3.2 Achievements of Frontline Demonstrations

A. Details of FLDs conducted during the year

Cereals

S1. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area	(ha)				No. dem	of fai					Reasons for shortfall in achieveme nt
				Proposed	Actual	SC`		ST		Oth	ers	Tota	1		
						M	F	M	F	M	F	M	F	T	
1.	Rice	INM	Demonstration on potassium and zinc application for management of iron toxicity in rice. Application of 25 kg ZnSO4/ha and top dressing of MOP@30kg/ha after drainage of water	2.0	2.0	0	0	8	0	2	0	10	0	10	
2.	Ragi	Varietal evaluation	Demonstration on high yielding Ragi. Line transplanting with RDF(60:30:30)	2.0	2.0	2	0	4	1	2	1	8	2	10	
3	Maize	Varietal evaluation	Demonstration on Hybrid Maize variety Kalinga Raj with Line sowing and RDF (120:60:60)	2.0	2.0	0	0	5	1	2	2	7	3	10	

Details of farming situation

Crop	Seaso	Farmi ng situati on (RF/I rrigat ed)	Soil		Status of so (Kg/ha)	il .	Previ ous crop	Sowi ng date	Harve st date	nal rainfa 11	No. of rainy days
	Ň	Fan n situ o (R (R rriight)	5, 1	N	P_2O_5	K_2O] 4	∞	H	rs	
Rice	Kharif2021	Rainfed	Red soil (Sandy loam)	267	8.6	162	Rice	5.7.21	22.11.21	875	48
Ragi	Kharif2021	Rainfed	Red soil (Sandy loam)	260	7.8	143	Ragi	15.7.21	30.10.21	875	48
Maize	Kharif2021	Rainfed	Red soil (Sandy loam)	271	7.2	128	Rice	6.7.21	12.10.21	875	48

In both the Tables, information of same crop should be provided. For example, if in Table 3.2A crops are mentioned as a,b,c,d etc., in the table for Details of farming situation, the same crop should be mentioned in the identical sequence.

					Yield	(q/ha)		*Ecor	nomics of		ation	*]	Economic		ζ.
Crop	Thematic	Name of the technology	No. of	Area	11010	(4,114)	%		(Rs./	ha)			(Rs./	ha)	
Crop	Area	demonstrated	Farmers	(ha)	Dama	Chastr	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
					Demo	Check		Cost	Return	Return	BCR	Cost	Return	Return	BCR
Rice	INM	Demonstration onpotassium	10	2.0			18.36	47250	90016	42766	1.90	45000	76048	31048	
		and zinc application for mgt													1
		of iron toxicity in rice			46.4	39.2									1.69
Ragi	Varietal	Demonstration on high	10	2.0			22.39	12500	26240	13740	2.10	11500	21440	9940	
	evaluation	yielding Ragi			8.2	6.7									1.86
Maize	Varietal	Demonstration on Hybrid	10	2.0			18.26	58827	129420	70593	2.20	55553	109440	53887	
	evaluation	Maize variety Kalinga Raj			71.9	60.8									1.97
Total	-														

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Cron	Thematic	Name of the	No. of	Area	Yield	(q/ha)	%	*Ecc		f demonstra ./ha)	ntion	*		cs of check ./ha)	ζ
Crop	Area	technology demonstrated	Farmers	(ha)	Demo	Check	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Total															

^{*} 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

Pulses Frontline demonstration on pulse crops

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area	(ha)					of far					Reasons for shortfall in achieveme nt
				Proposed	Actual	SC`		ST		Oth	ers	Tota	1		
						M	F	M	F	M	F	M	F	T	
1.	Arhar	Varietal Evaluation	ArharLine sowing 60X30cm of PRG-176 @ 20kg/ha with seed treatment and RDF (20:40;40)	2.0	2.0	0	0	8	0	2	0	10	0	10	

Details of farming situation

	uo	ing ion rigat	type		Status of so (Kg/ha)	il	d	ng e	est e	onal all n)	of days
Crop	Seas	Farm: situat (RF/Irr ed)	Soil t	N	P_2O_5	K_2O	Previ	Sowi	Harv	Seaso rainf (mn	No.
Arhar	Kharif2021	Rainfed	Red soil (Sandy loam)	258	8.9	146	fallow	6.7.21	16.11.21	886	50

Cron	Thematic	Name of the	No. of	Area	Yield	(q/ha)	%	*Ecoi	nomics of (Rs/	demonstra/ha)	ation	*]	Economic (Rs/	cs of check ha)	
Crop	Area	technology demonstrated	Farmers	(ha)	Demo	Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
		demonstrated			Demo	CHECK		Cost	Return	Return	BCR	Cost	Return	Return	BCR
Arhar	Varietal	Demonstration of	10	2.0	14.8	12.5	18.4	44400	93240	48840	2.1	43550	78750	35200	1.81
	Evaluation	short duration Arhar													
	Total		10	2.0	14.8	12.5	18.4	44400	93240	48840	2.1	43550	78750	35200	1.81

^{*} 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

Other crops

Sl.	Crop	Thematic	Technology Demonstrated with detailed	Area	(ha)					of far					Reasons for shortfall in achievement
No.	_	area	treatments	Proposed	Actual	SC`		ST		Oth	ers	Tota	1		
						M	F	M	F	M	F	M	F	T	
1.	Tomato	INM	Demonstration of Integrated Nutrient Management In Tomato. STBF + Seedling treatment with bio-fertilizer (Azotobacter @ 2% solution), foliar spray of water soluble fertilizers (N:P:K 19:19:19 @ 0.5%) at 30 DAT+ foliar application of micronutrient mixture (Borax 0.2% and ZnSO4 0.5%) at 45	1.0	1.0	0	0	9	0	1	0	10	0	10	
2.	Brinjal	INM	DAT Demonstration of INM in Brinjal. Application of75% of STBFR Fertilizer N + 100% fertilizer P & K + FYM @ 2t/ha + Bioinoculation of Azotobacter 4kg/ ha +Azospirilum 4 kg/ ha with 200kg prelimed FYM (Lime 10kg) incubated for 7 days at 30% moisture & applied in rhizosphere at the time of planting	1.0	1.0	0	0	7	2	1	0	8	2	10	
3	Banana	INM	Demonstration of Bunch feeding in banana for yield enhancement. Blending 15g (7.5g Urea & 7.5g of sulphate of potash) dissolved in 100ml water in 500g of fresh cow dung & applying the slurry to the de-navelled stalk end soon after fruit set.	2.0	2.0	2	0	2	0	6	0	10	0	10	

Details of farming situation

Crop	Season	Farmin g situatio n (RF/Irri gated)	Soil		Status of so (Kg/ha)	oil	viou	Sowing	rvest	Season al rainfall (mm)	No. of rainy days
J 223F	Se	Farm g situa n (RF/)	S	N	P_2O_5	K ₂ O	Pre s c	Sov	Harv	Season al rainf.	No. rair day
Tomato	Rabi 2021-22	Irrigated, Medium Land	Red soil (Sandy loam)	286	9.6	188	Rice	8.1.2022	28.3.2022	142	25
Brinjal	Rabi 2021-22	Irrigated, Medium Land	Red soil (Sandy loam)	300	9.1	163	Rice	3.1.2022	30.3.2022	142	25
Banana	Rabi 2021-22	Irrigated, Medium Land	Red soil (Sandy loam)	292	10.2	210	Round the Year	-	-	142	25

Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	Area (ha)	Yield (d	q/ha)	% change in	paran	her neters no of plant)	*Econ	omics of (Rs/l	demonstra na)	tion	*I	Economics (Rs/l	s of check na)	
		demonstrated			Demonst ration	Check	yield	Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Tomato	INM	Integrated Nutrient ManagementIn Tomato	10	1.0	302.8	270.6	11.90	62	53	115000	302800	187800	2.63	111875	270600	158725	2.42
Brinjal	INM	INM in Brinjal	10	1.0	356.4	320.9	11.0	82	75	133000	320760	187760	2.41	130560	288810	158250	2.21
Banana	INM	Bunch feeding in banana for yield enhancement	10	2.0	755.0	663.0	13.87	30.2 (Avg. bunch wt in kg)	26.5	253500	906000	652500	3.57	250000	795600	545600	3.18
		Total															

Livestock

Cotogogy	Thematic	Name of the technology	No. of	No.	Major pa	arameters	% change	*Econ	omics of (R	demonsti s.)	ation	*E	Economic (R	s of checs.)	:k
Category	area	demonstrated	Farmer	of units	Demons ration	Check	in major parameter	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Poultry	Poultry	Brooding management for 21 days with floor space of 0.3 ft ² with help of chick guards, artificial heat @1-3 watt/chick, feeder and drinkers @ 1 each for 50 birds. Vaccination against RD on 7 th , 28 th day IBD on 14 th day. Use of electrolyte, preventive, antibiotics during brooding.	10	50 birds	Mortality 5%	Mortality 15%	66.6 decrease in mortality								
Others (pl.specify)															
Total															

^{*} 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

Fisheries

1 15110110	25																
		Name of the			Major pa	arameters	% change	Other para	meter	*Econor	mics of dem	onstration (Rs.)	*	Economics (Rs.		
Category	Thematic area	technology demonstrated	No. of Farmer	No.of units	Demons Ration (Length, weight)	Check (Length, weight)	in major parameter	Demonstr ation(FCR)	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)	Integrated fish farming	IMC yearling production in seasonal pond	05	05	12 cm, 43 gm	9 cm, 25 gm	33cm, 72gm	1.5	1.9	1,37,250	3,15,675	1,78425	2.3	148,550	2,82,245	1,33,695	1.9
		Total										·		·			

Other enterprises

	Name of the			Major parameters		% change	Other pa	romotor	*Econ	omics of	demonstra	ation	*Economics of check				
Category	technology	No. of	No.of	wajoi pa	arameters	in major	Other pa	ii aiiictei		(Rs.) or I	Rs./unit			(Rs.) or	Rs./unit		
Category	demonstrated	Farmer	units	Demons	Check	parameter	Demons	Check	Gross	Gross	Net	**	Gross	Gross	Net	**	
				ration		•	ration	Check	Cost	Return	Return	BCR	Cost	Return	Return	BCR	
Oyster	Demonstration of	10	100	150kg/	100kg/	50	-	-	4000	12000	8000	3.0	4000	8000	4000	2.0	
mushroom	Oyster mushroom		bags	100 bag	100bag												
	for Income																
D 11	generation	20	100	C 771 /	0.51	20.7	12.01:	10.11:	4500	1.6250	11750	2.61	5500	21250	15750	2.04	
Paddy straw	Demonstration of	30	100	65kg/	85kg/	30.7	13.0 bio	12.1 bio	4500	16250	11750	3.61	5500	21250	15750	3.86	
Mushroom	Paddy Straw mushroom for		beds	100bed	100bed		efficiency	efficiency									
	Income						-	-									
	generation, using																
	threshed straw																
Vermicompost	Demonstration of	10	20	8q/1.75m ³	3.5/1.75m ³	128	Composting	Composting	5500	12000	6500	2.18	1300	1500	200	1.15	
,	Vermicomposting,			/yr	/yr normal												
	Recommended		tanks	compost	compost		cycle	cycle									
	layer so for			yield	1		2.5months	8months									
	organic waste and																
	cow dung in																
	vermitank (using																
	4'dia cement ring.																
	Release of																
	earthworm																
	@50nos/kg of																
	organic waste																

^{*} 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

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															20	
Apiculture	Regular and	10	10	Honey	-	100	1 colony	-	850/	2200/	1350	2.59	-	-	-	-
	periodic bottom		boxes	yield			division/		Box/yr	Box/yr						
	board cleaning,		DOACS						DOA/ y1	DOX/ y1						
	maintaining			3kg/box			box/yr									
	healthy and															
	populous colony															
	regular and,															
	periodic dearth															
	feeding, removal															
	of old combs and															
	allowing new															
	comb															
	construction,															
	need-based brood															
	comb alteration															
	and need based															
	colony union or															
	division are															
	recommended for															
	scientific															
	beekeeping with															
	Apis-cerana															
	indica															
	Total					·	·									

^{*} 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

Women empowerment

Cotocomy	Name of tachnology	No. of	Obser	vations	Remarks
Category	Name of technology	demonstrations	Demonstration	Check	Remarks
Farm Women	Nutritional Garden for Nutritional	30			After Training, Demonstration & Awareness
	Security of farm families				programme the consumption of vegetables
					increased
	Production of paddy straw	90	130kg/1qt of	50kg/1qt of	160% increase in production as well as triple
	Mushroom for income generation		threshed straw	threshed straw	the Farmwomen income (from Rs6100/- to
	using threshed straw				Rs.20,800/-)
	Oyster mushroom var.(<i>H. ulmarius</i>)	90	150kg/100bag	100kg/100bag	High production of mushroom(185kg/100bag)
	for Income generation				can be obtained during low temperature(less
					than 20oC)(December and January) than
					P.sajorcaju
	Vermicomposting	10	8q/1.75m ³ /year	$3.5q/1.75m^3/year$	Increase the Income from Rs200/- to Rs6500/-
				Normal compost	
					It is a very easy method for making good
					quality of compost from farm waste within
					short (3months)period of time
	Brooding management of Backyard	30	5mortality	15mortality	After brooding of chicks with proper
	poultry				vaccination 66% increase in mortality

Farm implements and machinery

Name of the	Crop	Name of the technology	No. of	Area	Filed obs (output/m		% change in	Labo	r reductio	on (man c	lays)	Cost re	eduction Rs./Uni	`	. or
implement	Сюр	demonstrate d	Farmer	(ha)	Demons ration	Check	major parameter								

^{*} 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

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha)	/ major j	parameter		Economics (Rs./ha)						
Cereals				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR				
Bajra														
Maize	Kalinga Raj	10	2.0	71.9	60.8	18.26	58,827	1,29,420	70,593	2.20				
	Arkarakshak,	200	2.0	30000	23500	30	1,50,000	4,50,000	3,00,000	3.0				
	Arkaabheda,	100	1.0	27400	23500	16	1,50,000	4,11,000	2,61,000	2.74				
Tomato	Arka Samrat,	100	1.0	27800	23500	18	1,50,000	4,17,000	2,67,000	2.78				
	Swarna Sampad,	100	1.0	27300	23500	16	1,50,000	4,09,500	2,58,500	2.72				
	ArkaHarshitha	100	4.0	17500	12000	45.83	85000	2,60,000	1,75,000	3.05				
Brinjal														
Total														

Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1	Rice	Drought tolerance rice variety Sworna Shreya having better performance (45q/ha)
	Rice	Application of Potassium and zinc effectively controls iron toxicity problems in rice and increase yield 17.2%
2	Ragi	Arjuna variety is giving more yield (8.2q/ha)than jaguleimandia and tastes good
	Maize	Kalinga Raj variety is giving more yield(71.9q/ha) and can also tolerant to moisture stress condition
3	Okra	There is less attack of fruit borer after spraying of spinosad45%SC @ 0.4 ml/lit at the time of pest emergence
4	Mushroom (Paddy	Better utilization of straw and gives good return with small investment and have a good avenue for Doubling the
	straw)	income
5	Mushroom (Oyster)	High production of H. ulmarius (185kg/100bag) of mushroom can be obtained during low temperature (less than
		20oC) (December and January) than P.sajorcaju
6	Poultry	Brooding management of Backyard poultry with proper vaccination 66% increase in mortality
7	Vermicomposting	Getting Good quality compost within 3months by using all the agricultural biproducts & garden and Kitchen waste
8	Nutri-Garden	With a active nutri-garden in backyard we get vegetables throughout the year and our habit has changed hence
		increasing the nutritional security
9.	Honey bee	It is a good avenue for crop pollination and production of Honey and colonies

1	0	Tomato	
1	1	Brinjal	
1	2	Banana	

Extension and Training activities under FLD

Sl.No.	Activity	Date	No. of activities organized	Number of participants	Remarks
1.	Field days	7/10/21, 25/10/21, 17/11/21, 13/11/21	5	250	
2.	Farmers Training		12	360	
3.	Media coverage		4	Mass	
4.	Training for extension		-	-	
	functionaries				

Performance of the demonstration under CFLD on Pulse and Oilseed Crops during Kharif2021 and Rabi 2021-2022:

A. Technical Parameters:

Sl.	Crop	Existing	Existing	Yie	ld gap (K	(g/ha)	Name of Variety +	Number	Area	Yield o	obtained	(q/ha)	Yield gap		
No.	demonstrated	(Farmer's)	yield		w.r.to Te		Technology	of	in ha				minimized		
		variety	(q/ha)	District	District State Potential de		demonstrated	farmers						(%)	
		name		yield	yield	yield (P)				Max.	Min.	Av.	D	S	P
				(D)	(S)										
1	Sesamum	Kalika	4.5	406	237	800	GT-10Line sowing, of	19	10.0	7.8	5.8	6.2	154	161	77.5
							black seeded sesamum								
							recommended dose of								
							fertilizer, seed treatment,								
							Use of micronutrient and								
							neem oil and need based								
							plant protectionmeasures								
2	Groundnut	Smruti	14.7	1155	1800	4384	Dharani, Line sowing	26	10.0	22.4	18.2	20.8	180	115	47
							with recommended dose								
							of fertilizer, rhizobium								
							culture, use of micro								
							nutrient and need based								
					pl		plant protection measures								