Clustered Frontline Demonstration on Pulses (2017-18)

During the year 2017-18, Cluster Frontline Demonstrations (CFLDs) were implemented in 54 KVKs *i.e* 32 KVKs of Odisha, 22 KVKs of West Bengal according to the agro- ecological condition. The target number of demonstration was 7700 of which 7700 number of demonstration was achieved covering a total area of 3080 ha in Odisha and West Bengal. The number of farmer involved in demonstration in Odisha and West Bengal is 9849. The details of the number of demonstrations and area under CFLD are indicated in the following tables.

Total area covered under kharif Pulses during 2017-18

Sl.	Crops	State	Target of FI	Ds approved	Achievements of		
No					<i>FLDs</i>		
			No. of	No. of Area (ha)		Area	
			Demos		Demos	(ha)	
1	Blackgram	West Bengal	850	340	875	350	
		Odisha	525	210	550	220	
2	Greengram	West Bengal	175	70	125	50	
		Odisha	150	60	100	40	
3	Pigeonpea	West Bengal	150	60	150	60	
		Odisha	625	250	650	260	
	Tota	al	2475	990	2450	980	

Total area covered under rabi Pulses during 2017-18

Sl.	Crops	State	Target of FLI	Os approved	Achievements of FLDs		
No			No. of Demos	Area (ha)	No. of	Area (ha)	
					Demos		
1	Chickpea	West Bengal	275	110	250	100	
		Odisha	200	80	275	110	
2	Fieldpea	West Bengal	175	70	150	60	
		Odisha	150	60	150	60	
3	Lentil	West Bengal	1000	400	1000	400	
4	Bengal gram	Odisha	425	170	450	180	
5	Green gram	Odisha	1825	730	1550	620	
	Total	1	4050	1620	3825	1530	

Total area covered under summer Pulses during 2017-18

Sl. No	Crops	State	_	of FLDs roved	Achievements of FLDs		
			No. of Demos	Area (ha)	No. of Demos	Area (ha)	
1	Black gram	West Bengal	50	20	75	30	
2	Green gram	West Bengal	800	320	850	340	
		Odisha	325	130	500	200	
Total			1175	470	1425	570	
Grand	Total (kharif +	rabi + summer)	7700	3080	7700	3080	

Yield performance of pulses demonstration in kharif 2017 in farmers existing plot and demonstrations plot

	No. of	Area		Y	ield (q/ha)			Demonstrated plot Farmers Exis			sting plot			
State	Demo	(ha)	Highes t	Lowest	Average	Local Check	%	Gross Return	Net Return	B:C ratio	Gross Cost		Net Return	BC ratio
Pigeon pea														
Odisha	650	260	14.25	10.16	12.21	8.72	40.02	63994	33520	2.12	24542	44364	19388	1.81
West Bengal	150	60	11.20	8.93	10.07	6.97	44.48	63626	33243	2.09	22693	40600	17906	1.79
Black gram														
Odisha	550	220	8.23	5.96	7.10	5.07	40.04	38364	19016	1.98	16855	27065	10565	1.61
West Bengal	875	350	10.87	8.25	9.56	7.47	27.98	54077	30535	2.29	20069	36583	16691	1.82
Green gram														
Odisha	100	40	7.80	5.90	6.85	5.57	22.98	39686	17033	2.01	17950	28416	10516	1.58
West Bengal	125	50	10.44	9.15	9.80	7.54	29.97	59595	33011	2.24	22773	42005	19231	1.84
Total	2450	980												

Performance of Clustered Frontline Demonstration in rabi and summer Pulses during 2017-18

	No.	Area	Yield (q.	/ha)				Farmer	s Existing pl	ot		Demonstrated Plot			
State	of demo	(ha)	Highest	Lowest	Average	Local Check	% increase	Gross Cost	Gross Return	Net Return	B:C ratio	Gross Gross Cost Return	Gross Return	Net Return	BC ratio
Rabi															
Lentil															
West Bengal	1000	400	11.80	8.82	10.31	7.93	30.01	20150	39552	19372	1.96	22729	53347	30618	2.35
Chickpea													•		
Odisha	275	110	14.45	10.55	12.5	8.69	43.84	46512	83860	14847	1.80	24325	62447	38122	2.58
West Bengal	250	100	14.12	12.22	13.17	9.60	37.19	23059	45287	22227	1.96	25414	62289	36875	2.45
Fieldpea													•		
Odisha	150	60	19.95	13.30	16.63	10.96	51.80	22525	41640	19115	1.87	27100	65200	38100	2.41
West Bengal	150	60	15.65	13.75	14.70	11.28	30.32	22839	35796	12957	1.57	25401	52902	27445	2.08
Greengran	1	•	1				•	•	•	•	•	•	•	•	•
Odisha	1550	620	7.90	5.71	6.81	5.11	33.27	17393	27934	10822	1.61	20083	39953	18614	1.99
Black gram	1												•		
Odisha	450	180	7.24	5.64	6.44	4.91	31.16	15363	25510	10146	1.66	18394	36507	18098	1.98
Total	3825	1530													
Summer															
Greengran	1														
Odisha	500	200	6.65	4.11	5.38	3.96	35.86	12050	22900	10850	1.9	14080	31401	17321	2.23
West Bengal	850	340	12.6	9.28	10.94	8.43	29.77	23044	41880.31	18835	1.82	25221	55874	30653	2.22
Blackgram															
West Bengal	75	30	7.5	6	6.75	5.25	28.57	16250	34125	17875	2.1	21250	49000	27750	2.31
Total	1425	570													

Results:

There is an increase of 30-35 % in pulse production recorded in frontline demonstration on pulses. With the adoption of new technology and the recommended variety

- ❖ During 2017-18 pigeon pea, green gram (kharif, rabi and summer), black gram (kharif, rabi and summer), lentil, chick pea, field pea were demonstrated under CFLD in 32 KVKs of Odisha and 22 KVKs West Bengal covering three seasons (kharif, rabi and summer).
- * Kharif pulses (pigeon pea, black gram and green gram) yield 32-35 % higher yield with application of technologies like seed treatment with bio fertilizers and chemicals, soil test based fertiliser application, use of micronutrients and plant protection chemicals.
- ❖ Lentil yield 30-32% higher due to seed treatment with bio fertiliser, application of micronutrient and plant protection chemicals
- ❖ In chickpea it was observed that application of micronutrients spray increase yield up to 40-42%.
- ❖ In field pea technologies like seed treatment (chemical & bio fertilisers), micronutrients spray, recommended doses of fertiliser and plant protection chemical increases the yield by 50-55% in Odisha.
- ❖ In green gram & black gram (*rabi* and *summer*), *IPM 02-14* variety of green gram increases the yield by 30-35% by following the improved practice of seed treatment, line sowing, weed management and need based plant protection chemicals.







