

THE C-15 PROBLEM

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C-15 or "Toronto" creeping bentgrass has developed 2 disease problems over the past several years. One has been stripe smut, caused by *Ustilago striiformis*, and the other, with an unknown cause, has become known as the C-15 problem.

The stripe smut problem slowly thins the "Toronto" turf. The disease is recognized in the spring and fall of the season by the dark black stripes of fungus spores running parallel up the leaf blades. It is often difficult to see stripe smut symptoms on closely mowed bentgrass.

The C-15 problem is more striking and an entire green may be lost in a few days. The greens are severely thinned and clumpy in appearance as individual plants are killed. This disease is only a problem on "Toronto" bentgrass cut at green height of 1/4" or less. The problem has not been observed on the "Toronto" growing in the fringes or approaches of the green at 1/2" or more. The disease starts in the cool weather of the spring and appears to recover with the arrival of the warm weather of the summer and then begins to decline again in the latter part of the summer and continues on into the cool weather of fall.

Several things have been associated with the C-15 problem including high populations of nematodes, especially *Tylenchorhynchus dubius* the smut nematode, and *Cricinoides* spp, the ring nematodes. However, where nematocides were used to control these nematodes, very little recovery of the turf occurred. Dr. Wm. Meyer,

plant pathologist at Warren's Nursery, has isolated *Helminthosporium erythrospilum* from "Toronto" bentgrass greens in Illinois and has been able to satisfactorily control it by applying 6 oz. of Daconil 2787 every week from early April through October. The best control with Daconil 2787 was obtained where high nitrogen levels were maintained.

For those "Toronto" greens with the stripe smut problem, 8 oz. of Tersan 1991 Fungo, Spot Kleen or Cleary's 3336 drench should be applied as early in the spring as possible, prior to the first mowing.

Neither disease is much fun to have on your greens. The "C-15 problem" is quicker and more devastating. Stripe smut is a much slower disease, but the end results are the same; removal of the desirable "Toronto" bentgrass and its eventual replacement with *Poa annua*. They both can be controlled chemically, but the treatments are very expensive. Controlling the C-15 problem is also very time-consuming. Controlling the stripe smut problem with systemic fungicides year after year could lead to the development of strains of stripe smut which are resistant to these fungicides.

Those who already have one of these problems on their "Toronto" greens may wish to follow one of the control programs, in the hope that less expensive and more permanent control will be found. It is my personal belief that overseeding programs with "Pencross" or "Emerald" creeping bentgrass should be started. It may be

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advisable to completely re-seed, re-stolonize, or re-sod severely affected greens. For those people unfortunate enough to have one of these problems, my heart goes out to you; but for those of you who are contemplating rebuilding greens on an established course or building greens on a new golf course, if you still use "Toronto" creeping bentgrass after having been forewarned, I can only say, "you made your own bed now lay in it".

I realize that "Toronto" creeping bentgrass has become the Cadillac of bentgrass greens, and that having "Toronto" greens on your course is a sign of prestige but when it develops either one of these problems, it will look more like a Model-T and add very little prestige to the course.

Dear Boss:

This is an answer to your request for a report on the accident which happened last week.

After completing the work on the roof of the three story building at 1313 Main Street, last Friday the 13th.

I went down to the ground level and pulled up the wooden barrel used for hoisting material to the roof. This barrel was attached to a 1/2" rope to a stake in the ground, using a clove hitch with a half hitch for security.

Proceeding to the roof, I filled the barrel with fittings, scrap, pipe, tools, etc. Then returning to the ground, I untied the rope from the stake - - - - -

Not until I was twenty feet above the ground, holding fast to the rope, did I realize the barrel weighed more than I.

As I went up, I met the barrel coming down at the halfway point which was 30 feet above the ground. When

the barrel went by, the bottom hit my left ear and shoulder. The ear was damaged beyond repair, and my left arm was fractured in two places. Not wanting to fall 30 feet to the ground, I held tight with my right hand. Upon reaching the top, my head struck the pulley, causing a fracture of the skull and laceration of the brain.

At this point, the barrel had reached the ground and being made of wood, could not withstand the impact and collapsed, causing its contents to tumble out, reducing the weight. I now outweighed the barrel and started down. At the halfway point, I again met the barrel which had now been reduced to four staves and a jagged hoop. The hoop made contact slightly below my navel and caused a deep laceration ending at my chin.

When I landed, I was in the midst of the pipe, fittings, and tools which had been in the barrel. A 6" screwdriver pierced my right foot and both legs were broken. I guess I lost my presence of mind and turned loose of the rope. What was left of the barrel came back down and hit me again breaking my other arm.

My wife is writing this report for me. I don't guess I was able to grip the 1/2" rope tight enough with my right hand. The doc says the severe rope burns will take a while to heal.

Yours truly,

Ima Rigger

P.S. I do not feel this accident was my fault.

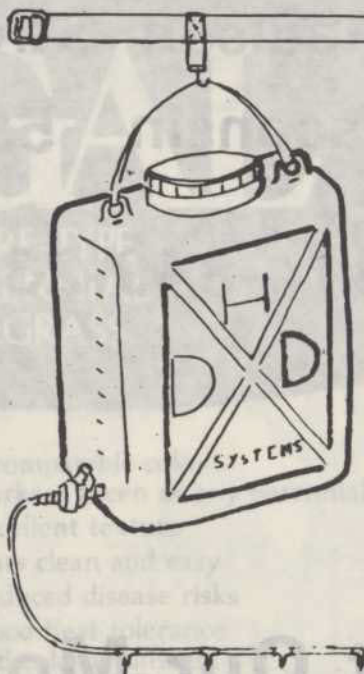


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