Good news on bacterial wilt, bad news on nematodes.

By Anthony Pioppi

When Dr. Nathaniel Mitkowski came before the approximately 400 turf professionals at the 15th New England Regional Turf Foundation Conference and Show in Providence, R.I., he brought good news and no news. For many, the no news was bad news.

On the upside, according to Mitkowski, an associate professor of plant pathology at the University of Rhode Island, Syngenta’s new Daconil Action appears to have preventative qualities when it comes to bacterial wilt on bentgrass.

At the opposite end of the spectrum was Mitkowski’s update on the battle against nematodes. He said there are no products in the pipeline that will soon be available to combat what appears to be an ever-growing problem.

Mitkowski spoke on the second day of the four-day conference that was held Feb. 6-9 at the Rhode Island Convention Center. According to Gary Sykes, executive director of the NERTF, paid attendance was 2,656, including lawn care professionals and equipment technicians.
Show REPORT

New England Turf Show REPORT

That number was up slightly from 2011, and there were 151 exhibiting companies. Sykes said two of the education sessions were expanded this year and the fourth annual Turf Bowl had 16 schools compete.

The NERTF also announced it would donate $129,000 to three universities for 13 research projects.

It was a different mood at this year’s event compared to the last few events. First, the timing of the event was much earlier than usual in response to the Golf Industry Show’s late date this year. Also, the lack of snow through much of New England, Long Island and Westchester County, had superintendents wondering if mass course openings were just around the corner after a 2011 season that saw many facilities hosting golfers well into December.

Optimism about Daconil Action

In 2012, though, superintendents dealing with bacterial wilt on greens may have an effective preventative spray in Daconil Action, the Daconil Weather Stik with Acibenzolar-S-methyl added.

“This is not a poison,” Mitkowski said of Acibenzolar. “It tells the plants to turn on the defensive proteins.”

J.R. James, technical manager of turf at Syngenta, said with Daconil Action, “You give the plant the chance to protect itself.”

He added that Acibenzolar is used, and has been for years, to combat bacteria problems in the agriculture sector.

Mitkowski warned those who might be thinking of using Acibenzolar alone. First of all, he pointed out, it is not labeled for turf; and second, great care would have to be taken when applying it.

According to Mitkowski, even at one ounce per acre, there is the potential to harm turf. He said the Daconil formula apparently acts as a safener and prevents burning.

How effective Daconil Action is on bacterial wilt in bentgrass, specific to golf courses, is hard to say, Mitkowski said. Because research has not yet been done on that yet.

“In the greenhouses it works well at slowing it down,” he said. “It will not give you complete control. This is not a fungicide. It’s not bulletproof.”

Still, just the fact that help might be on the way is enough to bolster the attitude of some superintendents, according to Patrick O’Brien, director of the USGA Green Section’s Southeast Region. Many

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courses in that region try to maintain bentgrass greens in hot conditions. Thus, the greens take on bacterial wilt.

“At least this year, the guys are going into the season with a little more optimism,” O’Brien said.

According to Mitkowski, heat and mowing have much to do with propagating and spreading bacterial wilt. Plants are most susceptible to the bacterium in high heat, when soil temperatures are over 90 degrees and the bentgrass roots go into decline. Mitkowski said, however, that does not always have to be the case.

Mitkowski also told his audience that the anecdotal information with regards to plant growth regulators and biostimulants and their effect on bacterial wilt is mixed. He pointed out, though, that others have found those two inputs to only slightly exacerbate the problem, while some superintendents have said there is no change in the severity of the bacterial wilt when the PGRs and biostimulants are applied.

Slow progress on nematode front

On the other hand, the news for those inundated with nematodes is not good. Stunt counts have been at extremely high levels the past two years, partly due to the hot summers. The other factor for the increased number of courses dealing with the problem is Bayer ceasing production of Nemacur in 2007.

The threshold level for nematodes is 800 stunts per 100 cubic centimeters of soil. In the past few years Mitkowski has seen numbers regularly in the 2,000 to 3,000 range with a high of 39,000 in the scorching summer of 2010 and a peak level of 18,000 in 2011.

According to Mitkowski, the warm winters of the last two years have not impacted the nematode population increase, as some superintendents surmise. According to Mitkowski, nematodes have adapted to the colder climates. He said in the fall nematodes convert a good portion of their liquid to carbohydrates to withstand the freeze.

Mitkowski surmised that it will be at least another five years before there is a new chemistry for the turf industry to use against nematodes. He told the Providence group that there are small trials being conducted in the South but already one of those products has proven ineffective when applied to old push-up style greens because it binds to the organic material.

Mitkowski also said he has been approached about using Dursban but that it is not labeled for nematodes and does not work on the lance variety. He also said he has been approached by superintendents looking for advice on application rates for products that are registered nematicides but not for turfgrass.

“I tell them, ‘We’re not going to have this conversation,’” he said, while reminding those in attendance that the penalty for illegally using such a product can be a year in jail and a $10,000 fine.

The best and only way to reduce the damage inflicted by nematodes, according to Mitkowski, is through cultural practices such as raising the height of cut and minitine aeration as frequently as once a week. It’s all in an effort to encourage deeper rooting. The key, he said, is for superintendents to begin the process well before nematodes have turned greens into an all-you-can-eat buffet.

“You won’t grow roots in July. You have to think about the roots in March and April,” he said. “Really focus on the roots. It’s the best thing you can do.”

Mitkowski said he understood that raising the height of cut at courses accustomed to very fast greens will not please members, but that it must be done to save turf.

“The quality of the golf is going to be different,” he said. “It has to be.”

Another way to combat the pest is to keep the golf course as dry as possible. Converting to firm-and-fast playing conditions will help.

“Nematodes need water,” Mitkowski said.

Mitkowski advised those in his audience who still have Nemacur to use it sparingly and to spot treat.

“Don’t hit the entire green. When it’s gone, it’s gone,” he said.

Unfortunately for superintendents who have extremely high levels of nematode activity in their greens and not a drop of Nemacur in the maintenance facility, the only way to combat the inundation may be through extreme measures. As Mitkowski said, one course on Long Island that dates back to the late 1890s decided its only plan of action is to renovate all its greens, replacing the push-ups with those of USGA specification. While this course might be the first to implement such harsh tactics, it’s not likely to be the last.

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