


Disease Alert

A root rot fungus is causing extensive damage on St. Augustinegrass (*Stenotaphrum secundatum*) according to Dr. Phil Colbaugh of the Texas Agricultural Experiment Station in Dallas. The damage to St. Augustinegrass lawns extends from Texas eastward along the Gulf Coast. Recent diagnoses also have been made in Arizona and California. The disease is caused by *Gaeumannomyces graminis* var. *graminis*, with the initial symptoms being a yellowish chlorosis of

the leaves and a root system that is basically dead. The lawns typically thin and eventually the turf may die in large irregular patches. Dr. Colbaugh is finding that good control can be obtained for this root rot problem by a combination spray of thiophanate-ethyl (Cleary's 3336®) plus mancozeb (FORE®) at a 4 ounce (113 g) rate. The use of TeeJet 8004 nozzles to increase the spray volume to 2 to 4 gallons (7.6–15.1 L) of spray has proven beneficial. 

A Global View of Landscape Use


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have been maintained as well-swept dirt ground. The soil had become severely compacted and many areas were groomed each morning by a large number of broom-wielding workers.

More than 15 years ago I was contacted by Chinese government officials concerned with the development of a revegetation plan for urban open spaces, such as the city of Beijing. The elimination of green vegetative covers that stabilize the soil had resulted in a major increase in atmospheric pollution within the city in the form of flying dust and even dust storms that reduced visibility. **More importantly, the increases in a number of serious human diseases were occurring at a much greater rate than in any other major non-Chinese city in the world.** Their interpretation was that the lack of green vegetative cover and its associated living biological ecosystem of antagonists to the disease-causing bacterial and viral organisms had resulted in a major increase in disease causing organisms which were readily disseminated by the windblown dust particles. Similar problems were occurring in many other large cities in China.

Unfortunately, I never was given the opportunity to review the actual documents on which these conclusions were drawn.

In an attempt to eliminate these serious urban pollution and human health problems, the Chinese governments in these major urban centers have embarked on a major program to revegetate the open spaces by planting turfgrasses in parks, on sports-recreation areas, along roadsides, and around major government facilities. Even the famous Tiananmen Square now has distinct turfed lawn areas.

- This series of historical events ranging between the extremes of bare dirt versus the use of turfgrass emphasizes the important values of turfgrasses not only from an aesthetic standpoint, but also from the beneficial effects in reducing air pollution, protecting human health, and enhancing the quality-of-life in densely populated urban areas.
- This experience also emphasizes the impact that the presence of turfgrasses have on the environment and on the human population. 

Turfgrass Root Basics

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- **Thatch**—cultural practices should be adjusted to avoid an excessive thatch accumulation of dead organic matter. An excessive thatch causes the roots to remain in the thatch layer rather than growing into the underlying soil root zone; thus, resulting in increased proneness to disease, insect, drought, heat, and cold stresses.
- **Preemergence herbicides**—a number of preemergence herbicides exhibit varying degrees of toxicity to turfgrass roots, even though there are no direct visible ef-

fects to the aboveground shoots. Thus, such preemergence herbicides should only be used as needed to correct a serious developing weed problem.

- **Insects, nematodes, and diseases**—wherever there is a developing pest problem that may cause extensive loss of the root system and allied turf, it is important to implement the appropriate pesticide application that is targeted specifically for the individual problem. 