

Lab, university tests prove poa triv's aggressiveness

MARYSVILLE, Ohio—A field test at Rutgers University and another battery of tests run by an independent seed-testing laboratory here dramatically illustrate the aggressiveness of the rough bluegrass poa trivialis and the extent to which it contaminates some turfgrass seed lots.

"We found that when we used a noncompetitive variety of Kentucky bluegrass and mowed it closely, fertilized it moderately and kept it well irrigated that the poa trivialis became very apparent," said Dr. Reed Funk of Rutgers.

Funk was referring to a test in which researchers put 40 grams of poa trivialis in a 50-pound bag of bluegrass and planted a patch of field.

"After some time," he said, "it [poa trivialis] made up over 50 percent of the turf cover."

Afterwards, they stopped irrigation, allowed the field to grow to 2-1/2 inches and discontinued the fertilization regime, Funk said, adding: "Now I can't find any poa triv in that field. Adjacent to that field we planted a competitive blend of three strong bluegrasses with 60 grams of poa triv and I have never been able to find more than one or two plants of triv in that field."

That experience, he said, suggests that the extent of a poa trivialis problem "depends a lot on whether you're growing it in competition with a competitive blend, and on maintenance levels, and probably the conditions of establishment."

Meanwhile, Seed Technology, an independent seed-testing lab here found disturbing percentages of poa trivialis in bentgrasses last year.

Lab owner Dale Kern explained that because only 2.5 grams of seed are tested in every seed lot to qualify for blue-tag certification, and a lot can be as many as 55,000 pounds, quite a bit of weed seed can pass through a screening.

To discover how widespread the problem was, Kern invited 10 companies to provide 10 samples of bentgrass each for testing.

"We tested at 2.5 grams [about one tablespoon] and then at 10 grams [which is four times the amount tested for gold-tag, or sod-quality certification]," he said. "We found no poa trivialis at 2.5 grams. But at the 10-gram level, these lots that could be sold as 'free' at 2.5 had some poa trivialis, poa annua and chickweed as well as timothy, tall fescue and ryegrass. When we checked the 100 lots at 50 grams [a tea-cup size], 46.5 percent of them were contaminated with from one seed to 288 seeds per pound of poa triv, 1 up to 207 seeds per pound of poa annua and 1 to 486 of chickweed.

"Say we found two or three

poa triv seeds in a 50-gram check, that's 18 per pound. That is a serious problem."

U.S. Golf Association Green Section agronomist Stan Zontek put this spin on the issue for the golf course superintendent: "You have 2 million seeds per pound of Kentucky bluegrass, and 3 million seeds in a pound of poa trivialis. So with only .001 percent contamination could be 300 seeds per pound of poa triv; and



if you're overseeding at two pounds per 1,000 square feet, that's 600 seeds you're planting. Poa trivialis is a stoloniferous grass, which means it spreads like bentgrass. You have a huge, huge problem."

Kern's disappointment was magnified, he said, by the response from the seed companies.

"We sent these results back to the 10 seed companies and ex-

plained the situation, saying not enough seed is being tested," Kern said. "We also called the sod-quality certified people. They all said they couldn't gear up to run 50-gram tests."

There are some 15 to 20 commercial seed-testing labs in the country, but most certification is handled at universities and state laboratories.

The cost for a 50-gram microscopic check: \$150, Kern said, adding: "We haven't had a single request for a 50-gram test and we're perhaps the only lab in the country who can do that size."

He said testing for poa annua

also changed for the worse a couple of years ago. "On sod-quality bluegrass they check 10 grams for poa annua," he said. "For years, we were running 100-gram samples. But not one this year."

"I think if they are going to continue to sell quality seeds, the seed companies themselves have to take the bull by the horns and do it," said Terra Sod owner Charlie Price. "They also have to watch who buys and mixes their seeds.

"The seed companies are not totally to blame. I think there's a lot to be cleaned up with the equipment of some people who buy proprietary seeds and mix them."

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