



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 1, 2021

Stephen Adams
Senior Regulatory Affairs Manager
Bayer CropScience
800 N. Lindbergh Blvd.
St. Louis, MO 63167

Subject: Registration Review Label Mitigation for Ethephon
Product Name: Florel Brand G/R Plant Growth Regulator
EPA Registration Number: 264-543
Application Dates: 04/25/2018
Decision Numbers: 568399

Dear Mr. Adams:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Ethephon Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Quinn Gavin by phone at 703-347-0325, or via email at gavin.quinn@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington".

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

ACCEPTED
 03/01/2021
 Under the Federal Insecticide, Fungicide
 and Rodenticide Act as amended, for the
 pesticide registered under
 EPA Reg. No. 264-543

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%
OTHER INGREDIENTS:	96.1%
TOTAL:	100.0%

*This product contains 0.33 lbs. ethephon per gallon

EPA Reg. No. 264-543

EPA Est. No.

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 1-866-99BAYER (1-866-992-2937)

Please refer to [back panel] [booklet] for additional precautionary statements and directions for use. [Note to reviewer: Location of additional precautionary statements and directions for use will vary between those listed, depending on container type/size.]

FIRST AID

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

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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 made out of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils.

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.

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 spray 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.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organism, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

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.

SPRAY DRIFT MANAGEMENT

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a fine to medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT- Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

BOOM-LESS GROUND APPLICATIONS:

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

PRODUCT 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® brand G/R Plant Growth Regulator 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.

HOME GARDEN TOMATO PRODUCTION USE

FLOREL® brand G/R Plant Growth Regulator can be used as an overall, foliar spray to concentrate and accelerate tomato ripening. Apply FLOREL® brand G/R Plant Growth Regulator at the end of the growing season to hasten ripening of mature green tomatoes and allow harvesting of fruit before frost. FLOREL® brand G/R Plant Growth Regulator 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® brand G/R Plant Growth Regulator 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® brand G/R Plant Growth Regulator 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 this product in 4 gallons of water (2700 ppm) and spray to "wet". When treating mistletoe in Douglas Fir, mix 1 pint of this product 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® brand G/R Plant Growth Regulator.

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 this product 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® brand G/R Plant Growth Regulator	WATER
Tomato Ripening		
Fall Season	1.75 oz (1 teaspoon)	1 quart 3 oz
Fruit Elimination (Ornamental Use Only)		
Carob	1.5 oz	1 gal
Other Species	2.5 to 3.0 oz	1 gal
Mistletoe Removal		
Dwarf Mistletoe	8 oz	1 gal.
Leafy Mistletoe	16 oz	1 gal.

Note: 1.0 fluid ounce = 2 tablespoons = 6 teaspoons

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

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

Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure 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. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)

Non-refillable Containers

Non-refillable containers - Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows.

Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g.– Snyder 120 Next Gen, Bonar B120, Drums, Kegs).

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Refillable Containers

Refillable container – Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows. Refill this container with pesticide only. Do not reuse this container for any other purpose. After emptying product from container, either return container to Bayer CropScience per instructions from Bayer CropScience Customer Service Center (1-800-527-4781) or rinse and either recycle or dispose of the container as follows:

Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)

Pressure rinsing 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 pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Top Discharge IBC, Drums, Kegs (e.g.– Snyder 120 Next Gen, Bonar B120, Drums, Kegs).

Triple rinsing 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 triple rinse the containers before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Refillable Containers

End users are authorized to remove tamper evident cables as required to remove the product from the container unless the container is equipped with one way valves and refilling or returning is planned. If this is the case, end users are not authorized to remove tamper evident cables, one way valves or clean container.

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 must 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 Bayer CropScience. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE'S ELECTION, THE REPLACEMENT OF PRODUCT.

FLOREL is a trademark of Bayer.



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FLOREL® brand G/R Plant Growth Regulator (PENDING) 09/28/2018, 03/15/2019, 12/14/2020