

stalk rots and leaf sheath blights occur during kharif season in various parts of the country. It is important to treat the seeds with Thiram/Captan (2g/kg) to avoid seed and seedling mortality.



Standing Crop of QPM

Harvesting: Maize may be profitably harvested at any stage of its growth. At the pre flowering stage it may be used as fodder and at early dough to late dough stages for green ear and the stover may be used to feed cattle. Maize crop grown for the grain should be harvested when it reaches physiological maturity containing 25-30% moisture, preferably the ears should be removed before cutting the stalks. For removing grains from the cob, both power and hand operated low

prized maize shellers are available. These shellers are more efficient than hand shelling or beating with sticks.



QPM plant with cobs

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Cultivation of Quality Protein Maize



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Introduction

Maize (*Zea mays* L.) is one of the major cereal crops with wide adaptability to diverse agro climatic conditions around the world. It is the third most important crop in India after rice and wheat that occupies about 8.0 million hectares with an average productivity of more than 2.0 tonnes/ha. Maize grain is used as an important ingredient of cattle, poultry, pig feeds or fish meals. Maize contains 9-12 per cent protein; however it is deficient in two essential amino acids viz., lysine and tryptophan. This leads to poor net protein utilization and low biological value of traditional maize varieties. Under AICRP on Maize, Quality Protein Maize (QPM) hybrids were developed, having high yield potential and better protein quality for commercial cultivation. This will provide better quality feed and fodder to poultry, cattle, swine, fish meal industries etc.

Climate and Soil

QPM can be successfully grown from plains to hilly regions up to an elevation of 2700 m. It can be grown in all types of soils from sandy to heavy soils. Deep heavy soils are considered better in view of their better water holding capacity. However it is desirable to avoid low lying areas and fields with poor drainage.

Package and practices for QPM

Sowing: The best time for sowing QPM in Phek is March -April. But it has to be suitably adjusted by making best use of natural precipitation to ensure good germination and establishment of proper plant stand. A population of 65-70 thousand plants per hectare at harvest is necessary for realizing high grain yield during kharif. For attaining desired level of plant density it is desirable to use a row to row and plant to plant spacing of 60×22 cm. Wider row spacings would be easy for inter cultivation.

Seed Rate: About 20 kg seed would be

needed to sow 1 hectare of land. Seeds should be sown 5 cm deep to ensure good germination, seedling growth and vigour.

Irrigation: Maize can be grown in the rainfed regions where distribution of rainfall is sufficient enough to ensure adequate soil moisture during life span of the crop. Providing 1 to 2 irrigations at the critical stages (flowering and grain filling stages) ensures better yield.

Weed control: Broad leaves weeds and most of the grasses can be conveniently controlled with a single pre emergence application of Atrazine (1 kg/ha) and 1 or 2 inter cultural operations are needed to keep weeds under check.

Earthing up: The earthing up should be taken up simultaneously with intercultural operations. Earthing promotes easy penetration of roots in soil and also it provides more area to spread.

Crop protection: A large number of diseases such as seed and seedling blights, foliar disease, downy mildews,