



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

92522-2

Date of Issuance:

10/24/19

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Hammer Head PGR

Name and Address of Registrant (include ZIP Code):

Jane Miller
Agent to AgroScience International, Inc.
c/o Biologic Regulatory Consulting, Inc.
10529 Heritage Bay Blvd.
Naples, FL 34120

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Lindsay Roe, Product Manager 22
Fungicide Branch, Registration Division (7505P)

Date:

10/24/19

2. Be aware that proposed data requirements have been identified in an interim decision. For more information on these proposed data requirements, see the Paclobutrazol Registration Review Interim Decision in EPA Docket: [EPA-HQ-OPP-2006-0109](#)
3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 92522-2."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Note that Alternate Brand Name "Hammer Head" has been added to the Agency database.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

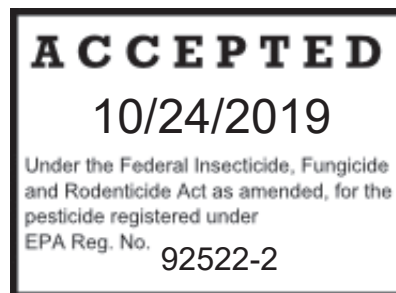
- Basic CSF dated 04/11/2019

If you have any questions, please contact Lindsay Roe by phone at 703 347-0506, or via email at roe.lindsay@epa.gov; or Craig Reeves by phone at 703 347-0486, or via email at reeves.craig@epa.gov.

Enclosure

Hammer Head PGR

[ABN: Hammer Head]
Ornamental Plant Growth Regulator



ACTIVE INGREDIENT:

Paclobutrazol: ((±)-(R*,R*)-β-[(4-chlorophenyl)methyl]-α-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol):..... 0.4%

OTHER INGREDIENTS:..... 99.6%

TOTAL: 100.0%

Hammer Head PGR contains 0.12 g active ingredient per fluid ounce (4000 ppm).

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID	
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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product call the poison control center at 1-800-222-1222.	

**SEE [SIDE][BACK][PANEL][LABEL BOOKLET] FOR ADDITIONAL PRECAUTIONARY STATEMENTS
[AND] [FOR] [COMPLETE DIRECTIONS FOR USE]**

EPA Reg. No. 92522-E
EPA Est. No.

Manufactured for:
Agroscience International, Inc.
1801 Rock Road
Commerce Township, MI 48390

Net Contents:

Shake Well Before Each Use

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

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

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate; butyl rubber \geq 14 mls; neoprene rubber \geq 14 mls; nitrile rubber \geq 14 mls; polyvinyl chloride (PVC) \geq 14 mls; or Viton \geq 14 mls.
- Shoes plus socks

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

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

For terrestrial use: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

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.

Read the entire directions for use and the Limited Warranty and Disclaimer before using this product.

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR LESS THAN OPTIMAL GROWTH REDUCTION.

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), notification to workers, 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:

- Coveralls
- Chemical-resistant gloves such as barrier laminate; butyl rubber \geq 14 mls; neoprene rubber \geq 14 mls; nitrile rubber \geq 14 mls; polyvinyl chloride (PVC) \geq 14 mls; or Viton \geq 14 mls.
- Shoes plus socks

PRODUCT INFORMATION

Hammer Head PGR is a plant growth regulator for use on ornamental plants grown in containers in nurseries, greenhouses, shadehouses and interiorscapes.

Hammer Head PGR is absorbed by plant roots and is carried to the active growing points of the plant. Applications of Hammer Head PGR reduce internode elongation for more desirable compact plants. Hammer Head PGR may be applied at any time of the day and produces no phytotoxic effects when used as directed.

MIXING INSTRUCTIONS

1. Fill the spray or drench tank one half full of clean water.
2. Measure the specified amount of Hammer Head PGR as shown in Table 1.
3. Add the measured amount of Hammer Head PGR to the tank and add clean water to achieve the desired concentration.

Table 1 - Hammer Head PGR Dilution Table

Hammer Head PGR (Desired ppm)	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

APPLICATION INSTRUCTIONS

Hammer Head PGR may be applied by spray, drench or bulb soak. Hammer Head PGR may also be applied using sequential spray applications. Maintain frequent agitation of the Hammer Head PGR solution and follow proper application techniques to achieve desired results. Double check all calculations, volume measurements and sprayer calibration. To limit unwanted surface runoff in outdoor ornamental uses, do not apply when growth media is saturated.

SPRAY APPLICATION

Hammer Head PGR may be applied at any time of the day without danger of burning leaves or causing chlorosis. Use sufficient volume to thoroughly wet the plant stems. Do not apply excessive spray solution. The spray volume which drips down into the media will be taken up by the roots, however, too much runoff into the media may result in excessive height control. Sprays must be thorough, consistent, and provide uniform coverage of all plants. Failure to do so may result in non-uniform height control. Addition of wetting agents for spray applications is not necessary.

In outdoor commercial ornamental and nursery uses, follow foliar applications of Hammer Head PGR by irrigation within 24 hours to remove product from foliage and limit surface movement. If overhead irrigation is not available, time applications to allow Hammer Head PGR to dry on the treated surface prior to a rain event.

Make spray application at least 30 minutes before overhead irrigation or rain.

Using sequential applications may provide more uniform growth regulation and safety against over application. Sequential spray applications are to be applied using 50-100% of the lower specified rate. Growers in cooler climates may have to use lower rates.

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, use a spray volume of 3 qts./100 sq. ft. of bench space.

NOTE: With some plant species, particularly chrysanthemums, hibiscus and azaleas, individual lateral shoots will outgrow the other laterals, causing non-uniform plant appearance. This results when individual laterals do not receive enough chemical when spray is applied. The use of sequential applications will reduce this problem.

DRENCH APPLICATION

Make applications to moist media. This may be achieved by watering plants the day before application. Applications to dry media may result in poor distribution. Growing media containing bark of high organic matter may require the use of higher application rates. When applied as a drench through sub-irrigation in saucers, benches, or flooded floors, reduce rates by 50-75%. The optimum rates for continuous application in the irrigation water is about 10-33% of the rate needed for a one-time sub-irrigation application. When treating multiple plants growing in one pot, uniform distribution is required to achieve uniform height control.

Drench Rates and Volume

Table 2 provides a guide to determine 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, affecting 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

PREPLANT BULB SOAK APPLICATION

Soaking of bulbs in solution of Hammer Head PGR is a very effective way to attain height control. The rates used and length of soaking time will vary, depending on the species. See the section on BULB CROPS for specific instructions.

FACTORS AFFECTING PLANT RESPONSE TO HAMMER HEAD PGR

In addition to proper application technique, environmental and cultural factors may affect the plant's response to Hammer Head PGR:

- Cultural practices may affect plant response to Hammer Head PGR. Conditions causing vigorous growth require higher rates of Hammer Head PGR to achieve the desired effect. Plants grown with close spacing or in smaller pots and using high water and fertility levels may require an increase in the amount of Hammer Head PGR needed.
- Conditions causing vigorous growth require higher rates of Hammer Head PGR to achieve the desired effect. Temperature may be the overriding factor in determining the amount of Hammer Head PGR needed. Growers in warm climates need to use higher rates and/or more applications compared to growers in cooler climates. The amount of Hammer Head PGR needed and the number of applications may also vary depending on the time of year with higher rates and/or applications needed during warm months.
- Different varieties or cultivars within a given plant species may require a higher or lower rate of Hammer Head PGR. Consult with plant and seed suppliers for vigor and other growth characteristics for newly released varieties. Taller, more vigorous varieties generally require more Hammer Head PGR than do naturally shorter, less vigorous varieties.

APPLICATION RATES

Hammer Head PGR application rates will vary between growers and will depend on the desired final plant height, growing conditions, application techniques, species, and variety or cultivar. To determine the optimum rates for your situation before Hammer Head PGR is applied to a large number of plants, conduct trials with small numbers of plants using the specified rates. Growers may find they have to adjust application rates, techniques, timings and treatment periods to achieve the desired effect.

The rates specified on this label are rate ranges and may be used only as guidelines. Always start trials at the lowest specified rate and work up as required. DO NOT exceed the maximum specified rate.

Trial Rates

Run initial trials using the rates specified in Table 3.

Table 3. Trial Rates (PPM) By General Plant Type*

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

*The specified trial rates are based on information developed primarily in the Sunbelt Region.

Growers in regions north of the Sunbelt may run initial tests using 0.5 x the specified trial rates listed in Table 3.

SPECIFIC USE AND RATES BY CROP

Read and fully understand the section on “APPLICATION RATES” before applying to a large number of plants.

A. AZALEAS (FLORIST)

Hammer Head PGR may be applied by spray or drench application to control azalea height and promote flower bud initiation.

Make spray applications at rate ranges of 100 to 200 ppm and drench applications at rate ranges of 5 to 15 ppm.

Apply Hammer Head PGR to control plant height and promote flower bud initiation when new growth after final pruning is 1.5 – 2 inches long. To reduce bypass shoot development, apply after bud set when bypass shoots are barely visible, or about 5 to 7 weeks prior to cooling.

B. BEDDING PLANTS

Hammer Head PGR may be applied by spray application to control height of most bedding plants. Make spray applications of Hammer Head PGR at the rate ranges below. For bedding plants not specifically listed in the table, apply at rates between 2.5 and 90 ppm. Do not apply to bedding plants at rates above 90 ppm.

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.

NOTE:

- Do not use on fibrous begonias, as they are very sensitive to Hammer Head PGR.
- Do not use on annual Vinca (periwinkle) as Hammer Head PGR may cause spotting of foliage, especially at high temperatures.
- For species not listed, growers may determine optimum rates starting with a rate of 30 ppm in the Sunbelt Region and 15 ppm in the Northern Belt Region. Begin making applications when

new growth in height or width reaches 2 inches or when plants reach desired size to hold them at a marketable stage.

- Late application timing and/or excessive rates may slow the growth of plants when transplanted. To avoid this, apply multiple applications at 25% to 50% of the optimum rate.
- High rates of Hammer Head PGR may delay flowering, especially of impatiens and petunias.

Media sprays may be used to control the height of vigorous plugs, such as impatiens and salvia that show excessive elongation soon after transplant. Use rates for applications made just prior to transplant are in the range of 20-60 ppm, applied in a volume of 2 qts./100 sq. ft.

Drench applications may be used on bedding plants but only for those plants in containers 6 inches or larger. Determine optimum rates, starting at 1 ppm. Do not make applications of Hammer Head PGR for containers less than 6 inches due to sensitivity and extremely low rates needed.

Specific bedding plants that have been shown to be responsive to Hammer Head PGR are:

Ageratum	Dianthus	Petunia
Alyssum	Impatiens (Standard)	Salvia
Celosia	Impatiens (New Guinea)	Snapdragon
Coleus	Marigold	Verbena
Dahlia	Pansy	Zinnia

C. BEDDING PLANT PLUGS

Hammer Head PGR may be applied by spray application to control height of bedding plant plugs. Spray applications of Hammer Head PGR may be made at the rate ranges noted below for a variety of bedding plants. For bedding plant plugs not specifically listed in the table, apply at rates between 0.5 and 20 ppm.

Plant	Rate Range (ppm)	Plant	Rate Range (ppm)
Ageratum	5-10	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
Marigold (African)	10-20	Zinnia	5-10

For bedding plant plugs not specifically listed above, determine optimum rates starting with a rate of 5 ppm. Timing of application normally begins at the 1 to 2 true leaf stage.

Media sprays may be used to control the height of vigorous plugs, such as marigold and snapdragon, that show excessive elongation soon after emergence. Rates specified for applications made at the time of, or within one week after seeding are in the range of 5-30 ppm, applied in a volume of 2 qts./100 sq. ft.

Do not make drench applications for bedding plant plugs due to the sensitivity and extremely low rates needed.

NOTE: To evaluate optimum rates, evaluate how the treated plants grow after transplanting to ensure that the treatment does not excessively reduce growth during the finished stage or in the landscape.

D. BULB CROPS

Hammer Head PGR may be applied by spray, drench or bulb soak.

Spray applications are the least desirable method for controlling height and must be applied sequentially to achieve desired uniformity. Begin applications when plants are 2 to 4 inches tall.

Make drench applications in the rate range of 8 to 160 ppm. Optimum rates and timing of application vary and depend on species. For bulbs requiring a cold period, apply Hammer Head PGR 1 to 5 days after

thermal treatment. For most other bulb types, make application when newly emerged shoots are 1 to 2 inches tall.

Preplant bulb soaks are also very effective for most species in the range of 5 to 25 ppm, with a soaking time of 5-15 minutes. Lower use rates will require longer soaking times.

Rate ranges and length of soaking time for a variety of bulb species:

Bulb Type	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.
Dahlia	ND	10-40	40 / 29 min.
Freesia	ND	2-4	100-300 / 1 hr.
Hybrid Lily	200-500	4-30	5-30 / 15 min.
Montbretia	ND	ND	20-30 / 15 min.
Tulip	ND	5-40	2-5 / 1 hr.

ND = Rates for this particular use have not been determined. For these applications, run trials using the rates specified in Table 3. Run initial trials using the rates outlined in the section on “APPLICATION RATES”.

E. CHRYSANTHEMUMS (POT)

Hammer Head PGR may be applied as a spray or drench application to control the height of pot chrysanthemums. Uniform application is critical to uniform crop development.

Make spray applications at rates of 50 to 200 ppm. Begin application when axillary shoots are 2 to 3 inches long. Hammer Head PGR may be applied earlier to vigorous varieties for additional control. Sequential applications of lower rates provide more uniformly shaped plants than single-spray applications.

Make drench applications at rates of 1 to 4 ppm. Begin applications when axillary shoots are 2 to 3 inches long. Earlier applications may be made to vigorous varieties. Late applications at disbud may be made with minimal effect on flowering if drench applications are used.

F. PERENNIALS

Hammer Head PGR may be applied as a spray or drench application to control the height of a wide variety of perennial plants.

Spray applications of Hammer Head PGR may be made on a wide variety of perennial plants in the rate range of 30-200 ppm.

Make drench applications in the 0.5-30 ppm range, and are helpful to hold or tone plants when at or near marketable size.

Rates for some perennial plants 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	ND	8-10
Gaura	ND	30
Jacobinia (Pink)	5-10	0.5-1
Monarda	60-160	ND
Salvia	40-60	ND
Stokesia	40-80	ND
Verbena	120-160	ND
Veronica	20-40	ND

ND = Rates for this particular use have not been determined. For these applications, run trials using the rates specified in Table 3.

For species not specifically listed, conduct trials using the rates outlined in the section on “APPLICATION RATES”.

G. GERANIUMS

Geraniums are particularly sensitive to Hammer Head PGR. The user must determine optimum rates before applying to large numbers of plants.

Make spray applications of Hammer Head PGR at rates of 10 to 30 ppm. Early applications may require lower rates to avoid overstunting. Timing of application for zonal geraniums is when growth is 1.5 to 2 inches long. Begin application for seeded geraniums, 2 to 4 weeks after transplanting or when needed.

Hammer Head PGR will reduce late stretch when applied as the flower stems begin to elongate.

For drench applications, users must be cautious and conduct test trials to determine optimum rates.

H. HIBISCUS

Hammer Head PGR may be applied as a spray or drench application to control the height of hibiscus.

Make spray applications at 30 to 150 ppm. Begin application when laterals are 1 to 4 inches long, depending on desired final plant size.

Single applications will control lateral growth for 3 to 6 weeks. Sequential applications may provide more uniform plant shape. Hammer Head PGR may be applied 1 to 2 weeks prior to flowering to prevent late stretch.

Drench applications will also effectively reduce shoot elongation. Conduct trials using specified rates outlined in the section on “APPLICATION RATES”.

I. POINSETTIAS

Hammer Head PGR may be applied as a spray or drench application to control the height of poinsettias.

Make spray applications at rates of 10 to 30 ppm for most areas of the U.S. In southern Florida, use higher rates of 15 to 45 ppm. Single applications may be made using the higher rates. However, sequential applications initially using lower rates will provide better safety against overly retarded plants. For subsequent applications use 50 to 100% of the initial rate, depending on plant vigor at the time of

reapplication.

Applications to slower growing varieties in cool climates may begin when axillary shoots are 2 to 3 inches long. For vigorous growing varieties in warm climates, begin application when axillary shoots are 1.5 to 2 inches long. Sequential applications may be applied 1 to 3 times, at 7 to 14-day intervals, depending on plant vigor/growth.

Seasonably late applications of Hammer Head PGR will reduce plant height, but, like most PGR's may also reduce bract size. To prevent this, do not apply Hammer Head PGR after initiation of short days. As a guide, do not apply Hammer Head PGR sprays after October 1 for areas outside of Florida, or after October 25th in Florida.

Make drench applications for height control, and for late season application to plants which have initiated bracts or have reached or are near their desired marketing size. Use concentrations of 0.25 to 3 ppm (based on 4 fl. oz. / 6 inch pot), depending on variety, location and timing.

Drench applications of Hammer Head PGR may be applied when axillary shoots are 1.5 to 2 inches long. Late applications may safely be made after initiation of short days to prevent late stretch with minimal effect on bract size.

NOTE: Optimum Hammer Head PGR rates and timings for both spray and drench applications to poinsettias will vary depending on the variety.

J. WOODY PLANTS

Hammer Head PGR may be applied as a spray or drench application to control the height and initiating flower bud formation on a wide variety of woody plants. Effective rates vary with species. For all applications, run initial tests as outlined in the "APPLICATION RATES" section of this label.

Examples of woody plants on which Hammer Head PGR may be applied are:

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

K. FLOWERING & FOLIAGE PLANTS (Not specifically listed)

Hammer Head PGR may be applied as a spray or drench application to control height on a wide variety of other flowering and foliage plants not specifically listed on this label. Hammer Head PGR may be used as either a holding agent to stop growth (e.g., interiorscape) or a toning agent to slow growth (e.g. when pot crops or hanging baskets are at or near marketable size). Herbaceous species tend to require lower rates than woody species. Run initial trials using the rates as outlined in the "APPLICATION RATES" section of this label.

USE DIRECTIONS FOR CHEMIGATION

In addition to the above use rates and instructions, 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, micro-sprinklers, or booms.
2. Micro-irrigation such as spaghetti-tube or drip emitters.
3. Hand-held calibrated equipment such as the hand-held wand with injector.
4. Sub-irrigation, such as ebb and flow and flooded floor systems, or through individual saucers.

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 may result from non-uniform distribution of treated water. If you have any questions about calibration, you may contact 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 if the need arises.

Fill the supply tank with the desired amount of water. Then add the amount of Hammer Head PGR required in order to achieve the final solution rate for the specific crop to be treated. Agitate the mixture of Hammer Head PGR and water frequently during the chemigation period to assure a uniform distribution throughout the system. Apply Hammer Head PGR continuously for the duration of the water application but do not exceed specified 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 application to the soil, apply at a volume of 4 fl. oz. per 6 inch pot.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEM:

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 (RPZ), backflow preventer 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 must be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow 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 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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

DRIP (TRICKLE) CHEMIGATION

1. 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 back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional inter-locking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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 HANDLING:

Nonrefillable Container (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 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 if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities

LIMITED WARRANTY AND DISCLAIMER

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with printed directions and established safe practice. To the extent consistent with applicable law, buyer's exclusive remedy and manufacturer's or seller's exclusive liability for any and all claims, losses, damages or injuries resulting from the use or handling of this product, whether or not based in contract, negligence, strict liability in tort or otherwise shall be limited, at the manufacturer's option to replacement of, or the repayment of the purchase price for, the quantity of product with respect to which damages are claimed.