is farmers practice (feeding of choker & common salt), no animal responded or conceived.

2. In the treatment T2 i.e. nonclinical remedies (feeding of minerals mixture@ 50gm/day/animal up to 75 days) four buffalo 80% responded (60% i.e. three conceived & 20% i.e. one not conceived)one buffalo neither responded nor conceived.

3. In treatment T3 i.e. clinical remedies {feeding of T1 + T2+ inj. Vetmet 2ml (72 hrs before NS/AI) All five buffaloes (100%) responded & four i.e.(80%) conceived but one, not conceived i.e. (20%).

Recommendation :

1.Present trial revealed that in T1 the conception rate was 0%, in T2 (nonclinical) 80% responded & conceived, 20 % neither responded nor conceived.

2. In T3 (clinical trial) 100% responded and 80 % conceived, 20% not conceived.

Farmers Reaction :

1. The A.H. Deptt. should organize regular camps in the villages to tackle anestrous problem.
2. The mineral deficiency and poor nutrition is a major problem among animals due to imbalance nutrition/feeding application in buffaloes.
3. The anestrous problem is also due to lack of diversity in feed & fodder, monotonous nature of forage (i.e sugarcane tops & Sorghum) & lack of pasture.

LIVE STOCK

Problem definition: Higher incidences of repeat breeding in Buffaloes.

Technology Assessed: UMMB feeding to control repeat breeding in buffaloes.

The trial was conducted during March 2020 on 10 repeat breeder buffaloes (buffaloes show anestrus but not conceive even after 6-7oestrous.) at six location village wise, to evaluate the remedial measures for curing repeat breeding.

Table: Effect of UMMB feeding / licking + Exinot in cure/minimize the incidence of repeat breeding.

Technology Option	**No.of Animals**	Per cent Responced & conceived
T1- Farmers practice (Use of choker and common salt)	--	---
T2- Feeding of UMMB (feeding/licking of UMMB @ 2 Kg Block for 15 days/animal up to 90 days)	5	40% buffaloes conceived
T3- T2+ Exinot syp. (before UMMB feeding) in five buffaloes.	5	60% buffaloes conceived

Result :

1. In treatment one i.e.T1 which is farmers practice (as usual feeding of choker & common salt normally) each buffalo responded but no one conceived.

2. In the treatment T2 i.e. feeding of UMMB (feeding/licking of UMMB @ 2 Kg Block for 15 days/animal up to 90 days) five buffaloes. only 40% buffaloes conceived (as per PD result).

3. In the treatment T3 i.e. T2+ Exinot syp. (before UMMB feeding) in five buffaloes. 60% buffaloes conceived (as per PD result).

4. Besides above results. 25% gained in milk production also observed.

DRUDGERY REDUCTION (May 2020)

Problem definition : High drudgery and low efficiency of farm women during cleaning of wheat by traditional sieve

Technology Assessed :Assessment of hanging Sieve for drudgery reduction and efficiency enhancement of farm women

Women are a vital part of their family, district as well as Indian economy. Over the years, there is a gradual realization of the key role of women in agricultural development and their vital contribution in the field of agriculture, Aside from raising children, women are expected to work in kitchen, maintain the homestead and assist in crop and animal production, 48 per cent of India's self-employed farmers are women, Drudgery can be defined by its time-consuming,repetitive and arduous nature,.Pain is the indicator of discomfort. The perceived discomfort was recorded in terms of pain felt in different parts of body. For Many traditional postharvest activities like threshing and winnowing,can be described as drudgery. Cleaning grains manually, use human energy in two ways: they are arduous and time-consuming. Reducing drudgery in difficult activities is more important than saving time. For instance, women often prefer doing activities in standing position as it helps them in moving around.

Technical Observation	Farmers Practice	Hanging Seive	Percentage Increase
Quantity cleaned(kg/Hr)	58 Kg	123 kg	24.1
Heart Rate –at rest (after one hr cleaning)	72 91	72 78	17
Energy Expenditure (0.15xHR-8.72)	0.15x90-8.72=4.78	0.15x78-8.72=2.68	1.8 times more Energy Expenditure in framers practice
Frequency of Postural change	4-5 times	--	--

Farmers Reaction :

1 .Easy in use
2. Time saving /time efficient
3 .Less Fatique
4. 100 percent Women liked hanging sieve over hand sieve,as maximum work output was observed by using the hanging grain cleaner.

Average Incidence of musculoskeletal problem during existing and Improved conditions: (N-3)

Body Parts	Existing Practice					Improved Practice				
	5	4	3	2	1	5	4	3	2	1
Neck	--	3	--	--	--	--	--	2	1	--
Shoulder Pain	--	2	1	--	--	--	--	1	2	--
Low Back	--	3	--	--	--	--	--	1	2	--
Thighs	2	1	--	--	--	--	--	2	1	--
Ankels/Feets	1	1	1	--	--	--	--	--	2	3

*5=very severe,4=severe,3=moderate ,2= mild , 1= very mild

II CLUSTER FRONTLINE DEMONSTRATION (PULSES)

a. List of technologies demonstrated during previous year (2019-20) and popularized during 2020 and recommended for large scale adoption in the district

S. No.	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of villages	No. of farmers	Area in ha
1	Varietal improvement- Lentil	PL 8	Kisan Gosthi, Field & Extension functionaries training	11	105	86.00
2	Varietal Improvement of Gram	RVG 202	Kisan Gosthi,Field, Extension functionaries training & Campaign	9	107	95.00
3.	Varietal improvement – Green gram	Pant mung 5	--do--	18	186	106.00
4.	Varietal improvement –Black gram	Mash 479	--do--	23	215	115.00

b. Details of CFLDs implemented during 2020 under NFSM

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
	Pulses									
1.	Gram 2019-20	Varietal evaluation	RVG 202	Rabi 2019	10.0	10.0	--	25	25	--
2.	Lentil 2019-20	Varietal evaluation	PL 8	Rabi 2019	10.0	10.0	--	25	25	--
3.	Green gram Zaid 2020	Varietal evaluation	*Pant mung 5*	Zaid 2020	10.0	10.0	--	25	25	--
4.	Black gram Zaid 2020	Varietal evaluation	MASH 479	Zaid 2020	10.0	10.0	--	25	25	--
5.	Black gram Kharif 2020	Varietal evaluation	MASH 479	Kharif 2020	10.0	10.0	--	25	25	--

c. Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Gram RVG 202	Rabi 2019	Irrigated	Sandy loam	M	M	L	Paddy	20 Oct – 7 Nov 2019	15-30 March 20	--	--
Lentil PL 8	Rabi 2019	Irrigated	Sandy loam	M	M	L	Paddy	25 Oct -10 Nov 2019	15-30 March 20	--	--
Green gram Pant Mung 5	Zaid 2020	Irrigated	Sandy loam	M	M	L	Mustard	12-30 march 2020	10 to 30 May 2020	--	--
Black gram Mash 479	Zaid 2020	Irrigated	Sandy loam	M	M	L	Mustard	12-30 march 2020	10 to 20 June 2020	--	--
Black gram Mash 479	Kharif 2020	Irrigated	Sandy Loam	M	M	L	Paddy	10- 31 July 2020	12 -31 Oct 2020	--	--
Gram RVG 202	Rabi 2019	Irrigated	Sandy loam	M	M	L	Paddy	20 Oct – 7 Nov 2019	15-30 March 20	--	--

Technical Feedback on the demonstrated technologies

S.No	Feed Back
	Green gram (Pant mung 5)
1	No occurrence of yellow mosaic virus
2	Less vegetative growth than check.
	Blackgram (Mash 479)
1.	No occurrence of yellow mosaic virus
2.	Less vegetative growth than check.
	Lentil (PL 8)
1.	Maturity Stage is 135-140 Days
2.	Low water requirement.
	Gram (RVG 202)
1	No occurrence of wilt
2	Low water Requirement crop

Farmers' reactions on specific technologies

S. No	Feed Back
	Green gram (Pant Mung 5)
1	Bold grain size led to better price in the market.
2	Yield increased 41.81 % in comparison to local variety
	Blackgram (Mash 479)
1.	Bold grain size led to better price in the market.
2.	Yield increased 20.0% in comparison to local variety in Zaid season
3.	Yield increased 30.0% in comparison to local variety in Kharif season
	Lentil (PL 8)
1.	Due to no rain during Nov. & Dec., The crop growth was good.
2.	25 % of crop damaged by Niel gai
3.	Yield increased 36.51% in comparison to local variety .
	Gram (RVG 202)
1.	Yield increased 28.84% in comparison to local variety .
2	Due to no rain during Nov. & Dec., The crop growth was good.
3	No symptom of any disease.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days –Green gram	01	40	
2	Field day / Field visit –Black gram	01	38	
3	Field days - Lentil	01	40	
4	Field days -Gram	01	32	--
5.	Farmers Training for conducting CFLD	02	50	

Performance of Frontline Demonstrations :

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Lentil Rabi 2019	Promotion of Pulses	HYV seed	PL 8	25	10.0	14.50	10.40	12.45	9.12	36.51	15300.0	59760.0	44460.0	2.9	15000.0	43776.0	28776.0	1.91
Gram Rabi 2019	Varietal evaluation	HYV seed	RVG 202	25	10.0	19.75	17.15	18.45	14.32	28.84	16000.0	89943.0	73943.0	4.62	16500.0	69810.0	53310.0	3.23
Green gram Zaid 2020	Varietal evaluation	Seed , insecticides & fungicides	Pant Mung 5	25	10	8.50	7.10	7.8	5.5	41.81	13600.0	56128.0	42258.8	3.12	13450.0	39578.0	26128.0	1.94
Black gram Zaid 2020	Varietal evaluation	Seed , insecticides & fungicides	Mash 749	25	10.0	9.2	7.0	8.10	6.75	20.0	14000.0	48600.0	34600.0	2.74	13150.0	40500.0	27350.0	2.07
Black gram Kharif 2020	Varietal evaluation	HYV Seed	Mash 749	25	10.0	10.0	7.0	8.5	6.5	30.0	14500.0	51000.0	36500.0	2.51	13850.0	39000.0	25150.0	1.8

Performance of Technology

Traits	Technology	Farmers Practice
Green Gram	**Pant Mung 5**	**Narender Mung 1**
Maturity Duration (days)	60-65days	65-70 days
YMV incidence	Nil	4.0percent
1000 grain weight	25-30 gm	22-25 gm
Black gram	**Mash 479**	**Type 9**
Maturity Duration (days)	85 -90 days	Above 90 days
YMV incidence	Nil	7.0 %
1000 grain weight	25-30 gm	22-25 gm
Lentil	**PL -8**	**local**
Maturity Duration (days)	135 days	Above 135 days
Disease incidence	Nil	3.0 %
1000 grain weight	25-30 gm	22-25 gm
Gram	**RVG 202**	**local**
Maturity Duration (days)	140 days	145 days and above
wilt	Nil	6.0 %
1000 grain weight	28-35 gm	25-30 gm

FLD PHOTOGRAPH

CFLD Mung Variety Pant Mung 5

CFLD Black Gram Variety Mash 479

CFLD Lentil Variety PL -8

CFLD Gram Variety RVG 202

CLUSTER FRONTLINE DEMONSTRATION (Oilseeds) : Nil

Details of FLD implemented on Cereals & Other Crops :

Sl. No	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
A.	**Cereals**									
1.	Wheat	Varietal (timely sown)	HD 3086	Rabi 2019-20	4.00	4.00	--	10	10	--
2.	Wheat HD- 2967	INM	Soil test based apply additional Sulphur WDG 5kg with Urea and 05 kg NPK 19:19:19 5 per ha applied as foliar F.P (no soil test based nutrient management	Rabi 2019-20	4.00	4.00	1	9	10	
3.	Paddy	Varietal Performance	Variety Pusa Basmati 1637	Kharif 2020	4.00	3.6	--	9	9	--
4.	Paddy (PB-1)	INM	Soil test based apply additional Ferrous sulphate 25 kg/ha basal and 12.5 kg/ha Mono Zinc 33% broadcast along with Urea. F.P : 125 kg DAP and 300 kg urea/ hectare	Kharif 2020	4.00	4.00	1	9	10	--

Performance of FLD on Cereals & Other Crops :

Category & Crop	Thematic Area	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters	
					Demo			Check		Demo	Check
					High	Low	Average				
Cereals											
Wheat	Varietal	HD 3086	10	4.0	43.20	37.10	40.15	35.10	14.38	No of Tillers/ sqm 215 Grains/ spike-41	No of Tillers/sqm 207 Grains/spike-

										Lodging % - nil	36 Lodging % - 3-5
Wheat	INM	HD-2967	10	4.0	48.5	46.2	47.12	42.18	11.73	86700	77602
Paddy	Varietal performance	PB 1637	9	3.6	43.10	37.70	40.40	33.60	20.23	No of Tillers/hill 15-20 No of Penicle/sqm 272	No of Tillers/hill 12-15 No of Penicle/sqm 240
Paddy	INM	Pusa Basmati- 01	10	4.0	42.6	40.4	41.7	36.63	13.96	106424	93394

Economics of Demonstration :

Category & Crop	Thematic Area	Name of the technology	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cereals										
Wheat	Varietal	HD 3086 F.P : PBW 502	23500.0	77288.75	53788.75	3.28	24000	67567.50	43567.50	2.81
Wheat	INM	Soil health card based nutrient application in wheat	34150	86700	52550	2.54	33050	77602	44552	2.35
Paddy	Varietal Performance	Variety Pusa basmati 1637	22000.0	75467.20	53467.20	3.43	21000	62764.80	417648.0	2.98
Paddy	INM	Precision utilization of nutrients as per soil health card in Paddy	36445	106424	69979	2.92	34820	93394	58574	2.68

Farmer's Reaction/Technical Feed back of FLD :

Crop/ Enterprises	Name of Technology	Technical Feedback on Demonstrated technology	Farmer's Reaction on Technology
Cereals			
			•
			•
			•
		•	•
			•
			•

FLD PHOTOGRAPH

FLD on Early Wheat Variety HD 3059

FLD on INM in Wheat

FLD on HYV Paddy Variety PB 1637

Soil Test Base INM in Paddy

Disease Management in Buffalo

Demonstrations of Wheat Sponsored by (NFSM) Front Line Demonstration :

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	
						Demo			Check		
						High	Low	Average		Demo	Check
Wheat	ICM	NRW Vs with Rotavator	HD 3226	10	4.0	48.0	44.5	46.25	40.30	14.76	--
Wheat	INM	NRW Vs Bio Fertilizer (Azotobactor + PSB)	HPBW 01	5	2.0	45.3	43.0	44.15	40.10	10.09	--

Economics of demonstration (Rs.)				Economics of check (Rs.)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
23450.0	89031.0	65581.0	3.79	22300.0	77577.0	55277.0	3.47
23000.0	84988.0	61988.0	3.69	22400.0	77192.0	54792.0	3.44

Price of grain – Rs. 1925 / qt ,

Technical Feedback on Demonstrated technology :

1. The crop sown through rotavator was more prone to lodging in comparison to seed drill sowing.
2. Both the varieties HD 3226 & HPBW01 performed well in terms of yield in comparison to check varieties.PBW 502 & 590 respectively.

Farmer's Reaction on Technology :

1. During month of Feb & March there was unseasonal temperature arise affected all the wheat varieties.
2. The Food quality of both the varieties was better than other varieties.

FLD PHOTOGRAPH

Wheat Demonstration Under NFSM Variety HD 3226

Wheat Demonstration Under NFSM Variety HPBW01

FLD on Other Enterprises : Making of Tomato puree/sauce to avoid post harvest losses.

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Value Addition	Making of Tomato puree/sauce to avoid post harvest losses.	10	10	shelf life of Puree/Sauce 365days	shelf life of Raw Tomato 2-3 Days	--	Availability of tomato in preserved form 365 days	Availability of tomato seasonal	120.0	210.0	90.0	2:1	00	00	00	00

Farmers Reaction: Post harvest losses are major concern, especially in fruits and vegetables. To control the post harvest losses and low price of he crop at the time of harvesting, value addition of produce and increasing the shelf life is very beneficial for farmers as well as farm women. Farm women liked this practice very much and saved a good amount.

FLD on Other Enterprise: Kitchen Gardening :

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Kitchen Garden	---	Kitchen garden Management	10	10	445	20	202	Availability of fresh vegetables	Very Less Availability	380	1350.00	970.00	33:1	75.00	550.00	475.00	7:1

Farmers Reaction : Farm Women were very happy and general health of family members became better, as the family consumed fresh and organic vegetables in sufficient amount thought out the year. With a little expenditure on seeds and saplings they got vegetables of much more value. Most of the women said they got self satisfaction by growing their own vegetables. Other benefit obtained that neighboring female also got motivated and setup their own kitchen garden.

FLD on Livestock :

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
Buffalo Calf	Disease mgt.	Anthelmintic Banminth @2 tab. / Calf once	15	30	Cured (endo-parasite)	--	90% cured & survived	10 % mortality	70 % mortality								
CB cow	Disease mgt.	Anthelmintic Exinot @ 30 ml vial once	10	20	Cured (ecto & endo-parasite)	---	80% Ecto-endo parasite cured	20 % infestation	50 % infestation	Majority of cattle again infected with ecto parasite.							
CB cow	Fodder mgt.	Urea treated wheat straw(65lit water+4kg urea+1qu wheat straw)	05	05	Increased in milk yield	---	7.72% increased in milk yield	5% concentrate ration reduced	No change in concentrate feeding	260	780	520	3:1	200	500	300	2.5:1

Farmer's Reaction:

Category	Thematic area	Name of the technology demonstrated	Technical Feedback on Demonstrated Technology	Farmer's Reaction on Demonstrated Technology
Cattle				
Buffalo Calf	Disease mgt.	Anthelmintic Banminth @2 tab. / Calf once	The observations recorded after one month of medication revealed that out of 30 medicated calves 27 no. calves cured & survived .ie.90% & rest died (All three calves were male). No change was found on 25.10.18.	Farmers adopted technology but poor attention to male calf rearing.
CB cow	Disease mgt.	Anthelmintic Exinot @ 30 ml vial once	The observations recorded after one month of medication revealed that out of 20 medicated CB cow, 16 no. were found worm negative i.e.80 % (fecal sample testing based) & ecto parasitic infestation also cured upto 80%.	Cross bred cattle are highly sensitive for ecto parasitic infestation.
CB cow	Fodder mgt.	Urea treated wheat straw(65lit water+4kg urea+1qu wheat straw)	Feeding of treated wheat straw @of 0.50kg per day per animal for ist fifteenth day& than one kg, two kg ,four kg up to 75days.the average gain in milk yield was 7.72%	Farmer's reaction was not positive because the milkman said that the milk is urea added/synthetic.

III. Training Programme

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Crop Diversification	--	--	--	--	--	--	--	--	--	--
Seed production	06	115	--	115	5	--	5	120	--	120
Integrated Crop Management	--	--	--	--	--	--	--	--	--	--
Integrated nutrient management	--	--	--	--	--	--	--	--	--	--
Total	**06**	**115**	**--**	**115**	**5**	**--**	**5**	**120**	**--**	**120**
II Horticulture										
a) Vegetable Crops										
Off season vegetables	--	--	--	--	--	--	--	--	--	--
Nursery raising	--	--	--	--	--	--	--	--	--	--
Others-	2	36	--	36	4	--	4	40	--	40
b) Ornamentals										
Others	1	18	--	18	2	--	2	20	--	20
e) Tuber crops										
Production and Management technology										
(f)Spices										
Production and management technology	1	17	--	17	3	--	3	20	--	20
GT (a-g)	**04**	**71**	**--**	**71**	**9**	**--**	**9**	**80**	**--**	**80**
III Soil Health and Fertility Management										
Soil fertility management	01	17	-	17	03	-	03	20	-	20
Integrated water management										
Integrated Nutrient Management	01	18	-	18	02	-	02	20	-	20
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	01	18	-	18	02	-	02	20	-	20
Nutrient Use Efficiency										
Balance use of fertilizers	01	18	-	18	02	-	02	20	-	20
Total	**04**	**71**	**-**	**71**	**09**	**-**	**09**	**80**	**-**	**80**
IV Livestock Production and Management										
Dairy Management	--	--	--	--	--	--	--	--	--	--
Animal Nutrition Management	01	20	--	20	--	--	--	20	--	20
Disease Management	03	55	--	55	05	--	05	60	--	60
Fodder & Fodder technology	01	20	--	20	--	--	--	20	--	20
Total	**05**	**95**	**--**	**95**	**05**	**--**	**05**	**100**	**--**	**100**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	01	--	18	18	--	2	2	20	--	20
Design and development of low/minimum cost diet	--	--	--	--	--	--	--	--	--	--
Designing and development for high nutrient efficiency diet	01	--	18	18	--	02	02	20	--	20
Value addition	01	--	18	18	--	02	0	20	--	20
Women empowerment	--	--	--	--	--	--	--	--	--	--
Health & Hygiene	01	--	18	18	--	02	02	20	--	20
Women and child care	-	-	-	-	-	-	-	-	--	--
Others (pl specify)	-	-	-	-	-	-	-	-	--	--
Total	**04**	**--**	**72**	**72**	**--**	**8**	**8**	**80**	**--**	**80**
GRAND TOTAL	**23**	**352**	**72**	**424**	**28**	**8**	**36**	**460**	**0**	**460**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Seed production	06	112	--	112	08	--	08	120	--	120
Total	**06**	**112**	**--**	**112**	**08**	**--**	**08**	**120**	**--**	**120**
a) Vegetable Crops										
Production of low value and high volume crops	2	32	--	32	8	--	8	40	--	40
Off-season vegetables	1	16	--	16	4	--	4	20	--	20
Intercropping	--	--	--	--	--	--	--	--	--	--
Export Potensial Vegetables	--	--	--	--	--	--	--	--	--	--
Others	1	17	--	17	3	--	3	20	--	20
b) Fruits	--	--	--	--	--	--	--	--	--	--
Layout and Management of Orchards	3	52	--	52	8	--	8	60	--	60
Cultivation of Fruit	2	36	--	36	4	--	4	40	--	40
f) Spices										
Others (pl specify)- Intercropping	1	17	--	17	3	--	3	20	--	20
GT (a-g)	**10**	**170**		**170**	**30**	**--**	**30**	**200**		**200**
III Soil Health and Fertility Management										
Soil fertility management	02	36	-	36	04	-	04	40	-	40
Integrated water management										
Integrated Nutrient Management	02	36	-	36	04	-	04	40	-	40
Micro nutrient deficiency in crops	02	36	-	36	04	-	04	40	-	40
Nutrient Use Efficiency										
Balance use of fertilizers	02	36	-	36	04	-	04	40	-	40
Total	**08**	**144**	**-**	**144**	**16**	**-**	**16**	**160**	**-**	**160**
IV Livestock Production and Management										
Dairy Management	02	38	--	38	02	--	02	40	--	40
Animal Nutrition Management	--	--	--	--	--	--	--	--	--	--
Disease Management	04	76	--	76	04	--	04	80	--	80
Feed & fodder technology	01	20	--	20	--	--	--	20	--	20
Total	**07**	**134**	**--**	**134**	**06**	**--**	**06**	**140**	**--**	**140**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	01	--	18	18	--	02	02	20	--	20
Design and development of low/minimum cost diet	01	--	18	18	--	02	02	20	--	20
Minimization of nutrient loss in processing	01	--	18	18	--	02	02	20	--	20
Processing and cooking									--	
Gender mainstreaming through SHGs	01	--	18	18	--	02	02	20	--	20
Storage loss minimization techniques	01	--	18	18	--	02	02	20	--	20
Value addition	02	--	36	36	--	04	04	40	--	40
Location specific drudgery reduction technologies	02	--	36	36	--	4	4	40	--	40
Food and Hygine	01	--	18	18	--	02	02	20	--	20
Women and child care	-	-	-	-	--	-	-	-	--	-
Others (pl specify)	-	-	-	-	-	-	-	-	--	-
Total	**10**	**-**	**180**	**180**		**20**	**20**	**200**	--	**200**
GRAND TOTAL	**41**	**560**	**180**	**740**	**60**	**20**	**80**	**820**	**0**	**820**

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Crop Diversification	--	--	--	--	--	--	--	--	--	--
Seed production	12	227		227	13		13	240		240
Total	**12**	**227**		**227**	**13**		**13**	**240**		**240**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	2	32	--	32	8	--	8	40	--	40
Off Season vegetables	1	16	--	16	4	--	4	20	--	20
Nursery Raising										
Export potensial vegetables										
Other	3	53	--	53	7	--	7	60	--	60
b) Fruits										
Layout and Management of Orchards	3	52	--	52	8	--	8	60	--	60
Cultivation of Fruit	2	36	--	36	4	--	4	40	--	40
Others										
C) spices	2	34	--	34	6	--	6	40	--	40
Ornamental										
Other	1	18	--	18	2	--	2	20	--	20
GT (a-g)	**14**	**241**		**241**	**39**	**--**	**39**	**280**	**--**	**280**
III Soil Health and Fertility Management										
Soil fertility management	03	53	-	53	07	-	07	60	-	60
Integrated Nutrient Management	03	54	-	54	06	-	06	60	-	60
Micro nutrient deficiency in crops	03	54	-	54	06	-	06	60	-	60
Nutrient Use Efficiency										
Balance use of fertilizers	03	54	-	54	06	-	06	60	-	60
Total	**12**	**215**	**-**	**215**	**25**	**-**	**25**	**240**	**-**	**240**
IV Livestock Production and Management										
Dairy Management	02	38	--	38	02	--	02	40	--	40
Animal Nutrition Management	01	20	--	20	--	--	--	20	--	20
Disease Management	07	131	--	131	09	--	09	140	--	140
Others (pl specify) Fodder Production	02	40	--	40	--	--	--	40	--	40
Total	**12**	**229**		**229**	**11**		**11**	**240**		**240**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	--	36	36	--	4	4	40	--	40
Design and development of low/minimum cost diet	1	--	18	18	--	2	2	20	--	20
Designing and development for high nutrient efficiency diet	1	--	18	18	--	2	2	20	--	20
Minimization of nutrient loss in processing	1	--	18	18	--	2	2	20	--	20
Gender mainstreaming through SHGs	1	--	18	18	--	2	2	20	--	20
Value addition	3	--	54	54	--	6	6	60	--	60
Storage loss minimization techniques	1	--	18	18	--	2	2	20	--	20
									--	
Health & Hygine	1	--	18	18	--	2	2	20	--	20
Food & Hygine	1	--	18	18	--	2	2	20	--	20
Location specific drudgery reduction technologies	02	--	32	32	--	8	8	40	--	40
Total	**14**	**--**	**250**	**250**	**--**	**30**	**30**	**280**	--	**280**
GRAND TOTAL	**64**	**912**	**250**	**1162**	**88**	**30**	**118**	**1280**	**0**	**1280**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Vermi-culture	--	---	--	--	--	--	--	--	--	--
Seed Production	01	15	--	15				15	--	15
Post Harvest Technology										
Dairying	01	15	--	15	--	--	--	15	--	15
Mushroom Prod.										
Nursery raising techniches of cucurbitaceous in low tunnel polyhouse	01	12	--	12	03	--	03	15	--	15
Value addition	01	0	06	06	0	04	04	0	10	10
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Poultry Production										
TOTAL	**04**	**42**	**06**	**48**	**03**	**04**	**07**	**45**	**10**	**55**

Training for Rural Youths including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Vermi-culture	--	---	--	--	--	--	--	--	--	--
Dairying	01	15	--	15	--	--	--	15	--	15
Seed Production	--	---	--	--	--	--	--	--	--	--
Bee Keeping	**01**	**13**	**--**	**13**	**02**	**--**	**02**	**15**	**--**	**15**
Rural Crafts	02	0	18	18	00	07	07	0	25	25
Poultry Production	01	14	--	14	01	--	01	15	--	15
TOTAL	**04**	**27**	**18**	**45**	**03**	**07**	**10**	**30**	**25**	**55**

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Vermi-culture/Compost										
Dairying	01	15	--	15	--	--	--	15	--	15
Seed Production	01	15		15				15		15
Nursery Raising	01	12	--	12	03	--	03	15	--	15
Bee Keeping	01	13	--	13	02	--	02	15	--	15
Small scale processing										
Value Addition	01	0	06	06	0	04	04	0	10	10
Poultry Production	01	14	--	14	01	--	01	15	--	15
Rural Crafts	02	0	18	18	0	07	07	0	25	25
TOTAL	**8**	**69**	**24**	**93**	**6**	**11**	**17**	**75**	**35**	**110**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others	--	--	--	--	--	--	--	--	--	--
Gender mainstreaming through SHGs	01	0	6	6	0	4	4	0	10	10
Women and Child care	02	0	13	13	0	7	7	0	20	20
TOTAL	**03**	**0**	**19**	**19**	**0**	**11**	**11**	**0**	**30**	**30**

Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	04	40	--	40				40		40
Low cost and nutrient efficient diet designing										
INM	04	57	-	57	03	-	03	60	-	60
House Hold Food Security										
Manegment of mango orchard	04	38	--	38	2	--	02	40	--	40
TOTAL	**12**	**135**	**--**	**135**	**05**		**05**	**140**	**--**	**140**

Training programmes for Extension Personnel including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	04	40	--	40				40		40
INM	**04**	**57**	**-**	**57**	**03**	**-**	**03**	**60**	**-**	**60**
Livestock feed & Fodder Prod.										
Manegment of mango orchard	04	38	--	38	2	--	02	40	--	40
Gender mainstreaming through SHGs	**01**	**0**	**6**	**6**	**0**	**4**	**4**	**0**	**10**	**10**
Formation and Management of SHGs										
Women and Child care	**02**	**0**	**13**	**13**	**0**	**7**	**7**	**0**	**20**	**20**
TOTAL	**15**	**135**	**19**	**154**	**05**	**11**	**16**	**140**	**30**	**170**

Table. Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management (CRM)										
Increasing production and productivity of crops	**04**	**80**	**-**	**80**	**-**	**-**	**-**	**80**	**-**	**80**
Production and value addition										
Soil health and fertility management	**03**	**60**	**-**	**60**	**-**	**-**	**-**	**60**	**-**	**60**
Seed Prod. – PPVFRA, IIWBR	O1	45		45	5		5	50		50
Skill Development Training (ASCII)	03	42	15	57	--	3	3	42	18	60
Training Under ARYA Project	**04**	**75**	**--**	**75**	**5**	**--**	**5**	**80**	**--**	**80**
Natural Farming	**04**	**180**	**--**	**180**	**20**	**--**	**20**	**200**	**--**	**200**
GRAND TOTAL	**18**	**482**	**15**	**497**	**30**	**3**	**33**	**512**	**18**	**530**

TRAINING PHOTOGRAPHS

On Campus PF Training

Off Campus PF Training

Off Campus Training Programme

Off Campus EF Training programme.

Skill India Training Programme

Group discussion

Covid Awareness Programme

Misssion Shakti Programme

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1321	1200	121	1321
Diagnostic visits	48	200	02	202
Field Day	06	240	06	246
Group discussions	02	70	08	78
Kisan Ghosthi	13	1300	80	1380
Film Show /Radio Talk	05	670	--	670
Self -help groups	12	194	--	194
Kisan Mela	02	283	17	300
Exhibition	--	--	--	--
Scientists' visit to farmers field	156	921	--	921
Plant/animal health camps	--	--	--	--
Farm Science Club Meeting	--	--	--	--
Ex-trainees Sammelan	---	--	--	--
Farmers' seminar/workshop	03	120	8	128
Method Demonstrations	--	--	--	--
Celebration of important days	06	317	20	337
Special day celebration	02	80	10	90
Exposure visits	02	100	--	100
Others (pl. specify)	--	--	--	--
Farmers Visit to KVK	869	869	--	869
Total	2447	6564	272	6836

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	--
Extension Literature	--
News paper coverage	12
Popular articles	--
Radio Talks	03
TV Talks	--
Animal health camps (Number of animals treated)	--
Others (pl. specify)- Book Chapter/Book /Training manual	

Mobile Advisory Services

No. of KVKs	No. of SMSs sent	No. of farmers benefited
KVK Baghra Muzaffarnagar	---	----

EXTENSION ACTIVITIES

RAWE Students Training

Covid Awareness Programme

Exposure Visit


तिलहन की फसल से लाभ कमाएं किसान

अक्तूबर में करें बुवाई, सिंचाई के साथ-साथ खाद की भी रहती है कम लागत

संवाद न्यूज एजेंसी

मोदीपुरम। तिलहनी फसलों के उत्पादन में भारत चौथा स्थान रखता है। देश में विश्व के कुल तिलहन का 19 प्रतिशत क्षेत्रफल है, जबकि उत्पादन में मात्र 2.7 प्रतिशत का योगदान है। विश्व के कुल सरसों उत्पादन में भारत का 11 प्रतिशत हिस्सा है। कुल तिलहन उत्पादन में सरसों का 20.22 प्रतिशत हिस्सेदारी है। कृषि विज्ञान केंद्र मुजफ्फरनगर प्रथम एवं द्वितीय के प्राध्यापक एवं अध्यक्ष डॉ. पीके सिंह का कहना है कि सरसों की खेती में कम लागत एवं अधिक मुनाफे के कारण इसके क्षेत्रफल में लगातार वृद्धि हो रही है। देश में सरसों की खेती का प्रसार एकल एवं मिश्रित क्षेत्रफल के रूप में किया जा रहा है।

कृषि-दर्शन

डॉ. पीके सिंह

बुवाई का समय एवं तरीका

सरसों की बुवाई के लिए 26-28 डिग्री सेंटिग्रेड तापमान उपयुक्त रहता है। परपुष्प फसल व अधिक लाभ के लिए बुवाई अक्टूबर के तीसरे सप्ताह तक अवश्य कर देनी चाहिए। सरसों की बुवाई कतारों में करनी चाहिए। बीज एवं उर्वरकों को एक साथ मिलाकर बुवाई न करें। अच्छी परिणाम के लिए उर्वरक को 7-1 सेमी की गहराई पर प्रयोग करें।

पोषक तत्व प्रबंधन

सरसों में अधिक पैदावार के लिए नाइट्रोजन, फास्फोरस एवं पोटाश के अतिरिक्त अन्य गौण एवं सूक्ष्म पोषक तत्वों की आवश्यकता होती है। उर्वरक प्रयोग मृदा परीक्षण के आधार पर करें। 120 किग्रा नाइट्रोजन, 50 किग्रा फास्फोरस एवं 40 किग्रा पोटाश का प्रयोग प्रति हेक्टेयर की दर से प्रयोग करें। फसल की बुवाई के पूर्व 25 किग्रा. जिंक सल्फेट का प्रति हेक्टेयर की दर से प्रयोग किया जा सकता है।

भूमि की तैयारी

दोमट या बलुई दोमट भूमि जिसका जल निकास अच्छा हो, अधिक उपयुक्त रहती है। बीज के अच्छे अंकुरण के लिए वर्षा के बाद हल या कल्टीवेटर से 2-3 बार या एक जुताई कल्टीवेटर से और एक जुताई रोटावेटर से करें। प्रत्येक जुताई के बाद पाटा अवश्य लगाएं।

सिंचाई प्रबंधन

सरसों की सिंचित फसल के लिए दो सिंचाई पर्याप्त है। पलेवा के बाद बोई गई फसल में बुवाई के 40-45 दिनों बाद तथा बिना पलेवा के बुवाई की गई फसल में पहली सिंचाई बुवाई के 35-40 दिन बाद करें। शीत ऋतु में वर्षा नहीं होने की दशा में बुवाई के 75-80 दिनों बाद दूसरी सिंचाई करें। इस अवस्था में सिंचाई हल्की करनी चाहिए अन्यथा पौधे के गिरने की आशंका बनी रहती है।

Press Release

Posan Abhiyan Programme

Mission Shakti Programme

Smt. Anandi Ben Patel Hon'ble Governor UP, Visited KVK on 04.03.20

Sh. Lakhan Singh Rajpur, Hon'ble Minister of State Visited KVK on 24.10.20

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

Production of seeds by the KVKs : Nil

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (qt)	Value (Rs)	Number of farmers
Cereals	--	--	--	--	--	--
Fodder Crops	--	--	--	--	--	--
Total						NSC

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings						
	Onion	G 282	--	8000	2700	25
Total				**8000**	**2700**	**25**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers				
	Vermi- Compost	1000	Used in Crop Cafeteria	--
	Worms	05	Used in Vermi Compost unit	--
Total				

Production of Bio-Products : Nil

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio-pesticide				
Total				

Honey Processed

Particulars	Name of the Product	Quantity Kg	Processing Charge @ Rs. 12/ kg	No. of Farmers
Honey Processing	Honey	800	9600.00	06

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	870	825	65	125460
Water	75	45	15	---
Total	**945**	**860**	**80**	**125460**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK Baghra, Muzaffarnagar (UP)	1. (14.12.2020)

IX. NEWSLETTER : Nil

Name of News letter	No. of Copies printed for distribution

X. PUBLICATIONS

Category	Number
Research Paper	
Technical bulletins	
Technical reports	
Abstract	
Popular Articles	
Extension literature	
Total	

DETAILS OF PUBLICATION :

Research Papers Published in Journals

Name	Year	Title	*Name ofJournal*

Abstracts presented in National/International Seminar Seminar

Item	Title
TV Talk	Soil Health Card help to increase farmer income – 18.02.2020 DD Kisan Delhi
Radio Talk	Soil Health & Crop Management – 07.01.20, All India Radio, Nazibabad
	Importance of happy Seeder in Crop Residue Management – 23.01.20, All India Radio, Nazibabad
	Importance of Food Security Day- 07 June 2020 , All India Radio, Rampur
Technical Reports	Action Plan of KVK 2021, Annual Progress Report 2020, SAC Report 2020 NICRA Progress Report 2020 & Action Plan 2021 Achievement Report of KVK Rating & Impact Assessment

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

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

XIII. DETAILS ON HRD ACTIVITIES :

Workshop/Seminar /Symposia/Winter/Summer School Attended:

Name of Scientist	Name of Programme	Place	Duration	Date
Dr. P.K.Singh	Brain Storming Session	Baghra	01	03.07.20
	Webinar on Challenging Scenario of vegetable Production and marketing in Pendimaic period	Online	01	28.07.20
	Webinar on Post Pendemic Challenges and opportunities in Animal health	Online	01	14.07.20
	Fonduation Day Programme	Online	01	02.10.20
	Outreach Programme for KVK Farms on Farm Act	Online	01	07.10.20
	Webinar on Paddy Residue Management	Online	01	28.10.20
	Annual Workshop of KVKs	Online	01	25-27 June 20
	NICRA Workshop of KVK	Online	01	9th June 2020
	Mid term Workshop of KVKs	SVPUA&T, Meerut	02	25-26 Nov. 2020
Dr. Anil Katiyar	International Master trainer Workshop and Building Capacity to Enhance Farmers Capabilities to Address the challenges of Climate change using Climate smart Agriculture Strategies	AMITY Noida	06	10-15 Feb 2020
	NICRA Workshop of KVK	Online	01	9th June 2020
	Post Pendemic Chanllenges and Opportunities in Animal health	SVPUA&T Meerut	01	14.08.2020
	Microbrone,Immunity and Vaccines	SVPUA&T Meerut	01	30.08.20

XIV. Case Studies/Success Stories

Case Study- I

LINKAGES

Functional linkage with different organization

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

Name of Organization	Nature of Linkage
Deptt. of Agriculture	Diagnostic survey, training, gosthi/Seminar/ Farmers Fair
Deptt. of Horticulture	Participation in meeting/demonstration/training/ Farmers Fair
Cane Deptt. & Sugar industries	Gosthies & Trainings
NABARD	Technical Support to Kisan Clubs
Basmati Export Development Foundation	Awareness of rice growers for export
NHM	Soil Testing of beneficiaries, Capacity building & Nursery management
IFFCO, KRIBHCO	Trainings/Gosthi
SBI, PSB PNB & Distt. Cooperative Bank	Trainings/Gosthi & distribution of loan in the operational area
DOMR, Bharatpur Rajasthan	Demonstration/Field Day
Animal Husbandry Deptt.	Trainings & Circulation of Extn. Material
NGO	Trainings/Gosthi

1. **Details of linkage with ATMA : Nil**

2. **Linkage with NHM**

Programme	Nature of Linkages	No of Programmes	No of Farmers
Training of Farmers	Transfer of new Horticultural technology	04	100

3. **Linkage with State Govt. (DCO & BSA)**

Programme	Nature of Linkages	No of Programmes	No of Farmers
Farmers Training	Transfer of technology	--	--

Performance of instructional farm 2020 : Nil

Name of crop	Date of sowing	Date of harvesting	Area (ha)	Details of production			Amount (Rs.)	
				Variety	Type of produce	Qty.	Cost of inputs	Net income

Utilization of Training Hall facilities : Nil

Months	Name of Deptt.	No. Prog. Conducted	Amount Deposited

Utilization of hostel facilities : Nil

Months	Title of the training course/Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Amount Deposited

FINANCIAL PERFORMANCE

Details of KVK Bank Account

S. No.	Bank account	Name of Bank	Location	Account Number
1.	With Host Institution	SBI ,SVPUA&T, MZN	Meerut	30853163857
2.	With KVK	SBI Baghra, MZN	Baghra	11730183435

Utilization of K.V.K Funds during the year 2020

S.N.	Heads	Budget Sanctioned (Rs. in lakh)	Actual Expd. (Rs. in lakhs)	Balance (Rs. in lakhs)
A	**Recurring Items**			
1	Pay and Allowance			
2	Traveling Allowance			
	HRD			
3	**Contingencies**			
a	Stationery & other Expenditure for office running			
b	POL/Repair of Vehicle/Tractor			
c	**Vocational Training**			
	i) Meals for trainees			
	ii) Training material			
	iii) Frontline demonstration Except oilseeds & pulses			
	iv) On-Farm Testing			
	v) Training of Extension Functionaries			
	vi) Library Maintenance			
	vii) Maintenance building			
	vii) General Contingency			
	Total A			
B	**Non-Recurring Items**			
1	Works (Main building)			
2	Bio Metric Attandence			
	Total B			
	Total (A+B)			

Status of Revolving Fund (Rs. in lakhs)

Financial year	Opening balance	Income	Expenditure	Closing Balance
2017-18	572977.47	7100053.00	605122.76	677907.71
2018-19	677907.71	657098.00	255483.54	1079522.17
2019-20	1079522.17	162010.00	156170.00	1085362.17

***Rs. 8.00 laks Fixed Deposit , ** Rs, 1 Lac spent on renovation of ADM Building**

XVI Achievement of Special programmes

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

S. No.	Name of QP/Job role	Duration (hrs)	No. of Courses Organised	No. of Participants						
				SCs/STs		Others		Total		TOTAL
				Male	Female	Male	Female	Male	Female	
1	Agriculture Extension Service Provider	200	01	01	05	02	12	03	17	20
11	Beekeeper	200	01	15	--	05	--	20	--	20
16	Dairy Farmer - Entrepreneur	200	01	18	--	02	--	20	--	20
	TOTAL	**600**	**03**	**34**	**05**	**09**	**12**	**43**	**17**	**60**

2) Activities performed under NARI programme

Activities	Number of activity	No. of farmers/ beneficiaries
OFTs – Nutritional Garden (activity in no. of Unit)	01	10
OFTs – Bio-fortified Crops (activity in no. of Unit)	--	--
OFTs – Value addition (activity in no. of Unit/Enterprise)	--	--
OFTs - Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)	--	--
FLDs – Nutritional Garden (activity in no. of Unit)	01	10
FLDs – Bio-fortified Crops (activity in no. of Unit)	--	--
FLDs – Value addition (activity in no. of Unit/Enterprise)	01	02
FLD- Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)	--	--
Trainings	06	120
Extension Activities	04	62
Grand Total	**12**	**204**

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

Sample	No. of Samples in lakh	No. of Farmers in lakh	No. of Villages in lakh	Amount realized (Rs. in lakhs)	No. of Soil Health Cards issued (lakhs)
Soil	870	825	65	125460	870
Water	75	45	15	------	
Plant	--	---	--	--	
Manure	--	--	--	--	
Total	**945**	**870**	**80**	**125460.00**	**870**

4) Achievements under NICRA Project

NRM		Crop production		Livestock & Fisheries			Capacity Building		Extension Activities	
Demo	Area (ha)	Demo	Area (ha)	Demo	Area (ha)	No. of animals	No of Courses	Farmers	No. of programmes	Farmers
215	122	134	53.6	50	3.33	--	07	140	339	735

5) Achievements under ARYA Project

Name of entrepreneurial units	No. of entrepreneurial units established	No. of Training programs organised	No. of rural youth trained		No. of youth established units	
			Male	Female	Male	Female
Poultry	20	02	40	--	20	--
Bee keeping	---	02	40	--	14	--
Others if any						

6) NEMA (New Extension Methodologies and Approaches)

Name of Crop with variety	No. of districts	No. of Villages selected	No. of Blocks	No. of household selected	
				Adapter household	Non adapter household

XVI Awards

S.No.	Name of Award received	Name of KVK/farmer	Year of Award	Date on which award received

Note: Please also mention name of farmer who received the award.

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