Hydrophobic Problem. The basic cause of a hydrophobic soil problem involves soil basidiomycetes fungi which during the process of mycelial decomposition result in their residues forming organic coatings around the sand particles. The consequence is substantially increased surface tensions and typical hydrophobic soil symptoms. These basidiomycetes associated with hydrophobic soil conditions tend to be more active on sand root zones that are deficient in a balanced population of soil biological organisms.

Nitrogen Nutrient Availability. Newly constructed high-sand root zones tend to have a relatively high nutritional requirement for nitrogen. This problem is associated with the non-living soil condition. The turfgrass nitrogen requirement is lowered by as much as 50% when a balanced root zone biological population develops. The use of a slow-release nitrogen carrier during this early phase is important.

Fairy Rings. High-sand root zones constructed with an undecomposed organic matter source may exhibit extensive fairy ring development, especially in Europe during the initial 3 to 4 years. The basidiomycete fungi that cause fairy rings are particularly active on undecomposed organic matter. This fairy ring problem may be minimized by use of a well-decomposed organic matter source, especially if it is properly composted to contain a balance of living beneficial soil organisms. Also, the use of composted topdressing material containing a balanced range of beneficial soil organisms is probably beneficial. Unfortunately, research to fully understand the organisms involved and means of maximizing their use in root zone construction and topdressing has not yet been accomplished.

In Summary. These problems can be minimized by encouraging the rapid development of a living, biologically balanced root system.

UPCOMING INTERNATIONAL EVENT:

July 20 to 26, 1997. Eighth International Turfgrass Research Conference. The University of Sydney, Sydney, Australia.

Contact: Mr. Peter McMaugh, President, International Turfgrass Society, 75 Ryedale Road, West Ryde, New South Wales, 2114, Australia.
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UPCOMING JB VISITATIONS:

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- Nov. 3 to 7 - Indianapolis, Indiana.
- Nov. 13 to 15 - Rochester, New York.
- Nov. 18 to 19 - Phoenix, Arizona.
- Dec. 3 to 6 - Providence, Rhode Island.
- Dec. 7 to 12 - New York, New York.

ISTI Chief Scientist: James B Beard
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