



SUCCESS STORY

HYBRID SEED PRODUCTION OF QUALITY PROTEIN MAIZE VAR.PUSAVIVEK -9 DOUBLED THE FARMERS INCOME

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INTRODUCTION

Maize (*Zea mays* L.) is one of the most versatile emerging crops having wider adaptability under varied agro-climatic conditions. Globally, maize is known as queen of cereals because it has the highest genetic yield potential among the cereals. It is cultivated on nearly 150 m ha in about 160 countries having wider diversity of soil, climate, biodiversity and management practices that contributes 36 % (782 m t) in the global grain production. Maize is the major crop of Jammu and Kashmir in terms of acreage under any crop. The average yield level of this crop has also nearly doubled since last decade. This increase in yield has been mainly achieved by increase in the area under high yielding varieties. However, the genetic potential of the improved varieties is at least three times of the present average of the state. Maize is grown in the state during kharif season and about 85 % of the cropped area is rainfed. It can be grown in all such regions where the summer is long enough to permit its cultivation, and frost does not set in too early. Maize is grown in almost all the districts of the Union territory of J&K. The main concentration of maize is found in the Kupwara district in which it occupies about 18000 hectares.

Challenges: Maize is widely cultivated in Jammu and Kashmir, being grown in the Kandi, Karewa, and plain areas. It thrives well in the sandy loam to loamy soils. Different varieties of maize have also been developed which perform well in the colder hilly and mountainous areas but these varieties are not available to the farmers. The main issue with the cultivation of maize is the poor seed replacement rate due to unavailability of improved maize seed, there is a big gap between demand and supply.

The maize growing farmers in the district use maize chapat is as one of the meals, hence introduction and cultivation of quality protein maize was taken up to enhance the nutritional and economic status of the maize cultivating farmers.

Initiative: The Quality protein maize cultivation is becoming very popular in different areas of the district, the hybrid seed production is remunerative for farmers who are harvesting up to 50 qtls. of seed fetching high economic returns. Besides hybrid seed, the nutritious fodder is also available to the farmers for their cattle. Hybrid seed production of QPM in participatory demonstration programme was initiated in 2021 & 22 in Kupwara at Deedikote and Punzuwa. This programme of hybrid seed production of PusaVivek -9 was introduced in kharif season of 2021 at the farmers field at Deedikote Kupwara. The seed production in participatory mode was carried out on an area of 0.25 ha. under the supervision of KVK-Kupwara and DARS, Rangreth Srinagar.

Sowing of parental lines was done in the ratio of 1:2. The recommended fertilizers 100-60-40 N-P₂O₅-K₂O kg/ha were applied. Weather based advisory provided by District Agromet Unit KVK, Kupwara helped the farmer in taking right decisions in carrying out the cultural operations at right time resulting in successful management of the hybrid seed production programme of maize var Pusa Vivek -9.

Key result/insight/interesting fact: The farmer produced upto 5 qtls of seed. The stover was used as fodder for livestock.

Impact: The farmer earned Rs 1 lakh/0.25 ha. The seed was procured by the SKUAST-K against payment fetching

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farmer a hefty amount of Rs.1.00 lakh with the benefit cost ratio of 1:4 After initial acceptance of seed production programme at Deedikote, the area under seed production spread over 1.00 ha and 4 farmers adopted this technology in a short span of one year.

The farmers are the true inspiration and have elicited interest across the farmers and villages in the area. They are very much thankful to the KVK-Kupwara, DARS, Rangreth SKUAST-K and collaborating institute ICAR- Indian Institute of Maize Research, Punjab for imparting the technology which in turn raised their economic status and livelihood security as well as in improving their net profit.

Lessons Learned: Hybrid Seed Production of maize can help in increasing the farmers' income with huge market potential. Access of farmers to quality seed are the major challenges in the district. Capacity building of the farmers will help in adoption of seed production of maize as the economy and nutrition of majority of the farmers depend on maize.

Supporting Quotes and Images



Additional information

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