**Disease Management:**

It's not just fungicides!

By Monica L. Elliott, Ph.D.

I have one of the best family doctors in the country, and yet there are times when I want to take his perfectly knotted tie and, well, you get the picture. Why? Despite my puffy eyes, chills, runny nose and hacking cough, he will not give me an antibiotic to make the flu go away immediately. He says it is better just to go home, drink lots of fluids and get some bed rest, and then with a smug look, he reminds me that I refused to get a flu shot back in October.

Another time when we were discussing diet, he had the nerve to inform me that Tootsie Rolls, Twinkies and chocolate donuts are not part of the five basic food groups and could very well explain my increasing cholesterol level. And no, he wouldn't give me a drug to lower my cholesterol until I had met with the nutritionist about changing my diet. Alas, I can't argue with him.

These are the same basic recommendations I give for turfgrass diseases.

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Some diseases simply are not manageable with only fungicides. The root-rot patch diseases (take-all patch, summer patch, spring dead spot) are probably the best examples.

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Neither simple nor easy

While turfgrasses may be affected by diseases all year long, individual turfgrass diseases are prominent for only a few months each year, usually due to weather patterns and the resulting environmental effects. However, any stress (environmental or manmade) placed on turf will weaken the turf, and thus make it more susceptible to disease development.

There are four basic steps to disease management. First, the disease must be correctly identified. Second, the environmental conditions or management methods that are promoting infection and disease development must be determined. Third, identify the short-term management techniques that will alter or eliminate these conducive conditions or that will suppress the fungal pathogen while the disease is active. Fourth, (especially if this is a recurring disease problem), identify the long-term management techniques that can be implemented to prevent disease development or minimize the damage to the turfgrass from the disease.

An integrated management program that includes both chemical and cultural methods...