

# **AGERATUM, CELOSIA, ETC. - BEDDING PLANT PLUGS**

## General Information

### GENERAL INFORMATION

- ABIDE is a plant growth regulator for use on commercially grown ornamental plants grown in containers in nurseries, greenhouses, and shadehouses.
- ABIDE reduces internode elongation, resulting in more desirable compact plants.
- ABIDE produces no phytotoxic effects when used as directed.
- ABIDE can be applied by spray or drench.
- Under certain conditions, ABIDE may be most effective when applied in sequential applications.
- Consistently agitate the spray/drenching solution of ABIDE to ensure uniform distribution during application.
- ABIDE does not require the addition of wetting agents.
- ABIDE is an extremely effective compound. DO NOT REUSE POTS, TRAYS, OR OTHER CONTAINERS THAT PREVIOUSLY HELD PLANTS OR SOIL TREATED WITH ABIDE.
- The efficacy of ABIDE is affected by environmental and cultural conditions. Conditions causing vigorous growth require higher rates of ABIDE to achieve the desired effect. Temperature is particularly important in this respect.
- Response to ABIDE treatments varies with species and variety.

### APPLICATION TECHNIQUES

#### 1. SPRAY APPLICATIONS

When applying ABIDE by spray, it is important that:

- Do not use spray applications in shadehouses or nurseries.
- Excessive spray solution is not applied as ABIDE is active through both root and stem uptake.
- Uniform coverage of all plants is achieved.
- ABIDE is not applied with wetting agents as crop injury may occur.
- Maximum specified application rates must never be exceeded.

Sequential applications using 50-100% of the lowest specified 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.

### Bench Area Sprays

Generally, the spray volume for small plants in small containers or plug trays which are closely spaced should be 2 qts./100 sq. ft. (1/2 gallon) of bench space. For larger plants with a well developed canopy, a spray volume of 3 qts./100 sq. ft. (3/4 gallon) of bench space should be used. Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

### Individual Plant Sprays

Spray foliage to the point of runoff when treating individual plants. When applying ABIDE to individual plants, it is important that uniform coverage of all plants is achieved.

## 2. DRENCH APPLICATIONS

Drench applications of ABIDE 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. Drench applications can be made indoors or outdoors.

When applying ABIDE by drench, it is important that:

- Applications are made to moist, but not wet 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 pine bark may reduce the effectiveness of ABIDE, thus requiring the use of higher application rates.
- Maximum specified 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.

#### 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) Pressurized (flood)
- 2) Sprinkler
- 3) Drip (trickle)

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 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.

#### PRESSURIZED CHEMIGATION SYSTEMS, INCLUDING: SPRINKLER (SPRAY), DRENCH (FLOOD) AND DRIP (TRICKLE):

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 ABIDE required in order to achieve the final solution rate specified for the specific crop to be treated. Agitate the mixture of ABIDE and water frequently during the chemigation period to assure a uniform distribution throughout the system. Apply ABIDE 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 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.

## Limitations, Restrictions, and Exceptions

### BEDDING PLANTS

#### Spray Applications

Spray bedding plants with ABIDE using the specified rates in Table 4.

Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

- Foliar applications of ABIDE are effective in reducing internode elongation and strengthening the stems on a wide range of bedding plant species.

- For plant species not specifically listed in Table 4, GROWERS SHOULD DETERMINE OPTIMUM RATES BY CONDUCTING INITIAL TRIALS ON A SMALL NUMBER OF PLANTS STARTING WITH RATES RANGING FROM 5 TO 10 PPM ACTIVE INGREDIENT.

- Bedding plant plugs are more sensitive to ABIDE than mature bedding plants and thus require a much lower use rate.

Method

[Foliar spray](#)

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[When the plants have reached the 1 to 2 true leaf stage of growth.](#)