

### DISEASE SYMPTOMS MAY VARY WIDELY AMONG TURFGRASS SPECIES

**Cool-Season Turfgrass.** Initial symptoms of gray leaf spot appear as a melting-out. Perennial ryegrass (*Lolium perenne*) seedlings and sometimes mature plants, can be severely injured during late summer and fall. Gray lesions with a brown border occur along the margins of infected leaves. The leaf blades often are twisted and die back from the tips. The turf may be thinned, especially under hot, humid conditions.

**Warm-Season Turfgrass.** Initial symptoms of gray leaf spot on St. Augustinegrass (*Stenotaphrum secundatum*) are tiny, brown spots on the leaves and stems that enlarge rapidly, turn bluish-gray, and become oval to elongated with a 6 to 8 mm length. A gray mold may occasionally be seen covering the lesions during hot, humid weather. Mature lesions have tan to gray, depressed centers with irregular, purplish-brown margins. A yellow border may be present. A severe infection results in leaves with a scorched or burned appearance, and the turf is thinned.

### NEW PUBLICATION AVAILABLE:

**A Guide to Golf Course Irrigation System Design and Drainage** - by Edward Pira. Ann Arbor Press, Chelsea, Michigan. (1997)

This book addresses irrigation system design, construction, scheduling, and operation. It also covers the fundamentals of drainage design and installation. Used in numerous academic courses for years, this is the first commercially-available edition. It has been completely reorganized, is easy-to-use, and contains more than 450 pages, 700 figures and illustrations, 100 tables, hands-on examples, and student problems. A detailed reference book for the practitioner, as well as an instructional manual. The book price is \$59.95, plus shipping.

Contact: Ann Arbor Press, Inc., P.O. Box 310, Chelsea, Michigan 48118.

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### THREE-DIMENSIONAL VERSUS TWO-DIMENSIONAL ROOT ZONE STABILIZERS

Based on a number of questions during a recent international conference, it is evident there is still confusion concerning the use of stabilizing materials in high-sand root zones. A question commonly raised is "don't they cause hardness?" The answer is "yes" for the two-dimensional types such as the fibrillated fibers. However, it is a distinct "no" for the three-dimensional interlocking mesh of which there is only one available on the market developed by Netlon, Ltd.

Research from six different studies conducted over a four-to five-year duration has consistently shown that use of the three-dimensional interlocking mesh root zone actually results in a softer surface, based on numerous Clegg Impact Hammer peak deceleration assessments. This translates to a more safe surface for sports participants. In addition, this same extensive research has shown that the three-dimensional interlocking mesh system also has a self-flexing action which contributes to an improved root zone environment in terms of drainage and aeration that enhances root growth and turfgrass health.

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The goal of the six issue per year TURFAX™ newsletter is to provide international turf specialists with a network for current information about turf. This newsletter is faxed to all Institute Affiliates that use the ISTI technical assistance services on an annual basis. Faxing is more costly, but ensures quick delivery to those outside the United States.

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