264-786 09/20/2005 1/14

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
X Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
264-786	SEP 20 2005

Term of Issuance:
Conditional

Name of Pesticide Product:
HEC 480 SC Fungicide

Name and Address of Registrant (include ZIP Code):

Bayer CropScience
2 T.W. Alexander Drive
Research Triangle Park, North Carolina 27709

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(C) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Section 4.

2. Make the following label changes before you release the product for shipment:

a. Revise the EPA Registration Number to read, "EPA Reg. No. 264-786."

Signature of Approving Official:
Tony Kish

Tony Kish, Acting Product Manager (22)
Fungicide Branch, Registration Division (7505C)

Date: SEP 20 2005

EPA Form 8570-6

b. In the first sentence in the "Restrictions and other Information" subsection of the "SEED TREATMENT, POTATO (SEED PIECE, PEANUT, AND TURF" section change "...all seed treated with HEC 480 SC should be labeled:" to "...all seed treated with HEC 480 SC must be labeled:".

c. In the first sentence in the last paragraph on page 8 (the second paragraph in the "GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS" section) change "...when system connection or fittings leak..." to "...when system connections or fittings leak...".

3. Submit the following studies and information or perform the following actions within the required timeframes. Further details concerning the required submissions and actions can be found in the scientific reviews and risk assessments.

a. Submit, by June 30, 2006, additional information (definitive identification of the test substance, spleen weights at necropsy, and competence of the laboratory to perform this type of assay) that will potentially allow upgrade of the assessment of the mouse subacute immunotoxicity study (Guideline Requirement No. 870.7800; Immunotoxicity – Mouse (Subacute Feeding Study), as detailed in the Human Health Risk Assessment for Fluoxastrobin.

b. Submit, by June 30, 2006, additional data concerning the chromatograms and chromatography from the goat metabolism study, (Guideline Requirement No. 860.1300; Nature of the Residue in Livestock), as detailed on pages. 5 and 6 of the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, to allow the Agency to determine that the metabolite profile in fat, liver, and kidney did not change during the study.

c. For Guideline Requirement No. 860.1340 (Residue Analytical Method – Plant Commodities), as detailed on page 6 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin and page 2 of the Review of Bayer Response to ACB TMV Memo Re: Fluoxastrobin Enforcement Methods document, rewrite and submit to the Agency, by June 30, 2006, the proposed enforcement method (No. 00604), including instructions for the analysis of all crops and their associated processed commodities for which the petitioner is requesting tolerances, and including information on additional mass spectrometric ion transitions which may be used to positively confirm residues of fluoxastrobin and its regulated metabolites.

d. For Guideline Requirement No. 860.1340 (Residue Analytical Method – Livestock Commodities), as detailed on page 6 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, modify, and submit to the Agency by June 30, 2006, residue enforcement method no. 00691 to specify whether calculated results for the phenoxy-hydroxypyrimidine metabolite (HEC 7154) are reported in terms of that metabolite or in terms of parent equivalents. The wording of the method that was submitted initially is unclear on this point.

e. For Guideline Requirement No. 860.1380 (Storage Stability), as detailed on page 7 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, submit, by June 30, 2006, additional information and confirmatory raw data for the residue storage stability study, including detailed description of sample preparation, storage conditions, dates of fortification, and whether sample storage conditions differed from those of the actual crop field trials and rotational crop studies. This information may allow upgrade of the crop field residue trial studies.

f. For Guideline Requirement No. 860.1500 (Crop Field Trials), as detailed on page 7 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, submit, by June 30, 2006, additional, summary information concerning the weather conditions for the growing season for each crop field residue trial, including whether conditions were normal and/or whether any unusual condition(s) was observed. This information may allow upgrade of the crop field residue trial studies.

g. For Guideline Requirement No. 860.1520 (Processed Food and Feed), as detailed on page 7 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, submit, by no later than two years following the date of this letter, a new peanut processing study. The processing factor for peanut in the study that was submitted previously exceeded the theoretical concentration factor by a significant margin.

h. For Guideline Requirement No. 860.1650 (Submittal of Analytical Standards), as detailed on page 8 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin and page 2 of the Review of Bayer Response to ACB TMV Memo Re: Fluoxastrobin Enforcement Methods document, submit, by June 30, 2006, analytical reference standards for Fluoxastrobin, its Z-isomer, a Fluoxastrobin metabolite, several deuterated molecules related to Fluoxastrobin, and the isotopically labeled internal standard for the residue chemistry methods to the EPA National Pesticide Standards Repository.

i. For Guideline Requirement No. 860.1900 (Field Accumulation in Rotational Crops), as detailed on page 8 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, submit, by June 30, 2006, additional, summary information concerning the weather conditions for the growing season for each field rotational crop residue study, including whether conditions were normal and/or whether any unusual condition(s) was observed. This information may allow upgrade of the field rotational crop residue studies.

j. For Guideline Requirement No. 860.1900 (Field Accumulation in Rotational Crops), as detailed on page 8 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, submit, by June 30, 2006, soil characteristics data for each field rotational crop trial from which samples were analyzed. This information will support the field rotational crop studies.

k. For Guideline Requirement No. 860.1900 (Field Accumulation in Rotational Crops), as detailed on page 8 in the Summary of Analytical Chemistry and Residue Data document for Fluoxastrobin, explain, by June 30, 2006, why samples from one of the grass forage and hay rotational crop field trials appears to have been harvested more than one year after planting of the grass crop. If it was, explain the reason for the delay and why the study should be considered valid.

l. Submit, by June 30, 2006, one acute (10-day) sediment toxicity test, as described in the OPPTS 850.1735 and 850.1740 protocols. This study will reduce risk assessment uncertainties in regard to freshwater and estuarine/marine sediment dwelling organisms.

m. Submit, by June 30, 2006, one chronic (28-day) sediment toxicity test, as described in the OPPTS 850.1735 and 850.1740 protocols. This study will reduce risk assessment uncertainties in regard to freshwater and estuarine/marine sediment dwelling organisms.

n. If such data are available, submit, by June 30, 2006, upgrade data for the Anaerobic Aquatic Metabolism (Guideline Requirement Number (GRN) 162-3) and one of the Aerobic Aquatic Metabolism (GRN 162-4; MRID No. 458653-13) studies to show that following the addition of [^{14}C] Fluoxastrobin to the water layer, the [^{14}C] residues did not initially partition from the water layer to become adsorbed onto the glassware surface, as discussed on the fourth and fifth pages in the EFED Ecological Risk Assessment for Fluoxastrobin that is dated July 27, 2004.

o. If such data are available, upgrade the 96-hour Rainbow Trout acute toxicity study of the Fluoxastrobin degradate HEC 7180 (HEC 5725-carboxylic acid) by submitting (by September 30, 2006) documentation of HES 7180 solubility limits, including sample processing, under test conditions. This documentation should be based on data requirements specified in OPPTS Series 850.1000. Discussion of this requirement can be found on the second page of the Transmittal of Fluoxastrobin Ecotoxicity Data Reviews memorandum for Fluoxastrobin that is dated July 29, 2004.

p. If such data are available, upgrade the 96-hour Sheepshead Minnow acute toxicity study of technical Fluoxastrobin by submitting (by September 30, 2006) documentation of the limits of Fluoxastrobin solubility in seawater under test conditions. This documentation should be based on data requirements specified in OPPTS Series 850.1000. . Discussion of this requirement can be found on the second page of the Transmittal of Fluoxastrobin Ecotoxicity Data Reviews memorandum for Fluoxastrobin that is dated July 29, 2004.

3. Submit one copy of the revised final printed label for our records before you release the product for shipment.

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

A copy of the label stamped "Accepted with comments" is enclosed for your records.

Tony Kish
Acting Product Manager (22)
Fungicide Branch
Registration Division (7505C)

Attachments

6/14

GROUP 11 FUNGICIDE

HEC 480 SC Fungicide

ACTIVE INGREDIENT: Fluoxastrobin: [(1*E*)-[2-[[6-(2-Chlorophenoxy)-5-fluoro-4-pyrimidinyl]oxy] phenyl] 5,6-dihydro-1,4,2-dioxazin-3-yl) methanone-O-methyloxime] **40.3%**

INERT INGREDIENTS: **59.7%**

This product contains 4 pounds of Fluoxastrobin per gallon (480 g per liter) **TOTAL: 100.0%**

EPA Reg No. 264-TIA **EPA EST. No.**

KEEP OUT OF REACH OF CHILDREN
CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label find someone to explain it to you in detail.)

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 ON SKIN: **OR CLOTHING**	• Take off contaminated clothing. • Rinse skin with plenty of water for 15–20 minutes. • Get medical attention if irritation persists.
IF IN EYES:	• 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. • Call a physician if irritation persists.
IF SWALLOWED:	• 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.
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, and chemical resistant gloves made of any waterproof material, such as nitrile, butyl, neoprene and/or barrier laminate. These are only some of the glove materials that are chemically resistant to this product. For more options, refer to category A on an EPA chemical resistance category selection chart.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturers instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement

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.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
SEP 20 2005

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 264-786

User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. The active ingredient in this product can be persistent for several months or longer. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark, or other sensitive areas that may be exposed to spray drift. Do not contaminate water when disposing of equipment washwater or rinsate.

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), notification to workers, 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: long-sleeved shirt and long pants or coveralls, shoes plus socks, and chemical resistant gloves made of any waterproof material, such as nitrile, butyl, neoprene, and / or barrier laminate.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Store in original container and keep tightly closed. Store in a cool dry place.

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

Empty containers should be triple rinsed. Do not reuse empty containers. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL INFORMATION

HEC 480 SC is a broad-spectrum fungicide for the control of certain diseases in peanuts, potato and tuber vegetables, fruiting vegetables, leafy vegetables (petioles subgroup), turf, and for the suppression of seed-borne disease and early season damping-off caused by *Rhizoctonia solani* as a seed treatment in potato, peanut, and turf. HEC 480 SC Fungicide works by interfering with respiration in plant-pathogenic fungi, and 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

The active ingredient in HEC 480 SC Fungicide (fluoxastrobin) 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. Fluoxastrobin does exhibit cross-resistance to other QoI fungicides, such as: trifloxystrobin, azoxystrobin, kresoxim-methyl, famoxadone, and fenamidone (Group 11 fungicides). 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.

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 using Group 11 (QoI-containing) fungicides with the following guidelines.

1. When using a Group 11 fungicide as a solo product, the number of applications should be no more than one third of the total number of fungicide applications per season.
2. 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 applications should be no more than one half of the total number of fungicide applications per season.
3. In programs in which applications of Group 11 fungicides are made with both solo products and mixtures, the number of Group 11 fungicide applications should be no more than one half of the total number of fungicide applications per season.

APPLICATION GUIDELINES

Broadcast Ground Sprayers

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, 10 gallons/A minimum is recommended.

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. 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.

HEC 480 SC Alone: Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the HEC 480 SC to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the HEC 480 SC has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

HEC 480 SC + 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 (see note below), wettable powders, wettable granules, (dry flowables), liquid flowables (such as HEC 480 SC), 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 HEC 480 SC Fungicide in tank-mixtures, all products in water-soluble packaging should be added to the tank before any other tank-mix partner, including HEC 480 SC. 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 HEC 480 SC Fungicide 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 that prohibits such mixing. Tank-mixtures or application of other products referenced on this label are permitted only in those states in which the referenced products are registered.

HEC 480 SC Fungicide is compatible with most insecticide, fungicide, and foliar nutrient products. However, the physical compatibility of HEC 480 SC with tank-mix partners should be tested before use. To determine the physical compatibility of HEC 480 SC Fungicide 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 HEC 480 SC Fungicide to the target crop in a small area and in accordance with label instructions for the target crop.

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Aerial Application (Potato and Tuber Vegetables only):

For aerial application a minimum of 5 gallons/A is recommended. 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. Aerial applications made to dense canopies may not provide sufficient coverage of lower leaves to provide proper pest control.

Use in Chemigation Systems (Potato and Tuber Vegetables, Fruiting Vegetables, and Leafy Petioles only):

Apply HEC 480 SC only through sprinkler type irrigation systems, including center pivot, microjet, wheel lines, lateral move, side roll, or overhead solid set irrigation systems. Do not apply HEC 480 SC through any other type of irrigation system. See "DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS" for detailed information.

USE DIRECTIONS FOR SPECIFIC CROPS

HEC 480 SC provides control or suppression of several important diseases of peanuts, potato and tuber vegetables, fruiting vegetables, leafy vegetables (petioles subgroup), turf, and for the suppression of seed-borne disease and early season damping-off caused by *Rhizoctonia solani* as a seed treatment in potato, peanut, and turf. 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.

ROTATIONAL RESTRICTIONS

Treated areas may be replanted immediately following harvest with any crop listed on this label. In addition, areas may be replanted with root and tuber vegetables (e.g. carrot, potato, radish, sugarbeet, turnips), bulb vegetables (e.g. onion and garlic), leafy vegetables (e.g. celery, lettuce, spinach), brassica vegetables (e.g. broccoli, cauliflower, cabbage, mustard greens), alfalfa, cotton, legume vegetables (dry and succulent peas and beans), cereal grains, and forage grasses following a 30-day plant back interval. For crops not listed on this label, do not plant back within one year of the last field application.

PEANUT

Disease Control	Rate to Use	Application Timing and Resistance Management
Early leaf spot (*Cercospora arachidicola*) **Late leaf spot** (*Cercosporidium personatum*) **Leaf rust** (*Puccinia arachidis*) **Stem rot** **White mold** **Southern blight** (*Sclerotium rolfsii*) **Rhizoctonia limb rot** (*Rhizoctonia solani*)	5.7 fl oz/A (0.18 lbs a.i./A)	For optimum results, begin applications preventively. Apply as needed on a 14-day interval. To limit the potential for development of disease resistance: • In areas with typically 1-4 sprays per year, alternate every application of a solo QoI fungicide with at least one application of another effective mode of action fungicide. • In areas with typically 5 or more fungicide sprays per year, a maximum of 2 sequential applications of a QoI fungicide followed by at least an equal number of another effective mode of action fungicide.

Restrictions and Other Information

- Do not apply more than 22.8 fl oz (0.72 lbs a.i.) of HEC 480 SC per acre per year including any seed treatment use.
- There is a maximum number of 4 applications per season, and a minimum interval of 14 days between applications.
- Do not apply HEC 480 SC within 14 days of harvest.

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POTATO AND TUBER VEGETABLES

Arracacha, arrowroot, artichoke (Chinese, Jerusalem), canna (edible), cassava (bitter, sweet), chayote (root), chufa, dasheen, ginger, leren, potato, sweet potato, tanier, turmeric, and yam (bean, true)

Disease Control	Rate to Use	Application Timing and Resistance Management
Early blight (*Alternaria solani*)	3.8 fl oz/A (0.12 lbs a.i./A)	For optimum results, begin applications preventively and continue as needed on a 7 to 10-day interval. Use higher rate when disease pressure is severe. HEC 480 SC may be applied aerially on potato. To limit the potential for development of disease resistance: • Alternate every application of a QoI fungicide with at least one application of another effective mode of action fungicide.
Disease Suppression	**Rate to Use**	**Application Timing and Resistance Management**
Late blight (*Phytophthora infestans*)	3.8 fl oz/A (0.12 lbs a.i./A)	Apply HEC 480 SC preventatively on a 7-day interval. If symptoms develop switch to a non cross-resistant fungicide. Tank-mix or alternate with a protectant fungicide at low recommended rate label rate for late blight control.

Restrictions and Other Information

- Do not apply more than 22.8 fl oz (0.72 lbs a.i.) of HEC 480 SC per acre per year including any seed treatment use.
- There is a maximum number of 6 applications per season, and a minimum interval of 7 days between applications.
- HEC 480 SC may also be applied through chemigation or aerially on potato and tuber vegetables.
- Do not apply HEC 480 SC within 7 days of harvest.

LEAFY VEGETABLES (PETIOLES SUBGROUP)

Cardoon, celery, Chinese celery, celtuce, Florence fennel, rhubarb, and Swiss chard

Disease Control	Rate to Use	Application Timing and Resistance Management
Early blight (*Cercospora apii*) **Late blight** (*Septoria apiicola*) **Rhizoctonia root rot** (*Rhizoctonia solani*)	5.7 fl oz/A (0.18 lbs a.i./A)	For optimum results, begin applications preventively and continue as needed on a 7 to 10-day interval. To limit the potential for development of disease resistance: • Alternate every application of a QoI fungicide with at least one application of another effective mode of action fungicide.

Restrictions and Other Information

- Do not apply more than 22.8 fl oz (0.72 lbs a.i.) of HEC 480 SC per acre per year.
- There is a maximum number of 4 applications per season, and a minimum interval of 7 days between applications.
- HEC 480 SC may also be applied through chemigation on leafy petioles.
- Do not apply HEC 480 SC within 3 days of harvest.

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FRUITING VEGETABLES

Eggplant, groundcherry (Physalis sp.), pepino, pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), tomatillo, and tomato

Disease Control	Rate to Use	Application Timing and Resistance Management
Early blight *(Alternaria solani)* **Southern blight** *(Sclerotium rolfsii)* **Target spot** *(Corynespora cassiicola)*	3.8 to 5.7 fl oz/A (0.12 to 0.18 lbs a.i./A)	For optimum results, begin applications preventively and continue as needed on a 7 to 10-day interval. To limit the potential for development of disease resistance: • Alternate every application of a QoI fungicide with at least one application of another effective mode of action fungicide.
Disease Suppression	**Rate to Use**	**Application Timing and Resistance Management**
Late blight *(Phytophthora infestans)*	5.7 fl oz/A (0.18 lbs a.i./A)	Apply HEC 480 SC preventatively on a 7-day interval. If symptoms develop switch to a non cross-resistant fungicide. Tank-mix or alternate with a protectant fungicide at low recommended label rate for late blight control.

Restrictions and Other Information

- Do not apply more than 22.8 fl oz (0.72 lbs a.i.) of HEC 480 SC per acre per year.
- There is a maximum number of 4 applications per season, and a minimum interval of 7 days between applications.
- HEC 480 SC may also be applied through chemigation on fruiting vegetables.
- Do not apply to fruiting vegetables grown in a greenhouse.
- Do not apply HEC 480 SC within 3 days of harvest.

TURF

Disease Control	Rate to Use	Application Timing and Resistance Management
Brown Patch *(Rhizoctonia solani)* **Southern blight** *(Sclerotium rolfsii)* **Target spot** *(Corynespora cassiicola)*	8.5 - 17 fl oz/A * (0.27 to 0.55 lbs a.i./A) * **Higher rate recommended for lawn care.**	For optimum results, begin applications preventively and continue as needed on a 21-day interval. To limit the potential for development of disease resistance: • Use a maximum of 2 sequential applications of a QoI fungicide followed by at least an equal number of another effective mode of action fungicide.
Summer Patch *(Magnaporthe poae)*	17.1 fl oz/A (0.55 lbs a.i./A)	
Disease Suppression	**Rate to Use**	**Application Timing and Resistance Management**
Snow mold *(Typhula incarnata)* *(Microdochium nivale)*	17.1 fl oz/A (0.55 lbs a.i./A)	Apply 1 to 2 applications at 21-28 day intervals prior to permanent snow cover. Tankmix with either of the following: Bayleton 3.05 (3.05 lb ai/A) Daconil Ultrex 12.5 (12.5 lb ai/A) Turfcide 400 18.3 (18.3 lb ai/A)

Restrictions and Other Information

- Do not apply more than 68.4 fl oz (2.2 lbs a.i.) of HEC 480 SC per acre per year, including seed treatment.
- There is a maximum number of 4 applications per season, and a minimum interval of 21 days between applications.
- Not for home owner use. May only be applied to residential turf by a certified pest control operator.

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SEED TREATMENT
POTATO (SEED PIECE), PEANUT, AND TURF

Disease Suppression	Rate to Use	Directions For Use
Rhizoctonia solani	0.16 – 0.32 fl oz/A (0.005 – 0.010 lbs a.i./CWT)	Apply as a seed treatment using standard slurry or mist-type seed treatment equipment. Uniform application to seed is necessary to ensure seed safety and best disease protection. Seed should be sound and well cured prior to treatment. Product should be diluted with sufficient water to ensure complete seed coverage. Consult a seed treatment specialist regarding slurry rates recommended for the crop to be treated with HEC 480 SC. The length of control will vary depending on the rate used.

Restrictions and Other Information

- **SEED LABELING:** to meet U.S. Federal Seed Act requirements, all seed treated with HEC 480 SC should be labeled: **TREATED SEED. DO NOT USE FOR FOOD, FEED OR OIL PURPOSES. Treated with Fluoxastrobin. USE PRECAUTION: When using formulations that do not contain dye, to comply with 40 CFR 153.155, all seed treated with an economic poison must be colored to distinguish and prevent subsequent inadvertent use as a food for man or feed for animals. Federal law requires that bags containing treated seed shall be labeled as follows: "This seed has been treated with Fluoxastrobin. Do not use for food, feed, or oil purposes. Store away from feeds and foodstuffs."**

SPRAY DRIFT

SENSITIVE AREAS: This pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulation.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the *Aerial Drift Reduction Advisory Information.*

AERIAL DRIFT REDUCTION ADVISORY

This section is advisory in nature and does not supersede the mandatory label requirements.

INFORMATION ON DROPLET SIZE:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

CONTROLLING DROPLET SIZE:

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH:

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT:

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT:

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

WIND:

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY:

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS:

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS

Apply this product only through sprinkler irrigation systems including center pivot, microjet, wheel lines, lateral move, side roll, or overhead solid set irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other irrigation experts.

SPRAY PREPARATION: Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

APPLICATION INSTRUCTIONS: First prepare a suspension of HEC 480 SC Fungicide in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of HEC 480 SC and then the remaining volume of water. Then set sprinkler to deliver no more than 0.4 inch of water per acre. Start sprinkler and uniformly inject the suspension of HEC 480 SC into the irrigation water line so as to deliver the desired rate per acre. The suspension of HEC 480 SC should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

NOTE: When treatment with HEC 480 SC has been completed, further field irrigation over the treated area should be avoided for 24 hours to prevent washing the chemical off the crop.

GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e. g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. If you are unsure of wind conditions, contact your local extension agent.

Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

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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