Front Line Demonstration (FLD) by KVKs

Front Line Demonstrations (FLDs)is important mandate of Krishi Vigyan Kendra Hanumangarh-1, aimed at demonstrating the performance of proven technologies in real farm situations on farmers' fields.

They are called **"Front Line"** because they are conducted at the first line of extension, i.e., Farmers can observe the outcomes for themselves because they collaborate directly with scientists.

- FLDs serve as live classrooms for farmers — when they see the difference in yield, quality, and income on their own field, they adopt the technology faster.

Steps Followed by KVKs in FLD

1. **Identify Farmers & Locations**
    - Select progressive farmers willing to try new technology.
    - Choose representative locations for wider impact.
2. **Select Technology**
    - Proven technology from ICAR institutes/SAUs/ OFT conducted by KVK (variety, nutrient management, IPM, INM, etc.)
3. **Plan & Lay Out Demonstration**
    - Plot 1: Farmer's Practice (Local Check)
    - Plot 2: Recommended Practice (Improved Technology)
4. **Provide Inputs & Technical Support**
    - Seeds, fertilizers, plant protection chemicals, training.
5. **Collect Data**
    - Growth & yield parameters
    - Economics (Cost of cultivation, Gross/Net Return, B:C ratio)
    - % yield increase over local check
    - Farmers' feedback

6. **Organize Extension Activities**
    - Field days, exposure visits, farmer-scientist interaction.
7. **Analyze Results & Report**
    - Prepare FLD report and share results with line departments and other farmers such as percent increase, gross cost, gross income, net income, B:C Ratio and farmer's feedback.

FLD conducted by KVK Hanumangarh-1

FRONTLINE DEMONSTRATION 2021

a. Follow-up for results of FLDs implemented during previous years
List of technologies demonstrated during previous year and popularized during 2020-21 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of techno		
					No of Villages	No of Farmers	A i
1	Moong	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day, Film Show, Print media, Kisan Ghoshthi, Kisan Mela, Radio Talks, TV Show	43	1123	1
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		85	1105	4
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		146	901	1
4	Gram	Integrated Pest Management	Use of Bio-agent (Trichoderma)		21	88	
5	Broccoli	Exotic vegetables	Production technology		8	40	
6	Cotton	Integrated Pest management	Pest management		32	168	
7	Cattle	Disease Management	Popularization of teat cup to reduce mastitis		17	38	ar
8	Cattle	Feed management	Cattlesilo bag (Silage Making)		7	21	76
9	Poultry	Backyard Poultry	RIR, Kadaknath, Pratapdhan		60	241	
10	Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen garden		18	110	

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during 20221 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Oilseeds: -

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	
1	Mustard	Integrated Crop Management	Package of practices	Rabi 2020-21	135.2	135.2	24	314	338	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2021	10	10	2	23	25	NA

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					
Mustard	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, A. cotton, Fellow, G.nut, Pearl millet, Sesame	22-10.2020 to 07.11.2020	26.3.2021 to 4.4.2021	12	3
Sesame	Kharif 2021	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barley, Oat	07.07.2021 to 25.07.2021	10.10.2021 to 28.10.2021	127	13

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Development of frost resistant bold seeded mustard varieties.
2.	Need for research on planting space in mustard crop.
3.	Strong strategies should be developled for sclerotinia stem rot disease in mustard.
4.	Evaluation of some effective herbicides to control of weeds in mustard.
5.	Need for research on phyllody resistant variety of sesame.

Farmers' reactions on specific technologies

S. No	Feed Back
1	*Farmers were satisfied with the performance of RH-0749 &RH-725 varieties of mustard in reference of seed yield.*
2	*Good response of basal application of fertilizers.*
3	*Farmers were satisfied with the performance of RT-351 variety of sesame in reference of seed yield.*

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	7	01.03.2021, 01.03.2021, 05.03.2021, 06.03.2021, 06.03.2021, 22.03.2021& 05.10.2021	284	
2	Farmers Training	1	18.11.2020	34	
3	Media coverage	3	02.03.2021, 07.03.2021 & 23.03.2021	Not fixed	

Pulses:-

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	
1	Chickpea	Integrated Crop Management	Package of practices	Rabi 2020-21	20	20	02	48	50	NA
2	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2020-21	4	4	01	09	10	NA
3	Moong	Integrated Crop Management	Package of practices	Kharif 2021	20	20	05	45	50	NA

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					
Chickpea	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, fellow, sorghum, G.nut, Paddy	20.10.2020 to 15.11.2020	01.04.2021 to 16.04.2021	12	3
Chickpea	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, fellow	20.10.2020 to 10.11.2020	01.04.2021 to 16.04.2021	12	3
Moong	Kharif 2021	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barly, Oat	06.07.2021 to 25.07.2021	22.09.2021 to 07.10.2021	207	12

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Recommended herbicides are not effective for control of pyaji(*Asphodelus tenuifolius*) in gram crop. Therefore, there is a need for research on effective herbicides to control pyaji in gram crop.
2	Need of varieties, who have tolerance or resistance to yellow mosaic virus and suitable for rain

	fed areas in moong.
3	Need of research on bio pesticides to control white fly & pod borer.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of GNG 2171& GNG 2144 varieties of gram.
2	Good response of basal application of fertilizers & IPM practices.
3	Good response of soil treatment by Trichoderma in gram crop.
4	Good response of MH 421 variety of Mungbean.Good response of basal application of fertilizers.
5	Good results of bio-pesticides to management of white fly & pod borer in mungbean.
6	Trichoderma is easily available in market. Farmers can be preparing at home.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	22.03.2021, 22.03.2021, 24.03.2021, 01.10.2021, 04.10.2021	207	
2	Farmers Training				
3	Media coverage	3	23.03.2021, 25.03.2021, 05.10.2021	Not fixed	
4	Film show				

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	
1	Oat (F)	Fodder production	Full package	Rabi 2020-21	2	2	0	40	40	NA

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					
Oat (F)	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, fellow, sorghum	10.10.2020 to 15.11.2020	Last week of January to last week of March	12	3

Technical Feedback on the demonstrated technologies

S. No	Feed Back

1	Need of varieties of new varieties.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of JHO 822 in reference of green fodder production..

Horticulture 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	
1	Broccoli	Extotic vegetable	Production technology	Rabi 2020-21	0.5	0.5	00	10	10	NA

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					
Broccoli	Rabi 2020-21	Irrigated	Sandy loam	Low	Low-medium	High	Okra, Cucurbits	25.10.2020 to 15.11.2020	February-March	12	3

Technical Feedback on the demonstrated technologies

S. No	Feed Back

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of Green magic variety of broccoligram.

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard	Integrated Crop	Full package	RH-0749	169	67.6	26.4	16	20.52	18.10	13.37	23727	112860	89133	4.76	23332	99550	76218	4.27

	management		RH-725	169	67.6	24.9	16	21.69	18.10	19.83	23727	119295	95568	5.03	23332	99550	76218	4.27
Sesame	Integrated Crop management	Full package	RT-351	25	10	10.6	6.8	8.85	6.32	40.03	22781	88500	65719	3.88	19300	63200	43900	3.27

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea	Integrated Crop management	Full package	GNG-2171	26	10.4	22.8	16.4	18.74	15.92	17.71	30521	99322	68801	3.25	28097	84376	56279	3.00
			GNG-2144	24	9.6	22.2	16.4	18.23	15.92	14.51	30521	96619	66098	3.17	28097	84376	56279	3.00
Trichoderma	Integrated Pest Management	Bio-agent	GNG-1581	10	4	20.25	16.13	18.56	16.45	13.00	29971	92950	62979	3.10	28471	82250	53779	2.90
Greengram	Integrated Crop management	Full package	MH-421	50	20	14.60	7.90	9.52	7.62	24.93	18748	61880	43132	3.300619	16436	49530	33094	3.013507

*** Economics to be worked out based total cost of production per unit area and not on critical inputs alone.**

** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Fodder crops																			
Oat (F)	Fodder production	Full package	40	2.0	670	540	612	548	11.68	-	-	48563	153000	104437	3.15	46663	137000	90337	2.94

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters Ave. milk Prod./day/Ani.		% 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	Nutrition Management	Use of by pass protein with mineral mixture	10	10	19.30	15.40	25.32	-	-	233.28	521.10	287.82	2.23	180.40	338.80	158.40	1.88
Buffalo	Disease management	Anestrous in lactating buffalo	50	50	37animal conceived	13animal conceived	184.61	-	-	-	-	-	-	-	-	-	-
Backyard poultry	Poultry management	RIR	28	28	2053 eggs	1606 eggs	27.83	16.5 kg meat	10.5 kg meat	9025	32372	23347	3.6	8760	26400	17640	3.0

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Fish Culture	**Composite fish culture**	**Popularise fish culture in water storage tank**	**10**	**10**	**1040**	**-**	**-**	**-**	**-**	**42700**	**114400**	**71700**	**2.68**	**-**	**-**	**-**	**-**

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

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)
Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen Garden	40	40	249.7	106.2	135.12	Maximum	Least	893	7739	6846	8.67	406	2190	1784	5.39

FLD on Demonstration details on crop hybrids (*Details of Hybrid FLDs implemented during 2021)*

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Vegetable crop	Production technology	Green magic F1`	10	0.5	269.1	215.4	237.7	249.4	-4.69	68954	427860	358906	6.2

Note : Remove the Enterprises/crops which have not been shown

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters Yield (Kg)		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Button Mushroom	Production Technology	06	06	74.00	-	-	-	-	4250	9250	5000	2.18	-	-	-	-

FRONTLINE DEMONSTRATION 2022

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

List of technologies demonstrated during previous year and popularized during 2021-22 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No of Villages	No of Farmers	Area in ha
1	Moong	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day, Film Show, Print media, Kisan Ghoshthi, Kisan Mela, Radio Talks, TV Show	45	126	2162
2	Sesame	Integrated Crop Management	Package of practices (NFSM)		11	330	765
3	Mustard	Integrated Crop Management	Package of practices (NFSM)		87	1331	5220
4	Chickpea	Integrated Crop Management	Package of practices (NFSM)		92	1012	1454
5	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		24	105	290
6	Oat	Fodder production	Full package		12	422	25
7	Broccoli	Exotic vegetables	Production technology		11	135	30
8	Cattle	Feed Management	Use of by pass protein with mineral mixture		28	210	318 animals
9	Cattle	Disease management	Anestrous in lactating buffalo		22	156	182 animals
10	Poultry	Backyard Poultry	Popularization of RIR		24	312	312 units
11	Composite	Integrated fish	Popularise fish culture in		18	30	30 unit

	Fish culture	farming	water storage tank				
12	Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen garden		20	142	112 units
13	Mushroom	Mushroom production	Button mushroom production technology		12	35	35 units

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during 2022 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Oilseeds: -

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	
1	Mustard	Integrated Crop Management	Package of practices	Rabi 2021-22	20	20	8	42	50	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2022	20	20	11	39	50	NA

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					
Mustard	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, A. cotton, Fellow, Sesame	10-10.2021 to 25.10.2021	24.3.2022 to 3.4.2022	102	5
Sesame	Kharif 2022	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barley	02.07.2022 to 20.07.2022	13.10.2022 to 20.10.2022	316	16

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
1	Development of frost resistant bold seeded mustard varieties.
2.	Need for research on planting space in mustard crop.

3.	Strong strategies should be developled for sclerotinia stem rot disease in mustard.
4.	Evaluation of some effective herbicides to control of weeds in mustard.
5.	Need for research on phyllody resistant variety of sesame.

Farmers' reactions on specific technologies

S. No	Feed Back
1	*Farmers were satisfied with the performance of RH-725 variety of mustard in reference of seed yield.*
2	*Good response of basal application of fertilizers.*
3	*Farmers were satisfied with the performance of RT-351 variety of sesame in reference of seed yield.*

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	7	23.02.2022, 04.03.2022, 04.03.2022, 07.03.2022, 07.03.2022, 07.10.2022 & 07.10.2022	201	
2	Farmers Training	2	03.10.2021 & 12.10.2021	79	
3	Media coverage	4	24.02.2022, 05.03.2022, 08.03.2022 & 08.10.2022	Not fixed	

Pulses:-

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	
1	Chickpea	Integrated Crop Management	Package of practices	Rabi 2021-22	20	20	01	49	50	NA
2	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2021-22	04	04	01	09	10	NA
3	Moong	Integrated Crop Management	Package of practices	Kharif 2022	30	30	07	68	75	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Chickpea	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	Cotton, Clusterbean, Mungbean, fellow, Pearlmillet, G.nut, Paddy	16.10.2021 to 16.11.2021	31.03.2022 to 16.04.2022	102	5
Chickpea	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, Mungbean, fellow	20.10.2021 to 10.11.2021	01.04.2022 to 16.04.2022	102	5

Moong	Kharif 2022	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard, Barly	05.07.2022 to 20.07.2022	21.09.2022 to 30.09.2022	316	16

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Recommended herbicides are not effective for control of pyaji (*Asphodelus tenuifolius*) in gram crop. Therefore, there is a need for research on effective herbicides to control pyaji in gram crop.
2	Need of varieties, who have tolerance or resistance to yellow mosaic virus and suitable for rain fed areas in moong.
3	Need of research on bio pesticides to control white fly & pod borer.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of GNG 2171 variety of gram.
2	Good response of basal application of fertilizers & IPM practices.
3	Good response of soil treatment by Trichoderma in gram crop.
4	Good response of MH 421 variety of Mungbean. Good response of basal application of fertilizers.
5	Good results of bio-pesticides to management of white fly & pod borer in mungbean.
6	Trichoderma is easily available in market. Farmers can be preparing at home.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	23.03.2022, 29.03.2022, 29.03.2022, 23.09.2022 & 24.09.2022	133	
2	Media coverage	2	24.03.2022 & 30.03.2022	Not fixed	

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	
1	Oat (F)	Fodder production	Full package	Rabi 2021-22	3.75	3.75	75	0	75	NA
2	Wheat	Integrated Crop Management	Full package	Rabi 2021--22	66	66	165	0	165	NA

Details of farming situation

Crop	Season	Irrigation facility	Status of soil	previous crop	Sowing date	Harvesting date	Rainfall	Rainfall

				N	P	K					
Oat (F)	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	Clusterbean, fellow, sorghum	10.10.2020 to 15.11.2020	Last week of January to last week of March	102	5
Wheat	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	A. Cotton, Clusterbean, Mungbean	05.11.2021 to 30.11.2021	10.04.2022 to 22.04.2022	102	5

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Need of new varieties of Oat.
2.	Need to research on micro nutrients in wheat crop.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of JHO 822 in reference of green fodder production.

Horticulture 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	
1	Broccoli	Exotic vegetables	New vegetable crop	Rabi 2021-22	0.5	0.5	0	10	10	NA
2	Onion	Production of Low volume & high value crop	Introduction of Kharif Onion	Kharif 2022	0.5	0.5	0	10	10	NA

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					
Broccoli	Rabi 2021-22	Irrigated	Sandy loam	Low	Low-medium	High	Cotton, Guar, Cucurbits & Okra	October 2021	January to February 2022	91.5	5
Onion	Kharif 2022	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Cauliflower, Cabbage & Potato	August 2022	December 2022	186.5	8

Technical Feedback on the demonstrated technologies

S. No	Feed Back

1	Heat tolerant variety should be developed.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Green magic is a high yielding variety.
2	AL-883 is a high yielding variety and suitable for cultivation in kharif season.

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard	Integrated Crop management	Full package	RH-725	50	20	23.96	19.05	21.31	18.06	18.00	29254	138515	109261	4.73	27431	117390	89959	4.28
Sesame	Integrated Crop management	Full package	RT-351	50	20	11.3	7.8	9.58	7.25	32.14	22856	110170	87314	4.82	19360	83375	64015	4.30

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea	Integrated Crop management	Full package	GNG-2171	50	20	17.40	12.80	14.92	12.61	18.32	30400	71616	41216	2.35	27497	60528	33031	2.20
Trichoderma	Integrated Pest Management	Bio-agent	GNG-1581	10	04	16.25	10.13	14.56	12.49	16.57	29971	92950	62979	3.10	28471	82250	52779	2.90
Greengram	Integrated Crop management	Full package	MH-1142	50	20	10.54	7.05	8.38	6.64	26.20	17492	54470	36528	3.11	16148	43160	27012	2.67
			MH-421	25	10	10.32	7.10	8.06	6.64	21.38	17492	52390	34448	2.99	16148	43160	27012	2.67

*** Economics to be worked out based total cost of production per unit area and not on critical inputs alone.**

**** BCR= GROSS RETURN/GROSS COST**

FLD on Other crops

Category & Crop	Thematic Area	Name of the technolo	No. of Farmers	Area (ha)	Yield (q/ha)	% Change in	Other Parameters	Economics of demonstration (Rs./ha)	Economics of check (Rs./ha)

		gy			Demo			Check	Yield	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Wheat	Integrated Crop management	Full package	83	33.2	40.50	29.50	36.24	32.64	11.03	-	-	26898	101584	74686	3.77	26517	91281	64764	3.44
			82	32.8	40.00	29.00	34.08	32.64	4.41	-	-	26898	95358	68460	3.55	26517	91281	64764	3.44
			21	8.4	38.00	29.20	33.88	32.64	3.80	-	-	26698	94600	67902	3.54	26517	91281	64764	3.44
Fodder crops																			
Oat (F)	Fodder production	Full package	75	3.75	690	550	644	582	10.65	-	-	52488	161000	108512	3.07	51388	145500	94112	2.83
Vegetables										-	-								
Broccoli	Exotic vegetables	New Vegetable crop	10	0.5	182.0	132.5	155.9	-	-	-	-	67339	265030	197691	3.9	-	-	-	-
Onion	Low volume & high value crop	Introduction of Kharif Onion	10	0.5	302.5	240.2	276.2	-	-	-	-	108440	220960	112516	2.0	-	-	-	-

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Avarage milk production (lit/day/Ani.)		% 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	Nutrition Management	Use of probiotic in cross breed cattle	20	20	13.85	12.38	11.87	-	-	205.5	498.6	293.1	2.43	199.4	433.3	233.9	2.17
Buffalo	Disease management	Use of chelated mineral mixture in buffalo	20	20	14.81	12.67	16.89	-	-	347.0	829.36	482.36	2.39	328.0	696.85	368.85	2.12

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters (Av. Fish production in kg/unit)		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)

Composite fish culture	**Integrated fish farming**	**Popularise fish culture in water storage tank**	**10**	**10 (0.2 ha each)**	**1027.5**	**-**	**-**	**-**	**-**	**52200**	**113025**	**60825**	**2.17**	**-**	**-**	**-**	**-**

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Button Mushroom	Production Technology	30	30	165	-	-	-	-	5850	24750	18900	4.23	-	-	-	-

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)
Home Science	Household food security of kitchen gardnig and nutrition gardning	Nutritional kitchen garden	60	60	226.8	105.7	114.57	Maximum	Least	916	7894	6978	8.62	458	2256	1798	4.93

Note : Remove the Enterprises/crops which have not been shown

FRONTLINE DEMONSTRATION 2023

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

List of technologies demonstrated during previous year and popularized during 2022 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No of Villages	No of Farmers	Area in ha
1	Moong	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day, Film Show, Print media, Kisan Ghoshthi, Kisan Mela, Radio Talks, TV Show	45	126	2162
2	Sesame	Integrated Crop Management	Package of practices (NFSM)		11	330	765
3	Mustard	Integrated Crop Management	Package of practices (NFSM)		87	1331	5220
4	Chickpea	Integrated Crop Management	Package of practices (NFSM)		92	1012	1454
5	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		24	105	290
6	Oat	Foder production	Full package		12	521	36
7	Wheat	Integrated Crop Management	Full package		8	200	140
8	Broccoli	Exotic vegetables	Production Technology		15	150	35
9	Onion	Production of low volume & high value crop	Production Technology		5	20	3
10	Cattle	Nutriation management	Use of probitic in cross breed cattle		28	242	325 ani.
11	Buffalo	Disease management	Use of chelated mineral mixture		66	1351	2235 ani.
12	Fisheries	Composite fish culture	Popularize fish culture in water storage tanks		20	41	41 units
13	Button Mushroom	Mushroom production	Production technology		12	35	35 units
14	H. Sc.	House hold food security of kitchen gardenig & nutritional gardening	Nutritional kitchen gardenig		25	175	175 units

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during 2023 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Oilseeds: -

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	
1	Mustard	Integrated Crop Management	Package of practices	Rabi 2022-23	60	60	22	128	150	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2023	30	30	05	70	75	NA

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					
Mustard	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	Mungbean, Clusterbean, Sesame, A. cotton, Pearlmillet, Fellow	05.10.2022 to 29.10.2023	20.03.2023 to 05.04.2023	59	8
Sesame	Kharif 2023	Irrigated	Sandy loam	Low	Low-medium	High	Mustard, Wheat, Chickpea, Barley	29.06.2023 to 13.07.2023	28.09.2023 to 15.10.2023	178.5	7

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
1	Development of frost resistant bold seeded mustard varieties.
2.	Need for research on planting space in mustard crop.
3.	Strong strategies should be developed for sclerotinia stem rot disease in mustard.
4.	Evaluation of some effective herbicides to control of weeds in mustard.
5.	Need for research on phyllody resistant variety of sesame.

Farmers' reactions on specific technologies

S. No	**Feed Back**
1	*Farmers were satisfied with the performance of RH-725 variety of mustard in reference of seed yield.*
2	*Good response of basal application of fertilizers.*

3	*Farmers were satisfied with the performance of RT-351 variety of sesame in reference of seed yield.*

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	11	28.02.2023, 01.03.2023, 02.03.2023, 03.03.2023, 27.09.2023, 29.09.2023	278	
2	Farmers Training	02	16.09.2022, 05.07.2023	78	

Pulses:-

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	
1	Chickpea	Integrated Crop Management	Package of practices	Rabi 2022-23	30	30	06	69	75	NA
2	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2022-23	4	4	01	09	10	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Chickpea	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	A. cotton, Clusterbean, Mungbean, Paddy, Fellow	24.10.2022 to 17.11.2022	04.04.2023 to 16.04.2023	73	8
Chickpea	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium	High	A. cotton, Clusterbean, Mungbean	26.10.2022 to 12.11.2022	05.04.2023 to 14.04.2023	73	8

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Recommended herbicides are not effective for control of pyaji (*Asphodelus tenuifolius*) in gram crop. Therefore, there is a need for research on effective herbicides to control pyaji in gram crop.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of GNG 2171 variety of gram.
2	Good response of basal application of fertilizers & IPM practices.

3	Good response of soil treatment by Trichoderma in gram crop.
6	Trichoderma is easily available in market. Farmers can be preparing at home.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	3	02.03.2023, 31.03.2023	94	
2	Farmers Training	1	14.11.2022	58	
3	Media coverage	2	03.03.2023 & 01.04.2023	Not fixed	

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	
1	Onion	Integrated Crop Management	Package of practices	Kharif 2023	0.5	0.5	0	10	10	NA
2	Garlic	Integrated Crop Management	Package of practices	Rabi 2022-23	0.5	0.5	10	0	10	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Onion	Kharif 2023	Irrigated	Sand loam	Low	Low to medium	High	Wheat, Mustard	August 2023	December 2023	64	7
Garlic	Rabi 2022-23	Irrigated		Low	Low to medium	High	Clusterbean, Mungbean	October 2022	April 2023	73	8

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Heat tolerant variety should be develop/evaluate of Kharif onion.
2	POP should be developed for kharif onion.
3	POP should be developed for garlic cultivation for the area.
4	The seeds of public sector varieties are not available to the farmers, So the availability of these seeds should be ensured. (Kitchen gardening)
5	There is need to promote Nutritional Kitchen Gardening to ensure fresh vegetables at door steps any time.

6	Jayanti rohu found 20% higher growth rate then rohu. So need to promote the species.

Farmers' reactions on specific technologies

S. No	Feed Back
1	AL-883 is a high yielding variety and suitable for cultivation in Kharif season.
2	G-404 is a good variety and colour of cloves is attractive.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	2	24.03.2023, 05.12.2023	42	
2	Media coverage	-	-	-	

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard	Integrated Crop management	Full package	RH-725	150	60	25.96	21.05	23.29	19.98	16.56	29386	104805	75419	3.57	27686	89910	62224	3.25
Sesamum	Integrated Crop management	Full package	RT-351	75	30	10.20	5.40	7.16	4.96	44.35	32233	103820	71587	3.22	29265	71920	42655	2.46

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea	Integrated Crop management	Full package	GNG-2171	75	30	17.40	12.60	14.99	12.84	16.74	29410	67455	38045	2.29	26545	57780	31235	2.18
Trichoderma	Integrated Pest Management	Bio-agent	GNG-1581	10	4	15.35	10.23	14.25	12.26	16.23	29335	66925	37590	2.28	27745	57770	30025	2.08

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check											
					High	Low	Average			Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cereals																			
Wheat	Integrated Crop management	Popularisation of new varieties DBW-3226, HD-3086 & DBW-222	50	20	56.86	44.72	48.98	46.74	4.79	-	-	36697	127858	91161	3.48	36120	121654	85534	3.37
			50	20	56.48	46.96	49.74	46.74	6.42	-	-	36720	129454	92734	3.53	36120	121654	85534	3.37
			48	19.2	58.52	4214	51.86	46.74	10.95	-	-	37125	134906	97781	3.63	36120	121654	85534	3.37
Vegetables																			
Garlic	Low volume & high value crop	Introduction of new variety (G-404)	10	0.5	14220	11490	12610	11570	8.99	-	-	150014	504400	354386	3.40	150014	462800	312786	3.10
Kharif onion	Low volume & high value crop	Introduction of Kharif Onion	10	0.5	269.2	234.1	247.9	221.0	12.2	-	-	107878	272690	164812	2.5	107340	243100	135760	2.3

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

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	Nutrition Management	Use of probiotic in cross breed cattle	10	10	16.26 lit./day/ani.	14.15 lit./day/ani.	14.91	-	-	209.6/ day/ani.	585.5/day/ani.	375.9/ day/ani.	2.79	202.4/ day/ani.	495.3/day/ani.	292.9/day/ani.	2.45
Buffalo	Nutrition Management	Use of chelated mineral mixture in buffalo	10	10	15.23 lit./day/ani.	13.30 lit./day/ani.	14.51	-	-	356/day/ani.	852.88/ day/ani.	496.88 /day/ani.	2.40	336/day/ani.	731.5/day/ani.	395.5/day/ani.	2.18
Poultry (ATMA)	Production and management	Backyard poultry (Kadaknath)	10	30/unit	1207 eggs	919 eggs	31.34	10.1 kg meat	12 kg meat	3610	32395	28785	8.97	3554	15453	11899	4.35
Poultry (SCSP)		Backyard poultry (Kadaknath)	50	30/unit	1207 eggs	924 eggs	30.63	10.6 kg meat	12 kg meat	3619	31223	27604	8.63	3572	15549	11977	4.35

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Composite fish culture	Integrated fish farming	Popularize fish culture in water storage tank	10	10 (0.25 ha each)	1045	-	-	-	-	48500	114950	66450	2.37	-	-	-	-

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Azola (SCSP)	Popularization of Azola cultivation	10	10	14.44 lit milk/day	13 lit milk/da	11.08	-	-	356	664.24	308.24	1.9	336	546	210	1.6

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg/ha)		% 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)
Home Science (SCSP)	Household food security of kitchen gardening and nutrition gardening	Nutritional kitchen garden	30	30	13653	4216	223.84	Maximum	Least	60462	499268	438806	8.26	25244	132491	107247	5.25

Note : Remove the Enterprises/crops which have not been shown

Dr. Anoop Kumar addressing farmers on Organic farming

Stall exhibition at SKRAU, Bikaner during farmer's fair

FRONTLINE DEMONSTRATION 2024

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

List of technologies demonstrated during previous year and popularized during 2023 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of tech		
					No of Villages	No of Farmers	A
1	Sesame	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day, Film Show, Print media, Kisan Ghoshthi, Kisan Mela, Radio Talks, TV	14	340	
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		95	1587	
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		95	1098	
4	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		25	150	

5	Wheat	Integrated Crop Management	Full package	Show	11	265	
6	Garlic	Production of low volume & high value crop	Production Technology		10	350	
7	Onion	Production of low volume & high value crop	Production Technology		6	29	
8	Cattle	Nutriation management	Use of probitic in cross breed cattle		29	267	3
9	Buffalo	Disease management	Use of chelated mineral mixture		68	1401	2
10	Poultry	Production and management	Backyard poultry (Kadaknath)				
11	Poultry	Production and management	Backyard poultry (Kadaknath)				
12	Azola	Popularization of Azola cultivation					
13	Fisheries	Composite fish culture	Popularize fish culture in water storage tanks		21	45	4
14	H. Sc.	House hold food security of kitchen gardenig & nutritional gardening	Nutritional kitchen gardenig		25	185	1

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during 2024 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Oilseeds: -

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	
1	Mustard	Integrated Crop Management	Package of practices	Rabi 2023-24	30	30	3	72	75	NA
2	Sesame	Integrated Crop Management	Package of practices	Kharif 2024	30	30	10	65	75	NA

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					
Mustard	Rabi 2023-24	Irrigated	Sandy loam	Low	Low-medium	High	Cotton, Clusterbean, Groundnut, Sesame, Pearl millet	10.10.2023 to 30.10.2023	22.03.2024 to 06.04.2024	58	6
Sesame	Kharif 2024	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard	14.06.2024 to 16.07.2024	30.09.2024 to 20.10.2024	577.7	21

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Development of frost resistant bold seeded mustard varieties.
2.	Need for research on planting space in mustard crop.
3.	Strong strategies should be developed for sclerotinia stem rot disease in mustard.
4.	Evaluation of some effective herbicides to control of weeds in mustard.
5.	Need for research on phyllody resistant variety of sesame.

Farmers' reactions on specific technologies

S. No	Feed Back
1	*Farmers were satisfied with the performance of RH-725 variety of mustard in reference of seed yield.*
2	*Good response of basal application of fertilizers.*
3	*Farmers were satisfied with the performance of RT-372 variety of sesame in reference of seed yield.*

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	06	23.03.2024, 24.03.2024, 28.03.2024, 14.10.2024	146	

Pulses:-

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	
1	Chickpea	Integrated Disease Management	Bio-agent (Trichoderma)	Rabi 2023-24	4	4	01	09	10	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Chickpea	Rabi 2023-24	Irrigated	Sandy loam	Low	Low-medium	High	A. cotton, Clusterbean, Mungbean	26.10.2022 to 12.11.2022	05.04.2023 to 14.04.2023	58	6

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good response of soil treatment by Trichoderma in gram crop.
2	Trichoderma is easily available in market. Farmers can be preparing at home.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training				
3	Media coverage				

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	
1	Garlic	Integrated Crop Management	Package of practices	Rabi 2023-24	0.5	0.5				NA
2	Wheat	Integrated Crop Management	Package of practices	Rabi 2023-24	20	20	50	0	50	NA

Details of farming situation

Crop	Season	Farming situation (Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Garlic	Rabi 2023-24	Irrigated		Low	Low to medium	High	Clusterbean, Mungbean	October 2023	April 2024	58	6
Wheat	Rabi 2023-24	Irrigated		Low	Low to medium	High	Cotton, Clusterbean	08.11.2023 to 30.12.2023	12.04.2024 to 26.04.2024	58	6

Technical Feedback on the demonstrated technologies

S. No	Feed Back

1	POP should be developed for garlic cultivation for the area.
2	The seeds of public sector varieties are not available to the farmers, So the availability of these seeds should be ensured. (Kitchen gardening)
3	There is need to promote Nutritional Kitchen Gardening to ensure fresh vegetables at door steps any time.
4	Jayanti rohu found 20% higher growth rate then rohu. So need to promote the species.

Farmers' reactions on specific technologies

S. No	Feed Back
1	G-404 is a good variety and colour of cloves is attractive.
2	Farmers were satisfied with the performance of DBW-222 variety of wheat in reference of seed yield.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days			-	
2	Media coverage			-	

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard	Integrated Crop Management	Full package	RH-725	75	30	20.00	14.00	17.55	15.34	14.40	33488	93366	59878	2.79	34322	81700	47378	2.38
Sesamum	Integrated Crop Management	Full package	RT-372	75	30	5.88	0.63	2.74	2.64	3.79	37627	41100	3473	1.09	36282	39600	3318	1.09

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea	Integrated Crop Management	Bio-agent (Trichoderma)	GNG-1581	10	4	15.60	10.60	12.86	11.73	9.63	30328	78696	48368	2.59	29847	71760	41913	2.40

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check											
					High	Low	Average			Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cereals																			
Wheat	Integrated Crop management	Popularisation of new variety DBW-222	50	20	59.68	42.84	52.74	50.56	4.31	-	-	41797	153076	111279	3.66	41182	146844	105662	3.57
Vegetables																			
Garlic	Low volume & high value crop	Introduction of new variety (G-404)	20	**0.5**	**142.7**	**112.7**	**128.4**	**114.1**	**12.5**	**-**	**-**	**190014**	**770400**	**580386**	**4.1**	**180014**	**684600**	**504586**	**3.8**
Fruit crops																			
Kinnow	Cultivation of Fruit	Nutrient management	10	0.5	384.1	261.1	311.0	295.3	5.3	-	-	108446	622000	513554	5.7	104921	590600	485679	5.6

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

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)
Poultry (SCSP)	Production and management	Backyard poultry (RIR)	50	50 (30/unit)	**2513 eggs**	1504 eggs	67.08	34.94 kg meat	19.96 kg meat	9026	43277	39841	5.41	8894	25754	16860	2.90

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Fisheries

Category	Thematic area	Name of the technology	No. of	No.of units	Major parameters	% change	Other parameter	Economics of demonstration (Rs.)	Economics of check (Rs.)

		demonstrated	Farmer		Demonstration	Check	in major parameter	Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Composite fish culture	**Integrated fish farming**	**Popularize fish culture in water storage tank**	**10**	**10 (0.11 ha each)**	**645 kg**	**-**	**-**	**-**	**-**	**35500**	**67725**	**32225**	**1.91**	**-**	**-**	**-**	**-**

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg/ha)		% 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)
Home Science (SCSP)	Household food security of kitchen gardening and nutrition gardening	Nutritional kitchen garden	50	50	12153	5319	228.48	Maximum	Least	52854	389260	336406	7.36	23845	120847	97002	5.07

Note : Remove the Enterprises/crops which have not been shown

Organizing field day on mustard crop under CFLD oilseeds

Participants visiting a cotton field during the Kapas Kisan Samvad