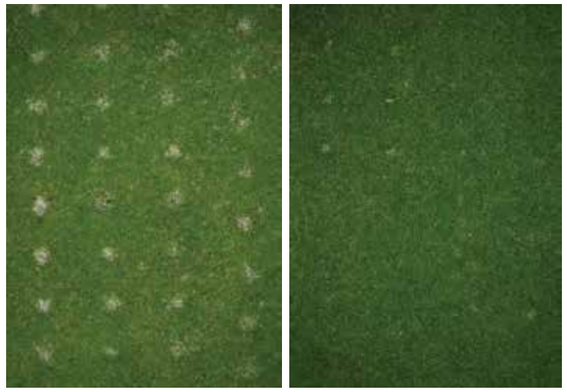
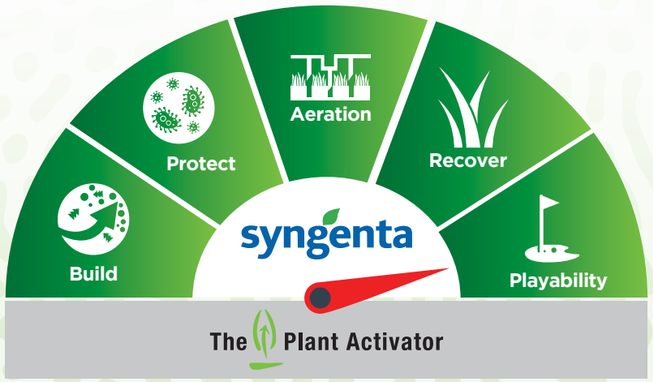
Plant Activators enhance Turf Resilience

Utilize an integrated turf management approach to effectively address abiotic stress in your turf. By incorporating Syngenta's innovative solutions like HeritageAction™, Primo Maxx®, and Hicure®, you can enhance the health, protection, and recovery of your turf. These products work synergistically to strengthen your turf and ensure its resilience. Additionally, by integrating a plant activator like HeritageAction™, you can further boost your turf's defense mechanisms, enabling it to combat abiotic stress factors.



With this comprehensive approach, you can maintain exceptional playing surfaces even in the face of challenging environmental conditions. Don't let abiotic stress limit your turf's potential; leverage the power of integrated turf management and plant activators to maximize its health and vitality

Give your Turf with the BOOST EFFECT with Syngenta Solutions



BUILD plant energy to sustain growth

PROTECT and strengthen cells to fight stress

RECOVER faster from turf damage

Key Diseases Controlled	Application Rate
Large patch, Leaf and Sheath Spot, Bermudagrass decline, Take-All root rot, Fairy Ring, Spring Dead Spot, Pink Patch, Powdery Mildew, Rust, Dollar Spot (Suppression)	HeritageAction™ Fungicide 0.6 kg – 1.2 kg/ha

The turf is the real athlete.

Like training a successful athlete, you condition turf to perform and recover quickly. A season-long regimen with Heritage® Action™ fungicide delivers exactly that. Two active ingredients work together to deliver enhanced disease control, and prepare your turf to perform and recover from abiotic stressors like maintenance, traffic and drought.

HeritageAction™ Fungicide

syngenta®

For more information, visit www.syngentaturf.sg or contact Syngenta Technical Support at GreenCast.SG@Syngenta.com. Syngenta Agro Asia Pacific Pte Ltd. No.1 HarbourFront Ave #03-03 Keppel Bay Tower Singapore 098632. MW 1LGG7016_AGP2 04/17

The Plant Activator

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.

Key Benefits:

- Enhance disease control
- Improve Drought Tolerance
- Increase Heat Tolerance
- Quicken Recovery and Enhance Turf Quality

The Plant Activator

What is the role of Acibenzolar-S-methyl (ASM) in Heritage Action?

Plant activators, such as ASM, are chemicals that activate the self-defense mechanisms of plants, enabling them to respond to abiotic and biotic stresses. When applied to turfgrasses, ASM triggers the production of five pathogenesis-related proteins that play a crucial role in plant defense responses. These proteins enhance the plant's resilience and induce the plant defense mechanisms against a range of abiotic and biotic stress conditions.

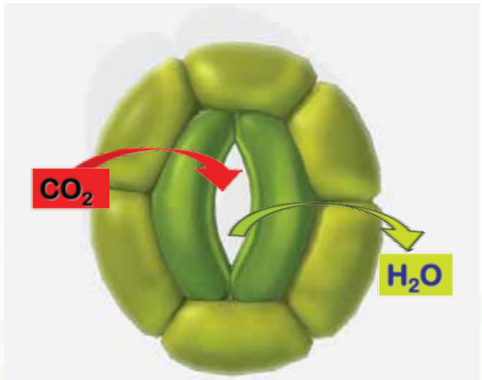
Five Pathogenesis-Related Proteins

Energy production	**ATP-synthase** essential for energy production
Protect from Dehydration	**Dehydrin** an important dehydration-protective protein
Heat Tolerance	**HSP-20** Stress induced protein which maintains protein activity. Highly correlated with heat tolerance
Pathogen defense	**PR-3 A** chitinase protein involved in pathogen defense
Ehanced Photosynthesis	**Rubisco** one of the key enzymes for photosynthesis, is often degraded during stress event

Heritage Action Enhance Abiotic Stress Management

Photosynthesis · Root Development · Water Efficiency · Drought tolerance · Heat / cold Tolerance

ASM Increases water use Efficency

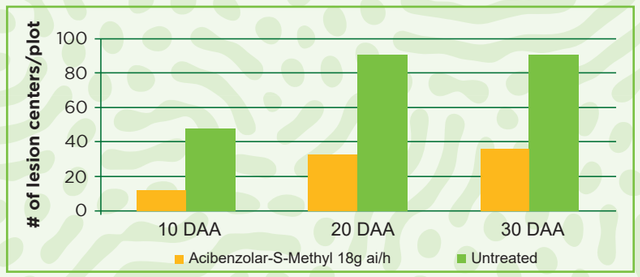


The stomata is the gateway by which carbon dioxide enters and water leaves the plant. When there is no water, the stomate closes, CO2 cannot be assimilated for growth and yield. ASM regulate stomata preventing high rates of water loss when high Vapor Pressure Deficit occur.

- ASM enhances turf's ability to manage water through stomatal regulation
- The extend of water saving depends on level of environmental stress
- ASM helps prevent mid day wilting and less dry spots

Enhance Disease Suppression

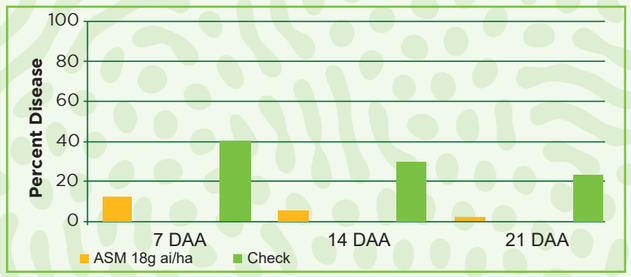
Dollar Spot Trial with Acibenzolar-S-Methyl (ASM)



Trial Conducted by Dr. Bruce Clarke
Rutgers, 2006

Application Interval: 14 days

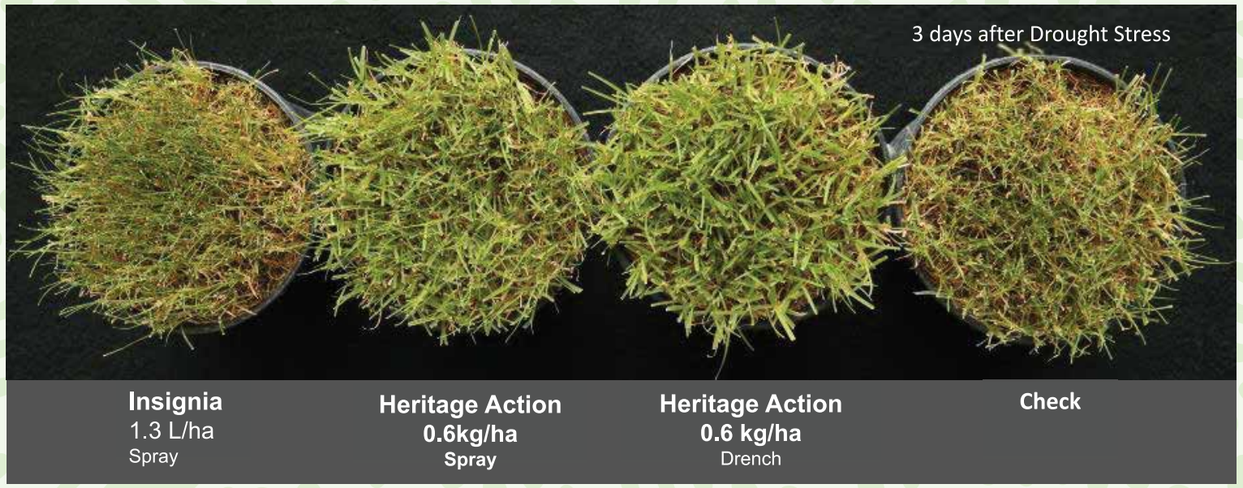
Pythium Blight Trial with Acibenzolar-S-Methyl (ASM)



Trial Conducted by Dr. Mike Fidanza, Penn State University, 2006

Increase drought tolerance in Turf

Heritage Action vs Insignia Intrinsic SC
Treatment were applied 16 and 2 days prior to initiation of drought stress.



Turf Species: Transcontinental Bermuda

Location: Stein

Heritage Action™ Fungicide

syngenta®