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PICCOLO

PLANT GROWTH REGULATOR

For Use on Container Grown Ornamental Bedding Plants and Plugs
SOLUTION
COMMERCIAL

ACTIVE INGREDIENT: paclobutrazol.....4 g/L

Contains 1,2-benzisothiazolin-3(2H)-one at 0.0189% as a preservative

REGISTRATION NO. 28400 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

FINE AGROCHEMICALS LIMITED

Hill End House, Whittington
Worcester WR5 2RQ
United Kingdom

N.M Bartlett Inc.
4509 Bartlett Road
Beamsville, Ontario
L0R 1B1
905-563-8261

NET CONTENTS: 100 mL – 10 L

Piccolo® is a registered trademark of Fine Agrochemicals Limited

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Harmful if absorbed through skin. Avoid contact with skin, eyes and clothing.

Wash hands thoroughly with soap and water after using, and before eating, drinking, smoking or using the toilet.

Mixers, loaders and applicators **MUST WEAR**: chemical resistant coveralls over a long-sleeved shirt and long pants; chemical-resistant gloves during mixing, loading, application, cleanup and repair activities; chemical-resistant footwear plus socks. When handling plants treated with this product, wear gloves.

If pesticide is spilled on clothing, remove **IMMEDIATELY**. Wash thoroughly and put on clean clothing. Wash work clothing separately from household laundry.

Remove personal protective clothing **IMMEDIATELY** after handling this product. Wash the outside of gloves before removing.

Do not contaminate feed or food.

Do not re-enter the treated area for 12 hours following application.

Avoid spray drift onto other plants.

FIRST AID

IF SWALLOWED: Call a poison control centre or a doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN/CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control centre or doctor for further treatment advice.

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

TOXICOLOGICAL INFORMATION

Treat symptomatically.

STORAGE

Avoid contamination of seed, feed and foodstuffs. Keep container closed when not in use.

DECONTAMINATION AND DISPOSAL

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.

CONTAINER DISPOSAL:

FOR DISPOSAL OF PLASTIC JUGS:

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple-or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

FOR REFILLABLE CONTAINERS:

For disposal, this container must be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not use this container for any other purpose.

If the container is not being refilled, refer to the section "FOR DISPOSAL OF PLASTIC JUGS".

ENVIRONMENTAL PRECAUTIONS

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

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.

GENERAL INFORMATION

- ◆ Piccolo Plant Growth Regulator is a plant growth regulator for greenhouse use on container grown ornamental bedding plants and plugs.
- ◆ Piccolo Plant Growth Regulator reduces internode elongation, resulting in more desirable compact plants.
- ◆ Piccolo Plant Growth Regulator produces no phytotoxic effects when used as directed.
- ◆ Piccolo Plant Growth Regulator can be applied as a foliar spray or soil drench.

The efficacy of Piccolo Plant Growth Regulator is affected by environmental and cultural conditions. Conditions causing vigorous growth require higher rates of application of Piccolo Plant Growth Regulator to achieve the desired effect. Temperature is particularly important in this respect.

Response to Piccolo Plant Growth Regulator varies with species and variety.

DIRECTIONS FOR USE

DO NOT REUSE POTS, TRAYS, OR OTHER CONTAINERS THAT PREVIOUSLY HELD PLANTS OR SOIL TREATED WITH PICCOLO PLANT GROWTH REGULATOR.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

MIXING INSTRUCTIONS

Half fill the spray/drenching tank with clean water. Accurately measure out the required amount of Piccolo Plant Growth Regulator according to Table 1. Add the Piccolo Plant Growth Regulator to the spray tank and fill the tank with the remaining required amount of water to achieve the correct concentration.

Table 1. Piccolo Plant Growth Regulator Dilution Table

Concentration of Piccolo Plant Growth Regulator Desired (ppm*)	Milliliters (mL) of Piccolo Plant Growth Regulator required		
	per Litre of water	per 10 Litres of water	per 100 Litres of water
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	1000
50	12.50	125.0	1250
60	15.00	150.0	1500

*parts per million

APPLICATION TECHNIQUES

Ensure that your application rate calculations, volume measurements and sprayer calibration are accurate prior to application.

Frequent agitation of the spray mixture is essential.

Spray Application

When applying Piccolo Plant Growth Regulator by spray it is important that:

The spray does not drift on to other plants.

Sufficient water volume is used to thoroughly wet plant stems.

Excessive spray solution is not applied as Piccolo Plant Growth Regulator is active through both root and stem uptake by the plant.

Uniform coverage of all plants is achieved.

A period of at least 30 minutes is allowed after application before overhead irrigation occurs.

Sequential applications of half the recommended application rate 7-10 days apart can provide more uniform growth effects and also prevent excessive plant growth regulation. This is particularly important when cooler temperatures or lower light conditions occur.

Generally the spray volume for small plants in small containers or plug trays which are closely spaced is 1-2 litres per 10 square metres of bench area. For larger plants with a well developed canopy, the spray volume is approximately 3 litres per 10 square metres of bench area.

Drench Application

Drench applications of Piccolo Plant Growth Regulator tend to be the most effective in reducing plant height and producing a uniform effect. Drench applications can be made without phytotoxic effects late in the growing cycle, at or near the point that marketable size is reached.

When applying Piccolo Plant Growth Regulator by drench, it is important that:

Application is made to moist potting media.

Uniform distribution of the drench solution is achieved.

No more than 10% run through of solution occurs.

Regard is paid to the growing media. Media containing bark or of high organic content may require the use of higher application rates.

When applied as a drench through sub-irrigation in saucers or benches etc., reduce rates by 25-50%.

When continuously applied through irrigation water, reduce the rate used to 5-25% of a single conventional drench application.

Table 2 provides a guide to determining the appropriate drench volume required for the specific pot size based on a 15 cm diameter “Azalea” type pot. Individual pots may vary in style and depth and thus capacity. Growers must determine the appropriate concentration and volume of drench to apply according to the pot media and species/variety of the plant considered.

Table 2. Piccolo Plant Growth Regulator Drench Volume Guidelines

Pot Diameter (cm)	Drench Volume (ml per pot)	Paclobutrazol per pot (mg/pot)	
		0.5 ppm	1 ppm
10	60	0.030	0.060
12.5	90	0.045	0.090
15	120	0.060	0.120
20	300	0.150	0.300
25	740	0.370	0.740

DETERMINING OPTIMUM RATES

Optimum Piccolo Plant Growth Regulator application rates will vary between growers and will depend upon the desired final plant height, growing conditions, application techniques, species and variety or cultivar. Growers should conduct trials with small numbers of plants of a particular genera/species or variety using rates within the recommended label rate range to determine application rate for their situation, before Piccolo Plant Growth Regulator is applied to a large number of plants. Growers may find that they have to adjust application rates, techniques, timings and treatment periods to achieve the desired effect. DO NOT apply rates of Piccolo Plant Growth Regulator higher than those indicated on this label for a particular species.

Bedding Plants

Refer to Table 3 “Suggested Piccolo Plant Growth Regulator Spray Application” for application rates for specific bedding plant species.

Apply at any stage of growth with good stem coverage, especially for vigorous varieties.

High rates of Piccolo Plant Growth Regulator may delay flowering especially of impatiens and petunia.

Late application and overdosing may cause slow growth on transplantation. This can be avoided by multiple applications of 25-50% of the specified rate and monitoring plant growth.

Application just prior to transplanting, or use of single applications at the maximum rate may result in excessive growth reduction and delay in transplant establishment. Excessive growth reduction can be avoided with the use of multiple applications of 25-50% of the specified rate in conjunction with the monitoring of plant growth to determine the requirement for treatment.

For drench application, apply Piccolo Plant Growth Regulator at a rate of 0.5 to 1.0 ppm in the volume indicated for the pot diameter indicated in Table 2. “Piccolo Plant Growth Regulator Drench Volume Guidelines”.

Table 3. Suggested Piccolo Plant Growth Regulator Spray Application on Bedding Plants

Plant	Rate Range (ppm)
Begonia cellpack	1-2 ppm at 200 mL/m ²
Celosia cellpack	20-40 ppm at 200 mL/m ²
Coleus cellpack	20-40 ppm at 200 mL/m ²
Geranium 10 cm pot	5-15 ppm at 200 mL/ m ²
Impatiens cellpack	6 – 12 ppm at 150 mL/ m ²
Impatiens plugs	1 – 6 ppm at 150 mL/ m ²
Petunias cellpack	30 – 60 ppm at 200 mL/ m ²
Petunias 10 cm pot (drench)	0.5-1.0 ppm at 60 mL/pot
Salvia cellpack	20 – 40 ppm at 200 mL/ m ²

Bedding Plant Plugs

Drench applications are not recommended for bedding plant plugs.

When assessing optimum rates, growers should pay particular attention to how treated plants grow after transplanting to avoid overdosing.

Geraniums

Piccolo Plant Growth Regulator can be applied as a spray to geraniums.

Use 5 – 15 ppm at 200 mL/m² for spray applications to geraniums grown in 10 cm pots. Applications for zonal geraniums should begin when new growth is 3.5 to 5 cm long. Applications for seeded geraniums should begin at 2-4 weeks after transplanting or when necessary.

Geranium species are extremely sensitive to Piccolo Plant Growth Regulator treatment. Growers must be cautious and conduct trials before applying Piccolo Plant Growth Regulator.

Early applications may require lower rates to avoid overdosing.

Piccolo Plant Growth Regulator will reduce late stretches when applied as the flower stems begin to elongate.

Poinsettias

Piccolo Plant Growth Regulator can be applied as a spray or drench to poinsettias.

Spray Applications

Use concentrations of 10 – 30 ppm for spray applications.

Applications to slower growing varieties should begin when axillary shoots are 5 to 7.5 centimeters long. For vigorous growing varieties, earlier applications can be made. Sequential applications may be applied 1 to 3 times, applying approximately the same amount of Piccolo Plant Growth Regulator in total as a single recommended dose, at 7 to 14 day intervals, depending on the plant vigor/growth.

Late sprayed applications of Piccolo Plant Growth Regulator will reduce plant height but may also reduce bract size. Piccolo Plant Growth Regulator should not be sprayed after the initiation of short days. Generally, do not apply Piccolo Plant Growth Regulator sprays after October 1.

Drench Applications

Use concentrations of 0.25 – 3 ppm for drench applications (based on 120 ml per 15 cm pot). Early production applications should be made when axillary shoots are 4 to 8 centimeters long. Late drench applications can safely be made after initiation of short days to prevent late stretch with minimal effect on bract size.

- ◆ Single applications at the higher rates are very effective but sequential applications tend to produce more uniformly shaped plants and also guard against overdosing.
- ◆ Optimum Piccolo Plant Growth Regulator rates and timings will vary depending on the variety.

Pot Chrysanthemums

Piccolo Plant Growth Regulator can be applied to pot chrysanthemums as a spray or drench.

Use concentrations of 50 – 200 ppm for spray applications and 1 -4 ppm for drenches. Applications should begin when axillary shoots are 5 to 7.5 centimeters long. Earlier applications can be made to vigorous varieties.

- When spraying, sequential applications of reduced rates tend to product more uniformly shaped plants.
- If late treatment is required at disbud, minimal effect on flowering will occur if drench applications are used.
- Uniform application of both sprays and drenches is critical to uniform crop development.