

Effects of XE-1019 Spray Concentration on Chrysanthemums

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ABSTRACT

Plants of *Chrysanthemum morifolium* Ramat. 'Ovaro' received 0, 10, 20, or 30 mg·liter⁻¹ XE-1019 applied as a 204 ml·m⁻² foliar spray. Treatments did not affect time from start of short days to bloom or inflorescence height range. Inflorescence height and inflorescence display diameter both were reduced with increasing concentration of XE-1019.

INTRODUCTION

Currently, few recommendations for XE-1019 are available based on conditions in the Southwest. Growers in the Southwest still must be concerned with height control of chrysanthemums, yet higher light conditions make it difficult to employ recommendations from other regions. The objective of this study was to establish a concentration response curve to XE-1019 from which growers can select appropriate application rates.

MATERIALS AND METHODS

Plants of 'Ovaro' were potted and grown as described in the previous experiment following the same time schedule. Sprays of XE-1019 were applied 2 May 1988. Plant canopies (per pot) averaged 16.5 ± 1.0 cm in height and 32.3 ± 1.9 cm in diameter at time of spray. Spray treatments used were 0, 10, 20 and 30 mg·liter⁻¹ XE-1019 applied at 204 ml·m⁻². Therefore, each pot received approximately 16.7 ml of spray solution. Data recorded included days from start of 8 hour photoperiods to bloom, inflorescence height at bloom, inflorescence display diameter, and the inflorescence height range (tallest inflorescence minus shortest inflorescence) per pot.

RESULTS AND DISCUSSION

Treatments did not affect time from start of short days to bloom; pots averaged 49 ± 3 days to flowering. Inflorescence height at bloom was reduced with XE-1019 treatments and decreased linearly with increasing concentration of spray applied (Figure 1). However, the 10 ppm treatment resulted in adequate height control.

Inflorescence display diameter was reduced for pots treated with XE-1019; however, the reduction was significant only for the 30 mg·liter⁻¹ treatment (Figure 2). The inflorescence height range per pot was not affected by XE-1019 treatments, and pots averaged a range of 4.2 ± 1.6 cm.

Based on these results, XE-1019 should be applied at levels below 20 ppm for height control without detrimental reductions in inflorescence display diameter.

Fig. 1. Inflorescence height.

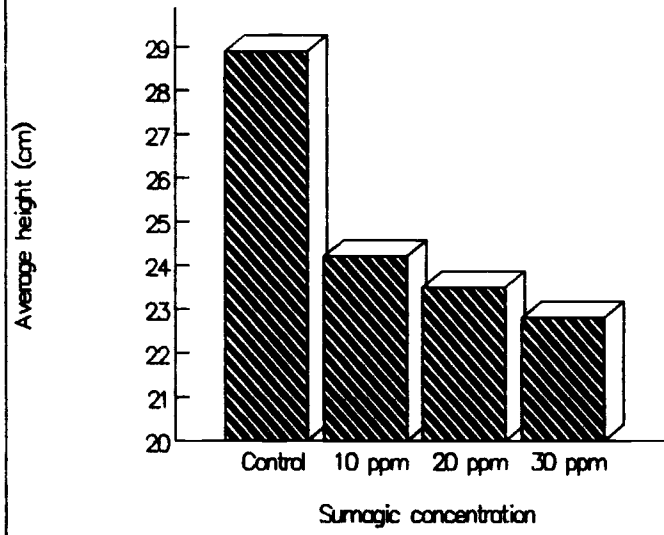


Fig. 2. Inflorescence display diameter.

