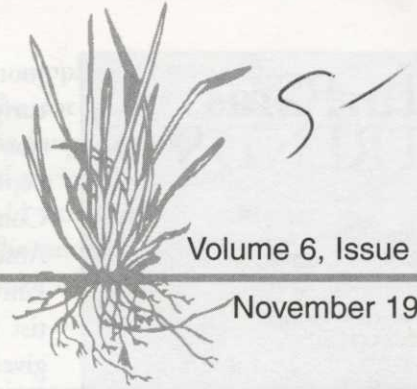


TurfGrass TRENDS



Volume 6, Issue 11

November 1997

Rhizosphere Microbiology The Mysterious World of the Turfgrass Root Zone

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Intensive turfgrass management has traditionally focused on the application of a repertoire of primary and secondary cultural activities to maintain the appearance and functionality of a population of turfgrass shoots to a prescribed standard. In short – we manage the green part! That obsession with the grass shoot reflects what I refer to as “iceberg management.” In closely mown turf, roots represent a significant, but largely invisible component of the plant ecosystem that is being managed. Just as the captain of the Titanic discovered the significance of what could not be seen, there is increasing evidence that turfgrass managers must become ‘root managers’ and that an important element of that management will relate to the plant root-soil microbe interaction.

In an earlier issue of *Turfgrass Trends*, Hull (February 1996) discussed the importance of roots to the grass plant and outlined management strategies for enhancing root growth. Roots function to anchor plants, in the absorption of water and nutrients, as a factor in stress tolerance and as a contributor of organic matter to the soil nutrient pool. Establishing and maintaining healthy

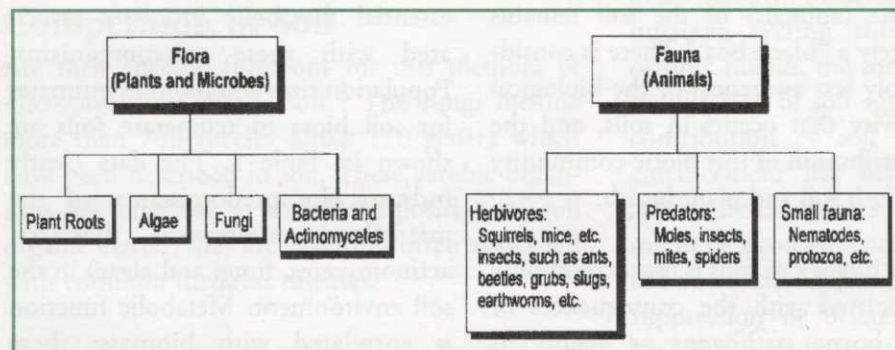


Figure 1. Diversity of soil flora and fauna in soil. Reprinted with permission from *Intro. to Turfgrass Management*. UBC Continuing Studies, Vancouver BC.

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