

264-826

12/29/2005

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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

 Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 264-826	2. EPA Product Manager Tony Kish	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Gem 500 SC 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 _____	NOTIFICATION DEC 29 2005
<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 adding a pest per PR Notice 98-10. See attached for explanation.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph Paper glued <input type="checkbox"/> 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
Certification 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 or 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 12-8-05	

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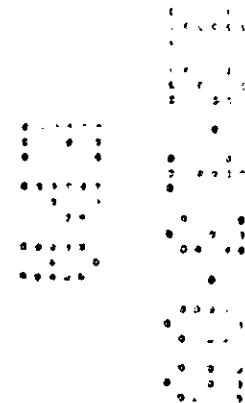
Gem 500 SC Fungicide
EPA Reg. No. 264-826

Section II - Continued

Gem 500 SC Fungicide is currently registered for control of diseases infecting a number of crops including tree nuts. With this EPA Form 8570-1, we are notifying the Agency that we are adding Eastern filbert blight to the tree nuts section of our Gem 500 SC Fungicide label. The application rate and timing are the same as for control of other tree nut diseases already on the Gem 500 SC label.

As required by PR Notice 98-10 we are enclosing one copy of draft labeling in which the disease Eastern filbert blight is highlighted in yellow. In addition, we are also enclosing two copies of final printed labeling.

This notification is consistent with the provision of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA, and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.



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GROUP 11 FUNGICIDE

NOTIFICATION

DEC 29 2005

Gem™ 500 SC Fungicide

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

Active Ingredient:

Trifloxystrobin 42.6%

Other Ingredients: 57.4%

Contains 4.17 pounds trifloxystrobin per gallon. 100.0%

EPA Reg. No. 264-826

EPA Est. No. 264-MO-02

**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)

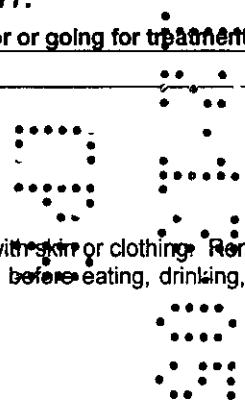
FIRST AID

IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
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:	<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.
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
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.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing vapor or spray mist and contact with skin or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.



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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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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.

GENERAL INFORMATION

Gem™ 500 SC Fungicide is a broad spectrum fungicide for the control of certain diseases in tree nuts, citrus, peanuts, potatoes, rice, root vegetables (except radishes), stone fruit and sugar beets. 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

Trifloxystrobin (the active ingredient in Gem™ 500 SC) belongs to the QoI (Group 11) class of chemistry which exhibits no known cross-resistance to other chemical classes including sterol inhibitors, dicarboximides, benzimidazoles, anilinopyrimidines, or phenylamides. Trifloxystrobin does exhibit cross-resistance to other QoI 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.

NAQoI Working Group has established the following general guidelines for the maximum number of applications of a QoI-containing fungicide. In addition to that, the maximum number of applications may be restricted to a specific limit on a particular crop (see crop-specific recommendations).

Follow the specific crop recommendations that limit the total number of sprays on a crop and the required alternations with fungicides from other resistance management groups. In situations requiring multiple fungicide sprays, develop season-long spray programs for Group 11 fungicides.

Use of solo QoI products: When using a Group 11 fungicide as a solo product, the number of applications should be no more than 1/3 of the total number of fungicide applications per season.

Use of QoI mixes: In programs in which tank mixes or pre-mixes of a Group 11 fungicide with a fungicide of another Group are utilized, the number of Group 11 fungicide (QoI)-containing applications should be no more than 1/2 of the total number of fungicide applications per season.

Use in programs in which both solo QoI's and mixes are used: In programs in which applications of Group 11 fungicides are made with both solo products and mixtures, the number of Group 11 fungicide (QoI)-containing applications should be no more than 1/2 the total number of fungicide applications per season.

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.

Not registered for aerial application in New York State.

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.

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.

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™ 500 SC Fungicide Alone: Add approximately 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™ 500 SC Fungicide + Tank Mix Partners: Add approximately 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), liquid flowables such as Gem™, 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™ 500 SC Fungicide to the target crop in a small area and in accordance with label instructions for the target crop.

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™ 500 SC Fungicide provides control or suppression of several important diseases of citrus, peanuts, potatoes, rice, root vegetables (except radishes), stone fruits, 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 fl. oz./Acre	Application Timing	Notes
Anthracnose <i>(Colletotrichum acutatum)</i> Scab <i>(Cladosporium carpophilum)</i> Shot hole <i>(Wilsonomyces carpophilus)</i>	2.9 to 3.8	Begin applications preventively and continue as needed on a 7- to 14-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
Disease Suppression	Rate fl. oz./Acre	Application Timing	Notes
Brown rot blossom blight <i>(Monilinia spp.)</i>	1.9 to 2.9	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.

Restrictions: Do not apply more than 11.4 fl. 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:

- 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.
- Do not make more than three (3) applications of Gem™ or other QoI fungicides per acre per season.

CITRUS			
Disease Control	Rate fl. 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>	1.9 to 3.8	Begin applications preventively and continue throughout the growing season using a 7- to 21-day spray schedule.	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.

Restrictions: Do not apply more than 15.4 fl. oz. of Gem™ per acre per season. Do not apply Gem™ within 30 days of harvest. To limit the potential for development of disease resistance:

- 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.
- Do not make more than four (4) applications of Gem™ or other QoI fungicides per season.

PEANUTS			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Early Leaf Spot (<i>Cercospora arachidicola</i>) Late Leaf Spot (<i>Cercosporidium personatum</i>) Rust (<i>Puccinia arachidis</i>)	3.5	Begin applications when conditions are favorable for diseases but before infection.	Apply on a 10 to 14-day spray schedule. Gem must be applied with a surfactant for foliar peanut disease control.
Limb Rot (<i>Rhizoctonia solani</i>)	3.5	Apply 2 times – make the first application 56-60 days after planting for control of <i>R. solani</i> . Make the second application 28 days later.	Integrate routine leaf spot and rust applications on a 14-day spray schedule at rate for foliar disease. Gem must be applied with a surfactant for peanut foliar disease control.
Restrictions: Do not make more than 4 applications (14 fl. oz.) of GEM per acre per season. Do not apply GEM within 14 days of harvest. To limit the potential for development of disease resistance: <ul style="list-style-type: none"> • If 4 or less total fungicide sprays are planned then alternate each application of GEM with a non Group 11 containing fungicide. • If 5 or more fungicide sprays are planned use a maximum of 2 consecutive applications of GEM alternated with at least 2 applications of a non Group 11 containing fungicide. 			

PECANS			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Scab (<i>Cladosporium caryigenum</i>) Anthracnose (<i>Glomerella cingulata</i>)	1.9 to 3.8	Begin applications preventively. Begin at bud break and continue on a 14-day interval through pollination followed by cover sprays at 14- to 21-day intervals.	Use the shorter intervals and higher rates when disease pressure is severe.
Restrictions: Do not apply more than 22.5 fl. 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"> • 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. • Do not apply more than three (3) applications of Gem™ or other strobilurin fungicides per acre per season. 			

PISTACHIOS			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Botryosphaeria Panicle and Shoot Blight (<i>Botryosphaeria dothidea</i>) Septoria Leaf Spot (<i>Septoria pistaciarum</i>)	1.9 to 2.9	Begin applications preventatively and continue as needed on a 14- to 21-day spray schedule.	Use the higher rate and shorter interval when disease pressure is severe.
Alternaria Late Blight (<i>Alternaria alternata</i>)	2.9 to 3.8		
Restrictions: Do not apply more than 11.2 fl. 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"> • 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. • Do not apply more than four (4) applications of Gem™ or other strobilurin fungicides per acre per season. 			

POTATOES			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Early Blight (<i>Alternaria solani</i>)	2.9 to 3.8	Begin applications preventively and continue as needed on a 7- to 10-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
Late Blight (<i>Phytophthora infestans</i>)	Gem™ Tank Mixture: 3.8	Begin applications preventively. Alternate Gem™ (every other application) with a protectant fungicide for use against late blight on a 7- to 10-day spray schedule. 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 spray schedule.	Use the shorter interval when disease pressure is severe.

Restrictions: Do not apply more than 23 fl. 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:

- Do not make more than one (1) 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.
- Do not make more than six (6) applications of Gem™ or other QoI fungicides per season.

RICE			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Sheath/Stem Diseases: Sheath Blight (<i>Rhizoctonia solani</i>)	3.8 to 4.7	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.
Panicle Diseases: Rice Blast (<i>Pyricularia grisea</i>)	3.1 to 4.7	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.

Restrictions: Do not apply more than 9.4 fl. 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 treated water for livestock.

To limit the potential for development of disease resistance:

- 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.
- Do not make more than two (2) applications of Gem™ or other QoI fungicides per season.

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 fl. 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>	1.9 – 2.9	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 11.5 fl. oz of Gem™ per acre per year. Do not apply Gem™ within 7 days of harvest. To limit the potential for development of disease resistance:			
<ul style="list-style-type: none"> 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. Do not make more than four (4) applications of Gem™ or other strobilurin fungicide per season. 			

STONE FRUITS: Apricots, Cherries, Nectarines, Peaches, Plums, Plumcots, Prunes (fresh)			
Disease Control	Rate fl. 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>	1.9-3.8	Begin applications preventively. Apply at petal fall and continue on a 7- to 14-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
Restrictions: Do not apply more than 15.4 fl. 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"> 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. Do not apply more than four (4) applications of Gem™ or other QoI fungicides per season. 			

SUGAR BEETS			
Disease Control	Rate fl. oz./Acre	Application Timing	Notes
Foliar Diseases: Cercospora Leaf Spot <i>(Cercospora beticola)</i> Powdery Mildew <i>(Erysiphe polygoni)</i>	2.9 to 3.6	Begin applications preventively and continue as needed on a 10- to 14-day spray schedule. 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.
Soilborne Diseases: Disease Suppression Rhizoctonia Stem Canker, 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 spray schedule.	
Restrictions: Do not apply more than 10 fl. 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"> Do not make more than one (1) 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. Do not make more than three (3) applications of Gem™ or other QoI fungicides per season. 			

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 fl. oz./Acre	Application Timing	Notes
Botryosphaeria Panicle and Shoot Blight <i>(Botryosphaeria dothidea)</i>	1.9 to 2.9	Begin applications preventively and continue as needed on a 14- to 21-day spray schedule.	Use the higher rates and shorter intervals when disease pressure is severe.
Eastern Filbert Blight <i>(Anisogramma anomala)</i>	1.9 to 3.8	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>	2.9 to 3.8	Begin applications preventively and continue as needed on a 7- to 14-day spray schedule.	
Restrictions: Do not apply more than 15.4 fl. 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"> 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. Do not apply more than four (4) applications of Gem™ or other QoI fungicides per season. 			

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.

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

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NET CONTENTS: 2.5 GALLONS



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 500 SC Fungicide (MASTER) Approved 11/18/05, Notification 12/08/05

Bayer CropScience



Document Processing Desk (REGFEE)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall #2
1801 South Bell Street
Arlington, VA 22202

December 8, 2005

Subject: Gem 500 SC Fungicide, EPA Reg. No. 264-826
Notification to Add Eastern Filbert Blight

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

Dear Sir or Madam:

Gem 500 SC Fungicide is currently registered for control of diseases infecting a number of crops including tree nuts. With EPA Form 8570-1 and labeling, we are notifying the Agency that we are adding Eastern filbert blight to the tree nuts section of our Gem 500 SC Fungicide label.

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.

Sincerely,

Melvin K. Tolliver

Melvin K. Tolliver
Registration Product Manager, Fungicides

Enclosures:

- 1. EPA Form 8570-1
- 2. Draft labeling with changes highlighted
- 3. Final Printed labeling (2 copies)

