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.	Crop/			Details of popularization	Horizontal	spread of te	chnology
No	Enterpris e	Thematic Area*	Technology 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)		43	1123	1887
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		85	1105	4137
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		146	901	1332
4	Gram	Integrated Pest Management	Use of Bio-agent (Trichoderma)		21	88	271
5	Broccoli	Exotic vegetables	Production technology		8	40	32
6	Cotton	Integrated Pest management	Pest management	Training, Field Day, Film	32	168	687
7	Cattle	Disease Management	Popularization of teat cup to reduce mastitis	Show, Print media, Kisan Ghoshthi, Kisan Mela,	17	38	128 animals
8	Cattle	Feed management	Cattlesilo bag (Silage Making)	Radio Talks, TV Show	7	21	76 bags
9	Poultry	Backyard Poultry	RIR, Kadaknath, Pratapdhan		60	241	241 Unit
10	Home Science	Household food security of kitchen gardening and nutrition gardening	Nutritional Kitchen garden		18	110	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: -

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	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						

Crop	son	ning ation Irrig	type		Status of soil		evious	Sowing	arvest date	sona nfall m)	. of ny ys
Сюр	Seas	Farr situe (RF/ ate	Soil	Z	Р	K	Prev.	Sov	Har	Seaso I rainfa (mm	No. rair day
Mustard	Rabi 2020-	Irrigated	Sandy Ioam	Low	Low-medium	High	Clusterbean,	22-10.2020 to	26.3.2021 to	12	3
	21	_	-			_	Mungbean, A. cotton,	07.11.2020	4.4.2021		
							Fellow, G.nut, Pearl				
							millet, Sesame				
Sesame	Kharif 2021	Irrigated	Sandy Ioam	Low	Low-medium	High	Wheat, Mustard,	07.07.2021 to	10.10.2021 to	127	13
							Barley, Oat	25.07.2021	28.10.2021		

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,	284	
			22.03.2021& 05.10.2021		
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 and year-	Area (I	ha)	No. of farmers/ Demonstration			Reasons for shortfall in
NO.			Demonstrated		Proposed	Actual	SC/ST	Others	Total	achievement
1	Chickpea	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						

	L.	ng on rig	type	S	tatus of soi	il	s n	Ď,	st	na all)	ر د د و
Crop	Seasc	Farmii situatii (RF/Iri ated	Soil ty	N	Р	K	Previo	Sowing	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		

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

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:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season	Area (I	ha)	_	. of farme monstrati		Reasons for shortfall in
NO.			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						

	uc	ng on rig	be	S	tatus of so	il	snus	Ð. đ	est e	ina all	» , of
Crop	Seasc	Farmi situati (RF/Ir ated	Soil typ	N	Р	К	Previo	Sowin	Harves	Seaso I rainfi (mm	No. c rainy days
Oat (F)	Rabi 2020-21	Irrigated	Sandy loam		Low- medium	High	, , ,		Last week of January to last week of March		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:-

SI. No.	Crop	Thematic area	Technology	Season	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	ng on rig	be	S	tatus of so	il	sn	<u>ق</u>	ıst	ına all)	of y s
Crop	easc	armi ituati itVati RF/Ir	oil ty	N	P	K	evic crop	owir	arve date	easo rainf (mm	lo. c rainy days
	S	is is	й	11	'		<u>r</u>	S	エ	S _	_
Broccoli	Rabi 2020-21	Irrigated	Sandy	Low	Low-	High	Okra, Cucurbits	25.10.2020 to	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		No. of	Area		Yie	ld (q/ha)		% Increase	Econor	nics of de	monstrati	on (Rs./ha)			ics of che s./ha)	ck
Crop	Thematic Area	demonstrated	Variety	Farmers	(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	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

		technology		No. of	Area		Yiel	d (q/ha)		% Increase	Eco		demonsti ./ha)	ation			s of chec ./ha)	k
Crop	Thematic Area	demonstrate d	Variety	Farmers	(ha)	11:1-	Demo	_	Check	in yield	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
		-				High	Low	Average	O.I.OO.K		Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Chickpea	Integrated Crop	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
	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
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	3.01350 7

^{*} 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 &	Thematic	Name of the	No. of	Area					% Change		her neters	Econ	omics of d (Rs./l		tion	Econ	Economics of check (Rs./ha)				
Crop	Area	technology	Farmers	(ha)	High			Check	in Yield	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)		
Fodder crops																					
Oat (F)	Fodder production	Full package	40	2.0	670	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	No. of	No.of Units	Major pa	rameters	%	Other pa	rameter	Economi	ics of den	nonstratio	n (Rs.)	E	conomics	of check	(
			technology	Farmer	(Animal/	Ave. milk Pr	Ave. milk Prod./day/Ani.									(Rs	5.)	
			demonstrated		Poultry/	Demo	Check	in major	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
į					Birds, etc)			parameter			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)

Cattle	Nutrition	Use of by pass	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	protein with															
	ŭ	mineral mixture															
Buffalo	Disease	Anestrous in	50	50	37animal	13animal	184.61	-	-	-	-	-	-	-	-	-	-
	management	lactating			conceived	conceived											
		buffalo															
Backyar	d Poultry managemen	t 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								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

Catamani	Thematic	Name of the	No. of	No.of	Major pa	rameters	% change	Other pa	rameter	Econor	nics of der	nonstratio	n (Rs.)	I	Economic: (R	s of check s.)	
Category	area	technology demonstrated	Farmer	units	Demons ration	Check	in major parameter	Demons ration	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.

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology	No. of Farmer	No. of Units	Yield	(Kg)	% change	Other p	arameters	eters Economics of demonstration (Rs./ha)		ion	Economics of check (Rs./ha)				
		demonstrated			Demons ration	Check	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 gardening and nutrition gardening	Nutritional Kitchen Garden	40	40	249.7	106.2	135.12	Maximu m	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)

					-	Yield (q/h	ıa) ์			Econor	nics of demo	nstration (Rs.	/ha)	
Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)		Demo		Chaale	% Increase in yield	Gross	Gross	Not Deturn	BCR	
	demonstrated	Vallety	i di ilici o	(IIII)	High	Low	Average	Check	III yicia	Cost	Return	Net Return	(R/C)	
Vegetable crop	Production technology	Green	10	0.5	269.1	215.4	237.7	249.4	-4.69	68954	427860	358906	6.2	
		magic F1`												

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

FLD on Other enterprises

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

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

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	Horizont	al spread of	technology
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)		92	1012	1454
5	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		24	105	290
6	Oat	Fodder production	Full package	Training, Field	12	422	25
7	Broccoli	Exotic vegetables	Production technology	Day, Film Show,	11	135	30
8	Cattle	Feed Management	Use of by pass protein with mineral mixture	Print media, Kisan Ghoshthi, Kisan	28	210	318 animals
9	Cattle	Disease management	Anestrous in lactating buffalo	Mela, Radio Talks,	22	156	182 animals
10	Poultry	Backyard Poultry	Popularization of RIR	TV Show	24	312	312 units
11	Composite Fish culture	Integrated fish farming	Popularise fish culture in water storage tank		18	30	30 unit
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 (l	ha)		o. of farmer emonstratio		Reasons for shortfall in achievement
		Integrated Crop		-	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						

Οı_	ianning sitt	adtion										
	Crop	son	ning ation Irrig	type		Status of soil		vious	owing date	arvest date	sona nfall m)	. of ny ys
	Сюр	Seaso	Farr situe (RF/ ate	Soil	Z	Р	K	Prev	Sov	Har	Seas I rain (mn	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		j			Ū	Mungbean, A. cotton,	25.10.2021	3.4.2022		
								Fellow, Sesame				
	Sesame	Kharif 2022	Irrigated	Sandy loam	Low	Low-medium	High	Wheat, Mustard,	02.07.2022 to	13.10.2022 to	316	16
								Barley	20.07.2022	20.10.2022		

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

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, 07.03.2022,	201	
			07.10.2022 & 07.10.2022		
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 (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	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						

tano or rain	illig situation										
	L	on ed	be	St	Status of soil		s _n	Ð.	est	na ≡ (, , ,
Crop	Seasc	Farming situation (Irrigated)	Soil typ	Ν	Р	K	Previou	Sowing	Harve	Season I rainfal (mm)	No. of rainy days
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. 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

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)		o. of farmer monstration	Reasons for shortfall in		
No.		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	

	·····g citalatici										
		on on rig (be		Status of soil		s n	D T	st .	ona all (i	£ . "
Crop	Seasc	Farmii situatii (RF/Irr ated	Soil typ	N	Р	К	Previo	Sowir	Harve	Seaso I rainfa (mm	No. c rainy days
Oat (F)	Rabi 2021-22	Irrigated	Sandy	Low	Low-medium	_	•		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

11 <u>1010 104</u>	otione on openine teerineregiee
S. No	Feed Back
1	Good response of JHO 822 in reference of green fodder production.

Horticulture crops:-

SI. No.		Thematic area	Technology Demonstrated	Season	Area (ha)		of farmer	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

Crop	O o o o o	ti o n) = + >	Status of soil	G - Φ > - Ο Σ Ω Ω - Ο Φ	> - ∟ a a .	d + s @ < -	- a	ב ה ם ב	
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				N	Р	К					
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	_			

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

_		technology		No. of	Area		Yie	ld (q/ha)		% Increase	Econor	nics of de	monstrati	on (Rs./ha)			ics of che s./ha)	ck
Crop	Thematic Area	demonstrated	Variety	Farmers	(ha)	High	Demo	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

		technology		No. of	Area		Yiel	d (q/ha)		% Increase	Eco		demonstr ./ha)	ation			s of checl ./ha)	k
Crop	Thematic Area	demonstrate d	Variety	Farmers	(ha)	High	Demo Low	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	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	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
	management		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 &	Thematic	Name of the	No. of	Area		Yiel	ld (q/ha)		% Change		her neters	Econ	omics of do (Rs./h		on	Econo	mics of c	heck (Rs	./ha)
Crop	Area	technology	Farmers	(ha)		Demo	·	Check	in Yield	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
					High	Low	Average					Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Cereals																			
Wheat	Integrated	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
	Crop		82	32.8	40.00	29.00	34.08	32.64	4.41	-	-	26898	95358	68460	3.55	26517	91281	64764	3.44
	management		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	No. of Farmer	No.of Units (Animal/	Avarage mill (lit/day	•	% change	Other pa	rameter	Econom	ics of dem	onstratio	n (Rs.)	Ε¢	conomics (Rs		(
		demonstrated		Poultry/ Birds, etc)	Demo	Check	in major parameter	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle		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	No. of Farmer	No.of units	•	eters (Av. Fish in kg/unit)	% change in major	Other pa		Econor Gross	mics of der	nonstratio Net	n (Rs.) BCR	Gross		s of check s.) Net	BCR
		demonstrated			ration	Check	parameter	ration	Check	Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Composite	Integrated	Popularise fish		10 (0.2													
fish	fish farming	culture in water	10	ha	1027.5	-	-	-	-	52200	113025	60825	2.17	-	-	-	-
culture		storage tank		each)													

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

FLD on Other enterprises

I DD on other c	itter pribeb																
Category	Name of the technology	No. of	No.of	Major para	ameters	% change	Other p	arameter	Econom	ics of dem	onstration	(Rs.) or		Economic	s of check		l
	demonstrated	Farmer	units			in major				Rs./	unit			(Rs.) or	Rs./unit		l
				Demo	Check	parameter	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR	ı
									Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)	
Button Mushroom	Production Technology	30	30	165	-	-	-	-	5850	24750	18900	4.23	-	-	-	-	l
									<u> </u>						4		į.

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

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology	No. of Farmer	No. of Units	Yield	l (Kg)	% change	Other p	arameters	Ecor	omics of c (Rs./	demonstrat 'ha)	ion	E	conomics (Rs./h		
		demonstrate d			Demons ration	Check	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	Maximu m	Least	916	7894	6978	8.62	458	2256	1798	

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

			The state of the s	Details of		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)		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 Day	8	200	140
8	Broccoli	Exotic vegetables	Production Technology	Training, Field Day, Film Show, Print media,	15	150	35
9	Onion	Production of low volume & high value crop	Production Technology	Kisan Ghoshthi, Kisan Mela, Radio Talks, TV	5	20	3
10	Cattle	Nutriation management	Use of probitic in cross breed cattle	Show	28	242	325 ani.
11	Buffalo	Disease management	Use of chelated mineral mixture	O TIOW	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 gardening & nutritional gardening	Nutritional kitchen gardenig		25	175	175 units

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

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

Oilseeds: -

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		o. of farmer 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						

Ji <u>ranning sit</u>	dation										
Crop	son	ning ation Irrig	type		Status of soil		vious	ving ite	vest ite	sona nfall m)	. of ny ys
Crop	Seas	Farr situa (RF/ ate	Soil	Ν	Р	K	Prev cr	Sowin	Har	Seasor I rainfa (mm)	No. rair day
Mustard	Rabi 2022-23	Irrigated	Sandy loam	Low	Low-medium		Mungbean, Clusterbean, Sesame, A. cotton, Pearlmillet, Fellow		20.03.2023 to 05.04.2023	59	8
Sesame	Kharif 2023	Irrigated	Sandy loam	Low	Low-medium			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

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,	278	
	-		29.09.2023		
2	Farmers Training	02	16.09.2022, 05.07.2023	78	

Pulses:-

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year				. of farme monstrati	Reasons for shortfall in	
NO.			Demonstrateu	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	egrated Disease Bio-agent		4	4	01	09	10	NA
		Management	(Trichoderma)	2022-23						

		gr co	e e	S	tatus of soi	I	28	D	, to	g ≡	
Crop	Seaso	Farmin situatic (Irrigate)	Soil typ	N	Р	K	Previou	Sowing	Harves	Seasor I rainfa (mm)	No. of rainy days
Chickpea	Rabi 2022-23	Irrigated	Sandy	Low	Low-	High	A. cotton, Clusterbean, Mungbean,	24.10.2022 to	04.04.2023 to	73	8
		_	loam		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. 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

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. No.	Crop	Thematic area	Thematic area Technology Demonstrated		ed and year		_	. 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						

- 1 <u>01110 01 1011</u>	ming ollaction										
	5	Status of soil sa		J = 5	D	st .	ina all	£			
Crop	Seasc	Farmii situatii (Irrigat		N	Р	K	Previo	Sowir	Harve	Seaso I rainfa (mm	No. of rainy days
Onion	Kharif 2023	Irrigated	Sand loam	_	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	L-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

_		technology		No. of	Area		Yi	eld (q/ha)		% Increase		omics of d (Rs./		ion	E	conomics (Rs./		
Crop	Thematic Area	demonstrated	Variety	Farmers	(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	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

_		technology		No. of	Area		Yi	eld (q/ha)		%	Econ	omics of d (Rs./		tion	E	conomics (Rs./	of check ha)	
Crop	Thematic Area	demonstrated	Variety	Farmers	(ha)	High	Dem Low	no Average	Check	Increase in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (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

FLD on Other crops

Category &	Thematic	Name of the	No. of	Area		Yield	l (q/ha)		% Chan	_	ther meters	Econo	mics of d (Rs./		ation	Econ	omics of c	heck (Rs./	ha)
Crop	Area	technology	Farmers		High	Demo Low	Average	Check	ge in Yield	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	_ Net	BCR
					ıııgıı	LOW	Average		11014			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Cereals																			
Wheat	Integrated	Popularisation of	50	20	56.86	44.72	48.98	46.74	4.79	-	-	36697	127858	91161	3.48	36120	121654	85534	3.37
	Crop	new varieties	50	20	56.48	46.96	49.74	46.74	6.42	-	-	36720	129454	92734	3.53	36120	121654	85534	3.37
	management	DBW-3226, HD- 3086 & DBW-222	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	-	-	10787 8	27269 0	16481 2	2.5	10734 0	243100	13576 0	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 (Animal/	Major pa	rameters	% change	Other pa	rameter	Econom	ics of dem	onstratio	n (Rs.)	E	conomics (Rs	of check .)	
		demonstrated		Poultry/ Birds, etc)	Demo	Check	in major parameter	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/d ay/ani.	585.5/day /ani.	375.9/da y/ani.	2.79	202.4/d ay/ani.	495.3/da y/ani.	292.9/da y/ani.	
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/d ay/ani.	496.88/d ay/ani.		336/day /ani.	731.5/da y/ani.	395.5/da y/ani.	1
Poultry (ATMA)	Production and	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)	management	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

Cotogony	Thematic	Name of the	No. of	No. of	Major pa	rameters	% change in major	Other pa	rameter	Econo	mics of der	nonstratio	n (Rs.)	E	conomics (R	s of check s.)	
Category	area	technology demonstrated	Farmer	units	Demons ration	Check	parameter	Demons ration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Composite fish culture	Integrated	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

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

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology	No. of Farmer	No. of Units	Yield (Kg/ha)	% change	Other par	ameters	Econ	omics of d (Rs./	lemonstrat ha)	ion	E	conomics (Rs./h)		
		demonstrate d			Demons ration	Check	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	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

	Crop/	by demonstrated during previous year and pop	<u> </u>	Details of		spread of te	chnology
S. No	Enter prise	Thematic Area*	Technology demonstrated	popularization methods suggested to the Extension system	No of Villages	No of Farmers	Area in ha
1	Sesame	Integrated Crop Management	Package of practices (NFSM)		14	340	872
2	Mustard	Integrated Crop Management	Package of practices (NFSM)		95	1587	6115
3	Chickpea	Integrated Crop Management	Package of practices (NFSM)		95	1098	1685
4	Chickpea	Integrated Pest Management	Use of Bio-agent (Trichoderma)		25	150	295
5	Wheat	Integrated Crop Management	Full package		11	265	180
6	Garlic	Production of low volume & high value crop	Production Technology	Training Field Day	10	350	170
7	Onion	Production of low volume & high value crop	Production Technology	Training, Field Day, Film Show, Print media,	6	29	4
8	Cattle	Nutriation management	Use of probitic in cross breed cattle	Kisan Ghoshthi, Kisan	29	267	350 ani.
9	Buffalo	Disease management	Use of chelated mineral mixture	Mela, Radio Talks, TV	68	1401	2300 ani.
10	Poultry	Production and management	Backyard poultry (Kadaknath)	Show			
11	Poultry	Production and management	Backyard poultry (Kadaknath)	Onow			
12	Azola	Popularization of Azola cultivation					
13	Fisheries	Composite fish culture	Popularize fish culture in water storage tanks		21	45	45 units
14	H. Sc.	House hold food security of kitchen gardenig & nutritional gardening	Nutritional kitchen gardenig		25	185	185 units

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

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.) b.

Oilseeds: -

SI. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		o. of farmers emonstratio		Reasons for shortfall in achievement
				-	Proposed	Actual	SC/ST	Others	Total	
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

Crop	son	ning ation Irrig	type		Status of soil		ious	owing date	vest	sona nfall m)	. of ny ys
Стор	Season	Farr situe (RF/ ate	Soil	N	Р	K	Prev	Sov	Harve	Seas I rain (mn	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 loam	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

<u> </u>	tor 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

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

	LC LC	ng ion ted	be	S	tatus of soi	I	Sn	g t	st	na all)	of s
Crop	Seasc	Farmisituati	Soil ty	N	Р	K	Previo	Sowir	Harve	Seaso I rainfa (mm	No. o rainy days
Chickpea	Rabi 2023-24	Irrigated	Sandy	Low	Low-	High	A. cotton, Clusterbean, Mungbean	26.10.2022 to	05.04.2023 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		Thematic area		Technology Demonstrated	Season and year	Area (I	na)	_	of farme nonstrati		Reasons for shortfall in achievement
NO.				Demonstrated	and year	Proposed	Actual	SC/ST	Others	Total	acilievellient		
1	Garlic	Integrated (Crop	Package of	Rabi	0.5	0.5				NA		
		Management		practices	2023-24								
2	Wheat	Integrated (Crop	Package of	Rabi	20	20	50	0	50	NA		
		Management		practices	2023-24								

Details of farming situation

	on	on ed		S	tatus of soi	I	sn.	βι.	st	na all)	of '
Crop	Seaso	Farmii situatii (Irrigat	il type	N	Р	K	Previo	Sowin	Harved	Seaso I rainfi (mm	No. o rainy days
Garlic	Rabi 2023-24	Irrigated	Soil	Low	Low to medium	High	Clusterbean, Mungbean	October 2023	April 2024	58	6
Wheat	Rabi 2023-24	Irrigated		Low	Low to	High	Cotton, Clusterbean	08.11.2023 to	12.04.2024 to	58	6

		medium	30.12.2023 2	26.04.2024		
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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

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

_		technology		No. of	Area		Yi	eld (q/ha)		% Increase		omics of d (Rs./		ion	E	conomics (Rs./		
Crop	Thematic Area	demonstrated	Variety	Farmers	(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	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.

Frontline demonstration on pulse crops

_		technology		No. of	Area		Yi	eld (q/ha)		%	Econ	omics of d (Rs./		ion	E	conomics (Rs./		
Crop	Thematic Area	demonstrated	Variety	Farmers	(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.

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

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

FLD on Other crops

Category &	Thematic Area	Name of the	No. of	Area		Yie	ld (q/ha)		% Change		her neters	Econo	omics of d (Rs./l		ion	Econ	omics of c	heck (Rs.	/ha)
Crop	THEMIAUC ATEA	technology	Farmers	(ha)	High	Demo	Average	Check	in Yield	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

						Maiaa											
Category	Thematic	Name of the	No. of	No. of Units	Major pa	Major parameters		Other pa	rameter	Econom	ics of dem	onstratio	n (Rs.)	E	conomics	of check	
	area	technology	Farmer	(Animal/											(Rs.)		
		demonstrated		Poultry/	Demo	Check	in major	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
				Birds, etc)			parameter			Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Poultry (SCSP)	Production	Backyard poultry	50	50 (30/unit)	2513 eggs	1504 eggs	67.08	34.94 kg	19.96 kg	9026	43277	39841	5.41	8894	25754	16860	2.90
	and	(RIR)						meat	meat								
	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

FLD on Fisheries

Catamani	Thematic	Name of the technology	No. of	No.of	Major pa	rameters	% change	Other pa	rameter	Econor	mics of der	nonstratio	n (Rs.)	E		s of check s.)	
Category	area	demonstrated	Farm	units	Demons	Check	in major	Demons	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
			er		ration	Check	parameter	ration	Check	Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)
Composite	Integrated	Popularize fish culture	10	10 (0.11	645 kg	_	_	_	_	35500	67725	32225	1.91	_	_	_	_
fish culture	fish farming	in water storage tank	10	ha each)	040 Kg		_	_	_	33300	07723	JEEES	1.31	_	_	_	

^{*} 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	Thematic	Name of the	No. of	No. of	Yield (Kg/ha)	%	Other pa	rameters	Ecor	nomics of	demonstra	tion	E	Economics	of check	
Crop	area	technology	Farmer	Units		change				(Rs.	/ha)			(Rs./l	na)	
		demonstrate			Demons Check	in yield	Demo	Check	Gross	Gross	Net	BCR	Gross	Gross	Net	BCR
		d			ration				Cost	Return	Return	(R/C)	Cost	Return	Return	(R/C)

Home Science	Household	Nutritional	50	50	12153	5319	228.48	Maximum	Least	52854	389260	336406	7.36	23845	120847	97002	5.07
(SCSP)	food security	kitchen garden															
	of kitchen	_															
	gardening																
	and nutrition																
	gardening																

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