

3.2 Achievements of Frontline Demonstrations

A. Details of FLDs conducted during the year

Cereals

Sl. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration									Reasons for shortfall in achievement
				Proposed	Actual	SC`		ST		Others		Total			
						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	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Annual rainfall	No. of rainy days
				N	P ₂ O ₅	K ₂ O					
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.

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

Performance of FLD

Oilseeds:

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check		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)		No. of farmers/ demonstration									Reasons for shortfall in achievement
				Proposed	Actual	SC`		ST		Others		Total			
						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

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (Kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P ₂ O ₅	K ₂ O					
Arhar	Kharif2021	Rainfed	Red soil (Sandy loam)	258	8.9	146	fallow	6.7.21	16.11.21	886	50

Crop	Thematic Area	Name of the technology demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs/ha)				*Economics of check (Rs/ha)			
					Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Arhar	Varietal Evaluation	Demonstration of short duration Arhar	10	2.0	14.8	12.5	18.4	44400	93240	48840	2.1	43550	78750	35200	1.81
	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. No.	Crop	Thematic area	Technology Demonstrated with detailed treatments	Area (ha)		No. of farmers/ demonstration									Reasons for shortfall in achievement
				Proposed	Actual	SC`		ST		Others		Total			
						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 DAT	1.0	1.0	0	0	9	0	1	0	10	0	10	
2.	Brinjal	INM	Demonstration of INM in Brinjal. Application of 75% of STBFR Fertilizer N + 100% fertilizer P & K + FYM @ 2t/ha + Bioinoculation of Azotobacter 4kg/ ha +Azospirillum 4 kg/ ha with 200kg prelied 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 type	Status of soil (Kg/ha)			Previou s crop	Sowing date	Harvest date	Season al rainfall (mm)	No. of rainy days
				N	P ₂ O ₅	K ₂ O					
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 (q/ha)		% change in yield	Other parameters (Avg. no of fruits/plant)		*Economics of demonstration (Rs/ha)				*Economics of check (Rs/ha)			
					Demonstration	Check		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																

* 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 enterprises

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

Apiculture	Regular and periodic bottom board cleaning, maintaining 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 <i>Apis-cerana indica</i>	10	10 boxes	Honey yield 3kg/box	-	100	1 colony division/ box/yr	-	850/ Box/yr	2200/ Box/yr	1350	2.59	-	-	-	-
Total																

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

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Women empowerment

Category	Name of technology	No. of demonstrations	Observations		Remarks
			Demonstration	Check	
Farm Women	Nutritional Garden for Nutritional Security of farm families	30			After Training, Demonstration & Awareness programme the consumption of vegetables increased
	Production of paddy straw Mushroom for income generation using threshed straw	90	130kg/1qt of threshed straw	50kg/1qt of threshed straw	160% increase in production as well as triple the Farmwomen income (from Rs6100/- to Rs.20,800/-)
	Oyster mushroom var.(<i>H. ulmarius</i>) for Income generation	90	150kg/100bag	100kg/100bag	High production of mushroom(185kg/100bag) 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 Normal compost	Increase the Income from Rs200/- to Rs6500/-) 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 poultry	30	5mortality	15mortality	After brooding of chicks with proper vaccination 66% increase in mortality

Farm implements and machinery

Name of the implement	Crop	Name of the technology demonstrated	No. of Farmer	Area (ha)	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit)			
					Demonstration	Check									

* 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 parameter			Economics (Rs./ha)			
				Demo	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals										
Bajra										
Maize	Kalinga Raj	10	2.0	71.9	60.8	18.26	58,827	1,29,420	70,593	2.20
Tomato	Arkarakshak,	200	2.0	30000	23500	30	1,50,000	4,50,000	3,00,000	3.0
	Arkaabhedha,	100	1.0	27400	23500	16	1,50,000	4,11,000	2,61,000	2.74
	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
Brinjal	ArkaHarshitha	100	4.0	17500	12000	45.83	85000	2,60,000	1,75,000	3.05
Total										

Technical Feedback on the demonstrated technologies

Sl. No	Crop	Feed Back
1	Rice	Drought tolerance rice variety Swarna 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 tolerate moisture stress condition
3	Okra	There is less attack of fruit borer after spraying of spinosad 45% SC @ 0.4 ml/lit at the time of pest emergence
4	Mushroom (Paddy straw)	Better utilization of straw and gives good return with small investment and have a good avenue for Doubling the income
5	Mushroom (Oyster)	High production of H. ulmarius (185kg/100bag) of mushroom can be obtained during low temperature (less than 20°C) (December and January) than P. sajorajju
6	Poultry	Brooding management of Backyard poultry with proper vaccination 66% increase in mortality
7	Vermicomposting	Getting Good quality compost within 3 months by using all the agricultural byproducts & 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

10	Tomato	
11	Brinjal	
12	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:

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