

PM 22
59639-37

SUMAGIC Plant Growth Regulator 10/5
59639-37
February 26, 1993

Copy A **The use recommendations for Sumagic PGR on Easter Lilies are intended for plants grown under positive DIF temperature conditions (higher day temperature than night temperature) only. Easter Lilies grown under negative or zero DIF temperature conditions should not be treated with Sumagic PGR.**



PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION: Causes eye irritation. Avoid contact with eyes, skin and clothing. Wear protective clothing, long sleeved shirt, and rubber gloves. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.
STATEMENT OF PRACTICAL TREATMENT: If in eyes, flush eyes immediately with fresh water for 15 minutes. If irritation continues, see a doctor. If on skin, wash with plenty of soap and water. See a doctor if irritation persists.
Note to Physicians: Emergency Information — call 1-800-832-0039.

ENVIRONMENTAL HAZARDS: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL AND PAMPHLET USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

REENTRY STATEMENT
Do not reenter treated areas until sprays have dried.

DIRECTIONS
Do not apply this product through any type of irrigation system.

SUMAGIC® is an effective growth retardant on a wide variety of floriculture crops. Dilute with water according to the directions below. Make foliar applications with standard spray equipment. Effective dose is strongly dependent on application volume. Plant response can vary if a given rate is applied at different spray volumes. Uniformity of spray is equally important. Except where noted, rates expressed are based on a spray volume of 2 gals. applied uniformly to 100 sq. ft. of each area and indicate the amount of SUMAGIC per gallon of final spray solution.

Plant response to SUMAGIC is strongly influenced by cultural and environmental variables, such as growing media, water/fertilizer management, temperature, light, growing house composition, and other cultural practices. First time users of SUMAGIC should treat a limited number of plants at the lowest recommended rate. Rate adjustments may then be made according to plant response. Sequential applications of low rates may be made as necessary.

FOR COMMERCIAL GREENHOUSE USE AND FOR LATHHOUSE AND SHADEHOUSE USE (WHERE PLANTS ARE GROWN IN CONTAINERS) ONLY.

This product has a potential to leach into groundwater or to runoff into surface water. In Greenhouses, Lathhouses or Shadehouses with soil flooring of high porosity and low organic content, do not apply directly to soil or to plants/pots in direct contact with soil.

PONSETTIA

FOLIAR SPRAY: Growth Retardation: Apply SUMAGIC as a foliar spray when the breaks are 1.5 to 2.0 inches (about 10 to 14 days after pinching). Use rates listed below and apply uniformly at a spray volume of 2 qts. per 100 sq. ft. of bench area. Multiple applications of the lower rate may be applied if necessary. First time users of SUMAGIC should make multiple or sequential applications at the lowest recommended rate to determine optimum dose for specific cultivars under local conditions. Late season application (after short-day induction) may have negative effects on bract size, plant quality and marketability.
DO NOT APPLY SUMAGIC TO PONSETTIAS AFTER THE INDUCTION OF SHORT DAYS.

NOTE: Certain varieties such as Spirit and Freedom are more sensitive to SUMAGIC than others and should be treated with the lowest recommended rates for each growing region.

FLORIDA ONLY: DO NOT APPLY SUMAGIC TO PONSETTIA AFTER OCTOBER 25.

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3 of 5

| Growing Region | Recommended Spray Concentration Rate Range |
|---------------------------|--|
| All States except Florida | 0.84 to 2.56 oz./gal. (Repeat as necessary) (19* to 76 ml/gal., 2.5 to 10 ppm) |
| Florida | 2.56 to 3.84 oz./gal. (Repeat as necessary) (76 to 114 ml/gal., 10 to 15 ppm) |

PONSETTIA TREES

For use in Florida only:
 Apply SUMAGIC as a drench at a solution concentration of 0.51 to 0.77 oz./gal. (15 to 23 ml/gal., 2 to 3 ppm) when breaks are 1.5 to 2.0 inches (about 10 to 14 days after the second pinching). Apply 8 fl. oz. of diluted solution to each pot.
 Do not apply SUMAGIC to Poinsettia Trees after October 25.

BEDDING PLANTS

FOLIAR SPRAY
 Growth Retardation: Apply SUMAGIC as a foliar spray as plant elongation begins (plant height approximately 2 to 4 inches). See exceptions for Periwinkle (Vinca), Pansy and Geranium. Timing may vary with species and the user should determine the appropriate growth stage for specific cultivars and environmental conditions. When applying to plants at the shortest growth stage (2 inches), use the lowest recommended rate. Use rates listed below and apply uniformly at a spray volume of 2 qts. per 100 sq. ft. of bench area. Multiple applications of lower rate may be applied as necessary. Cultivars within the same species may respond differently to a given rate of SUMAGIC.
 First time users of SUMAGIC should make single or sequential applications at the lowest recommended rate to determine optimum dose for specific cultivars under local conditions.

| Plant | Recommended Spray Concentration Rate Range | | |
|--------------------|--|------------|----------|
| | (oz./gal.) | (ml/gal.) | (ppm) |
| Agrostis | 5.12 to 7.68 | 151 to 227 | 20 to 30 |
| Coloia | 2.56 to 5.12 | 76 to 151 | 10 to 20 |
| Coloia | 2.56 to 5.12 | 76 to 151 | 10 to 20 |
| Dahlia | 2.56 to 5.12 | 76 to 151 | 10 to 20 |
| Impatiens* | 1.28 to 2.56 | 38 to 76 | 5 to 10 |
| Margold** | 2.56 to 5.12 | 76 to 151 | 10 to 20 |
| Pansy | 0.26 to 1.52 | 8 to 46 | 1 to 6 |
| Periwinkle (Vinca) | 0.26 to 0.77 | 8 to 23 | 1 to 3 |
| Patunia** | 6.4 to 12.79 | 189 to 379 | 25 to 50 |
| Salvia | 1.28 to 2.56 | 38 to 76 | 5 to 10 |
| Snapdragon*** | 6.49 to 12.79 | 189 to 379 | 25 to 50 |
| Viola | 0.26 to 1.28 | 8 to 38 | 1 to 5 |

*Seed Propagated
 **Multiple application may be necessary
 ***Multiple applications necessary

NOTE: Begonias are exceptionally sensitive to SUMAGIC. Extreme care should be exercised to avoid spray drift onto Begonia cultivars.

For optimum results on Periwinkle (Vinca) and Pansy, it is recommended that SUMAGIC not be applied until plants reach a height of 4 inches.

GERANIUMS

FOLIAR SPRAY
 Growth Retardation: Seeded Geraniums -- Apply SUMAGIC as a foliar spray when plant height is approximately 4 inches. Apply 0.52 to 1.04 oz./gal. (16 to 32 ml/gal., 2 to 4 ppm) as a uniform spray at a volume of 2 qts. per 100 sq. ft. of bench area.
 Vegetatively Propagated Geraniums -- Apply SUMAGIC as a foliar spray on an as needed basis once the growth of cuttings begins (dependent on growth rate and cultivar). Apply 0.77 to 1.54 oz./gal. (23 to 46 ml/gal., 3 to 6 ppm) as a uniform spray at a volume of 2 qts. per 100 sq. ft. of bench area. Choice of rate is dependent on growth rate.

EASTER LILIES

NOTE: Treatment with SUMAG C may reduce the water requirement for Easter Lilies.

FOLIAR SPRAY
 All states except Florida: Treat Easter Lilies with 2.56 to 6.4 oz./gal. (76 to 189 ml/gal., 10 to 25 ppm) SUMAGIC when shoots average 3 inches tall. Use a uniform spray volume of 2 qts. per 100 sq. ft. of bench area. If a second application is made, it should be applied when shoots average 6 inches tall.
 Florida only: 2.56 to 3.84 oz./gal. (76 to 114 ml/gal., 10 to 15 ppm)

SOIL DRENCH
 All states except Florida: Apply SUMAGIC when shoots average 3 inches tall. Use a solution concentration of between 0.06 oz./gal. and 0.13 oz./gal. (1.9 ml/gal. to 3.8 ml/gal.) Apply 4 fl. oz. of diluted solution to each pot. Avoid late season applications.
 Florida only: 0.11-0.22 oz./ga. (3.22-6.43 ml/gal.)

CHRYSANTHEMUMS

FOLIAR SPRAY
 Apply SUMAGIC as a foliar spray when the length of the breaks is 1.5 to 2.0 inches (about 7 to 14 days after pinching). Make a uniform spray application at a volume of 2 qts. per 100 sq. ft. of bench area (except in Florida on medium and tall cultivars where 3 qts. per 100 sq. ft. is recommended). Multiple applications should be applied as necessary.
 NOTE: Chrysanthemum cultivars vary widely in their response to SUMAGIC. Treat a small number of plants to confirm appropriate rates for local conditions and specific cultivars.

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ACCEPTED
MAR 16 1993
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 051-639-37

| Growing Region | Recommended Spray Concentration | Rate Range |
|---------------------------|---|---|
| All States except Florida | 0.84 to 2.56 oz./gal. (19" to 76 ml/gal. 2.5 to 10 ppm) | *Cooler growing climates should utilize the lower rate and make a second application if necessary. |
| Florida | 1.28 to 2.56 oz./gal. (38 to 76 ml/gal. 5 to 10 ppm) | Apply at a 3 qts. per 100 sq ft. volume for medium and tall cultivars. Repeat application as necessary. |

AZALEAS

General Directions: Apply as a uniform spray at a volume of 1.5 qts. per 100 sq. ft. of bench area at approximately 4 to 8 weeks after final pinch. Azalea cultivars may vary in their response to SUMAGIC. Treat a small number of plants to confirm appropriate rates for local conditions and specific cultivars.

Shorter Growing Cultivars (Gloria, Solitario): Apply SUMAGIC as a foliar spray at 2.56 oz./gal. (76 ml/gal., 10 ppm). If a second application is necessary, apply 1.28 to 2.56 oz./gal. (38 to 76 ml/gal., 5 to 10 ppm) approximately 2 to 3 weeks after the initial application.

Taller Growing Cultivars (Prize): Apply SUMAGIC as a foliar spray at 2.56 to 3.84 oz./gal. (76 to 114 ml/gal., 10 to 15 ppm). If a second application is necessary, apply 2.56 oz./gal. (76 ml/gal., 10 ppm) approximately 2 to 3 weeks after the initial application.

HIBISCUS

For use in Florida only:
General Directions: Use from 1.28 to 2.56 oz./gal. (38 to 76 ml/gal., 5 to 10 ppm) and apply as a uniform spray at a volume of 3 qts. per 100 sq. ft. of bench area. Multiple applications can be made as necessary.

IXORA

For use in Florida only:
Apply SUMAGIC as a foliar spray at 5.12 oz./gal. (151 ml/gal., 20 ppm) 4 to 6 weeks after the final pinch as a uniform spray at a volume of 1.5 qts. per 100 sq. ft. of bench area. If a second application is necessary, apply 2.56 to 3.84 oz./gal. (76 to 114 ml/gal., 10 to 15 ppm) approximately 3 to 4 weeks after the initial application.

IMPORTANT NOTES
IMPORTANT: SUMAGIC is an extremely active plant growth regulator. Extreme caution must be exercised in measuring, diluting, and applying SUMAGIC. Excessive doses will result in severe growth retardation and possible adverse effects on flowering, plant appearance and marketability. Avoid spray drift onto non target species.
Apply to well-watered, vigorously growing plants. Do not mix with pesticides, fertilizers, or adjuvants. Do not apply SUMAGIC to any food crops. Do not reuse soil from plants treated with SUMAGIC. SUMAGIC activity is reduced when applied to media containing pine bark.

It is recommended that SUMAGIC be applied during morning or late afternoon hours, or when plants are not under environmental stress.

SUMAGIC retards elongation almost immediately after application. Assessment of rate response for most species can be made within five to seven days after treatment. If desired results are not evident, reapplication or an increased rate may be warranted. Differences in plant response to SUMAGIC due to plant surface area in relation to soil surface area are possible. Extreme temperatures can influence plant response to SUMAGIC. Shake before using.

RATE CONVERSION TABLE
Conversion between ppm, ml/l, ml/gal., oz./gal.

| PPM | ML/L | ML/GAL | FL. OZ./GAL |
|-----|------|--------|-------------|
| 1 | 2 | 8 | 0.76 |
| 3 | 6 | 23 | 0.77 |
| 5 | 10 | 38 | 1.28 |
| 10 | 20 | 76 | 2.56 |
| 15 | 30 | 114 | 3.84 |
| 20 | 40 | 151 | 5.12 |
| 25 | 50 | 189 | 6.40 |
| 30 | 60 | 227 | 7.68 |
| 35 | 70 | 265 | 9.00 |
| 40 | 80 | 303 | 10.25 |
| 45 | 90 | 341 | 11.50 |
| 50 | 100 | 379 | 12.72 |
| 75 | 150 | 568 | 19.21 |

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crop thereof rendered unfit for sale, use or consumption.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited.

STORAGE: Keep pesticide in original container. Do not put concentrate or dilution into food or drink containers. Store in cool, dry place. Protect from temperatures below 32°F. This product may freeze. If freezing should occur, thaw and shake gently to unify the product. Do not store diluted spray. For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099, or Chemtrec 1-800-424-9300.

(continued)

Note: location of change is marked on the backside of label under Easter Lilies

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STORAGE AND DISPOSAL (continued)

PESTICIDE DISPOSAL: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning if burned stay out of smoke.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

LIMITED WARRANTY: Valent U.S.A. Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorize any agent or representative to make any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.** 2 Critical and unforeseeable factors beyond Valent's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Valent under 1 above) resulting from handling, storage, and use of the product. 3 Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

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SUMAGIC®
Plant Growth Regulator

For Commercial Greenhouse Use Only.

| | |
|--|--------|
| Active Ingredient | By Wt. |
| Uniconazole-P | 0.05% |
| Inert Ingredients | 99.95% |
| *[(E)-(+)-(S)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1,2,4-triazol-1-yl)pent-1-ene]-3-ol | |
| Contains 0.064 oz active ingredient per gallon (0.5 g/litre) | |
| U.S. Pat. Nos. 4,203,996, 4,425,203 and 4,954,007 | |

SUMAGIC® - Reg. TM of Sumitomo Chemical Co., Ltd.
for uniconazole-P plant growth regulator.

KEEP OUT OF REACH OF CHILDREN
CAUTION
SEE BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

Manufactured for
Valent U.S.A. Corporation
Walnut Creek, CA 94596-9025
Form 219-E Made in U.S.A.
EPA Reg. No. 59629-37