NO SOLUTION IN SIGHT

By DR. ERIC K. NELSON

The 1998 gray leaf spot epidemic on perennial ryegrass and tall fescue has raised this previously little-known turf disease to a high level of respect from golf course superintendents and other turfgrass professionals who have witnessed its devastating effects.

Those responsible for developing turfgrass specifications for new golf course construction or renovation projects should be aware of the risk of planting straight perennial ryegrass, or seed mixtures where it predominates, and adjust future recommendations accordingly.

Since "Pennfine" perennial ryegrass was first released under Plant Variety Protection status in the early 1970s and the subsequent proliferation of hundreds of new cultivars, some turf managers have been lulled into believing that perennial ryegrass is easy, inexpensive and invincible as a permanent monostand of turf.

A leaf and debris blower can operate for hours with an auxiliary fuel tank. This version is the one put together for Ridge-wood Country Club superintendent Todd W. Raisch by equipment manager Ronny Cestaro.

Leaf blowing all day with auxiliary tank

By TERRY BUCHEN

PARAMUS, N.J. — Faced with the frustration of their leaf blower running out of gas every 1-1/2 hours, superintendent Todd W. Raisch and his crew at The Ridgewood Country Club here found an easy solution.

Equipment manager Ronny Cestaro hooked up a portable six-gallon auxiliary marine fuel tank, similarly used for outboard motors, with a hand-operated bulb-type fuel primer.

The Giant Vac Leaf & Debris Blower, which has its own gasoline-powered engine with an electric start off its own battery, is bolt-mounted to the flatbed attachment on a three-wheel Cushman Turf Truckster.

"We've had great results," said Cestaro.

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GOLF AND THE ENVIRONMENT

Traveling the wildlife highways

By RON DODSON

In our daily human lives, we travel to a variety of places for a variety of reasons — to work, the grocery store, meetings and social gatherings, and to and from our homes. Some of us even travel from place to place on a golf course — down the fairways by cart or by foot from tee to green. Depending on the purpose of our travel, we use different modes of transportation and different routes.

Wildlife travels as well. Instead of sidewalks, roads and highways, they use their own network of paths and trails. Like humans, their routes depend on the purpose and destination of their travel. They may travel from a thicket of woods to find a pond or stream for water to drink.
Gray leaf spot devastates

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The devastation caused by gray leaf spot has now caused many university professors and turfgrass agronomists to avoid recommending straight perennial ryegrass or tall fescue for many turf situations. Unfortunately, the warnings and revelations came too late for several superintendents who reportedly lost their jobs due to extensive damage to their perennial ryegrass fairways.

The crisis will stand as another harsh lesson about long-term reliance on mono-species turf stands. Turfgrass managers should be prepared to rapidly identify gray leaf spot and deal with it appropriately.

SYMPTOMS

The first symptoms of gray leaf spot are small oval leaf lesions that appear "water-soaked" and then turn a grayish tan hue bound by a darker band. Often, the lesions are mistaken for early stages of brown patch or other leaf spot diseases, so microscopic exam or laboratory culture for signs of the fungus may be necessary for confirmation of gray leaf spot.

During humid weather, grayish mycelia and conidia (spores) may be seen on gray leaf spot lesions. Eventually on a larger scale, 2- to 3-inch-diameter patches of chlorotic (light green) and twisted leaves appear in the turf. Whole plants may eventually be killed, leaving dead patches which enlarge and coalesce with additional waves of infection.

DISEASE DEVELOPMENT

Gray leaf spot has the same potential for devastating turf as

Pythium blight. However, gray leaf spot spreads more readily and apparently over a broader range of conditions. It can strike from May through October. Last year, some courses in Virginia were still seeing secondary infections from gray leaf spot in October. Under the right environmental conditions, including high heat and humidity, this fast-moving disease has been reported to wipe out entire perennial ryegrass fairways in as few as 48 hours.

The gray leaf spot fungus produces microscopic conidia (spores) which are easily spread across the turf by wind currents, water splash, surface drainage patterns, maintenance equipment, or anything else that tracks across the turf. Conidia then germinate where moisture is present on leaves for an extended period. Resulting fungal hyphae then infect the leaves and sheaths of the grass plants. Soon, millions of new conidia may be produced by the fungus and spread further across the golf course or geographic region as they were this year.

TURF SUSCEPTIBILITY & RESISTANCE

Gray leaf spot develops readily on perennial ryegrass (Lolium perenne) and tall fescue (Festuca arundinacea), two species which, taxonomically, are closely related. In fact, some of the current turf-type tall fescues had actually been hybridized with perennial ryegrass during their breeding history in efforts to develop their finer leaf texture.

According to University of Maryland ratings of gray leaf spot damage among perennial ryegrass and tall fescue from New York to North Carolina and west through Oklahoma and Nebraska, gray leaf spot was one of the top stories shared by many turfgrass agronomists.

FALLOUT FROM THE EPIDEMIC

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