

FRONTLINE DEMONSTRATION

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

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

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Pigeon pea	ICM	GT 105	FLD, Training, Field Days, Farmers meeting, Exposure visit to KVK farm, Mass media	1	25	5
2	Gram	ICM	GG 5		5	25	5
3	Paddy	ICM	GR 17		3	25	5
4	Finger millet	ICM	GNN 6		3	25	5
5	Little millet	ICM	GV 3		7	25	5
6	Nutri cereal crop (Little millet)	INM	NOVEL		1	10	1
7	Indian bean	ICM	GNIB		2	25	2.5
8	Aloevera	ICM	INGR 13043		1	10	0.1
9	Mango	ICM	Kesar		1	20	1.0
10	Gram	IDM	Trichoderma		3	25	5
11	Cucurbitacious	IPM	Cue Lure trap		4	20	2
12	Okara	IPM	Pheromone trap & Yellow sticky trap		2	25	5
13	Paddy	IPM	Pheromone trap		1	25	5

B. Details of FLDs implemented during 2023(Kharif 2023, Rabi 2022-23, Summer 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.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Pulse crops										
1.	Pigeon pea	ICM	New variety	Rabi 2022-23	5	5	26	0	26	-
Other crops										
2.	Finger millet	ICM	New variety	Kharif 2023	5	5	25	0	25	-
3.	Little millet	ICM	New variety	Kharif 2023	5	5	25	0	25	-
4.	Paddy	ICM	New variety	Kharif 2023	5	5	25	0	25	-
Horticultural other crops										

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
5.	Mango	ICM	New variety	Kharif 2023	3	3	30	0	30	-
Plant Protection										
6.	Mango	IPM	Fruit fly trap	Kharif 2023	5	5	25	0	25	-
7.	Finger millet	IDM	<i>Pseudomonas</i>	Rabi 2023	5	5	25	0	25	-
8.	Paddy	IPM	<i>Beauveria bassiana</i>	Kharif 2023	5	5	25	0	25	-
Livestock										
9.	Poultry farming	Poultry farming	Introduction of new improved birds- Rhode Island Red	Rabi 2023	20 No. of Unit	20 No. of Unit	20	0	20	-
10.	Poultry farming	Poultry farming	Introduction of new improved birds- Rhode Island Red	Rabi 2023	20 No. of Unit	20 No. of Unit	20	0	20	-
11.	Sorghum	Fodder management	Sorghum GFS-6/CSV-21F	Rabi 2023	-	-	136	0	136	-
FLD on Other Enterprise										
12.	Horticulture	Natural farming	FLD on natural farming under the Out scaling of Natural Farming through KVKs	Rabi 2023	16 No. of Unit	16 No. of Unit	16	0	16	-
13.	Extension education	Kitchen garden kit	Kitchen garden kit (Okra GAO 5, Cowpea AVCP 1, Bottalgaud GABH 1, Pegeon pea GT 105)	Rabi 2023	150 No. of Unit	150 No. of Unit	150	0	150	-
FLDs under other schemes (Other than KVK-ICAR Budget-TSP, Adaptive trial, (Rabi, Summer-2023)										
Pulse crops										
14.	Gram (TSP)	ICM	New variety	Kharif 2023	6.66	6.66	50	0	50	-
15.	Green gram (TSP)	ICM	New variety	Kharif 2023	7.50	7.50	50	0	50	-
Other crops										
16.	Paddy (Adaptive trial)	ICM	New variety	Kharif 2023	15	15	30	0	30	-
Horticultural crops										
17.	Mango	ICM	New variety	Rabi 2023	1.1	1.1	11	0	11	-
18.	Okra	ICM	New variety	Kharif 2023	0.05	0.05	20	0	20	-
19.	Indian bean	ICM	New variety	Kharif 2023	2.0	2.0	20	0	20	-
Plant Protection										

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
20.	Pigeon pea	IPM	New variety	Rabi 2023	20	20	100	0	100	-
21.	Bitterguard	IPM	New variety	Kharif 2023	41	41	100	0	100	-
FLD on Farm Implements and Machinery										
22.	Hand weeder (KVK regular)	Kitchen garden, pulses	Drudgery reduction technology	Rabi 2023	28	28	28	0	28	-

Details of farming situation

Crop	Season	Farming situation (RE/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Pulse crops											
Pigeon pea	Rabi 2022-23	Rainfed	Lateritic black Hilly	H	M	H	Gram	20-06-2022	01-02-2023	2704.0	73
Other crops											
Finger millet	Kharif 2023	Rainfed	Lateritic black Hilly	H	M	H	Gram	16-06-2023	28-11-2023	1823.5	73
Little millet	Kharif 2023	Rainfed	Lateritic black Hilly	H	M	H	Paddy	16-06-2023	28-11-2023	1823.5	73
Paddy	Kharif 2023	Rainfed	Lateritic black Hilly	H	M	H	Green gram	01-06-2023	31-10-2023	1789	71
Horticultural other crops											
Mango	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	-	-	-	-	-
Plant Protection											
Mango	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Mango	-	-	-	-
Finger millet	Rabi 2023	Rain fed	Lateritic	H	M	H	Pigeon pea	22-08-2023	01-11-2023	698.5	38

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
			black Hilly								
Paddy	Kharif 2023	Rain fed	Lateritic black Hilly	H	M	H	Paddy	01-06-2023	31-10-2023	530	20
Livestock											
Sorghum	Rabi 2023	Rainfed	Lateritic black Hilly	H	M	H	-	-	-	-	-
FLD on Other Enterprise											
Natural farming	Kharif 2022	Irrigated	Lateritic black Hilly	H	M	H	-	14-02-2022	01-06-2023	307.5	10
Kitchen garden kit	Rabi 2022	Rainfed	Lateritic black Hilly	H	M	H	-	-	-	-	-
FLDs under other schemes (Other than KVK-ICAR Budget-TSP, Adaptive trial, (Rabi, Summer-2022)											
Pulse crops											
Gram (TSP)	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Paddy	15-11-2022	01-03-2023	00	00
Green gram (TSP)	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Pigeon pea	07-02-2023	31-05-2023	25	03
Other crops											
Paddy (Adaptive trial)	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Gram	21-06-2023	31-10-2023	1789	71
Horticultural crops											
Mango	Rabi 2023	Rainfed	Lateritic black Hilly	H	M	H	-	-	-	-	-
Okra	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Pigeon pea	11-11-2022	01-03-2023	00	00
Indian bean	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	Gram	10-11-2022	01-03-2023	00	00
Plant Protection											
Pigeon pea	Rabi 2023	Rainfed	Lateritic	H	M	H	Gram	12-09-2022	01-02-2023	652	22

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
			black Hilly								
Bitterguard	Kharif 2023	Irrigated	Lateritic black Hilly	H	M	H	-	01-01-2023	01-04-2023	14.5	02

Technical Feedback on the demonstrated technologies

Sr. No.	Feed Back
1.	Paddy variety GR 17 gives more trilling than other.
2.	Standardized the preparation method of Jeevamrut, Ghanjeevamrut etc.
3.	Provide Marketing Facility for Product of Natural farming.
4.	Need variety which is resistance to sucking pest in okra (Okra highly effected by sucking pest)
5.	Need good variety from university in okra (farmers mostly grow private hybrid)
6.	To develop nutritional feed for milch animals.
7.	Provide marketing facility particular in Ahwa and Subir block of Dang district.

Farmers' reactions on specific technologies

Sr. No.	Feed Back
1.	Green gram variety GM 6 gave very good yield as compare to local varieties.
2.	Farmers want seeds of indigenous varieties of paddy from university or <i>Bijnigam</i> .
3.	Need some basic recommendation of Natural farming from the university.

Sr. No.	Feed Back
4.	Required Govt. sector hybrid variety of Okra and bitter gourd for dang district.
5.	Variety of tomato Arka rakshak gave higher yield than GT 7 variety.
6.	Standardized method of preparation of Agniastra, Neemastra and Dashparni arka.
7.	Sorghum variety can be grow throughout the year as multi cut variety under irrigated conditions which is very useful for manage of green fodder requirement of livestock throughout year.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	01	28-07-2023	32	Nil
2	Farmers Training	07	03-11-2023, 04-11-2023, 22-12,2023, 02-12-2023, 04-11-2023, 19-06-2023, 30-11-2023	175	Nil
3	Media coverage	143	-	-	Nil
4	Training for extension functionaries	-	-	-	-

C. Performance of Frontline demonstrations

Performance of Frontline demonstrations (*Rabi, Kharif-2022, Summer-2023*)

Frontline demonstration on pulse crops:

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration* (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR** (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Crop Production																		
Pigeon pea	ICM	New variety	GT 105	26	5	15.25	12.50	13.80	10.62	29.94	20000	62100	42100	3.11	18000	47790	29790	2.66

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

FLDs on Other crops (*Kharif 2023*):

Category & Crop	Thematic Area	Name of the technology	Variety/ Input	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Economics of demonstration* (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR** (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						H	L	Av.										
Crop Production																		
Finger millet	ICM	New variety	CFMV 2(Gira)	25	5	16.35	13.40	14.57	9.95	46.43	12000	58280	46280	4.86	10000	39800	29800	3.98
Little millet	ICM	New variety	GNV 3	25	5	14.30	11.70	13.11	9.75	34.46	10000	45885	35885	4.59	8000	34125	26125	4.27
Paddy	ICM	New variety	GR 17	25	5	28.20	25.05	27.48	22.10	24.34	20000	49464	29464	2.47	25000	39780	14780	1.59
Horticultural other crops (2023)																		
Mango	ICM	New variety	Kesar	30	3	80% Survival rate												
Plant Protection (2023)																		
Mango	IPM	Fruit fly trap	Local varieties	25	5	65	61.5	63.06	52.9	19.44	50000	239658.4	189658.4	4.79	49500	201020	151520	4.06
Fingermillet	IDM	Pseudomonas	Local varieties	25	5	13.5	12	12.96	9.9	29.86	12000	51856	39856	4.32	10000	39984	29984	3.99

Category & Crop	Thematic Area	Name of the technology	Variety/ Input	No. of Farmers	Area (ha)	Yield (q/ha)			% Change in Yield	Economics of demonstration* (Rs./ha)				Economics of check (Rs./ha)				
						Demo				Check	Gross Cost	Gross Return	Net Return	BCR** (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						H	L	Av.										
Paddy	IPM	Beauveria bassiana	Hybrid	25	5	26	24.5	25.28	21.59	17.14	25000	48039.6	23039.6	1.92	24500	40943.6	16443.6	1.67

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

FLD on Livestock (Rabi, Summer-2023):

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters lit/cow/day		% change in major parameter	Other parameter		Economics of demonstration* (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR** (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Dairy cow (KVK regular)																	
1.	Poultry farming	Introduction of new improved birds- Rhode Island Red	20	10 Poultry	142 eggs/year	89 eggs/year	59.5	-	-	2000	5200	3200	2.6	1400	3100	1700	2.21
Dairy cow (Adaptive trial)																	
1.	Poultry farming	Introduction of new improved birds- Rhode Island Red	20	10 Poultry	135 eggs/year	85 eggs/year	58.8	-	-	2000	4900	2900	2.45	1400	2900	1500	2.07
2.	Fodder management	Sorghum GFS 6	108	13.5 ha	322	265	21.51	-	-	26000	80500	54500	3.09	27000	66250	39250	2.45
3.	Fodder management	Sorghum CSV 21F	28	3.5 ha	310	257	20.62	-	-	26000	77500	51500	2.98	27000	64250	37250	2.37

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

FLD on Other Enterprise: (Kharif, Rabi, Summer-2023):

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units/ha	Yield (Kg)		% change in yield	Economics of demonstration (Rs./ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
Horticulture	Natural farming	FLD on natural farming under the Out scaling of Natural Farming through KVKs	16	2.24 ha	5.23	6.08	-13.71	14643.75	34043.75	19400	2.33
Extension education	Kitchen garden kit	Kitchen garden kit (Okra GAO 5, Cowpea AVCP 1, Bottalgaud GABH 1, Pegeon pea GT 105)	150	150	85.5	45	90	900	2700	1800	3.0

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Hand weeder (KVK regular)	Kitchen garden, pulses	Drudgery reduction technology	28	28	Labour requirement man hour/ha	78	122	5.5	--	--	5.5	5.5	--	2046	--	2046

FLDs under other schemes (Other than KVK-ICAR Budget-TSP, Adaptive trial, (Rabi, Summer-2023):

Category & Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			% Change in Yield	Economics of demonstration* (Rs./ha)				
						Demo				Check	Gross Cost	Gross Return	Net Return	BCR** (R/C)
						High	Low	Ave.						
Crop Production														
Oilseed														
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pulse crops														

Gram (TSP)	ICM	New variety	GJG 3	50	6.66	16.00	12.84	14.64	10.75	36.19	16500	73200	56700	4.44
Green gram (TSP)	ICM	New variety	GM 6	50	7.50	10.19	8.52	9.41	6.16	52.76	20000	67752	47752	3.39
Other crops														
Paddy (Adaptive trial)	ICM	New variety	GR 17	30	15	31.38	22.18	27.72	21.98	26.11	20000	49896	29896	2.49
Horticultural crops														
Mango	ICM	New variety	Kesar	11	1.1	80% Survival rate								
Okra	ICM	New variety	Purna rakshak	20	0.05	76	62	70.25	96.2	-26.76	80000	210750	130750	2.63
Indian bean	ICM	New variety	GNIB 22	20	2.0	41	29	35.35	26.25	35.31	41627.5	88375	46747.5	2.12
Plant Protection														
Pigeon pea	IPM	Pheromone trap	Local varieties	100	20	14.5	13.1	13.55	10.18	33.17	20000	53905	33905	2.69
Bitterguard	IPM	Cue lure trap	Local varieties	100	41	98	92	96.06	81.57	17.89	60000	240150	180150	4.00

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

Ongoing FLDs of KVK Regular (2023-24)

Sr. No.	Discipline	Season	Crop/ Enterprise	Variety/ Technology Input	Area (ha)	No. of Demo.
1.	Crop Production	<i>Kharif</i> , 2023-24	Chickpea	GJG 3	5	25
2.	Horticulture	<i>Kharif</i> , 2023-24	Mango	Kesar	5	50
3.		<i>Kharif</i> , 2023-24	Okra	NOVEL & Bio fertilizer	2.5	25
4.		<i>Kharif</i> , 2023-24	Indian been	GNIB 22	0.50	5
5.	Plant Protection	<i>Kharif</i> , 2023-24	Bittergourd	Cue lure trap	5	25
6.		<i>Kharif</i> , 2023-24	Cashewnut	Beauveria	5	25
7.	Animal Science	<i>Rabi</i> 2021-22	Sorghum	CSV 21F	-	20
Total					23 ha	175

IX. Demonstrations given under other schemes (*kharif/Rabi/Summer*,2023-24):

Sr. No.	Scheme/ Particulars of the FLD	Season	Crop	Variety/ Component/ Technology	Area/Unit	No. of Demo.
I	Adaptive trial (Phase-2)					
1.	Crop production	Rabi, 2023-24	Pigeon pea	GT 105	5	25
2.		Rabi, 2023-24	Pigeon pea (CFLD)	GT 104	20	50
3.	Horticulture	Rabi, 2023-24	Brinjal	GNRB 1	0.4	40
4.		Rabi, 2023-24	Indian been	GNIB 22	1.4	14
5.	Plant Protection	Rabi, 2023-24	Mushroom	Mushroom	60 Unit	60
6.	Extension education	Rabi, 2023-24	Tween wheel hoe	Tween wheel hoe	31 unit	31
Total					26.8 ha & 91 unit	220