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# Effect of boron and zinc on plant growth, spike yield and flower quality of gladiolus (*Gladiolus grandiflorus* L.) cv. White prosperity

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**ABSTRACT :** The present experiment was conducted to determine the effect of doses of Zinc abd Boran on growth, spike yield and flower quality of Gladiolus (*Gladiolus grandiflorus* L.) cv. White Prosperity at the Department of Horticulture, Sam Higginbottom Institute of agriculture Technology and Sciences, Allahabad, (U.P.) India during 2013-2014. The study was laid out in FRBD (5X5 Factorial), having three levels each of Zinc (0.0%, 0.2%, 0.3%, 0.4% and 0.5%) and Boron (0.0%, 0.2%, 0.3%, 0.4% and 0.5%), making a total of 25 treatment combinations were tested in three replication. The experiment design was FRBD. The revealed that zinc and boran treatment had significant response on plant height, plant growth, spike yield and flower quality. The maximum. were Plant height (cm), Number of leaves per plant , Number of shoots per corm , Days to spike initiation , Days to opening of first floret , Number of spikes per plant , Spike yield per hectare (Lakh), Number of corms per plant, Corm yield per hectare (Lakh), Number of cormlets per planted corms, Cormlet yield per hectare (Lakh), Floret size (cm), Shelf life of spike (days), First foret durability (days), Spike length (cm) Number of florets per spike were produced by the treatment $T_{18}$ $B_3Z_3$ (B0 0.4+Z0 0.4%). It was the best treatment for good vegetative as well as reproductive growth, spike yield flower quality.

**Key Words:** Boron, zinc, plant growth, spike yield, flower quality and gladiolus.