

YIELD AND FIBER PROPERTIES OF COTTON VAR.
GIZA 75 AS AFFECTED BY PLANT POPULATION

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ABSTRACT

Two field experiments were carried out during 1984 and 1985 seasons at the Research and Experimental Station at Moshtohor. The aim of this study was to investigate effects of spacing between hills, and number of plant/hill on yield, yield components and fiber properties of cotton.

Each experiment included 18 treatments which were the combination of six spacings and three treatments as to number of plants/hill. Results could be summarized as follows:

- 1- Increasing number of plants/hill significantly increased seedcotton yield/fad. Nevertheless, seedcotton yield/plant, weight of boll and number of bolls/plant significantly decreased with increasing number of plants/hill.
- 2- Yield, major components, namely, boll weight, number of bolls/plant and seedcotton yield plant were greatly affected by distance between hills and were positively correlated with wider spacing. The highest yield of seedcotton/fad. was obtained when hills were spaced 30 cm apart on the ridge. Therefore, with Giza 75 variety, hills spaced 30 cm appeared to be the most recommendable.
- 3- The effect of the interaction of hill spacing and number of plants/hill was significant on seedcotton yield/fad., seedcotton yield/plant, boll weight and number of bolls/plant.

INTRODUCTION

Yielding capacity of any cotton variety is determined by and large by its genetic make-up. Yet, the latter by itself will not develop a good yield unless certain environmental conditions are met. Of these, hill spacing and number of left-in plants per hill at thinning time determine to