

# Increasing Flowers on Container-Grown Hybrid Rhododendrons with Uniconazole Sprays

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## INTRODUCTION

**Problem:** Container-grown hybrid rhododendrons produced for garden center and spring landscape sales have their value enhanced by the presence of flowers or flower buds. However, certain cultivars are difficult to bud as young plants under commercial production conditions.

**Possible Solution:** Spray with the commercially available anti-gibberellin uniconazole-P (Sumagic) to limit late season vegetative growth, increase foliar pigmentation, and the number of flower buds per plant.

## METHODS AND MATERIALS

The following test was conducted at different commercial container nurseries in the Piedmont (U.S.D.A. Hardiness Zone 7b) and mountains (Zone 6b) of North Carolina. All plants were sprayed with either 0, 50, or 100 ppm uniconazole-P (Sumagic). Plants in the Piedmont were larger and growing in 3-gal containers while those in the mountains were younger, smaller, and growing in 2-gal containers.

Previous research had demonstrated that mid to late July is the best time to spray. Spraying before July does not allow plants to conclude a growth flush. Spraying after July will stop the second growth flush plus no flower buds will develop. Plants were sprayed as the first growth flush had finished and just as the second growth flush was starting. Cultivars tested were 'Chionoides', 'English Roseum', 'Nova Zembla', 'Purpureum Elegans', and 'Roseum Elegans'. There were 10 individual plant replicates per treatment (30 plants per cultivar per nursery).

## RESULTS AND DISCUSSION

There was no phytotoxicity from any of the treatments and no significant height increase for any of the plants following treatment. All flower buds opened normally with no deformity of flowers the following spring.

## SIGNIFICANCE TO THE INDUSTRY

- 1) Similar results occurred at different nurseries under different growing conditions.
- 2) All five cultivars had a significantly increased number of flowers when sprayed with as low as 50 ppm Sumagic in mid July.

**Table 1.** Number of flower buds per plant at the end of the growing season for *Rhododendron* 'Nova Zembla.'

Sumagic (ppm)	Nursery locations	
	Mountains*	Piedmont*
0	0.5 a	4.0 a
50	4.6 b	10.8 b
100	5.2 b	12.1 b

\*Rp05 Duncan's New Multiple Range Test.

**Table 2.** Number of flower buds per plant at the end of the growing season for *Rhododendron catawbiense* 'Purpureum Elegans' and *R.* 'Roseum Elegans.'

Sumagic (ppm)	Cultivar	
	'Purpureum Elegans'*	'Roseum Elegans'*
0	1.0 a	3.8 a
50	4.0 b	12.0 b
100	3.4 b	12.6 b

\*Rp05 Duncan's New Multiple Range Test

**Table 3.** Number of flower buds per plant at the end of the growing season for *Rhododendron* 'Chionoides' and 'English Roseum.'

Sumagic (ppm)	Cultivar	
	'Chionoides'*	'English Roseum'*
0	0.7 a	0.0 a
50	4.1 b	1.4 b
100	6.2 c	2.6 c

\*Rp05 Duncan's New Multiple Range Test