

# syngenta®

# Preventive Fairy Ring Solutions

Fairy ring is unique because its symptoms are not directly caused by fungal pathogens. Rather, fairy ring pathogens cause symptoms indirectly by changing the chemical and physical properties of the soil. The causes and symptoms can vary, which is why curative fungicide applications can be unreliable. For best control of fairy ring, a preventive strategy should be used.

#### VARYING CAUSES AND SYMPTOMS

Three types of fairy ring symptoms can change the appearance and/or health of turfgrass.



#### TYPE I SYMPTOMS

Damaged or dead turf from drought stress.

#### **CAUSES:**

- Hydrophobic (water-repellent) thatch and soil.
- Accumulation of ammonium to toxic levels.
- Release of hydrogen cyanide or other toxins into the root zone.



#### TYPE II SYMPTOMS

Rings of dark green or quickly growing turf. These symptoms usually occur early in the season, and indicate that more severe Type I symptoms may follow. They are most evident in under-fertilized turf.

#### CAUSE:

• The release of nitrogen and other nutrients into the soil.



#### TYPE III SYMPTOMS

Mushrooms or other fruiting bodies produced in a ring. They are most common during periods of wet weather preceded by drought.

#### CAUSE:

 Mycelial mass buildup around the outer ring.

Although Type II and III symptoms are not devastating to turf, they do detract from uniformity and can affect playability.

#### KEYS TO EFFECTIVE FAIRY RING CONTROL

- Maintain regular, preventive applications throughout the season.
  - Initiate applications early in the season when soil temperatures reach 55°F to 60°F.
  - Deliver the active ingredient to the infested zone of the soil profile.
- Apply soil surfactants regularly to maintain soil conditions and turf health.
  - Preventive fungicide applications do not require tank-mixing with a soil surfactant, but curative applications generally do.

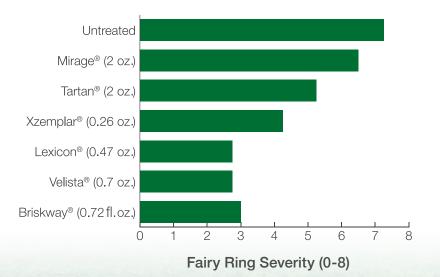
- Determine how deep fairy ring infestation is for watering-in product applications.
  - 0.1-0.15" of irrigation is needed if limited to the thatch layer.
  - 0.25" of irrigation if 2-3" deep in soil.
- Repeat applications on regular intervals to maintain consistent suppression in the soil.
  Fungicides are a long-term, preventive approach, not a short-term fix.

#### AN INNOVATIVE SOLUTION FOR FAIRY RING CONTROL

**Velista® fungicide is recommended as the foundation** of a comprehensive fungicide program to help prevent fairy ring. For best results controlling fairy ring, water in 0.7 oz. of Velista per 1,000 ft². A watered-in application of Velista will also control several other important soilborne diseases like summer patch, spring dead spot and *Rhizoctonia zeae*. To control foliar diseases like brown patch, dollar spot and anthracnose, foliar applications of Velista must be made.

#### FAIRY RING PREVENTION AND RECOVERY IN CHAMPION BERMUDAGRASS

## Pine Valley Country Club, Wilmington, NC



- NC State University
- Treatments applied on March 12 and April 13, 2015 and watered-in with 0.2" of irrigation.
- Data collected June 17, 2015

#### CURATIVE FAIRY RING CONTROL

## Estero Country Club, Fort Myers, FL



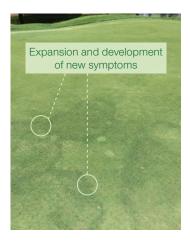
**Velista fungicide** 0.7 oz./1,000 ft<sup>2</sup> Day 0 (June 15, 2015)



**Velista fungicide** 0.7 oz./1,000 ft<sup>2</sup> Day 15 (June 30, 2015)



**ProStar fungicide** 4.0 oz./1,000 ft<sup>2</sup> Day 0 (June 15, 2015)



**ProStar fungicide** 4.0 oz./1,000 ft<sup>2</sup> Day 15 (June 30, 2015)

#### AGRONOMIC APPROACH TO FAIRY RING

Rotating Velista with fungicides like Briskway®, Headway® and Heritage Action™ will provide season-long fairy ring control and offer a well-rounded agronomic program that protects your course from biotic and abiotic stresses.

#### Fairy ring preventive management is a two-step process:

- 1. Prevent the fairy ring fungus from growing
- 2. Maintain thatch and soil properties favorable for turf health

The following rates are recommended for effective fairy ring control. Timing of irrigation depends on solubility and speed of absorption of the active ingredient. For specific timing and interval recommendations for your region, refer to the Syngenta Agronomic Programs at **GreenCastOnline.com/Programs**.

Fungicide	Rate per 1,000 ft <sup>2</sup>	Water volume	Watering in
Velista	0.5 – 0.7 oz.	2 gallons	Should be watered-in immediately after application
Briskway	0.5 fl. oz.	2 gallons	
Headway	1.5 – 3 fl. oz.	2 gallons	Can dry on foliage then watered-in before next mowing
Heritage Action	0.4 oz.	2 gallons	

Fairy ring control is very manageable with regular, preventive fungicide applications. Curative control takes much more time and persistence.



To learn more about fairy ring, listen to the GCSAA webinar with Lane Tredway, Ph.D. at **GreenCastOnline.com/FairyRingWebinar** 



#Time4Velista #FriskyFairyRingFriday





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