

**JB COMMENTS:**

Sometimes it is the simplest of things that we tend to overlook in communications. I personally experienced this while presenting a keynote paper before the World Scientific Congress of Golf at St. Andrews University in St. Andrews, Scotland. The title of the paper was "Environmental Protection and Beneficial Contributions of Golf Course Turfs". It was published in "Science in Golf II" edited by A.J. Cochran and M.R. Farrallay and published by E and FN Spon of London, England, UK.

In the introductory section of this ten page paper is a summary of the comparative types of use and maintenance on a representative 18 hole golf course (see Table 1).

Table 1. Comparative turf use by area for a representative 18-hole golf course in the United States.

Turf Use	Area in hectares (acres)	Percent of total area
Roughs-water - woodlands	52.7 (130)	72.2
Tees	0.93 (2.3)	1.3
Fairways	16.2 (40.0)	22.2
Buildings-parking lots	2.1 (5.2)	2.9
Putting greens	1.0 (2.5)	1.4
Total	72.9 (180)	100.0

The audience consisted predominantly of individuals involved in golf equipment manufacturing, professional golfers, architects, and golf association leaders from around the world. To my surprise the one bit of information which I received the most comment on and evidently created the most stir was that only 1.4% of a golf course is devoted to the more intensive

maintenance for putting greens and another 22.2% on average is devoted to intermediate maintenance of fairways. They were surprised to learn that it is not the entire golf course acreage. Evidently these non-turfgrass oriented individuals associated with the golf industry had never considered this fact in relation to criticisms related to the environmental issues they encounter. They have assumed that the same pesticides and other chemicals were being applied fence-to-fence. This illustrates an important impact-statement that many of us may have overlooked in the past, but may be one of the first facts we should emphasize.

**Note:** A survey among those reviewing my revision of "Turf Management for Golf Courses" reveals an interesting trend in fairway size in the United States. Specifically, the average acreage of fairways on 18-hole golf courses has declined from 50 to 35 acres (20 to 14 hectares). While the intensity of fairway maintenance has increased, the size has decreased greatly with much of that area being converted to lower-maintenance intermediate rough and/or primary rough.

ISTI Chief Scientist: James B Beard  
TURFAX™ Production Editor: Harriet J. Beard

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Direct inquiries to:  
International Sports Turf Institute, Inc.  
1812 Shadowood Drive  
College Station, Texas 77840 USA  
Telephone: (409) 693-4066  
Fax: (409) 693-4878