# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

APR 9 2003

Michele A. Schulz Syngenta Crop Protection, Inc. P.O. Box 18300 Greensboro, North Carolina 27419-8300

Subject: Heritage® Flowable Fungicide

EPA Registration Number 100-1093

Your amended labeling submitted by e-mail on March 24, 2003, further amended by the replacement page submit-

submitted by e-mail on April 7, 2003

Dear Ms. Schulz,

We have reviewed the subject amended labeling, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended. The amended labeling is acceptable because you have agreed to the following conditions for registration in accordance with FIFRA section 3(c)(7)(B).

- 1. You will submit, by no later than two (2) years after the date of this letter, the following studies in support of the tolerance for azoxystrobin in/on Berries, Caneberry Subgroup: 1) one additional field trial of the Caneberry Subgroup in Region 1 or 2 and 2) one additional field trial of the Caneberry Subgroup in Region 5 or 6.
- 2. You will make the following changes to the label:
- a. In the second paragraph in the "RESISTANCE MANAGEMENT" section on page 8, in the sentence that begins "Consult your local or state..." change "resistant" to "resistance".
- b. On page 13 in the footnote, at the and of the page, to the table the "and" in the string of row spacing/row feet items should be moved to between the last two items.
- c. In the "Canola" subsection on page 20 in the "DIRECTIONS FOR USE" section, in the last of the "Specific Use Restrictions:" remove one of the occurrences of "more than".

- d. In the "Cranberry" subsection on page 25, in the "Remarks" column is an occurrence of "ABOUND". Change this to "HERITAGE" or a similar name for the subject product.
- e. In the "Cranberry" subsection on page 25, in the "Use Rate" column the high use rate of product is 4.8 ounces of product per acre while the high use rate of active ingredient is 0.25 pounds per acre. These are not equivalent. Either change the high use rate of product to 8.0 ounces per acre or else change the high use rate of active ingredient to 0.15 pounds per acre.
- f. In the "Tree Nuts" subsection on page 42, in the "Crop" column after "Almonds" is a parenthetical statement. In this statement correct the spelling of "instructrions".
- g. On page 57 in the "DISEASE (Pathogen)" column of the table at the top of the page, item 5.a. must have the spelling of "Collectotrichum" corrected.
- 3. You will submit one copy of your final printed label before you release product bearing this amended labeling for shipment.

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

Sincerely yours,

Dennis McNeilly

Acting Product Manager (22)

Fungicide Branch

Registration Division (7505C)

Attachment: Label stamped "ACCEPTED with COMMENTS"

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#### **HERITAGE®**

**Fungicide** 

Broad spectrum fungicide for control of plant diseases.

Active Ingredient

Azoxystrobin: methyl (<u>E</u>)-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.

Product of the United Kingdom

SCP 100-XXX

Net Weight/U.S. Standard Measure

ACCEPTED with COMMENTS In EPA Letter Dated:

APR 9 2003

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

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	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 doctor, or going to	t container or label with you when calling a poison control center or for treatment.
	HOT LINE NUMBER
	Hour Medical Emergency Assistance (Human or Animal) or
Chen	nical 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

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# **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

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

#### **Environmental Hazards**

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

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# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF 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.

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# **DIRECTIONS FOR USE**

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

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# **AGRICULTURAL USES**

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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 white including the control of the
- Shoes plus socks

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# **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.

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# **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. Crops in this label may be planted immediately after last treatment. Do not plant other crops within 45 days after last application.

#### 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.

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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.

# INTEGRATED PEST (DISEASE) MANAGEMENT

HERITAGE should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. The SPECIFIC USE DIRECTIONS section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural, 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

A disease management program that includes alternation or tankmixes between HERITAGE and other labeled fungicides that have a different mode of action is essential to prevent pathogen populations from developing resistance to HERITAGE. HERITAGE should not be alternated or tankmixed with fungicides to which resistance has already developed.

Since pathogens differ in their potential to develop resistance to fungicides, the SPECIFIC USE DIRECTIONS section in this label provides resistance management strategies specific for each crop and disease. Consult your local or state agricultural, turf and ornamental authorities for resistant management strategies that are complementary to those in this label. HERITAGE is not cross resistant with other classes of fungicides which have different modes of action.

#### 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.

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For ground applications, apply HERITAGE in sufficient water volume for adequate coverage and canopy penetration. For aerial applications to non-orchard crops, apply HERITAGE in a minimum of three gallons of water per acre. For aerial applications in orchard crops, apply HERITAGE in a minimum of ten gallons of water per acre. 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 tankmixes 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. If tankmixes 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.

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.

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# 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 Fungicide 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 Fungicide 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 Fungicide 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.

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**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.

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.

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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."
- "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."

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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 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 5-15 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 1000 ROW FEET		OW PRODUCT PER ACRE (oz)						
oz product	oz ai	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, and 30" = 17,424 row ft, 22" = 23,760 row ft/Acre

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# **Directions for Use**

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Almonds	Altemaria leaf and fruit spot (Altemaria 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)	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: Do not apply more than two sequential applications of HERITAGE or other strobilurins before alternation with a fungicide that has a different mode of action. Do not make more than six (6) applications of HERITAGE or other strobilurin fungicides per acre per year.  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. 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 to improve coverage.  For anthracnose, scab and shothole begin applications prior to disease development and continue at 7-14 day intervals throughout the season.
	Brown Rot Blossom Blight (Monilinia laxa, M. fructicola)	6.4 - 8.0 (0.20-0.25)	For blossom blight begin applications at early bloom and continue through petal fall. Do not make more than six (6) applications of HERITAGE or other strobilurin fungicides per acre per year.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Bananas Plantains	Black Sigatoka (Mycosphaerella fijiensis) Yellow Sigatoka (Mycosphaerella musicola)	2.9-4.3 (0.09-0.135)	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: Do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than eight applications of HERITAGE or other strobilurin fungicide per acre per year.  Application Directions: HERITAGE applications should begin prior to disease development and continue throughout the season every 12-14 days following the
			resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.
Specific Use Restrictions: Do not app	Post Harvest Applications: Crown Rot/Crown Mold (Colletotrichum musae, Fusarium pallidoroseum, (Acremonium spp., Ceratocystis paradoxa, Glomerella cingulata, Penicillium spp.)	200-400 ppm solution	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 (0.1%v/v) may improve the compatibility of this mixture.

(Alternaria spp.) Leaf Rust (Puccinia hordei)  Net Blotch (Pyrenophora teres) Barley Stripe (Pyrenophora graminea)  Powdery Mildew (Erysiphe graminis f. sp. hordei) Stagonospora blotch (Stagonospora nodorum)  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 apply within 14 days of harvest for forage.  (O.15-0.2)  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.  Resistance Management: Do not make more than two applications of HERITAGE or other strobilurin fungicide per acre per year.  Application Directions: HERITAGE should be applied prior to disease development from jointing (Feekes 6 or Zadok's 31) up to late head eme (Feekes 10.5 or Zadok's 59). Applications may be made by ground, air of chemigation. A crop oil concentrate adjuvant may be added at 1.0% V/violation 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 apply within 14 days of harvest for forage.  Do not apply within 14 days of harvest for grain and straw.	Crop	Target Diseases	Use Rate oz product/A (lb al/A)	Remarks
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 within 14 days of harvest for hay. Do not apply within 45 days of harvest for grain and straw.	Barley	(Alternaria spp.) Leaf Rust (Puccinia hordei) Net Blotch (Pyrenophora teres) Barley Stripe (Pyrenophora graminea) Powdery Mildew (Erysiphe graminis f. sp. hordei) Stagonospora blotch	(0.1-0.2) 4.8-6.4 (0.15-0.2)	management, and crop rotation.  Resistance Management: Do not make more than two applications of HERITAGE or other strobilurin fungicide per acre per year.  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
Do not apply more than 0.8 pounds product/acre/season (0.4 lb ai/A).	Do not apply later than Feekes gro Do not harvest treated barley for fo Do not apply within 14 days of han Do not apply within 45 days of han	wth stage 10.5 (Zadok's growth stage orage. vest for hay. vest for grain and straw.		

Berries,	Botryosphaeria canker	3.2-8.0	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 inoculum
Blueberry	(Sphaerotheca spp)		overwinters.
Currant	Septoria blight	I	
Elderberry	(Septoria spp)		Resistance Management: Do not apply more than two sequential applications of
Gooseberry	Mummyberry		HERITAGE before alternating with a fungicide that has a different mode of action.
Huckleberry	(Vaccinium spp.)	1	Do not make more than three (3) applications of HERITAGE or other strobilurin
Including all cultivars and/or hybrids	Alternaria Fruit Rot		fungicide per acre per crop year.
of these	(Alternaria spp.)		
·	Phomopsis stem canker		Application Directions: HERITAGE applications should begin prior to disease
Lingonberry	(Phomopsis vaccinii)		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 1.5 pounds (0.75 lb active ingredient) per acre per season. May be applied the day of harvest.

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Сгор	Target Diseases	Use Rate oz product/A (lb al/A)	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)	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: Do not apply more than two sequential applications of HERITAGE or other strobilurins before alternating to a fungicide that has a different mode of action. Do not make more than 6 applications of HERITAGE or other strobilurin fungicide per season  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 gal by air.

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	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 (Cercospora spp)	3.2-8.0 (0.1-0.25)	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: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than three foliar applications of HERITAGE or other strobilurin fungicide per acre per crop year.  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)	0.2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under "GENERAL INFORMATION" section.

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Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Bulb Vegetables  Garlic Leek Onion, bulb Onion, green Welch onion Shallot	Foliar Diseases Purple blotch (Alternaria porri) Rust (Puccinia allii) White rot (Sclerotium cepivorum)	3.2-6.4 (0.1-0.20)	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: Do not apply more than three sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.
	Downy mildew (Peronospora destructor)  Botrytis leaf blight (Botrytis aclada)	4.8-8.0 (0.15-0.25)	Application Directions: For downy mildew control, do not make more than on application of HERITAGE before alternating with fungicides that have a different mode of action. 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 to improve coverage.  Mixtures of HERITAGE with insecticides and silicone adjuvants should be tested.
·	Soilborne Diseases Rhizoctonia damping-off (Rhizoctonia solani)	0.2-0.4 oz/1000 row feet	for crop safety before application to the crop.  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 chemica is under the seed. This will reduce the potential for phytotoxicity, especially if fertilizer is added to the application.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Canola	Blackleg (Leptosphaeria maculans)  Alternaria Blackspot (Alternaria spp)  Sclerotinia stem rot (Sclerotinia sclerotiorum)	3.2-8.0 (0.1-0.25)	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 Do not make more than three applications of HERITAGE or other strobilurin fungicide per acre per year.  Application Directions: 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
Do not make more than	s: Do not make applications later than 95% peta three applications more than 15 oz product per year or 0.45 lb ai/A Early blight (Cercospora carotae)		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.
			I management, crop rotation and proper timing and placement or imgation.
	(Alternaria dauci)  White mold (Sclerotium rolfsii)  For additional diseases, see Root Vegetables		Resistance Management: Do not apply more than three sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: HERITAGE applications should begin prior to disease development and continue throughout the season every 7-14 days following the

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Celery	Early blight (Cercospora apii)  Late blight (Septoria apicola)  For additional diseases, see Leafy Vegetables	4.8-8.0 (0.15-0.25)	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, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Do not apply more than three sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  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
Specific Use Restrictions: Do r May be applied the day of harv	Soilborne Diseases Rhizoctonia root rot (Rhizoctonia solani) not apply more than 3.0 pounds of product	0.2-0.4 oz /1000 row feet /crop/acre/season (1	chemigation. An adjuvant may be added at recommended rates to improve coverage.  For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
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 has a different mode of action. 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 to improve coverage.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Cilantro	See Leafy Vegetables - Coriande	r, leaves	
Citrus Fruit  Calamondin Citron Citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma mandarin Tangerine Including all cultivars and/or hybrids of these  Specific Use Restrictions: Do not use	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)	6.4-8.0 (0.2-0.25)	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: Do not apply more than three sequential applications of HERITAGE before alternation with a fungicide that has a different mode of action. Do not make more than six applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve coverage.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Corn Field	Rust (Puccinia sorghi)	3.2-4.8 (0.10-0.15)	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
Sweet, Pop (Includes Seed Production)	Anthracnose leaf blight (Colletotrichum graminicola) Gray leaf spot (Cercospora sorghi) Northern corn leaf blight (Setosphaeria turcica) Northern corn leaf spot (Cochiliobolus carbonum) Southern corn leaf blight (Cochliobolus heterostrophus) Eye spot (Aureobasidium zeae)	4.8-8.0 (0.15-0.25)	Resistance Management: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than eight foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: For gray leaf spot, apply HERITAGE at the onset of disease. A second application may be required 14 days later if disease pressure persists. For all other diseases, HERITAGE applications should begin prior to disease development and may 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 to
	Soilborne Diseases Rhizoctonia root and stalk rot (Rhizoctonia solani)	0.2-0.4 oz /1000 row feet	improve coverage.  For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

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Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Cotton	Rhizoctonia seedling blight (Rhizoctonia solani) Pythium seedling blight (Pythium aphanidermatum)	Banded 0.2-0.4 oz product per 1000 row feet (0.1-0.2 oz ai per 1000 row feet)	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.  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 (0.1-0.2 oz ai)/1000 row feet.
		In-furrow 0.2-0.4 oz product per 1000 row feet (0.1-0.2 oz ai per 1000 row feet)	For in-furrow applications, apply HERITAGE as an in-furrow spray in 5-15 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 See GENERAL INFORMATION section for table illustrating total fluid ounces per acre with various row spacings

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Cranberry	Cottonball (Monilia oxycocci)	3.2-4.8 (0.1-0.25)	Integrated Pest (Disease) Management: HERITAGE should be integrated into an overall disease management strategy that includes selection of varieties with
	Lophodermium twig blight (Lophodermium spp.)	(0.1-0.20)	disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper water management.
	Fruit rots (Physalospora vaccinii) (Glomerella cingulata) (Coleophoma empetri)		Resistance Management: Do not apply more than two sequential applications of HERITAGE or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) applications of ABOUND or other strobilurin fungicides per crop per acre per year.
	av be applied up to three days prior to han		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 3 pounds product (1.5 ib ai) per acre per season.

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.

Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Cucurbits  Cantaloupe Chayote Chinese-waxgourd Cucumber Gourds Honeydew Melons Memordica spp. (bitter melon, balsam apple) Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these	Anthracnose (Colletotrichum lagenarium)  Belly Rot (Rhizoctonia solani)  Downy Mildew (Pseudoperonospora cubensis)  Gummy Stem Blight (Didymella bryoniae)  Leaf spots (Alternaria spp, Cercospora spp.)  Myrothecium canker (Myrothecium roridum)  Powdery Mildew (Sphaerotheca fuliginea, Erysiphe cichoracearum)	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, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: For both downy and powdery mildew control, do not make more than one application of HERITAGE before alternating with fungicides that have a different mode of action. Make 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 to improve coverage.  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®.
	Soilborne diseases Rhizoctonia root rot (Rhizoctonia solani)	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 (lb ai/A)	Remarks
Grapes Including Muscadines	Downy Mildew (Plasmopara viticola)  Phomopsis Cane and Leaf Spot (Phomopsis viticola)  Powdery Mildew (Uncinula necator)  Black Rot (Guignardia bidwellii)  Suppression: Botrytis bunch rot (Botrytis cinerea)	5.1-8.0 (0.16-0.25)	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: Do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action Do not make more than six (6) applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve coverage.  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 (lb ai/A)	Remarks
Grasses	Rust	3.2-8.0	Integrated Pest (Disease) Management: HERITAGE should be integrated into
(grown for seed)	(Puccinia spp)	(0.1-0.25)	an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation, crop rotation, and fertility.
	Powdery mildew		
	(Erysiphe graminis)		Resistance Management: Do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action.
	Ergot Stem Diseases		Do not make more than two (2) applications of HERITAGE or other strobilurin fungicide per acre per year.
		·	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 pound (0.50 lb active ingredient) per acre per season. Do not feed treated straw, seed, or screenings to livestock.

May be applied up to 8 days prior to harvest (swathing).

Стор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Leafy Vegetables (except brassica)  Amaranth Arugula Cardoon Celery Celtuce Chervil Chrysanthemum edible; Coriander, leaves (Cilantro) Corn salad	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)	3.2-8.0 (0.1-0.25)	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, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: Do not apply more than three sequential foliar applications of HERITAGE (following application directions) before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: Make preventative applications on a 5-7 day schedule.
Cress Dandelion Dock Endive Fennel Lettuce, head and leaf	Downy mildew (Bremia lactucae) Powdery mildew (Eyrisiphe cichoracearum)	6.4-8.0 (0.2-0.25)	For all 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 to improve coverage.
Orach Parsley Purslane Radicchio Rhubarb Spinach Swiss Chard			ATTENTION: Applications of HERITAGE to leafy vegetable foliage have contributed to foliar phytotoxicity under certain circumstances. Proceed with caution with regard to tankmixes and adjuvants when treating leafy vegetable with HERITAGE. HERITAGE must not be tank mixed on leaf lettuce with AMBUSH WP, Pounce WP, Aliette, Warrior T, or an other product that may increase the penetration of HERITAGE into the leaf surface, such as, but not limited to silicone wetters.
Including cultivars and/or hybrids of these	Soilborne Diseases Webb blight, Bottom rot, Crater rot, Root rot (Rhizoctonia solani)	0.2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

( <u>-</u> )		Use Rate	
Crop	Target Diseases	(lb ai/A)	Remarks
Legume Vegetables, dry and	Bean rust	3.2 (0.10)	Integrated Pest (Disease) Management: HERITAGE should be integrated into
succulent (except field pea, cow	(Uromyces appendiculatus)		an overall disease management strategy that includes selection of varieties with
pea, and soybean):	Anthracnose	3.2-8.0	disease tolerance, proper timing and placement of irrigation, crop rotation and
Bean (Lupinus spp.) (includes	(Colletotrichum	(0.10-0.25)	crop residue management.
grain lupin, sweet lupin, white lupin,	lindemuthianum)		
and white sweet lupin),	Alternaria leaf spot		Resistance Management: Do not apply more than three sequential foliar
Bean ( <i>Phaseolus spp.</i> ) (includes	(Alternaria alternata)		applications of HERITAGE or other strobilurin before alternating with a fungicide
field bean, kidney bean, lima bean,	Ascochyta leaf spot		that has a different mode of action. Do not make more than six foliar applications
navy bean, pinto bean, runner bean,	(Ascochyta phaseolorum)		of HERITAGE or other strobilurin fungicides per acre per year.
snap bean, tepary bean, wax bean),	Rust		
Bean ( <i>Vigna spp.</i> ) (includes adzuki	(Phakopsora spp.)		Application Directions: HERITAGE applications should begin prior to disease
bean, asparagus bean, blackeyed	Southern blight		development and continue throughout the season every 7-14 days following the
pea, catjang, Chinese longbean,	(Sclerotium rolfsii)	<u> </u>	resistance management guidelines. Use the higher rates under severe disease
Crowder pea, moth bean, mung	Web blight		pressure. Applications may be made by ground, air or chemigation. An adjuvant
bean, rice bean, southern pea, urd	(Rhizoctonia solani)		may be added at recommended rates to improve coverage. For rust, use of a
bean, yardlong bean),	,		non-ionic surfactant for the lower use rate is recommended.
Broad bean (fava bean) (Vicia faba),	Ascochyta blight	ļ	
Chickpea (garbanzo bean)	(Mycosphaerella pinodes)		
(Cicer arietinum),	Ascochyta leaf and pod spot		
Guar (Cyamopsis tetragonoloba)	(Ascochyta spp)	1	
Jackbean (Canavalia ensiformis)	Alternaria blight		
Lablab bean (hyacinth bean) (Lablab	(Alternaria spp)		
purpureus),	Soilborne diseases	0.2-0.4 oz/1000	For soilborne/seedling disease control, see directions and rates under GENERAL
Lentil (Lens esculenta)	Rhizoctonia root rot	row feet	INFORMATION section.
Pea (Pisum spp.) (includes dwarf	(Rhizoctonia solani)	10111001	THE STREET TOTAL COUNTY
pea, edible-pod pea, English pea,	(rangodorna adiam)		
garden pea, green pea, snow pea,			
sugar snap pea).			
Pigeon pea ( <i>Cajanus cajan</i> ),			
Sword bean (Canavalia gladiata)		1	·
Specific Use Restrictions: Do not app	ly more than 3 pounds product/acre/	season (1.5 lb ai/Ai	<u></u>
May be applied the day of harvest.	y more area o positios productoror	Codoon ( 1.0 ib diff.	$t^{\prime}$

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Mint (Fresh or for processing into mint oil)	Rust (Puccinia menthae)  Powdery mildew (Erysiphe spp)	3.2-8.0 (0.1-0.25)	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: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than three foliar applications of HERITAGE or other strobilurin fungicide per acre per crop year.  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.
Caraifia Llea Destrictiones Desertan	Soilborne Diseases Seedling root rot, basal stem rot (Rhizoctonia solani)	0.2-0.4 oz /1000 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 pounds (0.75 lb active ingredient) per acre per season. For fresh mint may be applied the day of harvest. For processed mint do not apply within 7 days prior to harvest.

	Сгор	Target Diseases	Use Rate oz product/A (ib ai/A)	Remarks
F	Peanuts	Early Leaf spot (Cercospora arachidicola)  Late Leaf spot	3.2-12.8 (0.10-0.40)	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.
		(Cercosporidium personatum) Pythium Pod Rot (Pythium myriotylum)		Resistance Management: Do not make more than two foliar applications of HERITAGE or other strobilurin fungicide per acre per year.
		Rust (Puccinia arachidis)		Application Directions: 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 of HERITAGE will provide season-long
	,	Web blotch ( <i>Phoma arachidicola</i> )		protection against the soil borne diseases labeled and will also provide control of early and late leaf spot for a 10-14 day period after each spray. For control of Pythium, a rate of 12.8 oz is generally required. Additional applications of other labeled 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
		Soilborne Diseases (in-furrow applications) Rhizoctonia Peg and Pod Rot (Rhizoctonia solani) Stem Rot/White Mold (Sclerotium rolfsii)	0.2-0.4 oz /1000 row feet	to improve coverage.  For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
	Specific Use Restrictions: Do not app Do not apply within 14 days of harves	Stem Rot/White Mold (Sclerotium rolfsii) bly more than 1.6 pounds product/acr	e/season (0.8 lbs a	i/acre/season).

Сгор	Target Diseases	Use Rate oz product/A (lb al/A)	Remarks
Pecans	Anthracnose (Glomerella cingulata) Scab (Cladosporium caryigenum)	3.2-6.4 (0.10-0.20)	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: Do not apply more than four sequential foliar applications of HERITAGE before alternation with a fungicide that has a different mode of action. Do not make more than six applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve
Specific Use Restrictions	Do not apply more than 2.4 pounds production	rolengen /1 2 lb si/	coverage.
Specific Use Restrictions Do not apply within 45 da	Do not apply more than 2.4 pounds product/ac ys of harvest.	re/season (1.2 lb ai/.	
		3.2-8.0 (0.1-0.25)	

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Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Pistachios	Alternaria Late Blight (Alternaria alternata)  Botryosphaeria panicle and shoot blight (Botryosphaeria dothidea)  Septoria leaf spot (Septoria pistaciarum)	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 overwinters.  Resistance Management: Do not apply more than four sequential applications of HERITAGE before alternation with a fungicide that has a different mode of action. Do not make more than six applications of HERITAGE or other strobilurin fungicide per acre per year.  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.

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Сгор	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Potatoes	Early Blight (Alternaria solani)  Late Blight (Phytophthora infestans)  Black dot (Colletotrichum coccodes)  Powdery mildew	3.2-9.6 (0.1-0.33)	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: Do not make more than one application of HERITAGE before alternation with fungicides that have a different mode of action, such as BRAVO. Make applications on a 5-7 day schedule. Do not alternate or tank-mix with fungicides to which resistance has developed. Do not make more than six foliar applications per year.
	(Erysiphe cichoracearum)		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 3.2 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 increase the HERITAGE rate to 6.0 to 8.0 oz product/A and use a 5-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. Addition of a spreader/sticker may improve coverage. Do not make more than six applications of HERITAGE per acre per year for all diseases.
	Soilborne Diseases  Black scurf (Rhizoctonia solani)  Silver scurf (Helminthosporium solani)	2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Specific Use Restrictions: Do not to	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 Kemel Smut (Neovossia barclayana) Panicle Blast (Pyricularia grisea)	3.2-9.6 (0.10 - 0.30) 4.8-9.6 (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, optimum plant populations, proper fertilization, plant residue management, crop rotation, and sound water management practices.  Resistance Management: When HERITAGE is being applied for panicle blast on continuous rice acreage (no rotation to other crops) no more than four sequential applications of HERITAGE should be made over multiple years before alternating with a fungicide with a different mode of action. Do not make more than three foliar applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve coverage.  For stem/sheath diseases including sheath blight, 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. A second application should be applied when panicles are approximately 60-90% emerged from the boot (7-14 days later).

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 more than 1.4 pounds of product/acre/season (0.7 lb ai/A).

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 (Ib ai/A)	Remarks
Roses	Black Spot (Diplocarpa rosae)  Downy Mildew (Peronospora sparsa)  Powdery Mildew (Sphaerotheca 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 (4) sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than eight applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve coverage.  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 scale application. In addition, do not tankmix HERITAGE with other fungicides, insecticides, herbicides, fertilizer, etc. unless local experience indicates that the tankmix is safe to roses.
Specific Use Restrictions: Do	not apply more than 4.0 pounds product/ac	cre/season (2.0 lb ai	/A) <u>.                                    </u>

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Soybeans	Aerial blight (Rhizoctonia solani)  Rust (Phakopsora spp.) Anthracnose	4.8-8.0 (0.15-0.25)	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, plant residue management, crop rotation and proper timing and placement of irrigation.  Resistance Management: No more than two foliar applications of HERITAGE or
	(Colletotrichum truncatum) Alternaria leaf spot (Alternaria spp) Brown spot	(0.15-0.25)	other strobilurin fungicide should be made per growing season. Do not alternate or tank mix with fungicides to which resistance has developed in the pathogen population.
	(Septoria glycines) Cercospora blight and leaf spot (Cercospora kikuchii) Frogeye leafspot (Cercospora sojina) Pod and Stem blight (Diaporthe phaseolorum)		Application Directions: HERITAGE applications should begin prior to disease development. Apply HERITAGE at 4.8-8.0 oz per acre. 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. Use of a non-ionic surfactant with the lower use rate is recommended.
	Soilborne Diseases Southern blight (Sclerotium rolfsii) be applied the day of baryest to soybean to	0.2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Specific Use Restrictions: May be applied the day of harvest to soybean forage and hay.

Do not apply more than 3.0 pounds of product/crop/acre/season (1.5 lbs ai/A).

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).

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Сгор	Target Diseases	Use Rate oz product/A (Ib_ai/A)	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) Brown Rot Blossom blight and Fruit rot (Monilinia fructicola, M. laxa)	3.2-8.0 (0.1-0.25)	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: For blossom blight do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action. For all other diseases do not apply more than four sequential applications of HERITAGE before alternation with a fungicide that has a different mode of action. Do not alternate or tank mix with fungicides to which resistance has developed in the pathogen population. Do not make more than sia applications of HERITAGE per acre per year for all diseases. Do not make more than 4 applications of HERITAGE or other strobilurin fungicide per acre per year at 8 oz product/A (0.25 lb ai/A).  Application Directions: For brown rot blossom blight, - Begin applications at early bloom and continue through petal fall. Do not apply more than two applications of HERITAGE before alternating with fungicides that have a different mode of action. For brown rot on fruit, HERITAGE may be applied to fruit up to the day of harvest. Do not apply more than two applications before alternating with fungicides that have a different mode of action. 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, 4.7-8.0 oz of HERITAGE may be used for scab control.  Applications may be made by ground, air or chemigation

Сгор	Target Diseases	Use Rate oz product/A (ib ai/A)	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)	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: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than four (4) applications of HERITAGE or other strobilurin fungicide per acre per crop year.
	Soilborne Diseases Seedling root rot, basal stem rot	0.2-0.4 oz /1000 row feet	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 "GENERAL INFORMATION" section.
·	(Rhizoctonia solani) s: Do not use in plant propagation nurseries.	TOW TEST	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.

Сгор	Target Diseases	Use Rate oz product/A (Ib ai/A)	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 (Phytophthora infestans)	0.8-3.2 (0.025-0.10) 1.6-3.2 (0.05 - 0.10)	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: When HERITAGE is being applied for the control of early blight, Septoria leaf spot and/or anthracnose, no more than four sequential applications of HERITAGE should be made before alternating with a fungicide with a different mode of action. When HERITAGE is being applied for the control of late blight, no more than two sequential applications of HERITAGE should be made before alternation with a fungicide with a different mode of action. If late blight should occur during an early blight spray program, switch immediately to the late blight spray program beginning with a fungicide that has a different mode of action. Do not make more than eight foliar applications of HERITAGE or other strobilurin fungicide per acre per year.  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 at 5-7 day intervals, do not make more than one application of HERITAGE before alternating with fungicides that have a different mode of action. For all other tomato diseases HERITAGE should be applied on 7-21 day intervals. Applications may be made by ground, air or chemigation.
Specific Lice Postrictions: HEDITACE	Soilborne Diseases Seedling root rot, basal stem rot (Rhizoctonia solani)	0.2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

Specific Use Restrictions: HERITAGE should not be applied until 21 days after transplanting or 35 days after seeding.

HERITAGE should not be applied within +/-6 days of a postemergence broadcast application of Sencor.

Do not apply with an adjuvant due to the potential for phytotoxicity.

Do not apply more than 1.6 pounds product/acre/season (0.8 lb ai/A)

May be applied the day of harvest.

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Almonds(see specific use instructrions) Beechnut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert Hickory Macadamia Pecan Walnut	Alternaria leaf and fruit spot (Alternaria alternata)  Anthracnose (Colletotrichum acutatum, Glomerella cingulata)  Late blight (Alternaria alternata)  Scab (Cladosporium carpophilum)  Septoria leaf spot (Septoria pistaciarum)	3.2-6.4 (0.10-0.20)	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: For blossom blight do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action. For all other diseases do not apply more than four sequential applications of HERITAGE before alternation with a fungicide that has a different mode of action. Do not make more than six applications of HERITAGE or other strobilurin fungicide per acre per year.  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 to improve
Pistachios (see specific use instructions)	Shothole (Wilsonomyces carpophilus)		coverage. 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)	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 Do not apply within 45 days of ha	t apply more than 2.4 pounds product/ac	re/season (1.2 lb ai	/A).
Triticale	See Wheat		

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Tropical Fruit	Anthracnose	3.2-8.0	Integrated Pest (Disease) Management: HERITAGE should be integrated into
Acerola	(Colletotrichum spp)	(0.1-0.25)	an overall disease management strategy that includes varieties with disease
Atemoya		, ,	tolerance, proper timing of irrigation and removal of plant debris in which inoculu
Avocado	Rust		overwinters.
Biriba	(Puccinia spp)	Ì	
Canistel			Resistance Management: Do not apply more than two sequential applications
Cherimoya	Cercospora leaf spot		HERITAGE before alternating with a fungicide that has a different mode of actio
Custard apple	(Cercospora spp)		Do not make more than six (6) applications of HERITAGE or other strobilurin
Feijoa			fungicide per acre per crop year.
Guava	1		
llama			Application Directions: HERITAGE applications should begin prior to disease
Jaboticaba			development and continue throughout the season on a 10-14 day schedule,
Jackfruit	•	ļ	following the resistance management guidelines. Applications may be made by
Longan	}		ground, air or chemigation. An adjuvant may be added at recommended rates.
Loquat			
Lychee	Soilborne Diseases	0.2-0.4 oz /1000	For soilborne/seedling disease control, see directions and rates under "GENER
Mango	Seedling root rot, basal stem rot	row feet	INFORMATION" section.
Papaya	(Rhizoctonia solani)		
Passionfruit		1	
Pawpaw			•
Persimmon			
Pulasan			
Pummello			
Rambutan			
Sapodilla	,		
Sapote, black	ĺ		
Sapote, mamey		-	
Sapote, white		1	
Soursop			
Star apple		i	
Starfruit	·		
Sugar apple	· <b>\</b>	<b>\</b>	
Spanish lime	1		
Tamarind	1		
Uniq fruit		Ì	1

Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	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) Rutabaga Salsify, black Sweet potato Tanier	Alternaria leaf spot (Alternaria spp, A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Powdery mildew (Erysiphe polygoni, Leveillula taurica) Rust (Uromyces betae, Puccinia helianthi) Cercospora leaf spot (Cercospora betae, C. pastinaceae) White rust (Albugo tragopogonis)	3.2-9.6 (0.1-0.33)	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: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: For powdery mildew control, do not make more than one application of HERITAGE before alternating with fungicides that have a different mode of action. 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 to improve coverage.
Turnip Yam, trưe	Sollborne Diseases Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum) oply more than 4.0 pounds of product/o	0.2-0.4 oz /1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.

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Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Vegetables, root, subgroup:  Beet, garden and sugar Burdock Carrot Celeriac Chervil, turnip-rooted Chicory Ginsing Horseradish Parsley, turnip-rooted Parsnip Radish Radish, oriental Rutabaga Salsify Salsify, black Salsify, Spanish Skirret	Target Diseases  Foliar Diseases  Alternaria leaf spot (Alternaria spp, A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Powdery mildew (Erysiphe polygoni, Leveillula taurica) Rust (Uromyces betae, Puccinia helianthi) Cercospora leaf spot (Cercospora betae, C. pastinaceae) White rust (Albugo tragopogonis)  Soilborne Diseases	3.2-9.6 (0.1-0.33)	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: Do not apply more than two sequential foliar applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: For powdery mildew control, do not make more that one application of HERITAGE before alternating with fungicides that have a different mode of action. 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 to improve coverage.  For soilborne/seedling disease control, see directions and rates under GENERA
Tumip .	Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum)	row feet	INFORMATION section.

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Crop	Target Diseases	Use Rate oz product/A (lb ai/A)	Remarks
Vegetables, tuberous and corm, subgroup:  Arracacha Arrowroot Artichoke, Chinese and Jerusalem Burdock Canna Cassava, edible, bitter and sweet Chayote (root) Chufa Dasheen (Taro) Ginger Leren Potato Sweet Potato Tanier	Foliar Diseases  Alternaria leaf spot (Alternaria spp, A. Alternata) Ascochyta leaf spot (Ascochyta cynarae) Powdery mildew (Erysiphe polygoni, Leveillula taurica) Rust (Uromyces betae, Puccinia helianthi) Cercospora leaf spot (Cercospora betae, C. pastinaceae) White rust (Albugo tragopogonis)	3.2-9.6 (0.1-0.33)	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: Do not apply more than two sequential foliar applications of HERITAGE or other strobilurin before alternating with a fungicide that has a different mode of action. Do not make more than six foliar applications of HERITAGE or other strobilurin fungicide per crop per acre per year.  Application Directions: For powdery mildew control, do not make more than one application of HERITAGE before alternating with fungicides that have a different mode of action. 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 to improve coverage.
Tumeric Yam, bean Yam, true  Specific Use Restrictions: Do not app	Soilborne Diseases  Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum)	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 (Ib ai/A)	Remarks
Watercress	Cercospora leaf spot (Cercospora spp)	3.2-8.0 (0.1-0.25)	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: Do not apply more than two sequential applications of HERITAGE before alternating with a fungicide that has a different mode of action. Do not make more than three applications of HERITAGE or other strobilurin fungicide per acre per cutting (2 cuttings per year).
			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.
Specific Use Restrictions: Do not app Do not apply more than 3 pounds (1.9 May be applied up to 7 days prior to h	5 lb active ingredient) per acre per se	ason.	
Wheat Triticale	Leaf Rust (Puccinia recondita f.sp. tritici) Stripe Rust (Puccinia striiformis) Stem Rust (Puccinia graminis)	2.2- 6.4 (0.07-0.20)	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.
	Septoria Leaf and Glume Blotch (Septoria tritici, Septoria nodorum)		Resistance Management: Do not make more than two applications of HERITAGE or other strobilurin fungicide per acre per year.
Ĭ	Tan Spot (Pyrenophora tritici-repentis)		Application Directions: HERITAGE should be applied prior to disease development from jointing (Feekes 6 or Zadok's 31) up to late head emergence
	Powdery Mildew (Erysiphe graminis)	4.0-6.4 (0.125-0.20)	(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 app Do not apply later than Feekes growth Do not harvest treated wheat for forage Do not apply more than 0.8 pounds p	h stage 10.5 (Zadok's growth stage 5 ge.		
Do not apply within 14 days of harves Do not apply within 45 days of harves	st for hay.		

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### **HERITAGE Rate Conversion Chart**

Ounces Product/A	Lb. a.i./A	Treated Acres/Lb. Product
1.0	0.03	16.0
1.5	0.05	10.7
2.0	0.06	. 8.0
2.5	0.08	6.4
3.0	0.09	5.3
3.5	0.11	4.6
4.0	0.13	4.0
4.5	0.14	3.7
5.0	0.16	3.2
5.5	0.17	2.9
6.0	0.19	2.7
6.5	0.20	2.5
7.0	0.22	2.3
7.5	0.23	2.1
8.0	0.25	2.0
8.5	0.27	1.9
9.0	0.28	1.8
9.5	0.30	1.7
10.0	0.31	1.6
10.5	0.33	1.5
11.0	0.34	1.5
11.5	0.36	1.4
12.0	0.38	1.3
12.5	0.39	1.3

### 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

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#### TURF:

HERITAGE is recommended for control of anthracnose, brown patch, cool weather brown patch (yellow patch), Fusarium patch, gray leaf spot, gray snow mold (Typhula blight), leaf spot, melting out, necrotic ring spot, pink patch, pink snow mold, Pythium blight, Pythium root rot, red thread, Rhizoctonia large patch, southern blight, spring dead spot, summer patch, take-all patch, and Zoysia patch on golf courses, 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. Do not apply more than two sequential HERITAGE applications for *Pythium* spp. control. For all other diseases when *Pythium* spp. is not present, do not apply more than four 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.

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

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

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### **DIRECTIONS FOR APPLICATION FOR TURF DISEASES**

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14-28	Apply when conditions are favorable for disease 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. ishikariansis)	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.

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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 (Sclerotium 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 prict 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 *Pythium* spp. For all other diseases when Pythium spp is not present, do not apply more than four sequential applications of HERITAGE.

### **HERITAGE Rate Conversion Chart for Turf**

Ounces Product Per 1000 Sq. Ft.	Ounces A.I. Per 1000 Sq. Ft.	Ounces Product Per Acre	Pounds Product Per Acre
0.20	0.10	8.7	0.5
0.30	0.15	13.1	0.8
0.40	0.20	17.4	1.1
0.70	0.35	30.5	1.9

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## **Amount of HERITAGE to Mix 100 Gallons for Turf Applications**

	Spray Volume (gallons/1000 square feet)			
HERITAGE Use Rate	2.0 gals	3.0 gals	4.0 gals	
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	



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#### **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, shade-houses, 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 fungicides. Do not alternate HERITAGE Fungicide with other strobilurin fungicides.

<u>Application Directions</u>: 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 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 on a 7-14 day interval.

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

Under environmental conditions which promote severe disease development, use the higher rates (3-4 oz./ 100 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 preinfection 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.

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#### **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, 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:

SPECIAL USE COMMENTS	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 2-4 oz/100 gal every 7-21 days during periods of active plant growth and prior to dormancy or severe infection.	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 3-6 oz/acre every 7-14 days Do not apply through air blast sprayer due to possible phytotoxicity.	
Apply 2-4 oz/100 gal every 7-21 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 4-8 oz/100 gal 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	
Apply 2-4 oz/100 gal every 7-21 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 10-28 days. Do not apply to apple trees. For crabapples only, see Table 4 for tolerant species.	
Preventative applications only. Do not make more than 2 sequential applications before rotating to another class of fungicide.	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 7-28 days	
Apply 1-4 oz/100 gal every 7-28 days	
<del> </del>	

DISEASE (Pathogen)	SPECIAL USE COMMENTS	
b. Phragmidium spp.	Apply 1-4 oz/100 gal every 7-28 days	
c. Puccinia spp.	Apply 1-4 oz/100 gal every 7-28 days	
5. FLOWER BLIGHTS		
a. Anthracnose (Collectotrichum spp., Elsinoe spp.)	Apply 1-4 oz/100 gal every 7-28 days	
b. Botrytis Blight (Botrytis cinerea)	Apply 4-8 oz/100 gal 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/100 gal every 7-28 days	
7. SOILBORNE DISEASES (Directed Spray)	For directed spray applications utilize the following rates below.	
a. Rhizoctonia solani	Apply 1-4 oz/100 gal every 7-21 days	
b. Sclerotium rolfsii	Apply 1-4 oz/100 gal every 7-21 days	
c. Fusarium spp.	Apply 1-4 oz/100 gal every 7-21 days	
8. SOILBORNE DISEASES (Drench)	See Ornamentals Section for additional drench directions.	
a. Rhizoctonia solani	Apply 0.2-0.9 oz/100 gal, 1-2 pints of the solution per square foot surface area, every 7-28 days	
b. Sclerotium rolfsii	Apply 0.2-0.9 oz/100 gal, 1-2 pints of the solution per square foot surface area, every 7-28 days	
c. Fusarium spp.	Apply 0.2-0.9 oz/100 gal, 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.

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**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
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	2d, 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
Begonia spp. (except Rieger begonia)	Begonia	2, 3
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 Iilac, Snowball	3
Cedrus atlantica	Atlas cedar	2, 4

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BOTANICAL NAME	COMMON NAME	DISEASES
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
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

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BOTANICAL NAME	COMMON NAME	DISEASES
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	2c, 3
Hydrangea spp.	Hydrangea	2c, 3
llex spp.	Holly, Winterberry, Yaupon	3
Impatiens spp. 1	Balsam, Impatiens <sup>1</sup>	2a, 7a
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	2c, 3
Laurus nobilis	Laurel	3
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)	2k
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
Phoenix roebelenii	Roebelin's palm	2, 7
Photinia glabra	Red-tip photinia	2, 3, 4
Picea abies	Norway spruce	1

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BOTANICAL NAME	BOTANICAL NAME COMMON NAME	
Picea glauca	White spruce	1
Picea pungens	Blue spruce	1
Pieris japonica	Japanese andromeda	2, 7
Pinus muhgo	Muhgo pine	1b, 4
Pinus nigra	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 spp.	Aspen Trees	2j
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, 2e, 2m, 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	2c, 2k, 7
Spirea budalda	Spirea	3
Spirea japonica	Spirea	3

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<b>BOTANICAL NAME</b>	COMMON NAME	DISEASES
Syagrus romanzoffianum	Queen palm	2
Tagetes spp.	Marigold	2a
Taxus baccata	Spreading yew	7
Thujopsis spp.	Arborvitae	2
Thymus serphyllum	Creeping thyme	2
Tsuga spp.	Hemlock	4
Verbena spp.	Verbena, Vervain	3
Vibumum spp.	Viburnum	2, 3, 4
Vinca spp.	Periwinkle	2, 6a
Viola spp. 1	Viola, Pansy <sup>1</sup>	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.

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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
Cactus, Holiday	Schlumbergera
Caladium	Caladium spp.
Camellia	Camellia japonica
Carnation	Dianthus caryophyllus
Ceanothus	Ceanothus spp.
Cedar, Atlas	Cedrus atlantica
Cedar, Red	Juniperus virginiana
Cedar, White	Cedrus spp.
Cherry	Prunus pumila
Christmas Trees	See Fraser fir, Scotch pine and Douglas fir
Chrysanthemum	

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COMMON NAME	BOTANICAL NAME
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
Floss-Flower	Ageratum spp.
Forsythia	Forsythia viridissima
Foxglove	Digitalis spp.
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

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COMMON NAME	BOTANICAL NAME
Hemlock	Tsuga spp.
Hibiscus	Hibiscus moscheutos
Hibiscus	Hibiscus rosa-sinensis
Holly	//ex spp.
Hosta	Hosta spp.
House-Leek	Sempervivum spp.
Hydrangea	Hydrangea spp.
Hydrangea, French	Hydrangea macrophylla
Impatiens1	Impatiens spp. 1
Iris, African	Dietes iridiodes
Iris, Butterfly	Dietes iridiodes
lvy, 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, 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
Marigold	Tagetes spp.
Mock-Orange	Pittosporum tobira
Mugwort	Artemisia spp.
Nandina	Nandina domestica

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COMMON NAME	BOTANICAL NAME
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.
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

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COMMON NAME	BOTANICAL NAME
Rosemary (Prostrate)	Rosmarinus spp.
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	Vibumum spp.
Vinca	Catharanthus roseus
Viola	Viola spp.
White alder	Clethora spp.
Wiegela, Pink	Wiegela florida
Willow, Virginia	Itea virginica
Winterberry	llex spp.
Wormwood	Artemisia spp.
Yaupon	llex 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.

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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

TABEL 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	Rumohra adianformis and other species

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