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## Early Cotton Cultivation



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**C**OTTON is one of our most important cash crops and holds a pivotal position in the national economy. It plays a vital role in earning valuable foreign exchange and promoting the textile industry. Pakistan ranks among the leading cotton-producing countries, and nearly 70% of the country's total cotton production comes from Punjab.

Due to climate change—such as untimely and unexpected rains and unusual fluctuations in temperature—crops are adversely affected in Punjab. The intensity of pest and disease attacks also varies under changing climatic conditions. These factors influ-

shown that early-sown cotton is comparatively better able to withstand climatic stresses. It faces relatively lower infestation of sucking pests and is less affected by high temperatures. Moreover, early sowing provides the crop with a longer growth period, resulting in improved boll formation, higher yield, and better fiber quality.

For the current year, Punjab has set a target of cultivating early cotton on 700,000 acres. Under the supervision of Provincial Minister for Agriculture Syed Ashiq Hussain Kirmani and Secretary Agriculture Iftikhar Ali Sahoo, a special campaign is underway to promote early cotton cultivation across the province. Field formations of the Agriculture Department have been assigned specific targets to achieve this goal.

Keeping temperature considerations in view, the recommended sowing time for early cotton is from mid-February to March 31. The divisions of Multan, Sahiwal, Faisalabad, Sargodha, and Dera Ghazi Khan are particularly suitable for early cotton cultivation. Only triple-gene cotton varieties approved by the Agriculture Department are recommended for early sowing. Farmers must ensure that the seed is certified by the Federal Seed Certification and Registration Department and is purely triple-gene-

glyphosate herbicide.

For early sowing, proper plant population management is essential. Compared to normal sowing, plant density per acre is generally lower in early cultivation. Plant-to-plant and row-to-row spacing should be adjusted based on sowing time, soil fertility, variety characteristics, length of fruiting branches, and number of non-fruiting branches. Generally, row spacing should be 2.5 feet and plant spacing 1.5 to 2 feet.

Farmers should use healthy, pure, disease-free, and certified treated seed. For dibbling (manual sowing), 4 to 5 seeds per spot are recommended. For drill sowing, 2 to 3 kilograms extra seed per acre should be used. Farmers are advised to keep 10% additional seed for gap filling. In case of 60% germination, 5–6 kilograms of seed per acre should be used, while 4–5 kilograms per acre are sufficient for 75% or higher germination. If germination is lower, the seed rate should be increased proportionally by up to one kilogram per acre. To test germination, soak 100 seeds in water for 7–8 hours. Spread them on a moist cloth, cover them, and maintain moisture according to temperature conditions. After 4–5 days, count the sprouted seeds to calculate the germination percentage.

Treated seed must be used to pro-

mended fungicides is also essential to protect the crop from seed-borne and soil-borne diseases, ensuring better early growth and plant vigor.

For optimal yield, fertilizer recommendations vary according to soil fertility:

Weak soils: 2 bags DAP + 4.25 bags Urea + 1.5 bags SOP / 1.25 bags MOP per acre

Medium soils: 1.75 bags DAP + 3.75 bags Urea + 1.5 bags SOP / 1.25 bags MOP per acre

Fertile soils: 1.5 bags DAP + 3.25 bags Urea + 1.5 bags SOP / 1.25 bags MOP per acre

All phosphorus and potash fertilizers, along with one-fourth of nitrogen, should be applied at land preparation. The remaining nitrogen should be applied in 4–5 split doses. Farmers are also encouraged to use well-decomposed farmyard manure or green manure along with chemical fertilizers to improve soil fertility.

By adopting timely early cotton cultivation, farmers can earn higher profits in a shorter period, as cotton is comparatively more remunerative than competing crops. Additionally, early cotton fields are vacated sooner, allowing timely sowing of subsequent crops. It is hoped that this year early cotton cultivation will not only increase the cultivated area but also improve cotton