

INTRODUCTION

Soybean (*Glycine max* (L.) Merrill) is valuable to Egypt because of its high oil and protein contents. The beans are crushed to produce edible oil and high protein cake (48% protein) which is used as an important constituent in poultry feed.

The area cropped to soybean in Egypt has increased rapidly from 3261 feddans in 1970 to 105792 feddans in 1991. During the same period, average seed yield increased from 0.311 to 1.229 ton/feddan from the popular commercial varieties such as "Crawford" and "Clark". However, total production is still far below the country requirements. Approximately, 300,000 tons of soybean cake are needed annually for poultry feed industry. This is mainly covered through importation which is expected to increase in the following years.

It is noteworthy that, soybean acreage has declined drastically in the last three years (1992-1994) as a result of severe competition with other summer crops for arable land and higher production cost as well as lower net return of soybean due to damage by leaf feeding insects (primarily cotton leaf worm), besides last years marketing problems. Therefore, developing high yielding insect-resistant varieties is of great importance to minimize the amount of insecticides presently used in soybeans, especially when the crop is planted in June following wheat crop.

The Food Legumes Research Program, Field Crops Research Institute, ARC has been successful in developing new soybean genotypes resistant to cotton leaf worm. The new genotypes were planted in June for five years under heavy natural infestation with cotton leaf worm, and showed high levels of resistance.

As the information about the performance and yield potential of such new developed genotypes under optimum (May) and late (June) plantings at various plant population densities is not available, the present investigation was designed to evaluate four of those genotypes under two planting dates and five plant population densities compared with the two commercially grown varieties, Clark and Crawford. Such information would help in increasing soybean productivity, reducing costs of production and minimizing environmental pollution.
