

## EFFECT OF PLANTING DATES ON THE GROWTH AND YIELD OF COTTON

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### ABSTRACT

The investigations were carried out to evaluate the effect of sowing dates on the growth and yield of cotton varieties. Four planting dates with 15-days interval from 11th April to 25th May were tested. Analysis of variance exhibited significant differences among the planting dates for height, sympodial branches, bolls and seed cotton yield/plant, ginning out turn and seed index. Similarly, varieties also showed significant differences for plant height, bolls per plant, ginning out turn, staple length and yield per hectare. But the interactions of planting dates with varieties were non significant for all the traits. However, plantation of 11th to 25th April performed better results and variety Rehmani was the better one under Tando Jam conditions.

### INTRODUCTION

Cotton, *Gossypium hirsutum* L, is the most important cash crop of Pakistan and is used for a variety of purposes, especially its larger proportion is used for manufacture of clothing. But, its yield is very low in comparison to other cotton growing countries of the world (Khan *et al.* 1987). Among the agronomic practices the optimum sowing time is believed to be the most important factor responsible for the growth and subsequent performance of the crop. (Khan *et al.* 1976) obtained highest cotton yield with early sowing. (El-Rehman *et al.* 1980) and (Berman 1981) have also reported that early sowing gave the highest yield of cotton. (Siddiqui 1986) reported that early sowing of 15th April, even with low plant population of 25,800 per hectare gave equally as good yield as high plant population of late sowing. (Saroya *et al.* 1980) concluded that the boll weight and height gradually decreased with the delay in sowing period, (Khan *et al.* 1988) reported that sympodial branches and seed index was higher with early than with late sowing in cotton, (Memon *et al.* 1959) concluded that early sowing in the month of April gave better G.O.T, than late sown crop at Tando Jam. The present investigations are therefore, carried out to study the effect of early and late sowing on growth and yield of two locally developed varieties of cotton i.e. Qalandari and Rehmani under Tando Jam conditions.

### MATERIALS AND METHODS

The experiment was conducted at Sindh Agriculture University, Tando Jam during Kharif 1996-97. Seed of two varieties of cotton (Rehmani and Qalandari) was sown at 75cm between row to row and 22.5 cm plant to plant distance. The experiment was laid out in randomized complete block with a split plot arrangement with four replications. The main plots were four planting dates with 15 days interval from 11th April to 25th May and sub plots were varieties and plot size was 6.5 x 11 meters. Then plants in each treatment per replication were selected at random for number of observing plant height (cm), sympodial branches, number of bolls, ginning out turn (%), staple length (mm), seed index and yield per hectare (kg). All the