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Popular Article

## Self-sufficiency in pulse production in the district through Cluster Front Line Demonstration (CFLD) on pulses

S. S. Kaushik\*, R. N. Nibe, M. P. Lakhe, S. D. Badadhe, N. B. Dahatonde, R. S. Patil, C. N. Gawali, P. S. Hinge and P. Bahirat

SMGPSS, Krishi Vigyan Kendra Dahigaon ne Shevgaon Ahilyanagar M.S.414502

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### Abstract

Govt. of India Ministry of Agriculture and Farmers Development, Indian Council of Agricultural Research (ICAR), New Delhi is focusing on increasing the pulse production in the country to reduce the burden of pulse import and also to make India self-sufficient in pulse production. And hence KVK conducted Cluster Front Line Demonstration (CFLD) on Pigeon pea with the package of Integrated Crop Management (ICM) technologies. Before conducting the CFLD in the district, it was not self-reliant in pulse production but after organizing the CFLD, the district has become self-sufficient in pulse production.

**Key words:** ICAR, KVK, CFLD, ICM, HYV, Pigeon pea

Ahilyanagar district comes under low rainfall region of Western Maharashtra where on an average we receive less than 750 mm rainfall during the month of June - July and in September. During the monsoon season, we used to observe 2-10 dry spells. Maximum temperature 41°C is noticed during the month of April-May and minimum temperature 14-15°C is recorded during the month of December. In Kharif season pearl millet, sunflower, pigeon pea, green gram, black gram, soybean, Kharif sorghum etc. are sown as major crops whereas during Rabi season Rabi sorghum, wheat, linseed, sunflower, chickpea etc. are grown. Most of the taluka comes under KVK Ahmednagar II and receives very low rainfall and is usually affected by drought. Earlier, Kharif Sorghum and Pearl Millet occupied major area which are non-remunerative, high nutrient consumption crops and also not enriching the soil health. The area of pigeon pea during 2017-18 was 5801 ha in the district and 4575 ha under KVK jurisdiction, respectively. The average productivity of selected village was 1455 Kg/ha. The availability of pulse in the district was 26.62 Kg/head/annum whereas pigeon pea 8.3 Kg/head/annum during 2017-18 in comparison with the recommendation by National Institute of



Nutrition @ 29.20 Kg/head/annum. In view of this, KVK undertook Cluster Front Line Demonstration (CFLDs) on pulses for diversification of crops.

### **KVK's Interventions:**

Krishi Vigyan Kendra Dahigaon conducted 550 Cluster Front Line Demonstration (CFLD) covering 2018.5 ha area under National Food Security Mission (NFSM) on integrated crop management on pigeon pea from 2014 to 2024. Besides that, KVK has also organized CFLD on green gram, black gram and chickpea as well. Cluster Front Line Demonstrations (CFLDs) on Integrated Crop Management (ICM) on pigeon pea technologies viz. HYV seed, seed treatment, sowing technique, nutrient management, weed management, drought management, integrated insect and disease management practices and grading of produce with spiral seed separator, etc. technologies demonstrated at farmers' field by organizing various activities like scientist-farmers interaction, training, method demonstration, field days, farmers' fair, etc.

### **Process Followed:**

A transect walk used to be done to conduct the Participatory Rural Appraisal (PRA), through which resource mapping and social mapping was done with the help of villagers and line department. During the survey, it was observed that most of the area is occupied by Sorghum and Pearl Millet in these villages. The villagers are mostly dependent on monsoon for their Kharif crops. Technology as well as extension gaps were identified during the interaction with the farmers. And hence KVK planned to demonstrate the pigeon pea in place of sorghum and pearl millet whose cost of production is either high or non-remunerative, besides that not beneficial for the soil health as well.

### **Impact:**

**Horizontal Spread:** The area in the district has increased from 5801 ha in 2017-18 to 62222 ha in 2023-24 and under KVK jurisdiction which was 4575 ha has gone up to 59370 ha during 2023-24. It can be noticed that area of sorghum which was 329248 ha in 2017-18 has reduced to 141159 ha during 2023-24. The CFLD technology has reached up to 15224 ha in and around the selected villages. The average productivity of selected village in control (farmers' practice) was 1455 Kg/ha. In the demonstration trials it was recorded 1777 Kg/ha. The availability of pulse (pigeon pea) in the district was 26.66 Kg/head/annum during 2017-18 and has gone up to 32.95 Kg/head/annum during the reporting year and pigeon pea availability has gone up to 16.62 Kg/head/annum in the district.

### **Economic Gains:**

The adoption of ICM in pigeon pea technology has reached to 15224 ha area in the selected villages which has saved Rs. 2.74 crores of the farmers by adopting the demonstrated technology in integration. Besides that, seed replacement ratio has also increased.



### **Employment Generation:**

The technology has also resulted in employment generation up to 1425 mandays in the area of adoption of technology on account of increase in area and production of pigeon pea.



**Cluster Front Line Demonstration (CFLD) organized on Pigeon pea**

