

Clustered Frontline Demonstration on Pulses (2018-19)

The CFLD on Pulses programme during *kharif* 2018, pigeon pea, black gram and green gram were taken up for demonstration as per the communication received from DAC & FW, New Delhi. Altogether 1040 ha were allotted for *kharif* pulses out of which 1025 ha could be finally brought under demonstration programme in Odisha and West Bengal. A total of 2562 demonstrations were conducted to cover 1025 ha area in these two states. The varieties like PRG 176 (*Ujwala*) and UPAS 120 were in pigeon pea, PU 31, WBU 109 and OBG 17 (*Ujala*) in black gram and IPM -02-03, IPM-02-14, SML-668 and *Sukumar* in green gram was demonstration in 2018-19. Recent technologies like to seed treatment, line sowing, integrated nutrient management, micronutrients like Zn & S application, use of herbicide, integrated pest management were demonstrated in farmers' field for these demonstrations. Performance analysis of individual pulse crop indicates that in pigeon pea resulted 47.59 per cent increase in average yield increase in Odisha and 44.43 per cent in West Bengal. In West Bengal, black gram was covered in large area of 360 ha because of its popularity. Increase in average yield of black gram in West Bengal was 33.8 per cent. The average increase of demonstrated yield of black gram was of 22 per cent Odisha. In green gram, the average increase in demonstration yield was 33.82 % in West Bengal whereas was 38.38 per cent in Odisha. The details are given in table below.

Cluster Frontline Demonstration on *kharif* Pulses during 2018-19

Sl. No.	Crops	State	Target of FLD Approved		Achievement of FLD		Average yield (q/ha)		Yield increase %	Difference of yield between demo & local (q/ha)
			No. of Demo	Area (ha)	No. of Demo	Area (ha)	Demo	Local		
1	Pigeon pea	Odisha	875	350	875	350	12.87	8.73	47.59	4.14
		West Bengal	150	60	150	60	10.52	7.27	44.43	3.25
2	Black gram	Odisha	500	200	500	200	6.54	5.37	21.84	1.17
		West Bengal	900	360	900	360	9.46	7.14	33.80	2.32
3	Green gram	Odisha	75	30	75	30	6.88	5.05	38.38	1.83
		West Bengal	100	40	62	25	9.03	7.09	33.82	1.94
Total			2600	1040	2562	1025				



Lentil, chick pea, field pea, green gram and black gram are major *rabi* pulses crop demonstrated under clustered frontline demonstration programme in *rabi* 2018-19, by KVKs of Odisha and West Bengal to cover an area of 1723 ha. However, lentil was demonstrated only in West Bengal in 443 ha which result 27.38 per cent increase in average yield. The average yield was affected by heavy rainfall in South & North 24 Parganas. Lentil varieties like *WBL 77*, *IPL 406*, *Pant Lentil 8* and *HUL 57* was demonstrated in West Bengal to achieve higher yield. In chick pea, the KVKs of Odisha recorded an increase in yield to the extent of 27.38 per cent in 90 ha demonstration. The increase in average yield was against 41.86 per cent in West Bengal in 120 ha demonstration in chick pea. The latest varieties like *NBeG3* are demonstrated in Odisha and *JAKI 9218*, *Subhra* and *Bidisha* in West Bengal. Technologies like seed treatment, foliar spray of micronutrients and adoption of integrated pest management proved beneficial for augmenting the yield. In field pea, the area covered in demonstration was 60 ha and 100 ha by KVKs Odisha and West Bengal. The increase in average yield of demonstration was 48-49 % in these two states. In Odisha, a large area of 670 ha was allotted under *rabi* green gram. The result of demonstration in green gram show that 38.04 per cent increase in average yield. The black gram was demonstrated in 210 ha in Odisha in *rabi* season .These demonstration indicated the yield of black gram covered be improved by 28.57 per cent over the existing practices. The black gram varieties *PU 31*, *Prasad* and *Ujjal* were most promising in this demonstration. Horse gram demonstration was conducted in an area of 30 ha in Odisha with increase in average yield of 41.66 per cent. The details are given in table below.

Cluster Frontline Demonstration on *rabi* Pulses during 2018-19

Sl. No.	Crops	State	Target of FLD Approved		Achievement of FLD		Average yield (q/ha)		Yield increase %	Difference of yield between demo & local (q/ha)
			No. of Demo	Area (ha)	No. of Demo	Area (ha)	Demo	Local		
1	Lentil	West Bengal	1809	443	1809	443	11.07	8.69	27.38	2.38
2	Chick pea	Odisha	225	90	225	90	11.07	8.69	27.38	2.38
		West Bengal	300	120	300	120	13.86	9.77	41.86	4.09
3	Field pea	Odisha	150	60	150	60	14.5	9.75	48.72	4.75
		West Bengal	250	100	250	100	14.25	9.56	49.05	4.70
4	Green gram	Odisha	1675	670	1675	670	7.33	5.31	38.04	2.02
5	Black gram	Odisha	525	210	525	210	6.75	5.25	28.57	1.51
6	Horse gram	Odisha	75	30	75	30	5.61	3.96	41.66	1.65
Total			4307	1723	5009	1723				



In *summer* season, green gram is main pulse crop grown in Odisha and West Bengal. A total area of 430 ha (150 ha in Odisha and 280 ha in West Bengal) were covered by these two states in summer season. The summer green gram demonstrated yield in West Bengal is 10.67q/ha where as in Odisha it is 5.7 q/ha. The increase in per cent of yield is 32.87 and 34.1, respectively.

Cluster Frontline Demonstration on *summer* Pulses during 2018-19

Sl. No.	Crops	State	Target of FLD Approved		Achievement of FLD		Average yield (q/ha)		Yield increase %	Difference of yield between demo & local (q/ha)
			No. of Demo	Area (ha)	No. of Demo	Area (ha)	Demo	Local		
1	Green gram	Odisha	375	150	375	150	5.65	4.15	34.06	1.50
		West Bengal	800	320	700	280	10.67	8.09	32.87	2.58
Total			1075	470	1075	430				



