



Ornamental Plant Growth Regulator

Active Ingredient: Paclobutrazol ((±)-(R*,R*)-β-[(4-Chloro-phenyl)methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol): 4.0%
Other Ingredients: 96.0%
Total: 100.0%

PICCOLO 10 XC contains 1.2 g active ingredient per fluid ounce

**KEEP OUT OF REACH OF CHILDREN
 DANGER**

EPA Reg. No. 62097-25-82917
 EPA Est. No. 39578-TX-001

Net Contents: 1 quart (0.945 L)

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> • 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 center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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
 DANGER.** Causes irreversible eye damage. Do not get in eyes or on clothing. Avoid contact with skin or clothing. Wear protective clothing (long-sleeved shirt, long pants, socks, and shoes) and eyewear

such as goggles, face shield, or safety glasses, and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

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 made of any waterproof material such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride, or Viton.
- Protective eyewear (goggles, face shield, or safety glasses).
- 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: <ul style="list-style-type: none"> • 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 persons, 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 made of any waterproof material such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride, or Viton.
- Protective eyewear (goggles, face shield, or safety glasses).
- Shoes plus socks.

GENERAL INFORMATION

- The multitude of variations in application methods, cultivar, species, climatic and growing conditions makes it impossible to test PICCOLO 10 XC under all conditions. TREAT A LIMITED NUMBER OF PLANTS AND OBSERVE PLANT RESPONSES BEFORE APPLYING PICCOLO 10 XC TO A LARGE NUMBER OF PLANTS FOR THE FIRST TIME.
- PICCOLO 10 XC is a plant growth regulator for use on commercially grown ornamental plants grown in containers in nurseries and greenhouses.
- PICCOLO 10 XC reduces internode elongation, resulting in more desirable compact plants.

- Apply PICCOLO 10 XC by spray or drench.
- Under certain conditions, PICCOLO 10 XC may be most effective when applied in sequential applications.
- Consistently agitate the spray/drenching solution of PICCOLO 10 XC to ensure uniform distribution during application.
- PICCOLO 10 XC does not require the addition of wetting agents.
- PICCOLO 10 XC is an effective compound. DO NOT REUSE POTS, TRAYS, OR OTHER CONTAINERS THAT PREVIOUSLY HELD PLANTS OR SOIL TREATED WITH PICCOLO 10 XC.
- The efficacy of PICCOLO 10 XC is affected by environmental and cultural conditions. Conditions causing vigorous growth require higher rates of PICCOLO 10 XC to achieve the desired effect. Temperature is particularly important in this respect.
- Response to PICCOLO 10 XC 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 10 XC according to Table 1. Add the PICCOLO 10 XC to the spray tank and fill the tank with the remaining required amount of water to achieve the correct concentration.

Table 1 - PICCOLO 10 XC DILUTION TABLE

ppm PICCOLO 10 XC desired	ml per gallon of water
1	0.10
2	0.20
3	0.30
4	0.40
5	0.50
10	1.00
20	2.00
25	2.50
30	3.00
40	4.00
50	5.00
100	10.00
200	20.00

APPLICATION TECHNIQUES

1. SPRAY APPLICATIONS

When applying PICCOLO 10 XC 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 10 XC 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 10 XC 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 10 XC 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.

Table 2 - **DRENCH VOLUME GUIDELINES**

Pot Diameter (inches)	Drench Volume (fl. oz./pot)	mg of paclobutrazol/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

DETERMINING OPTIMUM RATES

Optimum PICCOLO 10 XC 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 10 XC 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 ornamental plant species not specifically listed on the label, growers should run initial trials using the rates specified in Table 3.

Table 3 - **TRIAL RATES (ppm) BY GENERAL PLANT TYPE***

Plant Type	Spray	Drench
Bedding Plants	30	1
Bedding Plant Plugs	5	NR
Flowering/Foliage Plants (annual or perennial)		
- Herbaceous Species	30	1
- Woody Species	50	2
Woody Landscape Plants	100	4
Bulb Crops	100	10

NR = use is not recommended

* 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 RECOMMENDATIONS BY CROP

BE SURE YOU HAVE READ, UNDERSTOOD AND ACTED UPON THE RECOMMENDATIONS OF THE SECTION ‘DETERMINING OPTIMUM RATES’ BEFORE APPLYING PICCOLO 10 XC TO A LARGE NUMBER OF PLANTS.

A. FLORIST AZALEAS

Apply PICCOLO 10 XC 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 10 XC. 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 10 XC 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 10 XC.
- High rates of PICCOLO 10 XC 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. Start applications when new growth reaches 2 inches or when plants reach marketable size.

C. BEDDING PLANT PLUGS

Spray bedding plant plugs with PICCOLO 10 XC. 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 10 XC 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 10 XC by spray or drench. Spray applications of PICCOLO 10 XC 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 applications of PICCOLO 10 XC 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 10 XC drenches 1 to 5 days after thermal treatment.

Use rates are:

Plant	Spray rate (ppm)	Drench rate (ppm)
Amaryllis	ND	200
Caladium	100 - 200	2 - 16
Calla Lily	ND	5 - 15
Daffodil	ND	20 - 40
Dahlia	ND	10 - 40
Freesia	ND	2 - 4
Hybrid Lily (Asiatic Oriental, LA)	200 - 500	4 - 30
Montbretia	ND	ND
Tulip	ND	5 - 40

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 10 XC 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 10 XC 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. GERANIUMS

Apply PICCOLO 10 XC 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 to 4 weeks after transplanting or when necessary.

- Geranium species are extremely sensitive to

PICCOLO 10 XC treatment. Growers must be cautious and conduct test trials before using drenches to apply PICCOLO 10 XC.

- Early applications may require lower rates to avoid overdosing.
- PICCOLO 10 XC will reduce late stretch when applied as the flower stems begin to elongate.

H. HIBISCUS

Apply PICCOLO 10 XC 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 10 XC 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 10 XC.

I. PERENNIALS

Apply PICCOLO 10 XC 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. WOODY PLANTS

Apply PICCOLO 10 XC 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	Ilex (Holly)	Magnolia	Rose

USE DIRECTIONS FOR CHEMIGATION

In addition to the above use rates, 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.
- 3) 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, solenoid-operated 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 10 XC required in order to achieve the final solution rate recommended for the specific crop to be treated. Agitate the mixture of PICCOLO 10 XC and water frequently during the chemigation period to assure a uniform distribution throughout the system. Apply PICCOLO 10 XC 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, solenoid-operated 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.

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: Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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.

WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

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