

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 6, 2022

Monique Inforzato Syngenta Crop Protection P.O. Box 18300 Greensboro, NC

Subject: Registration Review Label Mitigation for Acibenzolar and Azoxystrobin

Product Name: Heritage Action EPA Registration Number: 100-1550

Application Dates: February 1, 2019 and May 17, 2019

Decision Numbers: 581091 and 581092

Dear Ms. Inforzato:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Acibenzolar and Azoxystrobin Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Page 2 of 2 EPA Reg. No. 100-1550 Decision No. 581091 and 581092

If you have any questions about this letter, please contact Jaclyn Pyne by phone at 202-566-2326, or via email at pyne.jaclyn@epa.gov.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure

[MASTER]

AZOXYSTROBIN	GROUP	11	FUNGICIDE
ACIBENZOLAR-S-METHYL	GROUP	P1	FUNGICIDE

Heritage[®] Action

Fungicide

Broad-spectrum, systemic fungicide for the prevention and control of turf diseases on golf courses, sod farms, institutional, commercial and industrial buildings, and collegiate and professional athletic fields

Active Ingredients:

Azoxystrobin: methyl (<i>E</i>)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	50.00%
Acibenzolar-S-methyl: Benzo(1,2,3)thiadiazole-7-carbothioic acid-S-methyl ester*	
Other Ingredients:	48.82%
Total:	100.00%

Heritage Action contains 0.50 lb of azoxystrobin and 0.0118 lb of acibenzolar-S-methyl per pound of product.

Heritage® Action is a water-dispersible granule (WG) formulation.

*IUPAC

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use [inside booklet] [on label].

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

EPA Reg No. 100-1550 EPA Est.

Net Contents

ACCEPTED

Jan 06, 2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 100-1550

FIRST AID				
If in eyes	 Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then 			
	continue rinsing eye.Call a poison control center or doctor for treatment advice.			
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for treatment advice. 			

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Do not get in eyes or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear protective eyewear, chemical-resistant gloves, long sleeved shirt and long pants, socks and shoes. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

All applicators and handlers must wear:

- Protective eyewear
- 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

In addition,

 Mixers/loaders supporting groundboom applications must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R or P

- filter; OR a NIOSH-approved elastomeric particulate respirator with any N*, R or P filer; OR a NIOSH-approved powered air purifying respirator with HE filters.
- Mixers/loaders/applicators using mechanically pressurized handwands must wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

Respirator fit testing, medical qualification, and training:

Using a program that conforms to OSHA's requirements (see 29 CFR Part 1910.134), employers must verify that any handler who uses a respirator is:

- Fit-tested and fit-checked,
- Trained, and
- Examined by a qualified medical practitioner to ensure physical ability to safely wear the style of respirator to be worn. A qualified medical practitioner is a physician nor other licensed health care professional who will evaluate the ability of a worked to wear a respirator. The initial evaluation consists of a questionnaire that asks about medical conditions (such as a heart condition) that would be problematic for respirator use. If concerns are identified, then additional evaluations, such as a physical exam, might be necessary. The initial evaluation must be done before respirator use begins. Handlers must be reexamined by a qualified medical practitioner if their health status or respirator style or use-conditions change.

Upon request by a local/state/federal/tribal enforcement personnel, employers must provide documentation demonstration how they have complied with these requirements.

User Safety Requirements

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

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

 Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Azoxystrobin can be persistent for several months or longer. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

Groundwater Advisory

Azoxystrobin and a degradate of azoxystrobin are known to leach through soil to groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to run-off of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via run-off for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features, such as ponds, streams and springs, will reduce the potential loading of azoxystrobin and a degradate of azoxystrobin from run-off water and sediment. Run-off of this product also will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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

Physical or Chemical Hazards

Do not use with or store near any oxidizing agents. Hazardous chemical reactions may occur.

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 must 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, LLC or Seller. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

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

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

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

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Protective eyewear
- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

NON-AGRICULTURAL USES

Broad-spectrum, systemic fungicide for the prevention and control of turf diseases on golf courses, sod farms, institutional, commercial and industrial buildings, and collegiate and professional 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 Action is dry.

PRODUCT INFORMATION

Heritage Action couples a broad-spectrum, systemic fungicide with a systemic compound used for control or suppression of disease through induction of host plant resistance. Heritage (azoxystrobin) is a broad-spectrum, systemic fungicide that prevents and controls pathogens causing foliar, stem, and root diseases, including leaf and stem blights, leaf spots, patch diseases, mildew, molds and rusts of turfgrass. Action (acibenzolar) exhibits an additional unique mode of action, beyond Heritage alone, which mimics the natural systemic activated resistance (SAR) response found in most plant species. This SAR response does not involve direct activity against the target pathogens.

Heritage Action is a member of Syngenta's Plant Performance™ product line that may improve plant vigor and quality. The additional benefits are due to positive effects on plant physiology, which can vary according to plant species and growing environment.

Heritage Action fungicide may be used to control these diseases on golf courses, sod farms, institutional, public, commercial and industrial buildings, and collegiate and professional athletic fields. Heritage Action may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered turf-protection products.

USE PRECAUTIONS AND RESTRICTIONS

Adjuvants: When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

DO NOT apply more than 10 lb product per acre (3.7 oz product per 1,000 sq ft) per year (5 lb azoxystrobin/A/year, 0.118 lb acibenzolar-S-methyl/A/year).

DO NOT apply more than 1.1 lb of Heritage Action (0.55 lb azoxystrobin, 0.013 lb acibenzolar-S-methyl) per acre per application.

For applications with handheld equipment, **DO NOT** exceed 0.0025 lb ai/gal.

DO NOT apply to residential lawns.

DO NOT apply by air.

Aerial and chemigation application to sod is prohibited.

DO NOT graze or feed clippings from treated turf areas to animals.

SPRAY DRIFT MANAGEMENT

DO NOT spray when conditions favor drift beyond area intended for application.

DO NOT apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Conditions that contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, and spray droplet size. Contact your State extension agent for spray drift prevention guidelines in your area.

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 State or Tribal agency responsible for pesticide regulation.

SPRAY DRIFT Groundboom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

<u>Controlling Droplet Size – Ground Boom</u>

- Volume Increasing the spray volume so that larger droplets are produced will
 reduce spray drift. Use the highest practical spray volume for the application. If a
 greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the turf and have minimal bounce.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

PHYTOTOXICITY

Heritage Action is extremely phytotoxic to certain apple and crabapple varieties. Extreme care must be used to prevent injury to apple and crabapple trees. Even trace amounts can cause unacceptable phytotoxicity. **DO NOT** spray Heritage Action where spray drift may reach apple or crabapple trees.

Heritage Action 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 (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

AZOXYSTROBIN	GROUP	11	FUNGICIDE
ACIBENZOLAR-S-METHYL	GROUP	P1	FUNGICIDE

For resistance management, please note that Heritage Action contains both a Group 11/[azoxystrobin] and Group P1/[acibenzolar-s-methyl] fungicide. Any fungal population may contain individuals naturally resistant to Heritage Action and other Group 11 or Group P1 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Do not apply more than two sequential Heritage Action applications for Gray leaf spot and Pythium disease control. For all other diseases when Gray leaf spot and Pythium

diseases are not present, do not apply more than three sequential applications of Heritage Action.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Heritage Action or other Group 11 or Group P1 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

MIXING INSTRUCTIONS

Thoroughly clean spray equipment before using this product to prevent possible crop injury or nozzle clogging problems from spray tank contamination. To prepare spray solution, partially fill the spray tank with clean water and begin agitation. Add the specified amount of Heritage Action to the tank allowing adequate time for good dispersion and then add an adjuvant if recommended. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray solution stand overnight in the spray tank. Do not prepare more spray solution than is needed for the immediate spray operation. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Heritage Action is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult compatibility charts or your local or state agricultural or turf authorities for compatibility information. Do not combine Heritage Action in the spray tank with any product unless compatibility charts or your own prior use has shown that the

combination is physically compatible, effective and non-phytotoxic under your conditions of use. If physical compatibility is unknown, the following testing procedure should be followed: pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow it to stand for at least 20 minutes. If the combination remains mixed or can be re-mixed readily, the mixture is considered physically compatible.

Products should be added to the spray tank in the following order: Heritage Action, 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.

APPLICATION INSTRUCTIONS

Heritage Action should be applied prior to disease development. Heritage Action mimics the SAR response in plants. Maximum disease control is normally obtained 4 days after a Heritage Action application. Apply Heritage Action at rates and timings given on this label. Use the shortest specified application interval and/or the highest specified rate under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist. Repeat applications at specified intervals for as long as required. Mix Heritage Action with the required amount of water and apply as a dilute spray application in 2–4 gallons of water per 1,000 square feet (87–174 gallons per acre). Proper adjustments and calibration of spraying equipment is essential for best disease control. For spot treatments, use 0.2 oz Heritage Action per 1 to 3 gallons of water. For applications with handheld equipment, **DO NOT** exceed 0.0025 lb ai/gal.

For use with soil injection applications:

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

Apply Heritage Action at 0.2 to 0.4 oz per 1,000 sq ft. Spray carrier volume should fall within 30–150 gallons of water per 1,000 sq ft. Injection hole spacing of 1 inch by 1 inch is recommended for optimum control. Injection depth should be no greater than 2 inches. One inch depth is recommended for optimum results. Application timing should follow disease control strategies used for normal broadcast spray programs.

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

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

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

TABLE 1: Use Rates and Timings for Listed Diseases

		ı	T
Target Diseases¹	Use Rate (oz product per 1,000 sq ft)	Application Interval (days)	Remarks
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14–28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Bermudagrass Decline (Gaeumannomyces graminis var. graminis)	0.4	28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Brown Patch (Rhizoctonia solani)	0.2-0.4	14–28	Apply when conditions are favorable for disease development.
Brown Ring Patch (<i>Waitea circinata</i> var. <i>circinata</i>)	0.2–0.4	14–28	Apply when conditions are favorable for disease development.
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 (Lycoperdo, Arachnion, Bovista, Vascellum, and Agrocybe spp.)	0.4	28	Apply preventatively or as soon as possible after fairy ring symptoms develop. Apply only in 4 gallons water per 1,000 square feet (174 gallons /acre). Add the recommended rate of a wetting agent to the final spray. Fairy ring symptoms may take 2 to 3 weeks to disappear following curative applications and reapplication may be required in some cases. Severely damaged or thin turf may require reseeding.
Fusarium Patch (<i>Microdochium nivale</i>)	0.2–0.4	14–28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Gray Leaf Spot (Pyricularia grisea)	0.2-0.4	14–28	Begin applications before disease is present and continue applications while conditions are favorable for disease development.
Gray Snow Mold Typhula blight (Typhula incarnata, T. ishikariensis)	0.4	10–28	Make two applications of 0.4 oz spaced 10–28 days apart in late fall just before snow cover. Tank-mixing with another snow mold fungicide, such as Daconil®, may enhance control under severe disease pressure.

Target Diseases ¹	Use Rate (oz product per 1,000 sq ft)	Application Interval (days)	Remarks
Leaf Rust Stem Rust Stripe Rust (Puccinia spp.)	0.2–0.4	14–28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Leaf spot (Bipolaris spp.)	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)	0.4	10–28	Make 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.
Powdery Mildew (Erysiphe graminis)	0.2–0.4	14–28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Pythium Blight Pythium Root Rot (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.
Pythium Root Dysfunction (<i>Pythium volutum</i>)	0.4	21–28	Apply preventatively when mean daily soil temperatures are between 55 F and 70 F. Irrigate with 0.1 to 0.2 inches within 24 hours after application to facilitate movement into the root zone.
Red Thread (Laetisaria fuciformis)	0.2–0.4	14–28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch/Zoysia Patch (Rhizoctonia solani)	0.2-0.4	14–28	Make one or two applications in fall or when conditions are favorable for disease development. Spring applications may also be required in some locations or when disease pressure is high.

Target Diseases ¹	Use Rate (oz product per 1,000 sq ft)	Application Interval (days)	Remarks
Leaf and Sheath Spot (Rhizoctonia zeae)	0.2–0.4	14–28	Apply when disease 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 (Ophiospharella korrae, O. herpotricha, and O. narmari)	0.2-0.4	14–28	Apply 1 or 2 applications approximately one month prior to bermudagrass dormancy. 1/8–1/4 inch of irrigation directly after application is recommended. Reapply 14–28 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.
Dollar Spot Suppression (Sclerotina homoeocarpa)	0.2-0.4	14–28	Heritage Action will suppress dollar spot. For effective control, always mix Heritage Action with Daconil, Secure® or another Dollar Spot control fungicide
Bacterial Wilt Suppression (Acidovorax spp.) (Xanthomonas spp.)	0.2-0.4	14–28	For suppression of bacterial wilt on bent and Poa greens, apply Heritage Action in a seasonal program with Daconil Action.

¹Do not apply more than two sequential applications of Heritage Action for control of Gray leaf spot and Pythium diseases. For all other diseases when Gray leaf spot and Pythium diseases are not present, do not apply more than three sequential applications of Heritage Action.

TABLE 2: Heritage Action Rate Conversion Chart

Ounces Product per 1,000 Sq Ft	Ounces Al per 1,000 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

TABLE 3: Amount of Heritage Action to Mix 100 Gallons

Heritage Action	Spray Volume (gallons/1,000 sq ft)			
Use Rate	2 gallons	3 gallons	4 gallons	

0.2 oz	10 oz	6.7 oz	5 oz
0.4 oz	20 oz	13.3 oz	10 oz

STORAGE AND DISPOSAL

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

Pesticide Storage

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

Pesticide Disposal

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

Container Handling [less than or equal to 50 pounds]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [bags]

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Container Handling [fiber drums with liners]

Non-refillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling if available or dispose of liner in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

Heritage®, Daconil®, Secure®, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company.

©20XX Syngenta

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, North Carolina 27419-8300

Heritage Action 1550 MAS 1115 AMEND-C 0119 – sb – 6/18/19 000100-01550.20190130C.HERITAGE ACTION.AMEND.JAN2019