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Efficacy of Bonzi™ on *Clerodendrum wallichii* as a Flowering Potted Plant

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BACKGROUND

C. wallichii is a semi-woody spreading shrub that flowers naturally under short days. It is hardy to USDA hardiness zone 7B. Due to its vigorous growth habit and results from studies with *C. ugandense* (Special Research Report #519) the applications of PGR's were studied.

The objective was to determine the efficacy of Bonzi™ (paclobutrazol) drench applications at 0, 5, 10, 15, or 20 mg a.i./pot on *C. wallichii*.

MATERIALS & METHODS

Semi-woody rooted liners of *C. wallichii* were planted on 14 June 2005. All cuttings were planted one per 6-inch container. Plants received ambient light levels in the greenhouse with temperature set points of 86° F day/73° F night (latitude 30.43N). Plants were fertilized at every

irrigation with Peters™ 20-10-20 water-soluble fertilizer at the rate of 200 ppm N. All plants were pinched 4 weeks after planting with 6 leaf pairs per lateral remaining. All PGR treatments were applied 8 weeks after planting.

RESULTS

Bonzi™ had significant effects on plant growth, but not on flowering (Table 1, Figures 1 & 2). Days to flower (DTF) was at 166 days from planting and was consistent across all treatments. Plant height was reduced by Bonzi™ treatments. They were about 2.4 inches shorter than the controls. These plants have more of a prostrate growth habit and, therefore, the effect of Bonzi™ was minimal on plant height. Plant width, however, was significantly affected. There was a reduction of approximately 6.3 inches with 15 or 20 mg a.i. per pot. The plants treated with 20 mg Bonzi™ were considered too small for a marketable 6-inch flowering potted plant. Although the 15 mg Bonzi™ drench was similar in size to the 20 mg, the 10 or 15 mg Bonzi™ drench provided the

superior growth control based on size and finished visual quality.

Table 1. Effect of Bonzi™ growth and flowering of *C. wallichii*.

Bonzi (mg a.i.)	DTF	Plant Height (inches)	Plant Width (inches)
0	166	6.3	21.3
5	166	5.1	20.0
10	166	4.3	17.7
15	166	4.3	15.2
20	166	3.9	15.0

DTF = days to flower

The number of flowers per inflorescence was decreased by about 5 flowers at Bonzi™ rates of 10 to 20 mg a.i. However, this did not greatly affect the marketable quality of this *Clerodendrum* species.



Figure 1. Effect of Bonzi drenches on growth and flowering *C. wallichii* at 0, 5, 10, 15 or 20 mg a.i./pot.



Figure 2. Effect of Bonzi drench on growth and

**flowering of *C. wallichii* at
15 mg a.i./pot.**

CONCLUSIONS

C wallichii appears to be a short day plant. The most appropriate application rates of BonziTM was a 10 or 15 mg a.i. drench applied 8 weeks after planting and 4 weeks after pinching. This was based upon reduction of plant size and visual quality. Days to flower was not significantly affected by the BonziTM drenches.

IMPACT TO THE INDUSTRY

1. BonziTM drenches at 10 or 15 mg a.i./pot produced marketable flowering potted plants.
2. BonziTM drenches do not affect days to flowering.

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