

GROWTH REGULATORS FOR FLORICULTURAL CROPS

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Crop	Purpose	Chemical	Rate	Precautions and Remarks
AGERATUM	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Plug culture and flat culture differ in recommended rates. Apply ALL foliar sprays of plant growth regulators using 0.5 gallon per 100 square feet of bench area. Growers should refer to Horticulture Information Leaflet #528, Height Control of Greenhouse Crops, for application techniques and timing for growth regulators on floricultural crops. Contact floricultural specialists at N. C. State University for further application information.
		B-Nine	2,500 to 5,000 ppm spray (0.39 to 0.79 oz/gal)	
		Bonzi	5 to 45 ppm spray (0.16 to 1.44 fl oz/gal)	
		Sumagic	20 to 30 ppm spray (5.12 to 7.68 fl oz/gal)	
ALTERNANTHERA (Joseph's-Coat)	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
AMARYLLIS	To control plant height	Bonzi	23.66 mg a.i. drench for a 6 in. pot (6.4 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
ASTER	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	5,000 ppm spray (0.79 oz/gal)	
AZALEA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Contact floricultural specialists at N. C. State University.
	To promote flower initiation	B-Nine	1,500 to 2,500 ppm spray (0.24 to 0.39 oz/gal)	Apply solution when new growth from final pinch is 1 to 2 inches long.
		Cyocool	1,800 to 2,800 ppm spray (2 to 3 fl oz/gal)	Apply when new growth is approximately 1 inch long.
	To promote lateral shoot growth on vegetative plants	Off-Shoot-O	Use a 3 to 5% solution (8.6 to 14 fl oz/gal) solution in greenhouses; use 5 to 7% (14 to 20 fl oz/gal) outdoors. Apply as a foliar spray.	Be certain chemical covers shoot tip. Ineffective if microscopic flower buds are present.
	To increase lateral branching	Altrimmec	3,125 to 6,250 ppm spray (2 to 4 fl oz/gal)	Contact floricultural specialists at N. C. State University.
		Florel	2,471 to 4,943 ppm spray (8 to 16 fl oz/gal)	
	To control plant height, reduce bypass shoot elongation, and promote flower bud initiation	Bonzi	100 to 200 ppm spray (3.2 to 6.4 fl oz/gal)	To control plant height and promote flower bud initiation, apply final shaping, when new growth is 1.5 to 2 inches long. To reduce bypass shoot development, apply after bud set, when bypass shoots are barely visible.
0.59 to 1.77 mg a.i. drench for a 6 in pot (0.16 to 0.48 fl oz/gal of drench solution; apply 4 fl oz/6 in pot)			Drench application volumes vary with pot size. Contact floricultural specialists at N. C. State University.	
To control plant height	Sumagic	10 to 15 ppm spray (2.56 to 3.84 fl oz/gal)	Apply at 1.5 quarts per 100 square feet of bench area. Contact floricultural specialists at N. C. State University for further application information.	
BALSAM	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
BEDDING PLANTS (Not specifically listed in this table)	To control plant height	Bonzi	30 ppm spray (0.96 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rates as needed for desired final plant height and length of height control.
			0.118 mg a.i. drench for a 6 in. pot (0.032 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench applications are recommended only for bedding plants in 6 inch or larger containers.
BEDDING PLANT PLUGS (Not specifically listed in this table)	To control plant height	Bonzi	5 ppm spray (0.16 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rate as needed for desired final plant height and length of height control. Plants should develop 1 to 2 true leaves prior to first application.
BEGONIA	To control plant height	B-Nine	5,000 ppm spray (0.79 oz/gal)	See Ageratum.
BEGONIA, ELATOR	To increase lateral branching	Altrimmec	781 to 1,562 ppm spray (0.5 to 1.0 fl oz/gal)	
BLEEDING HEART	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
BLUEBELL (<i>Campanula rotundifolia</i>)	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
BOUGAINVILLEA	To increase lateral branching	Altrimmec	1,562 ppm spray (1 fl oz/gal)	
BROMELIADS	To promote flower initiation	Florel	2,471 ppm spray (8 fl oz/gal)	Contact floricultural specialists at N. C. State University.

Crop	Purpose	Chemical	Rate	Precautions and Remarks
BULB CROPS (Not specifically listed in this table)	To control plant height	Bonzi	100 ppm spray (3.2 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rate as needed for desired final plant height and length of height control.
			1.183 mg a.i. drench for a 6 in. pot (0.32 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench application volumes vary with pot size.
			20 ppm bulb soak (0.64 fl oz/gal)	Soak for 15 minutes. Users should conduct trials on a small number of bulbs, adjusting the rate and soaking period (up to 1 hour) as needed for desired final plant height.
CALADIUM	To control plant height	Bonzi	100 to 200 ppm spray (3.2 to 6.4 fl oz/gal)	First spray applications should be made when plants are 2 to 4 inches tall.
			1.183 to 2.366 mg a.i. drench for a 6 in. pot (0.32 to 0.64 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	First drench applications should be made when plants are 1 to 2 inches tall. Drench application volumes vary with pot size.
CALLA LILY	To control plant height	Bonzi	1.183 to 3.549 mg a.i. drench for a 6 in. pot (0.32 to 0.96 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	See Caladium.
			20 ppm rhizome/tuber soak (0.64 fl oz/gal)	Soak the rhizomes/tubers for 15 minutes prior to planting.
CELOSIA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	2,500 ppm spray (0.39 oz/gal)	
		Bonzi	4 to 50 ppm spray (0.13 to 1.60 fl oz/gal)	
		Sumagic	10 to 20 ppm spray (2.56 to 5.12 fl oz/gal)	
CHRYSANTHEMUMS, CUT	To reduce "neck" stretching	B-Nine	2,500 ppm spray (0.39 oz/gal)	Spray upper foliage 5 weeks after start of short-day treatment.
CHRYSANTHEMUMS, POTTED	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
		B-Nine	1,000 ppm preplant foliar dip (0.16 oz/gal)	Contact floricultural specialists at N. C. State University.
			1,250 to 5,000 ppm spray (0.20 to 0.79 oz/gal)	Spray when new growth from pinch is 1 to 2 inches long. Some varieties may require another application 3 weeks later.
		Bonzi	50 to 200 ppm spray (1.6 to 6.4 fl oz/gal)	Contact floricultural specialists at N. C. State University.
			0.118 to 0.433 mg a.i. drench for a 6 in. pot (0.032 to 0.128 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
		Sumagic	2.5 to 10 ppm spray (0.64 to 2.56 fl oz/gal)	Contact floricultural specialists at N. C. State University.
CHRYSANTHEMUMS, GARDEN	To increase lateral branching	Florel	500 ppm spray (1.619 fl oz/gal)	Florel applications will provide some growth retardant effects. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.
CLEMATIS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
CLEOME	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
CLERODENDRUM	To increase lateral branching	Atrimmec	1,042 to 2,083 ppm spray (0.67 to 1.33 fl oz/gal)	
COLEUS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		Bonzi	5 to 45 ppm spray (0.16 to 1.44 fl oz/gal)	
		Sumagic	10 to 20 ppm spray (2.56 to 5.12 fl oz/gal)	
COLUMBINE	To control plant height	A-Rest	66 to 132 ppm spray (32 to 64 fl oz/gal)	
CORNFLOWER	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
COSMOS	To control plant height	B-Nine	5,000 ppm spray (0.79 oz/gal)	See Ageratum.

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CROSSANDRA	To control plant height	B-Nine	2,500 ppm spray (0.39 oz/gal)	
DAFFODIL	To control plant height	Bonzi	2.368 to 4.732 mg a.i. drench for a 6 in. pot (0.64 to 1.28 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	See Caladium.
		Florel	1,000 to 2,000 ppm spray (3.24 to 6.47 fl oz/gal)	Contact floricultural specialists at N. C. State University.
DAHLIA	To control plant height	A-Rest	0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
		B-Nine	5,000 ppm spray (0.79 oz/gal)	See Ageratum.
		Bonzi	5 to 45 ppm spray (0.16 to 1.44 fl oz/gal)	
		Sumagic	10 to 20 ppm spray (2.56 to 5.12 fl oz/gal)	
DELPHINIUM	To control plant height	A-Rest	33 to 132 ppm spray (16 to 64 fl oz/gal)	See Ageratum.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
DIANTHUS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		Bonzi	5 to 60 ppm spray (0.16 to 1.92 fl oz/gal)	
DRACAENA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
DUSTY MILLER	To control plant height	B-Nine	5,000 ppm spray (0.79 oz/gal)	See Ageratum.
EASTER LILY	To control plant height	A-Rest	33 to 66 ppm spray (16 to 32 fl oz/gal)	Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
		Sumagic	10 to 25 ppm spray (2.56 to 6.4 fl oz/gal)	Contact floricultural specialists at N. C. State University.
			0.03 to 0.06 mg a.i. drench for a 6 in. pot (0.065 to 0.13 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
EXACUM	To control plant height	B-Nine	2,500 ppm spray (0.39 oz/gal)	
FATSHEDERA	To control plant height	A-Rest	66 to 132 ppm spray (32 to 64 fl oz/gal)	
FLOWERING/ FOLIAGE PLANTS HERBACEOUS SPECIES (Not specifically listed in this table)	To control plant height	Bonzi	30 ppm spray (0.96 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rate as needed for desired final plant height and length of height control.
			0.118 mg a.i. drench for a 6 in. pot (0.032 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench application volumes vary with pot size.
FLOWERING/ FOLIAGE PLANTS, WOODY SPECIES (Not specifically listed in this table)	To control plant height	Bonzi	50 ppm spray (1.6 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rate as needed for desired final plant height and length of height control.
			0.237 mg a.i. drench for a 6 in. pot (0.064 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench application volumes vary with pot size.
FREESIA	To control plant height	Bonzi	100 to 300 ppm corn soak (3.2 to 9.6 fl oz/gal)	Soak corms in the solution for 1 hour before planting.
FUCHSIA	To increase lateral branching	Atrimmec	781 to 2,343 ppm spray (0.5 to 1.5 fl oz/gal)	
		Florel	500 ppm spray (1.619 fl oz/gal)	Florel applications will provide some growth retardant effects. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.
GARDENIA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
		B-Nine	5,000 ppm spray (0.79 oz/gal)	
	To increase lateral branching	Atrimmec	2,343 to 4,687 ppm spray (1.5 to 3.0 fl oz/gal)	
GERANIUMS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.

Crop	Purpose	Chemical	Rate	Precautions and Remarks
GERANIUMS, continued.	To control plant height	Bonzi	10 to 30 ppm spray (0.32 to 0.96 fl oz/gal)	Apply to zonal geraniums when new growth is 1.5 to 2 inches long. Apply to seed geraniums approximately 2 to 4 weeks after transplanting.
		Cycocel	750 to 2,500 ppm spray (0.8 to 2.7 fl oz/gal)	Labeled for seed geraniums only. See Ageratum.
		Sumagic	3 to 6 ppm spray (0.77 to 1.54 fl oz/gal) for cutting geraniums and 2 to 4 ppm spray (0.51 to 1.02 fl oz/gal) for seed geraniums	See Ageratum.
	To increase lateral branching	Atrimmec	1,562 ppm spray (1 fl oz/gal)	Labeled for ivy geraniums only.
Florel		500 to 1,000 ppm spray (1.619 to 3.24 fl oz/gal)	Labeled for zonal and ivy geraniums. Florel will also provide some growth retardant effect. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.	
GERBERA DAISY	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
GRAPE IVY	To increase lateral branching	Atrimmec	781 to 1,562 ppm spray (0.5 to 1 fl oz/gal)	
HIBISCUS	To control plant height	Bonzi	30 to 150 ppm spray (0.96 to 4.8 fl oz/gal)	Application should be made when laterals are 1 to 4 inches long. Single applications control lateral growth for 3 to 6 months.
		Cycocel	460 ppm spray (0.5 fl oz/gal)	
HOLLY	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
HYACINTH	To reduce stem topple	Florel	1,000 ppm spray (3.24 fl oz/gal)	Contact floricultural specialists at N. C. State University.
HYBRID LILY	To control plant height	Bonzi	250 to 500 ppm spray (8.0 to 16.0 fl oz/gal)	See Caladium.
			1.183 to 2.366 mg a.i. drench for a 6 in. pot (0.32 to 0.64 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
			20 to 30 ppm bulb soak (0.64 to 0.96 fl oz/gal)	Soak bulbs in the solution for 15 minutes prior to planting.
HYDRANGEA	To control plant height	B-Nine	2,500 to 7,500 ppm spray (0.39 to 1.18 oz/gal)	Contact floricultural specialists at N. C. State University.
IBERIS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
IMPATIENS	To control plant height	Bonzi	5 to 45 ppm spray (1.44 to 2.02 fl oz/gal)	See Ageratum.
		Sumagic	5 to 10 ppm spray (1.28 to 2.56 fl oz/gal)	
KALANCHOE	To increase lateral branching	Atrimmec	1,042 to 2,343 ppm spray (0.67 to 1.5 fl oz/gal)	
LANTANA	To increase lateral branching	Atrimmec	781 to 1,562 ppm spray (0.5 to 1 fl oz/gal)	Florel applications will provide some growth retardant effects. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.
		Florel	500 ppm spray (1.619 fl oz/gal)	
LIATRIS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
LIPSTICK VINE	To increase lateral branching	Atrimmec	521 to 1,042 ppm spray (0.33 to 0.67 fl oz/gal)	
MARIGOLD	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	2,500 to 5,000 ppm spray (0.39 to 0.79 oz/gal)	
		Bonzi	10 to 60 ppm spray (0.32 to 1.92 fl oz/gal)	

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MARIGOLD, continued.	To control plant height	Sumagic	10 to 20 ppm spray (2.56 to 5.12 fl oz/gal)	See Ageratum.
MONSTERA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
MONTBRETIA	To control plant height	Bonzi	20 to 30 ppm corn soak (0.64 to 0.96 fl oz/gal)	Soak corns in the solution for 15 minutes prior to planting.
NEPHTHYTIS, GREEN & GREEN GOLD	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
PANSY	To control plant height	Bonzi	1 to 15 ppm spray (0.03 to 0.48 fl oz/gal)	See Ageratum.
		Sumagic	1 to 6 ppm spray (0.26 to 1.54 fl oz/gal)	
PETUNIA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	2,500 to 5,000 ppm spray (0.39 to 0.79 oz/gal)	
		Bonzi	5 to 60 ppm spray (0.16 to 1.92 fl oz/gal)	
		Sumagic	25 to 50 ppm spray (6.4 to 12.79 fl oz/gal)	
PHILODENDRON	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
PHLOX	To control plant height	B-Nine	5,000 ppm spray (0.79 oz/gal)	
PILEA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
POINSETTIA	To control plant height	A-Rest	0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Contact floricultural specialists at N. C. State University.
		B-Nine	2,000 to 3,000 ppm spray (0.31 to 0.47 oz/gal)	
		B-Nine + Cycocel	2,000 to 2,500 ppm B-Nine (0.31 to 0.39 oz/gal + 1,500 ppm Cycocel (1.6 fl oz/gal) spray	Contact floricultural specialists at N. C. State University.
		Bonzi	10 to 30 ppm spray (0.32 to 0.96 fl oz/gal) 0.237 to 0.473 mg a.i. drench for a 6 in. pot (0.064 to 0.128 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Contact floricultural specialists at N. C. State University.
		Cycocel	1,000 to 3,000 ppm spray (1.1 to 3.3 fl oz/gal)	Labeled for red poinsettias only.
		Sumagic	2.5 to 10 ppm spray (0.64 to 2.56 fl oz/gal) 523 mg a.i. drench for a 6 in. pot (3.2 fl oz/gal of drench solution; apply 6 fl oz/6 in. pot)	Contact floricultural specialists at N. C. State University.
POTHOS	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
PURPLE PASSION (<i>Gynura aurantiaca</i>)	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
SALVIA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	5,000 ppm spray (0.79 oz/gal)	
		Bonzi	5 to 60 ppm spray (0.16 to 1.92 fl oz/gal)	
		Sumagic	5 to 10 ppm spray (1.28 to 2.56 fl oz/gal)	
SCHEFFLERA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
			0.25 to 0.5 mg a.i. drench for a 6 in. pot (1 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
	To increase lateral branching	Atrimmec	3,125 ppm spray (2 fl oz/gal)	Labeled for <i>Schefflera arboricola</i> only.
SHRIMP PLANT	To increase lateral branching	Atrimmec	781 to 1,562 ppm spray (0.5 to 1 fl oz/gal)	

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SNAPDRAGON	To control plant height	Bonzi	5 to 90 ppm spray (0.16 to 2.88 fl oz/gal)	See Ageratum.
		Sumagic	25 to 50 ppm spray (6.4 to 12.79 fl oz/gal)	
TULIP	To control plant height	A-Rest	0.125 to 0.5 mg a.i. drench for a 6 in. pot (0.5 to 2 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench rates and application volumes vary with pot size. Contact floricultural specialists at N. C. State University.
		Bonzi	0.591 to 4.732 mg a.i. drench for a 6 in. pot (0.16 to 1.28 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	Drench application volumes vary with pot size.
			2 to 5 ppm bulb soak (0.064 to 0.16 fl oz/gal)	Soak bulbs for 1 hour prior to planting.
VERBENA	To control plant height	B-Nine	5,000 ppm spray (0.79 oz/gal)	See Ageratum.
	To increase lateral branching	Atrimmec	521 to 1,042 ppm spray (0.33 to 0.67 fl oz/gal)	
		Florel	500 ppm spray (1.619 fl oz/gal)	Florel applications will provide some growth retardant effects. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.
VINCA (<i>Catharanthus roseus</i>)	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.
		B-Nine	2,500 ppm spray (0.39 oz/gal)	
		Sumagic	1 to 3 ppm spray (0.26 to 0.77 fl oz/gal)	
VINCA VINE (<i>Vinca spp.</i>)	To increase lateral branching	Florel	500 ppm spray (1.619 fl oz/gal)	Florel applications will provide some growth retardant effects. A delay in flowering will also occur with the use of Florel. Read the label for restrictions on timing of applications.
VIOLA	To control plant height	Sumagic	1 to 5 ppm spray (0.26 to 1.28 fl oz/gal)	See Ageratum.
WANDERING JEW	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	
WOODY LANDSCAPE PLANTS (Not specifically listed in this table)	To control plant height	Bonzi	100 ppm spray (3.2 fl oz/gal)	Users should conduct trials on a small number of plants, adjusting the rate as needed for desired height and length of height control. Bonzi is labeled for use on containerized woody landscape plants both in greenhouses and shadehouses.
			0.473 mg a.i. drench for a 6 in. pot (0.128 fl oz/gal of drench solution; apply 4 fl oz/6 in. pot)	
ZINNIA	To control plant height	A-Rest	26 to 132 ppm spray (12.6 to 64 fl oz/gal)	See Ageratum.

This table includes all label changes as of November 1994. It replaces the table given in the October 1993 issue of the Bulletin (N.C. Flower Growers' Bul. 38(5):1-5).

Growers who desire more information on how to properly use plant growth regulators should refer to "Height Control of Greenhouse Crops," in the October 1990 Bulletin (N.C. Flower Growers' Bul. 35(5):10-13) and "Chemical Growth Retardants for Bedding Plants," in the April 1991 Bulletin (N.C. Flower Growers' Bul. 36(2):1-6). These articles summarize best management practices for application and effective use of plant growth regulators.

Also, consider purchasing "Tips on the use of chemical growth regulators on floriculture crops,"

published by the Ohio Florists' Association. This four-color 92-page manual features chemical growth regulator application recommendations for azaleas, bedding plants, begonias, bulb crops, potted chrysanthemums, cut-flowers, Easter lilies, foliage plants, seed geraniums, zonal geraniums, gloxinias and other gesneriads, hydrangeas, kalanchoes, minor crops, plugs, and poinsettias. It also contains comprehensive sections on mechanisms of action, calculations, and weed control of outdoor floriculture crops. The cost of the guide including shipping is \$21. To purchase a copy, send a check, payable to O.F.A. Services, Inc. to 2130 Stella Court, Suite 200, Columbus, OH 43215-1033. You can call 614-487-1117 or FAX 614-487-1216 for VISA or MasterCard orders.