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EFFECT OF NITROGEN AND THE PLANT GROWTH REGULATOR PIX ON CERTAIN GRAIN PROPERTIES IN FIELD BEAN

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ABSTRACT

Various concentrations of the growth regulator Pix were applied to field bean (*Phaseolus vulgaris* L.) plants along with varying nitrogen rates to study their effects on certain grain properties. A split plot design in 3 replicates was used: main plots were a control and three nitrogen rates (40, 80, and 120 kg/ha); subplot treatments were a control (untreated) and three levels of Pix (1000, 2000, and 3000 cc/ha) applied at the beginning of flowering.

The results revealed that increasing nitrogen rates significantly increased hydration and swelling capacities of the seed, and volume per seed after soaking as compared with that of control. In general, thousand seed weight and protein content increased with the increased N rates. However, an increase in the concentration of Pix applied to field bean plants had no effect on any attributes studied.