1.0 Achievement of Sponsored Demonstration C-FLDs under NFSM

S.No.	Crop	Area (ha)	No. of farmers
1	Black gram (Kharif 2022)	20.0 ha.	50
2	Field Pea (Rabi 2022-23)	10.0 ha	25
3	Green Gram (Zaid 2023)	10.0 ha.	25
4	Sesame (Kharif 2022)	10.0 ha	25
5	Mustard (Rabi 2022-23)	20.0 ha.	50
6	Black gram (Kharif 2023)	10.0 ha.	25
7	Mustard (Rabi 2023-24)	20.0 ha.	50
	Total	**100.0 ha.**	**250**

2.0 Cluster Frontline Demonstrations on pulses under NFSM 2022-23

i. Crop - Urdbean

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on pulses under NFSM

1	Name of the crop	Urd (Black Gram)
2	Season and year	Kharif 2022
3	No. of FLDs (farmers) sanctioned	50
4	No. of FLDs (farmers) conducted	50
5	Area (ha) sanctioned	20.0
6	Area (ha) actually conducted	20.0
7	Sanctioned budget (Rs.)	49260.00
8	Budget received actually (Rs.)	49260.00 (Unspent balance)
9	Actual expenditure (Rs.)	37500.00
10	Balance amount (Rs.)	11760.00
11	FLDs implemented in how many clusters?	04
12	No. of villages and farmers in each cluster	02 clusters: 25 farmers in one cluster & 25 farmers in second cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	MU-2 (Mukundara)
15	Technologies/package of practices demonstrated in each cluster	Seed
16	Sowing date/dates as per clusters	19 July to 30 July,2022
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	01 field operation taken like spray of weedicide - 10-23/08/2022 Spray of insecticide 04-12/09/2022, Irrigation - No
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	25-30 Oct. 2022

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Jagdish kumar	SC	0.40	01	Bagarpur	Hapur	Hapur
2	Sh. Mahendra Singh	SC	0.40	01	Bagarpur	Hapur	Hapur
3	Sh. Virma nand	SC	0.40	01	Bagarpur	Hapur	Hapur
4	Sh. Umead	SC	0.40	01	Bagarpur	Hapur	Hapur
5	Sh. Ram Kisan	SC	0.40	01	Bagarpur	Hapur	Hapur
6	Sh. Prakash singh	Gen	0.40	01	Badsyana	Hapur	Hapur
7	Sh. Harsh Vardhan Tyagi	Gen.	0.40	01	Badsyana	Hapur	Hapur
8	Sh. Amar Singh	Gen.	0.40	01	Alamnagar	Hapur	Hapur
9	Smt. Shasibala	Gen.	0.40	01	Badarkha	Hapur	Hapur
10	Sh. Harendra Pal	Gen.	0.40	01	Bagarpur	Hapur	Hapur
11	Sh. Sanjay	OBC	0.40	01	Bagarpur	Hapur	Hapur
12	Sh. Satveer	SC	0.40	01	Bagarpur	Hapur	Hapur
13	Sh. Kalu	SC	0.40	01	Bagarpur	Hapur	Hapur
14	Sh. Vijendra	SC	0.40	01	Bagarpur	Hapur	Hapur
15	Sh. Rukam Singh	SC	0.40	01	Bagarpur	Hapur	Hapur
16	Sh. Banti Kumar	SC	0.40	01	Bagarpur	Hapur	Hapur
17	Sh. Satpal	SC	0.40	01	Bagarpur	Hapur	Hapur
18	Sh. Bhola	SC	0.40	01	Bagarpur	Hapur	Hapur
19	Sh. Pramod kumar	SC	0.40	01	Bagarpur	Hapur	Hapur
20	Sh. Papu	SC	0.40	01	Bagarpur	Hapur	Hapur
21	Sh. Meera Singh	SC	0.40	01	Bagarpur	Hapur	Hapur
22	Sh. Prasant Singh	SC	0.40	01	Bagarpur	Hapur	Hapur
23	Sh. Vivek Kumar	SC	0.40	01	Bagarpur	Hapur	Hapur
24	Sh. Ramveer Singh	OBC	0.40	01	Bagarpur	Hapur	Hapur
25	Sh. Mukesh	OBC	0.40	01	Bagarpur	Hapur	Hapur
26	Sh. Bhagwan	Gen	0.40	02	Vajhilpur	Hapur	Hapur
27	Sh. Gynendra Singh	OBC	0.40	02	Jarothi	Hapur	Hapur
28	Sh. Bhopal	OBC	0.40	02	Dhanora	Simbhawali	Simbhawali
29	Sh. Sita ram tyagi	Gen	0.40	02	Dhanora	Simbhawali	Simbhawali
30	Sh. Rajnish Tyagi	Gen	0.40	02	Jarothi	Hapur	Hapur
31	Sh. Anuj	OBC	0.40	02	Jarothi	Hapur	Hapur
32	Sh. Manoj	OBC	0.40	02	Jarothi	Hapur	Hapur

33	Sh. Vipin	Gen	0.40	02	Vajilpur	Hapur	Hapur
34	Sh. Raguveer singh	SC	0.40	02	Chipkoli	Hapur	Hapur
35	Sh. Madan Pal	OBC	0.40	02	Atuta	Hapur	Hapur
36	Sh. Satendra	OBC	0.40	02	Atuta	Hapur	Hapur
37	Sh. Gurudev Singh	OBC	0.40	02	Atuta	Hapur	Hapur
38	Sh. Dharmendra	SC	0.40	02	Atuta	Hapur	Hapur
39	Sh. Praveen Kumar	SC	0.40	02	Atuta	Hapur	Hapur
40	Sh. Sanjeev	OBC	0.40	02	Atuta	Hapur	Hapur
41	Sh. Ravindra Singh	SC	0.40	02	Atuta	Hapur	Hapur
42	Sh. Mahesh tyagi	Gen	0.40	02	Vajhilpur	Hapur	Hapur
43	Sh. Vikash Tyagi	Gen	0.40	02	Vajhilpur	Hapur	Hapur
44	Sh. Rajkumar Tyagi	Gen	0.40	02	Vajhilpur	Hapur	Hapur
45	Sh. Ananad	Gen	0.40	02	Vajhilpur	Hapur	Hapur
46	Sh. Dyanand	Gen	0.40	02	Vajhilpur	Hapur	Hapur
47	Sh. Ajay Tyagi	Gen	0.40	02	Vajhilpur	Hapur	Hapur
48	Sh. Sunder	SC	0.40	02	Upeda	Hapur	Hapur
49	Sh. Umesh	SC	0.40	02	Upeda	Hapur	Hapur
50	Sh. Sandeep Kumar	SC	0.40	02	Upeda	Hapur	Hapur

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	MU-2	6.0 kg/each (300 Kg)	750/- (37500.00)	50	07	02
2	Water Soluble Fertilizers (18:18:18)						
3	Micro-nutrients						
4	Weedicides & Pesticides,						
5	Bio-agents						
6	Bio-products culture						
7	Soil Sample Testing Charg	Macro & micro	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)-A			Participant farmers (SC/ST)-B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	19/07/22	ON	Production tech. of Urd	12	-	12	13	-	13	25	-	25
2	10/08/22	ON	IPM in Urd	13	-	13	12	-	12	25	-	25
										Total		50

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	17/07/22	Field inspection (Bagadpur)	18	-	18	-	-	-
2	12/08/22	Field inspection (Upeda)	21	-	21	-	-	-
				Total	39			

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	**Demos (No.)**	**Variety**		**National average yield (q/ha)**	**State average yield (q/ha)**	**District average yield (q/ha)**	**Characteristics of the demo variety**	**Potential yield of the demo variety (q/ha)**	**Yield gap – I (%)**	**Yield gap – II (%)**
		Check	**Demo**							
Urd	50	Pant Urd -30	Mu-2 (Mukundara)	13.5	14.5	15.6	Short duration & High Yielding variety, Resistant to powdery mildew up to podding.	16-18	30.55	15.2

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)								Net returns increase (%)
Check			Demo				Check				Demo				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
12.0	9.2	10.6	13.0	10.6	12.5	**15.2**	33600	69960	36360	1:2.08	35600	93750	58150	1:2.63	**59.92 %**

(C) Results on specific technologies other than variety

Crop	Specific technology demonstrated	Recommendation/ha	Observations taken	Results	Remarks/feed-back
Urd	- Weedicide (Imazathapyr) -Insecticide (Imidaclorpid-17.8%)	625ml 250ml x 3 Spray	Weeds counts/mt. Yellow mosic infected plants per mt.	15.2 % yield increased to timely spray of weedicide, Insecticide to minimized the weed infestation & yellow mosic.	Farmers are convaced to grain yield has been increased due to timely spray of Imezathapyr & Imidaclorpid

(D) Socio-economic impact parameters

Sl. No.	Parameters	Crop-1	Crop-2	Crop3
1	Name of the crop	**Urd**	**Nil**	**Nil**
2	Variety	**MU-2 (Mukundra)**		
	No. of clusters	**02**		
3	No. of farmers	**50**		
4	Total area (ha)	**20.0 ha.**		
5	Yield obtained (q/ha)	**12.5 q/ha.**		
6	Total Produce Obtained (q)	**250 q**		
7	Produce sold (q/cluster)	**50 q**		
8	Selling price (Rs./q)	**7800/q**		
9	Produce retained as seed purpose (q/cluster)	**21 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**-**		
11	Employment Generated (Man days/ cluster)	**142 mandays**		
12	Purpose for which income gained was utilized by the farmers.	**Use for house hold + input purchase for rabi crops**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	**FARMERS PERCEPTION**														
	Variety			**Technology-1**			**Technology -2**			**Technology -3**			**Technology -4**		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving	**Y**			**Y**	**Y**										
Understandability		**Y**													
Practicability	**Y**			**Y**											
Cost effectiveness	**Y**				**Y**										
Profitability	**Y**			**Y**											
Sustainability	**Y**			-	**Y**										
Compatibility	-	**Y**		-	**Y**										
Accessibility	-	**Y**			**Y**										
Acceptability	**Y**	-		-	**Y**										
Preference		**Y**		-	**Y**										

VIII. Observations and feed-back

(a) Observations by Scientist(s) from KVK
1. Minimum weed infestation due to timely spray of Imezathyper @ 625ml/ha. at the time of 20 DAS.
2. Grain Yield has been increased due to uniform maturity & bold grain.
3. Sustainability for YMV.
(b) Farmers opinion/feed-back
1. Farmers are convinced to timely spray of Imazathypher has been minimized the weed infestation
2. Farmers are convinced to good quality of seed if timely spray to control thr YMV.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK.

Time to time visit by head of kvk of interact to concerned scientist.

ii. Crop – Field Pea

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on oilseeds under NFSM

1	Name of the crop	Field Pea
2	Season and year	Rabi 2022-23
3	No. of FLDs (farmers) sanctioned	25
4	No. of FLDs (farmers) conducted	25
5	Area (ha) sanctioned	10
6	Area (ha) actually conducted	10
7	Sanctioned budget (Rs.)	180000
8	Budget received actually (Rs.)	90000
9	Actual expenditure (Rs.)	75000
10	Balance amount (Rs.)	15000
11	FLDs implemented in how many clusters?	02
12	No. of villages and farmers in each cluster	16 Farmer in one cluster and 09 Farmer in Second cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	IPFD 12-2
15	Technologies/package of practices demonstrated in each cluster	Newly Developed high yielding Field Pea variety IPFD 12-2
16	Sowing date/dates as per clusters	08-12 Dec. 2022
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	Manuring 80:40:40:25(N:P:K:S) Weeding 45 DAS Irrigation 35-40,70-75,90-95 DAS
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	05-12 April 2023

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Kalva	Gen	0.40	01	Salai	Hapur	Hapur
2	Sh. Nanhe	Gen	0.40	01	Salai	Hapur	Hapur
3	Smt. Shabnam	Gen	0.40	01	Salai	Hapur	Hapur
4	Sh. Akram	Gen	0.40	01	Salai	Hapur	Hapur
5	Smt. Naghma	Gen	0.40	01	Salai	Hapur	Hapur
6	Sh. Hakam	Gen	0.40	01	Salai	Hapur	Hapur
7	Sh. Babu Kha	Gen	0.40	01	Salai	Hapur	Hapur
8	Sh. Rahish	Gen	0.40	01	Salai	Hapur	Hapur
9	Sh. Babu	Gen	0.40	01	Ghondi Salai	Hapur	Hapur
10	Sh. Devendra	OBC	0.40	01	Sikara	Simmbhawali	Simmbhawali
11	Sh. Saddam	Gen	0.40	01	Salai	Hapur	Hapur
12	Sh. Harlal Singh	OBC	0.40	01	Bankhanda (Rampura)	Simmbhawali	Simmbhawali
13	Sh. Arvind Kumar	OBC	0.40	01	Lukhrada	Simmbhawali	Simmbhawali
14	Sh. Ravindra Kumar	OBC	0.40	01	Lukhrada	Simmbhawali	Simmbhawali
15	Sh. Aman Singh	OBC	0.40	01	Lukhrada	Simmbhawali	Simmbhawali
16	Sh. Sukendra Singh	OBC	0.40	01	Lukhrada	Simmbhawali	Simmbhawali
17	Sh. Rohit Kumar	OBC	0.40	02	Lukhrada	Simmbhawali	Simmbhawali
18	Sh. Rahul Kumar	OBC	0.40	02	Lukhrada	Simmbhawali	Simmbhawali
19	Sh. Nanak Chand	OBC	0.40	02	Bankhanda (Rampura)	Simmbhawali	Simmbhawali
20	Sh. Phalu Ram	OBC	0.40	02	Nawada Khurd	Garh	Garh
21	Smt. Shanti	OBC	0.40	02	Nawada Khurd	Garh	Garh
22	Sh. Mahipal	Gen	0.40	02	Nawada Khurd	Garh	Garh
23	Sh. Vikas	SC	0.40	02	Nawada	Garh	Garh
24	Sh. Aman Singh	OBC	0.40	02	Bachlota	Hapur	Hapur
25	Sh. Mukul Singh	OBC	0.40	02	Bachlota	Hapur	Hapur

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Seeds IPFD 12-02	30 Kg/ each (7.50 Qtl)	75000.00	25	06	02
2	Fertilizers (Organic and inorganic)	-	-	-	-	-	-
3	Micro-nutrients	-	-	-	-	-	-
4	Weedicides, Pesticides, Fungicides etc.	-	-	-	-	-	-
5	Bio-agents	-	-	-	-	-	-
6	Bio-products culture	-	-	-	-	-	-
7	Nutrient complex/ nutrient special	-	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)- A			Participant farmers (SC/ST)- B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	15.11.2022	Off	Field Pea seed production	12	-	12	08	-	08	20		20
										Total		20

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	20.01.23	Field day	18		18	04	-	04
2	18.03.23	Field day	21		21	02	-	02
				Total	**39**			**06**

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	**Demos (No.)**	**Variety**		**National average yield (q/ha)**	**State average yield (q/ha)**	**District average yield (q/ha)**	**Characteristics of the demo variety**	**Potential yield of the demo variety (q/ha)**	**Yield gap – I (%)**	**Yield gap – II (%)**
		Check	**Demo**							
Field Pea	25	Type 163	IPFD 12-02	13-16	14.5	15.5	1- White and round seeded with resistant to Powderymildew disease, Pod borer and moderately resistant to aphids and leaf minor 2- Maturity period 110 days.	22-25	14.56	16.66

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)								Net returns increase (%)
Check			Demo				Check				Demo				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
		17.8	25	18	21.36	**20**	35200	80100	44900	1:2.27	36500	96120	59620	1:2.63	**32.78**

(C) Results on specific technologies other than variety

Crop	Specific technology demonstrated	Recommendation/ha	Observations taken	Results	Remarks/feed-back
Field Pea	Old seed replacement	50-75 Kg/ha	Yield(q/ha). B:C ratio	Superior then the local variety	Farmer Appreciated and adopted this variety due to higher yield and less infestation of disease and insect pest.

(D) Socio-economic impact parameters

Sl. No.	Parameters	Crop-1	Crop-2	Crop3
1	Name of the crop	**Field Pea**		
2	Variety	**IPFD 12-02**		
	No. of clusters	**02**		
3	No. of farmers	**25**		
4	Total area (ha)	**10**		
5	Yield obtained (q/ha)	**21.36 Average**		
6	Total Produce Obtained (q)	**216.60**		
7	Produce sold (q/cluster)	**129.85**		
8	Selling price (Rs./q)	**4500/q.**		
9	Produce retained as seed purpose (q/cluster)	**2.0 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**6.0 q**		
11	Employment Generated (Man days/ cluster)	**140/ cluster**		
12	Purpose for which income gained was utilized by the farmers	**Utilized for his livelihood and other household items.**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	FARMERS PERCEPTION														
	Variety			Technology-1			Technology -2			Technology -3			Technology -4		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving															
Understandability		**Y**			**Y**										
Practicability															
Cost effectiveness		**Y**													
Profitability															
Sustainability		**Y**			**Y**										
Compatibility		**Y**			**Y**										
Accessibility		**Y**			**Y**										
Acceptability		**-**													
Preference		**Y**													

VIII. Observations and feed-back

(a) Observations by Scientist(s) from KVK:

1. This Variety is high Yielding and very less susceptible to disease & insect pest.
2. Overall this Field Pea variety IPFD 12-02 field performance is good and preferred by the farmers.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK. (Time to time visit by head of kvk to interact with farmers & concerned scientist.)

iii. Crop – Green Gram

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on Pulses under NFSM

1	Name of the crop	Green gram
2	Season and year	Zaid 2023
3	No. of FLDs (farmers) sanctioned	25
4	No. of FLDs (farmers) conducted	25
5	Area (ha) sanctioned	10
6	Area (ha) actually conducted	10
7	Sanctioned budget (Rs.)	180000
8	Budget received actually (Rs.)	0.00
9	Actual expenditure (Rs.)	32850
10	Balance amount (Rs.)	0.00
11	FLDs implemented in how many clusters ?	02
12	No. of villages and farmers in each cluster	16 Farmer in One cluster and 09 Farmer in Second cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	Shikha (IPM -410-3)
15	Technologies/package of practices demonstrated in each cluster	Newly Developed high yielding Moong variety Shikha
16	Sowing date/dates as per clusters	12-15 April 2023
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	Manuring 60:40:40:25(N:P:K:S) Weeding 45 DAS Irrigation 35-40,70-75,90-95 DAS
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	18-25 June 2023

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Gynendra Singh	Gen	0.40	01	Jarothi	Hapur	Hapur
2	Sh. Anuj Siwal	OBC	0.40	01	Jarothi	Hapur	Hapur
3	Sh. Atul Kumar Tyagi	OBC	0.40	01	Dhanora	Hapur	Hapur
4	Sh. Pooran Tyagi	Gen	0.40	01	Dhanora	Hapur	Hapur
5	Smt. Kamlesh	Gen	0.40	01	Dhanora	Hapur	Hapur
6	Sh. Sitaram	Gen	0.40	01	Dhanora	Hapur	Hapur
7	Sh. Pank Tyagi	Gen	0.40	01	Dhanora	Hapur	Hapur
8	Sh. Vikas Tyagi	Gen	0.40	01	Bagilpur	Hapur	Hapur
9	Sh. Bhagwan Tyagi	Gen	0.40	01	Bagilpur	Hapur	Hapur
10	Sh. Akash Tyagi	Gen	0.40	01	Bagilpur	Hapur	Hapur
11	Sh. Rajnish Tyagi	Gen	0.40	01	Dhanora	Hapur	Hapur
12	Smt. Maya devi	OBC	0.40	01	Jarothi	Hapur	Hapur
13	Sh. Dharmendra	Gen	0.40	01	Bagadikhurd	Simmbhawali	Simmbhawali
14	Sh. Kamal Singh	Gen	0.40	01	Bagadikhurd	Simmbhawali	Simmbhawali
15	Sh. Mahesh Singh	Gen	0.40	01	Bagadikhurd	Simmbhawali	Simmbhawali
16	Sh. Bhupendra Rana	Gen	0.40	01	Bagadikhurd	Simmbhawali	Simmbhawali
17	Sh. Manij Kumar	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
18	Sh. Netrapal	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
19	Sh. Moolchand	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
20	Sh. Rishipal	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
21	Sh. Rambhool Singh	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
22	Sh. Rajendra Singh	Gen	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
23	Sh. Rajveer Singh	OBC	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
24	Sh. Nishant	OBC	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali
25	Sh. Sanjeev	OBC	0.40	02	Bagadikhurd	Simmbhawali	Simmbhawali

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Seeds Shikha (IPM -410-3	10 Kg/ each (2.48 Qtl)	31000.00	25	06	02
2	Fertilizers (Organic and inorganic)	-	-	-	-	-	-
3	Micro-nutrients	-	-	-	-	-	-
4	Weedicides, Pesticides, Fungicides etc.	-	-	-	-	-	-
5	Bio-agents	-	-	-	-	-	-
6	Bio-products culture	-	-	-	-	-	-
7	Nutrient complex/ nutrient special	-	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)- A			Participant farmers (SC/ST)- B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	08.05.2023	Off	Seed production technique of moongbean	19	-	19	01	-	01	20	-	20
2	25.05.2023	ON	Seed production technique of moongbean	18	-	18	02	-	02	20	-	20
				37	-	37	03	-	03	40	-	40

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	16.05.23	Field day	20		20	04	-	04
2	10.06.23	Field day	09		09	02	-	02
				Total	**29**	**06**		**06**

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	**Demos (No.)**	**Variety**		**National average yield (q/ha)**	**State average yield (q/ha)**	**District average yield (q/ha)**	**Characteristics of the demo variety**	**Potential yield of the demo variety (q/ha)**	**Yield gap – I (%)**	**Yield gap – II (%)**
		Check	**Demo**							
Green Gram	25	Pant Moong -1	Shikha (IPM 410-3)	8.0	7.5	4.5	Highly resistant to YMD, PM, CLS	10-12	20.83	22.10

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)								Net returns increase (%)
Check			Demo				Check				Demo				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
10.6	4.4	7.4	12	8.5	9.5	**22.1**	32500	57387	24887	1.76	32400	73672	41272	2.27	**65.83**

(C) Results on specific technologies other than variety

Crop	Specific technology demonstrated	Recommendation/ha	Observations taken	Results	Remarks/feed-back
Moong bean	Old seed replacement	20-25 Kg/ha	Yield(q/ha). B:C ratio	Superior then the local variety	Farmer Appreciated and adopted this variety due to higher yield and less infestation of disease and insect pest.

(D) Socio-economic impact parameters

Sl. No.	Parameters	Crop-1	Crop-2	Crop3
1	Name of the crop	**Moong bean**		
2	Variety	**Shikha (IPM 410-3)**		
	No. of clusters	**02**		
3	No. of farmers	**25**		
4	Total area (ha)	**10**		
5	Yield obtained (q/ha)	**9.5 Average**		
6	Total Produce Obtained (q)	**95**		
7	Produce sold (q/cluster)	**15**		
8	Selling price (Rs./q)	**6600/q.**		
9	Produce retained as seed purpose (q/cluster)	**5.0 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**2.0 q**		
11	Employment Generated (Man days/ cluster)	**120/ cluster**		
12	Purpose for which income gained was utilized by the farmers	**Utilized for his livelihood and other household items.**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	FARMERS PERCEPTION														
	Variety			Technology-1			Technology -2			Technology -3			Technology -4		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving															
Understandability		**Y**			**Y**										
Practicability															
Cost effectiveness		**Y**													
Profitability															
Sustainability		**Y**			**Y**										
Compatibility		**Y**			**Y**										
Accessibility		**Y**			**Y**										
Acceptability		**-**													
Preference		**Y**													

VIII. Observations and feed-back

(b) Observations by Scientist(s) from KVK:

3. This Variety is high Yielding and very less susceptible to disease & insect pest.
4. Overall this Moonbean variety Shikha field performance is good and preferred by the farmers.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK. (Time to time visit by head of kvk to interact with farmers & concerned scientist.)

3.0 Cluster Frontline Demonstrations on oilseeds under NMOOP 2022-23

i. Crop - Sesame

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on oilseeds under NMOOP

1	Name of the crop	Sesame
2	Season and year	Kharif 2022
3	No. of FLDs (farmers) sanctioned	25
4	No. of FLDs (farmers) conducted	25
5	Area (ha) sanctioned	10
6	Area (ha) actually conducted	10
7	Sanctioned budget (Rs.)	49260.00
8	Budget received actually (Rs.)	49260.00
9	Actual expenditure (Rs.)	9500.00
10	Balance amount (Rs.)	2260.00
11	FLDs implemented in how many clusters?	03
12	No. of villages and farmers in each cluster	06 Farmer & 03 village in one cluster and 10 Farmer & 01 village in two cluster, 09 farmers & 02 Village in third cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	GJT-5
15	Technologies/package of practices demonstrated in each cluster	Newly Developed high yielding Sesame variety GJT-5
16	Sowing date/dates as per clusters	18-27 July, 2022
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	Manuring 40:40:20 (N:P: K) Weeding 35 DAS Irrigation - No
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	10-15 Nov. 2022

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Pankaj Tyagi	Gen	0.40	01	Kharkhadi	Simmbhawali	Simmbhawali
2	Sh. Jai Bagwan	Gen	0.40	01	Kharkhadi	Simmbhawali	Simmbhawali
3	Sh. Atul Kumar	Gen	0.40	01	Kharkhadi	Simmbhawali	Simmbhawali
4	Sh. Chaman Singh	OBC	0.40	01	Jamalpur	Simmbhawali	Simmbhawali
5	Sh. Dharm Veer Singh	SC	0.40	01	Babugrah	Hapur	Hapur
6	Sh. Devendra Kumar	SC	0.40	01	Babugrah	Hapur	Hapur
7	Sh. Chander Pal	SC	0.40	02	Babugrah	Hapur	Hapur
8	Sh. Bharm Dutt	SC	0.40	02	Babugrah	Hapur	Hapur
9	Sh. Aashu	SC	0.40	02	Babugrah	Hapur	Hapur
10	Sh. Sandeep Kumar	SC	0.40	02	Babugrah	Hapur	Hapur
11	Sh. Mandeep Kumar	SC	0.40	02	Babugrah	Hapur	Hapur
12	Sh. Ankit Nimesh	SC	0.40	02	Babugrah	Hapur	Hapur
13	Sh. Mister	SC	0.40	02	Babugrah	Hapur	Hapur
14	Smt. Nilam	SC	0.40	02	Babugrah	Hapur	Hapur
15	Sh. Hem Singh	OBC	0.40	02	Atuta	Simmbhawali	Simmbhawali
16	Sh. Pradeep Singh	OBC	0.40	02	Atuta	Simmbhawali	Simmbhawali
17	Sh. Saneep	SC	0.40	02	Upeda	Hapur	Hapur
18	Sh. Umesh	SC	0.40	03	Upeda	Hapur	Hapur
19	Sh. Balraj Singh	SC	0.40	03	Upeda	Hapur	Hapur
20	Sh. Suresh	SC	0.40	03	Upeda	Hapur	Hapur
21	Sh. Harshverdhan	Gen	0.40	03	Bhadshyana	Garh	Garh
22	Sh. Amar Singh	Gen	0.40	03	Aalampur	Garh	Garh
23	Smt Shashi Bala Tyagi	Gen	0.40	03	Badrkha	Simmbhawali	Simmbhawali
24	Sh. Prakash Singh	Gen	0.40	03	Bhadshyana	Garh	Garh
25	Sh. Bhupendra Singh	OBC	0.40	03	Dahana	Dhaulana	Dhaulana

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Seeds GJT-5	2 Kg/ each (50 Kg)	190.00 (9500.00)	25	06	03
2	Fertilizers (Organic and inorganic)		-	-	-	-	-
3	Micro-nutrients			-	-	-	-
4	Weedicides, Pesticides,	-	-	-	-	-	-

	Fungicides etc.						
5	Bio-agents	-	-	-	-	-	-
6	Bio-products culture	-	-	-	-	-	-
7	Nutrient complex/ nutrient special	-	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)- A			Participant farmers (SC/ST)- B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	18.07.2022	On	Sesame seed production	11	-	11	14	-	14	25		25
										Total		**25**

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	28.7.22	Field visit	18		18	07	-	07
				Total	**18**			**07**

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	**Demos (No.)**	**Variety**		**National average yield (q/ha)**	**State average yield (q/ha)**	**District average yield (q/ha)**	**Characteristics of the demo variety**	**Potential yield of the demo variety (q/ha)**	**Yield gap – I (%)**	**Yield gap – II (%)**
		Check	**Demo**							
Sesame (Til)	25	T-78	GJT-5	12.41	13.1	7.5	Short duration & High Yielding variety, Sustainability for Phyllody & recorded less infestration of disease.	12-13	32.0	15.29

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						**Yield increase (%)**	**Expenditure and returns (Rs./ha)**								**Net returns increase (%)**
Check			**Demo**				**Check**				**Demo**				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
8.5	5.9	7.2	9.4	6.5	8.5	**15.2**	25400	63360	37960	1:2.49	27500	78200	50700	1:2.84	**33.56%**

(C) Results on specific technologies other than variety

Crop	**Specific technology demonstrated**	**Recommendation/ha**	**Observations taken**	**Results**	**Remarks/feed-back**
Sesame	- Weedicide (Pendimethalin) -Insecticide (Imidaclorpid-17.8 SL)	2.0 Kg 250ml x 2 Spray	Weeds counts/mt. Phyllody infected plants per mt.	15.2 % yield increased to timely spray of weedicide, Insecticide to minimized the Phyllody infestation.	Farmers are convaced to grain yield has been increased due to timely spray of pendimethalin& Imidaclorpid

(D) Socio-economic impact parameters

Sl. No.	**Parameters**	**Crop-1**	**Crop-2**	**Crop3**
1	Name of the crop	**Sesame**	**Nil**	**Nil**
2	Variety	**GJT -5**		
	No. of clusters	**03**		
3	No. of farmers	**25**		
4	Total area (ha)	**10.0 ha.**		

5	Yield obtained (q/ha)	**7.2 q/ha.**		
6	Total Produce Obtained (q)	**72 q**		
7	Produce sold (q/cluster)	**25 q**		
8	Selling price (Rs./q)	**9200/q**		
9	Produce retained as seed purpose (q/cluster)	**15 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**-**		
11	Employment Generated (Man days/ cluster)	**120 mandays**		
12	Purpose for which income gained was utilized by the farmers.	**Use for house hold + input purchase for rabi crops**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	**FARMERS PERCEPTION**														
	Variety			**Technology-1**			**Technology -2**			**Technology -3**			**Technology -4**		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving	**Y**			**Y**	**Y**										
Understandability		**Y**													
Practicability	**Y**			**Y**											
Cost effectiveness	**Y**				**Y**										
Profitability	**Y**			**Y**											
Sustainability	**Y**			-	**Y**										
Compatibility	-	**Y**		-	**Y**										
Accessibility	-	**Y**			**Y**										
Acceptability	**Y**	-		-	**Y**										
Preference		**Y**		-	**Y**										

VIII. Observations and feed-back

(a) Observations by Scientist(s) from KVK

1. Minimum weed infestation due to timely spray of Pendimethilin @ 2kg/ha. at the time of 2 DAS.
2. Grain Yield has been increased due to uniform maturity & bold grain.
3. Sustainability for YMV.

(b) Farmers opinion/feed-back

1. Farmers are convinced to timely spray of Pendimethilin has been minimized the weed infestation
2. Farmers are convinced to good quality of seed if timely spray to control the YMV.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK.

Time to time visit by head of kvk of interact to concerned scientist.

ii. Crop - Mustard

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on oilseeds under NMOOP

1	Name of the crop	Mustard
2	Season and year	Rabi 2022-23
3	No. of FLDs (farmers) sanctioned	50
4	No. of FLDs (farmers) conducted	50
5	Area (ha) sanctioned	20
6	Area (ha) actually conducted	20
7	Sanctioned budget (Rs.)	180000
8	Budget received actually (Rs.)	60000
9	Actual expenditure (Rs.)	38260
10	Balance amount (Rs.)	21740
11	FLDs implemented in how many clusters ?	03
12	No. of villages and farmers in each cluster	16 Farmer in two cluster and 18 Farmer in one cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	Griraj
15	Technologies/package of practices demonstrated in each cluster	Newly Developed high yielding Mustard variety Griraj & Sulphur
16	Sowing date/dates as per clusters	23.10.2022 to 27.10.2022
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	Manuring 80:40:40:25(N:P:K:S) Weeding 45 DAS Irrigation 35-40,70-75,90-95 DAS
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	25-30 March 2023

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Krishan Singh	Gen	0.40	01	Atuta	Simmbhawali	Simmbhawali
2	Sh. Jhautar Singh	OBC	0.40	01	Atuta	Simmbhawali	Simmbhawali
3	Sh. Sonu	OBC	0.40	01	Bagadpur	Hapur	Hapur
4	Sh. Jagdish	OBC	0.40	01	Bagadpur	Hapur	Hapur
5	Sh. Mahendra	SC	0.40	01	Bagadpur	Hapur	Hapur
6	Sh. Bisan	SC	0.40	01	Sikhera	Simmbhawali	Simmbhawali
7	Sh. Sourabh	SC	0.40	01	Sikhera	Simmbhawali	Simmbhawali
8	Sh. Adesh Tyagi	Gen	0.40	01	Atutta	Simmbhawali	Simmbhawali
9	Sh. Tilak Ram	Gen	0.40	02	Atutta	Simmbhawali	Simmbhawali
10	Sh. Jai Prakash	Gen	0.40	02	Kaniya	Simmbhawali	Simmbhawali
11	Sh. Jai Veer Singh	Gen	0.40	02	Kaniya	Simmbhawali	Simmbhawali
12	Sh. Rohtash	SC	0.40	02	Kaniya	Simmbhawali	Simmbhawali
13	Sh. Viresh Kumar	Gen	0.40	02	Kaniya	Simmbhawali	Simmbhawali
14	Sh. Ajay Kumar	SC	0.40	02	Kaniya	Simmbhawali	Simmbhawali
15	Sh. Raj Kumar	Gen	0.40	02	Kaniya	Simmbhawali	Simmbhawali
16	Sh. Mange Ram	SC	0.40	02	Kaniya	Simmbhawali	Simmbhawali
17	Sh. Rajneesh Tyagi	Gen	0.40	03	Dhanaura	Hapur	Hapur
18	Sh. Anuj	OBC	0.40	03	Jarothi	Hapur	Hapur
19	Sh. Rahul Pal	OBC	0.40	03	Kaniya	Simmbhawali	Simmbhawali
20	Sh. Monty Pal	SC	0.40	03	Kaniya	Simmbhawali	Simmbhawali
21	Sh.Hem Singh	SC	0.40	03	Atuta	Simmbhawali	Simmbhawali
22	Sh.Rankesh	OBC	0.40	03	Atuta	Simmbhawali	Simmbhawali
23	Sh. Rajendra singh	OBC	0.40	03	Atuta	Simmbhawali	Simmbhawali
24	Sh. Rohit	OBC	0.40	03	Atuta	Simmbhawali	Simmbhawali
25	Sh. Yogendra Sidhu	OBC	0.40	03	Atuta	Simmbhawali	Simmbhawali

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Seeds Griraj	2Kg/each (1.0 Qtl)	14500.00	50	10	03
2	Fertilizers (Organic and inorganic)	Sulphur	4 Kg each (200 Kg)	23760.00	50	10	03
3	Micro-nutrients			-	-	-	-
4	Weedicides, Pesticides, Fungicides etc.	-	-	-	-	-	-
5	Bio-agents	-	-	-	-	-	-
6	Bio-products culture	-	-	-	-	-	-
7	Nutrient complex/ nutrient special	-	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)- A			Participant farmers (SC/ST)- B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	9.11.2022	Off	Mustard seed production	16	-	16	04	-	04	20		20
										Total		20

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	03.01.23	Field day	20		20	04	-	04
2	11.01.23	Field day	21		21	02	-	02
				Total	**41**			**06**

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	**Demos (No.)**	**Variety**		**National average yield (q/ha)**	**State average yield (q/ha)**	**District average yield (q/ha)**	**Characteristics of the demo variety**	**Potential yield of the demo variety (q/ha)**	**Yield gap – I (%)**	**Yield gap – II (%)**
		Check	**Demo**							
Mustard	50	17.5	20.29	13.52	14.68	19.6	1- Oil content 39-41% 2- Maturity period 140-157 days. 3- Plant height 160-175 cm. 4- Bold seeded 5- 1000 grain wt 5.2 – 5.3 gm.	29-30	32.36	13.75

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)								Net returns increase (%)
Check			Demo				Check				Demo				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross Return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
20.0	15.0	17.5	23.0	18.0	20.29	**15.9**	46800	117250	70450	2.50	42500	135943	93443	3.19	**32.64**

(C) Results on specific technologies other than variety

Crop	Specific technology demonstrated	Recommendation/ha	Observations taken	Results	Remarks/feed-back
Mustard	Old seed replacement	3-4 Kg/ha	Yield(q/ha). B:C ratio	Superior then the local variety	Farmer Appreciated and adopted this variety due to higher yield and less infestation of disease and insect pest.

(D) Socio-economic impact parameters

Sl. No.	Parameters	Crop-1	Crop-2	Crop3
1	Name of the crop	**Mustard**		
2	Variety	**Griraj**		
	No. of clusters	**03**		
3	No. of farmers	**50**		
4	Total area (ha)	**20**		
5	Yield obtained (q/ha)	**20.29 Average**		
6	Total Produce Obtained (q)	**405.80**		
7	Produce sold (q/cluster)	**129.85**		
8	Selling price (Rs./q)	**6700/q.**		
9	Produce retained as seed purpose (q/cluster)	**2.0 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**6.0 q**		
11	Employment Generated (Man days/ cluster)	**256/ cluster**		
12	Purpose for which income gained was utilized by the farmers	**Utilized for his livelihood and other household items.**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	FARMERS PERCEPTION														
	Variety			Technology-1			Technology -2			Technology -3			Technology -4		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving															
Understandability		**Y**			**Y**										
Practicability															
Cost effectiveness		**Y**													
Profitability															
Sustainability		**Y**			**Y**										
Compatibility		**Y**			**Y**										
Accessibility		**Y**			**Y**										
Acceptability		**-**													
Preference		**Y**													

VIII. Observations and feed-back

(c) Observations by Scientist(s) from KVK:

5. This Variety is high Yielding and very less susceptible to disease & insect pest.
6. Overall this Mustard variety Griraj field performance is good and preferred by the farmers.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK. (Time to time visit by head of kvk to interact with farmers & concerned scientist.)

4.0 Cluster Frontline Demonstrations on pulses under NFSM 2023-24

i. Crop - Urdbean

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 94111263753
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on pulses under NFSM

1	Name of the crop	Urd (Black Gram)
2	Season and year	Kharif 2023
3	No. of FLDs (farmers) sanctioned	25
4	No. of FLDs (farmers) conducted	25
5	Area (ha) sanctioned	10.0
6	Area (ha) actually conducted	10.0
7	Sanctioned budget (Rs.)	120000.00
8	Budget received actually (Rs.)	0.0
9	Actual expenditure (Rs.)	20520.00
10	Balance amount (Rs.)	0.00
11	FLDs implemented in how many clusters?	02
12	No. of villages and farmers in each cluster	02 clusters: 16 farmers in one cluster & 09 farmer in second cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	Shekhar
15	Technologies/package of practices demonstrated in each cluster	Seed
16	Sowing date/dates as per clusters	06 -11 Aug. 2023
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	01 field operation taken like spray of weedicide – 8-11/08/2023 Spray of insecticide 04-12/09/2023, Irrigation - No
18	Stage of the crop	Harvested
19	Expected harvesting date/dates as per clusters	22-28 Oct. 2023

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. Vikar Ahmed	Gen.	0.40	01	Bhadurgarh	Garh	Hapur
2	Sh. Kuwarpal Singh	OBC	0.40	01	Bhadurgarh	Garh	Hapur
3	Sh. J.P. Singh	OBC	0.40	01	Saloni	Garh	Hapur
4	Sh. Kuldeep Singh	OBC	0.40	01	Saloni	Garh	Hapur
5	Sh. Moh. Tarik	Gen.	0.40	01	Dotai	Garh	Hapur
6	Sh. Moh. Haji Arif	Gen	0.40	01	Dotai	Garh	Hapur
7	Sh. Moh. Khalid	Gen.	0.40	01	Dotai	Garh	Hapur
8	Sh. Moh. Najeer Hussain	Gen.	0.40	01	Dotai	Garh	Hapur
9	Sh. Moh. Taheer	Gen.	0.40	01	Dotai	Garh	Hapur
10	Sh. Moh. Safak Ali	Gen.	0.40	01	Dotai	Garh	Hapur
11	Sh. Moh. Rasid Ali	Gen.	0.40	01	Dotai	Garh	Hapur
12	Sh. Moh. Soheab	Gen.	0.40	01	Dotai	Garh	Hapur
13	Sh. Moh. Lukman	Gen.	0.40	01	Dotai	Garh	Hapur
14	Sh. Moh. Dilshad	Gen.	0.40	01	Dotai	Garh	Hapur
15	Sh. Jai Prakash	Gen.	0.40	01	Sikhera	Simbhawali	Hapur
16	Sh. Sushil	Gen.	0.40	01	Sikhera	Simbhawali	Hapur
17	Sh. Veerpal	Gen.	0.40	01	Tatarpur	Simbhawali	Hapur
18	Sh. Heam Singh	Gen.	0.40	01	Atoota	Simbhawali	Hapur
19	Smt. Saroj	Gen.	0.40	01	Nagla Kasi	Simbhawali	Hapur
20	Sh. Pradeep	Gen.	0.40	01	Nagla Kasi	Simbhawali	Hapur
21	Sh. Rajeev Kumar	OBC	0.40	01	Nagla Kasi	Simbhawali	Hapur
22	Sh. Surendra	SC	0.40	01	Nagla Kasi	Simbhawali	Hapur
23	Sh. Deepanshu Verma	OBC	0.40	01	Nagla Kasi	Simbhawali	Hapur
24	Sh. Kripal	OBC	0.40	01	Nagla Kasi	Simbhawali	Hapur
25	Sh. Sanjay Singh	OBC	0.40	01	Nagla Kasi	Simbhawali	Hapur

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Shekhar	6.0 kg/each (150 q)	13500/- (20520.00)	25	06	02
2	Water Soluble Fertilizers (18:18:18)						
3	Micro-nutrients						
4	Weedicides & Pesticides,						
5	Bio-agents						
6	Bio-products culture						
7	Soil Sample Testing Charg	Macro & micro	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)-A			Participant farmers (SC/ST)-B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	12/07/23	ON	Production tech. of Urd	10	-	10	15	-	15	25	-	25
2	18/08/23	ON	IPM in Urd	15	-	15	11	-	11	26	-	26
										Total		51

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	19/09/23	Field inspection (Atuta)	12	-	12	-	-	-
2	20/10/23	Field inspection (Sikhera)	19	-	19	-	-	-
				Total	41			

VII. Performance (results) of the demonstrations

(A) General information

Name of the crop	Demos (No.)	Variety		National average yield (q/ha)	State average yield (q/ha)	District average yield (q/ha)	Characteristics of the demo variety	Potential yield of the demo variety (q/ha)	Yield gap – I (%)	Yield gap – II (%)
		Check	Demo							
Urd	25	IPU94-1	Shekhar	8.5	9.2	7.5	Short duration & High Yielding variety, Resistant to powdery mildew up to podding.	13-16	15.63	14.07

Formula for calculating yield gap percentage:

$$\text{Yield gap –I (\%)} = \frac{\text{Potential yield} - \text{Demo yield}}{\text{Potential yield}} \times 100$$

$$\text{Yield gap –II (\%)} = \frac{\text{Demo yield} - \text{Check yield}}{\text{Demo yield}} \times 100$$

(B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)								Net returns increase (%)
Check			Demo				Check				Demo				
Max.	Min.	Av.	Max.	Min.	Av.		Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
12.0	10.2	11.6	13.0	11.6	13.5	**16.37**	34600	91640	57040	1:2.64	36600	106650	70050	1:2.91	**22.80 %**

(C) Results on specific technologies other than variety

Crop	Specific technology demonstrated	Recommendation/ha	Observations taken	Results	Remarks/feed-back
Urd	- Weedicide (Imazathapyr) -Insecticide (Imidaclorpid-17.8%)	625ml 250ml x 3 Spray	Weeds counts/mt. Yellow mosic infected plants per mt.	16.37 % yield increased to timely spray of weedicide, Insecticide to minimized the weed infestation & yellow mosic.	Farmers are convaced to grain yield has been increased due to timely spray of Imezathapyr & Imidaclorpid

(D) Socio-economic impact parameters

Sl. No.	Parameters	Crop-1	Crop-2	Crop3
1	Name of the crop	**Urd**	**Nil**	**Nil**
2	Variety	**Shekhar**		
	No. of clusters	**02**		
3	No. of farmers	**25**		
4	Total area (ha)	**10.0 ha.**		
5	Yield obtained (q/ha)	**13.5 q/ha.**		
6	Total Produce Obtained (q)	**337.50 q**		
7	Produce sold (q/cluster)	**50 q**		
8	Selling price (Rs./q)	**7900/q**		
9	Produce retained as seed purpose (q/cluster)	**27 q**		
10	Produce distributed/sold to other farmers as seed (q/cluster)	**-**		
11	Employment Generated (Man days/ cluster)	**138 mandays**		
12	Purpose for which income gained was utilized by the farmers.	**Use for house hold + input purchase for rabi crops**		

(E) Farmer's perception of the intervention demonstrated

Technology attributes	**FARMERS PERCEPTION**														
	Variety			**Technology-1**			**Technology -2**			**Technology -3**			**Technology -4**		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving	**Y**			**Y**	**Y**										
Understandability		**Y**													
Practicability	**Y**			**Y**											
Cost effectiveness	**Y**				**Y**										
Profitability	**Y**			**Y**											
Sustainability	**Y**			-	**Y**										
Compatibility	-	**Y**		-	**Y**										
Accessibility	-	**Y**			**Y**										
Acceptability	**Y**	-		-	**Y**										
Preference		**Y**		-	**Y**										

VIII. Observations and feed-back

(a) Observations by Scientist(s) from KVK
1. Minimum weed infestation due to timely spray of Imezathyper @ 625ml/ha. at the time of 20 DAS.
2. Grain Yield has been increased due to uniform maturity & bold grain.
3. Sustainability for YMV.

(b) Farmers opinion/feed-back
1. Farmers are convinced to timely spray of Imazathypher has been minimized the weed infestation
2. Farmers are convinced to good quality of seed if timely spray to control thr YMV.

IX. Visitors to cluster FLDs/study tours etc. OIC of KVK.
Time to time visit by head of kvk of interact to concerned scientist.

5.0 Cluster Frontline Demonstrations on oilseeds under CFLDs 2023-24

i. Crop - Mustard

I. General Information

1	Name of the KVK	Babugarh, Hapur
2	Year of establishment	8 June 2018
3	Host Institution	SVPUA&T, Meerut
4	Address for communication including phone and fax numbers	Krishi Vigyan Kendra, Babugarh, Hapur, 9410443028
5	District	Hapur
6	State	Uttar Pradesh

II. Cluster FLDs on oilseeds under NMOOP

1	Name of the crop	Mustard
2	Season and year	Rabi 2023-24
3	No. of FLDs (farmers) sanctioned	50
4	No. of FLDs (farmers) conducted	50
5	Area (ha) sanctioned	20
6	Area (ha) actually conducted	20
7	Sanctioned budget (Rs.)	120000
8	Budget received actually (Rs.)	0.00
9	Actual expenditure (Rs.)	41120.00
10	Balance amount (Rs.)	0.00
11	FLDs implemented in how many clusters ?	03
12	No. of villages and farmers in each cluster	16 Farmer in One cluster and 18 Farmer in Second cluster, 16 farmers in third cluster
13	Land situation (irrigated, rainfed, others specify)	Irrigated
14	Name of variety/varieties demonstrated	RH 0725
15	Technologies/package of practices demonstrated in each cluster	Newly Developed high yielding Mustard variety RH 0725 & Sulphur, Insecticide
16	Sowing date/dates as per clusters	12.10.2023 to 17.10.2023
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	Manuring 120:60:40:25(N:P:K:S) Weeding 45 DAS Irrigation 35-40,70-75,90-95 DAS
18	Stage of the crop	Flowering stage
19	Expected harvesting date/dates as per clusters	24-30 March 2024

III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/ SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Sh. KunwarPal Singh	OBC	0.40	01	Bahadurgarh	Garh	Garh
2	Sh. Rajendra Kumar	Gen	0.40	01	Nanai	Garh	Garh
3	Sh. Rahul	Gen	0.40	01	Nanai	Garh	Garh
4	Sh. Subhesh	OBC	0.40	01	Bahadurgarh	Garh	Garh
5	Sh. Suresh Chandra	OBC	0.40	01	Bahadurgarh	Garh	Garh
6	Sh. Krishpal	Gen	0.40	01	Nanai	Garh	Garh
7	Smt. Mamta	Gen	0.40	01	Nanai	Garh	Garh
8	Smt. Sheela	Gen	0.40	01	Nanai	Garh	Garh
9	Sh. Surendra Singh	Gen	0.40	01	Nanai	Garh	Garh
10	Sh.Kamal Singh	Gen	0.40	01	Nanai	Garh	Garh
11	Sh. Sanjeev Kumar	Gen	0.40	01	Nanai	Garh	Garh
12	Sh. Satish Kumar	Gen	0.40	01	Nanai	Garh	Garh
13	Sh. Bal Mukand	SC	0.40	01	Nanai	Garh	Garh
14	Sh. Sugreev	SC	0.40	01	Nanai	Garh	Garh
15	Sh. Vipin Kumar	Gen	0.40	01	Nanai	Garh	Garh
16	Sh. Kalwa Kumar	Gen	0.40	01	Nanai	Garh	Garh
17	Sh. Dile Singh	Gen	0.40	01	Nanai	Garh	Garh
18	Sh. Sunil	Gen	0.40	01	Nanai	Garh	Garh
19	Sh. Rajveer	Gen	0.40	01	Nanai	Garh	Garh
20	Sh. Mohit Kumar	OBC	0.40	01	Nanai	Garh	Garh
21	Sh. Anuj Kumar	OBC	0.40	01	Vigas	Simmbhawali	Simmbhawali
22	Smt. Shobna	OBC	0.40	01	Vigas	Simmbhawali	Simmbhawali
23	Sh. Udaveer Singh	OBC	0.40	01	Vigas	Simmbhawali	Simmbhawali
24	Smt. Sheela Devi	Gen	0.40	01	Vigas	Simmbhawali	Simmbhawali
25	Smt. Babita	Gen	0.40	01	Alamnagar	Garh	Garh
26	Sh. Lakhmi Singh	Gen	0.40	01	Nawada Khurd	Garh	Garh
27	Smt. Vimlesh	OBC	0.40	01	Nawada Khurd	Garh	Garh
28	Sh. Baburam	OBC	0.40	01	Nawada Khurd	Garh	Garh
29	Sh. Kalwa Kumar	Gen	0.40	01	Alamnagar	Garh	Garh
30	Sh. Jitendra Singh	Gen	0.40	01	Badagpur	Hapur	Hapur
31	Sh. Sumit Chauhan	SC	0.40	01	Nawada Khurd	Garh	Garh
32	Sh. Kuldeep Singh	Gen	0.40	01	Upeda	Hapur	Hapur
33	Sh. Lokendra Singh	Gen	0.40	02	Upeda	Hapur	Hapur
34	Sh. Amarjeet Singh	Gen	0.40	02	Upeda	Hapur	Hapur
35	Sh. Jay Prakash	Gen	0.40	02	Sikhera	mmbhawali	Simmbhawali
36	Sh. Dharampal	Gen	0.40	02	Sikhera	mmbhawali	Simmbhawali

37	Sh. Surendra	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
38	Sh. Nitin Tyagi	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
39	Sh. Satya Deo	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
40	Sh. Adesh Tyagi	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
41	Sh. Ankit Tyagi	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
42	Sh. Madan pal	Gen	0.40	02	Sikhera	Simmbhawali	Simmbhawali
43	Sh. Prem Singh	Gen	0.40	02	Upeda	Hapur	Hapur
44	Sh. Mayank Kumar	SC	0.40	02	Sikhera	Simmbhawali	Simmbhawali
45	Smt. Manisha	Gen	0.40	03	Sikhera	Simmbhawali	Simmbhawali
46	Smt. Sunita Tyagi	Gen.	0.40	03	Sikhera	Simmbhawali	Simmbhawali
47	Sh. Tilak Ram	Gen.	0.40	03	Sikhera	Simmbhawali	Simmbhawali
48	Sh. Sidhanta Chaudhry	Gen.	0.40	03	Sikhera	Simmbhawali	Simmbhawali
49	Sh. Anurag Tyagi	Gen	0.40	03	Sikhera	Simmbhawali	Simmbhawali
50	Sh. Shivam Tyagi	Gen	0.40	03	Upeda	Hapur	Hapur

IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Seeds RH 0725	2Kg/each (1.0 Qtl)	12870.00	50	08	03
2	Fertilizers (Organic and inorganic)	Sulphur	1.8 Kg each (90 Kg)	13500.00	50	08	03
3	Micro-nutrients			-	-	-	-
4	Weedicides, Pesticides, Fungicides etc.	Thymethosum 12.3 + Lemda 9.5%	100 ml/each (5 lit.)	14750.00	50	08	03
5	Bio-agents	-	-	-	-	-	-
6	Bio-products culture	-	-	-	-	-	-
7	Nutrient complex/ nutrient special	-	-	-	-	-	-

V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (general)- A			Participant farmers (SC/ST)- B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total	Men	Women	Total
1	7.10.2023	ON	Mustard seed production	22	-	22	03	-	03	25	-	25
2	10.11.2023	OFF	Mustard seed production	23	-	23	02	-	02	25	-	25
										Total		50

VI. Extension activities including field visits organized

Sl.No.	**Date**	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	26.12.23	Field day	20		20	02	-	02
2	18.01.24	Field day	18		18	02	-	02
				Total	**38**			**04**

Reasult awaited

6.0 Action Plan (Jan. 2024 to Dec. 2024)

Sr. No.	Crop	Area (ha)	No. of farmers
1	Black gram (Kharif 2024)	10.0 ha.	25
2	Lentil (Rabi 2024-25)	10.0 ha.	25
3	Mustard (Rabi 2024-25)	20.0 ha.	50
	TOTAL	**40.0 ha**	**100**

1. FLD on Oil seeds & Pulses under NFSM Project
A. Pulses :

I. Blackgram

Crop	Variety	Thematic area	Technology Demonstrated	Critical input	Season and year	Area ha)	No. of farmers	Parameter identified
Black gram	PU-31 Or As per availability	Integrated crop management	To demonstrate the HYV (PU- 31), weed mang. (Imazethapyr, Sulphur (@ 25 Kg/ha.) & Yellow mosaic management (Imidacloprid@ 250 ml/ha.) in urd crop.	- Seed (HYV) - Imazethapyr @ 625 ml/ha. - Water soluble fertilizer(18:18:18) @ 5 Kg/ha. - Sulphur @ 25 Kg/ha. - Imidacloprid @ 250ml/ha. Total cost= Rs. 90000/-	*Kharif* 2024	10.0	25	- Yield (q/ha.) - B:C ratio

Extension and Training Activities

S.No.	**Activity**	**No. of activities**	**Month**	**No. of participation**
1	Field days	01	Sept./ Oct.2024	25
2	Farmers training	01	Aug.2024	20
3	Media coverage	02	-	-
4	Training for extension functionaries	01	Aug, 2024	10

II. Lentil

Crop	Variety	Thematic area	Technology Demonstrated	Critical input	Season and year	Area (ha)	No. of farmers	Parameter identified
Lentil	PL-8 or As per availability	Integrated crop management	To demonstrate the HYV (PL-8), weed mang. (Pendimethalin 3.5 lit/ha., & Rust management Carbendazim+mencozeb /triazoles 2.5 gm/lit. of water Sulphur (@ 25 Kg/ha.)	- Seed (HYV) - (Pendimethalin 3.5 lit/ha., - Sulphur @ 25 Kg/ha. - Rust management Carbendazim+mencozeb/ triazoles @ 250gm/ha. Total cost= Rs. 90000/-	Rabi 2024-25	10.0	25	- Yield (q/ha.) - B:C ratio

Extension and Training Activities

S.No.	Activity	No. of activities	Month	No. of participation
1	Field days	01	Jan/Feb.2025	25
2	Farmers training	01	Oct./Nov.2024	20
3	Media coverage	02	-	-
4	Training for extension functionaries	01	Sept.2024	10

A. Oil Seeds:

Mustard

Crop	Variety	Thematic area	Technology Demonstrated	Critical input	Season and year	Area (ha.)	No. of farmers	Parameter identified
Mustard	R.H – 0749/ As per availability	Integrated crop management	To demonstrate the HYV (RH-0749), Sulphur application (@ 25 Kg/ha.) & Aphid management in Mustard crop.	- Use of HYV - Water soluble fertilizer(18:18:18) @ 5 Kg/ha. - Sulphur application @ 25 kg/ha - Monocrotophos 36%SL @ 15 lit/ha. - Mencozeb75% WP @ 2.0 Kg/ha. - Budget required Rs. 180,000/-	*Rabi* 2024-25	20.0	50	- Yield (q/ha.) - B:C ratio

Extension and Training Activities

S.No.	Activity	No. of activities	Month	No. of participation
1	Field days	02	Jan/Feb.2025	40
2	Farmers training	02	Oct./Nov.2024	40
3	Media coverage	02	-	-
4	Training for extension functionaries	01	Sept.2024	10