

IMPROVING THE PRODUCTIVITY AND QUALITY OF SNAP BEAN BY USING FOLIAR APPLICATION OF AMINO ACIDS AND SOME ANTIOXIDANTS

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(Received: Mar. 23, 2010)

ABSTRACT: *Two field trials were conducted at the Experimental Farm of the Faculty of Agriculture, Tanta University, Egypt, during the summer growing seasons of 2008 and 2009, to study the influence of spraying the canopy of snap bean cv. "Paulista" with various concentrations of antioxidants mixture of vitamin C, salicylic acid and citric acid at five concentrations 0, 100, 150, 200 and 250 ppm, whilst amino acids were foliar sprayed at 0, 0.25 and 0.50 mg/l, on vegetative growth, pods yield and its components and some chemical constituents of leaves and pods. The amino acids were foliar sprayed at 15, 30, 45, 60 and 75 days after planting date, also Antioxidants mixture were foliar sprayed at 21, 35, 49 and 63 days after planting date. The obtained results revealed that spraying snap bean plants with 0.25 and 0.50 mg/l of amino acids improved vegetative growth parameters, yield and its components and chemical composition of leaves and pods. The highest values of vegetative growth parameters, yield and its components and chemical composition of leaves and pods were obtained from spraying phaseolus plants with antioxidants substances at 150, 200 and 250 ppm, all treatments values were higher than the control. In general, foliar application of both amino acids at 0.50 mg/l. and antioxidant substances at 150, 200 and 250 can be recommended for improving growth and yield of snap bean under clay loam soil.*

Key Words: *amino acids, antioxidants substances, Snap Bean (Phaseolus vulgaris L.), productivity, quality*
