

# How Do We Know What We Know?

For decades, the Turfgrass Information File has been the turf industry's archive of the constant flow of turfgrass information.

BY JEFF NUS

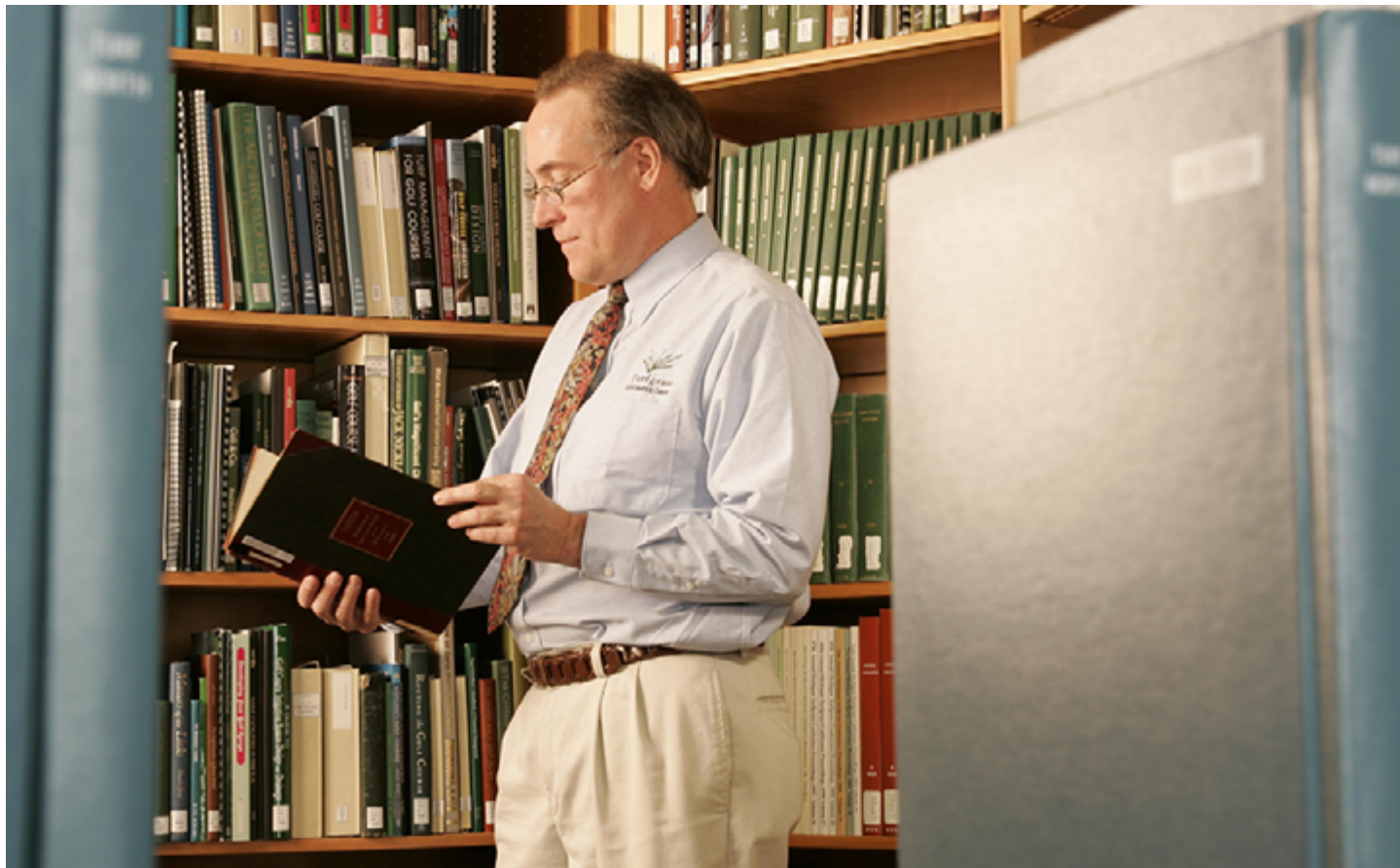


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*Decades ago, the USGA recognized the critical need to archive the turfgrass information flowing from countless resources. The result was a significant investment to support the Turfgrass Information File run by Pete Cookingham (pictured) and the staff at the Turfgrass Information Center at Michigan State University Libraries.*

The internet ushered in the “Information Age” and we have quickly adapted to a world where a seemingly endless source of information is at our fingertips. An important segment of that endless source of information pertains to business, and the business of managing golf courses and other turf-related businesses are no exceptions in needing pertinent information.

Decades ago, the USGA recognized the need to archive the constant flow of turfgrass research information gushing from turfgrass research programs across the nation. Between 1983

and 1992, the USGA Turfgrass and Environmental Research Program provided \$650,000 to develop a searchable archive of turfgrass information. The result was the Turfgrass Information File (TGIF), housed within the [Turfgrass Information Center](#) (TIC) at Michigan State University Libraries.

Today, more than a century of information on the care of turfgrass is contained within the more than 185,000 records that reside in the Turfgrass Information File (TGIF) database. Each year, another 15,000 records are entered into the TGIF database, and the amazing speed of

computers allows the entire database to be instantly searched for virtually any turfgrass topic by using any of the 300,000 keywords.

“As time has gone on, the advance of technology has fortunately enabled us to more efficiently process content, but much of the fundamental work that we do is pretty labor-intensive,” explains Pete Cookingham, head of the Turfgrass Information Center at MSU. “Besides more material, the types of materials we process have diversified tremendously and now include webcasts, interactive online models and tools, and, of course, large numbers of

**Table 1 — New TGIF records created and total TGIF searches since 2001\***

Item	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
New Records Created	6,096	5,699	8,375	7,448	9,035	9,732	12,259	11,749	15,049	15,618
Total TGIF Searches	36,820	41,495	39,460	46,402	57,860	68,640	84,957	104,749	114,518	127,422
TIC-hosted Electronic Resource Searches (excluding Browsing)	n/a	62	743	10,803	18,126	16,490	17,974	19,902	20,949	20,313
Fastlinks **	2,039	4,050	10,060	18,905	76,789	186,198	248,976	776,007	1,253,491	1,166,399
Total Searches and Fastlinks	38,859	45,607	50,263	76,110	152,775	271,328	351,907	900,658	1,388,958	1,314,134

\*Statistics taken from Cookingham, P., M. Schury, and A. Tomak. 2010. 2010 Turfgrass Information Center Annual Report. Turfgrass Information Center, Michigan State University, East Lansing, Mich. ([http://www.tic.msu.edu/TIC\\_Annual\\_Report\\_2010.pdf](http://www.tic.msu.edu/TIC_Annual_Report_2010.pdf))

\*\*A "Fastlink" is a database capability which can burrow into a database (such as TGIF) and retrieve a specific record or set of records. To the user, it is just another "hot link."

web documents. None of that material existed 15 years ago."

Besides the capable staff of Pete Cookingham, Mike Schury, and Aaron Tomak, the work involves many student employees and volunteers, including retired faculty and graduate students.

Student employees are relied upon to create descriptive records, add keywords, write abstracts, determine online article availability, maintain URLs, design websites, create web pages, and file and organize materials, among other tasks.

This inclusive attitude has paid off. TIC statistics show that significantly more records are being added per year to the database now compared to earlier years, and total TGIF searches by users seeking that information have increased steadily (Table 1).



*More than 185,000 records have been uploaded to the Turfgrass Information File (TGIF) housed at Michigan State University's Libraries. Staff and student workers index academic journals, professional and trade magazines, organization publications, theses and dissertations, and books to build the database.*

**Table 2**  
**Turfgrass Information Center (TIC) hosted**  
**electronic resources use, including browsing\***

Item	2007	2008	2009	2010
Number of Resources	6	10	15	23
PDF Views	1,127,082	2,462,361	3,607,201	3,895,237

\*Statistics taken from Cookingham, P., M. Schury, and A. Tomak. 2010. 2010 Turfgrass Information Center Annual Report. Turfgrass Information Center, Michigan State University, East Lansing, Mich. ([http://www.tic.msu.edu/TIC\\_Annual\\_Report\\_2010.pdf](http://www.tic.msu.edu/TIC_Annual_Report_2010.pdf))

The access to USGA publications, such as the *Green Section Record* and Turfgrass and Environmental Research Online (TERO) has increased dramatically. Nearly 3,000 *Record* articles, 209 TERO, and 1,175 Turfgrass and Environmental Research Summary articles are now available and growing every week. All of the USGA publications are available in full text to the public.

"It is gratifying to see the increased use of TGIF, particularly given the overwhelming presence of search engines like Google," says Pete Cookingham. "However, TGIF users know that Google cannot tell whether 'annual bluegrass' is a music festival or a plant, cannot see a lot of the invisible web content often buried, and cannot distinguish whether 'Green' is a person or a color, much less a putting surface. TGIF can make those distinctions because it is a value-added, hand-crafted product."

The growth of the TGIF database also is a credit to the university faculty and industry leaders who have contributed their collections of turfgrass literature to MSU for inclusion in TGIF. The TGIF database was begun to a large degree from collections of O. J. Noer. However, other notable contributions followed, including those from Dr. James B. Beard and, most recently, Dr. Fred Grau, former National Director of USGA Green Section.

"TIC and TGIF owe a great debt to Noer, Grau, and Beard, whose donations have made our turfgrass collection the most comprehensive in the world," says Clifford H. Haka, Director

of Libraries at Michigan State. "However, there are items that we still do not have, and so we continue to seek additional turfgrass materials and collections. TIC staff cannot index, scan, and deliver the full-text of materials that the MSU Libraries do not possess. We hope that individuals cleaning out offices or files, or collectors looking for a permanent home for their materials, would contact Pete Cookingham about a possible donation."

As other successful businesses adapt to changing times, the Turfgrass Information Center has changed TGIF from its original premise. "TGIF was originally designed during the 1980s as an index and abstracting service geared primarily to turfgrass researchers, most of whom are located on university campuses," explains Mr. Haka. "The implication is that these users could go to their university library and generally secure the desired items."

"During the last 20 years, though, TGIF has been adopted by thousands of practitioners, golf course superintendents who were exposed to TGIF as part of their education. They still have access to TGIF, but now they have no library at hand to provide the desired items. To secure the full potential of TGIF, efforts were undertaken to provide direct access to the full-text of materials." At the end of 2010, more than 44% of TGIF content was full-text, and the goal is to grow that number higher (Table 2).

The Turfgrass Information File at Michigan State University is perhaps

the best example this industry has to offer reflecting the value of perseverance. As gatekeepers of information, MSU library staff strive to get turfgrass information to those who need it. Today's TGIF subscribers include 65 institutional (universities and colleges) subscribers in 38 states, four Canadian provinces, and five other countries.

However, the list also includes blanket access to the database for members of 10 regional and national organizations, including the American Society of Golf Course Architects, Canadian Golf Superintendents Association, Sports Turf Managers Association, Turfgrass Producers International, British and International Golf Greenkeepers' Association, and Golf Course Superintendents Association of America, among others.

In 1999, the USGA pledged \$1 million to help create an endowment fund for the TIC at Michigan State University Libraries. Since that time, the USGA endowment gift has been surpassed by associations and companies making contributions. It is hoped that current efforts to build the TIC Endowment Fund (<http://tic.msu.edu/endowment.html>) will expand access and eliminate the need for paid subscriptions altogether.

The turfgrass industry is fortunate to have an active effort to archive the many years of progress leading us to where we are today. Although no one can predict the future, you can bet that whatever happens to the turfgrass industry, our descendants will be reading about it from information archived in TGIF.

## ADDITIONAL INFORMATION

<http://tic.msu.edu>

<http://turf.lib.msu.edu/ressum/2009/48.pdf>

<http://turf.lib.msu.edu/ressum/2010/31.pdf>

Contact the Turfgrass Information Center at: 1-800-446-8443

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