

Taking Stock on Florida Disease Problems

Compiled By Joel Jackson

Based on some of the comments from superintendents and university turf pathologists, disease incidents appear to be on the rise on our turf-grasses just as we are making gains in cold tolerance, lower nitrogen requirements and better drought tolerance. (See the "Top 10 Diseases" article in the Fall 2007 *Florida Green*.) So we asked Florida superintendents to address some turf disease management questions:

- Because of more intense management, are we stressing turf into disease syndromes that were not problems in the past?

- How has your fungicide program changed in the past few years? Describe products used, rates, timing and frequency and preventive and curative approaches.

- Fairy ring management. When is it occurring? Where is it occurring? How are you treating it?

- Have you used and are you aware of the UF/IFAS Rapid Diagnostic Service?

WALT DISNEY WORLD

I think we are stressing turf and making it more disease prone. At times the cut is lowered just because a competitive course is maintaining a lower height. Often raising HOC is frowned upon even though it is the best solution to overcoming stressed conditions. We don't do any planned preventive fungicide applications. If disease conditions are present then we do make an application. Normally, the disease conditions result from turf stress or foul weather conditions with high humidity.

When algae outbreaks occur, usually during wet periods with lack of sunlight, we use Daconil-Zn® at 5 quarts per acre.

Our overall fungicide program has remained about the same over the past few years and we have seen more pythium activity. Those greens maintained with a higher cut did better than those stressed with a lower cut.



Fairy Ring disease outbreaks are common on putting surfaces. Photo by Joel Jackson.

FAIRY RING

Had a lot of activity for the last two years on TifDwarf greens (four of the 20 at LBV). It was very obvious May through October until we seeded. It seemed to show the worst after a rain when the green was starting to dry enough to run the irrigation back in the auto phase.

The four greens that were a problem received almost daily irrigation (5-10 minutes) while the remaining greens received no water for a couple of more days after the rain.

ProStar® in a drench solution was the only cure we found. Our treatments were done using ProStar 1 lb. / 150 gal. water with 1 qt. Lesco Wet® and using the entire 150 gallons on a green.

We tried watering before, spraying, then watering again but got better results with the drench. The drench method was very slow, but did work. Also utilized a drench with Lesco Wet tabs about every two weeks.

LBV greens were replaced this summer with TifEagle and no fairy ring has appeared as of yet. We did remove 4 inches of mix and replaced with new greens mix (This did completely remove the organic layer that was at 3-1/2 – 4 in. depth)

Haven't used the Rapid Diagnostic Service as of yet. I was aware of the service.

Scott Welder, GCS
Lake Buena Vista Club

SOUTHWEST FLORIDA

I don't think we are more stressed because of more intense management – I think some of the more intense management is actually better for the grass. Granted the lower heights of cut are a stress factor but the increased fertilization, fertigation, topdressing, grooming and verticutting is actually providing a healthier environment for growing.

My fungicide program has not changed much over the past couple of years – I try to rotate systemic and contact every two to three weeks – if anything, I have been able to stretch the windows out due to the drier weather we have experienced.

Last year brought us a couple of periods of intense disease pressure that were totally weather related and Dec. 19 was a big one. We had leafspot in areas in the roughs (cut at 1-1/2 inches, no stress there) and as a result I used more contact fungicide than normal and had more frequent intervals on the applications.

When I first got to Quail Creek we had fairy ring on two greens. A sound agronomic program eliminated the rings after the first aeration and we have not seen any since. I have seen it once or twice on a couple of tees but a Prostar application cleared it right up.

Regarding the Diagnostic Service, I haven't sent in a sample yet. I haven't

seen the need to do that a whole bunch so far. Most of the disease issues down here in Naples seem to be *helminthosporium*, or *bipolaris cynodon* I think they call it now, and I don't need a lab to spot that.

*David Fenton, GCS
Quail Creek C.C.*

I don't believe we are over-stressing our turf. However, I have had more disease incidents on the paspalum than I had on bermudagrass. We are mowing at lower height, but the patch diseases are in the rough as much as in the shorter-mowed turf.

Our disease management programs have changed. We are spraying a preventive on the greens on a monthly basis. We typically spray a group-11 type fungicide. If we have a problem on the fairways, I have curatively sprayed all fairways with a Mancozeb type fungicide. Proper irrigation management is the absolute key to disease management in the fall and winter.

Fortunately we have had very little fairy ring, thank God.

I am aware of the Rapid Diagnostic Service. We do have a microscope and so far I have been able to identify most of our problems.

*Scott Hamm, CGCS
The Colony Golf & Bay Club*

We could be stressing the turf, but we try to limit the stress only to certain special occasions such as tournaments. At the same time we are fertilizing them with more Mn, Ca, K and Fe..

Our program has not changed a lot through the years. We use Chlorothalonil, Thiophanate methyl, Iprodione, Heritage, Disarm and Insignia. We mostly are curative, except in the summer month we do so some preventive. Rates are usually in the high end of the spectrum, we try not to spray very often so we go for the 14- to 21-day interval. You could say we spray once a month.

We do not have much of a fairy ring problem. We did have it quite severe in the greens in the summer of 2005 and 2006, it probably was due to the regrassing of the greens in the

summer of 2004. In the greens we used aeration and fungicides – Prostar and Heritage. We have a few areas in the golf course like fairway and rough, we mainly aerate and add a wetting agent.

Yes, we are aware of the Diagnostic Service and we use them.

Some of the things we do to manage disease occurrence: we maintain a healthy plant by a strong fertilization program. We have reduced nitrogen application and added more potash, calcium and minors. We hydroject often, we also keep a close eye in the irrigation so we do not over water.

*Ricardo Uriarte
Assistant Superintendent
Old Collier Golf Club*

CENTRAL FLORIDA

Here at the UF Plant Science Research and Education Unit, we have a unique setting for disease to occur. With more than 10 different species and 30 different cultivars, we cover the field in possibilities. With the variety of turf, we also have a variety of pathogens hanging around. One species may be more tolerant to one disease, but may also possess a pathogen that will create disease in another turf species.

Then there are always a few fungicide trials ongoing throughout the year. Some of these projects let disease occur naturally, but others are inoculated directly. We take preventive measures to decrease the spread of disease, but often we come up on the short end. In addition to fungicide experiments, we also have other trials that stress the turf and create more disease-favorable conditions.

Over the last year or so, we tried to reduce our mowing times and reduce the hours on our equipment. One shortcut we took, which proved to a mistake, was to blow off the mower reels rather than wash them. Blowing them off took less time and there were more sites in which this could be done. However, we learned that simply blowing off the clippings would not sanitize our mowers nor prevent the spread of disease.

Dealing with bermudagrass for

most of my career, I was not exposed to the wide spectrum of diseases on other turf species, except for St. Augustinegrass. I mostly dealt with dollar spot, fairy ring, Pythium, among a few others. Over the last year or so, I have seen those plus quite a few more. We have incurred Fusarium, Bipolaris, Curvularia, Rhizoctonia in almost every fashion, and the latest new kid on the block, Bostulum, which exhibits dollarspot-like symptoms. The bad news is that there has been very little shown to treat this one.

There is one big positive dealing with this situation. It helps to have a highly qualified plant pathologist working close by. Dr. Phil Harmon visits the plots on a weekly basis, either taking ratings of his projects or applying treatments to them. He has seen a lot more than I have around the state, so I usually point out some questionable areas and get his diagnosis. I have stumped him a few times, but after looking at samples, he lets me know what I am dealing with rather quickly.

Even with following Best Management Practices to the best of my ability, it is becoming increasingly necessary to establish a preventive fungicide program. Being on a tight budget, we have tried a curative approach and seen it fail. We actually spend less money on a preventive program over a curative program due to smaller application rates. We still keep an eye on environmental conditions and avoid unnecessary treatments when we can. There are simply too many factors that encourage disease for us to battle on the curative program.

*Mark Kann
Coordinator of Research Programs
UF Plant Science Center, Citra*

Fairy Ring is our biggest disease problem. It is usually an issue in the spring, but we are seeing some in the fall as you will notice on a few greens during the FGCSA Golf Championship. A drench with a wetting agent like Cascade® and applications of Pro Star® seem always to take care of it.

*Ward Pepperman, GCS
Southern Dunes Golf Club*