

264-543

11/27/2002

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

WASHINGTON, D.C. 20460

NOV 27 2002

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Prasad Rao  
Aventis CropScience  
2 T.W. Alexander Drive  
Research Triangle Park, North Carolina 27709

Subject: Florel® brand G/R Plant Growth Regulator  
EPA Registration No. 264-543  
Your label amendment application dated August 12, 2002

Dear Mr. Rao,

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable, provided that you comply with the following conditions.

1. You must make the following changes to the label:

a. At every place in the label where it occurs, "Florel®" (without any additional product name) must either be changed to a nonspecific term such as "this product" or else changed to "Florel® brand G/R Plant Growth Regulator", the complete name of the subject product. "Florel®" is also part of the name of EPA Reg. No. 264-263 and a competitor Ethephon product.

b. In the "IF IN EYES:" subsection of the "FIRST AID" section, in the second statement add "eye" after "then continue rinsing".

c. In the first sentence in the "HAZARDS TO HUMANS AND DOMESTIC ANIMALS" section, add "made of any waterproof material" after "chemical resistant gloves".

d. In the first sentence at the top of the second page, change "Prolonged exposure to sprays deposits..." to "Prolonged exposure to spray deposits...".

e. Move the sentence "Do not contaminate water, food, or feed by storage or disposal." in the "STORAGE" subsection of the "STORAGE AND DISPOSAL" section to just after the "STORAGE AND DISPOSAL" heading, change the name of the "STORAGE" subsection to "PESTICIDE STORAGE", and provide appropriate statements in this subsection.

f. In the second sentence in the "CONTAINER DISPOSAL" subsection of the "STORAGE AND DISPOSAL" section, change "...sanitary landfill, or incineration or if allowed by..." to "...sanitary landfill, or by incineration or, if allowed by...".

2. Submit one copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration may be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,



Cynthia L. Giles-Parker  
Product Manager (22)  
Fungicide Branch  
Registration Division (7505C)

Attachment: Label stamped "ACCEPTED with COMMENTS"

# FLOREL® brand G/R Plant Growth Regulator

For use only on plants grown for aesthetic purposes or climatic modification and being grown at home or in ornamental gardens or parks, or on golf courses or lawns and grounds.

For Use on Ornamentals for Removal of Nuisance Fruit From Trees and Shrubs, For Earlier Ripening of Home Garden Tomatoes, For the Removal of Dwarf Mistletoe Shoots in Ornamental Conifers, and for the Removal of Leafy Mistletoe Shoots in Ornamental Deciduous Trees.

ACTIVE INGREDIENTS: Ethephon, [(2-chloroethyl) phosphonic acid]\*..... 3.9%  
INERT INGREDIENTS: ..... 96.1%

\*This product contains 0.33 lbs. ethephon per gallon

EPA Reg. No. 264-543 EPA Est. No. 264-PA-01

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577  
For **PRODUCT USE** Information Call 1-888-AVENTIS (1-888-283-6847)

### FIRST AID

<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<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>

For **MEDICAL** Emergencies Call 24 Hours A Day 1-800-334-7577.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**NOTE TO PHYSICIAN:** Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. No specific antidote is available. Probable mucosal damage may contraindicate the use of gastric lavage.

## PRECAUTIONARY STATEMENTS

### CAUTION

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.

Wear long-sleeve shirt and long pants, socks and shoes and chemical resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate).

#### User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Do not allow people or pets to touch treated plants until the sprays have dried.

#### ENVIRONMENTAL HAZARDS

Do not apply FLOREL® brand G/R Plant Growth Regulator through any type of irrigation system.

Avoid spray drift to nearby plants as this product may cause temporary modifications in plant growth.

Do not contaminate water used for irrigation or domestic purposes.

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.

Prolonged exposure to sprays deposits can damage acrylic plastics, certain paints, and metals. Remove automobiles and other vehicles from the treatment area prior to application to prevent spray deposits from falling on vehicles and potentially damaging finishes. Rinse acrylic plastic materials and painted surfaces exposed to inadvertent spray deposits using soap and water within an hour after exposure.

**GENERAL INFORMATION**

Apply FLOREL® brand G/R Plant Growth Regulator spray solution within 4 hours after mixing. Mix only the amount of spray you plan to use immediately. DO NOT save unused diluted spray solutions as they will not be as effective as fresh solutions.

Temporary growth inhibition resulting from shortened internodes may be observed.

**HOME GARDEN TOMATO RIPENING**

FLOREL® brand G/R Plant Growth Regulator can be used as an overall, foliar spray to concentrate and accelerate tomato ripening. Applied at the end of the growing season, FLOREL® will hasten ripening of mature green tomatoes and allow harvesting of fruit before frost.

**UNDESIRABLE FRUIT ELIMINATION**

A foliar spray of FLOREL® brand G/R Plant Growth Regulator will reduce or eliminate undesirable fruit development on many ornamental trees and shrubs such as: Apple, Carob, Cottonwood, Crabapple, Elm, Flowering pear, Horsechestnut, (Buckeye), Maple, Oak, Olive, Pine, Sour Orange, Sweetgum, and Sycamore.

**MISTLETOE SHOOT REMOVAL**

A foliar spray of FLOREL® brand G/R Plant Growth Regulator will cause the abscission of Dwarf Mistletoe shoots in ornamental conifers and Leafy Mistletoe shoots in ornamental deciduous trees.

**DIRECTIONS FOR USE**

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

**Read entire label before using this product.**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

**STORAGE AND DISPOSAL**

**STORAGE**

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

**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**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration or if allowed by state and local authorities, by open burning. If container is burned, stay out of smoke.

**HOME GARDEN TOMATO PRODUCTION USE**

FLOREL® brand Plant Growth Regulator can be used as an overall, foliar spray to concentrate and accelerate tomato ripening. Apply FLOREL® at the end of the growing season to hasten ripening of mature green tomatoes and allow harvesting of fruit before frost. FLOREL® spray will be most effective on healthy plants. Harvest fruit at proper maturity, generally 14 to 21 days after treatment. Some defoliation or yellowing of foliage following treatment will be observed.

Do not harvest tomatoes for processing treated with FLOREL® brand G/R Plant Growth Regulator sooner than 14 days after the last application.

**AMOUNTS TO USE**

When treating several plants mix 1 teaspoon of FLOREL® brand G/R Plant Growth Regulator in 3 ounces (6 tablespoons) of water (500 ppm). When treating a larger number of plants mix 1.75 ounces of FLOREL® in 1 quart of water. Apply with a clean hand sprayer. Thoroughly wet all leaves and fruit.

**FRUIT ELIMINATION (Ornamental Use Only)**

A foliar spray of FLOREL® brand G/R Plant Growth Regulator will reduce or eliminate undesirable fruit on ornamental trees and shrubs such as: Apple, Crabapple, Carob, Cottonwood, Elm, Flowering pear, Horsechestnut (Buckeye), Maple, Oak, Olive, Pine, Sour Orange, Sweetgum, and Sycamore. Applications must be made before fruit set for best results.

When applied to plants, FLOREL® brand G/R Plant Growth Regulator readily enters the plant and breaks down to ethylene, a naturally occurring plant hormone. Ethylene production within the plant is stimulated by stress. For this reason it is important that plants being treated are not under stress from drought, high temperature, disease or other environmental stress conditions. Treating stressed plants can cause severe injury to the plant such as defoliation or leaf scorching. Injury from FLOREL® usually does not kill the plant, but can render it unsightly.

Applications should be made at the mid to full bloom stage, prior to fruit set in spray volumes sufficient to wet, but not to runoff. Failure to wet blooms thoroughly will cause incomplete fruit elimination. Spraying too much (until runoff) may cause some defoliation or other plant injury. Sprays applied too early or too late will be less effective and result in incomplete fruit elimination. The activity of FLOREL® brand G/R Plant Growth Regulator is linked to plant growth activity and is therefore slower acting when temperatures are low (60F) or very high (95F). Trees or shrubs should not be under stress when treated such as from drought, insect or diseases.

For most species Mix 3/4 to 1 quart of FLOREL® brand G/R Plant Growth Regulator in 10 gallons of water (750 to 1,000 ppm) and apply to thoroughly wet buds and blooms but not to runoff. Amount of spray used will depend on tree size. Use the higher rate when temperatures are cool. Fruit elimination may not be satisfactory on small, red fruited varieties of crabapples. Some temporary leaf yellowing and leaf drop of older leaves may occur after treatment.

For sensitive species such as Carob: Mix 1/2 quart FLOREL® brand G/R Plant Growth Regulator in 10 gallons of water (500 ppm) and apply to thoroughly wet buds and blooms but not to runoff. Amount of spray used will depend on tree size. Some temporary leaf yellowing and drop of older leaves may occur after treatment.

FLOREL® brand G/R Plant Growth Regulator has not been tested on all varieties of trees or shrubs which may have undesirable fruit. If it is necessary to treat plant species not listed above, treat only a small portion of the plant using the lower rate of application to determine the effectiveness of the product and to evaluate plant injury.

NOTE: These recommendations are not intended to be used in commercial fruit production as a thinning agent.

**DWARF MISTLETOE REMOVAL:**

Use FLOREL® brand G/R Plant Growth Regulator as a foliar spray on ornamental conifers for removal of dwarf mistletoe shoots and seeds. Applications made in conjunction with silvicultural mistletoe management will prevent spread of the mistletoe parasite to other parts of the tree and to other trees. Mix 1 quart of FLOREL® in 4 gallons of water (2700 ppm) and spray to "wet". When treating mistletoe in Douglas Fir, mix 1 pint of FLOREL® in 4 gallons of water (1350 ppm). Application of higher rates on Douglas fir may result in excessive needle drop. Use of non ionic surfactant at recommended rates may increase effectiveness. Treat any mistletoe regrowth before seed dispersal occurs. Mature needle drop, that normally occurs in the fall, may be hastened by the use of FLOREL®.

**LEAFY MISTLETOE REMOVAL:**

Use FLOREL® brand G/R Plant Growth Regulator as a foliar spray on ornamental deciduous trees for removal of leafy mistletoe shoots and seeds. Make applications after fall leaf drop through midwinter. Mix 2 quarts of FLOREL® in 4 gallons of water (5400 ppm). For effective removal all mistletoe shoots must be sprayed to "wet". Use of a non ionic surfactant at recommended rates may increase effectiveness. Large mistletoe infections and mistletoe found in mesquite may be difficult to control with a single application and retreatment may be necessary. Should regrowth of mistletoe occur retreat prior to mistletoe seed dispersal during the labeled application window.

**HOME SPRAY GUIDE**

**FLOREL® brand G/R Plant Growth Regulator  
Read Detailed Instructions in This Pamphlet First**

APPLICATION	AMOUNT TO USE	
	FLOREL®	WATER
<b>Tomato Ripening</b> Fall Season	1.75 oz (1 teaspoon)	1 quart 3 oz
<b>Fruit Elimination (Ornamental Use Only)</b> Carob Other Species	1.5 oz 2.5 to 3.0 oz	1 gal 1 gal
<b>Mistletoe Removal</b> Dwarf Mistletoe Leafy Mistletoe	8 oz 16 oz	1 gal. 1 gal.

Note: 1.0 fluid ounce = 2 tablespoons = 6 teaspoons

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

NOV 27 2002

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.

264-543

**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aventis CropScience. All such risks shall be assumed by the user or buyer.

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FLOREL is a trademark of the Aventis Group.

FLOREL® brand G/R Plant Growth Regulator (PENDING) Submitted 7/17/02

