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EFFECT OF FOLIAR APPLICATION OF ZINC ON SOME NEW GENOTYPES OF FABA BEAN.

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ABSTRACT

The study was carried out to determine the effect of foliar application of zinc sulphate (Zero,0.4% and 0.8%) on four new pure lines of faba bean as well as the check variety i.e (Shebeen El-Koom 1, Moshtohor 5,8,40 and Giza 3). The characters studied were plant height (cm), number of branches/plant, number of pods/plant, number of seeds/pod and per plant, weight of pods/plant (g), weight of 100 seed (g), weight of seeds/plant (g) and seed yield/(kg/fed).

The results indicated that there were significant differences between foliar application of zinc sulphate treatments in all traits studied in the first season, the second season and the combined analysis except number of branches/plant and number of seeds/pod in the first season only.

The differences among genotypes were significant for all the studied traits in separate season as well as the combined analysis except number of seeds/ pod, number of seeds/plant and weight of seeds/plant in the first season, plant height, number of branches/plant, number of pods/plant, number of seeds/ plant, weight of pods / plant, 100-seed weight and weight of seeds/plant in the second season and number of branches/plant, 100-seeds weight and weight of seeds / plant in the combined analysis. The highest mean value for seed yield/fed were was recorded by G3 followed by Moshtohor 5 without significant in separate season and the combined analysis.

Insignificant effect of interaction between genotypes and foliar application of zinc sulphate was detected for all traits except number of seeds/plant, weight of pods/plant and seed yield/fed in the combined analysis. The highest seed yield/fed was obtained from Moshtohor 5 when plants received 0.8% foliar zinc application .

Significant positive phenotypic correlation values were detected between seed yield/fed and each of other traits in the combined analysis.