A question asked fairly frequently is what are the activities of the International Sports Turf Institute (ISTI)? First a definition might be in order. The geographical scope of the Institute activities extends throughout the United States and worldwide. The affiliates with which the ISTI is actively involved are developed based on specific requests from an individual governmental agency, sports federation or association, philanthropic agency, company, or individual. Long-term associations are preferred to one-time interactions. Included under the term of sports turf are all phases, including golf courses, sport fields, race tracks, bowling greens, recreational grounds, and sod production operations. The activities of ISTI can be grouped into four categories as follows.

**Education.** Approximately 40% of the effort is devoted to educational activities involving lectures at turf conferences and presentations of 1- to 3-day seminars in various countries around the world. A seminar presentation also may involve the writing of a coordinated manual that is translated into the specific language of the host country. ISTI seminars were presented in England, Germany, Ireland, the Netherlands, Sweden, and the United States during 1998.

**Research.** ISTI has research contracts in a number of countries, which accounts for 30% of the activities. The contracts involve research planning, staff training and monitoring, data collection and analysis, and research report preparation. Turfgrass research plots are currently under contract in Torino, Italy; Rome, Italy; and Chiba Prefecture in Japan. Specific research projects ongoing in the United States are located in College Station, Texas; Houston, Texas; Palm Springs, California; and Phoenix, Arizona. Associate Agronomist Sam Sifers devotes a considerable portion of his time to these research efforts.

**Technical Writing.** Approximately 15% of the Institute’s efforts are devoted to writing scientific papers, technical articles, and books. The full-color, second revision of *Turf Management for Golf Courses* is scheduled to be available in September of 1999.

**Turfgrass Technical Assistance.** Technical assistance involving on-site visitations to assess existing or potential turfgrass-soil problems is provided worldwide. These activities allow real-world interaction with the various segments of the turfgrass industry.

## ENHANCING TURF RECUPERATION OF TEES

In northern Italy there are golf courses utilizing an innovative approach to the mowing strategy on tees. Specifically, the portion of each tee that has been subjected to intense divoting is mowed on a less frequent basis to allow enhanced turfgrass regrowth. The concept being that the resulting greater leaf area will cause an increase in carbohydrate production to enhance the speed of turf recovery. This approach is most appropriate on closely mowed tees. In addition, the less frequent mowing should be a moderate adjustment that does not result in such excessive leaf growth that a degree of scalping occurs. There have been several new strategies for golf course culture that have evolved from Italy. An earlier development was frequent topdressings of sand onto clay-based fairways combined with intense, deep-core cultivation. This is now widely used in many parts of the world. It will be interesting to see whether this technique for enhanced divot opening recovery for tees will find more widespread use.

## ASK DR. BEARD

Q. What are the negatives of mowing putting greens in the evening?

A. The major factor in mowing putting greens in the evening will be a slower putting speed or a shorter distance of ball roll during the subsequent day. In the order of 60 to 65% of the daily vertical leaf extension occurs during the nocturnal period. During darkness the stomata are closed and water loss by evapotranspiration essentially ceases. However, root water uptake continues and a strong positive water balance and high tissue turgidity results. Since the vertical leaf extension involves principally cell elongation and water is the key component in cell elongation, the result is much greater vertical leaf extension at night than during daylight. This occurs even when the daylight period is much longer than the nights of mid-summer.

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