Importance of Maize

Maize being the highest yielding cereal crop in the world is of significant importance for countries like Pakistan, where rapidly increasing population, feed and fodder demand have already out stripped the available food, feed and fodder supplies. Maize in Pakistan is cultivated as multipurpose food and forage crop, generally by resource poor farmers using marginal land. Maize is currently the leading world cereal both in terms of production and productivity. In Pakistan, it is the third most important cereal after wheat and rice. Maize is an important crop in Pakistan in terms of its food for human, feed for poultry and fodder for livestock utilization and as a raw material for the industry. Maize fodder can safely be fed at all stages of plant growth without danger of prussic acid, oxalic acid or ergot poisoning. Maize is the most suitable for silage and is called the king of crops for silage. It is planted on an area of 0.974 million hectare for grain purpose giving an annual production of 3.707 million tones of grains with average yield of 3805 kg/ha. The bulk (97%) of the total grain production comes from two major provinces, Punjab and KPK. Very little 2-3% maize grains are produced in the province of Sindh and Balochistan. Maize is also an important crop of AJK with about 0.122 million hectare of maize being planted during autumn. The adoption/cultivation of spring maize in Punjab has specially increased since the active involvement of multinationals in Pakistan. In Punjab during spring, progressive farmers are getting around 100 mds per acre and earning millions. These farmers are planting maize hybrids for grains with improved package of production technology. Spring maize cultivation is now started in KPK also. About 30-35% of the maize area is covered by the hybrids almost exclusively supplied by the multinational seed companies. About 4% for silage purpose which is increasing every year. These companies mainly rely on the imported seed and very small amount of locally produced hybrid seed is available in the market. This is one of the main reasons for the very high prices of the hybrid seed. However, hybrid maize production offers the most effective strategy for improving the yields of maize in Pakistan. Maize grains are not surplus in Pakistan. The demand of poultry only is more than maize grain production in Pakistan. Out of current production, about 60% is being utilized in poultry feed, 28% in wet milling like Rafhan and 6% in food. Food utilization is reducing but poultry feed and silage demand is increasing.

Problems/Issues/Constraints and their solutions

a. High cost of inputs

Input like fertilizers, herbicides and insecticides costs are increasing every year and beyond the reach of resource poor farmers.

By lower or subsidize prices of inputs, farmers will use them and will get high production.

b. High prices of commercial hybrids

The hybrids under cultivation are mainly belong to multinational seed companies which are imported and are very costly (Rs. 450-550 per kg) and apart the range of resource poor farmers and this why area under hybrids is lower.

Multinational seed companies should start seed production locally, the prices may be lower. Local seed companies who have their local production should be encouraged, their hybrid prices are lower. The public sector should enhance their hybrid development and production, so that farmers could get hybrids on lower prices.

c. Low adoption of improved production technologies for growing maize

One of the major reasons for low yield is the low adoption of improved technologies. The costs of inputs used in improved technologies are increasing day by day. Because of very high prices of DAP, progressive farmers also minimize this fertilizer. Farmers in rainfed area are afraid of failure of the crop due to lower rainfall.

By lower or subsidize prices of inputs, farmers will adopt improved production technologies and will get high production.

d. Availability of quality seed

Majority of the farmers have demand for high yielding improved seed but due to non availability of pure quality seed, they plant their own local or mixture seed and got poor production. There is no proper system for seed production.

There should be proper infra structure for seed production where farmers can get quality seed. There is need to establish cooperatives among the farmers which will manage the seed production among the farmers and disseminate them farmers to farmers.

e. Heat burning in hot areas

In Punjab and Sindh during hot season temperature raise beyond 45^{o}C which cause tassel blast in maize and lost of viability of pollen and silk. There is no suitable variety or hybrid which resists high temperature. The only solution is to change planting dates to escape very high temperature during reproductive stage of the crop.

Heat resistant varieties or hybrids should be developed which can only be possible when these are developed under high temperature in those areas.

f. Lower on-farm activities and demonstration

On-farm research and demonstration have been reduced due budget constraints. These activities are very important in selection of varieties in developing new varieties or hybrids, their demonstration and dissemination, and also dissemination of production technologies.

g. Instability in prices

Prices grains fluctuate largely which cause in reduction in planting area. The support price of wheat when increased with high pace, farmers leave to grow maize in spring and prefer to plant wheat. During spring, mainly hybrids are grown and when spring area reduces, overall maize production lowers.

The prices of grains should be stable. The middle men (Arhti) become united and force the farmers to sell produce on lower prices which is very troublesome for the farmers. Their management is needed. The support price of competitive crop should not be raised abruptly.

h. Socio-economic conditions of the farmers

In central Punjab (Corn Belt), farmers have medium to big landholdings and sound economically. Small farmers in Punjab are not well sound economically. In KPK, very small numbers of farmers have medium landholdings and majority of the farmers are resource poor with small

landholdings and can’t afford high costs.