STUDIES ON IMPROVING YIELD QUALITY AND QUANTITY OF SNAP BEAN UNDER PROTECTED CULTIVATION

BY

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B. Sc. Agric Sci. (Horticulture), Cairo Univ., 1975
M.Sc. Agric. Sci. (Veg. Crops), Al-Azhar Univ., 1992

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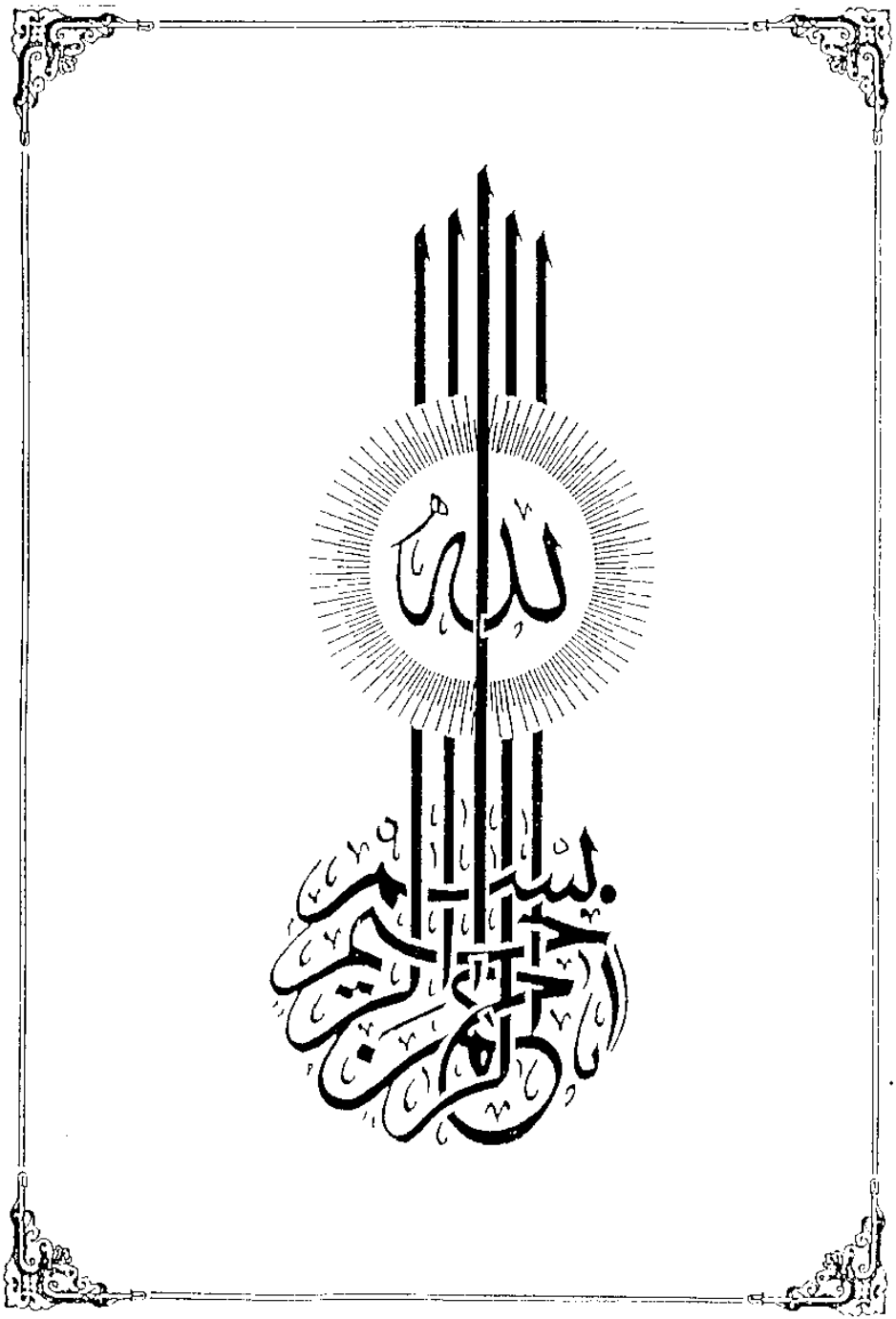

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ABSTRACT

Mohamed Mahmoud Saleh, Studies on Improving Yield Quality and Quantity of Snap Bean Under Protected Cultivation., Unpublished Doctor of Philosophy, Horticulture (Veg. Crops), Fac. of Agric, Ain Shams Univ., 1996

Three experiments were carried out at El-Bossaily protected cultivation site during winter seasons of 1993/1994 and 1994/1995. These experiments aimed to improve yield quality and quantity of snap bean and study the effect of heating, distance between plants and plant growth regulators (GA_3, 4-CPA and N-meta tolyl phthalamic acid) on yield quality and quantity of green pods of common bean plants. Seeds of snap bean (*Phaseolus vulgaris*) cv. Serbo (a round type) and Helda (a flat type) were sown in the greenhouses on 15th of October in both seasons. The results showed that heating treatments increased pollen grain viability, total yield and exportable yield of green pods of Serbo and Helda cultivars significantly in both seasons and the best treatment was 18°C followed by 15°C as minimum temperature. All the concentrations of GA_3 decreased the total yield and exportable yield of green pods than the control. One row treatment increased the total yield and exportable yield of green pods than the control in both Serbo and Helda in both seasons, while four beds treatment decreased them than the control. The reduction in total exportable yield of green pod in four bed treatment due to the reduction of number of plants per square meter.

Key words: Snap bean, *Phaseolus vulgaris*, Heating, distance between plants and plant growth regulators (GA_3, 4-CPA and N-meta tolyl phthalamic acid), Yield, Quantity, Quality.

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