



## ORNAMENTAL PLANT GROWTH REGULATOR

### Active Ingredient:

Ancymidol a-cyclopropyl-a-(p-methoxyphenyl)-5-pyrimidinemethanol . . . . . 0.0264%

**Other Ingredients:** . . . . . 99.9736%

**Total:** . . . . . 100.0000%

ABIDE contains 1.0 gram active ingredient per gallon.

**Net contents:** 2.5 Gallons (9.46L)

EPA Reg. No. 62097-22-82917

EPA Est. No. 39578-TX-001

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
IF SWALLOWED	<ul style="list-style-type: none"><li>• Call a poison control center or doctor for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"><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 swallowed or absorbed through the skin. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. Remove and wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

- Chemical-resistant gloves made of any waterproof material, such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride, or Viton

In California, applicators and other handlers must wear:

- Coveralls
- Chemical-resistant gloves made of any waterproof material, 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 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 washwaters or rinsate.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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

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 state or tribal 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:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

### **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.

### **MIXING INSTRUCTIONS**

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

**Table 1 - ABIDE DILUTION TABLE**

<b>ppm active ingredient</b>	<b>fl. oz. per gallon</b>	<b>ml/cc per gallon</b>
0.5	0.25	7
1	0.5	14
2	1.0	29
3	1.5	43
4	1.9	57
5	2.4	72
6	2.9	87
7	3.4	102
8	3.9	117
9	4.4	132
10	4.8	143
11	5.3	159
12	5.8	174
13	6.3	189
14	6.8	204
15	7.3	215
16	7.8	234
17	8.2	246
18	8.7	261
19	9.2	276
20	9.7	287
25	12.1	359
26	12.6	378
30	14.5	430
33	16.0	480
35	17.0	510
40	19.4	573
50	24.2	717
65	31.5	932
66	32.0	960
100	48.5	1433
132	64.0	1892

**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.

**Table 2 - DRENCH VOLUME GUIDELINES**

Pot Diameter (inches)	Drench Volume (fl. oz./pot)	Drench Volume (mls/pot)
4	2	60
5	3	90
6	4	120
8	10	300
10	25	750
12	40	1200

**DETERMINING OPTIMUM RATES**

Optimum ABIDE rates will vary between growers and will depend on the desired final plant height, growing conditions, application techniques, species, and variety or cultivar. Growers should conduct trials with small numbers of plants using the specified rates to determine the optimum rates for their situations before ABIDE 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.

- Use the rates specified on this label as rate range guidelines only.
- Always start trials at the lowest specified rate and work up as required.
- Do not exceed the maximum specified rate.

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

**Table 3 - SPECIFIED TRIAL RATES BY GENERAL PLANT TYPE\***

Plant Type	Spray (ppm active ingredient)	Drench (ppm active ingredient)
Bedding Plants	6 - 66	1 - 2
Bedding Plant Plugs	3 - 35	0.5 - 1
Flowering/Foliage Plants		
- Herbaceous Species	20 - 50	1 - 2
- Woody Species	50	2
Bulb Crops	25 - 50	2

\* Do not exceed a rate of 132 ppm active ingredient on any crop.

**USES AND RATES BY CROP**

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

**A. AZALEAS**

Make ABIDE applications to control plant height after final pruning. Apply as a spray to azaleas using an initial rate of 26 ppm active ingredient. Ensure uniform coverage is achieved. Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

**B. 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.

**Table 4 - SPRAY USE RATES FOR BEDDING PLANT PLUGS, TRANSPLANTS AND FINISHED PLANTS**

Plant	Plant Stage of Growth		
	Plug (ppm active ingredient)	After Transplant (ppm active ingredient)	Finished (ppm active ingredient)
Ageratum	7-12	10-15	15-26
Begonia	3-5	6-12	10-15
Celosia	7-12	10-15	15-26
China Aster	7-12	10-15	15-26
Cleome	7-12	10-15	15-26
Corn Flower	7-12	10-15	15-26
Dahlia	7-12	10-15	15-26
Dianthus	7-12	10-15	15-26
Geranium	26-35	33-66	26-33
Marigold	13-20	18-26	26-44
Impatiens	10-20	20-26	26-44
Pansy	3-7	8-10	11-15
Petunia	10-15	15-20	15-26
Portulaca	7-12	10-15	15-26
Salvia	10-15	15-20	15-26
Snapdragon	10-15	15-20	15-26
Vinca	5-10	8-13	13-18
Zinnia	7-12	10-15	15-26

- 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.
- Begin applications to bedding plant plugs when the plants have reached the 1 to 2 true leaf stage of growth.
- For treatments applied after transplant, spray plants after the initiation of new growth.

Drench Applications

Drench applications of ABIDE are more uniform and generally result in more consistent height response. ABIDE is easily absorbed through the roots and translocated to plant terminals. Growth media should be moist, but not wet, at the time of drench application. This is usually achieved by watering the day before application. Varied plant response is likely if the media is too dry, which will prevent even product distribution at application.

Apply ABIDE at a solution concentration of 1 to 4 ppm active ingredient at the recommended volume per pot shown in Table 2. Growers should determine the proper drench solution volume by conducting small trials on a few pots using untreated water in place of the drench solution. Growers should run initial trials with ABIDE using starting rates of 2 ppm active ingredient in the Sunbelt Region and 1 ppm active ingredient in the Northern Belt Region.

**C. BULB OR FIBROUS ROOT CROPS**

Apply ABIDE by spray or drench. Spray applications of ABIDE are the least desirable method for controlling plant height and should always be applied sequentially to maximize uniformity of the crop. Drench applications of ABIDE are very effective. Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

**Table 5 - TRIAL RATES AND APPLICATION TIMINGS FOR BULB CROPS**

Plant	Spray (ppm active ingredient)	Drench (ppm active ingredient)	Application Timing
Easter Lily	30 - 132	2 - 4	<p><u>Spray:</u> Apply to plants 2 to 6 inches in height.</p> <p><u>Drench:</u> Plants may be treated from emergence to 12 inches in height. For optimum results, treat at 2 to 6 inches in height.</p>
- <i>Ace</i>	50		
- <i>Nellie White</i>	50		
- <i>Japanese Georgia</i>	50 - 132		
Dahlia	NR	2 - 4	Apply at approximately 2 weeks after planting.
Tulip	NR	1 - 4	Apply from 1 week before to 2 days after forcing.

NR – Use is not recommended.

- For plant species not specifically listed in Table 5, growers should determine optimum rates by conducting initial trials on a small number of plants starting with rates ranging from 1 to 4 ppm active ingredient for drench application or 50 ppm active ingredient for sprays.
- ABIDE may not provide satisfactory growth control on the following Dahlia varieties: *Siemen*, *Doornbosch* and *Honey*.

**D. POT CHRYSANTHEMUMS**

Apply ABIDE to pot chrysanthemums as a spray or drench.

Spray Applications

Use concentrations of 25 to 50 ppm active ingredient for spray applications. Use lower rates for treating sensitive varieties. Begin spray applications on sensitive varieties when plants have reached the desired height. For less sensitive varieties, apply ABIDE sprays following pinch when axillary shoots are 2.5 to 3 inches long. If required, sequential spray applications can be made 2 weeks apart. Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

Drench Applications

Apply ABIDE by drench using concentrations ranging from 2 to 4 ppm active ingredient. For optimum results, treat at approximately two weeks after pinching, when plants are 2 to 6 inches in height.

- 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.

**E. FLOWERING & FOLIAGE PLANTS**

Apply ABIDE as a spray or drench to a wide variety of flowering plants and foliage plants. Herbaceous species tend to require lower rates than woody species. For species not listed in Table 6, growers should run initial trials as outlined in the section ‘DETERMINING OPTIMUM RATES’ using starting rates of 1 to 4 ppm active ingredient for drench applications and 33 ppm active ingredient for sprays. Refer to Table 1 for appropriate spray volume for desired rate of ABIDE.

**Table 6 - TRIAL RATES FOR FLOWERING & FOLIAGE PLANTS**

<b>Plant</b>	<b>Spray Rates (ppm active ingredient)</b>	<b>Drench Rates (ppm active ingredient)</b>
Alternanthera	25-132	2-4
Bleeding Heart	65-132	2-4
Clematis	25-132	2-4
Columbine	65-132	2-4
Delphinium	35-132	2-4
Dracaena	25-132	2-4
Fatsyhedera	65-132	2-4
Gerbera Daisy	25-132	2-4
Liatris	25-132	2-4
Monstera	25-132	2-4
Nepthytis, Green Gold	25-132	2-4
Nepthytis, Green	25-132	2-4
Philodendron	25-132	2-4
Pilea	25-132	2-4
Pothos	25-132	2-4
Purple Passion	25-132	2-4
Schefflera	25-132	2-4

- Apply spray treatments prior to floral initiation when plants are well rooted and actively growing.

**F. POINSETTIAS**

Apply ABIDE as a drench treatment to Poinsettias using concentrations of 0.5 to 2 ppm active ingredient.

Application rates and timing may vary depending on plant vigor/growth, growing conditions, etc. Apply early treatments from pinch to 4 weeks following pinch, or 8 to 12 weeks before finishing.

Base timing of late applications on height in relation to the desired plant height. Apply ABIDE when plants are 2 to 3 inches from reaching the targeted height. To ensure uniformity of growth, do not treat plants that are less than 13 inches in height.

Apply drench treatments after the start of short days without negatively affecting crop quality or bract size. Use starting rates of no more than 1 ppm active ingredient when applying ABIDE very late in the cropping cycle.

**G. WOODY LANDSCAPE PLANTS**

Apply ABIDE as a spray or drench to a wide variety of woody landscape plants which are grown in containers in greenhouses and shadehouses including azalea, gardenia, holly and hydrangea.

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

**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.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Avoid freezing. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**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 this container to hold materials other than pesticides or dilute pesticide (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. 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 or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or 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 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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