

# Special Research Report: #520: Production Technology

## 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 Bonzi<sup>TM</sup> 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 Bonzi<sup>TM</sup> drenches.

## **IMPACT TO THE INDUSTRY**

1. Bonzi<sup>TM</sup> drenches at 10 or 15 mg a.i./pot produced marketable flowering potted plants.
2. Bonzi<sup>TM</sup> drenches do not affect days to flowering.

For additional information contact Jeff S. Kuehny at [jkuehny@lsu.edu](mailto:jkuehny@lsu.edu).

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