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COMMERCIAL

Net Contents

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BONZI™

PLANT GROWTH REGULATOR

For Use on Container Grown Ornamental Bedding Plants and Plugs

**CAUTION**  **POISON**

READ THE LABEL BEFORE USING  
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: 4 g/L paclobutrazol

Contains 1,2-benzisothiazolin-3-one at 0.02% as a preservative

REGISTRATION NO. 25635 PEST CONTROL PRODUCTS ACT

Plant Products Co. Ltd.  
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Brampton, Ontario L6T 1G1

BONZI is a registered trademark of a Syngenta group company.  
Plant Products Co. Ltd. is an authorized user of the trademark.

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## PRECAUTIONS

### KEEP OUT OF REACH OF CHILDREN

Do not smoke, drink or eat while using this product. Wash thoroughly with soap and water after handling and spraying, and before eating, drinking or smoking.

Handle and pour carefully to avoid spilling or splashing.

When handling/applying this product always wear waterproof jacket with hood, long pants and chemical resistant gloves and NIOSH approved respiratory protection during application. When spraying also wear an apron. When handling plants treated with this product, wear gloves.

Vacate premises during application and do not re-enter treated area for 12 hours following application.

Remove any contaminated clothing and wash separately from other clothing before re-using. Dispose of clothing if it has been drenched with the product.

Avoid drift onto other plants.

Do not re-use soil contaminated by BONZI Plant Growth Regulator

Use only as directed on the label. Store away from food or access by children or pets.

## FIRST AID

If swallowed, do not induce vomiting. Call a doctor or Poison Control Centre immediately. Never give anything by mouth to an unconscious or convulsing person.

For eyes, flush for at least 15 minutes with plenty of water and get medical attention immediately.

In case of skin contact, wash thoroughly with soap and water.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

## TOXICOLOGICAL INFORMATION

Perform gastric lavage taking care to prevent aspiration of gastric contents. Then treat symptomatically.

## EMERGENCY TELEPHONE NUMBER

All hours call 1-800-327-8633 (FASTMED) ONLY for health and environmental information.

## STORAGE

Store product in a cool, dry, well ventilated area away from food and feed, and out of reach of children and animals. Keep product from freezing.

## SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact 1-800-327-8633 (FASTMED) for further information.

For spills and leaks; contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand for 10 minutes then absorb onto an inert material and shovel waste into a waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. For more information on the disposal of

waste and the clean up of spills, contact the Provincial Regulatory Agency or the manufacturer.

#### DISPOSAL:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

#### PRODUCT INFORMATION

BONZI Plant Growth Regulator is a plant growth regulator for greenhouse use on ornamental bedding plants and plugs. When applied by foliar spray or into the soil, it is translocated to growing terminals and reduces internode elongation resulting in more desirable compact plants.

#### DIRECTIONS FOR USE

BONZI Plant Growth Regulator is a plant growth regulator for use in greenhouses for annual bedding plants grown in containers such as plug trays, cell packs in flats and small pots. Desired height control is usually obtained with a single BONZI Plant Growth Regulator foliar spray or drench application but good height control can also be accomplished by repeated application 7-10 days apart using BONZI Plant Growth Regulator at one-half the recommended concentration.

BONZI Plant Growth Regulator users should note that height control may vary with different cultivars. Short slow growing types require a lower rate than fast growing types. When used as directed, BONZI Plant Growth Regulator produces no toxic effects. Overly stunted plants or leaf burn may result from excessively high application rates.

**WARNING:** Be sure of your calculations, volume measurements and sprayer calibration. When in doubt recalculate. Frequent agitation of the spray mixture is essential.

#### I. SPRAY APPLICATIONS

**PLEASE NOTE:** Thorough and uniform coverage of stems is essential for effective results from foliar applications. Spray application should simulate a high coverage miticide treatment.

In spray applications, BONZI Plant Growth Regulator penetrates into plant stems and is translocated to the terminal where it reduces internode elongation. It is important that adequate spray volumes are used to thoroughly wet plant stems. The spray technique should provide consistent uniform coverage for all plants otherwise, uneven height control may result. However, care should be taken not to apply excessive volume of BONZI Plant Growth Regulator to young plugs where the plants have not completely covered the medium. Excessive spray application will enter the medium and act as a drench and may cause excessive stunting of sensitive species. Addition of a wetting agent for spray application is not necessary. Overhead irrigation or misting after BONZI Plant Growth Regulator spray applications does not reduce the effectiveness. BONZI Plant Growth Regulator may be applied at any time of the day without the danger of burning leaves or causing chlorosis.

There are two methods of application for insuring uniform coverage of BONZI Plant Growth Regulator sprays:

**Spray By Area Method:** This method is used where plants grown in defined areas such as greenhouse benches or floors are sprayed in one continuous operation. Plants are usually planted in smaller containers such as plug trays, cell packs in flats or in pots at close spacing.

Mix the spray solution with the amounts of BONZI Plant Growth Regulator and water shown in Table 1 to obtain the desired concentration. Spray this solution uniformly over the plants at a rate of 1-2 L per 10 m<sup>2</sup> of area depending on the stage of growth. A lower range of spray volume may be desired for young plug seedlings to prevent excessive drenching effect and stunting. As the stage of plant growth advances a larger volume of the solution at the same concentration can be applied.

Spray by Individual Plant Method - This method can be used to lessen the wastage of chemical where plants in larger containers are spaced wider apart. It is important that the chemical is uniformly applied ensuring complete coverage of the foliage and stem. The volume of solution will vary with plant size and type. The targeted spray volume for plants in 15 cm pots will be about 20 mL.

## II. DRENCH APPLICATIONS

Application of BONZI Plant Growth Regulator to the medium will provide good control of plant height. BONZI Plant Growth Regulator is readily absorbed by plant roots. In drench application the amount of chemical applied (number of milligrams per plot) is more important than volume of water used. Drench solutions should be prepared to deliver a desired number of milligrams per pot. For 15 cm pots it is recommended that BONZI Plant Growth Regulator be applied in a volume of 120 mL of solution per pot. Four litres of solution will treat 31-32 pots. However, different style or design of the pot can influence the volume of the medium (standard vs azalea). Sufficient solution should be applied to thoroughly wet the medium and allow not more than 10% to run out of the pot.

PLEASE NOTE: Media containing pine bark will reduce the effectiveness of BONZI Plant Growth Regulator applied as a drench. Where pine bark is used the amount of chemical applied will need to be increased.

## III. FACTORS AFFECTING PLANT HEIGHT

There are genetic, environmental and cultural factors which affect plant growth. These factors cause variation in the amount of BONZI Plant Growth Regulator needed to provide desired plant height.

Genetics: It is well known that different plant genera influence varied response to plant growth regulators. Even within the same plant species, variable plant height control with BONZI Plant Growth Regulator may occur. More vigorous, tall growing cultivars will require more chemical than less vigorous or short cultivars. Bedding plant growers should make note of the differences in cultivar response to BONZI Plant Growth Regulator so that height control can be improved in subsequent years.

Cultural practices: Any practices such as growing plant at close spacings, using high fertilizer levels and optimum watering (subirrigation) will require more chemical for desired height control.

Environmental Factors: During high light periods when plant growth is accelerated, a higher dosage or repeated applications of BONZI Plant Growth Regulator is needed for good height control whereas in low light periods the amount of chemical applied can be reduced. Also, temperature can be the overriding factor in determining the amount of BONZI Plant Growth Regulator needed because stem elongation increases with increases in temperature. Since high temperature usually coincides with high light conditions growers should consider the use of multiple BONZI Plant Growth Regulator applications or the use of higher concentration of the chemical.

## IV. SUGGESTED BONZI Plant Growth Regulator APPLICATION FOR BEDDING PLANTS

CROPS	APPLICATION METHOD	RATE RANGE
Begonia cellpack	spray	1-2 ppm at 200 mL/m <sup>2</sup>
Celosia cellpack	spray	20-40 ppm at 200 mL/m <sup>2</sup>
Coleus cellpack	spray	20-40 ppm at 200 mL/m <sup>2</sup>
Geranium 10 cm pot	spray	5-15 ppm at 200 mL/m <sup>2</sup>

Impatiens plugs Impatiens cellpack	spray spray	1-6 ppm at 150 mL/m <sup>2</sup> 6-12 ppm at 150 mL/m <sup>2</sup>
Petunia cellpack Petunia 10 cm pot	spray drench	30-60 ppm at 200 mL/m <sup>2</sup> 0.5-1.0 ppm at 60 mL/pot
Salvia cellpack	spray	20-40 ppm at 200 mL/m <sup>2</sup>

\* Spray Application: 200 mL/m<sup>2</sup> = 2 L/10m<sup>2</sup> or about 2 L/100 sq.ft

CAUTION: BONZI Plant Growth Regulator is extremely active at very low concentrations. Plant response to a BONZI Plant Growth Regulator application varies widely depending on growing conditions and species, and may also vary between cultivars. It is recommended that growers test with lower concentrations on all cultivars to obtain the optimum rate for a given cultivar and growing conditions to avoid over stunting or plant damage.

\* Drench Application: suggested volume by pot size.

Pot size (cm)	Drench Volume (mL)
10	60-80
15	120-140
20	180-200

TABLE 1: BONZI Plant Growth Regulator Spray Dilutions

Desired ppm	mL per Litre	mL per 10 Litres	mL per 100 Litres
1	0.25	2.5	25
2	0.50	5.0	50
3	0.75	7.5	75
4	1.00	10.0	100
5	1.25	12.5	125
6	1.50	15.0	150
7	1.75	17.5	175
8	2.00	20.0	200
9	2.25	22.5	225
10	2.50	25.0	250
15	3.75	37.5	375
20	5.00	50.0	500
25	6.25	62.5	625
30	7.50	75.0	750
40	10.00	100.0	1,000
50	12.50	125.0	1,250

**NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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