

# Ringin' Up Fairy Ring

Unless you've got a taste for mushrooms, this turf disease can be a nuisance . . . and then some

By Thomas Skernivitz, Managing Editor



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hen it comes to fairy ring, Dave Frey turns fungi into fun. The turf disease — more nuisance than catastrophe — is not only beatable, he says, it's sometimes eatable.

"The mushrooms that grow out of a lot of the fairy rings here are meadow mushrooms, which are choice edibility," the Harrisburg (Pa.) Country Club superintendent says.

Frey can separate the good mushrooms from the bad, thanks to a lesson from a chef acquaintance. He picks the edibles — usually in the fall — and eventually chows down.

"I eat 'em," he says. "I don't feed them to my 6-year-old daughter, but I do dry them and eat them. They're like you buy in the store,

but they're better. They're wild. And you have to be careful. My guys think I'm crazy for eating them."

Meticulous club members would just as soon question Frey's greenkeeping competence if he were to allow fairy ring to show its ugly side; that being dark green or brown outer rings, mushrooms and hydrophobic areas that resemble localized dry spots.

Harrisburg Country Club, where the 43-year-old Frey is entering his sixth year as superintendent, is prone to the disease, as are many older courses across the United States. Particularly susceptible, he says, are the edges of his 18 fairways.

"It's not that I have a severe problem, like it's taking out my whole fairway or anything. It's just that my membership wants good conditions," he says. "I didn't worry as much about it (at my previous course), but that wasn't the same caliber of club that I'm at now, and I really didn't have the resources then."

Jim Farrar, an assistant professor of plant pathology at California State University in Fresno, calls fairy ring a "minor problem" in comparison to pythium and anthracnose. "Where it occurs, it's a problem," he says, "but it's not going to wipe out large areas of grass . . . and spread rapidly."

Yet courses can suffer badly, particularly if fairy ring reaches the greens. Pat Gross, the

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USGA GREEN SECTION

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director of the Southwest region of the USGA Green Section, recalls several Las Vegas courses that lost grass, especially bentgrass greens, throughout the summer.

"A lot of times it's just kind of a nuisance disease ... but in some cases, especially on greens, if there's a severe infestation, it can be disruptive to the putting green," Gross says.

"I've seen it so severe that it kills the grass," adds S. Bruce Martin Jr., a Clemson University professor of plant pathology and physiology. "It's more than a nuisance then, and that's on bentgrass or bermudagrass."

The presence of fairy ring is tough to predict, which hinders attempts at preventive treatment. Some years the disease shows up, others it doesn't. And even when it appears, a superintendent might not immediately realize it. "Trying to guess whether you're going to have fairy ring or not is probably a waste of money," Martin says.

The first signs often appear in late spring or early summer, when heat stress begins to increase. Rings of grass experience intensified growth and color, although the circles might be inconspicuous if the rest of the grass is growing commensurately.

"Most of the time you'll see the stimulation of the grass. Or that might not even be visible at all," Martin says. "We're getting plenty of rain in the Southeast, and that generally tends to mask the symptoms. But as soon as things start to dry out and warm up a bit, that's when [the rings] start to show up."

Eventually, if the dry conditions — exacerbated by mower traffic — persist into July and August, the diseased turf begins to die. "The bad cases become severely hydrophobic, and then you get a dead ring," Frey says. "That's what we want to avoid."

And how does one do that? The best preventive treatment for fairy ring, according to Farrar, is adequate thatch management. Fungi begin growing in the center of what becomes a ring and grow outward via the thatch.

"They're digesting the thatch, not the plant itself," Farrar says. "If you don't allow a lot of thatch buildup, then you reduce the amount of food that fungus can get to."

Beyond thatch management, the preventive game can be guesswork. Frey and his crew have experienced success the last two years

with spring applications of fungicides, such as azoxystrobin, pyraclostrobin and flutolanil. "We've seen fairy rings literally cut in half where we applied the pesticide and where we didn't," he says.

But the weather has more than cooperated those two years. Courses in the Northeast have not experienced drought conditions, and Frey still isn't sure if similar spring applications will work as well leading up to a dry, hot summer.

"The biggest kicker is we haven't had a real good drought situation to look at it preventively," he says. "So on a full-scale preventive basis, I don't know if it's feasible or not. The last two years have been fairly wet, and (fairy ring) has not reared its ugly head."

In some cases the problem runs deeper than thatch. Soil-dwelling fairy rings are more difficult to control, Martin says, and can lead to a chronic condition.

"A lot of the time the fairy rings are living off the roots of the trees that are on the edge of the fairway, or they're decomposing the stump that's been buried in the fairway. So their food source is never-ending," he says.

And lest one thinks complete soil recovery is the answer, think again, Frey says. "I've heard of people digging the soil out of the ground, and they still come back," he says.

If fairy ring does appear, it's time to turn to fungicides as a curative treatment. "We've done a good job with curative control with some of the fungicides and wetting agents, so that would be a smarter approach from the standpoint of money and control," Martin says.

The market is also seeing new surfactants that treat hydrophobic soil and manage water in sand-based greens. The question, Martin says, is whether these materials will work in conjunction with the fungicides. "That's something we need more information on," he says. "But I think that's where you're going to see the research kind of go now with fairy ring."

If the condition hasn't been remedied by the time drought conditions arrive, the situation can turn grim, Gross says. "That edge of the ring gets hydrophobic, and in a drought situation, when your resources are limited, it's tough to put on that extra water to keep that ring moist and keep it from fading out," he says.

Of course, for guys like Frey, a bad case of fairy ring might at least provide a bumper crop of mushrooms. ■