New Disease Reported in Pennsylvania

Researchers at Penn State University isolated *Magnaporthe rhizophila* from Kentucky bluegrass (*Poa pratensis* L.) roots in University Park, PA, during August 1992. Summer patch, a serious disease of Kentucky bluegrass, is caused by *Magnaporthe poae*.

Roots of affected plants exhibited discoloration and lesions. Except for slight stunting, no foliar symptoms were evident. This is the first report of *M. rhizophila* in North America and the only report of this fungus on turfgrass.

(From: P.J. Landschoot and M.L. Gullino. 1993. First Report of Magnaporthe rhizophila on Kentucky Bluegrass in North America. Plant Disease 77:1169).

Sod Production With Municipal Solid Waste

Researchers at Virginia Polytechnic Institute and State University, Blacksburg, VA, evaluated part of a municipal solid waste (MSW) separation process as a soil amendment for producing turfgrass sod. Successful sod production using sewage sludge as a rooting medium has been documented. The material evaluated in these studies, known as "heavy fraction" (HF), was a noncomposted by-product of an automated process separating MSW. In this process, metals (Al and Fe) and paper were removed mechanically and then recycled. The remaining residue, or HF, consisted mainly of food and yard waste, but also contained paper and fragments of glass, metals and plastics.

Results of these experiments indicate that the use of MSW HF as a soil amendment for turfgrass sod production may be a viable recycling option. Potential benefits include 1) improved soil fertility, 2) greater soil aeration and moisture retention, 3) lower shipping costs due to production of sod on a lower bulk density soil, 4) replacement of soil organic matter depleted by sod harvesting, and 5) shorter time required to produce a mature marketable sod. Despite the apparent cultural benefits of this material, the environmental effects of HF also must be assessed before this by-product may be used in actual sod production operations.

(From: M.S. Flanagan, R.E. Schmidt, and R.B. Reneau, Jr. 1993. Municipal Solid Waste Heavy Fraction for Production of Turfgrass Sod. HortScience 28(9):914-916).

Sewage Sludge Increases Yield

In other news about recycling, researchers at University of California Cooperative Extension, Ventura, reported that sewage sludge increases yield and color of perennial ryegrass when added to yardwaste composts. Trying to find ways to conform with new legislation requiring reduction of yardwaste disposal in landfills by 25% in 1995 and 50% by 2000, the goal was to find a sewage sludge rate which would most enhance yardwaste amendments. Germination was greatest in unamended soil. Although germination was reduced in the treatment composed of 50% yardwaste and 50% sewage sludge, this treatment had the best turfgrass color ratings. Clipping yield was highest in sludge amended soils.

(From: J. Downer, D. Pittenger, B. Faber, and P. Rogers. 1993. Sewage Sludge Increases Yield and Color of Perennial Ryegrass When Added to Yardwaste Composts. HortScience 28(5):18).

Low Water-Use Turfgrass Cultivars

Researchers at the University of Nevada, Reno, conducted experiments to identify low water-use turfgrass cultivars. Twenty-five commercially available cultivars representing diverse genetic origins (Kentucky bluegrass, tall fescue, perennial ryegrass, fine fescue, chewings fescue, hard fescue, sheep fescue, and red top) were evaluated. Cultivars were rated on evapotranspiration and greenness during drought.

Based on evapotranspiration and greenness scores, the following were identified as low water-use cultivars:

- Kentucky Bluegrass (*Poa pratensis* L.): 'Bristol,' 'Challenger,' 'Wabash'
- Creeping Fescue (*Festuca rubra* L.): 'Shademaster'
- Fine Fescue (*Festuca rubra* L.): 'FRT-30149'
- Hard Fescue (*Festuca ovina* var. *duriuscula* L. Koch.): 'Aurora'

(From: C.J. Fernandez and B. Love. 1993. Comparing Turfgrass Cumulative Evapotranspiration Curves. HortScience 28(7):732-734).

Scanning the Journals

A review of current journal articles

Penn State researchers are the first to report Magnaporthe rhizophila in Kentucky bluegrass.

Experiments indicate that the use of MSW "Heavy Fraction" as a soil amendment for turfgrass sod production may be a viable recycling option.

Researchers in California found that sewage sludge increases yield and color of perennial ryegrass when added to yardwaste composts.