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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

NOV 1 8 1997

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Michele Schulz Zeneca Ag Products 1800 Concord Pike P.O. Box 15458 Wilmington, Delaware 19850-5458

Subject: Heritage Fungicide EPA Registration Number 10182-408 Your amended labeling dated July 21, 1997

Dear Ms. Schulz,

We have reviewed the subject amended labeling, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended. The amended labeling is acceptable, provided that you make the following changes:

- 1. At the start of the second sentence in the "IF ON SKIN:" statement in the STATEMENT OF PRACTICAL TREATMENT section, delete "If symptoms persist,". This qualifier is not appropriate because the Acute Dermal Toxicity Tox. Category is III, requiring the unmodified statement "Get medical attention."
- 2. Appropriately complete the second sentence in the "NOTICE:" part of the "CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY" section.
- 3. In the "ENVIRONMENTAL HAZARDS" section, delete the sentence that reads

"Do not apply directly to water except as specified on this label."

This sentence is inappropriate because it specifically implies that there are aquatic uses.

4. In the second sentence of the second paragraph of the "ENVIRONMENTAL HAZARDS" section, delete "For terrestrial uses,". This clause is inappropriate because it implies that there are nonterrestrial uses.

- 5. In the textual "TOMATOES" part of the "SPECIFIC USE DIRECTIONS" section, in the second to the last sentence, change the pre-harvest interval from 10 to 1 day, as is stated in the table.
- 6. Submit one copy of your final printed label before you release product bearing this amended labeling for shipment.

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

Sincerely yours,

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

Attachment: Label stamped "ACCEPTED with COMMENTS"

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HERITAGE[™] FUNGICIDE

Broad spectrum fungicide for control of plant diseases.

ACTIVE INGREDIENT:

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Azoxystrobin: methyl (E)-2-{2-[6-(2-cyanophenoxy)	
pyrimidin-4-yloxy]phenyl]-3-methoxyacrylate*	50%
INERT INGREDIENTS:	50%
TOTAL	100%

Contains 0.5 lb. ai/lb. product *IUPAC

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EPA REG NO. 10182-408 EPA EST. NO. NET WT. 1 lb. (.4 kg) 2 lbs. (.9 kg)

KEEP OUT OF REACH OF CHILDREN

CAUTION

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SEE INSIDE FOR STATEMENT OF PRACTICAL TREATMENT AND PRECAUTIONARY STATEMENTS

Manufactured in the UK for distribution by:Zeneca Ag Products Zeneca Inc. Wilmington DE 19850-5458

ACCEPTED with COMMENTS In EPA Letter Dated NOV 18 1997

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10182-408

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STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. If symptoms persist, get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC, 1-800-424-9300.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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HARMFUL IF ABSORBED THROUGH SKIN. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes 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
- Waterproof gloves
- --- Shoes plus socks

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.

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ENVIRONMENTAL HAZARDS

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The active ingredient, Azoxystrobin, in this product can be persistent for several months or longer. Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Do not apply directly to water except as specified on this label. For terrestrial uses, 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 washwater or rinsate.

Notify state and/or federal authorities and Zeneca Inc. immediately if you observe any adverse environmental effects due to use of this product.

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CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable,

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF -THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

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DIRECTIONS FOR USE

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

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL

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 USES

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:

Coveralls

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- Waterproof gloves
- Shoes plus socks

NON-AGRICULTURAL USES

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. The area being treated must be vacated by unprotected persons.

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Do not treat areas while unprotected humans or domestic animals are present in the treatment areas. Because certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

Do not allow entry into treatment area until area that was treated with HERITAGE 50WG is dry.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

STORAGE: Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, sweep and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

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Plastic Containers: Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or alternatives allowed by State and local authorities.

Paper/Box Container: Do not reuse container. Completely empty container into application equipment. Then dispose of empty container in sanitary landfill, or alternatives allowed by State and local authorities.

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GENERAL INFORMATION

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HERITAGE[™] is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. HERITAGE may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered, crop protection products. HERITAGE may be applied with all types of spray equipment commonly used for making ground and aerial applications. For ground applications, apply HERITAGE in sufficient water volume for adequate coverage and canopy penetration. For aerial applications to non-orchard crops, apply HERITAGE in a minimum of three gallons of water per acre. For aerial applications in orchard crops, apply HERITAGE in a minimum of ten gallons of water per acre. All applications should be made according to the use directions that follow.

GENERAL USE PRECAUTIONS

Do not apply HERITAGE through any type of irrigation system or through any ultra low volume----(ULV) spray system. Do not graze or feed clippings from treated turf areas to animals. Crops in this label may be planted immediately after last treatment. Do not plant other crops within 45 days after last application. HERITAGE has been shown to be extremely phytotoxic to certain apple varieties. HERITAGE should not be applied where there is the possibility of spray drift reaching apple trees. Sprayers used to apply HERITAGE should not be used to spray apples.

INTEGRATED PEST (DISEASE) MANAGEMENT

HERITAGE should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. The SPECIFIC USE DIRECTIONS section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural and turf authorities for additional IPM strategies established for your area. HERITAGE may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

RESISTANCE MANAGEMENT

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. In order to maintain HERITAGE as a valuable disease control tool and because the development of resistance cannot be predicted, the SPECIFIC USE DIRECTIONS section of this label provides use directions to implement resistance management strategies for each crop. Consult your local or state agricultural authorities for resistant management strategies strategies that are complementary to those in this label. HERITAGE is not cross resistant with other classes of fungicides which have different modes of action.

MIXING

HERITAGE is intended for dilution with water for spray application and may be used in all types of spray equipment commonly used for making ground and aerial applications. Partially fill the spray tank with clean water and begin agitation. Add the specified amount of HERITAGE to the tank, allowing time for good dispersion, then add an adjuvant, if required:

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recommended. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation throughout the spraying operation. Do not allow spray mixture to stand overnight or for prolonged periods. Make up only the amount of spray required for immediate use.

TANK MIXES/COMPATIBILITY

HERITAGE is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult compatibility charts or your local or state agricultural or turf authorities for compatibility information. Do not combine HERITAGE in the spray tank with pesticides, surfactants or fertilizers, unless compatibility charts or your own prior use has shown that the combination is physically compatible, effective and non-injurious under your conditions of use. If physical compatibility is unknown, the following procedure should be followed: Pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible. Products should be added to the spray tank in the following order: the recommended rate of HERITAGE, other WG or dry flowable formulations, wettable powders, and flowable (aqueous suspensions) products.

SPECIFIC USE DIRECTIONS

BANANAS

HERITAGE fungicide is recommended for the control of black and yellow sigatoka on bananas.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each plantation. Practices known to reduce disease development should be followed. These include canopy management through removal of suckers and proper plant spacing, proper selection of varieties with tolerance or resistance to disease, removal of plant debris in which inoculum overwinters, good surface water drainage, and the use of fungicides when required.

<u>Resistance Management</u>: A disease management program that includes alternation between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from becoming resistant developing resistance to HERITAGE. This resistance management strategy should NOT include alternation or tank mixes with products to which resistance has already developed. Do not apply more than two sequential sprays of HERITAGE before alternating with a fungicide that has a different mode of action.; Do not make more than eight (8) applications of HERITAGE per acre in a 12-month period.

<u>Application Directions</u>: HERITAGE should be applied prior to or in the early stages of disease development. Applications may be made by ground or by air. Proper adjustment and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. Use sufficient volumes of water to ensure adequate coverage of plant parts to be protected. An adjuvant may be added at recommended rates to improve coverage. The higher rates in the rate range and/or shorter spray intervals may be required

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under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist.

May be applied the day of harvest. Do not apply more than 2.16 lbs product/acre/year (1.08 lb ai/A).

GRAPES

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HERITAGE fungicide is recommended for the control of powdery mildew, downy mildew, black rot and Phomopsis cane and leafspot on grapes.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each vineyard. Practices known to reduce disease development should be followed. These include canopy management through pruning and thinning, proper selection of varieties with tolerance or resistance to disease, proper timing and placement of irrigation, removal of plant debris in which inoculum overwinters and the use of ----- fungicides when required.

<u>Resistance Management</u>: A disease management program that includes alternation between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from becoming resistant developing resistance to HERITAGE. This resistance management strategy should NOT include alternation or tank mixes with products to which resistance has already developed. Do not apply more than two sequential sprays of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six (6) applications of HERITAGE per acre per year.

<u>Application Directions</u>: HERITAGE should be applied prior to or in the early stages of disease development. Applications may be made by ground or by air. Proper adjustment and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. Use sufficient volumes of water to ensure adequate coverage of plant parts to be protected. The addition of a nonionic surfactant at 0.05 % V/V may An adjuvant may be added at recommended use rates to improve coverage. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist. In vineyards where control of more than one disease is required, always use the rate range recommended for the disease requiring the highest rate of HERITAGE.

Do not apply within 14 days of harvest. Do not apply more than 3 lbs product/acre/year (1.5 lb ai/A).

PEACHES

HERITAGE fungicide is recommended for the control of blossom blight, fruit brown rot and scab on peaches.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each orchard. Practices known to reduce disease to the development should be followed. These include selection of varieties with tolerance to the selecties withe selection of

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disease, removal of plant debris in which inoculum overwinters, proper pruning to provide sunlight and aeration and the use of fungicides when required.

<u>Resistance Management</u>: A disease management program that includes alternation between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from becoming resistant to HERITAGE. When HERITAGE is being applied for the control of blossom blight no more than two (2) sequential applications of HERITAGE should be made before alternating with a fungicide that has a different mode of action. In orchards where HERITAGE is applied for brown rot do not apply more than one application of HERITAGE before alternating with other chemistry. When HERITAGE is being applied for the control of scab, no more than four (4) sequential applications of HERITAGE should be made before alternating with a fungicide that has a different mode of action. Do not make more than eight (8) applications per acre per year.

<u>Application Directions</u>: HERITAGE should be applied prior to or in the early stages of disease development. Applications may be made by ground or by air. Proper adjustment and calibration of spraying equipment to give good tree penetration and coverage is essential for good disease control. Use sufficient volumes of water to ensure adequate coverage of plant parts to be protected. The addition of a nonionic surfactant at 0.5 pint/100 gallons of water may improve coverage. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist.

Do not apply within 14 days of harvest. Do not apply more than 2.4 lbs product/acre/year (1.2 lb ai/A).

PEANUTS

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HERITAGE fungicide is recommended for the control of early leafspot and late leafspot, Rhizoctonia peg and pod rot and stem rot/white mold (*Sclerotium rolfsii*) on peanuts.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each peanut field. Practices known to reduce disease development should be followed. These include proper selection of varieties with tolerance or resistance to disease, proper timing and placement of irrigation, crop rotation, removal of plant debris in which inoculum overwinters, crop residue management and the use of fungicides when required.

Resistance Management: Do not make more than two (2) applications of HERITAGE per acre per year.

Application Directions: HERITAGE should be applied at approximately 60 and 9) days after planting as a foliar application and in a sufficient volume of water for good coverage. Applications may be made by ground or by air. The higher rates in the rate range may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist. These two applications of HERITAGE will provide season-long protection against the soil borne diseases labeled and will also provide, control of early and late leafspot for a 10-14 day period after each spray. Additional applications of other labeled fungicides on a leafspot application schedule will be required to

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provide season-long disease control of the leafspot diseases. Adjuvants may be added to the spray tank at recommended use rates to improve coverage.

Do not apply within 50 days of harvest. Do not feed peanut hay. Do not apply more than 1.6 lbs product/acre/year (0.8 lbs ai/acre/year).

PECANS

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HERITAGE fungicide is recommended for the control of anthracnose (Glomerella shuck and kernel rot) and scab on pecans.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each orchard. Practices known to reduce disease development should be followed. These include selection of varieties with tolerance to disease, removal of plant debris in which inoculum overwinters and the use of fungicides when required.

<u>Resistance Management</u>: A disease management program that includes an alternating seasonal spray program or a full-season alternating block spray program between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from becoming resistant to HERITAGE. Use of the alternating seasonal program requires applications of HERITAGE either early season (from bud break through pollination) <u>or</u> as cover sprays after pollination, but not full season use. If HERITAGE is applied in the cover spray period, do not spray HERITAGE as early season sprays the following year. The full-season alternating block spray program requires alternation of blocks of no more than four HERITAGE sprays with other labeled fungicides in a season long alternating pattern beginning at budbreak. Do not make more than six (6) applications per acre per year.

<u>Application Directions</u>: HERITAGE should be applied prior to or in the early stages of disease development. Applications may be made by ground or by air. Proper adjustment and calibration of spraying equipment to give good tree penetration and coverage is essential for good disease control. Use sufficient volumes of water to ensure adequate coverage of plant parts to be protected. The addition of a nonionic surfactant at 1 pint/100 gallons of water may improve coverage. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist.

Do not apply within 45 days of harvest. Do not apply more than 2.4 lbs product/acre/year (1.2 lb ai/A).

TOMATOES

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HERITAGE is recommended for the control of anthracnose, early blight, lata-blight and Septoria leafspot in tomatoes.

Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy for each field. Practices known to reduce disease development

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should be followed. These include proper selection of varieties with tolerance to disease, removal of plant debris in which inoculum overwinters, plant residue management, crop rotation, irrigation management and the use of fungicides when required.

<u>Resistance Management</u>: A disease management program that includes alternation between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from becoming resistant developing resistance to HERITAGE. When HERITAGE is being applied for the control of early blight, Septoria leafspot and/or anthracnose, no more than four sequential applications of HERITAGE should be made before alternating with a fungicide with a different mode of action. When HERITAGE is being applied for the control of late blight, no more than two sequential applications of HERITAGE should be made before alternation with a fungicide with a different mode of action. If late blight should occur during an early blight spray program, switch immediately to the late blight spray program beginning with a fungicide that has a different mode of action. Do not make more than eight (8) applications per acre per year.

<u>Application Directions</u>: HERITAGE should be applied prior to or in the early stages of disease development. Applications may be made by ground or by air. Proper adjustment and calibration of spraying equipment is essential to ensure proper coverage for good disease control. Use sufficient volumes of water to ensure adequate coverage of plant parts to be protected. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist.

Do not apply with a surfactant or crop oil concentrate an adjuvant due to the potential for phytotoxicity.

Do not apply within 1 0 days of harvest.

Do not apply more than 1.6 lbs. product/acre/year (0.8 lb ai/A)

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DIRECTIONS FOR APPLICATION

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		Use Rate		
Crop	Target Diseases	oz product/A (Ib a/A)	Remarks	
Bananas	Black Sigatoka (Mycosphaerella fijiensis) Yellow Sigatoka (Mycosphaerella musicola)	2.8-4.3 (0.09- 0.135)	 HERITAGE should be applied in an alternating block spray program Begin applications prior to disease development and continue applications throughout the season every 12-14 days, alternating blocks of no more than two HERITAGE sprays with other fungicide that have a different mode of action. Do not alternate or tank mix w fungicides to which resistance has developed in the pathogen population. Do not apply more than two sequential sprays of HERITAGE. Do not make more than eight (8) applications per acre during any 1 month period. 	
Grapes	Downy Mildew (Plasmopara viticola) Phomopsis Cane and Leaf Spot (Phomopsis viticola) Powdery Mildew (Uncinula necator)	5.0-8.0 (0.16-0.25)	May be applied the day of harvest. HERITAGE should be applied in an alternating block spray program. Begin HERITAGE applications at budbreak and continue applications throughout the season every 10-14 days, alternating between blocks of no more than two HERITAGE sprays and other fungicides which have a different mode of action. Do not alternate or tank mix with fungicides to which resistance has developed in the pathogen population. Do not apply more than two sequential sprays of HERITAGE. Do not make more than six (6) applications per acre per year. Do not apply within 14 days of harvest.	
	Black Rot (Guignardia bidwellii)	3.5-8.0 (0.11-0.25)		
Peaches	Blossom Blight (Monilinia fructicola, M. laxa)	3.2-4.8 (0.1-0.15)	Blossom Blight: Begin applications at early bloom and continue through petal fall. Do not apply more than two applications of HERITAGE before alternating with fungicides that have a different mode of action. Do not alternate or tank mix with fungicides to which resistance has developed in the pathogen population.	
	Brown Rot (Monilinia fructicola, M. Iaxa)	3.2-4.8 (0.1-0.15)	Brown Rot: <u>Do not make more that one application of HERITAGE</u> for brown rot control. HERITAGE may be applied up to 14 days before harvest. If severe disease conditions persist, additional sprays at or near harvest with alternative fungicides may be necessary.	
	Scab (Cladosporium carpophilum)	2.2-4.8 (0.07-0.15)	 Scab: Begin applications at petal fall and continue on 12-14 day intervals. Do not apply more than four (4) sequential applications before alternating with fungicides with a different mode of action. Do not make more than eight (8) applications on peaches per acre per year for all diseases. Do not apply within 14 days of harvest. 	
Peanuts	Early Leafspot (Cercospora arachidicola) Late Leafspot (Cercosporklium personatum) Rhizoctonia Peg and Pod Rot (Rhizoctonia Pod ani) Stem Rot/White Mold (Sclerotium rolfsil)	32-128 (0.1-0.4)	Apply HERITAGE as a totar application at approximately 60 and 90 days after planting for control of soil borne diseases. These two applications of HERITAGE will provide season-long protection against the soil borne diseases labeled and will also provide control of early and late leafspot for a 10-14 day period after each spray. 'Additional foliar sprays with other fungicides on a normal leafspot schedule will be required for season-long control of early and late leafspot.	

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Crop	Target Diseases	Use Rate oz product/A (Ib a/A)	Remarks
Pecans	Anthracnose (Glomerella cingulata) Scab (Cladosporium caryigenum)	3.2-6.4 (0.1-0.2)	Alternating Seasonal Spray Program - Apply HERITAGE either early season or as cover sprays, but not both. For early season applications, begin sprays at bud break and continue on a 2 week schedule through polination. For cover spray applications, begin 3 weeks after the final early season application and continue on a 3 week schedule for the remainder of the season. Alternating Block Spray Program - Apply HERITAGE season long in an alternating block program with other fungicides with different modes of action. Do not apply more than four sequential sprays of HERITAGE in the alternating block spray program. Blocks of no more than four HERITAGE sprays should be applied in alternation- Do not alternate with other fungicides to which resistance has not developed in the pathogen population. Prepollination applications should begin at budbreak and continue on 2 week intervals. Cover sprays should continue season long on 3 week intervals.
Tomatoes	Anthracnose (Colletotrichum coccodes) Black Mold (Alternaria alternata) Buckeye Rot (Phytophthora spp.) Early Blight (Alternaria solani) Powdery Mildew (Oidiopsis sicula) Septorta Leafspot (Septorta Leafspot (Septorta tycopersici) Target spot (Corynespora cassiicola)	0.8-3.2 (0.025- 0.10)	 Do not apply within 45 days of harvest. HERITAGE should be applied on 7-21 day intervals. No more than four sequential applications of HERITAGE should be made before alternating with funglcides that have a different mode of action. Do not alternate or tank mix with funglcides to which resistance has developed in the pathogen population. Late Blight: HERITAGE should be applied at 5-10 day intervals. No more than two sequential applications of HERITAGE should be made before alternating with funglcides that have a different mode of action. Do not alternate or tank mix with funglcides to which resistance has developed in the pathogen populations of HERITAGE should be made before alternating with funglcides that have a different mode of action. Do not alternate or tank mix with funglcides to which resistance has developed in the pathogen population. Do not apply with adjuvants Do not make more than eight (8) applications on tomatoes per acre per year for all diseases. Do not apply within 1 days of harvest.
<u></u>	Late Blight (Phytophthora infestans)	1.6-3.2 (0.05 - 0.10)	

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HERITAGE Rate Conversion Chart

unces Product/A	Lb ai/A	Treated Acres/Lb Product
1.5	0.05	10.7
2.0	0.06	8.0
2.5	0.08	6.4
3.0	0.09	5.\$``;`;
3.5	0.11	4.6
4.0	0.13	4.0 *** **
4.5	0.14	3.7****
5.0	0.16	3.2
5.5	0.17	2.9 '.
6.0	0.19	2.7 · · ·

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6.5	0.20	2.5
7.0	0.22	2.3
7.5	0.23	2.1
8.0	0.25	2.0
8,5	0.27	1.9
9.0	0.28 -	1.8
9.5	0.30	1.7
10.0	0.31	1.6
10.5	0.33	1.5
11.0	0.34	1.5
11.5	0.36	1.4
12.0	0.38	1.3
12.5	0.39	1,3

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HERITAGE fungicide is recommended for control of brown patch, Pythium blight (including metalaxyl resistant populations), anthracnose, melting out, leafspot, necrotic ring spot, red thread, summer patch, gray snow mold (Typhula blight), pink snow mold, gray leaf spot, spring dead spot, zoysia patch, Fusarium patch and take-all patch on golf courses and commercial turf farms.

HERITAGE fungicide is recommended for control of anthracnose, Cool Weather Brown Patch (yellow patch), brown patch, Fusarium patch, gray leaf spot, gray snow mold (Typhula blight), leafspot, melting out, necrotic ring spot, pink patch, pink snow mold, Pythium blight, Pythium root rot, red thread, Rhizoctonia large patch, southern blight, spring dead spot, summer patch, take-all patch, and zoysia patch on golf courses and commercial turf farms.

Integrated Pest (Disease) Management: Sound turf management resulting in healthy, vigorous turf is the foundation of a good IPM program. Cultural practices such as proper choice of turf variety, nutrient management, proper cutting height, thatch management, and proper watering, drainage, and moisture stress management should be integrated with the use of fungicides to increase turf vigor and reduce the susceptibility to disease. Immunoassay detection kits and extension service diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required.

Resistance Management: Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. HERITAGE should be applied in a tank mix or alternation program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Do not apply more than two a sequential HERITAGE applications for Pythium spp. control. Do not apply more than tour is sequential applications of HERITAGE for all other diseases.

Application Directions: HERITAGE should be applied prior to or in the early stages of disease development. Mix HERITAGE with the required amount of water and apply as a dilute stray application in 2-4 gallons of water per 1000 square feet (87-174 gallons per acre). Repeat applications at specified intervals for as long as required. For spot treatments, use 0.2 oz

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HERITAGE per 1 to 2 gallons of water. Do not apply more than 10 lbs product/acre/year (3.7 oz product/1000 square feet/year).

<u>Rate Ranges</u>: Use the shorter specified application interval and/or use the higher specified rate when prolonged favorable disease conditions exist.

<u>Dollar Spot</u>: HERITAGE does not control dollar spot. HERITAGE is compatible in tank mixes with many other fungicides that control dollar spot. Always tank mix HERITAGE with another fungicide that controls dollar spot when this disease is present. Follow directions under TANK MIXES/COMPATIBILITY above.

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DIRECTIONS FOR APPLICATION FOR TURF DISEASES

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Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14-28	Apply when conditions are favorable for
(Collectorichum granninicola) Brown Patch (Rhizoctonia solani)	0.2-0.4	14-28	disease development. Apply when conditions are favorable for disease development.
Cool Weather Brown Patch Yellow Patch (Rhizoctonia cerealis)	0.4	28	Make one or two applications in <u>late</u> fail <u>before</u> <u>snow cover</u> , or when conditions are favorable for disease development. <u>Do not apply on top</u> of snow.
Fusarium Patch (Microdochium nivale)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Gray Leaf Spot (Pyricularia grisea)	0.2-0.4	14-28	Begin applications before disease is present and continue applications while conditions are favorable for disease development.
Gray Snow Mold Typhula blight (Typhula incarnata, T. ishikariensis)	0.4	14	Make two applications spaced 14 days apart. Tankmixing with another snow mold fungicide(s) may enhance control under severe disease pressure. Apply in late fall before snow cover. Do not apply on top of snow. Make two applications spaced 14 days apart in late fall just before snow cover. Tankmixing with another snow mold fungicide may enhance control under severe disease pressure.
Leafspot (Drechslera spp. and/or Bipolaris spp. sorokiniana)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Melting Out (Drechslera poae spp. and/or <i>Bipolaris</i> spp.)	0.2-0.4	14-21 :	Apply when conditions are favorable for disease development
Necrotic Ring Spot (Leptosphaerla korrae)	0.4	14-28	Apply when conditions are favorable for disease development.
Pink Patch (Limonomyses roseipellis)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Pink Snow Mold (Microdochium nivale)	0.7	single application 14	Make two applications spaced 14 days apart. Tankmbing with another snow mold fungicide(s) may enhance control under severe disease pressure. Apply in late fail before snow cover. Do not apply on top of snow: Make a single application of 0.7 oz or two applications spaced 14 days apart in late fall just before snow cover. Tankmbing with another snow mold fungicide may enhance control under severe disease pressure.
Pythlum Blight Pythium Root Rot (Pythium aphanidermatum, Pythium spp.)	0.4	10-14	Begin applications before disease is present. During periods of prolonged favorable (conditions, treat on the 10 day application interval, (For use on newly select as well as established turf.
Red Thread (Laetisaria fuciformis)	0.4	14-28	Apply when conditions the favorable for disease development.
Rhizoctonia Large Patch (Rhizoctonia solani)	0.4	28	Make one or two applications in late fall before snow cover or when conditions are favorable for disease development. <u>Do not apply on top</u> of snow.
Southern Blight (Sclerotium rolfsii)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.

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Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Spring Dead Spot (Leptosphaerla korrae) or (Gaeumannomyces graminis var. graminis) or (Ophiosphaerella herpotricha)	0.4	28	Make one or two applications in <u>tate</u> fall <u>before</u> <u>snow cover</u> , or when conditions are favorable for disease development. <u>Do not apply on top</u> <u>of snow</u> .
Summer Patch (Magnaporthe poae)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Take-ali patch (Gaeumannomyces graminis var. avenae)	0.4	28	Make two applications, 28 days apart in the spring and two applications 28 days apart in the fail.
Zoysia Patch (Rhizoctonia solani and/or Gaeumannomyces Incrustana)	0.4	28	Make one or two applications in late fall before snow cover or when conditions are favorable for disease development. Do not apply on top of snow.

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* Do not apply more than two sequential applications of HERITAGE for control of Pythium spp. For all other diseases, do not apply more than four sequential applications of HERITAGE.

HERITAGE Rate Conversion Chart for Turf

Ounces Product Per 1000 Sq. Ft	Ounces A.I. Per 1000 Sq. Ft	Ounces Product Per Acre	Pounds Product Per Acre
0.20	0.10	8.7	0.5
0.30	0,15	13.1	0.8
0.40	0.20	17.4	1.1

Amount of HERITAGE to Mix 100 Gallons for Turf Applications

	Spray Volume (gallons/1000 square feet)			
HERITAGE Use Rate	2.0 gals	3.0 gals	4.0 gais	
0.2 oz	10 oz	6.7 oz	5 oz	
0.4 oz	20 oz	13.3 oz	10 oz	