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

- o Select progressive farmers willing to try new technology.
- o Choose representative locations for wider impact.

2. Select Technology

o 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

o Seeds, fertilizers, plant protection chemicals, training.

5. Collect Data

- Growth & yield parameters
- o Economics (Cost of cultivation, Gross/Net Return, B:C ratio)
- % yield increase over local check
- o Farmers' feedback

6. Organize Extension Activities

o 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

GIOTIT	<u> </u>			D 4 11 6 1 1 4	TT • 4	1 1 64	_
S.	Crop/			Details of popularization		l spread of te	ecnn
No	Enterpris	Thematic Area*	Technology demonstrated	methods suggested to the	No of	No of	1
140	e			Extension system	Villages	Farmers	i
1	Moong	Integrated Crop Management	Package of practices (NFSM)		43	1123	
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		85	1105	4
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		146	901	
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	Training, Field Day, Film	32	168	
7	Cattle	Disease Management	Popularization of teat cup to reduce	Show, Print media, Kisan	17	38	
	Cattle	Disease Management	mastitis	Ghoshthi, Kisan Mela,	1 /	36	aı
8	Cattle	Feed management	Cattlesilo bag (Silage Making)	Radio Talks, TV Show	7	21	70
9	Poultry	Backyard Poultry	RIR, Kadaknath, Pratapdhan		60	241	
9	1 outry	Backyard Fourtry	Kirk, Kadakilatii, Tratapullati		00	241	
	Home	Household food security of					
10	Science	kitchen gardening and	Nutritional Kitchen garden		18	110	
	Science	nutrition gardening					

^{*} 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: -

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

Details of farming situation

Crop	uosi	ming ation /Irrig	type		Status of soil		evious crop	Sowing date	larvest date	sona nfall m)	. of iny iys
Сюр	Seaso	Farr situe (RF,	Soil	Z	Р	K	Pre _v	Sov	Har	Seasol I rainfa (mm)	No. rair day
Mustard	Rabi 2020- 21	Irrigated	Sandy loam	Low	Low-medium	J		22-10.2020 to 07.11.2020	26.3.2021 to 4.4.2021	12	3
Sesame	Kharif 2021	Irrigated	Sandy Ioam	Low	Low-medium			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

SI.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:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season	Area (ha)		. of farme monstrati		Reasons for shortfall in
NO.			Demonstrated and year		Proposed	Actual	SC/ST	Others	Total	achievement
1	Chickpea	oea Integrated Crop Package of		Rabi	20	20	02	48	50	NA
		Management	practices	2020-21						
2	Chickpea	Integrated Disease	Bio-agent	Rabi	4	4	01	09	10	NA
		Management	(Trichoderma)	2020-21						
3	Moong Integrated Crop		Package of	Kharif	20	20	05	45	50	NA
		Management	practices	2021						

Details of farming situation

	u L	ng on rig	type	St	tatus of so	il	sn .	Ď,	sst	all ()	J
Crop	Seasc	Farmii situatii (RF/Irr ated	Soil ty	N	Р	K	Previo	Sowing date	Harve	Seasor I rainfa (mm)	No. of rainy days
Chickpea	Rabi 2020-21	Irrigated	Sandy	Low	Low-	High	Clusterbean, Mungbean, fellow,	20.10.2020 to	01.04.2021 to	12	3
			loam		medium		sorghum, G.nut, Paddy	15.11.2020	16.04.2021		
Chickpea	Rabi 2020-21	Irrigated	Sandy	Low	Low-	High	Clusterbean, Mungbean, fellow	20.10.2020 to	01.04.2021 to	12	3
			loam		medium	_	_	10.11.2020	16.04.2021		
Moong	Kharif 2021	Irrigated	Sandy	Low	Low-	High	Wheat, Mustard, Barly, Oat	06.07.2021 to	22.09.2021 to	207	12
		_	loam		medium			25.07.2021	07.10.2021		

		eedback 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.
ĺ	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.

S.	Feed Back						
No							
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

SI. 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:-

J. J	P									
SI.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (I	ha)		. of farme monstrati	Reasons for shortfall in	
INO	•		Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	achievement
1	Oat (F)	Fodder production	Full package	Rabi 2020-	2	2	0	40	40	NA
				21						

Details of farming situation

	ing situation										
	Ę	ng on rig (be	S	tatus of so	il	sn _	D a	st .	na ∭ (ي ک
Crop	easc	armil tuati RF/Irl ated	oil ty	Z	D	К	evio	owin	arve	easo rainfa (mm	No. c rainy days
	Ň	Fa Situ (R)	S	IN		I K	፫ -	Ø -	Ĭ	se –	2 2 3
Oat (F)	Rabi 2020-21	Irrigated	Sandy	Low	Low-	High	Clusterbean, fellow, sorghum	10.10.2020 to	Last week of	12	3
			loam		medium				January to last		
									week of March		

S. No Feed Back

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

Horticulture crops:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and vear	Area (I	ha)		. of farme monstrati	Reasons for shortfall in	
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	achievement
1	Broccoli	Extotic vegetable	Production	Rabi	0.5	0.5	00	10	10	NA
			technology	2020-21						

Details of farming situation

	uc uc	ng on rig)	pe	S	tatus of so	il	sn	D a	sst	ına all)	of y s
Crop	Seasc	Farmii situatii (RF/Ir ated	Soil ty	N	Р	K	Previo	Sowir	Harve	Seaso I rainfi (mm	No. c rain) days
Broccoli	Rabi 2020-21	Irrigated	Sandy	Low	Low-	High	i i		February-	12	3
			loam		medium			15.11.2020	March		

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

_		technology demonstrated		No. of	Area (ha)					. %	Economics of demonstration (Rs./ha)			tration	Economics of check (Rs./ha)			
Crop			Variety	Farmers		High	Dem Low	o Average	Check	in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
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
Sesam	e Integrated	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
	Crop																	
	management																	

^{*} 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

	Thematic	technolog y demonstra ted	Variety	No. of Farmer s	Are	Yield (q/ha) %					Econo	omics of (Rs	demons ./ha)	tration	Economics of check (Rs./ha)			
Crop	Area				a (ha)	High	Dem Low	o Average	Chec k	Increase in yield	Gros S	Gross Retur	Net Retur	BCR (R/C)	Gros s Cost	Gross Retur	Net Retur	BCR (R/C)
Chickpea	Integrated Crop	Full package	GNG- 2171	26	10.4	22.8	16.4	18.74	15.92	17.71	30521	99322	n 68801	3.25	28097	n 84376	n 56279	3.00
	management		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
Trichoder ma	Integrated Pest Management	Bio-agent	GNG- 1581	10	4	20.25	16.1 3	18.56	16.45	13.00	29971	92950	62979	3.10	28471	82250	53779	2.90
Greengra m	Integrated Crop management	Full package	MH-421	50	20	14.60	7.90	9.52	7.62	24.93	18748	61880	43132	3.3006 19	16436	49530	33094	3.0135 07

^{*} 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

Categor	Themati	Name of the	No. of Farmer	Are		Yie	ld (q/ha)		% Chang e in		her meter s	Econo	mics of d (Rs./	lemonstra ha)	ation	Econo	mics of c	heck (Rs	s./ha)
y & Crop	c Area	technolo gy	S	a (ha)	Hig h	Dem Lo w	o Averag e	Chec k	Yield	Dem o	Chec k	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Fodder crops																			
Oat (F)	Fodder productio n	Full package	40	2.0	670	540	612	548	11.68	-	-	4856 3	15300 0	10443 7	3.1 5	4666 3	13700 0	9033 7	2.9 4

FLD on Livestock

Category	Thematic area	Name of the	No. of	No.of	Major pa	rameters	%	Oth	her		Econom	nics of		Eco	nomics	of chec	k	
		technology	Farmer	Units	Ave.	milk	change	parar	neter	de	monstrat	tion (Rs	s.)		(Rs	.)		
		demonstrated		(Animal/	Prod./d	lay/Ani.	in major											
				Poultry/	Demo	Check	parameter	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR	
				Birds,						Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)	
				etc)													•	

Cattle	Nutrition	Use of by	10	10	19.30	15.40	25.32	-	-	233.28	521.10	287.82	2.23	180.40	338.80	158.40	1.88
	Management	pass protein															
		with mineral															
		mixture															
Buffalo	Disease	Anestrous in	50	50	37animal	13animal	184.61	-	-	-	-	-	-	-	-	-	-
	management	lactating			conceived	conceived											
		buffalo															
Backyard	Poultry	RIR	28	28	2053 eggs	1606 eggs	27.83	16.5 kg	10.5 kg	9025	32372	23347	3.6	8760	26400	17640	3.0
poultry	management							meat	meat								

^{*} 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

Cotogor	Thematic	Name of the	No. of	No.o	Major pa	rameters	% change	Other pa	rameter	Econo	mics of o		ration	Ec		s of chec s.)	k
Categor y	area	technology demonstrate d	Farme r	f units	Demons ration	Check	in major paramet er	Demon s ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gros s Cost	Gross Retur n	Net Return	BCR (R/C)
Fish Culture	Composit e 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

LLD OII	Other Ente	prise. Nito	ileli G	aruem	ng												
Categor v and	Thematic area	Name of the technology	No. of	No. of Units	Yield	(Kg)	% chang		ther meters	Econo	mics of o		ation	Ec	onomics Rs./l		K
Crop	arca	demonstrat	Farm	Oiiita	Demons	Check	e in	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
		ed	er		ration		yield			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen Garden	40	40	249.7	106.2	135.12	Maxim um	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)

	to also a la sur	11	NIf	A		Yield (d	q/ha)		0/ 1	Econom	ics of demo	nstration (F	≀s./ha)
Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)		Demo		Check	% Increase in yield	Gross	Gross	Net	BCR
	acmonstratea	variety	i di ilici s	(IIu)	High	Low	Average	Check	iii yicid	Cost	Return	Return	(R/C)
Vegetable	Production	Green	10	0.5	269.1	215.4	237.7	249.4	-4.69	68954	427860	358906	6.2
crop	technology	magic F1`											

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

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farme	No.of units	Majo paramo Yield (eters	% change in major	Other pa	arameter	Econo	omics of ((Rs.) or					s of check Rs./unit	(
				Demo	Chec k	paramete r	Demo	Check	Gros s 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

				Details of	Horizontal	spread of te	chnology
S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	popularization methods suggested to the Extension system	No of Villages	No of Farmers	Area in ha
1	Moong	Integrated Crop Management	Package of practices (NFSM)		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)	Training, Field Day, Film Show,	92	1012	1454
5	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)	Print media, Kisan Ghoshthi,	24	105	290
6	Oat	Fodder production	Full package	Kisan Mela,	12	422	25
7	Broccoli	Exotic vegetables	Production technology	Radio Talks, TV Show	11	135	30
8	Cattle	Feed Management	Use of by pass protein with mineral mixture	SHOW	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: -

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (I	ha)		o. of farmers emonstratio		Reasons for shortfall in achievement
				-	Proposed	Actual	SC/ST	Others	Total	
1	Mustard	Integrated Crop	Package of	Rabi	20	20	8	42	50	NA
		Management	practices	2021-22						
2	Sesame	Integrated Crop	Package of	Kharif	20	20	11	39	50	NA
		Management	practices	2022						

Details of farming situation

	or ranning onde										
Crop	son	ning ation Irrig	type		Status of soil		evious	owing date	larvest date	sona Infall Im)	. of ys
Сюр	Seas	Farr situa (RF/ ate	Soil	Z	Р	K	Prev	Sowin	Har	Seas I raii (m	No. rair day
Mustard	Rabi 2021-	Irrigated	Sandy Ioam	Low	Low-medium	High	Clusterbean,	10-10.2021 to	24.3.2022 to	102	5
	22		·				Mungbean, A. cotton,	25.10.2021	3.4.2022		
							Fellow, Sesame				
Sesame	Kharif 2022	Irrigated	Sandy Ioam	Low	Low-medium	High	Wheat, Mustard,	02.07.2022 to	13.10.2022 to	316	16
		_	-				Barley	20.07.2022	20.10.2022		

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.

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

SI.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, 07.10.2022 & 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:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	achievement
1	Chickpea	Integrated Crop	Package of	Rabi	20	20	01	49	50	NA
	-	Management	practices	2021-22						
2	Chickpea	Integrated Disease	Bio-agent	Rabi	04	04	01	09	10	NA
		Management	(Trichoderma)	2021-22						
3	Moong	Integrated Crop	Package of	Kharif	30	30	07	68	75	NA
		Management	practices	2022						

Details of farming situation

	g ontolonion										
	u	ng on ed	be	Status of soil			sn o	D 1	st	all (I	ر د حو
Crop	easc	rmi uati igat)	oil ty	N	D	K	evio	Sowin	arve	easo rainfa (mm	Jo. crainy
	Ø	Fa siti (Irr	Š	IN	r	IX	<u>~</u>	S	Ĭ	» –	2 - 3
Chickpea	Rabi 2021-22	Irrigated	Sandy	Low	Low-	High	Cotton, Clusterbean, Mungbean,	16.10.2021 to	31.03.2022 to	102	5
			loam		medium		fellow, Pearlmillet, G.nut, Paddy	16.11.2021	16.04.2022		
Chickpea	Rabi 2021-22	Irrigated	Sandy	Low	Low-	High	Clusterbean, Mungbean, fellow	20.10.2021 to	01.04.2022 to	102	5
			loam		medium			10.11.2021	16.04.2022		

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

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.	Feed Back
No	
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

SI. 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: -

SI.	Crop	Thematic area	Technology	Season and	Area ((ha)	_	. of farmer monstratio	Reasons for shortfall in	
No.	Стор	Thematic area	Demonstrated	year	Proposed	Actual	SC/ST	Others	Total	achievement
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 202122	66	66	165	0	165	NA

Details of farming situation

Crop	o o o o	(;= 0 c -) = + >	Status of soil	- 0 > - 0 n s o - c	> c o o	+ad+se<-a	- a -	- a - c
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				N	Р	K					
Oat (F)	Rabi 2021-22	Irrigated	Sandy	Low	Low-medium	High	Clusterbean, fellow,	10.10.2020 to	Last week of January	102	5
		_	loam				sorghum	15.11.2020	to last week of March		
Wheat	Rabi 2021-22	Irrigated	Sandy	Low	Low-medium	High	A. Cotton, Clusterbean,	05.11.2021 to	10.04.2022 to	102	5
			loam				Mungbean	30.11.2021	22.04.2022		

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

	10 10	detions on specific technologies
	S.	Feed Back
	No	
1		Good response of JHO 822 in reference of green fodder production.

Horticulture crops:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season	Area (ha)		of farmei nonstration	Reasons for shortfall in	
NO.			Demonstrateu	anu year	Proposed	Actual	SC/ST	Others	Total	achievement
1	Broccoli	Exotic vegetables	New vegetable	Rabi	0.5	0.5	0	10	10	NA
		_	crop	2021-22						
2	Onion	Production of Low volume	Introduction of	Kharif	0.5	0.5	0	10	10	NA
		& high value crop	Kharif Onion	2022						

Details of farming situation

	C D C D O Status of soil			s _n	Đ.	est	all ()	of			
Crop	Seasc	Farmii situatii (RF/Ir ated	Soil ty	N	Р	K	Previo	Sowin	Harve	Seaso I rainfi (mm	No. o rainy days
Broccoli	Rabi 2021-22	Irrigated	Sandy	Low	Low-	High	Cotton, Guar, Cucurbits & Okra	October 2021	January to	91.5	5
			loam		medium				February 2022		
Onion	Kharif 2022	Irrigated	Sandy	Low	Low-	High	Wheat, Cauliflower, Cabbage &	August 2022	December 2022	186.5	8
			loam		medium		Potato				

	· ·
S. No	Feed Back

1 Heat tolerant variety should be developed.	
--	--

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

_	Thematic	technology		No. of Farmers	Area	Yield (q/ha)				. %			demonst ./ha)	ration	Economics of check (Rs./ha)				
Crop		demonstrated	Variety		(ha)	High	Dem Low	o Average	Check	in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
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

	Thematic	technolog y		No. of Farmer S	Are	Yield (q/ha)				%	Econo		demons ./ha)	tration	Economics of check (Rs./ha)				
Crop	Area	demonstra ted	Variety		a (ha)	High	Dem Low	o Average	Chec k	Increase in yield	Gros s Cost	Gross Retur n	Net Retur n	BCR (R/C)	Gros s Cost	Gross Retur n	Net Retur n	BCR (R/C)	
Chickpea	Integrated Crop management	Full package	GNG- 2171	50	20	17.40	12.8 0	14.92	12.61	18.32	30400	71616	41216	2.35	27497	60528	33031	2.20	
Trichoder ma	Integrated Pest Management	Bio-agent	GNG- 1581	10	04	16.25	10.1 3	14.56	12.49	16.57	29971	92950	62979	3.10	28471	82250	52779	2.90	
Greengra	Integrated	Full	MH-1142	50	20	10.54	7.05	8.38	6.64	26.20	17492	54470	36528	3.11	16148	43160	27012	2.67	
m	Crop management	package	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

Catagory	Thematic	Name of	No. of	Are	Yield (q/ha)	%	Other	Economics of demonstration	Economics of check
Category & Crop		the	Farme	а		Chan	Parameter	(Rs./ha)	(Rs./ha)
a Crop	Area	technolo	rs	(ha)		ge in	s		

		gy				Demo)	Chec	Yield	D	Chas	_	_		BCR	_	_	Net	BCR
					Hig h	Low	Avera ge	k		Dem o	Chec k	Gross Cost	Gross Return	Net Return	(R/C)	Gross Cost	Gross Return	Retur n	(R/C
Cereals																			
Wheat	Integrated Crop	Full package	83	33. 2	40.5 0	29.5 0	36.24	32.64	11.03	-	-	26898	10158 4	74686	3.7 7	2651 7	91281	6476 4	3.4 4
	managem ent		82	32. 8	40.0 0	29.0 0	34.08	32.64	4.41	-	-	26898	95358	68460	3.5 5	2651 7	91281	6476 4	3.4 4
			21	8.4	38.0 0	29.2 0	33.88	32.64	3.80	-	-	26698	94600	67902	3.5 4	2651 7	91281	6476 4	3.4 4
Fodder crops																			
Oat (F)	Fodder production	Full package	75	3.7 5	690	550	644	582	10.65	-	-	52488	16100 0	10851 2	3.0 7	5138 8	14550 0	9411 2	2.8 3
Vegetabl es										-	-								
Broccoli	Exotic vegetables	New Vegetabl e crop	10	0.5	182. 0	132. 5	155.9	-	-	-	-	67339	26503 0	19769 1	3.9	-	-	-	-
Onion	Low volume & high value crop	Introducti on of Kharif Onion	10	0.5	302. 5	240. 2	276.2	-	-	-	-	10844 0	22096 0	11251 6	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/	produ	Avarage milk production (lit/day/Ani.)		Other parameter			Econom monstrat		.)	Economics of check (Rs.)				
				Poultry/ Birds, etc)	Demo	Check	parameter	Demo	Check	Gross Cost	Gross Return				Gross 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		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

Categor	Thematic	Name of the technology	No. of	No.o	Fish prod	meters (Av. duction in unit)	change	Other pa	rameter	Econo	omics of (R		ration	Ed	conomics (R	s of chec (s.)	k
у	area	demonstrate d	Farme r	units	Demons ration	Check	in major paramet er	Demon s ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gros s Cost	Gross Retur n	Net Return	BCR (R/C)

Compos ite fish culture	Integrated fish	Popularise fish culture in water	10 (10 0.2 ha	1027.5	-	-	-	-	52200	113025	60825	2.17	-	-	-	-	
Juliai	farming	storage tank		ach)														

^{*} 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	No. of Farme	No.of units	Majo paramo		% change	Other pa	arameter	Econo	omics of ((Rs.) or		ration	Economics of check (Rs.) or Rs./unit			k
	demonstrated	r		Demo	Chec k	in major paramete r	Demo	Check	Gros s Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
utton lushroom	Production Technology	30	30	165	-	-	-	-	5850	24750	18900	4.23	-	-	-	-

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the	No. of Farm	No. of Units	Yield	Yield (Kg) % Other chang parameters		Econo	mics of o	demonstr /ha)	ation	Ec	onomics (Rs./l		k		
		technology demonstra ted	er		Demons ration	Check	e in yield	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	Maxim um	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.	Crop/		Technology	Details of popularization	Horiz	zontal spread technology	
No No	Enterprise	Thematic Area*	demonstrated	methods suggested to the Extension system	No of Villages	No of Farmers	Area in ha
1	Moong	Integrated Crop Management	Package of practices (NFSM)		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	Training, Field	8	200	140
8	Broccoli	Exotic vegetables	Production Technology	Day, Film Show, Print media, Kisan	15	150	35
9	Onion	Production of low volume & high value crop	Production Technology	Ghoshthi, Kisan Mela, Radio Talks, TV Show	5	20	3
10	Cattle	Nutriation management	Use of probitic in cross breed cattle	- I v Snow	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: -

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (I	ha)		o. of farmers emonstratio		Reasons for shortfall in achievement
				•	Proposed	Actual	SC/ST	Others	Total	
1	Mustard	Integrated Crop	Package of	Rabi	60	60	22	128	150	NA
		Management	practices	2022-23						
2	Sesame	Integrated Crop	Package of	Kharif	30	30	05	70	75	NA
		Management	practices	2023						

Details of farming situation

Details	or rainning situa	1011									
Crop	Son	ning ation Ilrig	type		Status of soil		rious	owing date	vest ite	sona nfall m)	. of ny .ys
Сюр	Seaso	Farr situe (RF/ ate	Soil	Ν	Р	К	Prev	Sov	Har	Seasor I rainfa (mm)	No. rair day
Mustard	Rabi 2022-23	Irrigated	Sandy Ioam	Low	Low-medium	High	Mungbean,	05.10.2022 to	20.03.2023 to	59	8
			·				Clusterbean, Sesame,	29.10.2023	05.04.2023		
							A. cotton, Pearlmillet,				
							Fellow				
Sesame	Kharif 2023	Irrigated	Sandy Ioam	Low	Low-medium	High	Mustard, Wheat,	29.06.2023 to	28.09.2023 to	178.5	7
							Chickpea, Barley	13.07.2023	15.10.2023		

Technical Feedback on the demonstrated technologies

S.	Feed Back
No	
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	vield.

Extension and Training activities under FLD

SI. 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:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (I	ha)		. of farme monstrati		Reasons for shortfall in
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	achievement
1	Chickpea	Integrated Crop	Package of	Rabi	30	30	06	69	75	NA
		Management	practices	2022-23						
2	Chickpea	Integrated Disease	Bio-agent	Rabi	4	4	01	09	10	NA
		Management	(Trichoderma)	2022-23						

Details of farming situation

tano or raini	ing situation											
	uc	ng on ted	be	St	tatus of soi	il	s _n	D a	st	all (I	5 ~ «	
Crop	Seasc	Farmii situatii (Irrigat	Soil ty	N	Р	K	Previo	Sowir	Harves	Seaso I rainfa (mm	No. of rainy days	
Chickpea	Rabi 2022-23	Irrigated	Sandy	_	Low-		A. cotton, Clusterbean, Mungbean,			73	8	
			Ioam		medium		Paddy, Fellow	17.11.2022	16.04.2023			
Chickpea	Rabi 2022-23	Irrigated	Sandy	Low	Low-	High	A. cotton, Clusterbean, Mungbean	26.10.2022 to	05.04.2023 to	73	8	
			loam		medium			12.11.2022	14.04.2023			

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.	Feed Back							
No								
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

SI. 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: -

SI.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (I	ha)		. of farme monstrati		Reasons for shortfall in achievement
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	acmevement
1	Onion	Integrated Crop	Package of	Kharif	0.5	0.5	0	10	10	NA
		Management	practices	2023						
2	Garlic	Integrated Crop	Package of	Rabi	0.5	0.5	10	0	10	NA
		Management	practices	2022-23						

Details of farming situation

	ining ontaction											
	5	ng on ted	be	S	tatus of soi	il	s _n	D	st	all (I	£	
Crop	Seasc	Farmii situatii (Irrigat	Soil ty	N	Р	K	Previo	Sowir	Harve	Seaso I rainfa (mm	No. o rainy days	
Onion	Kharif 2023	Irrigated	Sand loam	_	ow Low to High Wh		Wheat, Mustard	August 2023	December 2023	64	7	
Garlic	Rabi 2022-23	Irrigated		Low			Clusterbean, Mungbean	October 2022	April 2023	73	8	

S. No	Feed Back							
1	Heat tolerant variety should be develop/evaluate of Kharif onion.							
2	POP should be developed for kharif onion.							
3	OP 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.
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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

SI. 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

	Thematic	technology demonstrated	Variety	No. of Farmers	Area (ha)					. %	Econo	mics of c		ration	Economics of check (Rs./ha)			k
Crop	Area					High	Dem Low	Average	Check	in yield	Gross Cost	Gross Return	Net Return		Gross Cost	Gross Return	Net Return	BCR (R/C)
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.

Frontline demonstration on pulse crops

1 I OHUMIC	ucinonsti at	ion on puise	crops								_							
Crop	Thematic	technology	Variety	No. of	Area			d (q/ha)		% Increase		mics of d (Rs./		ration	Ec	onomics (Rs./		:k
Стор	Area	demonstrated	Vallety	Farmers	(ha)		Dem	0	Check		Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
						High	Low	Average	CHECK	ili yieiu	Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
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

^{**} BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Catagory	Thematic	Name of the	No. of	Area		Yield	(q/ha)		% Cha nge		ther imeter s	dem	Econom onstratio		na)	Econo	mics of c	heck (Rs	s./ha)
Category & Crop	Area	technology	Farmer s	(ha)	High	Demo Low	Avera ge	Che ck	in Yiel d	Dem o	Check	Gross Cost	Gross Retur n	Net Retur n	BCR (R/C)	Gross Cost	Gross Return	Net Retur n	BCR (R/C)
Cereals																			
Wheat	Integrated Crop	Popularisation of new	50	20	56.8 6	44.7 2	48.98	46.7 4	4.79	-	-	3669 7	12785 8	9116 1	3.4 8	3612 0	12165 4	8553 4	3.3 7
	manageme nt	varieties DBW-3226,	50	20	56.4 8	46.9 6	49.74	46.7 4	6.42	-	-	3672 0	12945 4	9273 4	3.5 3	3612 0	12165 4	8553 4	3.3 7
		HD-3086 & DBW-222	48	19.2	58.5 2	4214	51.86	46.7 4	10.9 5	-	-	3712 5	13490 6	9778 1	3.6 3	3612 0	12165 4	8553 4	3.3 7
Vegetabl es				••••••															
Garlic	Low volume & high value crop	Introduction of new variety (G- 404)	10	0.5	1422 0	1149 0	12610	1157 0	8.99	-	-	150014	50440 0	35438 6	3.4 0	15001 4	46280 0	31278 6	3.1 0
Kharif onion	Low volume & high value crop	Introduction of Kharif Onion	10	0.5	269. 2	234. 1	247.9	221. 0	12.2	-	-	1078 78	2726 90	1648 12	2.5	1073 40	24310 0	1357 60	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	No. of Farmer	No. of Units	Major pa	rameters	% change	Oth paran		de	Econom monstrat		.)	Eco	nomics Rs)		k
		demonstrated		(Animal/ Poultry/ Birds, etc)	Demo	Check	in major paramet er	Demo	·	Gross Cost		Net	BCR	Gross Cost	Gross Return	Net	BCR (R/C)
Cattle		Use of probiotic in cross breed cattle	10	10	16.26 lit./day/ani.	14.15 lit./day/ani.	14.91	-	-	209.6/ day/an i.	585.5/d ay/ani.	375.9/ day/ani		202.4/ day/an i.	495.3/d ay/ani.	292.9/d ay/ani.	
Buffalo		Use of chelated mineral mixture in buffalo	10	10	15.23 lit./day/ani.	13.30 lit./day/ani.	14.51	-	-	356/da y/ani.	852.88/ day/ani.			336/da y/ani.	731.5/d ay/ani.	395.5/d ay/ani.	1 1
Poultry (ATMA)	Production and managemen	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

Cotogor	Thomatia	Name of the	No. of	No.	Major pa	rameters	% change	Other pa	rameter	Econo	omics of (R		ration	Ec		s of chec s.)	k
Categor y	Thematic area	technology demonstrate d	Farme r	of units	Demons ration	Check	in major paramet er	Demon s ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gros s Cost	Gross Retur n	Net Return	BCR (R/C)
Compos ite 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	No. of Farme	No.of units	Major para	ameters	% change	Other pa	arameter	Econo	omics of (Rs.) or	demonst Rs./unit	ration	I	Economics (Rs.) or	s of checl Rs./unit	(
	demonstrated	r		Demo	Check	in major paramet er	Demo	Check	Gros s 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		-	-	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	No. of Farm	No. of Units	Yield (Yield (Kg/ha) cł		Oth param		Econo	mics of one (Rs./		ation	Ec	onomics /Rs.		k
		technology demonstra ted	er		Demons ration	Check	e in yield	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	Maximu m	Least	60462	499268	438806	8.26	25244	132491	10724 7	5.25

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



Organic farming

Dr. Anoop Kumar addressing farmers on

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

	Crop/			Details of	Horizontal	spread of te	ch
S. No	Enter prise	Thematic Area*	Technology demonstrated	popularization methods suggested to the Extension system	No of Villages	No of Farmers	
1	Sesame	Integrated Crop Management	Package of practices (NFSM)	Training, Field Day,	14	340	\top
2	Mustard	Integrated Crop Management	Package of practices (NFSM)	Film Show, Print media,	95	1587	\top
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)	Kisan Ghoshthi, Kisan	95	1098	
4	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)	Mela, Radio Talks, TV	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
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
14	H. Sc.	House hold food security of kitchen gardenig & nutritional gardening	Nutritional kitchen gardenig		25	185

^{*} 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: -

	SI. No.	Crop Thematic area		Technology Demonstrated	Season and year	Area (ha)		o. of farmers emonstratio		Reasons for shortfall in achievement
		Mustand Internated On			-	Proposed	Actual	SC/ST	Others	Total	
Ī	1	Mustard	Integrated Crop	Package of	Rabi	30	30	3	72	75	NA
			Management	practices	2023-24						
	2	Sesame	Integrated Crop	Package of	Kharif	30	30	10	65	75	NA
			Management	practices	2024						

Details of farming situation

Details	or raining situa	tion									
Crop	Ison	ning ation /Irrig	type		Status of soil		rious	owing date	larvest date	sona infall im)	. of iny iys
Сюр	Seas	Farn situa (RF/ ate	Soil	Ν	Р	K	Pře,	Sov	Har	Sea I rai (m	No. rair day
Mustard	Rabi 2023-24	Irrigated	Sandy loam	Low	Low-medium	High	Cotton, Clusterbean,	10.10.2023 to	22.03.2024 to	58	6
			,				Groundnut, Sesame,	30.10.2023	06.04.2024		
							Pearl millet				
Sesame	Kharif 2024	Irrigated	Sandy Ioam	Low	Low-medium	High	Wheat, Mustard	14.06.2024 to	30.09.2024 to	577.7	21
		_	-					16.07.2024	20.10.2024		

Technical Feedback on the demonstrated technologies

S.	Feed Back
No	
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

SI.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:-

SI. No.	Crop	I hematic area		Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in	
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	achievement	
1	Chickpea	Integrated Disease	Bio-agent	Rabi	4	4	01	09	10	NA	
		Management	(Trichoderma)	2023-24							

Details of farming situation

	uc	ng on ed	pe	S	tatus of soi	il	Sn. C	Đ.	st	na all)	of S
Crop	Seasc	Farmi situati (Irrigat	Soil ty	Ν	Р	К	Previo	Sowir	Harve	Seaso I rainfi (mm	No. c rainy days
Chickpea	Rabi 2023-24	Irrigated	Sandy	-	Low-	High	A. cotton, Clusterbean, Mungbean		o05.04.2023 to	58	6
			loam		medium			12.11.2022	14.04.2023		

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

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

Other crops: -

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		. of farme monstrati		Reasons for shortfall in achievement
NO.			Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	acmevement
1	Garlic	Integrated Cro	p Package of	Rabi	0.5	0.5				NA
		Management	practices	2023-24						
2	Wheat	Integrated Cro	p Package of	Rabi	20	20	50	0	50	NA
		Management	practices	2023-24						

Details of farming situation

	ining ollaation										
	L C	on on ed		S	tatus of soil		s n	D .	st s	ona all	s < of
Crop	Seasc	Farmii situatii (Irrigat	type	N	Р	K	Previo	Sowir	Harve	Seaso I rainfi (mm	No. c rainy days
Garlic	Rabi 2023-24	Irrigated	Soil 1	Low	Low to medium	High	Clusterbean, Mungbean	October 2023	April 2024	58	6
Wheat	Rabi 2023-24	Irrigated		Low	Low to	High	Cotton, Clusterbean		12.04.2024 to	58	6
					medium			30.12.2023	26.04.2024		

S. N	0	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.

11010	edetiene en epecine technologies
S.	Feed Back
No	
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

SI. 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	technology	Variety	No. of	Area		Yie	ld (q/ha)		. %	Econo	mics of a (Rs./		ration	Economics of check (Rs./ha)			
Crop	Area	demonstrated	variety	Farmers	(ha)	High	Demo ligh Low Average		Check			Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
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

Cron	Thematic	Variaty	Variatu	No. of	Area		Yie	ld (q/ha)		%	Econo	mics of o		ation	Ec	onomics (Rs./	of chec ha)	k
Crop			(ha)	High	Dem Low	o Average	Check	in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)		
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.

FLD on Other crops

Category	Thematic	Name of the	No. of	Are		Yield		% Chan	Other Parameter s		Econor	nics of d (Rs./l	emonstra na)	Economics of check (Rs./ha)					
& Crop	Area	technolog y	Farme rs	a (ha)	Hig h	Demo Low	Avera ge	Chec k	ge in Yield	Dem o	Chec k	Gross Cost	Gross Return	Net Return	BC R (R/C)	Gross Cost	Gross Return	Net Return	BC R (R/C
Cereals																			
Wheat	Integrated Crop managem ent	Popularisati on of new variety DBW-222	50	20	59.6 8	42.8 4	52.74	50.5 6	4.31	-	-	4179 7	1530 76	1112 79	3.6 6	4118 2	1468 44	1056 62	3.5 7
Vegetabl es																			
Garlic	Low volume & high value crop	Introductio n of new variety (G- 404)	20	0.5	142. 7	112. 7	128.4	114. 1	12.5	-	-	1900 14	7704 00	5803 86	4.1	1800 14	6846 00	5045 86	3.8
Fruit crops																			
Kinnow	Cultivatio n of Fruit	Nutrient managem ent	10	0.5	384. 1	261. 1	311.0	295. 3	5.3	-	-	1084 46	6220 00	5135 54	5.7	1049 21	5906 00	4856 79	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	No. of Farmer	No. of Units	Major pa	rameters	% change	Other parameter		1	Econom nonstrat		.)	Economics of check (Rs.)			
		demonstrated		(Animal/ Poultry/ Birds, etc)	Demo	Demo Check			Check		Gross Return				Gross Return	Net Return	BCR (R/C)
Poultry (SCSP)		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.

FLD on Fisheries

 	T T				·				
<u>.</u> .	Thematic	Name of the	No.	No.of	Maior	%		Economics of demonstration	Economics of check
Category							Other parameter	(D -)	(Po)
	area	technology	ot	units	parameters	change		(Rs.)	(KS.)

^{**} BCR= GROSS RETURN/GROSS COST

^{**} BCR= GROSS RETURN/GROSS COST

		demonstrated	Far mer		Demon s ration	Check	in major paramet er	Demon s ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gros s Cost	Gross Retur n	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			Yield (Yield (Kg/ha) % chang			Other parameters		mics of one	demonstr /ha)	ation	Economics of check (Rs./ha)					
		technology demonstra ted	er		Demons ration	Check	e in yield	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	Maximu m	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