

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

AUG 1 2006

Michele A. Schulz Syngenta Crop Protection, Inc. P.O. Box 18300 Greensboro, North Carolina 27419

Subject: Heritage® Fungicide

EPA Registration Number 100-1093

Your master label amendment applications submitted by

e-mail on May 15, 2006 and April 2, 2006

Dear Ms. Schulz,

The amended master label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable, provided that you comply with the following conditions.

- 1. Make the following changes to the label.
- a. In the "Target Diseases" column of the "Corn" specific use directions on page 25, change the genus name for Northern corn leaf spot from "Cochiliobolus" to "Cochliobolus".
- b. In the second statement from the top in the "Specific Use Restrictions:" section of the "Cranberry" specific use directions on page 26, change "Do not apply more 1.5 lbs. a.i./A..." to "Do not apply more than 1.5 lbs. a.i./A...".
- c. In the "Crop" column of the "Herbs & Spices (except black pepper" specific use directions on page 30, change "Cardamon" to "Cardamom".
- d. In the "Crop" column of the "Herbs & Spices (except black pepper" specific use directions on page 30, change "Fennugreek" to "Fenugreek".

- e. In the "Specific Use Restrictions:" section of the "Legume Vegetables, dry and succulent" specific use directions on page 31, delete the statement "May be applied the day of harvest (0 day PHI)." and replace it with the statements "Do not apply within 14 days of harvest of Dry Legume Vegetables (dry bean and dry pea seeds)." and "May be applied the day of harvest for succulent beans and peas." This is part of the harmonization with Canada labeling that has previously been required by the Agency for the Heritage® Fungicide label.
- f. In the "Specific Use Restrictions:" subsection of the "Grasses (grown for seed)" specific use directions on page 29, change "Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products." to "Do not apply more than 0.8 lbs. a.i./A per season of azoxystrobin-containing products." This is the maximum seasonal rate on which the tolerances for this site are based.
- g. In the "Specific Use Restrictions:" subsection of the "Grasses (grown for seed)" specific use directions on page 29, add the restrictive statement "Do not feed treated straw, seed, or screenings to livestock." This restriction has been on azoxystrobin labels for this site since the use was permitted; the reason for its deletion is unknown to the Agency.
- h. In the "Pepper" specific use directions on page 35, in the "Crop" column above "Pepper" add a group either "Fruiting Vegetables (Except Cucurbits) Group" or "Vegetables, Fruiting, Except Cucurbit, Group". If you wish, you can then also move this item to an alphabetical position within the string of sites in the specific use directions portion of the label.
- i. In the "Use Rate oz product/1,000 sq. ft." column for "Tobacco" on page 43, either add the correct values (expected to be "0.08-0.15"), or else delete the column.
- j. In the "Tomatoes" specific use directions on page 44, in the "Use Rate oz product/A (lbs. a.i./A)" and "Use Rate oz product/1,000 sq. ft." columns the low product and active ingredient rates in the top row do not equate. Either change the low product rate from "0.8" to "1.0" or "1.1" or else change the low active ingredient rate from "0.024" to "0.018".
- k. In the "Crop" column of the "Vegetables, root, subgroup" specific use directions on page 48, change "Ginsing" to "Ginseng".
- 1. In the "Crop" column of the "Vegetables, tuberous and corm, subgroup" specific use directions on page 49, change "Tumeric" to "Turmeric".
- m. In the "Wheat Triticale" specific use directions on page 50, in the "Use Rate oz product/A (lbs. a.i./A)" and "Use Rate oz

- <code>product/1,000 sq. ft."</code> columns the high product and active ingredient rates in the bottom row do not equate. Either change the high product rate from "5.6" to "6.4" or else change the high active ingredient rate from "0.15" to "0.13".
- n. In the "Heritage Rate Conversion Chart" on page 51, ensure that every product rate in the specific directions for use has a corresponding entry in the chart.
- o. In the "Heritage Rate Conversion Chart (For use with 4 oz package size only)" on pages 52 and 75, ensure that every product rate in the specific directions for use that will appear on the labeling of a 4-ounce package of the subject product has a corresponding entry in the chart, and that the range of rates does not exceed the maximum rate range that will occur in the directions for use on the labeling of a 4-ounce package of the subject product.
- p. In the "<u>Dollar Spot</u>:" paragraph at the end of page 54, the second sentence reads "HeritageHeritage." Delete this sentence.
- q. In the "4 oz containers (oz product per 50 gallons)" columns for Downy Mildew of Rose and Iris Leaf Spot in "TABLE 1" on page 61, the rate listed is "2-4 oz every 7-21 days". This effectively doubles the rate per plant or area, so reduce the rate to "1-2 oz every 7-21 days". If a rate-doubling is desired, the Agency must review it first.
- r. In the "4 oz containers (oz product per 50 gallons)" column for Rose Blackspot in "TABLE 1" on page 61, the rate listed is "2.4 oz every 7-14 days". This appears likely to be a typographical error for "2-4 oz every 7-14 days". If so, change the text to the latter.
- s. In the "Application Directions:" and "Plant Safety:" sections in the "Roses (Commercial Rose Production)" specific use directions on page 74, there are several typographical errors. Correct them. We assume that the text for these sections is intended to be identical (or nearly so) to the text for the same sections in the "Roses" specific directions for use on page 39. Perhaps one of the typos is the change in the application interval from "7-21 days" to "7-12 days".
- t. In the first sentence of the second paragraph of the "Directions for Use as a Preventative Treatment: Spraying and Mixing" section on page 77, change "...add the remaining ½ volume or water..." to "...add the remaining ½ volume of water...".
- u. In the first sentence of the fourth paragraph of the "Directions for Use as a Preventative Treatment: Spraying and Mixing" section on page 77, change "...and mildews than cause odors..." to "...and mildews that cause odors...".

- v. In the first sentence of the second paragraph of the "Directions for Use in Remediation" section on page 81, change "...and mildews than cause odors..." to "...and mildews that cause odors...".
- w. In the first sentence of the fourth paragraph of the "Directions for Use in Remediation" section on page 81, change "...and mildews than cause odors..." to "...and mildews that cause odors...".
- 2. Submit one copy of your final printed labeling before you release the product for shipment.

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

Tony Kish

Product Manager (22) Fungicide Branch

Registration Division (7505C)

Attachment: Amended label stamped "ACCEPTED with COMMENTS"

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# Heritage®

Fungicide

Broad spectrum fungicide for control of plant diseases.

Active Ingredient

Azoxystrobin: methyl (*E*)-2-{2-[6-(2-cyanophenoxy)

pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate\*......50% Other Ingredients: ...... 50% Total: ....... 100%

Contains 0.5 lb. ai/lb. product \*IUPAC

EPA Reg No. 100-1093 EPA Est.

### KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

Reformulation is prohibited. See individual container labels for repackaging limitations.

SCP 100-XXX

Net Weight/U.S. Standard Measure

ACCEPTED with COMMENTS In EPA Letter Dated

AUG | 2006 Under the Federal Insecticide, Fundicide, and Redenticide Act as amended, for the pesticide registered under EPA Rog. No. 100-1093

	FIRST AID
If on skin or Clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product going for treatme	t container or label with you when calling a poison control center or doctor, or
	HOT LINE NUMBER
	or 24 Hour Medical Emergency Assistance (Human or Animal) or
(	Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),
	Call
	1-800-888-8372

# PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

HARMFUL IF ABSORBED THROUGH SKIN. CAUSES MODERATE EYE IRRITATION. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

# Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber.
- · Shoes plus socks

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

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. Wash thoroughly with soap and water after handling.
- 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**

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 Syngenta immediately if you observe any adverse environmental effects due to use of this product.

# 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, return the product at once, unopened, and the purchase price will be refunded.

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 SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA 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 the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by State law, neither Syngenta or Seller shall 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 SYNGENTA 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 SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitations of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

#### **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 4 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 such as polyvinyl chloride, nitrile rubber or butyl rubber.
- Shoes plus socks



#### **NON-AGRICULTURAL USES**

For use to control diseases on turf and ornamentals on golf courses, lawns and landscape areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

#### 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.

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 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**

**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.

### **GENERAL INFORMATION**

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. All applications should be made according to the use directions that follow.

# **GENERAL USE PRECAUTIONS**

Do not graze or feed clippings from treated turf areas to animals. Do not plant the following crops for a period of 12 months (unless an azoxystrobin product is registered for use on that crop): sorghum, barley, buckwheat, millet, oats, rye, wild rice, non-grass animal feeds (alfalfa, clover), sugarcane, triticale and wheat. A plantback interval (PBI) of 36 days is required for Leafy Vegetables (Except Brassica) group; Brassica, Leafy Greens subgroup; Vegetables, Root subgroup; Vegetable (Tuberous and Corm) subgroup; and Vegetables, Leaves of Root and Tuber group. Azoxystrobin is registered for use on all other rotated crops and all other crops may be planted immediately after the last treatment.

#### **ATTENTION**

Heritage is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Heritage where spray drift may reach apple trees.

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.

DO NOT use spray equipment which has been previously used to apply Heritage to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

Heritage has demonstrated some phytotoxic effects when mixed with products that are formulated as EC's. These effects are enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone have also contributed to phytotoxicity.



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# 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. DIRECTIONS FOR USE section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural, turf and ornamental 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

Group 11 Fungicide

Heritage (azoxystrobin) is a Group 11 fungicide. The mode of action for Heritage is the inhibition of the Qo (quinone outside) site within the electron transport system as well as disruption of membrane synthesis by blocking demethylation [Group 11]. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include alternating and/or tank-mixing with products having different modes of action or limiting the total number of applications per season. Syngenta Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

Follow the crop specific resistance management recommendations in the directions for use.

If no resistance recommendation on number of applications is specified in the directions for use, follow the recommendations in the table below.

If planned total number of fungicide applications per crop is:	1	2	3	4	5	6	7	8	9	10	11	12
Recommended Solo Qol fungicide sprays	1	1	2	2	2	2	2	3	3	3	3	4
Recommended Qol fungicide sprays in mixture (tank-mix or formulated)	1	2	2	2	2	3	3	4	4	5	5	6

In situations requiring multiple sprays, develop season long spray programs for Group 11 (QoI) fungicides. In crops where two sequential Group 11 fungicide applications are made, they should be alternated with two or more applications of a fungicide that is not in Group 11. If more than 12 applications are made, observe the following guidelines:

- When using a Qol fungicide as a solo product, the number of applications should be no more than 1/3 (33%) of the total number of fungicide applications per season.
- For QoI mixes in programs in which tank mixes or pre mixes of QoI with mixing partners of a different mode of action are utilized, the number of QoI containing applications should be no more than ½ (50%) of the total number of fungicide application per season.

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• In programs in which applications of QoI are made with both solo products and mixtures, the number of QoI containing applications should be no more than ½ (50%) of the total number of fungicide applied per season.

If a Group 11 fungicide is applied to the seed or soil, do not make another application with a Group 11 fungicide for at least 3 weeks.

#### SPRAYING/MIXING

Heritage may be applied with all types of spray equipment commonly used for making ground and aerial applications. Do not apply Heritage through any type of ultra low volume (ULV) spray system. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. 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 environmental conditions conducive to disease exist.

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 two gallons of water per acre. For aerial applications in orchard crops, apply Heritage in a minimum of ten gallons of water per acre. Where feasible, ground application should be used because it provides better canopy penetration and coverage.

To prepare spray solution, 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 recommended. If tank mixes are required, product should be added to the spray tank in the following order: Heritage, other WG or dry flowable formulations, wettable powders and flowable (aqueous suspensions) products. 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. Sprayers should be thoroughly cleaned immediately after application.

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.

Heritage is incompatible with many fertilizers when low water volumes are used for in-furrow applications. Cold temperatures and water quality exacerbate these compatibility problems. Conduct a physical compatibility test as described in the paragraph below before making a field application.

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.



# SPRAY DRIFT MANAGEMENT

#### **ATTENTION**

Heritage is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Heritage where spray drift may reach apple trees.

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.

DO NOT use spray equipment which has been previously used to apply Heritage to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat.

### **APPLICATION INSTRUCTIONS**

Apply Heritage at rates and timings as described in this label.

Directions for Use Through Sprinkler and Drip Chemigation Systems

Spray Preparation: Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

Use Precautions for Sprinkler and Drip Irrigation Applications:

**Drip Irrigation:** Heritage may be applied through drip irrigation systems to potted ornamentals or to bedded, field grown ornamentals for soil-borne disease control. Apply 2-16 oz (0.0625-0.5 lb ai/A) Heritage per acre as a preventative disease application. The soil or potting media should have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.

**Sprinkler Irrigation:** Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system except as specified on this label.

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Apply with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, this product should be injected into no more than the last 20-30 minutes of the set. Do not apply when winds are greater than 10-15 mph to avoid drift or wind skips. Do not apply when wind speed favors drift beyond the area intended for treatment. Plant injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform treated water. Thorough coverage of foliage is required for good control. Good agitation should be maintained during the entire application period.

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

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 shut down.

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.

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 the 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.



# Specific Instructions for Public Water Systems

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must 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 shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. 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.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

### SOILBORNE/SEEDLING DISEASE CONTROL

Heritage can provide control of many soilborne diseases if applied early in the growing season. Specific applications for soilborne diseases include in-furrow applications and banded applications applied over the row, either shortly after plant emergence or during herbicide applications or cultivation. These applications will provide control of pre- or post-emergence damping off and diseases that infect plants at the soil-plant interface.

The use of either type of application depends on the cultural practices in the region. In some locations, one type of application may provide better disease control than the other, depending on the timing of the disease epidemic. Seedling diseases are generally controlled by in-furrow applications while banded applications are more effective against soilborne diseases that develop later in the season. Consult your local expert to get some guidance regarding application type.

For banded applications, apply Heritage prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the lower stems and the soil surface surrounding the plants. Band width should be limited to 7 inches or less. Apply

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Heritage at a rate of 0.2-0.4 oz product (0.1-0.2 oz ai)/1000 row feet (for banded applications on 22-inch rows the maximum application rate is 0.35 oz/1000 row feet). These applications come into contact with the foliage and are counted as foliar applications when considering resistance management. They may be applied during cultivation or hilling operations to provide soil incorporation.

For in-furrow applications, apply Heritage as an in-furrow spray in 3-15 gallons of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered. Use the higher rate when the weather conditions are expected to be conducive for disease development, if the field has a history of Pythium problems, or if minimum/low till programs are in place.

#### **IN-FURROW APPLICATION RATES**

RATE PER 100	00 ROW FEET			PRODU	JCT PER AC			
oz. product.	oz. a.i.	22" Rows	30" rows	32" rows	34" Rows	36" rows	38" rows	40" rows
0.2	0.1	4.75	3.5	3.3	3.1	2.9	2.8	2.6
0.3	0.15	7.1	5.2	4.9	4.6	4.4	4.1	3.9

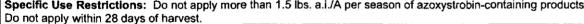
40" = 13,068 row ft, 38" = 13,754 row ft, 36" = 14,520 row ft, 34" = 15,374 row ft, 32" = 16,315 row ft, 30" = 17,424 row ft, and 22" = 23,760 row ft/Acre

# **Directions for Use**

Heritage may be applied to plants used for food in production agriculture, production nurseries, gardens and landscapes to control certain diseases. Follow the pre-harvest interval following application prior to consuming fruits, nuts, or other produce from those treated areas.

For 4 oz package size: See Heritage Rate Conversion Chart for use rate per 1000 sq. ft. at the end of the booklet.

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Almonds	Alternaria leaf and fruit spot (Alternaria alternata) Anthracnose (Colletotrichum acutatum) Leaf Blight (Seimatosporium lichenicola) Leaf rust (Tranzschelia discolor) Scab (Cladosporium carpophilum) Shothole (Wilsonomyces carpophilus)	3.2-8.0 (0.10-0.25)	0.075-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season following the resistance management guidelines. Applications may be made by ground, air (minimum 15 GPA) or chemigation. Heritage may be applied by air only at growth stages prior to and including 5 weeks after petal fall. An adjuvant may be added at recommended rates.  For anthracnose, scab and shothole, begin applications prior to disease development and continue at 7-14 day intervals throughout the season.
Coolfo Hay Dashida	Brown Rot Blossom Blight (Monilinia laxa, M. fructicola)  Do not apply more than 1.5 lbs. a	6.4 – 8.0 (0.20-0.25)	0.15-0.18	For blossom blight, begin applications at early bloom and continue through petal fall.





Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Artichoke, globe	Ramularia leaf spot (Ramularia cynarae)	5.76-8.0 (0.18-0.25)	0.13-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Begin applications prior to or in the early stages of disease development, and continue as needed throughout the season at a 2-3 week interval, up to and including the day of harvest. Do not apply at less than 7-day intervals. Applications may be made by ground, air or chemigation. For ground applications, apply in 50-200 gallons of water per acre to obtain coverage without excessive runoff. For aerial applications, apply in a minimum of 5 gallons of water per acre. An adjuvant may be added at recommended rates.
Specific Use Restrictions: May be applied the day of ha	Do not apply more than 1.5 lbs. arvest (0 day PHI).	a.i./A per season	of azoxystrobin-c	containing products.
Asparagus	Stemphyllium purple spot (Stemphyllium vesicarium)	3.2-8.0 (0.1-0.25)	0.075-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. Use a minimum of 10 gallons of water per acre by ground, and minimum of 3 gallons per acre by air. An adjuvant may be added at recommended rates.
Specific Use Restrictions: Do not apply within 100 days	Do not apply more than 1.5 lbs. as of harvest (100 day PHI).	a.i./A per season	of azoxystrobin-o	

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Bananas Plantains	Black Sigatoka (Mycosphaerella fijiensis) Yellow Sigatoka (Mycosphaerella musicola)	2.9-4.3 (0.09-0.135)	0.07-0.1	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes canopy management through removal of suckers, proper plant spacing, selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, and good surface water drainage.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season every 12-14 days following
	Post Harvest Applications Crown Rot/Crown Mold (Colletotrichum musae, Fusarium pallidoroseum, Acremonium spp., Ceratocystis paradoxa, Glomerella cingulata,	200-400 ppm solution		the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  Apply Heritage as a single application of a 200-400 ppm solution to achieve good coverage. The application may be made as a spray, dip or may be painted onto the cut ends of the bananas. Application of the 200 ppm rate is appropriate for short distance transportation (e.g. within the USA). When a longer time in transport is expected (export), use the 300-400 ppm rate. If alum (1% v/v) is added to the spray solution, stir the suspension frequently as sedimentation and flocculation may occur. Addition of a non-ionic surfactant
Specific Use Restrictio May be applied the day of	Penicillium spp.)  ns: Do not apply more than 1.08 lb. a of harvest.	a.i./A per season	of azoxystrobin-	(0.1% v/v) may improve the compatibility of this mixture. containing products.

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Barley	Kernel Blight ( <i>Alternaria</i> spp.) Leaf Rust ( <i>Puccinia hordei</i> )	3.2-6.4 (0.1-0.2)	0.08-0.15	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes proper selection of varieties with disease tolerance, proper timing and placement of irrigation, removal of plant debris in which inoculum overwinters, plant residue
·	Net Blotch (Pyrenophora teres) Barley Stripe (Pyrenophora graminea)	4.8-6.4 (0.15-0.2)	0.11-0.15	management, and crop rotation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential
	Powdery Mildew (Erysiphe graminis f. sp. hordei) Stagonospora blotch	6.4 (0.2)	0.15	applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. Do not make more than two (2) applications of Heritage or other Group 11 fungicide per season.
	(Stagonospora nodorum)			Application Directions: Heritage should be applied prior to disease development from jointing (Feekes 6 or Zadok's 31) up to late head emergence (Feekes 10.5 or Zadok's 59). Applications may be made by ground, air or chemigation. A crop oil concentrate adjuvant may be added at 1.0% v/v to optimize efficacy.

Specific Use Restrictions: Do not apply until after forage stage (Feekes 6 or Zadok's 31).

Do not apply later than Feekes growth stage 10.5 (Zadok's growth stage 59).

Do not harvest treated barley for forage.

Do not apply more than 0.4 ib. a.i./A per season of azoxystrobin-containing products.

Do not apply within 14 days of harvest for hay.

Do not apply within 45 days of harvest for grain and straw.

Berries	Botryosphaeria canker	3.2-8.0	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into
Bushberry subgroup	(Botryosphaeria spp.)	(0.1-0.25)		an overall disease management strategy that includes varieties with disease
	Powdery mildew	'		tolerance, proper timing of irrigation and removal of plant debris in which
Blueberry	(Sphaerotheca spp.)			inoculum overwinters.
Currant	Septoria blight			
Elderberry	(Septoria spp.)	ì		Resistance Management: Follow the resistance management guidelines in
Gooseberry	Mummyberry			the Resistance Management Section. Do not apply more than two sequential
Huckleberry	(Vaccinium spp.)			applications of Heritage or other Group 11 fungicides before alternation with a
including all cultivars and/or	Alternaria Fruit Rot			fungicide that is not in Group 11.
hybrids of these	(Alternaria spp.)			
·	Phomopsis stem canker			Application Directions: Heritage applications should begin prior to disease
Lingonberry	(Phomopsis vaccinii)	1		development and continue throughout the season on a 7-14 day schedule,
Juneberry	Anthracnose fruit rot			following the resistance management guidelines. Applications may be made by
Salal	(Colletotrichum			ground, air or chemigation. An adjuvant may be added at recommended rates.
	gloeosporoides)			•

Specific Use Restrictions: Do not apply more than 0.75 lb. a.i./A per season of azoxystrobin-containing products.

May be applied the day of harvest.

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Berries Caneberry subgroup  Blackberry, Bingleberry, Boysenberry, Dewberry, Lowberry, Marionberry, Olallieberry, Youngberry, Loganberry, Red and black raspberry, Including all cultivars and/or hybrids of these	Botryosphaeria canker (Botryosphaeria dothidea) Anthracnose (Spaceloma necator) (Elsinoe veneta) Powdery mildew (Sphaerotheca macularis) Leaf spot (Septoria rubi) (Sphaerulina rubi) Colletotrichum rot (Colletotrichum gloeosporioides) Spur blight (Didymella applanata) Rosette or double blossom of blackberries (Cercosporella rubi)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Begin applications at onset of disease and continue as required until harvest. Make applications on a 7-14 day schedule. Use a minimum water volume of 10 gal per acre by ground and a minimum of 3 gals. by air.
Specific Use Restrictions: E May be applied the day of har	Oo not apply more than 1.5 lbs. a	a.i./A per season	of azoxystrobin-c	containing products.
Brassica Head and stem subgroup  Broccoli Chinese broccoli [gai lon] Brussels sprouts Cabbage Chinese cabbage [napa] Chinese mustard cabbage [gai choy] Cauliflower Cavalo broccolo Kohlrabi Including all cultivars and/or hybrids of these	Alternaria leaf spot (Alternaria spp.)  Downy mildew (Peronospora parasitica)  Do not apply more than 1.5 lbs.	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. Use a minimum of 10 gallons of water per acre by ground, and minimum of 3 gallons per acre by air.

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Brassica Leafy greens subgroup  Broccoli raab Cabbage, Chinese Collards Kale Mizuna Mustard greens Mustard spinach Rape greens Including all cultivars and/or hybrids of these	White rust (Albugo candida) Black spot (Alternaria spp.) Cercospora leaf spot (Carcospora spp.)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Soilborne Diseases Seedling root rot, basal stem rot (Rhizoctonia solani) Do not apply more than 0.75 lb.;		000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Specific Use Restrictions: Do not apply more than 0.75 lb. a.i./A per season of azoxystrobin-containing products. May be applied the day of harvest (0 day PHI).

Bulb Vegetables  Garlic Leek Onion, bulb Onion, green Welch onion Shallot	Foliar Diseases Cladosporium leaf blotch (Cladosporium allii) Purple blotch (Alternaria porri) Rust (Puccinia allii) White rot	3.2-6.4 (0.1-0.20)	0.08-0.15	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in
	(Sclerotium cepivorum)  Downy mildew (Peronospora destructor)  Botrytis leaf blight (Botrytis aclada)	4.8-8.0 (0.15-0.25)	0.11-0.18	the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For downy mildew, make preventative applications on a 5-7 day schedule. For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. If applications are made by air, the higher rates should be used for adequate control. An adjuvant may be added at recommended rates.  Mixtures of Heritage with insecticides and silicone adjuvants should be tested for crop safety before application to the crop.
	Rhizoctonia damping-off (Rhizoctonia solani)  O not apply more than 1.5 lbs.	0.2-0.4 oz /1000 row feet		For soilborne/seedling disease control, see directions under GENERAL INFORMATION section. If the application is an in-furrow application, the spray should be made just prior to seed placement so that the majority of the chemical is under the seed. This will reduce the potential for phytotoxicity, especially if fertilizer is added to the application.

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Canola (see Oilseed Crops for additional information)	Blackleg (Leptosphaeria maculans)  Alternaria Blackspot (Alternaria spp.)  Sclerotinia stem rot (Sclerotinia sclerotiorum)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, certified seed, seed treatment and crop rotation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: In general, apply 3.5 oz. of Heritage at early bud followed by 7.0 oz. at about 45 days before harvest. A third application of 3.5 oz. may be made 30 days before harvest.  Specifically for blackleg, Heritage applications should be made at the 2-4 leaf stage. For Alternaria or Sclerotinia, 4.8 - 8 oz product/A should be applied at 10-25% flowering (3-7 days following first flower). Use the higher rate under heavy disease pressure or when conditions are favorable for disease. For control of Alternaria alone, 4.2 oz product/A may be applied at pod stage (approximately 95% petal fall).  Applications may be made by ground, air or chemigation. Use a minimum of 10 gallons of water per acre for ground applications.
Do not apply within 30 days of				anning products.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Carrots	Early blight (Cercospora carotae)  Late blight (Alternaria dauci)  White mold (Sclerotium rolfsii)  For additional diseases, see Vegetables, root, subgroup	4.8-10.5 (0.15-0.33)	0.11-0.24	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Soilborne Diseases Rhizoctonia root rot (Rhizoctonia solani) tions: Do not apply more than 2.0 lbs. a y of harvest (0 day PHI).		000 row feet of azoxystrobin-o	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Celery	Early blight (Cercospora apii)  Late blight (Septoria apicola)  For additional diseases, see Leafy Vegetables	4.8-8.0 (0.15-0.25)	0.11-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
		0.2-0.4 oz /1000 row feet i.i./A per season of azoxystrobin-o		For soilborne/seedling disease control, see directions and rates under

Сгор	Target Diseases	Use Rate oz productiA (lbs. a.l./A)	Use Rate oz producti 1,000 sq. ft.	Remarks
Christmas Trees	Diplodia tip blight (Diplodia pinea)  Lophodermium needlecast (Lophodermium pinastri)  Swiss needlecast (Phaeocrytopus gaumannii)	3.2-8.0 (0.10-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance and removal of plant debris in which inoculum may overwinter.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season at 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Citrus Fruit  Calamondin Citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma mandarin Tangerine Including all cultivars and/or hybrids of these	Greasy spot (Mycosphaerella citri)  Melanose (Diaporthe citri)  Scab (Elsinoe fawcettii)  Albinism (Alternaria alternata pv citri)  Post bloom fruit drop (PFD) (Colletotrichum acutatum)  Alternaria leaf and fruit spot (Alternaria citri)  Penicillium Decays Green mold, Whisker mold, suppression of Blue mold (Penicillium spp.)  Diplodia stem-end rot (Diplodia natalensis)  Phomopsis stem-end rot (Phomopsis citrii)	6.4-8.0 (0.2-0.25)	0.15-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, and proper timing of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. Do not make more than four (4) applications of Heritage or other Group 11 fungicide per season.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Under conditions that favor severe disease epidemics, the higher application rates should be used. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. A horticultural spray oil should be used to improve control of greasy spot.  Do not use Heritage in citrus plant propagation nurseries.

Specific Use Restrictions: Do not use Heritage in citrus plant propagation nurseries. Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products. May be applied the day of harvest (0 day PHI).

		Use Rate	Use Rate oz product/	
Crop	Target Diseases	(lbs. a.i./A)	1,000 sq. ft.	Remarks
Corn	Rust (Puccinia sorghi)	3.2-4.8 (0.10-0.15)	0.08-0.11	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with
Field	Anthracnose leaf blight	4.8-8.0	0.11-0.18	disease tolerance, optimum plant populations, proper fertilization, plant residue
Pop Sweet	(Colletotrichum graminicola)	(0.15-0.25)		management, crop rotation, and water management practices.
(Includes Seed Production)	Gray leaf spot (Cercospora sorghi)			Resistance Management: Follow the resistance management guidelines in the general use precaution section. Do not apply more than two sequential
Production)	Northern corn leaf blight			applications of Heritage or other Group 11 fungicides before alternation with a
	(Setosphaeria turcica) Northern corn leaf spot			fungicide that is not in Group 11. For field corn and field corn grown for seed, do not make more than two (2) applications per season.
	(Cochiliobolus carbonum)			
	Southern corn leaf blight (Cochliobolus	}		Application Directions: For gray leaf spot, apply Heritage at the onset of disease. A second application may be required 14 days later if disease
	heterostrophus)			pressure persists. For all other diseases, Heritage applications should begin prior to disease development and may continue throughout the season every 7-
	Eye spot (Aureobasidium zeae)			14 days following the resistance management guidelines. Applications may be
	, ,			made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Soilborne Diseases Rhizoctonia root and stalk	0.2-0.4 oz /1000 row feet		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
	rot			GENERAL INFORMATION Section.
Specific Hea Postrictions	(Rhizoctonia solani) Do not apply more than 2.0 lbs.	a i /A par accept	of arovvetrobin	Containing products
Do not apply within 7 days of		a.i./A per season	Or azoxystrobin-	containing products.
Cotton	Rhizoctonia seedling blight (Rhizoctonia solani)	0.2-0.4 oz produ	nded uct per 1000 row eet	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation
	Pythium seedling blight (Pythium aphanidermatum)		er 1000 row feet)	and proper water management.
	(i yanam apnamaamatan)			Application Directions: For banded applications, apply Heritage prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough
				coverage of the lower stems and the soil surface surrounding the plants. Band width should be limited to 7 inches or less. Apply Heritage at a rate of 0.2 - 0.4 oz product (0.1-
			irrow	0.2 oz ai)/1000 row feet.  For in-furrow applications, apply Heritage as an in-furrow spray in 3-7 gallons of water at
			uct per 1000 row eet	planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered. Use the higher rate when the weather conditions are expected to be
		(0.1-0.2 oz ai pe	er 1000 row feet)	conducive for disease development, if the field has a history of Pythium problems, or if minimum/low till programs are in place.
		<u></u>		See GENERAL INFORMATION section for table illustrating total ounces per acre with various row spacings.
Specific Use Restrictions: Ma	ke only one application per use seas	on.		

Crop	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Cranberry	Cottonball (Monilia oxycocci)  Lophodermium twig blight (Lophodermium spp.)  Fruit rots (Physalospora vaccinii) (Glomerella cingulata) (Coleophoma empetri)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper water management.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Begin applications at 5-10% bloom for fruit rot, cottonball, and twig blight. Continue applications on a 7-14 day schedule if conditions are favorable for disease development. Applications may be made by ground, chemigation or air.

Specific Use Restrictions: May be applied up to three days prior to harvest (3-day PHI). Do not apply more 1.5 lbs. a.i./A per season of azoxystrobin-containing products.

Do not treat cranberry fields used for aquaculture of fish and crustacea.

Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators should use care in making applications near non-target aquatic habitats.

Do not apply to flooded crop.

Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application.

Cantaloupe Chayote	Anthracnose (Colletotrichum	2000		Remarks
Cucumber Gourds Honeydew Melons Momordica spp. (bitter melon, balsam apple) Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these	lagenarium)  Belly Rot (Rhizoctonia solani)  Downy Mildew (Pseudoperonospora cubensis)  Gummy Stem Blight (Didymella bryoniae)  Leaf spots (Alternaria spp., Cercospora spp.)  Myrothecium canker (Myrothecium roridum)  Plectosporium blight (Plectosporium tabacinum)  Powdery Mildew (Sphaerotheca fuliginea, Erysiphe cichoracearum)	3.2-8.0 (0.10-0.25 <u>)</u>	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. Do not make more than four (4) foliar applications of Heritage or other Group 11 fungicides per crop per acre per year.  Application Directions: For both downy and powdery mildew, make preventative applications on a 5-7 day schedule. For belly rot control, the first application should be made at the 1-3 leaf crop stage with a second application just prior to vine tip over or 10-14 days later whichever occurs first. For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  Heritage should not be tank mixed with COC, MSO or silicon adjuvants. Heritage should not be tank mixed with Malathion, Kelthane®, Thiodan®, Phaser®, Lannate®, Lorsban®, M-Pede® or Botran®.
i	Soilborne diseases Rhizoctonia root rot (Rhizoctonia solani)	0.2-0.4 oz /1	000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ _1,000 sq. ft.	Remarks
Grapes Including Muscadines	Downy Mildew (Plasmopara viticola)  Phomopsis cane and leaf spot (Phomopsis viticola)  Powdery mildew (Uncinula necator)  Black rot (Guignardia bidwellii)  Suppression Only: Botrytis bunch rot (Botrytis cinerea)	5.1-8.0 (0.16-0.25)	0.11-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes canopy management through pruning and thinning, proper selection of varieties with disease tolerance, proper timing and placement of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential foliar applications of Heritage or other Group 11 fungicides before alternating with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season every 10-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  ATTENTION  Heritage is extremely phytotoxic to certain apple varieties.  AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).  DO NOT spray when conditions favor drift beyond area intended for application Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.  DO NOT use spray equipment which has been previously used to apply Heritage to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity.  AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

Сгор	Target Diseases	Use Rate oz product/A (ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Grasses (grown for seed)	Rust (Puccinia spp.)  Powdery mildew (Erysiphe graminis)  Ergot Stem Diseases	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation, crop rotation, and fertility.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 10-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.

Specific Use Restrictions: Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products. May be applied up to 8 days prior to harvest (swathing).

Crop	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Herbs & Spices (except black pepper)  Allspice; Angelica; Anise (seed); Anise, star; Annatto; Balm; Basil; Borage; Burnet; Camomile; Caper (buds); Caraway; Caraway, black; Cardamon; Cassia (buds); Catnip; Celery seed; Chervil (dried); Chive; Chive, Chinese; Cinnamon; Clary; Clove (buds); Coriander (cilantro or Chinese parsley) (leaf); Coriander (seed); Costmary; Culantro (leaf and seed); Cumin; Curry (leaf); Dill (seed); Dillweed; Fennel, common; Fennel, Florence (seed); Fennugreek; Grains of paradise; Horehound; Hyssop; Juniper (berry); Lavender; Lemongrass; Lovage (leaf and seed); Mace; Marigold; Marjoram; Mustard (seed), Nasturtium; Nutmeg; Parsley (dried); Pennyroyal; Pepper, white; Poppy seed; Rosemary; Rue; Saffron; Sage; Savory, summer and winter; Sweet bay; Tansy; Tarragon; Thyme; Vanilla; Wintergreen; Woodruff; Wormwood	Corynespora blight (Corynespora cassiicola)  Dill blight (Cercosporidium punctum)  Phoma blight (Passalora puncta)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin at the onset of disease development and continue throughout the season on a 7 day schedule, following the resistance management guidelines. Applications may be made by ground only. An adjuvant may be added at recommended rates. Use a minimum of 30 gallons of water per acre.

Specific Use Restrictions: Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Leafy Vegetables (except brassica)  Amaranth Arugula Cardoon Celery Celtuce Chervil Chrysanthemum, edible Coriander, leaves (Cilantro) Corn salad Cress Dandelion Dock Endive Fennel Lettuce, head and leaf Orach Parsley Purslane Radicchio Rhubarb Spinach	Foliar Diseases Alternaria leaf spot (Alternaria sonchi, A. spp.) Cercospora leaf spot (Cercospora spp.) Anthracnose (Microdochium panattonianum, Colletotrichum dematium) Septoria leaf spot (Septoria petroselini) White rust (Albugo occidentalis) Downy mildew (Bremia lactucae) Powdery mildew (Eyrisiphe cichoracearum)	3.2-8.0 (0.1-0.25) 6.4-8.0 (0.2-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For both downy and powdery mildew, make preventative applications on a 5-7 day schedule. For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  ATTENTION: Applications of Heritage to leafy vegetable foliage have contributed to phytotoxicity under certain circumstances. Proceed with caution with regard to tank mixes and adjuvants when treating leafy vegetables with Heritage. Heritage must not be tank mixed on leaf lettuce with AMBUSH® WP, Pounce® WP, Aliette®, Warrior® with Zeon™ Technology, or another product that may increase the penetration of Heritage into the leaf surface, such as, but not limited to, silicone wetters.
Swiss Chard Including cultivars and/or hybrids of these	Soilborne Diseases Webb blight, Bottom rot, Crater rot, Root rot (Rhizoctonia solani)	0.2-0.4 oz /1	000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Сгор	Target Diseases	Use Rate oz product/A (ibs. a.l./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Legume Vegetables, dry and succulent)  Bean (Lupinus spp.)  (includes grain tupin, sweet tupin, white tupin, and white sweet tupin)  Bean (Phaseolus spp.)  (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)  Bean (Vigna spp.)  (includes adzuki bean, asparagus bean, blackeyed pea, cowpea, catjang, Chinese longbean, Crowder pea, moth bean, mung bean, rice bean, southem pea, urd bean, yardlong bean)  Broad bean (fava bean) (Vicia faba)  Chickpea (garbanzo bean)  (Cicer arietinum)  Guar (Cyamopsis tetragonoloba)  Jackbean (Canavalia ensiformis)  Lablab bean (hyacinth bean)  (Lablab purpureus)  Lentil (Lens esculenta)	Bean rust (Uromyces appendiculatus)  Anthracnose (Colletotrichum lindemuthianum)  Alternaria leaf spot (Alternaria alternata)  Ascochyta leaf spot (Ascochyta phaseolorum)  Rust (Phakopsora spp.)  Southern blight (Sclerotium rolfsii)  Web blight (Rhizoctonia solani)  Ascochyta blight (Mycosphaerella pinodes)  Ascochyta leaf and pod spot (Ascochyta spp.)  Alternaria blight (Alternaria spp.)	3.2 (0.10) 3.2-8.0 (0.10-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, proper timing and placement of irrigation, crop rotation and crop residue management.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Use the higher rates under severe disease pressure. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. For rust, use of a non-ionic surfactant is recommended.
Pea (Pisum spp.) (includes dwarf pea, edible- pod pea, English pea, garden pea, field pea, green pea, snow pea, sugar snap pea) Pigeon pea (Cajanus cajan) Sword bean (Canavalia gladiata) Specific Use Restrictions:	Soilborne diseases Rhizoctonia root rot (Rhizoctonia solani) Do not apply more than 1.5 lbs.	0.2-0.4 oz/10		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section. Conduct a seed safety test with your crop before making in-furrow applications.

Not for use on Austrian Winter Peas or any other field pea cultivars intended for livestock feeding only.

Not for use on any cowpea cultivars intended for livestock feeding only.

For use on soybeans, please refer to the soybean crop directions for use.

May be applied the day of harvest (0 day PHI).

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Mint (Fresh or for processing into mint oil)	Rust (Puccinia menthae)  Powdery mildew (Erysiphe spp.)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  For soilborne/seedling disease control, see directions and rates under
For fresh mint, may be applied	Seedling root rot, basal stem rot (Rhizoctonia solani) Do not apply more than 0.75 lb. at the day of harvest (0 day PHI), ply within 7 days prior to harves	a.i./A per season		GENERAL INFORMATION section.
Oilseed Crops  Crambe Flax Mustard, Indian Mustard, Field Mustard, Black Rapeseed Rapeseed, Indian Safflower Sunflower	Downy mildew (Plasmopora halstedii, Plasmopora helianthi)  Alternaria leaf spot (Alternaria spp.)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance and crop rotation to reduce plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Apply 3.5 oz. of Heritage at early bud followed by 7.0 oz. at about 45 days before harvest. A third application of 3.5 oz. may be made 30 days before harvest. Applications may be made by ground, air or chemigation. Use a minimum of 10 gallons of water per acre for ground applications.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Peanuts	Soilborne Diseases – early season (in-furrow application) Aspergillus crown rot (Aspergillus niger) Pythium damping off (Pythium spp.) Stem rot/White mold suppression (Sclerotium rolfsii) Soilborne Diseases – midlate season Rhizoctonia peg and pod rot (Rhizoctonia solani) Stem rot/White mold (Sclerotium rolfsii)	6.4-12.8 (0.20-0.40)	000 row feet 0.15-0.30	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, proper timing and placement of irrigation, crop rotation and crop residue management.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Apply Heritage in-furrow at planting for control of various seed/seedling diseases including early season suppression of stem rot. See directions and rates under GENERAL INFORMATION section.  Heritage should be applied at approximately 60 and 90 days after planting as a foliar application. This application regime may be applied earlier in the season if environmental conditions favor disease development. These two applications
	Suppression Only: Pythium pod rot (Pythium myriotylum) Cylindrocladium black rot (Cylindocladium crotalariae)			of Heritage will provide protection against the soil borne diseases labeled and will also provide control of the foliar diseases listed for a 10-14 day period after each spray. Under heavy disease pressure and/or where there is high rainfall and/or irrigation, use 9.6-12.8 oz./A. For light disease pressure and dry environmental conditions (non-irrigated, low rainfall), use 6.4-12.8 oz./A. For control of Pythium, a rate of 12.8 oz is generally required. Additional applications of other fungicides on a leaf spot application schedule will be required to provide season-long disease control of the leaf spot diseases. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Foliar Diseases Early leaf spot (Cercospora arachidicola) Late leaf spot (Cercosporidium personatum) Rust (Puccinia arachidis) Web blotch (Phoma arachidicola) ons: Do not apply more than 0.8 lb. a.	3.2-9.6 (0.10-0.30)	0.08-0.22	For foliar disease control only, a lower rate of Abound may be applied on a 10-14 day interval.

	r season of a	0.08-0.15	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with tolerance to disease and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	season of a	azoxystrobin-o	
aerotheca spp.) (0.1-6 cnose etotrichum spp.)	0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
tonia seedling rot, zoctonia solani)			For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
֡	stonia seedling rot, zoctonia solani)	stonia seedling rot, zoctonia solani) oply more than 1.0 lbs. a.i./A per season of	stonia seedling rot, zoctonia solani) oply more than 1.0 lbs. a.i./A per season of azoxystrobin-

6	Townst Discours	Use Rate oz product/A	Use Rate oz product/	Domorko
Crop Pistachios	Alternaria Late Blight (Alternaria alternata)  Botryosphaeria panicle and shoot blight (Botryosphaeria dothidea)  Septoria leaf spot (Septoria pistaciarum)	(lbs. a.i./A) 3.2-8.0 (0.10-0.25)	<b>1,000 sq. ft.</b> 0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
Specific Use Restrictions: Do not apply within 7 days of	Do not apply more than 1.5 lbs. a harvest.	a.i./A per season	of azoxystrobin-o	containing products.

		Use Rate oz product/A	Use Rate oz product/	
Сгор	Target Diseases	(lbs. a.i./A)	1,000 sq. ft.	Remarks
Potatoes	Early Blight (Alternaria solani)  Late Blight (Phytophthora infestans)  Black dot (Colletotrichum coccodes)  Powdery mildew (Erysiphe cichoracearum)	3.2-10.5 (0.1-0.33)	0.08-0.24	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes removal of plant debris in which inoculum overwinters, selection of varieties with tolerance to disease, clean certified seed, seedpiece treatment, and disease forecasting.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For both early and late blight, maintain the alternation program described above.  Early blight - For a 7-day application schedule, use Heritage 3.2 oz product/A. If the interval is increased to 14 days, use the 6.0 oz product/A rate.  Late blight - Apply Heritage at 6.4 oz product/A on a 7 day schedule. Initiate late blight applications in a preventative schedule prior to disease development according to local practices. If late blight symptoms develop or conditions favor disease, switch immediately to a non-Group 11 fungicide, using a 5-day schedule. Addition of a spreader/sticker may improve coverage.  For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation.
Specific Hea Postaletions	Sollborne Diseases Black scurf (Rhizoctonia solani) Silver scurf (Helminthosporium solani) Black dot (Colletotrichum coccodes) Do not apply more than 2.0 lbs.		000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Do not apply within 14 days o		2.1.17 C por 3003011	or azonyou obin-c	Antaning process.

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Rice	Sheath/Stem Diseases Sheath Blight (Rhizoctonia solani) Aggregate Sheath Spot (Rhizoctonia oryzae- sativae) Black Sheath Rot (Gaeumannomyces graminis var. graminis) Sheath Spot (Rhizoctonia oryzae) Stem Rot (Sclerotium oryzae) Foliar Diseases Brown Leaf spot (Cochliobolus miyabeanus) Leaf Smut (Entyloma oryzae) Narrow Brown Leaf spot (Cercospora oryzae) Panicle Diseases Kernel Smut (Neovossia barclayana) Panicle Blast (Pyricularia grisea)	3.2-9.6 (0.10-0.30) 4.8-9.6 (0.15-0.30)	0.08-0.22	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation, and sound water management practices.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. When Heritage is being applied for panicle blast on continuous rice acreage (no rotation to other crops), no more than two sequential foliar applications of Heritage or other Group 11 fungicides should be made over multiple years before alternating with a fungicide with a different mode of action. Do not make more than two (2) foliar applications of Heritage or other Group 11 fungicides per acre per season.  Application Directions: Heritage should be applied prior to disease development. Applications may be made by ground, air or chemigation. For aerial application, volumes should be 5-10 GPA. An adjuvant may be added at recommended rates.  For sheath blight control, application rates may vary from 5 to 6.4 oz./A depending on the growth stage of the rice and the severity of the disease. Consult with your local extension personnel or Syngenta representative for the Syngenta Technical Bulletin on sheath blight control.  For other stem/sheath diseases including stem rot, black sheath rot, aggregate sheath spot and sheath spot, apply when disease is less than 4 inches above water line usually between panicle differentiation (PD) +5 days to PD +10 days or at initial sign of disease. Under heavy disease pressure and conditions favorable for disease development, a second application may be applied.  For foliar and panicle diseases, apply Heritage prior to disease development. Heritage must be applied as a preventative treatment for blast control and applied prior to favorable conditions for blast development. For panicle blast, an application should be applied at mid-boot to boot-split but prior to full head emergence.

Specific Use Restrictions: Do not treat rice fields used for aquaculture of fish and crustacea.

Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators should use care in making applications near non-target aquatic

Do not apply more than 0.7 lb. a.i./A per season of azoxystrobin-containing products.
Do not apply within 28 days of harvest.
Do not allow release of irrigation or flood water for at least 14 days after the last application.



Crop	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Roses	Black Spot ( <i>Diplocarpa rosae</i> ) Downy Mildew ( <i>Peronospora sparsa</i> )	1.6-8.0 (0.05-0.25)	0.035-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, winter and/or spring pruning, plant residue management and proper timing and placement of irrigation.
	Powdery Mildew (Sphaerotheca pannosa)			Resistance Management: Do not make more than four (4) sequential applications of Heritage before alternating with a fungicide that is not in Group 11.
	Rust (Phragmidium mucronatum, P. tuberculatum, and other Phragmidium spp.)	and the state of t		Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Septoria Leaf Spot (Septoria rosea)			Plant Safety: Heritage has been shown to be safe when applied to roses.  However, all varieties of roses have not been evaluated for safety. Small scale variety safety testing must be conducted to insure plant safety prior to large
	Alternaria Leaf Spot (Alternaria alternata)  tions: Do not apply more than 2.0 lbs.			scale application. In addition, do not tank mix Heritage with other fungicides, insecticides, herbicides, fertilizer, etc. unless local experience indicates that the tankmix is safe to roses.



Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Soybeans	Aerial blight (Rhizoctonia solani) Anthracnose (Colletotrichum truncatum) Alternaria leaf spot (Alternaria spp.) Brown spot (Septoria glycines) Cercospora blight and leaf spot (Cercospora kikuchii) Frogeye leafspot (Cercospora sojina) Pod and stem blight (Diaporthe phaseolorum) Rust (Phakopsora spp.)	3.2-8.0 (0.10-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development. Use the high rates under conditions favorable for severe disease pressure, dense plant canopies, or when susceptible varieties are planted. Contact Extension personnel for local economic thresholds and timings for specific diseases in your area. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates. Use of a crop oil concentrate or non-ionic surfactant with the lower use rate is recommended.  Soybean rust: Heritage may be used at 2.2 oz/A when tank mixed with a triazole registered for use on soybean rust.
	Soilborne Diseases Southern blight (Sclerotium rolfsii) Rhizoctonia solani (Rhizoctonia solani)		000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Specific Use Restrictions: Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products. Do not make more than one application at 8.0 oz product/acre or 0.25 lbs ai/A to soybean forage and hay. Do not apply within 14 days of harvest of soybeans (bean). May be applied the day of harvest to soybean forage and hay.

Crop	Target Diseases	Use Rate oz product/A (ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Apricot Cherry, sweet Cherry, tart Nectarine Peach Plum Plumcot Prune	Scab (Cladosporium carpophilum) Alternaria Spot and Fruit Rot (Alternaria alternata) Anthracnose (Colletotrichum prunicola, C. gloeosporioides) Leaf Rust (Tranzschelia discolor) Powdery Mildew (Sphaerotheca pannosa, Podosphaera clandestina) Shot Hole (Wilsonomyces carpophilus)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters and pruning to provide sunlight and aeration into the canopy.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For brown rot blossom blight, begin applications at early bloom and continue through petal fall. For brown rot on fruit, Heritage may be applied to fruit up to the day of harvest. For scab, begin applications at petal fall and continue at 7-14 day intervals. For all other diseases, begin application at the onset of disease as a protectant fungicide and continue on a 7-14 day schedule. For peaches only, 5-8 oz. of Heritage may be used for scab control.
	Brown rot blossom blight and Fruit rot (Monilinia fructicola, M. laxa)	6.4-8.0 (0.2-0.25)	0.0.15-0.18	Applications may be made by ground, air or chemigation

Specific Use Restrictions: Do not apply more than 1.5 lbs. a.i./A per season of azoxystrobin-containing products. May be applied the day of harvest (0 day PHI).



Crop	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sg. ft.	Remarks
Strawberry	Anthracnose (Colletotrichum fragariae)  Powdery mildew (Sphaerotheca macularis)  Suppression of Botrytis on the foliage (Botrytis cinerea)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  For dip applications at transplanting for commercial berry production: For suppression of root and crown rot caused by Colletotrichum spp., mix 2.5-4.2 oz of Heritage per 100 gal of water. Dip plants for 2-5 minutes. Plant treated plants as quickly as possible. It is recommended that transplants be washed to remove excess soil prior to dipping. For continued anthracnose control, follow with foliar applications beginning 2-3 weeks after transplant.
	Soliborne Diseases Seedling root rot, basal stem rot (Rhizoctonia solani)		000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Specific Use Restrictions: Do not use in plant propagation nurseries.

Do not apply more than 1.0 lb. a.i./A per season of azoxystrobin-containing products.

May be applied the day of harvest (0 day PHI).

Tobacco  Blue mold (Peronospora tabacina)  (O.1-0.2)  Blue mold (Peronospora tabacina)  (O.1-0.2)  Integrated Pest (Disease) Management: Heritage should be integrated powerall disease management strategy that includes proper selection with disease tolerance, removal of plant debris in which inoculum or plant residue management, crop rotation and proper timing and plant residue management.	ion of varieties overwinters,
(Cercospora nicotianae)  Target spot (Rhizoctonia solani)  Resistance Management: Follow the resistance management gui Resistance Management Section. Do not apply more than one ap Heritage or other Group 11 fungicides before alternation with a fun not in Group 11.  Application Directions: Heritage applications should begin prior to development or at first indication that blue mold is in the area. Do Heritage as a curative application. If blue mold is present in the fire applications with Acrobat <sup>®</sup> MZ prior to a Heritage application. Applications with Shorter intervals under conditions conducive to did development. For ground applications, apply Heritage in sufficient volume for adequate coverage and canopy penetration. For aerial volumes should be 10-15 GPA. Applications may be made by ground chemigation.  NOTE: Heritage may enhance weather flecking on the leaves of cotypes. This does not affect yield and quality.	r to disease o not apply field, initiate ply on a 7-14 disease nt water al application, ound, air or

Specific Use Restrictions:

Do not apply more than 0.52 lb. a.i./A per season of azoxystrobin-containing products.

Do not tank mix with Thiodan.

May be applied up to day of harvest.

Tank mixing Heritage with insecticides formulated as ECs or containing high amounts of solvents, may cause some crop injury.

Сгор	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Tomatoes	Anthracnose (Colletotrichum coccodes) Black Mold (Alternaria alternata) Buckeye Rot (Phytophthora spp.) Early Blight (Alternaria solani) Powdery Mildew (Oidiopsis sicula) Septoria Leaf spot (Septoria lycopersici) Target spot (Corynespora cassiicola) Late Blight	0.8-3.2 (0.025-0.10)	0.024-0.08	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes proper selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season following the resistance management guidelines. For late blight, Heritage should be applied on 7-21 day intervals. For all other tomato diseases, Heritage should be applied on 7-21 day
	(Phytophthora infestans)	(0.05 - 0.10)		intervals. Applications may be made by ground, air or chemigation.  Use of an adjuvant may result in severe phytotoxicity.

Specific Use Restrictions: Heritage should not be applied until 21 days after transplanting or 35 days after seeding. Do not apply more than 0.8 lb. a.i./A per season of azoxystrobin-containing products.

May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Beechnut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert Hickory Macadamia Pecan Walnut  Almonds, Pistachios (see specific use instructrions)	Alternaria leaf and fruit spot (Alternaria alternata)  Anthracnose (Colletotrichum acutatum, Glomerella cingulata)  Late blight (Alternaria alternata)  Scab (Cladosporium carpophilum)  Septoria leaf spot (Septoria pistaciarum)  Shothole (Wilsonomyces carpophilus)  Eastern filbert blight (Anisogramma anomale)	3.2-6.4 (0.10-0.20)	0.08-0.15	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.  For all other diseases, begin applications prior to disease development and continue at 7-21 day intervals throughout the season.
	Blossom Blight (Monilinia laxa, M. fructicola)	6.4 (0.20)	0.15	For blossom blight, begin applications at early bloom and continue through petal fall.Do not make more than six applications of Heritage or other strobilurin fungicide per acre per year.

Specific Use Restrictions: Do not apply more than 1.2 lbs. a.i./A per season of azoxystrobin-containing products. Do not apply within 45 days of harvest.

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Tropical Fruit Acerola Atemoya Avocado Biriba Canistel Cherimoya Custard apple Feijoa Guava Ilama Jaboticaba Jackfruit Longan Loquat Lychee Mango Papaya Passionfruit Pawpaw	Anthracnose (Colletotrichum spp.)  Rust (Puccinia spp.)  Cercospora leaf spot (Cercospora spp.)  Powdery Mildew (Erysiphe spp.)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 10-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
Persimmon Pulasan Pummello Rambutan Sapodilla Sapote, black Sapote, mamey Sapote, white Soursop Star apple Starfruit Sugar apple Spanish lime Tamarind Uniq fruit	Soilborne Diseases Seedling root rot, basal stem rot (Rhizoctonia solani)	0.2-0.4 oz /1		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Vegetable, leaves of root and tuber, group  Beet, garden and sugar Burdock Carrot Cassava, bitter and sweet Celeriac (celery root) Chervil, turnip-rooted Chicory Dasheen (taro) Parsnip Radish Radish, oriental (daikon)	Foliar Diseases Alternaria leaf spot (Alternaria spp., A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Rust (Uromyces betae, Puccinia helianthi) White rust (Albugo tragopogonis) Cercospora leaf spot (Cercospora betae, C. pastinaceae) Powdery mildew	3.2-10.5 (0.1-0.33) 4.8-8.0 (0.15-0.25)	0.08-0.24	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For powdery mildew, make preventative applications on a 5-7 day schedule. For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at
Rutabaga Salsify, black	(Erysiphe polygoni, Leveillula taurica)			recommended rates.
Sweet potato Tanier Turnip Yam, true	Soilborne Diseases Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum) Do not apply more than 2.0 lbs.	0.2-0.4 oz /1		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Crop	Target Diseases	Use Rate oz product/A (Ibs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Vegetables, root, subgroup  Beet, garden and sugar Burdock Carrot Celeriac Chervii, turnip-rooted Chicory Ginsing Horseradish	Foliar Diseases Alternaria leaf spot (Alternaria spp, A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Rust (Uromyces betae, Puccinia helianthi) White rust (Albugo tragopogonis)	3.2-10.5 (0.1-0.33)	0.08-0.24	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  Application Directions: For powdery mildew, make preventative applications
Parsley, turnip-rooted Parsnip Radish Radish, oriental Rutabaga Salsify Salsify, black Salsify, Spanish Skirret Turnip	Cercospora leaf spot (Cercospora betae, C. pastinaceae) Powdery mildew (Erysiphe polygoni, Leveillula taurica)	4.8-8.0 (0.15-0.25)	0.11-0.18	on a 5-7 day schedule. For all other diseases, Heritage applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Soilborne Diseases Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum) Do not apply more than 2.0 lbs.	0.2-0.4 oz /1000 row feet		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Pegetables, tuberous and corm, subgroup  Arracacha Arrowroot Artichoke, Chinese and Jerusalem Canna Cassava, edible, bitter and sweet Chayote (root) Chufa  Poliar Diseases  3.2-10.5 (0.1-0.33) Alternaria leaf spot (Alternaria spp., A. Alternata) Ascochyta leaf spot (Ascochyta cynarae) Rust (Uromyces betae, Puccinia helianthi) White rust (Albugo tragopogonis)  3.2-10.5 (0.1-0.33) Anoved disease mana  Resis (U.1-0.33) Alternaria leaf spot (Ascochyta leaf spot (Ascochyta cynarae) Integral an ove disease mana  Alternaria leaf spot (Alternaria spp., A. Alternata) Ascochyta leaf spot (Ascochyta cynarae) Integral an ove disease mana  Applia on ove disease mana  Alternatia  Alternatia  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Alternatia spp., A. Alternatia  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Ascochyta leaf spot (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Alternatia  Alternatia  Alternatia  Ascochyta leaf spot  (Ascochyta cynarae)  Rust  Applia on ove disease mana  Alternatia  Alternatia  Alternatia  Alternatia  Ascochyta leaf spot  (Ascochyta cynarae)  Rust  Alternatia  Accochyta cynarae  Alternatia  Ascochyta cynarae  Ascochyta cynarae  Alternatia  Ascochyta cynarae  Alternatia  Ascochyta cynarae  Alternatia  Ascochyta cynarae  Ascochyta		Integrated Pest (Disease) Management: Heritage should be integrated in an overall disease management strategy that includes selection of varieties disease tolerance, optimum plant populations, proper fertilization, plant residuanagement, crop rotation and proper timing and placement of irrigation.  Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than one application Heritage or other Group 11 fungicides before alternation with a fungicide is not in Group 11.  Application Directions: For powdery mildew, make preventative application a 5-7 day schedule. For all other diseases, Heritage applications should		
Dasheen (Taro) Ginger Leren Potato Sweet Potato Tanier Tumeric Yam, bean Yam, true	Cercospora leaf spot (Cercospora betae, C. pastinaceae) Powdery mildew (Erysiphe polygoni, Leveillula taurica)	4.8-8.0 (0.15-0.25)	0.11-0.18	begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
	Sollborne Diseases Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum) Do not apply more than 2.0 lbs.	0.2-0.4 oz /1000 row feet		For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Сгор	Target Diseases	Use Rate oz product/A (lbs. a.i./A)	Use Rate oz product/ 1,000 sq. ft.	Remarks
Watercress	Cercospora leaf spot (Cercospora spp.)	3.2-8.0 (0.1-0.25)	0.08-0.18	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes varieties with disease tolerance, insect control and proper fertilization.
				Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.
				Application Directions: Heritage applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
Do not apply more than May be applied up to 7 d	<u></u>	obin-containing pro		
Wheat Triticale	Leaf Rust (Puccinia recondita f. sp. tritici) Stripe Rust (Puccinia striiformis)	2.2- 6.4 (0.07-0.20)	0.053-0.15	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes proper selection of varieties with disease tolerance, proper timing and placement of irrigation, removal of plant debris in which inoculum overwinters, plant residue management, and crop rotation.
	Stem Rust (Puccinia graminis) Septoria Leaf and Glume Blotch (Septoria tritici, Septoria nodorum)			Resistance Management: Follow the resistance management guidelines in the Resistance Management Section. Do not apply more than two sequential applications of Heritage or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. Do not make more than two (2) applications of Heritage or other Group 11 fungicide per season.
	Tan Spot (Pyrenophora tritici- repentis) Powdery Mildew	4.0-5.6	0.09-0.15	Application Directions: Heritage should be applied prior to disease development from jointing (Feekes 6 or Zadok's 31) up to late head emergence (Feekes 10.5 or Zadok's 59). Applications may be made by ground, air or
	(Erysiphe graminis)	(0.125-0.175)		chemigation. A crop oil concentrate adjuvant may be added at 1.0% v/v to optimize efficacy.

Specific Use Restrictions: Do not apply until after forage stage (Feekes 6 or Zadok's 31). Do not apply later than Feekes growth stage 10.5 (Zadok's growth stage 59). Do not harvest treated wheat for forage. Do not apply more than 0.4 lb. a.i./A per season of azoxystrobin-containing products. Do not apply within 14 days of harvest for hay. Do not apply within 45 days of harvest for grain and straw.



#### Heritage Rate Conversion Chart.

Ounces Product/A	Lb. a.i./A	Treated Acres/Lb. Product
0.9	0.03	16.0
1.6	0.05	10.7
2.0	0.06	8.0
2.2	0.07	7.3
2.5	0.08	6.4
3.0	0.09	5.3
3.2	0.10	5.0
3.5	0.11	4.6
4.0	0.13	4.0
4.3	0.135	3.7
4.5	0.14	3.7
5.1	0.16	3.2
5.5	0.17	2.9
6.0	0.19	2.7
6.4	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
9.6	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
12.8	0.40	1.2

#### Amount of Heritage Fungicide to Mix 100 Gallons for Post-Harvest Applications

Heritage Use Rate	100.0 gals. Spray Solution
200 ppm	5.5 oz
300 ppm	8 oz
400 ppm	11 oz



# Heritage Rate Conversion Chart (For use with 4 oz package size only)

Oz. Product/A	Oz. Product/1000 sq ft	Treated Acres/4 oz. Product
1.0	0.025	4.0
1.5	0.035	2.7
2.0	0.05	2.0
2.5	0.06	1.6
3.0	0.07	1.3
3.5	0.08	1.1
4.0	0.09	1.0
4.5	0.1	0.9
5.0	0.11	0.8
5.5	0.13	0.72
6.0	0.14	0.67
6.5	0.15	0.62
7.0	0.16	0.57
7.5	0.17	0.52
8.0	0.18	0.5
8.7	0.2	0.46
13.1	0.3	0.31
17.4	0.4	0.23
26.1	0.6	0.15
30.5	0.7	0.13



#### TURF:

Heritage is recommended for control of certain pathogens causing foliar, stem, and root diseases including leaf and stem blights, leaf spots, patch diseases, mildew, molds and rusts of turfgrass plants. Heritage fungicide may be used to control certain diseases on golf courses, lawns and landscape areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

Integrated Pest (Disease) Management (IPM): 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. Since Heritage is a strobilurin fungicide, avoid alternation with other strobilurins. Do not apply more than two sequential Heritage applications for Gray leaf spot and *Pythium* spp. control. For all other diseases when Gray leaf spot and *Pythium* spp. are not present, do not apply more than three sequential applications of Heritage.

Application Directions: Heritage should be applied prior to disease development. Mix Heritage with the required amount of water and apply as a dilute spray 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 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). Applications may be made by ground only.

#### For use with soil injection applications:

Heritage may be applied through a liquid fungicide injector for the control of ectrotrophic root diseases such as summer patch and take-all patch. Use Heritage only in liquid injection equipment specifically designated for pesticide use.

Apply Heritage at 0.2 to 0.4 oz. per 1000 sq. ft. Spray carrier volume should fall within 30-150 gals. of water per 1000 sq. ft. Injection hole spacing of 1 inch by 1 inch is recommended for optimum control. Injection depth should be no greater than 2 inches. One inch depth is recommended for optimum results. Application timing should follow disease control strategies used for normal broadcast spray programs.



## For use in the establishment of turfgrass from seed or in overseeding of dormant turfgrass:

Heritage may be used for control of certain turfgrass diseases associated with turfgrass establishment from seed. Heritage may also be used during overseeding of dormant turfgrass.

Heritage may be safely applied before or after seeding or at seedling germination and emergence to ryegrass, bentgrass, bluegrass, and fescue turfgrass types. Optimum application timing is during seeding. See Application Directions section.

<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 Heritage During periods of dollar spot pressure, always mix Heritage with Daconil® or other dollar spot control fungicide. Heritage is compatible in tak mixes with many other fungicides that control dollar spot. Follow directions under TANK MIXES/COMPATIBILITY above.





### DIRECTIONS FOR APPLICATION FOR TURF DISEASES

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Brown Patch (Rhizoctonia solani)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Cool Weather Brown Patch Yellow Patch (Rhizoctonia cerealis)	0.2-0.4	14-28	Make one or two applications in fall or when conditions are favorable for disease development.
Fairy Ring (Lycoperdon spp., Agrocybe pediades, and Bovistra plumbea)	0.4	28	Apply as soon as possible after fairy ring symptoms develop. Apply only in 4 gallons water per 1000 square feet (174 gallons/acre). Add the recommended rate of a wetting agent to the final spray. Severely damaged or thin turf may require reseeding. Fairy ring symptoms may take 2 to 3 weeks to disappear following application. Reapplication after 28 days may be required in some cases.
Fusarium Patch (Microdochium nivale)	0.2-0.4	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom 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)	0.7	single application 10-28	Make a single application of 0.7 oz or two applications of 0.4 oz spaced 10-28 days apart in late fall just before snow cover. Tank mixing with another snow mold fungicide, such as Daconil, may enhance control under severe disease pressure.
Leaf Rust Stem Rust Stripe Rust (Puccinia spp.)	0.2 to 0.4	14 to 28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Leaf spot (Bipolaris sorokiniana)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Melting Out (Drechslera poae )	0.2-0.4	14-21	Apply when conditions are favorable for disease development
Necrotic Ring Spot (Leptosphaeria korrae)	0.2-0.4	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 10-28	Make a single application of 0.7 oz or two applications of 0.4 oz spaced 10-28 days apart in late fall just before snow cover. Tank mixing with another snow mold fungicide, such as Daconil may enhance control under severe disease pressure.

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Powdery Mildew (Erysiphe graminis)	0.2 to 0.4	14-28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Pythium Blight Pythium Root Rot (Pythium aphanidermatum, Pythium spp.)	0.2-0.4	10-14	Use preventatively. Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10 day application interval. For use on newly seeded as well as established turf.
Red Thread (Laetisaria fuciformis)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch (Rhizoctonia solani)	0.2-0.4	14-28	Make one or two applications in fall or when conditions are favorable for disease development.
Southern Blight (Scleratium rolfsii)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Spring Dead Spot (Leptosphaeria korrae) or (Gaeumannomyces graminis var. graminis) or (Ophiosphaerella herpotricha)	0.2-0.4	14-28	Apply 1 or 2 applications approximately one month prior to bermudagrass dormancy. 1/4" to 1/2" of irrigation directly after application is recommended. Reapply 14 to 28 days later.
Summer Patch (Magnaporthe poae)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Take-all patch (Gaeumannomyces graminis var. avenae)	0.2-0.4	28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development. Make two applications, 28 days apart in the spring and two applications 28 days apart in the fall.
Zoysia Patch (Rhizoctonia solani and/or Gaeumannomyces incrustana)	0.2-0.4	14-28	Apply 1 or 2 applications approximately one month prior to zoyiagrass dormancy. Reapply 14 to 28 days later.

<sup>\*</sup> Do not apply more than two sequential applications of Heritage for control of Gray leaf spot and *Pythium* spp. For all other diseases when Gray leaf spot and *Pythium* spp are not present, do not apply more than three 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
0.70	0.35	30.5	1.9

### Amount of Heritage to Mix 100 Gallons for Turf Applications

	Spray Volume (gallons/1000 square feet)		0 square feet)
Heritage Use Rate	2.0 gallons	3.0 gallons	4.0 gallons
0.2 oz	10 oz	6.7 oz	5 oz
0.4 oz	20 oz	13.3 oz	10 oz
0.7 oz.	35 oz.	23.3 oz	17.5 oz



#### **ORNAMENTALS**

Heritage Fungicide is recommended for control of certain pathogens causing foliar, aerial, and root diseases, including leaf, tip, and flower blights, leaf spots, downy mildew, powdery mildew, anthracnose, and rusts of ornamental plants. Heritage Fungicide may be used to control certain diseases of container, bench, flat, plug, bed or field-grown ornamentals in greenhouses, shadehouses, outdoor nurseries, retail nurseries, and other landscape areas.

Integrated Pest (Disease) Management: Heritage Fungicide should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, winter and/or spring pruning, plant residue management and proper timing and placement of irrigation. Immunoassay detection kits and 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 ornamental disease pathogens are known to have developed resistance to fungicides used repeatedly for their control. Heritage Fungicide should be applied in an alternation or tankmix program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Do not make more than three (3) sequential applications of Heritage Fungicide before alternating with a fungicide of a different mode of action. A sound resistance management program would include blocks of three Heritage Fungicide applications separated by blocks of two alternate fungicide applications. Do not alternate Heritage Fungicide with other strobilurin fungicides.

**Application Directions**: Apply Heritage Fungicide as a broadcast or banded spray targeted at the foliage or crown of the plant. Apply to runoff in sufficient water to ensure complete coverage of the target plant. Good coverage and wetting of foliage is necessary for best control. Refer to the label for specific use directions for control of certain diseases. Repeat applications at specified intervals (plus alternations for resistance management) for as long as required. Applications may be made by ground only.

Heritage Fungicide applications should begin prior to disease development and continue throughout the season at specified intervals following resistance management guidelines. Heritage Fungicide works best when used as part of a preventative disease management program.

Use only surfactants approved for ornamental plants in combination with Heritage Fungicide. Do not use silicone based products with Heritage Fungicide due to possible phytotoxicity. Always test tankmixes on a small group of representative plants prior to broadscale use.

Apply Heritage at use rates of 1-4 oz/100 gallons (0.5-2 oz/50 gallons) and every 7-28 days (or as otherwise specified for a specific plant or disease). The addition of a non-silicone based wetter-sticker at the recommended use rate may enhance coverage on hard-to-wet plant foliage.

Under most conditions and for most diseases, apply 2-4 oz./ 100 gallons (1-2 oz/50 gallons) on a 7-14 day interval.



Under light to moderate disease pressure, use the lower rates (1-2 oz./ 100 gallons, or 0.5-1 oz/50 gallons) on a 7-14 day interval or the higher rates (3-4 oz./ 100 gallons or 1.5-2 oz/50 gallons) on a 14-28 day interval.

Under environmental conditions which promote severe disease development, use the higher rates (3-4 oz./ 100 gallons or 1.5-2 oz/50 gallons) on a 7-14 day interval.

Use of Heritage as a "rescue" (late curative or eradicant) treatment may not always result in satisfactory disease control.

Do not exceed 10 lbs product/crop acre/year or 8 applications/crop/year.

Do not exceed 600 gallons spray volume per acre for foliar applications. For drench and crown applications, do not exceed 2 pints volume per square foot.

In addition, do not tankmix Heritage with other fungicides, insecticides, herbicides, fertilizers, adjuvants, etc, unless local experience indicates that the tankmix is safe to ornamental plants.

**Drench Application**: Heritage may be applied to control soilborne, seedling, and crown diseases of production ornamentals (greenhouse, shadehouse, and container grown) as a preventative, drench treatment prior to infection. Good coverage of the pre-infection area (root zone, root ball, crown, etc.) is necessary for satisfactory control. Heritage may be drench applied to container grown ornamentals using 0.2-0.9 oz/100 gallons of water. Apply 1-2 pints of the solution per square foot surface area on a 7-28 day interval. Apply drench prior to infection as healthy roots are necessary to optimize product uptake, systemic translocation and disease protection.

For resistance management do not make more than three sequential drench applications of Heritage before alternating with a fungicide of a different mode of action.

Caution should be taken before making application of Heritage as a drench to small bedding plants in the seedling/plug stage due to possible phytotoxicity. A limited quantity of plants should be tested prior to full-scale application.

**Drip Irrigation:** Heritage may be applied through drip irrigation systems to potted ornamentals or to bedded, field grown ornamentals for soil-borne disease control. Apply 2-16 oz Heritage per acre as a preventative disease application. The soil or potting media should have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.

#### **General Ornamental Use Precautions**

Do not apply Heritage to apple or cherry trees (Flowering, Yoshina variety) due to possible phytotoxicity. Further, do not use spray equipment that has applied Heritage for use in these sensitive crops due to possible phytotoxicity from residue remaining in the sprayer.

Heritage may be applied to certain varieties of crabapple for control of apple scab. Heritage has been shown to be safer when applied to the species and varieties listed in Table 4. However,

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due to the large number of genera, species, and varieties of crabapple, it is impossible to test every one for tolerance to Heritage. The professional user should conduct small scale testing to insure plant safety prior to broadscale commercial use on plant genera and species not listed on this label.

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**TABLE 1:** <u>Diseases Controlled:</u> When used in accordance with the label directions, Heritage Fungicide will provide control of the following diseases of ornamental plants:

DISEASE (Pathogen)	Use Rates and Remarks		
	8 oz and larger containers	4 oz containers	
	(oz product per 100 gallons)	(oz product per 50 gallons)	
1. CONIFER BLIGHTS			
a. Phomopsis Blight (Phomopsis juniperovora)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
b. Tip Blight (Sirococcus strobilinus)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
2. LEAF BLIGHTS/LEAF SPOTS			
a. Alternaria Leaf Spot ( <i>Alternaria</i> spp.)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
b. Anthracnose (Colletotrichum spp., Elsinoe spp.)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
c. Downy Mildew of Rose (Peronospora sparsa)	Apply 2-4 oz every 7-21 days during periods of active plant growth and prior to dormancy or severe infection.	Apply 2-4 oz every 7-21 days during periods of active plant growth and prior to dormancy or severe infection.	
d. Entomosporium Leaf Spot (Entomosporium mespili)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
e. Iris Leaf Spot (Mycosphaerella macrospora)	Apply 2-4 oz every 7-21 days	Apply 2-4 oz every 7-21 days	
f. Leaf spot (Cladosporium echinulatum)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
g. Rose Blackspot ( <i>Diplocarpon rosea</i> )	Apply 4-8 oz every 7-14 days Apply Heritage Fungicide on a 7 day intervalunless disease pressure is light. Under severe disease conditions or if disease isalready present, Heritage Fungicide may betankmixed with another rose blackspot fungicide. Do not exceed 24 oz/acre/ application	Apply 2.4 oz every 7-14 days Apply Heritage Fungicide on a 7 day interval unless disease pressure is light. Under severe disease conditions or if disease is already present, Heritage Fungicide may be tankmixed with another rose blackspot fungicide. Do not exceed 24 oz/acre/application	
h. Myrothecium leaf spot (Myrothecium spp.)	Apply 2-4 oz every 7-21 days	Apply 1-2 oz every 7-21 days	
Downy Mildew of bedding plants ( <i>Peronospora</i> spp.)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
j. Scab (Venturia inaequalis)	Apply 1-4 oz every 10-28 days. Do not apply to apple trees. For crabapples only, see Table 4 for tolerant species.	Apply 0.5-2 oz every 10-28 days. Do not apply to apple trees. For crabapples only, see Table 4 for tolerant species.	
k. Marrsonina Leaf Spot (Marsonina spp.)	Apply 1-4 oz/100 gal every 14-28 days.	Apply 0.5-2 oz every 14-28 days.	
	<u> </u>		



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DISEASE (Pathogen)	Use Rates and Remarks		
	8 oz and larger containers	4 oz containers	
	(oz product per 100 gallons)	(oz product per 50 gallons)	
I. Cercospora Leaf Spot	Apply 1- 4oz/100 gal every 7-28 days	Apply 0.5-2 oz every 7-28 days.	
3. POWDERY MILDEW	Preventative applications only. Do not make more than 2 sequential applications before rotating to another class of fungicide.	Preventative applications only. Do not make more than 2 sequential applications before rotating to another class of fungicide	
a. Erysiphe pannosa, E. spp.	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
b. Microsphaera azaleae	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
c. Sphaerotheca pannosa	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
4. RUSTS			
a. Needle Rust (Melampsora occidentalis)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
b. Phragmidium spp.	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
c. Puccinia spp.	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
d. Gymnosporagium spp.	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
5. FLOWER BLIGHTS			
a. Anthracnose (Collectotrichum spp., Elsinoe spp.)	Apply 1-4 oz every 7-28 days	Apply 0.5-2 oz every 7-28 days	
b. Botrytis Blight (Botrytis cinerea)	Apply 4-8 oz every 7-21 days For suppression only. Do not exceed 24 oz/acre.	Apply 2-4 oz every 7-21 days For suppression only. Do not exceed 24 oz/acre.	
6. SHOOT/STEM DISEASES			
a. Aerial/Shoot Blight (Phytophthora spp.)	Apply 1-2 oz every 7-28 days	Apply 0.5-1 oz every 7-28 days	
7. SOILBORNE DISEASES (Directed Spray)	For directed spray applications utilize the following rates below.	For directed spray applications utilize the following rates below.	
a. Rhizoctonia solani	Apply 1-4 oz every 7-21 days	Apply 0.5-2 oz every 7-21 days	
b. Sclerotium rolfsii	Apply 1-4 oz every 7-21 days	Apply 0.5-2 oz every 7-21 days	
c. Fusarium spp.	Apply 1-4 oz every 7-21 days	Apply 0.5-2 oz every 7-21 days	
8. SOILBORNE DISEASES (Drench)	See Ornamentals Section for additional drench directions.	See Ornamentals Section for additional drench directions.	
a. Rhizoctonia solani	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	Apply 0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	
b. Sclerotium rolfsii	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	Apply 0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	
c. Fusarium spp.	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	Apply0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days	



**PLANT SAFETY:** Heritage Fungicide has been shown to be safe when applied to the ornamental plants listed in Tables 2, 3, and 4. However, due to the large number of genera, species and varieties of ornamental and nursery plants, it is impossible to test every one for tolerance to Heritage Fungicide. Neither the manufacturer nor the seller has determined whether or not Heritage Fungicide can be used safely on genera, species, or varieties of ornamental and nursery plants not specified on this label. The professional user should conduct small scale testing to insure plant safety prior to broadscale commercial use on plant genera and species not listed in this label.

In addition, do not tankmix Heritage Fungicide with other fungicides, insecticides, herbicides, fertilizer, adjuvants, etc, unless local experience indicates that the tankmix is safe to ornamental plants.

Do not apply Heritage Fungicide to certain apple, crabapple, or cherry trees due to possible phytotoxicity. Further, do not use spray equipment that has applied Heritage Fungicide for use in these sensitive crops due to possible phytotoxicity from residue remaining in the sprayer.

**Tolerant Ornamental Plants:** Heritage Fungicide has been found to be safe when applied to the plants listed in Tables 2, 3 and 4 when applied according to recommended application methods, rates, and timings:

TABLE 2: Tolerant Plants Listed by Botanical Name:

BOTANICAL NAME	COMMON NAME	DISEASES
Abelia spp.	Abelia	2
Abies fraseri	Fraser fir	1, 4
Abies procera	Noble Fir	1, 4
Acer palmatum	Japanese maple	2
Acer saccharum	Sugar maple	2
Ageratum spp.	Floss-Flower	3, 4
Ageratum spp.	Pussy's-Foot	3, 4
Aglaonema spp.	Chinese evergreen	2, 4
Ajuga reptans	Bugle, Bugleweed	3
Antirrhinum spp.	Snap-Dragon	2i, 3, 4
Aphelandra spp.	Zebra-Plant	2
Artemisia spp.	Mugwort, Sagebrush	2
Artemisia spp.	Wormwood	2
Aster spp.	Aster, Starwort	4
Aucuba japonica	Japanese aucuba, Japanese laurel	7
<i>Begonia</i> spp. (except Rieger begonia)	Begonia	2, 3



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BOTANICAL NAME	COMMON NAME	DISEASES
Berberis thunbergii	Barberry	3, 4
Betula nigra	River birch	3, 4
Bougainvillea spp.	Bougainvillea	2
Brassaia actinophylla	Rubber-tree, Umbrella-tree	2, 7
Buddleia davidii	Buddleia, Butterfly-bush	2
Buxus sempervirens	Boxwood	2, 7a
Caladium spp.	Caladium	7
Camellia japonica	Camellia	2
Caryota urens	Sago Palm	2, 7
Catharanthus roseus	Vinca	2
Ceanothus sanguineus	Wild lilac	3
Ceanothus spp.	Ceanothus, California lilac, Snowball	3
Cedrus atlantica	Atlas cedar	2, 4
Cedrus spp.	White cedar	2, 4
Cercis occidentalis	Western redbud	2
Chamaecyparis spp.	Cypress, Leyland cypress	1
Chamaecyparis pisifera	Sawara cypress	1
Chamaedora elegans	Parlor palm	7
Chrysanthemum spp.	Chrysanthemums	2, 7c
Clethra alnifolia	Clethra, White alder	2
Cornus spp.	Dogwood, Pink dogwood, Flowering dogwood	2b, 3
Cornus florida	Dogwood	2b, 3
Cortaderia selloana	Pampas grass	3
Cotoneaster adpressus	Creeping cotoneaster	7
Cotoneaster horizontalis	Cotoneaster - variegated rockspray	7
Cyclamen spp.	Cyclamen	7c
Cyperus spp.	Cyperus	1
Delphinium spp.	Larkspur	2
Dianthus caryophyllus	Carnation	3, 4
Dianthus spp.	Pink	3, 4
Dieffenbachia spp.	Dumb-Cane	2
Dietes iridiodes	African iris, Butterfly iris	4c
Digitalis spp.	Foxglove	2, 3
Epipremnum spp.	Pothos	2
Erica dareyensis	Heather	2
Euonymus alata	Dwarf winged euonymus	2
Euonymus alatus	Burning bush	2
Euonymus japonicus	Evergreen euonymus	2
Euphorbia spp.	Poinsettia	2a
Fatsia japonica	Japanese fatsia, Paper-plant	2

BOTANICAL NAME	COMMON NAME	DISEASES
Ficus spp.	Fig	2
Forsythia viridissima	Forsythia	2
Gaillardia spp.	Blanket-Flower	2
Gardenia jasminoides	Gardenia	3
Geranium spp.	Cranesbill	5b
Gerbera jamesonii	Gerber daisy, Transvaal daisy	3
Hedera algeriensis	Algerian ivy	2
Hedera helix	English ivy	2
Hibiscus moscheutos	Hibiscus	2, 3
Hibiscus rosa-sinensis	Hibiscus	2, 3
Hibiscus syriacus	Rose of Sharon	2, 3
Hosta spp.	Hosta	2
Hydrangea macrophylla	French hydrangea	2, 3
Hydrangea spp.	Hydrangea	2, 3
llex spp.	Holly, Winterberry, Yaupon	3
Impatiens spp. 1	Balsam, Impatiens	2a, 7a
Iris xiphium	Iris (bulbous, Spanish, Dutch)	2e
Itea virginica	Virginia willow	3, 4
Juniperus procumbens	Juniper	1a, 4
Juniperus scopulorum	Juniper	1a, 4
Juniperus spp.	Juniper	1a, 4
Juniperus virginiana	Red cedar	1a, 4
Lagerstroemia indica	Crapemyrtle	2, 3
Laurus nobilis	Laurel	3
Lilium spp.	Asiatic Lily	2
Liriope muscari	Lily-turf	2
Lobularia maritima	Sweet alyssum	7
Magnolia grandiflora	Southern magnolia	2
Magnolia soulangiana	Saucer magnolia	2
Magnolia spp.	Magnolia	2
Malus spp.	Crabapple (See Table 4 for variety list)	2j
Nandina domestica	Nandina	2
Nerium oleander	Oleander, Rose-bay	2
Pelargonium spp.	Geranium	3, 4, 5b
Pennisetum alopecuroides	Grass	2
Peperomia spp.	Baby rubber-plant	2, 7
Petunia spp.	Petunia	6a
Phalaris spp.	Dwarf pampas grass	3
Philodendron spp.	Philodendron	2
Phlox spp.	Phlox	3
Phoenix dactylifera	Date palm	2, 7



BOTANICAL NAME	COMMON NAME	DISEASES
Phoenix roebelenii	Roebelin's palm	2, 7
Photinia glabra	Red-tip photinia	2, 3, 4
Pícea abies	Norway spruce	1
Picea glauca	White spruce	1
Picea pungens	Blue spruce	1
Pieris japonica	Japanese andromeda	2, 7
Pinus muhgo	Muhgo pine	1b, 4
Pinus nìgra	Black pine	1b, 4
Pinus silvestris	Scotch pine	1, 4
Pinus spp.	Pine	1b, 4
Pinus strobus	Eastern white pine	1b, 4
Pittosporum spp.	Australian laurel	3, 4
Pittosporum tobira	Mock-orange	3, 4
Plectranthus spp.	Swedish ivy, Coleus	2
Populus trichocarpa	Poplar	4
Populus spp.	Aspen Trees	2
Potentilla spp.	Cinquefoil	2
Primula spp.	Primrose	2
Prunus pumila	Cherry	2, 5
Prunus spp.	Flowering plum, Purple-leaf plum	2, 5
Pseudotsuga spp.	Douglas fir	1, 4
Pyrus calleryana	Bradford's pear	3
Quercus falcata	Red oak	2, 3
Quercus palustris	Pin oak	2, 3
Rhaphiolepsis indica	Indian hawthorn	2, 3, 4
Rhododendron spp.	Azaleas, Rhododendron	2b, 3, 6, 7
Rhododendron spp.	Glacier Azalea	2b, 3, 6, 7
Rosa spp.	Rose	2a, 2c, 3c, 4b
Rosmarinus spp.	Rosemary (prostrate)	2
Rudbeckia hirta	Black-eyed-susan	2
Salvia spp.	Sage	3, 4
Schlumbergera	Holiday cactus	2,7
Sedum spp.	Orpine, Stonecrop	2
Sempervivum spp.	Live-forever, House-Leek	2
Setaria spp.	Ribbon-grass	2, 3
Spathiphyllum floribundium	Peace lily	2, 7
Spirea budalda	Spirea	3
Spirea japonica	Spirea	3
Syagrus romanzoffianum	Queen palm	2
Tagetes spp.	Marigold	2a

BOTANICAL NAME	COMMON NAME	DISEASES
Taxus baccata	Spreading yew	7
Thuja plicata	Western Red Cedar	4
Thujopsis spp.	Arborvitae	2
Thymus serphyllum	Creeping thyme	2
Tsuga heterophylla	Western Hemlock	4
Tsuga spp.	Hemlock	4
Verbena spp.	Verbena, Vervain	3
Viburnum spp.	Viburnum	2, 3, 4
Vinca spp.	Periwinkle	2, 6a
Viola spp. 1	Viola, Pansy 1	2
Wiegela florida	Pink wiegela	2
Yucca spp.	Yucca	7
Zinnia spp.	Zinnia	2a, 3

<sup>&</sup>lt;sup>1</sup>Do not exceed 2 oz/100 gallons on these species.

**TABLE 3: Tolerant Plants Listed by Common Name:** 

COMMON NAME	BOTANICAL NAME
Abelia	Abelia spp.
Andromeda, Japanese	Pieris japonica
Arborvitae	Thujopsis spp.
Aspen Trees	Populus spp.
Aster	Aster spp.
Aucuba, Japanese	Aucuba japonica
Azalea, Glacier	Rhododendron spp.
Azaleas	Rhododendron spp.
Balsam	Impatiens spp.
Barberry	Berberis thunbergii
Begonia (except Rieger begonia)	Begonia spp.
Birch, River	Betula nigra
Black-Eyed-Susan	Rudbeckia hirta
Blanket-Flower	Gaillardia spp.
Bougainvillea	Bougainvillea spp.
Boxwood	Buxus sempervirens
Buddleia	Buddleia davidii
Bugle	Ajuga reptans
Bugleweed	Ajuga reptans
Burning Bush	Euonymus alatus
Butterfly Bush	Buddleia davidii

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COMMON NAME	BOTANICAL NAME
Cactus, Holiday	Schlumbergera
Caladium	Caladium spp.
Camellia	Camellia japonica
Carnation	Dianthus caryophyllus
Ceanothus	Ceanothus spp.
Cedar, Atlas	Cedrus atlantica
Cedar, Red	Juniperus virginiana
Cedar, Western Red	Thuja plicata
Cedar, White	Cedrus spp.
Cherry	Prunus pumila
Christmas Trees	See Fraser fir, Scotch pine and Douglas fir
Chrysanthemum	Chrysanthemum spp.
Cinquefoil	Potentilla spp.
Clethra	Clethra alnifolia
Coleus	Plectranthus spp.
Cotoneaster, Creeping	Cotoneaster adpressus
Cotoneaster, Variegated Rockspray	Cotoneaster horizontalis
Crabapple (See Table 4 for variety list)	Malus spp.
Cranesbill	Geranium spp.
Crapemyrtle	Lagerstroemia indica
Cyclamen	Cyclamen spp.
Cyperus	Cyperus spp.
Cypress, Sawara	Chamaecyparis pisifera
Cypress, Leyland	Chamaecyparis spp.
Daisy, Gerber	Gerbera jamesonii
Daisy, Transvaal	Gerbera jamesonii
Dogwood	Cornus spp.
Dogwood	Cornus florida
Dogwood, Pink	Cornus spp.
Dumb-Cane	Dieffenbachia spp.
Euonymus, Dwarf Winged	Euonymus alata
Euonymus, Evergreen	Euonymus japonicus
Evergreen, Chinese	Aglaonema spp.
Fatsia, Japanese	Fatsia japonica
Fig	Ficus spp.
Fir, Douglas	Pseudotsuga spp.
Fir, Fraser	Abies fraseri
Fir, Noble	Abies procera
Floss-Flower	Ageratum spp.
Forsythia	Forsythia viridissima
Foxglove	Digitalis spp.

COMMON NAME	BOTANICAL NAME	
Gardenia	Gardenia jasminoides	
Geranium	Pelargonium spp.	
Grass	Pennisetum alopecuroides	
Grass, Dwarf Pampas	Phalaris spp.	
Grass, Pampas	Cortaderia selloana	
Hawthorn, Indian	Rhaphiolepsis indica	
Heather	Erica dareyensis	
Hemlock	Tsuga spp.	
Hemlock, Western	Tsuga heterophylla	
Hibiscus	Hibiscus moscheutos	
Hibiscus	Hibiscus rosa-sinensis	
Holly	llex spp.	
Hosta	Hosta spp.	
House-Leek	Sempervivum spp.	
Hydrangea	Hydrangea spp.	
Hydrangea, French	Hydrangea macrophylla	
Impatiens1	Impatiens spp. 1	
Iris (Bulbous, Spanish, Dutch)	Iris xiphium	
Iris, African	Dietes iridiodes	
Iris, Butterfly	Dietes iridiodes	
Ivy, Algerian	Hedera algeriensis	
Ivy, English ·	Hedera helix	
Ivy, Swedish	Plectranthus spp.	
Juniper	Juniperus procumbens	
Juniper	Juniperus scopulorum	
Juniper	Juniperus spp.	
Larkspur	Delphinium spp.	
Laurel	Laurus nobilis	
Laurel, Australian	Pittosporum spp.	
Laurel, Japanese	Aucuba japonica	
Lilac, California	Ceanothus spp.	
Lilac, Wild	Ceanothus sanguineus	
Lily, Asiatic	Lilium spp.	
Lily, Peace	Spathiphyllum floribundium	
Lily-Turf	Liriope muscari	
Live-Forever	Sempervivum spp.	
Magnolia	Magnolia spp.	
Magnolia, Saucer	Magnolia soulangiana	
Magnolia, Southern	Magnolia grandiflora	
Maple, Japanese	Acer palmatum	
Maple, Sugar	Acer saccharum	

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COMMON NAME	BOTANICAL NAME	
Marigold	Tagetes spp.	
Mock-Orange	Pittosporum tobira	
Mugwort	Artemisia spp.	
Nandina	Nandina domestica	
Oak, Pin	Quercus palustris	
Oak, Red	Quercus falcata	
Oleander	Nerium oleander	
Orpine	Sedum spp.	
Palm, Date	Phoenix dactylifera	
Palm, Parlor	Chamaedora elegans	
Palm, Queen	Syagrus romanzoffianum	
Palm, Roebelin's	Phoenix roebelenii	
Palm, Sago	Caryota urens	
Pansy1	Viola spp. 1	
Paper-Plant	Fatsia japonica	
Pear, Bradford's	Pyrus calleryana	
Periwinkle	Vinca spp.	
Petunia	Petunia spp.	
Philodendron	Philodendron spp.	
Phlox	Phlox spp.	
Photinia, Red-Tip	Photinia glabra	
Pine	Pinus spp.	
Pine, Black	Pinus nigra	
Pine, Eastern White	Pinus strobus	
Pine, Muhgo	Pinus muhgo	
Pine, Scotch	Pinus sylvestris	
Pink	Dianthus spp.	
Plum, Flowering	Prunus spp.	
Plum, Purple-Leaf	Prunus spp.	
Poinsettia	Euphorbia spp.	
Poplar	Populus trichocarpa	
Pothos	Epipremnum spp.	
Primrose	Primula spp.	
Pussy's-Foot	Ageratum spp.	
Redbud, Western	Cercis occidentalis	
Rhododendron	Rhododendron spp.	
Ribbon-Grass	Setaria spp.	
Rose of Sharon	Hibiscus syriacus	
Rose	Rosa spp.	
Rose-Bay	Nerium oleander	
Rosemary (Prostrate)	Rosmarinus spp.	

COMMON NAME	BOTANICAL NAME	
Rubber-Plant, Baby	Peperomia spp.	
Rubber-Tree	Brassaia actinophylla	
Sage	Salvia spp.	
Sagebrush	Artemisia spp.	
Snap-Dragon	Antirrhinum spp.	
Snowball	Ceanothus spp.	
Spirea	Spirea budalda	
Spirea	Spirea japonica	
Spruce, Blue	Picea pungens	
Spruce, Norway	Picea abies	
Spruce, White	Picea glauca	
Starwort	Aster spp.	
Stonecrop	Sedum spp.	
Sweet Alyssum	Lobularia maritima	
Thyme, Creeping	Thymus serphyllum	
Umbrella-Tree	Brassaia actinophylla	
Verbena	Verbena spp.	
Vervain	Verbena spp.	
Viburnum	Viburnum spp.	
Vinca	Catharanthus roseus	
Viola	Viola spp.	
White alder	Clethora spp.	
Wiegela, Pink	Wiegela florida	
Willow, Virginia	Itea virginica	
Winterberry	Ilex spp.	
Wormwood	Artemisia spp.	
Yaupon	Ilex spp.	
Yew, Spreading	Taxus baccata	
Yucca	Yucca spp.	
Zebra-Plant	Aphelandra spp.	
Zinnia	Zinnia spp.	

<sup>&</sup>lt;sup>1</sup> Do not exceed 2 oz/100 gallons on these species.



TABLE 4
Tolerant Varieties of Crabapple Species (Genus *Malus*)
Tolerant Varieties of *Malus* 

Arkansas Black	Eleyi	Mary Potter	seiboldii
atrosanguinea	Enterprise	Molten Lava	Selkirk
baccata	Evereste	New Centennial	Sentinel
baccata var. jackii	Eyelynn	Ormiston Roy	Silver Moon
baccata var. mandshurica	floribunda	Pink Satin	Silverdrift
Callaway	Gloriosa	Prairie Maid	Sinai Fire
Candymint Sargent	Golden Delicious	Prairifire	spectablis
Christmas Holly	Golden Raindrops	Profusion	Sugar Tyme
coronaria	Нора	pumila	Van Eseltine
David	Indian Magic	Ralph Shay	White Angel
Dolgo	Island	Red Jade	Williams Pride
Donald Wyman	Katherine	Red Baron	Winter Gold
Dorothea	Lancelot	Sargent	Yellow Delicious
Doubloons	Louisa	sargentii	zumi Calocarpa

TABLE 5
Intolerant Plants
(Do not apply Heritage to these species or varieties)

COMMON NAME	BOTANICAL NAME
Apple	Malus domestica
Crabapple - Flame variety	Malus spp.
Crabapple - Brandywine variety	Malus spp.
Crabapple - Novamac variety	Malus spp.
Cherry, Flowering - Yoshina variety	Prunus yedoensis.
Leatherleaf Fern and Other Ferns for cut foliage	Rumohra adianformis and other species for cut foliage
Privet	Ligustrum spp.



### Conifers Including Christmas Trees, Commercial Production Roses

Heritage may be used to control certain diseases on conifers in production (indoor and outdoor) and landscape situations.

Please see the Ornamental Section above for more detailed directions for use in landscape situations.

For 4 oz pack size: See Heritage Rate conversion Chart below.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Conifers including Christmas Trees	Diplodia tip blight (Diplodia pinea)  Lophodermium needlecast (Lophodermium pinastri)  Swiss needlecast (Phaeocrytopus gaumannii)	3.2-8.0 (0.10- 0.25)	Integrated Pest (Disease) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance and removal of plant debris in which inoculum may overwinter.  Resistance Management: Do not apply more than four sequential applications of Heritage before alternating with a fungicide that is not in Group 11. Do not make more than eight applications of Heritage per acre per year.  Application Directions: Heritage applications should begin prior to disease development and continue throughout the season at 7-21 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.
Specific Use Restriction	ons: Do not apply more than	4.0 pounds p	roduct/acre/season (2.0 lb. ai/A).



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		Use Rate	
		ΟZ	
Crop	Target Diseases	product/A (lb ai/A)	Remarks
Roses (Commercial Rose Production)	Downy Mildew (Peronospora sparsa) Powdery Mildew (Spherotheca pannosa) Rust (Phragmidium mucronatum, P. tuberculatum, and other Phragmidium spp.) Septoria Leaf Spot (Septoria rosea) Alternaria Leaf Spot (Alternaria alternata)	1.6-8.0 (0.05- 0.25)	Integrated Pest (Disease ) Management: Heritage should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, winter and/or spring pruning, plant residue management and proper timing and placement of irrigation.  Resistance Management: Do not make more than four sequential application of Heritage before alternating with a fungicide that is not in Group 11. Do not make more than eight application per acre per year.  Application Directions: Heritage application should begin prior to disease devlepoment and continue throughout the season on 7-12 day intervals following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rated.  Plant Safety: Heritage has been shown to be safer when applied to roses. However, all varieties of roses have not been evaluated for safety. Small scale variety safety testing must be conducted to insure plant safety prior to large scale application. In addition, do not tankmix Heritage with other fungicides, insecticides, herbicides, fertilize, etc. unless local experience indicates that the tank mix is safe to roses.
Do not apply more that	4.0 lbs of product/acre/seasor	T (Z.U IDS al/A	).

# Heritage Rate Conversion Chart (For use with 4 oz package size only)

Oz. Product/A	Oz. Product/1000 sq ft	Treated Acres/4 oz. Product
1.0	0.025	4.0
1.5	0.035	2.7
2.0	0.05	2.0
2.5	0.06	1.6
3.0	0.07	1.3
3.5	0.08	1.1
4.0	0.09	1.0
4.5	0.1	0.9
5.0	0.11	0.8
5.5	0.13	0.72
6.0	0.14	0.67
6.5	0.15	0.62
7.0	0.16	0.57
7.5	0.17	0.52
8.0	0.18	0.5
8.7	0.2	0.46
13.1	0.3	0.31
17.4	0.4	0.23
26.1	0.6	0.15
30.5	0.7	. 0.13



#### INDOOR RESIDENTIAL MOLD SPRAY

A fungistatic agent that controls and/or inhibits the growth of many fungi, mold and mildew associated with indoor odor, staining, and discoloration. This product is not intended to protect users or others against food-borne or disease causing organisms. This product is not for use in food/feed handling areas.

#### **GENERAL INFORMATION**

Heritage inhibits the growth of fungi, molds and mildews that cause odor, staining and discoloration to carpet, structural wood: including exposed joists, or subflooring in basements, crawlspaces, attics and garages, as well as exposed drywall or particleboard in same or similar areas. It provides an invisible coating and barrier to inhibit the fungal organisms associated with mold and mildew that cause odor, staining and discoloration.

For use in homes and vehicles.

- Not for use by professional or commercial applicators.
- For use by residential applicators as a preventative treatment (no visible mold or mildew) up to 800 square feet, and for remediation of areas 10 square feet or less with visible mold and mildew.

#### **GENERAL USE PRECAUTIONS**

NOT for use in areas where food/feed items are present or may be present.

Keep children, pets, patients, residents and any bystanders out of the room or area during remediation and application. Keep children and pets off treated areas until spray has dried following application.

Apply as needed, but do not exceed 4 applications per year to the same surface or area.

#### **DIRECTIONS FOR USE**

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

Heritage is for preventative and remedial control/inhibition of fungi (molds, mildews) that cause odor, discoloration or staining. Before applying this product, visible mold growth must be removed and conditions favorable to mold growth must be identified and corrected.



#### **Water Damage Remediation**

If mold or mildew is visibly present, follow the Mold Remediation Methods section of this label before treating. If mold or mildew is visibly present in an area larger than 10 square feet, professional remediation is required. Do not use Heritage in situations where remediation and product application in those areas larger than 10 square feet is required. Remediation and product application of areas larger than 10 square feet requires professional or commercial applicators.

## **Directions for Use as a Preventative Treatment: Spraying and Mixing**

Prior to application, thoroughly clean surfaces to remove loose existing dirt. Follow specific directions for surfaces listed on this label.

Prepare a solution by adding the required amount of Heritage to ½ the final volume of water in the spray container, mix thoroughly, and add the remaining ½ volume or water to the container. Prepare no more mixture than is necessary for the immediate use.

To prepare a 0.1% spray solution, add 0.3 tablespoon or 0.9 teaspoon per gallon of water, or 2.6 fl oz of product per 10 gallons of water and mix thoroughly. Apply 1 gallon of solution per 250 to 800 square feet of application surface. See detailed instructions for each surface type. Volumes of water should be adjusted to deliver the proper amount of water for treatment of the surfaces listed below without excessive wetting or soaking. Conduct trial application with water alone to determine appropriate volume. During application, do not allow excessive soaking, saturation, dripping or run-off to occur. Evenly apply to the surfaces listed below.

Apply as needed for prevention of fungi, molds and mildews than cause odors, discoloration or staining, every 3 months as needed but not to exceed 4 applications per year to the same surface or area.

If the application is made in a large volume of water in enclosed spaces, that area should be dried as soon as possible to prevent conditions favorable to mold growth. To assist the drying process after cleaning, and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.



#### SPECIFIC DIRECTIONS FOR VARIOUS SURFACES

#### CARPET

Spot test an inconspicuous area of carpet with the prepared spray solution to insure dyes will not bleed or that staining will not occur.

Vacuum carpets thoroughly and discard vacuum cleaner bag in an outdoor trash container prior to spray treatment.

- **Broadcast treatment** using commercial carpet-cleaning equipment (e.g., carpet steamers, rotary jet extraction cleaners, pressure sprayers):
  - Mix in tank as described above. Evenly apply the prepared 0.1% solution over the carpet using 1 gallon of solution per 250 to 800 square feet. Conduct trial application with water alone to determine appropriate volume described in the Spraying and Mixing Section. Apply sufficient amount to dampen carpet. Do not soak, or allow dripping or run-off to occur. Any drips or run-off should be blotted dry with a disposable cloth or sponge. Allow carpet to dry before re-entry.
  - o Dry carpets within 24 hours to prevent conditions favorable to mold growth. To assist the drying process after cleaning and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.

#### Spot treatment:

- Use a pump sprayer with wand. Hold the end of the wand 4-6 inches from the surface, using smooth back and forth motions to cover the entire target area to ensure complete coverage, dampen but do not soak surface. Any drips or run-off should be blotted dry with a disposable cloth or sponge. Allow areas to dry before re-entry.
- O Dry carpets within 24 hours to prevent conditions favorable to mold growth. To assist the drying process after cleaning and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.



#### WOOD AND DRYWALL:

Apply to exposed and/or structural wood surfaces and drywall to prevent and control mold and mildew. Examples include exposed joists or subflooring in basements, crawlspaces, attics and garages, as well as exposed drywall or particleboard in same or similar areas. Heavily soiled areas must be precleaned prior to application. NOT for use in areas where food/feed items are present. Use a pump sprayer with wand. Hold the end of the wand 4-6 inches from the surface, using smooth back and forth motions to cover the entire target area to ensure complete coverage, dampen but do not soak surface. If soaking or drips do occur, blot dry with a disposable cloth or sponge. Allow areas to dry before re-entry.

Dry wood and drywall within 24 hours to prevent conditions favorable to mold growth. To assist the drying process after cleaning, and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.

#### HARD, Non-porous surfaces:

This product is not for use in food/feed handling areas.

This product inhibits the growth of molds and mildews that cause odor, staining and discoloration on hard non-porous surfaces in areas such as bathrooms/restrooms, garbage storage areas, basements, and other areas prone to mold and mildew. Use Heritage in a pump sprayer as a spot treatment to treat the following surfaces: floors, walls, painted surfaces, metal surfaces, stainless steel surfaces, glazed ceramic tile, glazed porcelain, bathtubs and shower stalls made of fiberglass, plastic surfaces, vinyl surfaces; as well as Formica, granite, marble, or other polished stone surfaces. Spot test on an inconspicuous area before use. Remove visible dirt or soil prior to application. Use a pump sprayer with wand. Hold the end of the wand 4-6 inches from the surface, using smooth back and forth motions to cover the entire target area to ensure complete coverage, dampen but do not saturate surface. If drips do occur, dry with a disposable cloth, sponge or mop. Allow areas to dry before re-entry. Do not use in areas where food is prepared or stored.

#### **MOLD REMEDIATION METHODS:**

Strategies to respond to water damage within 24-48 hours are a key part of avoiding visible mold contamination due to water incursion. Use professional judgment, consult with local experts and/or refer to EPA guidance documents such as ("Mold Remediation in Schools and Commercial Buildings", www.epa.gov/mold/moldresources.html for more information on how to cleanup after water damage.



Use this product in remediation situations according to the cleanup instructions that follow for the surface affected. After remediation is complete follow the directions for use. Remediation of moldy carpet is not recommended, moldy carpet and padding should be removed and discarded. Before applying this product visible mold growth must be removed and conditions favorable to mold growth must be identified and corrected.

Remediation is required in situations where visible mold growth has occurred or materials have been wet for more than 48 hours. If there is doubt, consult a professional. Even if materials are dried within 48 hours, mold growth may have occurred. Note that mold growth will not always occur after 48 hours; this is only a guideline. Always discard porous items that cannot be cleaned. Heritage is not for use in situations where materials have been wet for more than 7-days and/or visible mold growth cannot be cleaned from the surfaces. Use professional judgment, consult with local experts and/or refer to EPA guidance documents such as ("Mold Remediation in Schools and Commercial Buildings", www.epa.gov/mold/moldresources.html for more information on remediating building materials with mold growth.

Small Areas – Total Surface affected is Less than 10 Square Feet Remediation of areas larger than 10 square feet requires remediation and product application by professional or commercial applicators.

### WOOD AND OTHER LISTED HARD, NON-POROUS SURFACES Cleanup Methods\*

Prior to applying Heritage, clean the affected area using one of the following or another preferred professional method appropriate to this type of cleanup.

- Method 1: Wet vacuum (in the case of porous materials, some mold spores/fragments will remain in the material but will not grow if the material is completely dried).
- Method 2: Damp-wipe surfaces with plain water or use a wood floor cleaner; scrub as needed.
- Method 3: High-efficiency particulate air (HEPA) vacuum after the material has been thoroughly dried. Dispose of the contents of the HEPA vacuum in a wellsealed plastic bag(s).

Minimum personal protective equipment to be worn during clean-up of areas with visible mold or mildew, 10 square feet or less, includes gloves, N-95 respirator and goggles/eye protection.

### WALLBOARD (DRYWALL AND GYPSUM BOARD) Cleanup Methods\*

Prior to applying Heritage, clean affected area using a HEPA vacuum after the material

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has been thoroughly dried. Dispose of the contents of the HEPA vacuum in a well-sealed plastic bag(s).

Minimum personal protective equipment to be worn during clean-up of areas with visible mold or mildew, 10 square feet or less, includes glove, N-95 respirator and goggles/eye protection.

#### Directions for Use in Remediation

#### **Spraying And Mixing**

Prior to application, thoroughly clean surfaces to remove loose existing dirt. Follow specific directions for surfaces listed on this label.

Prepare a solution by adding the required amount of Heritage to  $\frac{1}{2}$  the final volume of water in the spray container, mix thoroughly, and add the remaining  $\frac{1}{2}$  volume or water to the container. Prepare no more mixture than is necessary for the immediate use.

To prepare a 0.1% spray solution, add 0.3 tablespoon or 0.9 teaspoon per gallon of water, or 2.6 fl oz of product per 10 gallons of water and mix thoroughly. Apply 1 gallon of solution per 250 to 800 square feet of application surface. See detailed instructions for each surface type. Volumes of water should be adjusted to deliver the proper amount of water for treatment of the surfaces listed below without excessive wetting or soaking. Conduct trial application with water alone to determine appropriate volume. During application, do not allow excessive soaking, saturation, dripping or run-off to occur. Evenly apply to the surfaces listed below.

Apply as needed for remediation of molds and mildews than cause odors, discoloration or staining, but do not exceed 4 applications per year to the same surface or area.

If the application is made in a large volume of water in enclosed spaces, that area should be dried as soon as possible to prevent conditions favorable to mold growth. To assist the drying process after remediation and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.



#### SPECIFIC DIRECTIONS FOR VARIOUS SURFACES

#### CARPET

Remediation of moldy carpet is not recommended, moldy carpet and padding should be removed and discarded.

#### WOOD AND DRYWALL:

Apply to exposed and/or structural wood surfaces and drywall to prevent and control mold and mildew. Examples include exposed joists or subflooring in basements, crawlspaces, attics and garages, as well as exposed drywall or particle board in same or similar areas. Heavily soiled areas must be precleaned prior to application. NOT for use in areas where food/feed items are present. Use a pump sprayer with wand. Hold the end of the wand 4-6 inches from the surface, using smooth back and forth motions to cover the entire target area to ensure complete coverage, dampen but do not soak surface. If soaking or drips do occur, blot dry with a disposable cloth or sponge. Allow areas to dry before re-entry.

Dry wood and drywall within 24 hours to prevent conditions favorable to mold growth. To assist the drying process after remediation and application of this product use of fans, dehumidifiers, heaters or other methods of ventilation should be used. Please consult with your local county extension office or EPA, www.epa.gov/mold/moldresources.html for more information.

#### HARD, NON-POROUS SURFACES:

This product is not for use in food/feed handling areas.

This product inhibits the growth of molds and mildews that cause odor, staining and discoloration on hard non-porous surfaces in areas such as bathrooms/restrooms, garbage storage areas, basements, and other areas prone to mold and mildew. Use Heritage in a pump sprayer as a spot treatment to treat the following surfaces: floors, walls, painted surfaces, metal surfaces, stainless steel surfaces, glazed ceramic tile, glazed porcelain, bathtubs and shower stalls made of fiberglass, plastic surfaces, vinyl surfaces; as well as Formica, granite, marble, or other polished stone surfaces. Spot test on an inconspicuous area before use. Remove visible dirt or soil prior to application. Use a pump sprayer with wand. Hold the end of the wand 4-6 inches from the surface, using smooth back and forth motions to cover the entire target area to ensure complete coverage, dampen but do not saturate surface. If drips do occur, dry with a disposable cloth, sponge or mop. Allow areas to dry before re-entry. Do not use in areas where food is prepared or stored.



#### \*Special Procedures:

In the absence of access to the guidance and standard identified, the user should refer to the following information taken from the U.S. EPA's guide: "Mold Remediation in Schools and Commercial Buildings (March 2001)". These guidelines are designed to protect the health of occupants and cleanup personnel during remediation. These guidelines are based on the area and type of material affected by water damage and/or mold growth. Please note that these are guidelines; some professionals may prefer other cleaning methods. Use the appropriate remediation steps prior to application of Heritage. Remediation of areas with visible mold and mildew larger than 10 square feet requires product application by professional or commercial applicators.

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