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#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

AUG 3 2000

Frederick T. Smith Agent for: Fine Agrochemicals Ltd. SciReg, Inc. 12733 Director's Loop Woodbridge, Virginia 22192

Subject: Piccolo EPA Registration Number 62097-11 Your label amendment application dated February 9, 2006--the master and supplemental label versions submitted by e-mail on May 22, 2006

Dear Mr. Smith,

The amended master and supplemental labels referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable, provided that you comply with the following conditions.

1. Make the following changes to the labels.

a. In the second sentence in the "Directions For Use" section in the supplemental label, change "...must be in the procession of the user..." to "...must be in the possession of the user...".

b. In the master label, in the second bulleted item in the under "Applicators and other handlers must wear:" near the bottom of page 1 and also in the second bulleted item near the bottom of the "AGRICULTURAL USE REQUIREMENTS" section near the bottom of page 2 add "made of any waterproof material" after "Chemicalresistant gloves".

c. Modify the last sentence in the "CONDITIONS OF SALE AND LIMITED WARRANTY:" section at the bottom of page 13 so that it reads "To the extent allowed by law, all such risks shall be assumed by the buyer."

2. Submit one copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration may be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,

Tony Kish Product Manager (22) Fungicide Branch Registration Division (7505C)

Attachment: Master and supplemental labels stamped "ACCEPTED with COMMENTS"

# **PICCOLO**

# **Ornamental Plant Growth Regulator**

Active Ingredient: Paclobutrazol ((±)-(R\*,R\*)- $\beta$ -[(4-Chlorophenyl)methyl)- $\alpha$ -<br/>(1,1-dimethylethyl)-I<u>H</u>-1,2,4-triazole-1-ethanol):00.4%Other Ingredients:99.6%Total:100.0%

PICCOLO contains 0.12 g active ingredient per fluid ounce (4000 ppm)

# KEEP OUT OF REACH OF CHILDREN

# CAUTION

EPA Reg. No. 62097-11

EPA Est. No:

NET CONTENTS: 1 gallon

FIRST AID				
IF ON SKIN OR CLOTHING	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.				

FOR CHEMICAL EMERGENCY: spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

# PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION. Harmful if absorbed through skin. Avoid contact with skin or clothing.

**IMPORTANT**: Read the entire directions for use and the conditions of sale and warranty before using this product.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as Barrier Laminate, Butyl rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride, or Viton.
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

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.

Do not apply this product in a way that will contact workers or other person, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read all label directions carefully before use.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride, or Viton.
- Shoes plus socks

# **GENERAL INFORMATION**

- PICCOLO is a plant growth regulator for use on commercially grown ornamental plants grown in containers in nurseries, greenhouses etc.
- PICCOLO reduces internode elongation, resulting in more desirable compact plants.
- PICCOLO produces no phytotoxic effects when used as directed.
- PICCOLO can be applied by spray, drench or bulb soak.
- PICCOLO may be applied at any time of the day without risk of phytotoxic effects.
- Under certain conditions, PICCOLO may be most effective when applied in sequential applications.
- Consistently agitate the spray/drenching solution of PICCOLO to ensure uniform distribution during application.
- PICCOLO does not require the addition of wetting agents.
- PICCOLO is an extremely effective compound. DO NOT REUSE POTS, TRAYS, OR OTHER CONTAINERS THAT PREVIOUSLY HELD PLANTS OR SOIL TREATED WITH PICCOLO.
- The efficacy of PICCOLO is affected by environmental and cultural conditions. Conditions causing vigorous growth require higher rates of PICCOLO to achieve the desired effect. Temperature is particularly important in this respect.
- Response to PICCOLO treatments varies with species and variety.

#### MIXING INSTRUCTIONS

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

ppm PICCOLO desired	fl. oz. per gallon	ml/cc per gallon
1	0.032	1.0
2	0.064	1.9
3	0.096	2.8
4	0.13	3.8
5	0.16	4.7
10	0.32	9.5
20	0.64	19.0
25	0.8	24.0
30	1.0	28.0
40	1.3	38.0
50	1.6	47.0
100	3.2	95.0
200	6.4	190.0

# Table 1 - PICCOLO DILUTION TABLE

# **APPLICATION TECHNIQUES**

#### **1. SPRAY APPLICATIONS**

When applying PICCOLO by spray, it is important that:

- Spray application must only be performed in enclosed areas, such as greenhouses, where spray drift outside the treated area cannot occur.
- Sufficient volume is used to thoroughly wet plant stems.
- Excessive spray solution is not applied as PICCOLO is active through both root and stem uptake.
- Uniform coverage of all plants is achieved.
- A period of 30 minutes is allowed after application before overhead irrigation or rain occurs.
- Maximum application rates must never be exceeded.

Sequential applications using 50-100% of the lowest application rate can provide more uniform growth effects and also guard against overdosing. This is particularly true 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 qts./100 sq. ft. of bench space. For larger plants with a well developed canopy, the spray volume is approximately 3 qts./100 sq. ft. of bench space.

# 2. DRENCH APPLICATIONS

Drench applications of PICCOLO 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 by drench, it is important that:

- Applications are made to moist potting media.
- Uniform distribution of drench 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.
- Maximum application rates must never be exceeded.

Table 2 provides a guide to determining the appropriate drench volume needed for the specified pot sizes based on the capacity of a 6 inch 'Azalea' type pot. Individual pots vary in style and depth and thus capacity. Growers must determine the appropriate concentration and volume of drench to apply according to the pot volume, media and species/variety of plant considered.

Pot Diameter	Drench Volume				
(inches)	(fl. oz./pot)	n	ng of paclob	outrazol/pot	
		1 ppm	2 ppm	3 ppm	4 ppm
4	2	0.063	0.125	0.188	0.250
5	3	0.094	0.188	0.282	0.375
6	. 4	0.125	0.250	0.375	0.500
8	10	0.313	0.625	0.938	1.25
10	25	0.783	1.56	2.35	3.125
10" hanging basket	15	0.470	0.939	1.41	1.878
12	40	1.25	2.50	3.75	5.00

# Table 2 - DRENCH VOLUME GUIDELINES

#### 3. PREPLANT BULB SOAKS

Bulb soak applications of PICCOLO are extremely effective but rates and soaking times need to be adjusted according to species.

#### **DETERMINING OPTIMUM RATES**

Optimum PICCOLO rates will vary between growers and will depend on the desired final plant height, growing conditions, applications techniques, species, and variety or cultivar. Conduct trials with small numbers of plants using the recommended rates to determine the optimum rates before PICCOLO is applied to a large number of plants. Growers may find they have to adjust application rates, techniques, timings and treatment periods to achieve their desired effect.

- The rates on this label are rate ranges and must only be used as guidelines.
- Always start trials at the lowest rate and work up as required.
- Do not exceed the maximum rate.

For plant species not specifically listed on the label, run initial trials using the rates specified in Table 3.

Plant Type	Spray	Drench	Bulb Soak
Bedding Plants	30	1	N/A
Bedding Plant Plugs	5	NR	N/A
Flowering/Foliage Plants			
(annual or perennial)			
- Herbaceous Species	30	1	N/A
- Woody Species	50	2	N/A
Woody Landscape Plants	100	4	N/A
Bulb Crops	100	10	20 (@ 15 min.)

NR = use is not recommended

N/A - use is not applicable

\* These trial rates are based on use in the Sunbelt Region. Run initial tests using 0.5 X the rates listed in regions north of the Sunbelt.

# USE AND RATE BY CROP

BE SURE YOU HAVE READ, UNDERSTOOD AND ACTED UPON THE RECOMMENDATIONS OF THE SECTION 'DETERMINING OPTIMUM RATES' BEFORE APPLYING PICCOLO TO A LARGE NUMBER OF PLANTS.

#### A. FLORIST AZALEAS

Apply PICCOLO as a spray or drench to azaleas.

Use concentrations of 100 - 200 ppm for spray applications and 5 - 15 ppm for drenches.

Make applications to control plant height and promote flower bud initiation when new growth after final pruning is 1.5 - 2 inches long.

Make applications to reduce bypass shoot development after bud set when bypass shoots are barely visible, or about 5 to 7 weeks prior to cooling.

#### B. BEDDING PLANTS

Spray bedding plants with PICCOLO. Use rates are:

Plant	Rate Range (ppm)	Plant	Rate Range (ppm)
Ageratum	15 – 45	Marigold (African)*	30 - 60
Alyssum	40 - 60	Marigold (French)	15 - 30
Celosia	15 – 45	Pansy	5 - 15
Coleus	15 – 30	Petunia	15 - 45
Dahlia	15 – 45	Salvia	20 - 60
Dianthus	20 - 60	Snapdragon *	30 - 90
Impatiens (standard)	10 - 45	Verbena	15 - 30
Impatiens (New Guinea)	2.5 - 15	Zinnia	15 - 45

\* Apply at an early stage of plant growth with good stem coverage, especially for vigorous varieties.

- PICCOLO may cause spotting of foliage on annual Vinca (periwinkle). DO NOT USE.
- Do not use on fibrous begonias as they are very sensitive to PICCOLO.
- High rates of PICCOLO may delay flowering, especially of impatiens and petunia.
- Late applications and overdosing may cause slow growth on transplantation. This
  can be avoided by using multiple applications of 25 50% of the specified rate and
  monitoring plant growth.

For bedding plants not listed above, start with a rate of 30 ppm in the Sunbelt Region and 15 ppm in the Northern Belt Region to determine optimum rates. Start applications when new growth reaches 2 inches or when plants reach marketable size.

# C. BEDDING PLANT PLUGS

Spray bedding plant plugs with PICCOLO. Use rates are:

Plant	Rate Range (ppm)	Plant	Rate Range (ppm)
Ageratum	5 – 10	Marigold (African)	10 - 20
Alyssum	10 - 20	Marigold (French)	5 - 10
Celosia	5 - 10	Pansy	1 - 5
Coleus	5 - 10	Petunia	5 - 10
Dahlia	5 – 10	Salvia	5 - 10
Dianthus	10 - 20	Snapdragon	10 - 20
Impatiens (standard)	0.5 – 10	Verbena	5 - 10
Impatiens (New Guinea)	0.25 – 5	Zinnia	5 - 10

- Drench applications of PICCOLO are not recommended for bedding plant plugs.
- When assessing optimum rates, pay particular attention to how treated plants grow after transplanting to avoid overdosing.

For bedding plants not listed above, start with a rate of 5 ppm to determine optimum rates. Start applications when plants reach the 1 - 2 true leaf stage.

#### D. BULB CROPS

Apply PICCOLO by spray, drench or bulb soak. Spray applications of PICCOLO are the least desirable method for controlling plant height and must be applied sequentially to maximize uniformity of the crop. Begin applications when plants reach a height of 2 - 4 inches.

Drench and bulb soak applications of PICCOLO are very effective. For most bulb types, begin drench applications when plants reach a height of 1 - 2 inches. For bulbs which require a cold period, apply PICCOLO drenches 1 to 5 days after thermal treatment.

Plant	Spray rate (ppm)	Drench rate (ppm)	Preplant Bulb Soak Rate (ppm) / Soak Time
Amaryllis	ND	200	100 / 1 hr
Caladium	100 - 200	2 - 16	60 / 30 min
Calla Lily	ND	5 - 15	20 / 15 min
Daffodil	ND	20 - 40	80 / 1 hr
Dahlia	ND	10 - 40	> 40 / 20 min
Freesia	ND	2-4	100 - 300 / 1 hr
Hybrid Lily (Asiatic Oriental, LA)	200 - 500	4 - 30	5 - 30 / 15 min
Montbretia	ND	ND	20 - 30 / 15 min
Tulip	ND	5 - 40	2 - 5 / 1 hr

Use rates and soak timings are:

ND = Rates for this particular use have not been determined. For these applications and for species not listed, run initial trials as outlined in the section 'DETERMINING OPTIMUM RATES'.

#### E. POT CHRYSANTHEMUMS

Apply PICCOLO to pot chrysanthemums as a spray or drench.

Use concentrations of 50 - 200 ppm for spray applications and 1 - 4 ppm for drenches. Begin applications when axillary shoots are 2 to 3 inches long. Earlier applications can be made to vigorous varieties.

- When spraying, sequential applications of reduced rates tend to produce 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.

#### F. UNLISTED FLOWERING & FOLIAGE PLANTS

Apply PICCOLO as a spray or drench to a wide variety of other flowering plants and foliage plants. Herbaceous species tend to require lower rates than woody species. For species not listed, run initial trials as outlined in the section 'DETERMINING OPTIMUM RATES'.

#### G. <u>GERANIUMS</u>

Apply PICCOLO as a spray or drench to geraniums.

Use concentrations of 10 - 30 ppm for spray applications. Begin applications for zonal geraniums when new growth is 1.5 - 2 inches long. Begin applications for seeded geraniums at 2 - 4 weeks after transplanting or when necessary.

- Geranium species are extremely sensitive to PICCOLO treatment. Growers must be cautious and conduct test trials before using drenches to apply PICCOLO.
- Early applications may require lower rates to avoid overdosing.
- PICCOLO will reduce late stretch when applied as the flower stems begin to elongate.
- H. <u>HIBISCUS</u>

Apply PICCOLO as a spray or drench to Hibiscus.

Use concentrations of 30 - 150 ppm for spray applications.

Begin applications when lateral shoots are 1 to 4 inches long.

- Single applications will control growth for 3 to 6 weeks but sequential applications tend to produce more uniformly shaped plants.
- Apply PICCOLO 1 to 2 weeks prior to flowering to prevent late stretch.
- Conduct test trials as outlined in the section 'DETERMINING OPTIMUM RATES' before using drenches to apply PICCOLO.

#### I. <u>PERENNIALS</u>

Apply PICCOLO as a spray or drench to a wide variety of perennial plants.

Use rates are:

Plant	Spray Rate (ppm)	Drench Rate (ppm)
Alcea rosea	30 - 50	1 - 2
Asclepias	30 - 60	ND
Chrysanthemum	50 - 200	1 - 4
Coreopsis	80 - 100	5 - 10
Delphinium	30 - 60	ND
Digitalis	80 - 160	2 - 4
Eupatorium	> 240	8 - 10
Gaura	> 30	30
Jacobinia (pink)	5 - 10	0.5 - 1
Monarda	60 - 160	> 4
Salvia	40 - 60	ND
Stokesia	40 - 80	ND
Verbena	120 - 160	> 3
Veronica	20 - 40	ND

#### > = Greater than

ND = Rates for this particular use have not been determined. For these applications and for species not listed, run initial trials as outlined in the section 'DETERMINING OPTIMUM RATES'.

#### J. POINSETTIAS

Apply PICCOLO as a spray or drench to Poinsettias.

Use concentrations of 10 - 30 ppm for spray applications in most regions but 15 - 45 ppm in southern Florida.

Begin applications to slower growing varieties in cool climates when axillary shoots are 2 to 3 inches long. For vigorous growing varieties in warm climates, begin applications when axillary shoots are 1.5 to 2 inches long. Sequential applications may be applied 1 to 3 times, applying approximately the same amount of PICCOLO in total as a single dose, at 7 to 14 day intervals, depending on plant vigor/growth.

Late sprayed applications of PICCOLO will reduce plant height but may reduce bract size. Do not apply PICCOLO after the initiation of short days. Generally, do not apply PICCOLO sprays after October 25 in Florida or after October 1 in other regions.

Use concentrations of 0.25 – 3 ppm for drench applications. (Based on 4 fl.oz./6 inch pot).

- Make early production applications when axillary shoots are 1.5 to 3 inches long. Late drench applications can safely be made after initiation of short days to prevent late stretch 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 rates and timings will vary depending on the variety.

#### K. WOODY PLANTS

Apply PICCOLO as a spray or drench to woody plants.

Effective rates vary greatly with species. For all applications, run initial trials as outlined in the section 'DETERMINING OPTIMUM RATES'.

Recommended woody plants include:

Azalea	Euonymus	Juniper	Photinia
Bougainvillea	Hibiscus	Kalmia	Pine
Camellia	Hydrangea	Ligustrum	Rhododendron
Cotoneaster	llex (Holly)	Magnolia	Rose

#### USE DIRECTIONS FOR CHEMIGATION

In addition to the above use rates and recommendations, the following precautions must be observed when using this product in any type of irrigation system:

Apply this product only through the following systems:

- 1) Overhead sprinklers such as impact, or micro-sprinklers, or booms.
- 2) Microirrigation such as spaghetti-tube or drip emitters.
- Mist-type irrigation such as fog systems.
- 4) Hand-held calibrated equipment such as the hand-held wand with injector.
- 5) Sub-irrigation, such as ebb and flow and flooded floor systems, or through individual saucers.

Do not apply this product using irrigation systems that may result in spray drift, such as micro-sprinklers or mist-type irrigation systems, except in enclosed areas, such as greenhouses, where spray drift outside the treated area cannot occur.

Do not apply this product through any other type of irrigation system. Crop injury or lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have any questions about calibration, contact your State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system, (including greenhouse systems), used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### SPRINKLER CHEMIGATION:

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Fill the supply tank with the desired amount of water. Then add the amount of PICCOLO required in order to achieve the final solution rate recommended for the specific crop to be treated. Agitate the mixture of PICCOLO and water frequently during the chemigation period to assure a uniform distribution throughout the system. Apply PICCOLO continuously for the duration of the water application but do not exceed recommended rates and volumes as outlined on the product label. For overhead applications to the foliage and stems, apply at a volume of 1 to 2 qts. per 100 sq. ft. for plugs and plants with small canopies. Volumes of 2 to 3 qts. per 100 sq. ft. may be necessary for plants with large canopies. For applications to the soil, apply at a volume of 4 fl. oz. per 6 inch pot.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS:

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water systems should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### Application Instructions for Pre-Transplant Liner Dip Application on Plugs or Rooted Cuttings of Bedding Plants and Herbaceous Flowering/Foliage Plants:

Applying PICCOLO by liner dip involves dipping the roots and media of seedling plugs or rooted cuttings in a treated solution prior to transplanting into the final container. Pretransplant liner dip applications of PICCOLO can be effective in reducing the height of very vigorous plants that tend to grow rapidly, following transplant. Liner dip applications also allow the use of variable PICCOLO rates within single mixed-plant containers, thereby providing greater plant growth uniformity.

Moisture level of the media at the time of liner dip treatment will influence the degree of PICCOLO absorption, and thusly its availability to the roots. Under dry liner conditions, PICCOLO absorption will increase, therefore requiring a lower use rate. Media that is moist at the time of PICCOLO application will absorb less treated solution and will elicit a lesser treatment response.

**Dry Liner Recommendations:** At the time of PICCOLO application, media can be moderately dry, but prior to plant wilting. Before treatment, allow liners to dry down following irrigation. Because dry liners will absorb more PICCOLO-treated solution than wet liners, lower use rates are recommended. The length of time the liner remains in the PICCOLO-treated solution may also affect the degree of size control achieved. For dry liners, use a dip time ranging from 30 seconds to 2 minutes.

<u>Wet Liner Recommendations:</u> Irrigate liners 30 minutes to 2 hours, insuring that soil moisture is uniform, prior to treating with PICCOLO. Because wet liners will absorb significantly less PICCOLO-treated solution than dry liners, higher treatment rates are required. Although length of dip time is not as critical when treating wet liners, soak wet liners in PICCOLO-treated solution for 5 to 10 minutes.

#### General Recommendations

**Root Development:** The degree of root development at the time of treatment can affect the plant's response to PICCOLO. Poorly rooted or immature cuttings can be excessively stunted. Therefore, treat only well rooted cuttings with liner dip applications of PICCOLO.

**Solution Depth:** The depth of treated solution may affect the activity level of a PICCOLO liner dip treatment. Since the majority of roots are located at the lower one-half of the plug, a solution depth covering at least 50% of the liner cell is recommended.

Treatment Timing: The length of time from treatment to transplanting will have a minimal impact on PICCOLO activity, allowing for good flexibility. Times ranging



between 2 hours to 10 days with liner dip treatments have been shown to provide equally effective results.

**Use Rates:** Due to the number of factors that can result in treatment variability; including: soil moisture, light level, growing conditions, plant cultivar, root development and desired degree of growth control, optimum PICCOLO rates will vary. The key to ensuring consistency in results is to develop a practical system to standardize as many factors as possible, including: media moisture level, duration of dip, age of cuttings and length of time between treatment and transplant. Conduct initial trials using the rates in Table 1.

Table 1	– Trial	Rates	(ppm)

Desired Level of Activity	Southern Climates	Northern Climates
Low	2-6	0.5-4
Medium	6-8	4-6
High	8-10	6-8

- 1. Do not reuse plug flats for PICCOLO-sensitive crops (e.g., begonia, vinca, pansy) without adequate washing.
- 2. Avoid liner dips for any crop in which the spread of root-borne disease is possible.

# STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep container closed when not in use.

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

CONTAINER DISPOSAL: Do not use empty containers. Triple rinse (or equivalent) then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# CONDITIONS OF SALE AND LIMITED WARRANTY:

FINE AGROCHEMICALS LIMITED warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions subject to the inherent risks set forth below. FINE AGROCHEMICALS LIMITED makes no other expressed or implied warranty of merchantability or fitness for a particular purpose or any other expressed or implied warranty.

INHERENT RISK OF USE: It is impossible to eliminate all risks associated with this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label), abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of FINE AGROCHEMICALS LIMITED or the seller. All such risks shall be assumed by the buyer.

PICCOLO is a trademark of Fine Agrochemicals Limited.

Fine Agrochemicals Limited Hill End House Whittington Worcester, WR5 2RQ United Kingdom

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# Supplemental Label

# **PICCOLO®**

# KEEP OUT OF REACH OF CHILDREN

# CAUTION

# **Ornamental Plant Growth Regulator**

Active Ingredient: Paclobutrazol ((±)-(R*,R*)-β-[(4-Chlorophenyl)	
methyl)-α-(1,1-dimethylethyl)-I <u>H</u> -1,2,4-triazole-1-ethanol):	00.4%
Other Ingredients:	<u>99.6%</u>
Total:	100.0%

PICCOLO contains 0.12 g active ingredient per fluid ounce (4000 ppm)

EPA Reg. No. 62097-11 EPA Est. No. 39578-TX-001

Refer to the federal label affixed to the product container for Precautionary and First Aid Statements, Worker Protection Statements and full use instructions.

# **Directions For Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This supplemental label must be in the procession of the user at the time of application.

# Application Instructions for Pre-Transplant Liner Dip Application on Plugs or Rooted Cuttings of Bedding Plants and Herbaceous Flowering/Foliage Plants:

Applying **PICCOLO** by liner dip involves dipping the roots and media of seedling plugs or rooted cuttings in a treated solution prior to transplanting into the final container. Pretransplant liner dip applications of **PICCOLO** can be effective in reducing the height of very vigorous plants that tend to grow rapidly, following transplant. Liner dip applications also allow the use of variable **PICCOLO** rates within single mixed-plant containers, thereby providing greater plant growth uniformity.

Moisture level of the media at the time of liner dip treatment will influence the degree of **PICCOLO** absorption, and thusly its availability to the roots. Under dry liner conditions, **PICCOLO** absorption will increase, therefore requiring a lower use rate. Media that is moist at the time of **PICCOLO** application will absorb less treated solution and will elicit a lesser treatment response.

Dry Liner Recommendations: At the time of PICCOLO application, media can be moderately dry, but prior to plant wilting. Before treatment, allow liners to dry down

following irrigation. Because dry liners will absorb more **PICCOLO**-treated solution than wet liners, lower use rates are recommended. The length of time the liner remains in the **PICCOLO**-treated solution may also affect the degree of size control achieved. For dry liners, use a dip time ranging from 30 seconds to 2 minutes.

<u>Wet Liner Recommendations:</u> Irrigate liners 30 minutes to 2 hours, insuring that soil moisture is uniform, prior to treating with **PICCOLO**. Because wet liners will absorb significantly less **PICCOLO**-treated solution than dry liners, higher treatment rates are required. Although length of dip time is not as critical when treating wet liners, soak wet liners in **PICCOLO**-treated solution for 5 to 10 minutes.

# General Recommendations

**Root Development:** The degree of root development at the time of treatment can affect the plant's response to **PICCOLO**. Poorly rooted or immature cuttings can be excessively stunted. Therefore, treat only well rooted cuttings with liner dip applications of **PICCOLO**.

**Solution Depth:** The depth of treated solution may affect the activity level of a **PICCOLO** liner dip treatment. Since the majority of roots are located at the lower one-half of the plug, a solution depth covering at least 50% of the liner cell is recommended.

**Treatment Timing:** The length of time from treatment to transplanting will have a minimal impact on **PICCOLO** activity, allowing for good flexibility. Times ranging between 2 hours to 10 days with liner dip treatments have been shown to provide equally effective results.

Use Rates: Due to the number of factors that can result in treatment variability; including: soil moisture, light level, growing conditions, plant cultivar, root development and desired degree of growth control, optimum PICCOLO rates will vary. The key to ensuring consistency in results is to develop a practical system to standardize as many factors as possible, including: media moisture level, duration of dip, age of cuttings and length of time between treatment and transplant. Conduct initial trials using the rates in Table 1.

Desired Level of Activity	Southern Climates	Northern Climates
Low	2-6	0.5-4
Medium	6-8	4-6
High	8-10	6-8

#### Table 1 – Trial Rates (ppm)

- 1. Do not reuse plug flats for **PICCOLO**-sensitive crops (e.g., begonia, vinca, pansy) without adequate washing.
- 2. Avoid liner dips for any crop in which the spread of root-borne disease is possible.

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