

Enhanced Biotic and Abiotic Stress Management *for* *Optimal Turf Quality*

 **HeritageAction™**
Fungicide

syngenta®

Heritage Action™ fungicide delivers hybrid technology that couples the proven disease control of Heritage™ fungicide with a boost of acibenzolar-S-methyl (ASM) to help plants better manage biotic and abiotic stress. ASM is the only active ingredient registered in turf that is recognized by the Fungicide Resistance Action Committee (FRAC) to have systemic acquired resistance (SAR) effects. This empowers the plant to engage its own natural stress defenses to improve plant performance, providing optimal turf quality and playability.

The disease-fighting effects of azoxystrobin combined with the plant performance benefits of ASM offers:

- Highly systemic root to leaf protection
- Enhanced disease control
- Proven abiotic protection that naturally improves plant stress tolerance
- Protection of plant roots against diseases resulting from nematode damage
- Excellent turf safety
- Best-in-class turf quality for both warm and cool-season turf

Abiotic Stress Management to Enhance Plant Performance

Heat, wind, humidity and water availability all have a significant impact on plant performance. Heritage Action moves systemically throughout the plant and stimulates the production of five plant proteins that help manage abiotic stressors.

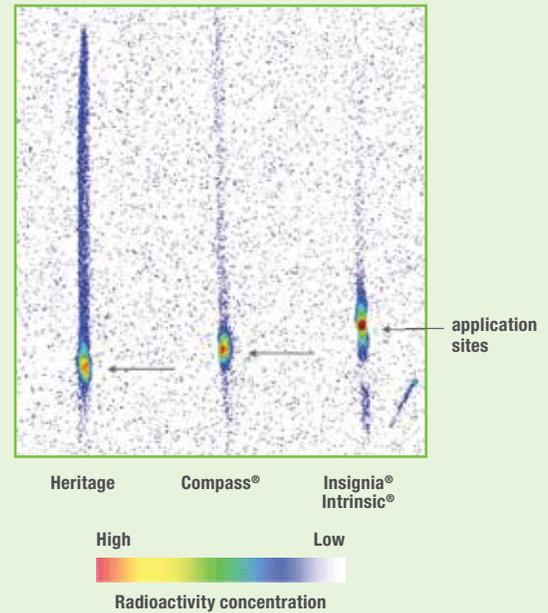
- Energy production
- Drought tolerance
- Heat tolerance
- Enhanced photosynthesis
- Pathogen defense

Protection from Abiotic Stressors with the Syngenta Portfolio

	Photosynthesis	Root Development	Water Efficiency	Drought Tolerance	Heat/Cold Tolerance
 PrimoMaxx Plant growth regulator		✓	✓	✓	✓
 Appear Fungicide	✓				✓
 Daconil Action Fungicide			✓	✓	✓
 Heritage Action Fungicide	✓	✓	✓	✓	✓

Syngenta offers a range of products that help boost a plant's natural defenses against abiotic stress.

Systemic Movement of Azoxystrobin versus Competitive Fungicides



The graphic above shows that Heritage is translaminal and has more systemic movement through the leaf than competitive fungicides. After a single droplet of product was applied at the base of the leaf, Heritage moved with more intensity to provide superior coverage and disease control.

With the abiotic benefits of Heritage Action, you'll see visual benefits to your turf, including:

- Reduced wilting
- Quicker recovery from aeration
- Faster green-up
- Prompt recovery from heat and drought stress

Drought Tolerance through Reduced Water Loss

In plant leaves and stems, stomata are pores that act as a gateway to control gas exchange, including water vapor. Stomata support transpiration to supply water and minerals to the entire plant system. ASM is the only product found to beneficially affect stomatal regulation to maximize water retention in drought conditions.

Drought Stress Tolerance on Bermudagrass



Insignia SC Intrinsic
0.7 oz Spray

Heritage Action
0.2 oz Spray

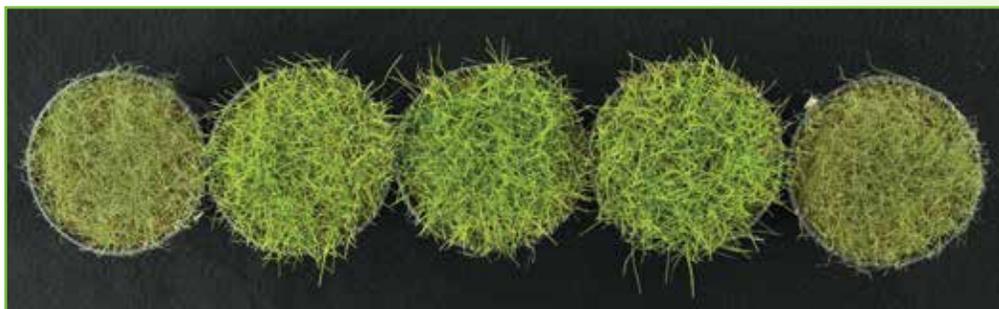
Heritage Action
0.2 oz Watered-in

Check

When compared with Insignia SC Intrinsic brand fungicide, turf treated with Heritage Action fungicide showed better drought tolerance.

Syngenta Research Facility, 2014. Photo taken three days after drought. Fungicide treatments were applied both 16 days and two days prior to initiation of drought stress.

Drought Stress Tolerance on Bentgrass



Insignia SC Intrinsic
0.4 oz Spray

Heritage Action
0.2 oz Spray

Heritage Action
0.2 oz Watered-in

Heritage Action
0.4 oz Watered-in

Check

Syngenta Research Facility, 2014. Fungicide treatments were applied 16 days and two days prior to initiation of drought stress.

Enhanced Disease Control

Heritage Action helps control more than 20 diseases including enhanced control of:

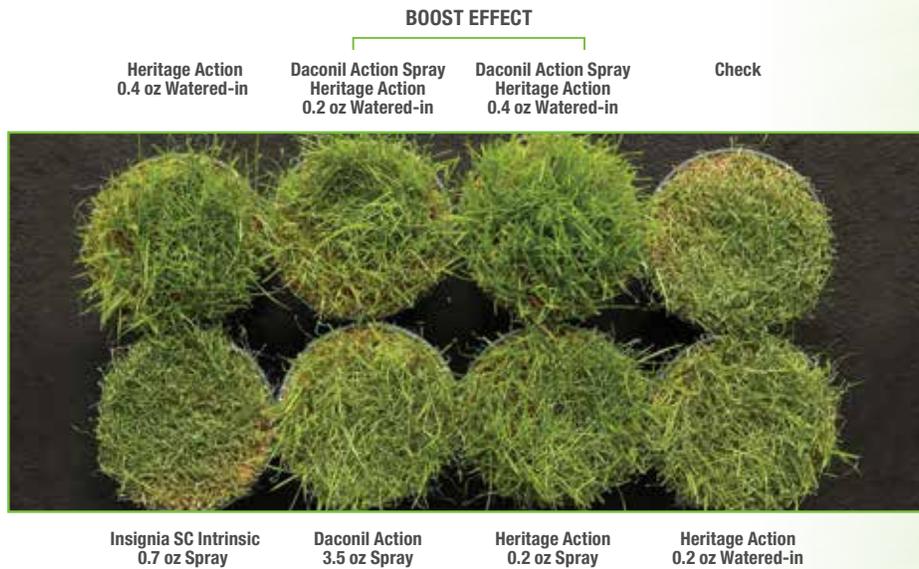
- Anthracnose
- *Pythium* diseases
- Bacterial wilt suppression
- Brown patch
- Summer patch
- Gray leaf spot

See label for additional diseases.

Heritage Action is a Valuable Partner in Agronomic Programs

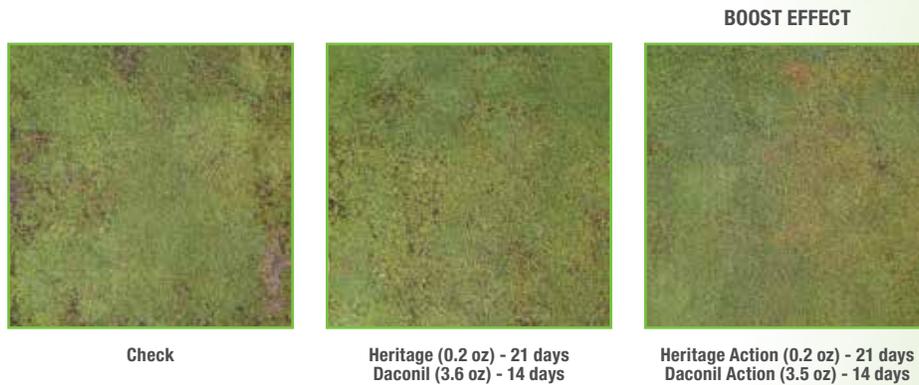
When used together in an agronomic program, Heritage Action and Daconil Action™ fungicides offer a boost in performance with excellent turf safety without the threat of injury, and overall improved turf quality and playability.

Drought Stress Tolerance on *Poa annua*



Syngenta Research Facility, 2015. Photo taken seven days after drought and three hours after re-watering. Fungicide treatments were applied.

Enhanced Control of Anthracnose on *Poa annua* Green



S. McDonald, 2013.

For more information on Heritage Action, visit GreenCastOnline.com/HeritageAction or contact the Syngenta Customer Center at 1-866-SYNGENTA (1-866-796-4368).

#Time4HeritageAction