

EFFICACY AND PHYTOTOXICITY OF FASCINATION (6-BENZYLADENINE AND GA₄+GA₇) ON A VARIETY OF ORNAMENTAL PLANTS

Dr. Heiner Lieth* and L.L. Dodge

Environmental Horticulture IR4 Center, Plant Sciences Department, Mailstop 6, University of California, Davis, CA 95616

The plant growth regulator product “Fascination” is a combination of 6-Benzyl Adenine (at 1.8% by weight) and Gibberellic Acid (GA₄+GA₇ at 1.8% by weight). During 2004 and 2005 we have been testing the effect of Fascination on a 37 distinct ornamental crops with the goal of developing independent efficacy and phytotoxicity data for new product label registration. The rate proposed for the product label consisted of 250 ppm a.i. so that this was the 1X rate used in all experiments. In addition to this rate and a control (0X) we also applied the product at half (0.5X, 125 ppm) and double (2X, 500 ppm) strength. In general, for each of the tested species and varieties, 36 plants were randomly chosen and individually tagged for treatment. The plants were grown in greenhouse and nursery settings where the experimentation was carried out using the standardized IR4 Fascination protocol (June 2004) which called for a 6-week time-frame for each experiment. The plants always received 2 foliar spray applications, one on day 0 and another on day 21. Phytotoxicity and efficacy measurements were taken at day 0, 21 and 42. Phytotoxicity evaluations were based on a numerical rating scale of 0 (no injury) to 10 (complete kill). The measurements also included plant height, width and a count of the numbers of shoots or branches per pot. The results of the 37 separate experiments consist of a large number of observations which will be presented and summarized in the presentation. Fascination was effective at stimulating branching for a number of plants, indicating that the product can be a powerful tool for growers and propagators. In some cases, growers will need to use a rate other than the proposed 1X rate. A number of the plant varieties showed no response, while a few others were damaged significantly by the product. We also observed some interesting side effects which will be briefly highlighted during the presentation.