

Influence of plant growth regulators on growth and yield attributes in gladiolus cv. ‘Punjab Morning’

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ABSTRACT : A field experiment was carried out at Model Floriculture Centre, Department of Horticulture, Govind Ballabh Pant University of Agriculture and Technology, Pantnagar during the year 2014-15 to ascertain the influence of plant growth regulators on growth and yield attributes in gladiolus cv. Punjab Morning. The experiment was laid down in Randomized Block Design with 13 treatments and 3 replications. Four growth regulators each at three levels viz., GA₃ (50, 100 and 150 ppm), BA (50, 100 and 150 ppm), ethrel (250, 500 and 750 ppm) and thiourea (1%, 2% and 3%) including control (only water). The results revealed that treatment of GA₃ at 150 ppm produced earlier sprouting (7.77 days), plant height (76.96 cm), number of leaves (9.80), days to first floret showing colour (76.00 days), maximum rachis length (25.50 cm), spike length (99.09 cm), number of florets/spike (16.17) while maximum number of corms/plant (4.27) was found in T₆ (BA 150 ppm) while maximum corms yield (4.07 t/ha) was recorded in T₃ (GA₃ 150 ppm).

Key Words : Gladiolus (*Gladiolus grandiflorus* L.), growth and yield, dormancy of corms and cormels, plant growth regulators, ethrel, gibberellic acid, thiourea.