

# An analysis of the critical factors influencing the adoption of KVK interventions by farmers of Dharwad district.

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## Abstract

The present study was conducted in Dharwad district of Karnataka during 2020-21 with 110 samples. A list of beneficiary farmers was obtained from the KVK Dharwad in which 65 beneficiaries who have adopted Chickpea technologies and 45 beneficiaries who have adopted Green gram technologies were selected through purposive random sampling technique. The results revealed that nearly half (49.23 %) of the Chickpea growers belonged to medium level of adoption category whereas 27.69 per cent and 23.08 per cent of the Chickpea growers belonged to high and low levels of adoption category, respectively and nearly half (48.89 %) of the Green gram farmers had medium level of adoption whereas 28.89 per cent and 22.22 per cent of the Green gram growers had high and low adoption levels of recommended cultivation practices of Green gram, respectively. The major influencing factors to the Chickpea and Green gram growers to adopt the KVK promoted technologies were higher yields, participation in FLDs, high market demand for the produce and quality produce. From the study, it is inferred that Chickpea variety (JAKI-9218) had the highest yield of 15.42 q/ha which is 5.76 per cent higher when compared to farmers practice (JG-11) whereas improved variety of Green gram (DGGV-2) produced an average yield of 13.6 q/ha over the local variety (Shing Moong) which was only 11.77q/ha, indicating an yield advantage of 15.54 per cent. The results clearly showed the positive impact of the varietal interventions promoted through CFLDs by KVK over the farmers practice towards increasing the productivity and income and proved to be more remunerative and economically feasible to the Green gram and Chickpea growers in Dharwad district.

**Key words:** varietal interventions, adoption, influencing factors

## INTRODUCTION

Various revolutions in Indian agriculture have altered the landscape of how agriculture is performed. In Indian agriculture, the green revolution is pivotal. The fundamental driving force behind these revolutions is the growth of technology. India has risen to prominence as one of the world's main food production hubs because to technology-driven agriculture. Our food output was roughly 50 million tonnes at the time of independence, but in 2019, India's food production is predicted to be 291.95 million tonnes, and we are also the world's leading producers of milk and large grains.

The green revolution of the 1960s would not have occurred without the utilization of high yielding wheat and paddy varieties; therefore, variety plays an important role in replicating such a revolution in any other crop today. All other factors, such as increased crop output, reduced water consumption, fertilizer and pesticide use and reduced environmental effect are dependent on variety.

Realizing the importance of improved varieties in bolstering up the Indian agriculture and enhancing the farmers income, the KVK - Dharwad has been promoting several varietal interventions under Cluster Frontline Demonstrations since 2018-19. KVKs conduct CFLDs to demonstrate the production potential of newly released technologies on the farmers fields at different locations in a given farming system.

KVK is responsible to transfer agricultural technologies and research to the farmers fields by conducting on farm testings, frontline demonstrations, trainings, extension activities and supply of seeds and planting materials so that farmer can gain the highest productivity and profitability. The KVK has excelled in bringing the modern technological packages at the farmers doorstep with the help of various instructional units.

## METHODOLOGY

The study was conducted during 2020-21 in Dharwad district of Karnataka. A list of beneficiary farmers was obtained from the KVK, Dharwad. From the list 65 beneficiary farmers who have adopted Chickpea technologies and 45 beneficiary farmers who have adopted Green gram technologies were selected. Thus, the total sample size was 110. A schedule was developed and personal interview method was administered to collect the information in the light of objectives of the study. Package of practices recommended by University of Agricultural Sciences, Dharwad for the cultivation of Chickpea and Green gram were considered for the study. The data collected was tabulated and analyzed by using suitable statistical tools like mean, standard deviation, frequency, percentage and paired t test.

## Selection of the technologies

KVK, Dharwad has been promoting varietal interventions through CFLDs. Of all the technologies two important technologies were purposively selected.

### Technologies selected:

1. Introduction of Green gram variety DGGV-2 and Integrated Crop Management.
2. Introduction of Chickpea variety JAKI-9218 and Integrated Crop Management.

## RESULTS AND DISCUSSION

According to the data related to factors influencing the adoption of KVK promoted technologies furnished in Table 1, it was observed that (100.00 %) of the respondents were influenced due to higher yields followed by (96.36 %) due to participation in FLDs, (92.72 %) for high market demand for the produce and (90.90 %) for obtaining quality produce. These were the major influencing factors to the Chickpea and Green gram growers to adopt the varietal interventions of KVK. Further, (76.36 %) of the respondents were influenced due to disease and pest resistant varieties. Finally, the influence of the fellow farmers (23.63 %) was observed as the least influencing factor.

The results indicated that cent per cent of the Chickpea and Green gram farmers were influenced to adopt the varietal interventions of KVK because of higher yields. The other important factor, which influenced the farmers, is their participation in CFLD's and influence of extension agencies (96.36 %). It may be due to additional knowledge gained by the farmers regarding the improved cultivation practices due to their participation in CFLD's and the technical advisory services and inputs provided by the extension agencies.

Majority of the Chickpea and Green gram growers were influenced due to high market demand (92.72 %), quality produce obtained from the improved varieties (90.90 %). This might be due to increased production and profits due to high premium prices because of the attributes of improved varieties such as high yielding, large and bold seeds, high pod filling, resistant to shattering, etc, when compared to local varieties. Further, more than three fourth (76.36 %) of the respondents were influenced by disease and pest resistance of improved varieties as it resulted in higher yields and reduction in cost of cultivation due to less use of plant protection chemicals. Lastly, influence of the fellow farmers (23.63 %) was expressed as the least influencing factor by the Chickpea and Green gram growers.

**Table 1: Factors contributing to the acceptance of varietal interventions of KVK**

(n=110)

Sl. No.	Influencing factors	Frequency	Percentage	Rank
1	Higher yields	110	100.00	I
2	FLD's/ extension agencies	106	96.36	II
3	Market demand	102	92.72	III
4	Quality produce	100	90.90	IV
5	Disease and pest resistant varieties	84	76.36	V
6	Fellow farmers	26	23.63	VI

Multiple responses are possible

## CONCLUSION

The present study indicates the remarkable influence of KVK promoted varietal interventions on farmers to enhance their income. Thus, it is suggested that more and more number of CFLDs are to be organized effectively on improved varieties of various crops. Since, farmers income can't be increases to large extent with only varietal interventions, suitable strategies are to be developed on an integrated approach. As a result, robust steps will be required to tap into all potential sources of revenue development for farmers, both within and outside the agriculture sector.

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