ABSTRACT

Pulses are major source of dietary protein in Pakistan and play a significant role in sustainable agriculture besides providing nutritional security for poor masses of the country. Being rich in vegetable protein, their ability to contribute nitrogen to soil and succeeding crop and their capacity to thrive under fragile agro-eco-system, pulses are out classed for sustainable agriculture production. Moreover, the advantages of pulses rotations with other crops cannot also be under emphasized. Demand for pulses has increased tremendously in recent years due to ever increasing population and reduced production. Pulses are primarily cultivated under rainfed conditions on marginal lands where other cash crop cannot be grown profitably. On the other hand, in irrigated areas, pulses cannot compete with cash crops. Consequently the area under pulses remained static with little change. The current developments in areas traditionally under pulses pose a serious threat to their acreage. The introduction of irrigation system through greater Thal Canal in major chickpea growing districts may reduce its area drastically until high yielding varieties responsive to high input are released. Similar phenomena have already occurred in Sialkot area where installation of tube wells has almost eliminated blackgram (Mash) and lentil from that region.

All the major pulses (except mungbean) are grown in rainfed agriculture system. Mungbean is predominantly planted under irrigated conditions. The major supply of pulses depends upon the production of chickpea and mungbean, failure of these crops results in pulses debacle in the country. In upper and lower Thal, chickpea and mungbean growers make good profit every year provided environmental conditions are suitable for crop production. Upper Thal consists of Kark, Lucky Marwat districts in North West Frontier Province (KPK), while lower Thal consists of Mianwali, Bhakkar, Layyah, Khushab and Jhang (partly) district in Punjab province. More than 80 % of pulses are grown in Thal and rest of the area is spread all over the country. Pulses are also cultivated in irrigated areas on small scale in the rice based cropping system.

Pulses production has been erratic because of precarious weather conditions in production zones. However, the area remained stagnant with little fluctuations, depending on the availability of moisture in Thal at the time of planting area.