

# **HORTICULTURE DIGEST**

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Cooperative Extension Service U.S. Department of Agriculture Cooperating

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#### **GROWTH REGULATOR NOTES**

#### Flowering of Gardenia radicans

The literature (2) indicates that flowering of the shrub or florist gardenia (*Gardenia jasminoides*) can be timed by means of exposure to temperatures under  $65^{\circ}$ F. The gardenia is also reported sensitive to daminozide (B-nine) which causes more compact growth and may contribute to heavier bud set (1, 3).

The dwarf gardenia (*G. radicans*) flowers heavily in the spring on compact plants well suited to pot culture. If flower bud set and forcing conditions can be controlled, it offers a good possibility as a holiday season pot plant.

On January 3, 1974, 15-18" outdoor-grown plants in 1-gal containers were subjected to retardant treatments as well as to a "cold temperature" treatment as indicated in the following schedule. Even at this time a few (3-5 mm) flower buds were evident. All plants were grown in a greenhouse with a minimum night temperature of 62 to  $66^{\circ}$ F.

### Treatments

- 1. No treatment.
- 2. Sheared to 12-15" diameter.
- 3. Sprayed with daminozide at 5000 ppm a.i.
- 4. Sheared and sprayed with daminozide at 5000 ppm a.i.

- 5. Drenched with ancymidol (Arest)-10 mg a.i. per pot.
- 6. Sprayed with ancymidol (Arest) at 500 ppm a.i.
- Subjected to 3 weeks at 55°F with lights 12 hr/day (10 ft-c) and returned to the greenhouse after storage-January 21.

None of the plants reached flowering by April 11, which was the date for Easter in 1974. Data were recorded May 2 and are presented in Table 1. The heaviest average bud count was for the ancymidol drench treatment.

Treatment No.	Ave. Diameter		Ave. No. buds per plant					
The state of the	(cm)	(cm)	1 cm	1 cm	total			
1	47.1	24	3.7	10.2	13.9			
2	38.0	19	10.5	1.7	12.2			
3	51.3.	22	2.5	6.0	8.5			
4	40.7	18	2.5	0.7	3.2			
5	51.0	26	17.5	20.5	38.0			
6	53.6	24	7.0	7.5	14.5			
7	52.5	28	1.3	3.3	4.6			

Buds longer than 1 cm did flower by mid May while many buds less than this length dried out and aborted. Daminozide, at the concentration



Figure 1. Left: Ancymidol-drenched Gardenia radicans; right: Control

used, apparently had no effect or had a somewhat inhibitory effect on flower initiation. The cold temperature treatment had an evident delaying effect on flower initiation.

The plant size ranged from about 38 to 54 cm (15 to 21 inches) in diameter. The smaller size plants resulted from the shearing and were somewhat better proportioned. Since pruning did not completely inhibit flower initiation, it may be possible to use this approach together with a drench of ancymidol to produce compact, flowering plants.