Cluster Frontline Demonstration (CFLD) on Pulses

Cluster Front Line Demonstrations (CFLDs) represent a dynamic form of adaptive research focusing on recently notified/released crop varieties and innovative agricultural technologies developed within the past decade. These demonstrations are conducted through collaborative efforts between the Indian Council of Agricultural Research (ICAR), State Agricultural Universities (SAUs) and individual farmers. CFLDs bridge the gap between agricultural researchers and farmers with scientists actively participating in planning, executing, and monitoring on-field demonstrations to gather valuable feedback directly from the farming community.

India holds the distinction of being both the largest producer and consumer of pulses, which are a critical source of protein in the Indian diet. Pulses are unique in the realm of agriculture due to their exceptionally high protein content, nearly double that of cereal crops. Despite its position as the leading pulse producer and consumer globally, India regularly expends significant resources to import pulses to meet domestic demand. To combat this imbalance and boost pulses production, the Government of India has initiated efforts to increase pulse cultivation. Since 2015, the ICAR, in collaboration with the Department of Agriculture, Co-operation & Farmers Welfare, has undertaken the "Cluster Frontline Demonstration on Pulses (CFLD)" project under the National Food Security Mission (NFSM) to enhance pulses production and productivity.

Objectives:

Front Line Demonstrations (FLDs) primarily involve subject matter scientists providing technical expertise to extension scientists for the organization of on-field demonstrations. In the case of CFLDs, the primary objectives are as follows:

- **Demonstrate Improved Crop Production Technologies:** Conduct demonstrations on farmers' fields to showcase the efficacy of improved crop production technologies for pulses.

- **Promote Newly Notified and Improved Varieties/Technologies:** Popularize newly notified and improved varieties and agricultural technologies to encourage varietal diversification and efficient resource management.

- **Facilitate Synergy Among Stakeholders:** Foster collaboration and knowledge exchange among planners, researchers, farmers, and the industry by organizing seminars and symposia on emerging themes in pulses production to formulate development strategies.

Achievements under CFLD Pulses during 2022-23

In total, 6230 demonstrations were laid out in cluster mode on 2492 ha area out of targeted 6305 CFLDs (2522 ha).

(i) Kharif Season: A total of 2950 technology demonstrations were conducted on three pulse crops viz., green gram, black gram and pigeon pea in an area of 1180 ha covering two states Maharashtra and Gujarat.

(a) Green gram: Cluster FLDs were implemented in an area of 210 ha with the involvement of 525 farmers in Maharashtra.

(b) Black gram: Cluster FLDs were implemented in an area of 110 ha with the involvement of 275 farmers of which 70 ha with 175 farmers in Maharashtra and 40 ha with 100 farmers in Gujarat.

(c) Pigeon pea: Cluster FLDs were laid out in an area of 850 ha with participation of 2125farmers of which 720 ha with 1800 farmers in Maharashtra and 130 ha with 325 farmers in Gujarat.

(ii) Rabi Season: For making larger impact in the area, 2750 demonstrations were conducted in cluster mode on three pulse crops viz., chickpea, horse gram, dolichus bean and cowpea in an area of 1100 ha covering two states Maharashtra and Gujarat.

(a) Chickpea: Cluster FLDs were implemented in an area of 1010 ha with the involvement of 2525 farmers, out of which 760 ha with 1900 farmers in Maharashtra and 250 ha with 625 farmers in Gujarat.

(b) Horse gram: Cluster FLDs were laid out in area of 40 ha with the involvement of 100 farmers in Maharashtra.

(c) Cowpea: Cluster FLDs were conducted in area of 20 ha with the involvement of 50 farmers in Maharashtra.

(d) Dolichus Bean: Cluster FLDs were conducted in area of 30 ha with the involvement of 75 farmers in Maharashtra.

(iii) Summer Season: A total of 530 technology demonstrations were conducted on green gram in an area of 212 ha covering two states Maharashtra and Gujarat.

(a) Green gram: The allocation of area is as follows; 20 ha with 50 farmers in Maharashtra and 192 ha with 480 farmers in Gujarat.