



SUMAGIC[®] ADVISOR

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Sumagic[®] Drench and Liner Dip Applications Prove Advantageous for Growers

By Lauren Daniel

Greenhouse growers walk a fine line when it comes to controlling the growth of vegetative ornamentals. Spraying a plant growth regulator (PGR) requires a grower to find that balance between controlling plant extension without affecting the plant's flowering.

Growers that produce vegetative annuals such as petunias, marigolds, celosias and verbenas know that a second spray application is often necessary. However, this can cause a delay in flowering or a reduction in flower number or size, as well as increases in labor and overall production costs.

Erik Runkle, assistant professor in floriculture at Michigan State University and James Barrett, environmental horticulturalist at the University of Florida, have been working with Sumagic[®] Plant Growth Regulator, marketed by Valent Professional Products, to find effective plant height control options that don't require a second application. In separate trials, Runkle and Barrett found that

drench and liner dip applications of *Sumagic* reduced plant height without endangering flower production.

"Our *Sumagic* drench and dip trials proved to be viable options for controlling excessive growth in vegetative annuals," Runkle says. "In addition to height control, both applications offer longer-lasting residual, which can reduce labor and application costs, and eliminate the need for hand pruning."

Barrett saw similar benefits in his *Sumagic* trials.

"We saw good efficacy and early control of extension growth," Barrett says. "Because the *Sumagic* applications worked so effectively, we didn't have to use a second application and jeopardize plant flowering."

Drench Trials

Runkle and his colleagues took a plant at the plug stage about eight days after transplant and drenched it with different rates of *Sumagic* to

Photo by Cathy Whitman



Untreated 0.25 0.5 1.0 2.0
Sumagic Applications (ppm)

This photo demonstrates different rates of a *Sumagic* drench application on salvia. The salvia treated with *Sumagic* show significant height control compared to the untreated plant on the left even 25 days after drench.

measure the effect on plant height and the length of control on various species. Runkle tested rates between 0.25 parts per million (ppm) and 2 ppm and saw height control among all of the tested species.

"We saw a more compact plant that was slightly darker green when we used *Sumagic* at a rate that was somewhere in the middle," Runkle says. "At these rates, growers can get a plant that is proportionate to the container, thus improving the overall quality of the plant."

Barrett tested higher rates of 0.5 ppm to 4 ppm and recommends that Florida growers use *Sumagic* at a rate of 0.5 ppm to 2 ppm because of the climate.

"The benefit of a drench application with *Sumagic* is height management with reduced risk of affecting the flowering," Barrett says. "Additionally, drench applications may not require a second application, so growers save on product and reduce the amount of labor required to maintain the plant."

Liner Dip Trials

Sumagic also performed well in Runkle and Barrett's liner dip trials. For a liner dip application, both researchers submerged a rooted cutting or seedling into *Sumagic* so that the solution could be absorbed before transplant.

Barrett saw early control in growth in his liner dip trials and notes an additional grower benefit with this method of application. "With liner dip applications of *Sumagic* it's easier for growers to treat a large number of plants before they are

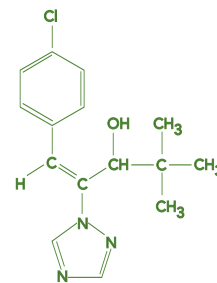
transplanted and the extension growth becomes too hard to manage," Barrett says.

Runkle recommends that growers use slightly higher rates for liner dip applications of *Sumagic* because the volume of solution absorbed into the media can be less than the amount absorbed with a drench. Runkle plans to extend his *Sumagic* liner dip trials to include combination planters. "Large containers with two or three species are an increasing trend among greenhouses," Runkle says. "A liner dip application of *Sumagic* allows more flexibility so that growers can selectively target the plants that they need to control."

Testing Tips

Barrett recommends that growers start conducting their own trials of drench and liner dip applications with *Sumagic* by testing more vigorous species to identify the rates that work best. Runkle agrees and notes that rates will vary for different parts of the country. He stresses the importance of precise rates and recommends that growers carefully track the height of the plants.

For more information about Valent's Professional Products, Valent U.S.A. Corporation or our full product line, call 800-89-VALENT (898-2536), or visit the Valent Professional Products Web site at www.valentpro.com.



SUMAGIC RATE TABLE

REGIONS	SUMAGIC DRENCH RATE* (PPM)	SUMAGIC LINER DIP RATE* (PPM)
Southern States	0.5–2	0.5–4
Northern States	0.25–1	0.5–4

*Rates listed are suggested rates for growers in Northern and Southern states. To determine optimal *Sumagic* rates for your growing conditions, conduct trials on a small number of plants using the lowest recommended rates.



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