

APPROVAL SHEET

RESPONSE OF SOME FABA BEAN VARIETIES TO DIFFERENT AGRONOMIC TREATMENTS UNDER NORTH COAST CONDITIONS

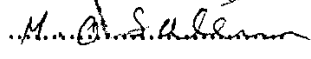
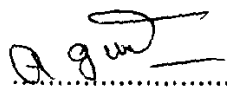
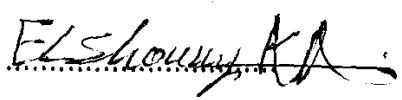
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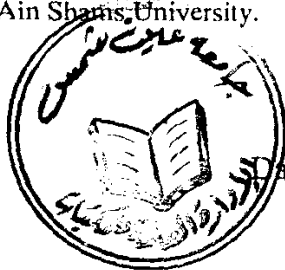
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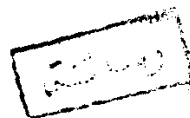
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ABSTRACT

Bahia Shawky Hossny. Response of some faba bean varieties to different agronomic treatments under north coast conditions. Unpublished Doctor of philosophy dissertation Univ. of Ain Shams, 1997.

The response of four faba bean cultivars i.e. Rita Blanka, Giza 461, Giza 3 and Giza 2 to four rates of phosphorus fertilization i.e. 0, 31, 38.75 and 46.5 kg P_2O_5 /fed. under three planting methods i.e. rows, hills and ridges were studied in three successive seasons 1993/94, 1994/95 and 1995/96, concerning growth, yield components, yield of seed and straw, seed filling as well as seed quality.

The results indicated that the four cultivars significantly differed in most of their characters either under different levels of phosphorus or under planting methods i.e. rows, hills and ridges. Giza 461 and Giza 2 generally proved the superiority in most characteristics as compared with the other cultivars along the three seasons. The best level of phosphorus fertilization was 46.5 kg P_2O_5 /fed. and rows method was the favourite method in three growing seasons.

Concerning the varietal differences for seed yield, yield attributes and seed quality, there were significant differences among the four faba bean cultivars.

Faba bean cultivars response for different phosphorus levels i.e. 0, 31, 38.75 and 46.5 kg P_2O_5 /fed. in addition rows planting method was more effective on faba bean seed

yield than ridge planting method. With regard to faba bean seed quality, different faba bean cultivars did not differ significantly with respect to seed protein percentage.

Seed filling for different cultivars of faba bean were different in dry matter accumulation (DMA), seed filling rate (SFR) and effective filling period (E.F.P.).

Key words : Faba bean cultivars, phosphorus fertilization, planting methods, growth yield, yield attributes, seed filling, seed quality.

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