



USGA PRESIDENT
Judy Bell

**GREEN SECTION
COMMITTEE CHAIRMAN**
Thomas W. Chisholm
26101 Northwestern Highway
Southfield, MI 48076

EXECUTIVE DIRECTOR
David B. Fay

EDITOR
James T. Snow

ASSISTANT EDITOR
Kimberly S. Erusha, Ph.D.

DIRECTOR OF COMMUNICATIONS
Mark Carlson

©1996 by United States Golf Association®

Subscriptions \$15 a year, Canada/Mexico \$18 a year, and international \$30 a year (air mail).

Subscriptions, articles, photographs, and correspondence relevant to published material should be addressed to: United States Golf Association Green Section, Golf House, P.O. Box 708, Far Hills, NJ 07931.

Permission to reproduce articles or material in the USGA GREEN SECTION RECORD is granted to newspapers, periodicals, and educational institutions (unless specifically noted otherwise). Credit must be given to the author, the article's title, USGA GREEN SECTION RECORD, and the issue's date. Copyright protection must be afforded. To reprint material in other media, written permission must be obtained from the USGA. In any case, neither articles nor other material may be copied or used for any advertising, promotion, or commercial purposes.

GREEN SECTION RECORD (ISSN 0041-5502) is published six times a year in January, March, May, July, September, and November by the UNITED STATES GOLF ASSOCIATION®, Golf House, Far Hills, NJ 07931. Postmaster: Send address changes to the USGA Green Section Record, P.O. Box 708, Golf House, Far Hills, NJ 07931-0708.

Second-class postage paid at Far Hills, NJ, and other locations. Office of Publication, Golf House, Far Hills, NJ 07931.

Turfgrass Information File (TGIF):
(800) 446-8443



NATIONAL OFFICE:

United States Golf Association, Golf House
P.O. Box 708, Far Hills, NJ 07931 • (908) 234-2300 • Fax (908) 234-1513
James T. Snow, *National Director*
Kimberly S. Erusha, Ph.D., *Director of Education*
Marty Parkes, *Manager, Green Section Communications*

GREEN SECTION OFFICES:

P.O. Box 2227, Stillwater, OK 74076 • (405) 743-3900 • Fax (405) 743-3910
Michael P. Kenna, Ph.D., *Director, Green Section Research*

Northeastern Region:

United States Golf Association, Golf House
P.O. Box 4717, Easton, PA 18043 • (610) 515-1660 • Fax (610) 515-1663
David A. Oatis, *Director*
500 N. Main Street, Palmer, MA 01069 • (413) 283-2237 • Fax (413) 283-7741
James E. Skorulski, *Agronomist*

Mid-Atlantic Region:

P.O. Box 2105, West Chester, PA 19380-0086 • (610) 696-4747 • Fax (610) 696-4810
Stanley J. Zontek, *Director* • Keith A. Happ, *Agronomist*

Southeastern Region:

P.O. Box 95, Griffin, GA 30224-0095 • (770) 229-8125 • Fax (770) 229-5974
Patrick M. O'Brien, *Director* • Christopher E. Hartwiger, *Agronomist*

Florida Region:

P.O. Box 1087, Hobe Sound, FL 33475-1087 • (407) 546-2620 • Fax (407) 546-4653
John H. Foy, *Director*

Mid-Centent Region:

720 Wooded Crest, Waco, TX 76712 • (817) 776-0765 • Fax (817) 776-0227
James F. Moore, *Director*
P.O. Box 1130, Mahomet, IL 61853 • (217) 586-2490 • Fax (217) 586-2169
Paul H. Vermeulen, *Agronomist*

North-Central Region:

P.O. Box 15249, Covington, KY 41015-0249 • (606) 356-3272 • Fax (606) 356-1847
Robert A. Brame, *Director*
11431 North Port Washington Road, Suite 203, Mequon, WI 53092
(414) 241-8742 • Fax (414) 241-0974
Robert C. Vavrek, Jr., *Agronomist*

Western Region:

5610 Old Stump Drive N.W., Gig Harbor, WA 98332
(206) 858-2266 • Fax (206) 857-6698
Larry W. Gilhuly, *Director*
22792 Centre Drive, Suite 290, Lake Forest, CA 92630
(714) 457-9464 • Fax (714) 457-9364
Patrick J. Gross, *Agronomist* • Michael T. Huck, *Agronomist*