

INTRODUCTION

EVALUATION OF SOME NEW LINES OF FABA BEAN
(Vicia faba, L.)

By

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ABSTRACT

This work was undertaken during the three successive seasons of 1986/87, 1987/88 and 1988/89. In the first season, seventy two new lines in the F₅ of faba bean were evaluated. In the second and third seasons, twenty seven promising lines selected from the previous ones as well as the check variety Giza-2 were involved in the present study to evaluate the performance of yield and yield components. Therefore, these lines were sown in a randomized complete blocks design with three replications.

The heritability values were 64.19, 80.18, 66.83 and 73.82 for leaf spot, broom rape, 100 seed weight and seed yield per plant, respectively. Seasons mean squares were significant for; number of branches per plant, plant height, 100-seed weight and seed yield per plant. Highly significant lines mean squares along with significant lines by season mean squares were detected for all traits except plant height and number of pods per plant where the lines by season mean squares were insignificant. L 8, L 14, L 25, L 32, L 43, L 51, L 53 and L 66 gave the highest pod numbers per plant. L 66 and L 43 had the highest values of seed yield per plant followed by L 8 and was significantly higher than the check variety Giza-2 over two seasons by 60.52%, 55.06% and 39.18%, respectively.