Downsize®
Ornamental Plant Growth Regulator

ACTIVE INGREDIENT:
Paclorbutrazol: \((\pm)-(R\#)_{-}R\#)\cdot6\cdot(4\cdot\text{chlorophenyl})\cdot\text{methyl}\cdot\alpha\cdot(1,1\cdot\text{dimethylethyl})\cdot1\cdot\text{H}-1,2,4\cdot\text{triazole}-1\cdot\text{ethanol})\).................................................................................. 0.4%
OTHER INGREDIENTS:.......................................................................................................................................................................................... 99.6%
TOTAL:.................................................................................................................................................................................................................. 100.0%

Downsize® 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:
- 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. You may also contact 1-702-324-2403 for emergency medical treatment information.

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, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS
For terrestrial uses: 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 rinsewater.

EPA Reg. No. 80697-3-82866
EPA Est. No. 069845-CHN-002

Manufactured by:
Zhejiang Tide CropScience Co., Ltd.
21 Hubble, Irvine, CA 92618, USA

Manufactured for:
Greenleaf Chemical LLC.
Henderson, NV 89052, USA

Net Contents: 2.5 Gallons
**PERSONAL PROTECTIVE EQUIPMENT**

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. 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.

**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, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton
- Shoes plus socks

**IMPORTANT:** Read the entire directions for use and the Limited Warranty and Disclaimers before using this product.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its label. Do not apply this product in a manner that will contact workers or other persons, whether directly or through drift. Only protected handlers may be in the area during application. For requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Read all label directions carefully before use.

**GENERAL INFORMATION**

Downsize® is a plant growth regulator for use on ornamental plants grown in containers, nurseries, greenhouses, shadehouses, and interiorscapes. Downsize® is applied as a drench where it is readily absorbed by plant roots and translocated to the active growing points. Drench applications of Downsize® produce a long-lasting, unit retardation with little effect on flower size. Drench applications of Downsize® can be made without phytotoxic effects at any time in the growing cycle up to, at, or near the point of marketable size is reached.

**MIXING INSTRUCTIONS**

Half fill the drench tank with clean water. Accurately measure the required amount of Downsize® as shown in Table 1. Add Downsize® to the tank and fill the tank with remaining required amount of water to achieve the desired concentration.

<table>
<thead>
<tr>
<th>Downsize® (Desired ppm)</th>
<th>Fl. oz. per Gallon</th>
<th>ml/cc per Gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.032</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>0.064</td>
<td>1.9</td>
</tr>
<tr>
<td>3</td>
<td>0.096</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>0.13</td>
<td>3.8</td>
</tr>
<tr>
<td>5</td>
<td>0.16</td>
<td>4.7</td>
</tr>
<tr>
<td>10</td>
<td>0.32</td>
<td>9.5</td>
</tr>
<tr>
<td>20</td>
<td>0.64</td>
<td>19.0</td>
</tr>
<tr>
<td>25</td>
<td>0.8</td>
<td>24.0</td>
</tr>
<tr>
<td>30</td>
<td>1.0</td>
<td>28.0</td>
</tr>
<tr>
<td>40</td>
<td>1.3</td>
<td>38.0</td>
</tr>
<tr>
<td>50</td>
<td>1.6</td>
<td>47.0</td>
</tr>
<tr>
<td>100</td>
<td>3.2</td>
<td>95.0</td>
</tr>
</tbody>
</table>
APPLICATION

Drench applications can be made indoors or outdoors. When applications are made it is important that:

- Applications should be made to moist media. This may be achieved by watering plants the day before application. Applications to dry media can result in poor distribution.
- Consideration is given to the growing media. 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.
- Attention should be given to a more uniform distribution of drench solution if multiple plants are growing in the same 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

<table>
<thead>
<tr>
<th>Pot Diameter (inches)</th>
<th>Drench Volume (fl. oz./pot)</th>
<th>mg of Paclobutrazol/pot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 ppm</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>0.063</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>0.094</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>0.125</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>0.313</td>
</tr>
<tr>
<td>10</td>
<td>25</td>
<td>0.783</td>
</tr>
<tr>
<td>10&quot; hanging basket</td>
<td>15</td>
<td>0.470</td>
</tr>
<tr>
<td>12</td>
<td>40</td>
<td>1.25</td>
</tr>
</tbody>
</table>

OTHER FACTORS AFFECTING PLANT RESPONSE TO DOWNSIZE®

In addition to proper application technique, environmental and cultural factors can affect the plant’s response to Downsize®:

- Cultural practices can affect plant response to Downsize®. Conditions causing vigorous growth require higher rates of Downsize® to achieve the desired effect. Plants grown with close spacing or in smaller pots and using high water and fertility levels may require

The following table provides recommended rate ranges for a variety of bulb species.

<table>
<thead>
<tr>
<th>Bulb Type</th>
<th>Drench Rate (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caladium</td>
<td>2-16</td>
</tr>
<tr>
<td>Calla Lily</td>
<td>5-15</td>
</tr>
<tr>
<td>Daffodil</td>
<td>20-40</td>
</tr>
<tr>
<td>Dahlia</td>
<td>10-40</td>
</tr>
<tr>
<td>Freesia</td>
<td>2-4</td>
</tr>
<tr>
<td>Hybrid Lily (Asiatic, Oriental, LA)</td>
<td>4-30</td>
</tr>
<tr>
<td>Tulip</td>
<td>5-40</td>
</tr>
</tbody>
</table>

Run initial trials using the rates outlined in the section on “DETERMINING OPTIMUM RATES”.

CHRYSANTHEMUMS (POT)

Use drench concentrations of 1-4 ppm. Begin applications when axillary shoots are 2 to 3 inches long. Earlier applications can be made to vigorous varieties. Uniform application is critical to uniform crop development.

PERENNIALS

Downsize® may be used on a wide variety of perennial plants. Recommended rates for some perennial plants are:

<table>
<thead>
<tr>
<th>Plant</th>
<th>Drench Rate (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcea rosa</td>
<td>1-2</td>
</tr>
<tr>
<td>Chrysanthemum</td>
<td>1-4</td>
</tr>
<tr>
<td>Coreopsis</td>
<td>5-10</td>
</tr>
<tr>
<td>Digitalis</td>
<td>2-4</td>
</tr>
<tr>
<td>Eupatorium</td>
<td>8-10</td>
</tr>
<tr>
<td>Gaura</td>
<td>30</td>
</tr>
<tr>
<td>Jacobinia (Pink)</td>
<td>0.5-1</td>
</tr>
<tr>
<td>Monarda</td>
<td>4</td>
</tr>
<tr>
<td>Verbena</td>
<td>3</td>
</tr>
</tbody>
</table>

> = Greater than

Run initial trials using the rates outlined in the section on “DETERMINING OPTIMUM RATES”.

POINSETTIAS

Drench applications of Downsize® should be applied when axillary shoots are 1.5 to 3 inches long. Late applications can safely be made after initiation of short days to prevent late stretch with minimal effect on bract size.
Use concentrations of 0.25 to 2 ppm (based on 4 fl. oz./6 inch pot), depending on variety, location and timing.

G. WOODY PLANTS

Downsize® drenches can be applied to woody plants. Effective rates vary with species. For all applications, growers should run initial tests as outlined in the “DETERMINING OPTIMUM RATES” section of this label.

Examples of woody plants on which Downsize® can be applied are:

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

H. FLOWERING & FOLIAGE PLANTS (Not specifically listed)

Downsize® drenches can be applied to a wide variety of other flowering and foliage plants not specifically listed on this label. Herbaceous species tend to require lower rates than woody species. Run initial trials using the rates as outlined in the “DETERMINING OPTIMUM RATES” section of this label.

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. Micro-irrigation such as spaghetti-tube or drip emitters.
  2. Hand-held calibrated equipment such as the hand-held wand with injector.
  3. 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 can result from non-uniform distribution of treated water. If you have any questions about calibration, you should 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 should the need arise.

FLOOR (BASIN), FURROW AND BORDER CHEMIGATION

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic disconnection such as a drop structure or weir box to decrease potential for water contamination from back flow if water flow stops.

2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

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

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

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

   d. The system must contain functional interlocking controls to automatically shut the pesticide injection pump when the water pump motor stops.

   e. 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.

   f. 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.

A pesticide supply tank is not recommended. Apply Downsize® continuously for duration of the water application.
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 15 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 wither 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.

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