

Clustered Frontline Demonstrations in Oilseeds (2019-20)

During 2019, Cluster Frontline Demonstration (CFLD) on oilseed crops (sesame, groundnut and sunflower) was conducted by ICAR-ATARI, Kolkata in the states of Odisha and West Bengal. A total of 1450 no. of demonstrations (580 ha) were conducted. All these demonstrations were conducted by various KVKs in their respective districts. In Odisha, 100 no. of demonstrations each on groundnut & sunflower and 50 no. of demonstrations on sesame were conducted. In West Bengal, a total of 1100 no. of demonstrations (sesamum-670 no., groundnut -325 no. and sunflower-200) covering a total area of 480 ha were conducted. The main objective of CFLD was to compare the yield performance of demonstrations with farmers' practices. During summer, CFLD on sesame, groundnut and sunflower were conducted in states of Odisha & West Bengal through KVKs. There was an increase yield percentage of 20 to 50 in CFLD. In Odisha, CFLD sesame recorded 54 percent increase over farmers' practice whereas groundnut recorded 30% and sunflower 19% increase. Percentage increase in yield of sesame, groundnut and sunflower was 30%, 33% & 27%, respectively in West Bengal. The benefit cost ratio of sesame was 2.42 in Odisha and 1.52 in West Bengal. In the case of groundnut and sunflower the benefit cost ratio was 1.5 in both the states. Varieties demonstrated under CFLD Oilseeds (Regular): Groundnut- *TCGS-1043*, *TG-37A*, *Devi*. Sesame- *G-2*, *Savitri*, *Rama*, *Amrit*. Sunflower - *KA 501*, *KBSH-51* and *MSFH-17*.

State and crop wise performance of CFLD Oilseeds during 2019 (CFLD Regular programme)

State	Crop	Area (ha)		Yield (q/ha)		% Increase	Net Returns (Rs.)		B:C Ratio
		Target	Achieve	Demo	FP		Demo	FP	
Odisha	Sesame	20	20	5.51	3.57	54.34	15028	6198	2.42
	Groundnut	40	40	19.27	14.79	30.31	32320	20548	1.57
	Sunflower	40	40	20.06	16.81	19.30	24010	16711	1.44
West Bengal	Sesame	270	270	10.15	7.81	29.91	29820	19680	1.52
	Groundnut	130	130	22.14	16.62	33.20	45391	25316	1.79
	Sunflower	80	80	15.59	12.26	27.14	32206	21131	1.52
Total		580	580						



Action photographs of CFLD on Oilseeds (Regular)

For promotion of sustainable agriculture practices (SAP), DAC & FW has come up with additional CFLD on Oilseeds under NFSM–Oilseeds. Accordingly, ICAR ATARI-Kolkata was allotted 10175 no. of demonstrations on oilseeds (Groundnut and Rapeseed & Mustard). Demonstrations were conducted by various KVKs in states of Odisha and West Bengal. Under groundnut, 2200 no. of demonstrations (880 ha) were conducted in Odisha whereas in West Bengal 1025 no. of demonstrations (410 ha) were conducted. A total of 3225 and 3725 no. of demonstration on Rapeseed and Mustard were demonstrated in Odisha and West Bengal, respectively. Additional CFLD on Oilseeds (Groundnut & Mustard) was conducted by various KVKs in states of Odisha and West Bengal. The yield performance of the demonstrations was compared with the farmers' practices to obtain the cost benefit ratio. It was observed that there was an increase of yield to the extent of 34 to 50 percent in respect of groundnut demonstration whereas in rapeseed & mustard it was 35 to 49 percent. Farmers have fetched a good net return due to increase in yield (groundnut –Rs. 17000 to 22000 and rapeseed & mustard- Rs. 8000 to 11000). The benefit cost ratio of groundnut was 1.59 to 1.92 and in rapeseed & mustard it was 1.76

to 2.02. Varieties demonstrated under Addi. CFLD Oilseeds under SAP : Groundnut- *Dharani, Devi* and *ICGV-00350*, Rapeseed & Mustard- *Uttara, Anuradha, Pusa Mustard 26, NRCHB- 101, YSH- 401, PM 28* and *PM 30*.

State- and crop-wise performance of CFLD Oilseeds under SAP during 2019 (CFLD Additional programme)

State	Crop	Area (ha)		Yield (q/ha)		% Increase	Net Returns (Rs.)		B:C Ratio
		Target	Achieve.	Demo	FP		Demo	FP	
Odisha	Groundnut	880	880	22.54	16.72	34.81	59161	37153	1.59
	Rapeseed & Mustard	1290	1290	6.76	4.54	48.90	16847	8332	2.02
West Bengal	Groundnut	410	330	18.66	12.38	50.73	37426	19483	1.92
	Rapeseed & Mustard	1490	1490	12.85	9.48	35.55	25571	14561	1.76
Total		4070	3990						



Technology use in different Oilseed crops during 2019

Sl. No.	Crop Name	Main Technology use for demonstration
1	Groundnut	Line sowing, Seed treatment with chemicals and seed inoculation with bio fertilizers, application of soil ameliorants, selective used of herbicides
2	Sesame	Use of HYV, seed treatment, application of soil test based fertilizer, basal & foliar application micronutrient and spray of need based plant protection chemicals
3	Rapeseed & Mustard	Seed treatment , application of sulphur , basal application of micronutrient
4	Sunflower	Seed treatment, soil test based fertilizer application, Soil application of Borax and use of PPChemical

