

264-781 4.30.2008

7/14



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

APR 30 2008

Mr. Melvin K. Tolliver  
Bayer CropScience  
2 T.W. Alexander Drive  
P.O. Box 12014  
Research Triangle Park, NC 27709

Subject: Label Notifications for Pesticide Registration Notice 2007-4

Dear Mr. Tolliver,

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 dated March 26, 2008, for the following products:

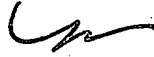
Bayleton Technical Fungicide	EPA Registration Number 264-736
Bayleton 50% Wettable Powder Fungicide	EPA Registration Number 264-737
Bayleton 50% Concentrate Fungicide	EPA Registration Number 264-740
Flint Fungicide	EPA Registration Number 264-777
Gem Fungicide	EPA Registration Number 264-781
Gem 500 SC Fungicide	EPA Registration Number 264-826
Distinguish 480 SC Fungicide	EPA Registration Number 264-1027

The Registration Division (RD) has conducted its review of these requests for their applicability under PRN 2007-4 and finds that the label changes requested fall within the scope of PRN 2007-4. The labels submitted with the applications have been stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-6249 or Steve Schaible of my staff at 703-308-9362.

Sincerely,



Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28-95



United States  
Environmental Protection Agency  
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

### Application for Pesticide - Section I

1. Company/Product Number 264-781	2. EPA Product Manager Tony Kish	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Gem Fungicide	PM# Team 22	
5. Name and Address of Applicant (Include ZIP Code) Bayer CropScience LP P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4. See attached.

### Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 40 ounces		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled			<input type="checkbox"/> Other _____		

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Melvin K. Tolliver		Title Registration Product Manager, Fungicides		Telephone No. (Include Area Code) (919) 549-2631	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment both under applicable law.					6. Date Application Received (Stamped)
2. Signature <i>Melvin K. Tolliver</i>		3. Title Registration Product Manager, Fungicides			
4. Typed Name Melvin K. Tolliver		5. Date March 26, 2008			



5/14

# Bayer CropScience



Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S4900  
One Potomac Yard  
2777 S. Crystal Drive  
Arlington, VA 22202

March 26, 2008

Bayer CropScience  
2 T.W. Alexander Drive  
P. O. Box 12014  
RTP, NC 27709  
Phone: (919) 549-2000

Subject: Gem Fungicide, EPA Reg. No. 264-781  
Notification per PR Notice 2007-4

Dear Sir/Madam:

Gem Fungicide is currently registered with the Agency for control of fungi infecting a number of crops. With the enclosed application form, we are notifying the Agency of label changes per PR Notice 2007-4.

Since this is a notification, no fee under PRIA is required.

If you have any questions or need additional information, please contact me by phone at (919) 549-2631 or by e-mail at [mel.tolliver@bayercropscience.com](mailto:mel.tolliver@bayercropscience.com).

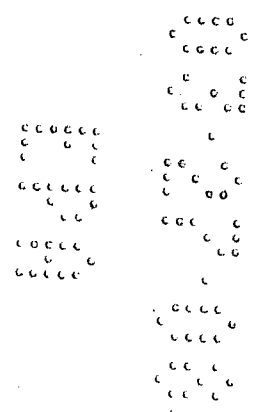
Sincerely,

*Melvin K. Tolliver*

Melvin K. Tolliver  
Registration Product Manager, Fungicides

Enclosure:

1. EPA application form 8570-1
2. Draft labeling with changes highlighted in yellow
3. Final Printed labeling (two copies)



6/114

# Gem™ Fungicide

For control of certain diseases in almonds, citrus, pecans, pistachios, potatoes, rice, root vegetables (except radishes), stone fruit, sugar beets, and tree nuts.

**ACTIVE INGREDIENT:**

Trifloxystrobin ..... 25.0%

**OTHER INGREDIENTS:** ..... 75.0%  
100.0%

EPA Reg. No. 264-781

EPA Est. No. 33967-NJ-1

## STOP - Read the label before use 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)

### 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 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</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 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>Note to Physician:</b> If ingested, induce emesis or lavage stomach. Treat symptomatically.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling.

#### Personal Protective Equipment

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### 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.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

#### Ground Water Advisory

Several trifloxystrobin degradates have properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill, or store near heat or open flame.

### DIRECTIONS FOR USE

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

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 agency responsible for pesticide regulation.

### 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

### 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.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577.

**Pesticide Disposal:** Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

**Container Disposal:** 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. Fill the container ¼ 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.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Offer for recycling, if available. If not recycled, then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Not registered for aerial application in New York State.

## GENERAL INFORMATION

Gem™ is a broad spectrum fungicide for the control of certain diseases in almonds, citrus, pecans, pistachios, potatoes, rice, root vegetables (except radishes), stone fruit, sugar beets, and tree nuts. Gem™ works by interfering with respiration in plant pathogenic fungi. Gem™ is a potent inhibitor of spore germination and mycelial growth.

UNDER CERTAIN CONDITIONS CONDUCIVE TO EXTENDED INFECTION PERIODS, ADDITIONAL FUNGICIDE APPLICATIONS BEYOND THE NUMBER ALLOWED BY THIS LABEL MAY BE NEEDED. UNDER THESE CONDITIONS, USE ANOTHER FUNGICIDE REGISTERED FOR THE CROP/DISEASE.

### Resistance Management

Gem™ belongs to the strobilurin class of chemistry which exhibits no known cross-resistance to other chemical classes including sterol inhibitors, dicarboximides, benzimidazoles, anilinopyrimidines, or phenylamides. Trifloxystrobin (the active ingredient in Gem™) does exhibit cross-resistance to other strobilurin fungicides, such as azoxystrobin and kresoxim-methyl. Fungal pathogens are known to develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, the use of this product should conform to resistance management strategies established for the crop and use area. Such strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Bayer CropScience encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

### SPRAY EQUIPMENT

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, a minimum of 50 gal./A is recommended for tree crops and 10 gal./A for other crops. For aerial application equipment, a minimum of 10 gal./A is recommended for tree crops and 5 gal./A for other crops.

#### Air Blast Sprayers

Air assisted or air blast sprayers move spray droplets into the crop canopy using a forced air system. The fan should be set up to deliver only enough air volume to penetrate the canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Check whirl plates and nozzle discs for wear and replace as necessary. Calibrate the sprayer before use.

Use a pump with a capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the mixture in suspension. Use jet agitators, a liquid sparge tube, or mechanical paddles for agitation.

It is suggested that screens be used to prevent nozzles from clogging. Screens placed after the tank and before the nozzles should be 50-mesh or coarser. Check nozzle manufacturer's recommendations.

#### Broadcast Ground Sprayers

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate the sprayer before use.

Use a pump with the capacity to: (1) maintain a minimum of 35 psi at nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension – this requires recirculation of 10% of the tank volume per minute. Use jet agitators or a liquid sparge tube for vigorous agitation.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh screens at the nozzles. Check nozzle manufacturer's recommendations.

For information on spray equipment and calibration, consult sprayer manufacturer's and/or state recommendations. For specific local directions and spray schedules, consult the current state agricultural experiment station recommendations.

### MIXING PROCEDURES

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. **Vigorous agitation is necessary for proper dispersal of the product.** Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**GEM™ Alone:** Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the Gem™ to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Gem™ has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

**GEM™ + Tank Mix Partners:** Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging\*, wettable powders, wettable granules (dry flowables) such as Gem™, liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to become fully and uniformly dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

\* **Note:** When using Gem™ in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Gem™. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.



If using Gem™ in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed. This product must not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

Gem™ is compatible with most insecticide, fungicide, and foliar nutrient products. However, the physical compatibility of Gem™ with tank mix partners should be tested before use. To determine the physical compatibility of Gem™ with other products, use a jar test, as described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

**The crop safety of all potential tank mixes including additives and other pesticides on all crops has not been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target crop should be confirmed. To test for crop safety, apply GEM™ to the target crop in a small area and in accordance with label instructions for the target crop.**

**Aerial Application:** Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. Do not apply directly to humans or animals.

**Chemigation:** Do not apply this product through any type of irrigation system.

**Additives:** Bayer CropScience does not recommend the application of Gem™ in combination with organosilicate surfactants at any time or crop injury may occur. Bayer CropScience does not recommend the application of Gem™ in tank mix combination with adjuvants (such as non-ionic surfactants, crop oil concentrates, penetrants, spreaders, stickers, etc.) at bloom or crop injury may occur.

**Recommendations to Avoid Spray Drift**

Do not make applications when conditions favor drift beyond the target application area. When drift may be a problem, take measures to reduce drift, including:

1. Do not spray if wind speeds are or become excessive. Do not spray if wind speed is 15 mph or greater. If nontarget crops are located downwind, use caution when spraying if wind is present. Do not spray if winds are gusty.
2. Use caution when conditions are favorable for drift (high temperatures, drought, low relative humidity).
3. Do not apply when a temperature inversion exists. If inversion conditions are suspected, consult with local weather services before making an application.

**USE DIRECTIONS FOR SPECIFIC CROPS**

Gem™ provides control or suppression of several important diseases of almonds, citrus, pecans, pistachios, potatoes, rice, root vegetables (except radishes), stone fruit, sugar beets, and tree nuts. When reference is made to disease suppression, suppression can mean either erratic control from good to fair, or consistent control at a level below that obtained with the best commercial disease control products.

ALMONDS			
Disease Control	Rate Oz/Acre	Application Timing	Notes
Anthracnose <i>(Colletotrichum acutatum)</i> Shot hole <i>(Wilsonomyces carpophilus)</i> Scab <i>(Cladosporium carpophilum)</i> Alternaria <i>(Alternaria alternata)</i>	6.0 – 8.0	Begin applications preventively and continue as needed on a 7- to 14-day interval.	Use the higher rates and shorter intervals when disease pressure is severe.
Disease Suppression	Rate Oz/Acre	Application Timing	Notes
Blossom Blight <i>(Monilinia spp.)</i>	4.0 -6.0	Begin applications at pink bud stage (about 5% bloom). If conditions are favorable for disease development, apply again at full bloom and at petal fall, or on a 14- to 21-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
<p><b>Restrictions:</b> Do not apply more than 24 oz. of Gem™ per acre per season. Do not apply Gem™ within 60 days of harvest or after hull-split. To limit the potential for development of disease resistance:</p> <ul style="list-style-type: none"> <li>• Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> <li>• Do not make more than three (3) applications of Gem™ or other QoI fungicides per season.</li> </ul>			

CITRUS			
Disease Control	Rate oz./Acre	Application Timing	Notes
Alternaria <i>(Alternaria alternata)</i> Greasy Spot <i>(Mycosphaerella citri)</i> Melanose <i>(Diaporthe citri)</i> Scab <i>(Elsinoe fawcettii)</i> Post Bloom Fruit Drop (PFD) <i>(Colletotrichum acutatum)</i>	4.0 - 8.0	Begin applications preventively and continue throughout the growing season using a 7- to 21-day spray interval.	Use the higher rates and shorter intervals when disease pressure is severe.  Use of recommended weather-based predictive models may be of benefit in determining the appropriate timing of applications for diseases such as Alternaria and Post Bloom Fruit Drop.
<b>Restrictions:</b> Do not apply more than 32 oz. of Gem™ per acre per season. Do not apply Gem™ within 7 days of harvest. To limit the potential for development of disease resistance:			
<ul style="list-style-type: none"> <li>Do not make more than four (4) applications of Gem™ or other QoI fungicides per season.</li> <li>Do not make more than three (3) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> </ul>			

PECANS			
Disease Control	Rate oz/Acre	Application Timing	Notes
Scab <i>(Cladosporium caryigenum)</i> Anthracnose <i>(Glomerella cingulata)</i>	4.0- 8.0	Begin applications preventively. Begin at bud break and continue on a 14-day interval through pollination followed by cover sprays on 14- to 21-day intervals.	Use the shorter intervals and higher rates when disease pressure is severe.
<b>Restrictions:</b> Do not apply more than 48 oz of Gem™ per acre per season. Do not apply Gem™ after shuck split or within 30 days of harvest. To limit the potential for development of disease resistance:			
<ul style="list-style-type: none"> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> <li>Do not apply more than three (3) applications of Gem™ or other strobilurin fungicides per season.</li> </ul>			

PISTACHIOS			
Disease Control	Rate oz/Acre	Application Timing	Notes
Botryosphaeria Panicle and Shoot Blight <i>(Botryosphaeria dothidea)</i> Septoria Leaf Spot <i>(Septoria pistaciarum)</i>	4.0 - 6.0	Begin applications preventatively and continue as needed on a 14- to 21-day interval.	Use the higher rate and shorter interval when disease pressure is severe.
Alternaria Late Blight <i>(Alternaria alternata)</i>	6.0 - 8.0		
<b>Restrictions:</b> Do not apply more than 24 oz of Gem™ per acre per season. Do not apply Gem™ within 60 days of harvest. To limit the potential for resistance to develop:			
<ul style="list-style-type: none"> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> <li>Do not apply more than four (4) applications of Gem™ or other strobilurin fungicides per season.</li> </ul>			

POTATOES			
Disease Control	Rate Oz./Acre	Application Timing	Notes
Early Blight ( <i>Alternaria solani</i> )	6.0 to 8.0	Begin applications preventively and continue as needed on a 7- to 10-day interval.	Use the higher rates and shorter intervals when disease pressure is severe.
Late Blight ( <i>Phytophthora infestans</i> )	Gem™ Tank Mixture: 8.0	Begin applications preventively. Alternate Gem™ (every other application) with a protectant fungicide for use against late blight on a 7- to 10-day interval. Gem™ should always be applied in tank mixture with a registered protectant fungicide labeled for use on late blight (use 75% of the protectant fungicide labeled rate) and applied on a 7- to 10-day interval.	Use the shorter interval when disease pressure is severe.
<p><b>Restrictions:</b> Do not apply more than 48 oz. of Gem™ per acre per season. Do not apply Gem™ within 7 days of harvest. To limit the potential for development of disease resistance:</p> <ul style="list-style-type: none"> <li>Do not make more than six (6) applications of Gem™ or other QoI fungicides per season.</li> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> </ul>			

RICE			
Disease Control	Rate oz./Acre	Application Timing	Notes
<b>Sheath/Stem Diseases:</b> Sheath Blight ( <i>Rhizoctonia solani</i> )	8.0 to 9.8	Apply from panicle differentiation to boot split at initial sign of disease. Rate and timing for sheath blight is dependent on rice growth stage, rice variety and disease severity. Consult with your local extension personnel or Bayer CropScience representative to determine if treatment is needed.	Use the higher rates when disease pressure is severe. Up to two applications can be made if conditions warrant.
<b>Panicle Diseases:</b> Rice Blast ( <i>Pyricularia grisea</i> )	6.4 to 9.8	Begin applications prior to disease development. For panicle blast, an application should be applied at mid-boot to 5% heading (tips of panicles just emerging) but prior to full head emergence. If conditions favor neck blast, a second application should be made when panicles are 60 to 90% emerged from the boot (5 to 14 days later). Consult with your local extension personnel or Bayer CropScience representative to determine the best timing for your area.	Use the higher rates and shorter intervals when disease pressure is severe. Two applications are usually necessary for maximum control.
<p><b>Restrictions:</b> Do not apply more than 19.6 oz. of Gem™ per acre per crop. Do not apply Gem™ within 35 days of harvest. Do not apply in rice fields where commercial farming of crayfish will be practiced. Do not drain water from treated rice fields into ponds used for commercial catfish farming, to irrigate other crops, or use of treated water for livestock.</p> <p>To limit the potential for development of disease resistance:</p> <ul style="list-style-type: none"> <li>Do not make more than two (2) applications of Gem™ or other QoI fungicides per season.</li> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to labeled, effective non-QoI fungicides with a different mode of action.</li> </ul>			

ROOT VEGETABLES: Beet (garden), Burdock (edible), Carrot, Celeriac, Chervil (turnip-rooted), Chicory, Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip, Rutabaga, Salsify, Salsify (black), Salsify (Spanish), Skirret, Turnip.			
Disease Control	Rate Oz/Acre	Application Timing	Notes
Leaf blight <i>(Alternaria dauci)</i> Leaf spot <i>(Cercospora carotae)</i> Powdery mildew <i>(Erysiphe spp.)</i> Rust <i>(Puccinia spp., Uromyces spp.)</i>	4.0 – 6.0	Begin applications preventively and continue as needed on a 14-day interval.	Use the higher rates and shorter intervals when disease pressure is severe. Use sufficient water to obtain thorough coverage.
Restrictions: Do not apply more than 24 oz of Gem™ per acre per year. Do not apply Gem™ within 7 days of harvest. To limit the potential for resistance to develop: <ul style="list-style-type: none"> <li>Do not make more than one foliar application of Gem™ for foliar diseases before alternating to a labeled, effective non-QoI fungicide with a different mode of action for at least one application.</li> <li>Do not make more than four (4) applications of Gem™ or other strobilurin fungicide per season.</li> </ul>			

STONE FRUITS: Apricots, Cherries, Nectarines, Peaches, Plums, Plumcots, Prunes (fresh)			
Disease Control	Rate oz/Acre	Application Timing	Notes
Cherry Leaf Spot <i>(Blumeriella jaapii)</i> Powdery Mildew <i>(Podosphaera spp. and Sphaerotheca pannosa)</i> Scab <i>(Cladosporium carpophilum)</i>	4.0 - 8.0	Begin applications preventively. Apply at petal fall and continue on a 7- to 14-day interval.	Use the higher rates and shorter intervals when disease pressure is severe.
Shot hole <i>(Wilsonomyces carpophilus)</i>	6.0 - 8.0	Begin applications preventively and continue on a 7- to 14-day interval.	
Disease Suppression	Rate Oz/Acre	Application Timing	Notes
Blossom Blight <i>(Monilinia spp.)</i>	4.0 - 6.0	Begin applications at bud stage. If conditions are favorable for disease development, apply again at full bloom and at petal fall, or on a 14- to 21-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
Restrictions: Do not apply more than 32 oz of Gem™ per acre per season. Do not apply Gem™ within 1 day of harvest. To limit the potential for development of disease resistance: <ul style="list-style-type: none"> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-QoI fungicides with a different mode of action.</li> <li>Do not apply more than four (4) applications of Gem™ or other QoI fungicides per season.</li> </ul>			

SUGAR BEETS			
Disease Control	Rate oz./Acre	Application Timing	Notes
<b>Foliar Diseases:</b> Cercospora Leaf Spot <i>(Cercospora beticola)</i> Powdery Mildew <i>(Erysiphe polygoni)</i>	6.0 to 7.0	Begin applications preventively and continue as needed on a 10- to 14-day interval. Alternate Gem™ after each application with a fungicide that has a different mode of action.	Use the higher rates and shorter intervals when disease pressure is severe.
<b>Soilborne Diseases:</b> <b>Disease Suppression</b> Rhizoctonia Stem Cancker, Crown Rot <i>(Rhizoctonia solani)</i>		Begin either foliar broadcast or banded applications at the 4-leaf to row closure growth stage. Apply as needed on a 10 to 14-day interval. Alternate Gem™ after each application with a fungicide that has a different mode of action.	
<b>Restrictions:</b> Do not apply more than 21 oz. of Gem™ per acre per season. Do not apply Gem™ within 21 days of harvest. To limit the potential for development of disease resistance: <ul style="list-style-type: none"> <li>Do not make more than three (3) applications of Gem™ or other Qol fungicides per season.</li> <li>Do not make more than one (1) application of Gem™ before alternating to a labeled effective non-Qol fungicide with a different mode of action for at least one application.</li> </ul>			

TREE NUTS: Almonds,* Beechnuts, Brazil Nuts, Butternuts, Cashew, Chestnuts, Chinquapins, Filberts, Hickory Nuts, Macadamia Nuts, Pecans,* Pistachios,* Walnuts (* See Specific Use Instructions)			
Disease Control	Rate Oz/Acre	Application Timing	Notes
Botryosphaeria Panicle and Shoot Blight <i>(Botryosphaeria dothidea)</i>	4.0 - 6.0	Begin applications preventively and continue as needed on a 14- to 21-day interval	Use the higher rates and shorter intervals when disease pressure is severe.
Eastern Filbert Blight <i>(Anisogramma anomala)</i>	4.0 - 8.0	Begin applications preventively and continue as needed on a 7- to 14-day interval.	
Alternaria Late Blight <i>(Alternaria alternata)</i> Anthracnose <i>(Colletotrichum acutatum, Glomerella cingulata)</i> Scab <i>(Cladosporium carpophilum, Cladosporium caryigenum)</i> Shothole <i>(Wilsonomyces carpophilus)</i>	6.0 - 8.0	Begin applications preventively and continue as needed on a 7- to 14-day interval.	
<b>Restrictions:</b> Do not apply more than 32 oz of Gem™ per acre per season. Do not apply Gem™ within 60 days of harvest. To limit the potential for development of disease resistance: <ul style="list-style-type: none"> <li>Do not make more than two (2) sequential applications of Gem™. Then alternate to at least an equal number of sequential applications of labeled, effective non-Qol fungicides with a different mode of action.</li> <li>Do not apply more than four (4) applications of Gem™ or other Qol fungicides per season.</li> </ul>			

**ROTATIONAL RESTRICTIONS**

Treated areas may be replanted immediately following harvest with any crop listed on this label. For crops not listed on this label, do not plant back within 30 days of last application.

14/14

### 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.

**NET CONTENTS: 15 POUNDS**

**PRODUCED FOR**



**Bayer CropScience**

Bayer CropScience LP  
P.O. Box 12014, 2 T.W. Alexander Drive  
Research Triangle Park, North Carolina 27709  
1-866-99BAYER (1-866-992-2937)

Gem Fungicide (MASTER) Approved 01/25/08, Notification 03/18/08