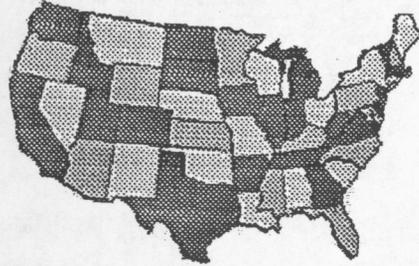


# TurfComms



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**PURPOSE:** To pass on what we learn willingly and happily to others in the profession so as to improve turf conditions around the country.

**NEMATODE RESEARCH:** I have seen a need for nematode research in turfgrass science for a long time. Perhaps this interest in nematodes is due to my earlier association at U. of Mass with Dr. Joseph Troll; at that time he had just begun his Ph.D. work but had just obtained a M.S. for nematode research.

Just recently I became a subscriber to Plant Management Network. So the other day I logged on for my first foray at this site. It wasn't long before I was in the section labeled Fungicide and Nematicide Tests and in the crop section of that for turf. There were 39 reports for such for the year 2002, of that, two were for nematode research.

The results of one of these makes clear, to my way of thinking, our need for research in this field. The work was done on a creeping bentgrass and annual bluegrass turf in Massachusetts. The researchers looked at a new product called TerraPy -G; using two application intervals, Nemacur and a Control. They counted two nematode populations in the soil on five dates and dry root weights on three dates. The results, "There were no differences in turf color or thinning among the treatments. There were no significant differences in nematode populations or root dry weight between the treatments on any of the sampling dates." That's correct; the one nematicide labeled for bentgrass greens provides no measurable control or improvement in roots.

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I asked while at the NTGCSA meeting(see below), Dr. Phil Colbaugh a local turf pathologist, about the lack of nematode research in the turf field. He did not have a good answer but noted most of the nematologists were retired, and that there were no good chemicals available. Dr. Couch, in his talk at that same meeting, noted that the EPA was the big reason there were no new nematicides on the market. It is tough to get a label for anything that works in the soil. He went on to say in a joking manner "that nematodes are what hold the Florida sands together."

**NTGCSA Education Meeting May 28<sup>th</sup>:** Dr. Houston Couch, Bud White, and Dr. Phil Colbaugh.

**Dr. Houston Couch, Professor of Turfgrass Pathology**, I had heard many times before. After all he is a popular 78 year old speaker from Virginia which was a good neighbor to Maryland, the state where I resided for 11.5 years. Dr. Couch gave good basics on plant health or conditions that cause a lack of good health and thus lead to diseases. He concentrated on diseases that are common to unhealthy plants narrowing this *Gaeumannomyces* decline of bermudagrass and *Curvularia* blight.

*Ophiosphaerella korrae* – the causal agent of *Gaeumannomyces* decline, SDS, take-all patch in St. Augustine, and necrotic ring spot of Kentucky bluegrass can be controlled with Spring and Fall applications of Eagle at 1.2 oz/M. He noted these diseases are more severe under alkaline soil conditions, low potassium levels, and close mowing.

He also suggested Heritage at 0.4 oz/M after first spiking the turf, then watering to get to field capacity, wait 24 hours, then apply Heritage, and then water in with ¼ inch of water. Two weeks later, treat again.

He then went on to discuss *Curvularia* Blight on cool season grasses. We used to call this Fading Out. It is favored by several days in 85 to 95 degree range, and on plants that had spring applications of 2,4-D, MSMA, or dicamba. He noted that warm season grasses develop the disease in early spring, when plants were damaged in the winter or have been stressed by nematodes or drought. It can be controlled by the same fungicides used for *Helminthosporium* control.

He talked for a while about synergism using the Banner combinations with: Bayleton, Chipco 26099, Daconil 2787, and Vorlan for Dollarspot control. Where you get better and longer control with less fungicide.

And then he went on to synergism for pythium control using Fore and Subdue Maxx , Fore and Banol, Signature and Banol, or Signature and Subdue Maxx.

If you have questions about resistance to fungicides he suggests going to <http://www.frac.info> and click on **FRAC** home.

I'm not sure whether I have heard Dr. Couch too often or what, but most of his attempts to be funny seemed to fall flat. The next speaker for me was much more interesting.

**Bud White, USGA agronomist**, talked about managing the new ultradwarf bermudagrasses with some comments pertaining also to the new bentgrasses. He noted that there was a lot of misinformation about managing the ultradwarf bermudagrasses. But, first, he said that it is now possible to obtain high purity Tifdwarf.

He said that with Tifdwarf there was the nickel rule for the proper depth of vertical mowing of this grass. However, with the ultradwarfs, you should vertical mow two days after a Primo application. And that the Ultradwarfs don't tolerate heavy topdressing rates.

He called attention to a recent article in the Green Section Record by Pat O'Brien and Chris Hartwiger, March-April 2003. Where, it was reported, that you need to apply 40 to 50 cubic feet of sand/M year for ultradwarf management. The key being that you need to keep the organic matter level between 3 and 4% in upper layers. He pointed out that a 80:20 mix results in 0.85 to 0.9% organic matter. So that you are, in reality, allowed a 4 fold increase in organic matter and you will still be within allowable limits. (Ed. Note that is not easy to do. The organic matter on bermudagrass greens builds up rapidly.)

Bud recommends when managing ultradwarfs that you topdress weekly and vertical mow every other week during the growing season. Your goal is to manage the organic matter in the mix. He strongly recommends starting your aerification program the year of planting to help control the grow-in layer problem.

One of the problems he has seen with the ultradwarfs is the use of a finer sand to topdress with. In particular one that is not compatible with the mix; and, worse yet, one that does not meet USGA recommendations.

He said, don't expect the roots on the ultradwarfs to go deeper than three inches. For a measure of health look at the depth of the rhizomes. When they are at a  $\frac{3}{4}$  inch depth, your greens are as healthy as they are going to get.

He noted that the new grasses both bermudagrass and bentgrasses need quad-tine spacing for aerification. You need to remove 30% of the surface per year! The only way to reduce frequency to an acceptable level and accomplish this is to use one inch spacing. Four aerifications/year with  $\frac{1}{2}$  inch tines on 2 inch centers doesn't do it; while one with one inch centers goes to 19.5%. He suggests three aerifications/year on one inch centers with either  $\frac{3}{8}$  or  $\frac{1}{2}$  tines.

Algae control is a problem on mismanaged ultradwarf greens because of too much organic matter on the surface. (Ed. The same can be said for bentgrass greens.)

He suggested that if you are using the Graden you not go deeper than 5/8 inch. Deeper cutting causes the putting surface to be unstable.

**Dr. Phil Colbaugh, plant pathologist from TX A&M – Dallas**, was the next speaker. He talked about the ETRI group of fungi. I think this stands for EctoTrophic Root Infecting Fungi. It includes Take-all Patch, Summer Patch, SDS, and Necrotic Ring Spot; the same group Dr. Couch started out discussing. These diseases are favored by high pH soils, a common occurrence from Dallas to the west. He noted that an application of lime back East can be enough to get one of these diseases started.

For control he recommended keeping manganese(Mn) and copper high; and suggested a 2:1 iron to Mn ratio. A Mn availability index of 110 is the target. Or a 3:1 Fe:Mn based upon soil pH and a Melich II analysis. Also Cleary's 3336 at 8 oz and Daconil WS at 4 oz/M or Heritage at 0.4oz/M Spring and Fall.

He has found more of this group of fungi in greens that are not sufficiently verticut and topdressed.

April 19, 2003

TO: Frank Andorka [fandorka@advanstar.com](mailto:fandorka@advanstar.com)  
Golfdom (with slight modification)

**Subject: Purr-Wick**

Reading the article "New Construction Method May Reduce Pollutant Runoff" in the April issue brought back memories of a few Purr-Wick greens I encountered when working as an agronomist with the USGA Green Section. In each case they were failures. At least in comparison to a green built correctly to USGA recommendations. On the other hand, the two football fields I went to seemed to do all right, although neither watered subsurfacely.

When Dr. Bill Daniels first came out with his system there was a lot of discussion among my fellow agronomists about the good and bad parts of his System; there also was some legal debate on whose system this really was. From the agronomist side we were not overly thrilled with irrigating through a subsurface system. We didn't like driving the air out of the soil from the bottom. There is a need to pull oxygen in from the air above.

I would also add that after having been on many greens built to USGA recommendations and seen research at Michigan State, there is a need for the base of a green **not** to follow directly the finished surface contours. The ridges in the base need to be exaggerated and the low areas deepened so that the high areas don't dry out too badly and the low areas don't become too wet.

Also, two tier greens don't work well with either the USGA or the Purr-Wick approach. With ten foot stimpeters now even possible on bermudagrass greens, new greens must be relatively flat. Thus, a second level is created in the green to make accuracy of the approach shot of more importance. The raised tier should have less mix on it so that it's surface moisture more closely matches the lower tier. A three tier Purr-Wick green I saw attempted to do this with three separate undersurfaces, separated by almost-to-the-surface barriers. But, just like the USGA approach to this, it didn't work, as the water wicks down to the lowest level.

Well enough on this subject. Keep the interesting articles coming.

END