BEDDING PLANTS

General Information

GENERAL INFORMATION

Before using this product, read all sections of the label.

This product is a plant growth regulator that enhances the aesthetic appeal and improves postproduction shipping and handling durability of ornamentals grown in greenhouses. Treated plants have shorter internodes, stronger stems and greener leaves resulting in a more compact, attractive and hardy plant.

Depending on crop culture, environmental conditions and plant growth habit, this product will typically reduce internode elongation for a period of 1 to 3 weeks following spray treatment. Multiple applications may be made as needed. This product has maximum effect on final plant height when applied at the beginning of a rapid stem elongation period and has less effect if applied when shoots are not elongating vigorously or the plant is at the end of an elongation phase. Individual grower preferences for crop development will dictate product application rates, timing and frequency of this product.

FACTORS AFFECTING ACTIVITY

Plant growth and response to this product is altered by several factors. The optimum rate and frequency of application will vary depending on how the crop is grown.

Environmental Factors

The following conditions will tend to cause less compact growth and generally require higher application rates of this product:

- Crops produced under low light levels

- Crops produced under high humidity conditions

- Crops produced under higher temperatures

- Crops produced under higher DIF (difference between day and night temperatures)

Cultural Factors

The following cultural factors may cause plants to be more lush and taller, requiring the use of higher rates or more frequent applications at lower rates of this product:

- Crops grown with greater amounts of irrigation

- Crops grown with higher fertilization rates

- Crops grown with high amounts of ammoniacal nitrogen

- Plants that are spaced closely together causing leaves to overlap

The amount of chemical needed to achieve the desired final plant height for photoperiodic crops and varieties (such as poinsettias and chrysanthemums) will vary with the production schedule. Crops that are grown under long schedules with more time between planting and start of flower initiation or between final pinch and flower initiation will be taller than crops grown using short production schedules and will therefore require applications at higher rates or more frequent applications at lower rates of this product.

Varietal Differences

Varieties within a species can vary greatly in their growth habits and the amount of product required for optimum final height with taller, more vigorous varieties requiring greater amounts of this product than do shorter, less vigorous varieties. When applying to unfamiliar varieties, users should consult with plant and seed suppliers and breeder companies for information on growth habit.

In addition to natural height and vigor, colors within a bedding plant series may vary in sensitivity to this product as well.

SPRAY APPLICATIONS

When sprayed, this product enters the plant through both leaves (both developing and mature) and stems with maximum effect occurring when it thoroughly covers all plant surfaces. The spray volume necessary for thorough plant coverage varies with plant size and foliage cover, but generally is between 2 and 3 quarts of spray

solution per 100 square feet of bench space. Applicators should avoid spray volumes that result in heavy runoff of spray solution from the plant. To reduce the growth of upper lateral shoots and have less effect on lower shoots, this product may be applied in light spray volumes of approximately 1 quart per 100 square feet.

Because this product enters the plant while the spray solution stays wet, to provide maximum effect, spray when conditions that support slow drying of spray solutions exist. For best results, time applications of this product so that overhead irrigation or rain will not occur for a period of 6 hours after application.

Depending on the crop and individual user’s desired results, and unless otherwise stated in the sections for specific crops below, spray application rates of this product range from 800 to 4,000 ppm chlormequat chloride (active ingredient in this product). All references to ppm are based on chlormequat chloride (active ingredient in this product).

Spray Application Phytotoxicity

Slight yellowing near leaf margins or at the tip of leaves that are small and rapidly enlarging at the time of application

often result from foliar spray applications of this product; however, leaves that are mature when sprayed and leaves

formed after application are not affected. Discoloration appears approximately 3 to 5 days after application and

discolored areas usually regain most or all of their green color by the end of the crop cycle. The degree of yellowing

is proportional to the application rate with the lowest specified rates causing no temporary discoloration or

phytotoxicity. Brown necrotic areas that will not recover their green color may result from application rates of this

product that are too high.

Trials should be conducted prior to using application rates of 1,500 ppm chlormequat chloride (active ingredient in this product) or greater in order to ensure

that the amount of leaf spotting is acceptable to the user. If the amount of yellowing is determined to be unacceptable, the effects of phytotoxicity and temporary discoloration may be reduced by lowering application rates of this product and making more frequent applications at the lower rates.

NOTE: Users should not apply this product near the end of a crop cycle unless adequate trials have been conducted to ensure that the product rate is low enough to avoid an undesirable appearance during the sales period.

DRENCH APPLICATIONS

This product may be applied to the growing medium as a drench that is taken up through the roots and transported to the stem tips where it is active. In addition to providing longer and more uniform control of stem elongation, drench applications do not cause leaf yellowing. Because the total amount of active ingredient in this product applied to each container determines the reduction in stem elongation, users must ensure that both the amount of solution applied to each container and the concentration of this product in ppm are correct.

To prevent multiple plants in the same container from developing non-uniform heights, uniformly saturate all the potting medium with the drench. The drench should be applied to moist medium and not when crops need irrigation. For best results irrigate crops one day prior to applying the drench of this product.

Application rates for drench treatments of this product range from 2,000 to 4,000 ppm chlormequat chloride (active ingredient in this product). To determine the optimum rates under your particular conditions trials should be conducted.

Refer in the label for the suggested volumes of dilute product solution for different size containers.

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require higher application rates of this product:

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The amount of chemical needed to achieve the desired final plant height for photoperiodic crops and varieties (such as poinsettias and chrysanthemums) will vary with the production schedule. Crops that are grown under long schedules with more time between planting and start of flower initiation or between final pinch and flower initiation will be taller than crops grown using short production schedules and will therefore require higher application rates or more frequent applications at lower rates.

Varietal Differences

Varieties within a species can vary greatly in their growth habits and the amount of this product required for optimum final height with taller, more vigorous varieties requiring greater amounts of this product than do shorter, less vigorous varieties. When applying to unfamiliar varieties, users should consult with plant and seed suppliers and breeder companies for information on growth habit.

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Limitations, Restrictions, and Exceptions

Application Instructions

Transplanted Plugs: Use an increased rate of 3,000 ppm chlormequat chloride after extensive trials are conducted to evaluate the effects of the higher rate.

Bedding Plants in Seedling Stage: Users should evaluate use of this product starting at one-half of the rate used on finished bedding plants

Remarks

This product controls stem elongation in the following (and other) bedding plant crops grown in packs, pots, hanging baskets, and plug trays.

Because the growth rates of bedding plants vary greatly depending on the growers' cultural practices applications of this product must be

specifically tailored to grower practices being used and the desired final plant size. Additionally, since plant growth after transplanting is affected by the amount of this product (or other) growth regulator that is applied to the plant during the plug stage, using this product during the plug stage will reduce the amount needed after transplanting.

Method
Spray
Rates
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Restricted Entry Interval

12 hours

Timings
After transplanted plugs begin to grow and the amount of growth control required can be determined.