

Fungicides for Professional Turf Disease Management by Erin Harlow

Introduction

- Make sure to correctly identify the disease that is present prior to selecting a product.
 - These lists include products for residential and commercial sites, sod farms, and golf courses. It is the responsibility of the applicator to determine if the product is appropriate for the site. This information will be found on the label.
 - Specific products are listed for example only. Neither inclusion of products nor omission of similar alternative products in this fact sheet is meant to imply any endorsement or criticism.
 - Only products with single active ingredients are listed. Many products may contain mixes and may be appropriate if the active ingredients are listed.
 - Modes-of-Action (MOA) are listed for each ingredient. This will help when designing a rotation program. These are designated by the Fungicide Resistance Action Committee (FRAC). Products with codes M3, M4, and M5 have no significant risk of resistance.
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Dollar Spot

Chemical Controls:

- Chlorothalonil (MOA M5) - Daconil
- Iprodione (MOA 2) - Chipco 26GT, Iprodione Pro
- Mancozeb (MOA M3) - Dithane, Fore
- Myclobutanil (MOA 3) - Eagle
- Propiconazole (MOA 3) - BannerMaxx
- Thiophanate-methyl (MOA 1) - 3336
- Thiram (MOA M3)
- Vinclozolin (MOA 2) - Curalan



Photo Credit: University of Florida, P. Harmon

Fairy Ring

Chemical Controls:

- Azoxystrobin (MOA 11) - Heritage
- Flutolanil (MOA 7) - ProStar
- Metconazole (MOA 3) - Tourney
- Pyraclostrobin (MOA 11) - Insignia
- Triticonazole (MOA 3) - Trinity

Notes:

- These products will not eliminate the discoloration or the dry soil problem. Using iron or a wetting agent depending on the type of fairy ring may help eliminate these



Photo Credit: University of Florida, P. Harmon

Gray Leaf Spot

Chemical Controls:

- Azoxystrobin (MOA 11) - Heritage
- Chlorothalonil (MOA M5) - Daconil
- Mancozeb (MOA M3) - Dithane, Fore
- Metconazole (MOA 3) - Tourney
- Polyoxin D (suppression only) (MOA 19) - Endorse
- Propiconazole (MOA 3) - BannerMaxx
- Pyraclostrobin (MOA 11) - Insignia
- Thiophanate-methyl (MOA 1) - 3336
- Triadimefon (MOA 3) - Bayleton
- Trifloxystrobin (MOA 11) - Compass



Photo Credit: University of Florida, P. Harmon

Notes:

- Limit atrazine applications.

Pythium Root Rot

Chemical Controls:

- Azoxystrobin (MOA 11) - Heritage
- Chloroneb (MOA 14) - Tersan
- Cyazofamid (MOA 11) - Segway
- Etridiazole (MOA 14) - Terrazole
- Fosetyl-AI (MOA 33) - Aliette, Chipco Signature
- Phosphorous acid (MOA 33) - Alude
- Propamocarb hydrochloride (MOA 28) - Banol
- Pyraclostrobin (MOA 11) - Insignia

Notes:

- Except for fosetyl-AI water into the root zone.



Photo Credit: University of Florida, P. Harmon

Large Patch or Brown Patch

Chemical Controls:

- Azoxystrobin (MOA 11) - Heritage
- Chlorothalonil (MOA M5) - Daconil
- Fenarimol (MOA 3) - Rubigan
- Fludioxonil (MOA 12) - Medallion
- Flutolanil (MOA 7) - ProStar
- Iprodione (MOA 2) - Chipco 26GT, Iprodione Pro
- Mancozeb (MOA M3) - Dithane, Fore
- Metconazole (MOA 3) - Tourney
- Myclobutanil (MOA 3) - Eagle
- Polyoxin D (MOA 19) - Endorse
- Propiconazole (MOA 3) - BannerMaxx
- Pyraclostrobin (MOA 11) - Insignia
- Thiophanate-methyl (MOA 1) - 3336
- Thiram (MOA M3)
- Triadimefon (MOA 3) - Bayleton
- Trifloxystrobin (MOA 11) - Compass
- Triticonazole (MOA 3) - Trinity
- Vinclozolin (MOA 2) - Curalan



Photo Credit: University of Florida, P. Harmon

Take-All Root Rot

Chemical Controls:

- Azoxystrobin (MOA 11) - Heritage
- Fenarimol (MOA 3) - Rubigan
- Myclobutanil (MOA 3) - Eagle
- Propiconazole (MOA 3) - BannerMaxx
- Pyraclostrobin (MOA 11) - Insignia
- Thiophanate-methyl (MOA 1) - 3336
- Triadimefon (MOA 3) - Bayleton



Photo Credit: University of Florida, P. Harmon

Notes:

- Some preventative treatment.
- Should be applied one month prior to disease symptoms.
- Water products into root zone.

Restrictions

- Chlorothalonil, iprodione, thiam, mancozeb, chloroneb, and vinclozolin cannot be used on residential (home) lawns.
 - It is the responsibility of the applicator to read the label and determine if the product is appropriate for the site.
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Rotating Chemicals

- Chemicals should be rotated based on the mode of action (MOA) of the product. Each active ingredient is associated with a number given by the Fungicide Resistance Action Committee (FRAC).
 - It should be noted that a rotation program should be based on the active ingredients and not the products since many products will have the same active ingredient or be from the same mode of action.
 - To keep fungicide resistance at a minimum, select products from different group numbers.
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A Note About Fungicides

- Using fungicides for disease management is no guarantee that the turf will recover.
- Many products can only be used preventatively. This means that if the disease is already present then the products will only keep the pathogen from spreading to turf not infected, but will not cure what is already diseased.
- Many turf areas that have been severely affected by a disease will need at least one growing season to recover. Cultural practices should be used to aid in recovery of the turf.
- It helps to reduce stress to diseased areas, mainly by fertilizing and irrigating appropriately and using herbicides sparingly.

For more information on turf diseases and control options, download the University of Florida's Pest Control Guide for Turfgrass Managers at http://turf.ufl.edu/pdf/2009_Pest_Control_Guide.pdf.

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This fact sheet is jointly sponsored by the Florida Cooperative Extension Service, IFAS, Millie Ferrer-Chancy, Interim Dean; City of Jacksonville, Alvin Brown, Mayor; and the Duval County Cooperative Extension Service, Mike Sweat, Director.