



Turfgrass
Information Center
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**ANNUAL
REPORT**



1.1 million searches • 50% linked to full text • 18,500+ new records
10+ million PDFs displayed of TIC-hosted materials • 70 academic subscribers worldwide

**The Turfgrass Information Center
would like to thank supporters for their ongoing contributions,
be it financial or donations of needed materials.
We appreciate your continued dedication that benefits
turfgrass research and management.**

**An electronic version of this report is available at:
http://tic.msu.edu/TIC_Annual_Report_2012.pdf**



Turfgrass Information Center Annual Report 2012

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Contents

Historic Milestones of TIC	ii
A Letter from Seth Martin, Director of Development for MSU's Libraries & IT Services	1
Overview of the Turfgrass Information Center	2
TIC Endowment Campaign.....	2
TGIF, the Database.....	3
Database Construction.....	4
TGIF Summary Construction Statistics	4
Snapshot Status of TGIF.....	5
Characterizing the Full-Text Available Content within TGIF.....	5
TGIF Scope of Coverage	6
Typology of Turfgrass Literature in TGIF	6
TIC Use and Users	7
TIC and TGIF Summary Use Statistics	7
Subscribers to the Turfgrass Information File.....	7
Academic Institutions with Campus-Wide Access	7
Contributing Cooperators with Blanket-Access Agreements	8
Corporations with Blanket Access	8
Annual Subscribers with Their Own Logon	8
TGIF Subscription Options.....	9
Highlights of Efforts for Cooperators	10
Digitization	10
Collections.....	13
O.J. Noer Memorial Turfgrass Collection.....	13
Historical Acquisitions for the Noer Collection.....	13
Continuing Acquisitions for the Collection	13
Your Donations Make a Difference	14
Elusive Periodical Enhances Noer Collection	14
James B Beard Turfgrass Library Collection	15
The DMC and TIC: A Perfect Pair	16
Outreach and Publicity.....	17
People & Facilities.....	17
Volunteers and Interns	17
Student Employees.....	17
Full-time Staff & Library Administration.....	18
Facilities.....	19
Future Directions and How You can Help	19
TIC on YouTube.....	19

Historic Milestones of TIC

- Early 1960's • Dr. James B Beard & MSU Libraries Director Dick Chapin agree to begin building a significant turfgrass collection at the MSU Libraries.
- c 1968 • The collection of agronomist O.J. Noer is donated to the MSU Libraries, facilitated by the O.J. Noer Research Foundation. All turfgrass-related holdings at MSU are named the "O.J. Noer Memorial Turfgrass Collection" at that time.
- 1983 • The USGA Turfgrass Research Committee and the MSU Libraries agree to begin the construction of an online database indexing the turfgrass literature, to be called the USGA Turfgrass Information File (TGIF).
- 1984 • The Turfgrass Information Center (TIC) is established as a unit of the MSU Libraries to build TGIF and continue to develop the Noer Collection.
- 1988 • TGIF becomes available for end-user dial-up access.
- 1993 • TGIF becomes available via the Internet.
- 1997 • TGIF becomes available via the World Wide Web.
- 1997 • TIC relocates to dedicated space on the 3rd floor of the West Wing of the Main Library.
- 1998 • TIC Endowment Campaign is started.
- 2000 • TIC receives on indefinite loan the Noer/Milorganite® Division MMSD Image Collection.
- 2002 • TIC makes available its first digital archive website for the *USGA Green Section Record* (1921-present).
- 2002 • *USGA Turfgrass and Environmental Research Online* is launched — the first online-only electronic resource hosted by the Turfgrass Information Center.
- 2003 • TIC receives the Scotts's Archive, which is partially housed in the MSU Libraries' Special Collections.
- 2003 • The James B Beard Turfgrass Library Collection is dedicated within the Turfgrass Information Center.
- 2005 • 100,000th record is entered into TGIF.
- 2005 • TIC launches a redesigned public website, including a blog.
- 2006 • Entries from *Beard's Turfgrass Encyclopedia for Golf Courses, Lawns, Sports Fields* are made available through TGIF's Basic Search.
- 2008 • An intentionally-designed Turfgrass Information Center re-opens.
- 2009 • TGIF database searches crest the 1,000,000 mark.
- 2012 • 200,000th record entered into TGIF
- 2012 • 50% of TGIF records link to the Full-Text of the item
- 2013 • The Turfgrass Information Center celebrates over 30 years of the Turfgrass Information File (TGIF)!



In June 2012, The Turfgrass Information Center at the MSU Libraries passed a truly significant milestone: 50% of all records in its Turfgrass Information File (TGIF) link to full-text.

This is a particularly important achievement for users of TGIF world-wide. Access to full-text turf research and other pertinent turf materials can be a challenge for turf professionals who do not live near a research library, but these are often the individuals who use this literature most. Full-text availability is highly desirable in these instances, saving valuable time and effort dedicated to locating physical copies for personal use. With half of all TGIF records linking to full-text, this means thousands and thousands of records link directly to content.

Back at the end of 2005, TGIF had 108,741 records with only 21% linked to full-text, approximately 23,000 records. Today, however, TGIF has about 210,000 records total, meaning a little over 105,000 records are full-text accessible. In the span of just six years, the TGIF database has nearly doubled in strength, while the availability of full-text has tripled.

The Turfgrass Information Center actively strives to increase full-text access, which we can provide when a copyright owner allows TGIF to digitize a publication or when others load their own material on the web. TGIF processing benefits everyone — the publication and TGIF users alike. This is part of the Turfgrass Information Center's commitment to providing and improving precise and structured online access to the turf literature, as well as available electronic and other turfgrass-related resources, via the World Wide Web.

MICHIGAN STATE UNIVERSITY

January 25, 2013

Dear TIC patrons and supporters,

I am sure that many of you are aware that the Michigan State University Libraries has been working to build a stable, permanent funding source for the Turfgrass Information Center for the past several years. To date, we have successfully built the TIC Endowment Fund to over three million dollars. Thank you for all of your efforts in helping us build the fund to this level. We could not have gotten this far without your help.

Here at MSU we place a high value on endowment funds because the principal is never spent. Rather than spend the initial gift, MSU invests each dollar—a part of the investment income from the TIC Endowment Fund is used to support the TIC. The remaining investment is then returned to the principal to help the fund grow from year to year.

Although we are proud that the TIC Endowment Fund is over three million dollars, we have a long way to go. We hope that you will consider making a tax-deductible gift to support the Turfgrass Information Center at Michigan State University.



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In addition to making an annual gift to support the Endowment, there are other more unique ways that you can support the TIC. One way is to mention the Turfgrass Information Center in your estate plans. Often this is the easiest way for supporters to make a significant gift. Although the Center will not receive the gift immediately, when the gift eventually comes to the Turfgrass Information Center, we will add it to the existing TIC Endowment Fund.

We are committed to the long-term growth of the TIC Endowment Fund and we would be honored to partner with you to help us achieve this goal.

If you would like to discuss making a current or future gift with the Turfgrass Information Center, please call or email me, Director of Development at 517-884-6446 or marti981@msu.edu.

A handwritten signature in cursive script that reads "Seth D. Martin".

Seth Martin
Director of Development for Libraries & IT Services

Overview of the Turfgrass Information Center

The Turfgrass Information Center (TIC) is a specialized unit at the Michigan State University Libraries. It contains the most comprehensive publicly available collection of turfgrass educational materials in the world. The Turfgrass Information File database (TGIF) now has over 210,000+ records (with over 50% linked to the full-text of the item), and is the online discovery device for information on turfgrass whether it is in print, electronic, or another format.

TIC was created in 1983 by an association between MSU Libraries and the United States Golf Association (USGA) Green Section Research Program. Its actual roots began in the 1960s when an MSU initiative to collect turfgrass publications was aided by the donation of the personal collection of pioneering turf agronomist O.J. Noer, through the O.J. Noer Foundation.

The Center has four primary functions:

- ✱ Collect and preserve published and unpublished materials relating to turfgrass science, culture, and the management of turfgrass-based facilities, including golf courses, parks, sports fields, lawns, sod farms, roadsides, institutional grounds, and other managed landscapes.
- ✱ Provide precise and structured online access to TIC collections, as well as other print and electronic turfgrass-related resources, via the TGIF database.
- ✱ Assist users of the collection and online system, by helping them to identify and locate materials that meet their needs.
- ✱ Provide user workspace and cooperative electronic infrastructure to support collaborative turfgrass scholarship.

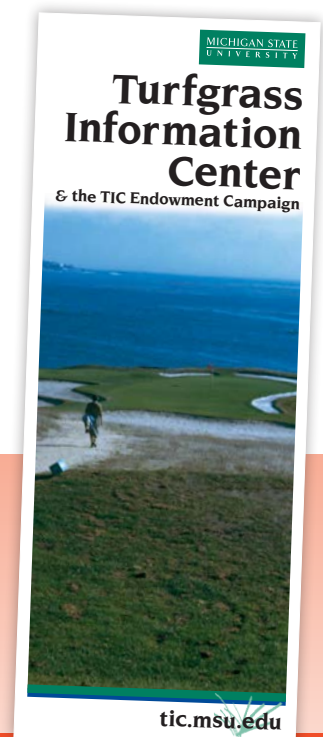
TIC Endowment Campaign

The Endowment Campaign will help guarantee the financial resources needed to ensure the ongoing operation of TIC. The continuation of the Center and the production of TGIF are critical because:

- ✱ TIC activities continue a 40+ year effort to collect, inventory, and provide access to the literature of turf science and turf culture, with TGIF serving as the only bibliographic database in the world that exclusively targets these areas.
- ✱ TIC directly supports turfgrass research. Many turfgrass investigators depend on TGIF as their primary resource for identifying turf-related literature, both past and present.
- ✱ TIC and TGIF directly support improved turf education, including certificate, technical, undergraduate, graduate, and continuing education programs for practitioners such as golf course superintendents and sports turf managers.
- ✱ TGIF provides access to more comprehensive turf-related information sources, which translates to improved management of turf facilities including athletic fields, golf courses, and other managed landscapes.

TIC was pleased to receive payment during 2012 in fulfillment of a multi-year commitment to the Endowment Campaign from the O.J. Noer Research Foundation.

Information about the TIC Endowment Campaign is available at <http://tic.msu.edu/endowment.html>. If you would like to make a financial contribution to the TIC Endowment, please visit the Giving to MSU website at www.givingto.msu.edu. Be sure to verify that your gift is intended for the Turfgrass Information Center Endowment Campaign.



TGIF, the Database

TGIF provides bibliographic and descriptive records for all types of works related to turfgrass culture. The ultimate goal of TGIF is to provide access to all published materials reporting on any aspect of turfgrass and its maintenance, regardless of age, language, or format.

- Basic search is the most popular – simply enter the most important words of your desired search
- Receive results based on your keywords
- Explore thousands of records for articles, books, factsheets and more online – over 50% of TGIF records will take you straight to full-text!

Dig Deeper is a search feature within several of the TIC-hosted digital archive sites and beginning in 2012, TGIF itself, that allows for searching the **complete text** of the articles—not just the citation, abstract, and assigned keywords in the TGIF record.

Turfgrass Information File
Worldwide Access to Turfgrass Science Information

USGA A cooperative project of the United States Golf Association and the Michigan State University Libraries' Turfgrass Information Center

With special thanks to **Scotts** for their support of TIC

Basic Search Log Out Help Feedback

Other Search Options: Guided Search, Power Search, Browse Options, Browse Turf Topics, Browse Turf Journals (Logs out), What's New in Turfgrass Research

Type what you are looking for below, then press Search:
ice damage [Search] [Clear]

Limit by industry sector (if Available): all sectors
(Caution! Roughly 56% of all records have no assigned industry sector.)

Dig Deeper (Search Full Text) ☐
(Caution! Roughly 75% of all records currently have no full text to search.)

Maximum number of records to retrieve: All (Default)

[Basic Search Hints and Examples](#) [Getting Started with TGIF Guide \(PDF\)](#)
Experiencing Search Difficulties? [Contact the Turfgrass Information Center](#)

USGA For the good of the game®

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Staff Awards History Regional Updates Florida Mid-Atlantic Mid-Continent North-Central Northeast Northwest Southeast Southwest The Green Section Record Turf Research Turf Advisory Service Environmental Programs Course Construction And Renovation Articles And Resources Information For Golf Course Officials Turf Management FAQs Our Experts Explain Green Section Q&A Contact Us

WHAT'S UNDER ALL THAT SNOW AND ICE?
By Stanley J. Zontek, director, Mid-Atlantic Region
February 4, 2011

The phone is ringing with people asking the obvious question, "Should we be concerned about ice and snow melt?"

In all honesty, none of us will know until we can see the ground. One thing is certain, there are some concerns about both types of snow molds that affect the grass when it freezes and thaws, and is damaged in low spots where ice often forms.

A recent e-mail from Dr. Peter Dornieden, University of Maryland (and Green Section Committee member for the Mid-Atlantic region) stated, "Gray snow mold and Microdochium patch will appear as temperatures rise above freezing, promoting melting snow, standing water and puddling. As always, shaded and/or tree-lined areas, where snow melts more slowly and where it stays wet for longer periods, will be most severely affected. Golf courses using preventive applications of appropriate fungicides will likely sustain little damage in sunny and well-drained areas."

Additionally, if snow mold controls were applied, and if you have a concern about snow molds or you have a history of pink snow mold (Microdochium patch) in an area, a re-treatment in the spring may be appropriate. This recommendation is especially true on high value turf areas like greens, tees, and putting green approaches.

Once the snow does clear, it is always a good idea to take a few plugs of turf inside, place them on a windowsill and see what sprouts. This is one of the best early indicators of whether or not the turf may have been damaged. As always, if you have any questions, give our offices a call or send an e-mail.

As this update is being written, programs and registration information for the two regional meetings in the Mid-Atlantic Region are being sent out. You can register and pay online. Pre-paid registrations are less expensive than having to pay at the door. Our half-day meetings are as follows:

Tuesday, March 10th, Country Club of Virginia, Westhampton Course, Richmond, VA
Event Code: 30811

Tuesday, March 15, Woodholme Country Club, Pikesville, MD
Event Code: 31511

Register on-line: <https://www.usga.org/register> (Credit Cards Accepted)

Finally, invoices for Turf Advisory Service visits should be sent out next week. Payments received by May 15, 2011 allow you to save \$600 or 25% off the full price, while your visits can be scheduled anytime during the year. It is a discount not to be missed!

The Mid-Atlantic Region agronomists are part of your agronomic support team. Call or email us with any questions or concerns. Stan Zontek (szontek@usga.org) and Dann Beward (dbeward@usga.org) at 610/ 558-9066 or Keith Happ (khapp@usga.org) at 412/ 341-5022.

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Search results from the **Turfgrass Information File**
A Unique Resource for Turfgrass Researchers, Practitioners, and Students

USGA A cooperative project of the United States Golf Association and the Michigan State University Libraries' Turfgrass Information Center

With special thanks to **Your Logo Here** for their support of TIC
E-mail tgif@msu.edu to find out how

Back to Search Display Format - Sort: Records/Screen: 25 - Display Display Marked Records Clear Marked Records Log Out Help Feedback

Page: [1] 2 3 4 5 6 7 8 9
Download Records: [PDF]

Retrieved 213 Record(s). Displaying 1 through 25.

Mark	Item is a	Title - Items linked where available (Items may require software - see More Detail)	Author and Source	More Detail	TGIF #
11	Book	Diagnosing Turfgrass Problems: A Practical Guide	White, Ralph W.; McCarty, L. B. 2012. Clemson, South Carolina: Clemson University Public Service Publishing. xvi, 352 pp.	MORE	203525
11	Web resource: Image	Damage caused by salt applied to roadways to melt snow and ice* - Access Restrictions (See More Detail)	Anonymous. [20xx]. <i>Plant Management Network</i> . p. [1].	MORE	207080
11	Newsletter Article	Winter ice damage & Excelsior Mats	O'Leary, Norma; Tritabangh, Chris; Crowther, Matt; Taylor, Fred; Diegan, Paul; Parker, Jeffrey. 2012. <i>TurfNet - almost Monthly</i> . May. 19(5): p. 7-9.	MORE	211507
11	Newsletter Article	Miller and Vavrek highlight the March meeting	Anfield, Charles. 2012. <i>On Course [MAGCS]</i> . April. 65(12): p. 26-27.	MORE	203165
11	Web resource: Q & A	Can snow and ice negatively impact my lawn?	Anonymous. [20xx]. <i>Turf Weeds at Virginia Tech</i> . p. [1].	MORE	176965
11	Web resource	What's under all that snow and ice?	Zontek, Stanley J. 2011. <i>United States Golf Association</i> . February 4. p. [1].	MORE	176211
11	Web resource	The dicey, icy decision	Vavrek, Bob. 2011. <i>United States Golf Association</i> . February 15. p. [1].	MORE	176213
11	Trade Article	Mother Nature unleashes her fury with severe flood, ice damage to golf course	Jiggins, Mike. 2009. <i>Turf & Recreation</i> . April/May. p. 6-9.	MORE	150018

Next Log Out Help Feedback

Database Construction

TIC creates TGIF records for a wide range of materials including periodical articles, monographs (book-like items), fact sheets and pamphlets, images, podcasts and web documents. The following scope is used to help determine item selection to be entered into TGIF:

- Description and biology of turfgrass species, cultivars, pests, weeds, and related organisms
- Turf culture methods and techniques
- Turf care equipment and equipment maintenance
- Golf and sports facility maintenance, architecture, design and industry trends
- Turfgrass breeding and improvement
- Turfgrass seed and sod production, installation, maintenance and industry trends
- Regulatory and political aspects of turf culture
- Turfgrass water use
- Lawn and landscape management industry trends
- Turf user/turf manager relations
- Turf-related business management
- Profiles of turf-related businesses and facilities
- Biography of turfgrass researchers and professionals
- The lawn in popular culture
- Environmental, social and historical aspects of turf culture
- Turfgrass as a land use form

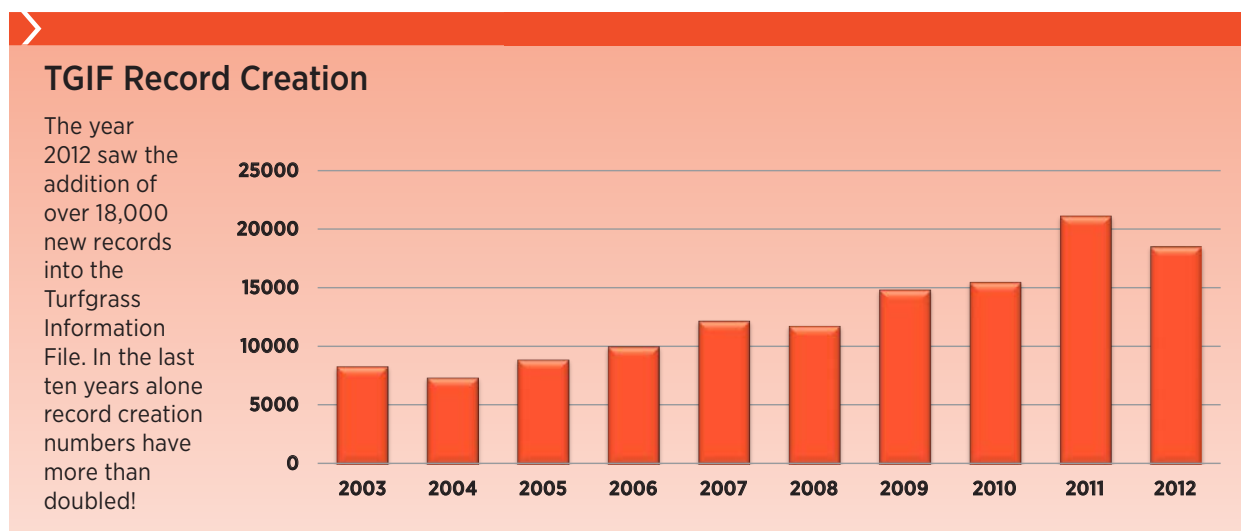
TGIF Summary Construction Statistics

	2012	2011	2010	2009	2008	2007	2006	2005
New records created	18,548	21,193	15,618	15,049	11,749	12,259	9,732	9,035
Toro Foundation subset	—	—	—	—	2,635	2,668	2,633	2,637
Issues closed ¹	3,752	2,437	2,717	4,000	1,483	1,782	2,351	2,015
Zero-hit issues ²	1,533	663	912	1,245	518	769	633	836
Records modified in current year, but created previously ³	24,848	30,732	17,719	42,034	34,659	20,388	18,440	14,623
% Full-text	53%	46%	44%	41%	36%	33%	24%	21%
Total records in database	211,941	193,607	172,589	157,530	142,481	130,732	118,473	108,741

¹ The issues closed are periodical issues which have had the descriptive record, indexing, and abstracting completed on all articles selected for inclusion in TGIF.

² The zero-hit issues are periodical issues which were reviewed but no articles were selected for inclusion in TGIF.

³ The records modified in the current year are records that were edited or enhanced.



Snapshot Status of TGIF

	2012	2011	2010	2009	2008
Descriptive Records	100%	100%	100%	100%	100%
Abstracted Records	50%	52%	56%	57%	59%
Indexed Records	57%	60%	65%	69%	72%
Indexed and Abstracted Records	47%	49%	53%	55%	57%
Full-text Available Records	53%	46%	44%	42%	36%
Full-text Searchable Records	25%	22%	22%	21%	5%
Full-text Available, Indexed, and Abstracted Records	25%	24%	25%	25%	22%
Full-text Available, Indexed, Abstracted Records, and Full-text Searchable Records	13%	14%	14%	13%	3%

Descriptive records are the “base record” and contain general citation information like title, source, author, pagination, year, and any URL to the item. Because descriptive records are the first stage of processing, the number of completed descriptive records becomes the denominator for calculating all other percentages. After the descriptive record stage, items are moved to the abstracting/indexing stage. Here, items are manually reviewed, abstracts written for them, and keywords are assigned using a controlled vocabulary. As the abstracting/indexing stage requires an understanding of the content of the item, this stage requires greater time to complete. Records with URLs are considered to have the full-text available. Records with the text of the item contained in the TGIF record are considered full-text searchable, since that text can be searched in TGIF directly.

For full-text searchable records, there are two sources: periodicals which have been digitized by TIC and web source materials. Of the nearly 54,000 records with the text of the item contained in the TGIF record, 90% come from periodicals digitized by TIC.

Characterizing the Full-Text Available Content within TGIF

2012	53% Records with full-text availability 4% Records with full-text availability that may have secondary access restrictions 31% Records with full-text availability provided through MSU Libraries' efforts 13% Records with restricted access but available to all TGIF users 21% Records with full-text not provided through MSU Libraries' efforts 12% links to periodical articles 2% links to book-like items 7% remaining links. These are to a variety of materials, including blueprints, databases, images, judgments, online presentations, patents, podcasts, and slide sets
2011	46% Records with full-text availability 4% Records with full-text availability that may have secondary access restrictions 25% Records with full-text availability provided through MSU Libraries' efforts 14% Records with restricted access but available to all TGIF users 21% Records with full-text not provided through MSU Libraries' efforts 12% links to periodical articles 2% links to book-like items 7% remaining links. These are to a variety of materials, including blueprints, databases, images, judgments, online presentations, patents, podcasts, and slide sets
2010	44% Records with full-text availability 5% Records with full-text availability that may have secondary access restrictions 24% Records with full-text availability provided through MSU Libraries' efforts 16% Records with restricted access but available to all TGIF users 20% Records with full-text not provided through MSU Libraries' efforts 13% links to periodical articles 2% links to book-like items 5% remaining links. These are to a variety of materials, including blueprints, databases, images, judgments, online presentations, patents, podcasts, and slide sets

TGIF Scope of Coverage

To build TGIF, hundreds of journals, magazines, annuals, etc. are selectively monitored on an on-going basis to “keep track of” items potentially relevant to turf culture. The “periodical turfgrass literature” is made up of a wide range of “published” material. This includes about 90% of TGIF’s content. To understand this better, we can break the literature into categories or levels:

Typology of Turfgrass Literature in TGIF

Category (LEVEL)	Primary Audience	Example Titles	% of TGIF Content
Refereed	Researchers	<i>Crop Science, Plant Disease, HortScience, Agronomy Journal, Journal of ITS</i>	6%
Report	Researchers	<i>ASA/CSSA/SSSA Annual Meeting Abstracts, Iowa Turfgrass Research Report, Fungicide & Nematicide Tests, Rutgers Turfgrass Symposium Proceedings</i>	18%
Proceedings	Practitioners	<i>Proceedings of the Michigan Turfgrass Conference, Proceedings of the Florida Turfgrass Conference</i>	6%
Professional	Practitioners	<i>USGA Green Section Record, Golf Course Management, Greenkeeper International, Australian Turfgrass Management</i>	28%
Trade	Practitioners	<i>Grounds Maintenance, SportsTurf, Golf Course Industry, Lawn & Landscape, Golfdom</i>	23%
Newsletter	Practitioners	<i>Tee to Green, The Grass Roots, Thru The Green</i>	9%
Popular	The Public	<i>Newspapers, Golf Digest, Golf Journal</i>	4%
Miscellaneous Unclassified	Varies widely	No pattern; includes books and book chapters, theses and dissertations, webpages, booklets, fact sheets, and other monographs	6%

In producing TGIF, TIC monitors the turfgrass literature, regardless of sector, context, geography, or language. Thus, TGIF can produce excellent searches for transitional overseeding, cricket wicket preparation, kikuyu grass invasion, gray snow mold control, sod production in Florida, or variety trial results in German. This model gives TIC the ability to slice the literature based on the type of source it was published in.

- **“Refereed”** materials are clearly the most important from a research perspective. They have passed through the process of peer review and revision, with traditional academic rigor.
- **“Report”** materials are not refereed, but are research, often qualified as preliminary or incomplete.
- **“Professional”** sources are those generally produced by not-for-profit corporations as communicative media for membership.
- **“Proceedings”** are usually from a specific conference, and can include individual articles which might show up in any of the other categories, except refereed. The “proceedings” literature is very unpredictable, uneven, and sometimes frustrating, but it is an important category in the whole of the literature, particularly from 1950-1990.
- **“Trade”** sources are generally commercial magazines, and are distributed widely within the industry.
- **“Newsletters”** are just that, mostly GCSAA affiliate productions. The “newsletters” vary tremendously in their availability, size, and usefulness from the perspective of TGIF.
- **“Popular”** publications are those intended for a general public readership, outside the professional arena.
- **“Miscellaneous”** sources which complete the literature.

TIC Use and Users

TIC and TGIF Summary Use Statistics

TGIF Search Statistics	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Total TGIF Searches	118,357	115,183	127,422	114,518	104,749	84,957	68,640	57,860	46,402	39,460
TIC-hosted Electronic Resources Searches (excluding Browsing)	16,940	20,444	20,313	20,949	19,902	17,974	16,490	18,126	10,803	743
Fastlinks	966,225	1,180,572	1,166,399	1,253,491	776,007	248,976	186,198	76,789	18,905	10,060
Total Searches and Fastlinks	1,101,522	1,316,119	1,314,134	1,388,958	900,658	351,907	271,328	152,775	76,110	50,263

TIC-Hosted Electronic Resources Use, Including Browsing	2012	2011	2010	2009	2008	2007
# of Resources	31	31	23	15	10	6
PDF Views	10,083,370	5,671,629	3,895,237	3,607,201	2,462,361	1,127,082

Total TGIF searches are the number of searches in the web version of TGIF. Fastlinks are found in the TIC Public Website, *The Sward*, TIC Blog, Google, TERO Reports, in emails sent in response to a question or to authors who have given permission for their materials to be digitized, such as dissertations and theses, and many other places.

Subscribers to the Turfgrass Information File

Several “routes” to TGIF exist for various types of database users:

Academic Institutions with Campus-Wide Access

Perpetual institutional subscribers now represent 40 states in the USA, 4 Canadian provinces, and 6 other countries as noted in the table below. There is also an annual trial access arrangement.

Academic Institution	State/Province	Country
Abraham Baldwin Agricultural College	Georgia	USA
Auburn University	Alabama	USA
California Polytechnic State University - San Luis Obispo	California	USA
California Polytechnic State University - Pomona	California	USA
Central Piedmont Community College	North Carolina	USA
Clemson University	South Carolina	USA
Colorado State University	Colorado	USA
Cornell University	New York	USA
Cranfield University		UK
Delaware Valley College	Pennsylvania	USA
Elmwood College	Scotland	UK
Florida Gateway College	Florida	USA
Georgian College	Ontario	Canada
GPRC Fairview College Campus	Alberta	Canada
Guildford College of Further & Higher Education		UK

Academic Institution	State/Province	Country
Iowa State University	Iowa	USA
Kansas State University	Kansas	USA
Kishwaukee College	Illinois	USA
Michigan State University	Michigan	USA
Mississippi State University	Mississippi	USA
Myerscough College		UK
NationalAgriculturalLibrary-USDA		USA
New Mexico State University	New Mexico	USA
North Carolina State University	North Carolina	USA
North Dakota State University	North Dakota	USA
Nova Scotia Agricultural College	Nova Scotia	Canada
The Ohio State University	Ohio	USA
Oklahoma State University at Oklahoma City	Oklahoma	USA
Olds College	Alberta	Canada
Oregon State University	Oregon	USA
Pennsylvania State University	Pennsylvania	USA

Academic Institution	State/Province	Country
Purdue University	Indiana	USA
Red River College	Manitoba	Canada
Rutgers University	New Jersey	USA
Sheridan College	Wyoming	USA
South Dakota State University	South Dakota	USA
Southern Illinois University	Illinois	USA
State University of New York, Cobleskill	New York	USA
State University of New York, Delhi	New York	USA
Sveriges Lantbruksuniversitet		Sweden
Teagasc College of Amenity Horticulture		Ireland
Texas A&M University	Texas	USA
University of Alaska Fairbanks	Alaska	USA
University of Arizona	Arizona	USA
University of Arkansas, Fayetteville	Arkansas	USA
University of California — Davis	California	USA
University of California — Riverside	California	USA
University of Connecticut	Connecticut	USA
University of Florida	Florida	USA
University of Georgia	Georgia	USA
University of Guelph	Ontario	Canada

Academic Institution	State/Province	Country
University of Hawaii	Hawaii	USA
University of Illinois at Urbana-Champaign	Illinois	USA
The University of Maryland	Maryland	USA
University of Massachusetts	Massachusetts	USA
University of Minnesota — Crookston	Minnesota	USA
University of Minnesota — Twin Cities	Minnesota	USA
University of Missouri - Columbia	Missouri	USA
University of Nebraska — Lincoln	Nebraska	USA
University of Pisa		Italy
University of Queensland		Australia
University of Rhode Island	Rhode Island	USA
University of Tennessee — Knoxville	Tennessee	USA
University of Western Australia		Australia
University of Wisconsin, Madison	Wisconsin	USA
University of Wisconsin — Stout	Wisconsin	USA
University of Wyoming	Wyoming	USA
Utah State University	Utah	USA
Washington State University	Washington	USA
Writtle College		UK

Contributing Cooperators with Blanket-Access Agreements

Members of the following organizations can currently access the TGIF database from within the member-only section of the organization's website:



American Society of Golf Course Architects (ASGCA)



British and International Golf Greenkeepers Association (BIGGA)



Michigan residents (via the Michigan eLibrary—MeL)



Sports Turf Managers Association (STMA)



Asociación Española de Greenkeepers (AEdG)



Canadian Golf Superintendents Association (CGSA)



Midwest Association of Golf Course Superintendents (MAGCS)



Turfgrass Producers International (TPI)



Australian Golf Course Superintendents Association (AGCSA)



Golf Course Superintendents Association of America (GCSAA) Class A, SM, C, ISM, AA, or A-RT



Sports Turf Association (STA)



Wisconsin Golf Course Superintendents Association (WGCSA)

Corporations with Blanket Access

Several turfgrass industry corporations have arranged ongoing access for their research, technical, regulatory, or product support staff, via their own intranets.

Annual Subscribers with Their Own Logon

Individuals with their own logon can be found on 6 continents.

TGIF Subscription Options

In 2011, the Turfgrass Information Center introduced an improved subscription system. These changes have been able to provide small and intermediate-sized corporations and organizations, in particular, more opportunities to use the TGIF database as well as making the overall subscription process more clearly defined for all of our subscribers.

➤ Academic Institution

Academic Institution Subscriptions are designed for use by teaching and research institutions. TGIF can be used to support academic programs in landscape architecture and design, horticulture, parks and recreation facility operations, landscape management, and of course turfgrass science. Academic Subscribers have two options:

- 1) **Perpetual** (Best Value—one time charge, no further annual charges)
 - a) Universities or colleges belonging to the Association of Research Libraries (ARL)—US\$4,000
 - b) Non-ARL institutions awarding baccalaureate (i.e. bachelors) degrees—US\$2,750
 - c) Two-year or community college—US\$1,500
- 2) **Annual Trial Access Charge**
 - a) Any institution—US\$800

Subscription information as an academic institution, association, corporation, or individual to TGIF can be found at:
<http://tic.msu.edu/subscribe.html>

➤ Contributing Cooperator

Contributing Cooperator Subscriptions provide an opportunity for groups to not only make the resources of the Turfgrass Information Center available to their membership/staff, but also as a way to support the continued expansion of the content and availability of the Center's information. Corporate, association and organizational subscription arrangements are negotiated individually with the Center and primarily depend on the size of the group's membership. Access normally involves the corporation, association, or organization handling authentication from within its own website. Thus, a "members only" area within the cooperator's website, with password-protected access is generally required. We also encourage corporations, organizations and associations to consider the simultaneous digitization of their turfgrass related publications in conjunction with such an agreement. To discuss an arrangement with the Center, please contact either:

Clifford H. Haka
Director of Libraries
Michigan State University Libraries
366 West Circle Drive
East Lansing, MI 48824
517-432-1147 • hakac@msu.edu
or

Peter Cookingham
Head, Turfgrass Information Center
Michigan State University Libraries
366 West Circle Drive
East Lansing, MI 48824
517-884-1950 • cooking1@msu.edu

➤ Annual Subscriber

Annual Subscriptions provide users with a single password-based logon to use TGIF online. Annual subscription rates vary depending on how many simultaneous users are desired. For U.S. residents, 95% of the subscription fee may be tax deductible as a contribution to the Endowment Campaign. TIC subscriptions are for one calendar year, beginning January 1. Users can specify if they wish a subscription to begin the following January 1. Subscriptions received after September 1 can begin immediately and expire December 31 of the following year.

Annual Subscription Rate Schedule:

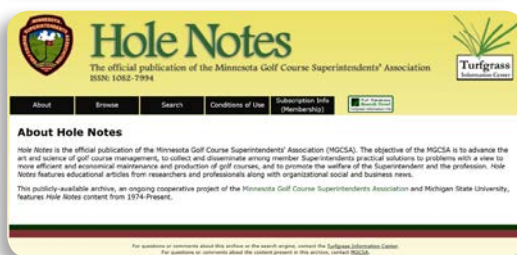
- 1 Simultaneous User.....US\$250
- 2 Simultaneous Users.....US\$425
- 3 Simultaneous Users.....US\$575
- 4 Simultaneous Users.....US\$700
- 5 Simultaneous Users.....US\$800

The 'Annual Subscription' is limited to:

1. Organizational not-for-profits where all members of the group are of an associated profession, or,
2. A registered for-profit with access limited to paid employees of the firm, or,
3. An individual acting on his/her own.

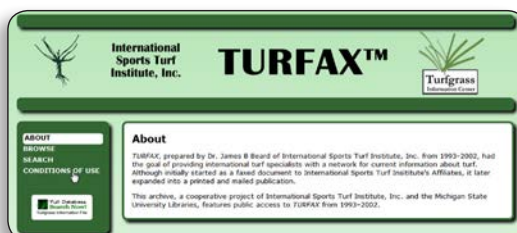
Furthermore, Annual Subscribers must limit the availability of passwords for access as outlined above. Passwords cannot be publicly posted online and will be changed annually as a part of the renewal process. Evidence of abuse of this arrangement will result in termination of access. The designated contact individual for each annual subscription will also be ultimately responsible for any extra-charge TIC services generated by users of those passwords.





↑ **Electronic Resources New in 2012 (above):** Goldfom (<http://archive.lib.msu.edu/tic/goldf/>), Thru The Green (<http://archive.lib.msu.edu/tic/ttgcnc/>) and Hole Notes (<http://archive.lib.msu.edu/tic/holen/>).

↓ **Under construction (below) are Greenkeeper International, TURFAX, and Turfgrass Trends.**



Highlights of Efforts for Cooperators Digitization

Access to full-text research reports or other management content is a serious challenge for turf professionals, as most do not live next to a research library; however, this is changing. The Turfgrass Information File, originally conceived to index and abstract the literature of turfgrass, has taken dramatic steps to increase retrievability for users to directly access the full-text of identified articles and other items of interest—over 50% of TGIF records now link in this way!

Materials are sometimes made available by providers or publishers themselves, and the TGIF records contain links to those materials when they are available—and hopefully are retained as archive files. Unfortunately, commercial publishers often lose interest in maintaining “older” archives as time goes on.











More needs to be done to provide full-text access to a greater percentage of the 210,000+ records now searchable within TGIF, but the challenges in many cases is that publishers who hold the copyright to these materials may not allow TGIF to digitize and make available the back files of their publications.











The Turfgrass Information Center, with your help and support, stands ready to make the desire for expanded access a reality. Please contact us to discuss your organization or firms’ publication(s) willingness to make these publications available in this way, and look over our digitization prospectus/operational questionnaire (Microsoft Word file) (<http://tic.msu.edu/digitization-prospectus.doc>). Everyone gains from such an effort: your members or clientele, your advertisers, and the broader world of turf science in general.





The “Moving Wall” or “Embargo Period”

Users of TIC’s electronic resources, specifically the digital archive sites, may have noticed that some periodical’s recent content “shows up” more quickly than others. This lag time between the appearance of the print version and the availability of the digital one is referred to as an “Embargo Period”, or a “Moving Wall”. This is specified by the publisher/sponsor of the periodical, as a part of the digitization agreement with the MSU Libraries. Some organizations want their newly-published materials available through the digital archive sites immediately (no moving wall), while others want a delay. The periodicals currently hosted by TIC have moving walls ranging from none to two years. So if a listing shows as “1967-Present Less 2 Months” the digital content in the online archive starts with materials issued in 1967 and is still being published now, but the last two months’ issues are behind the moving wall. In the case of a two-month moving wall, the September issue would show up in the archive in November. One other additional curve here: sometimes the publishers themselves will have the most recent digital versions loaded immediately on their websites, even if the TIC digital archive site’s recent content is behind the moving wall.

During 2012, TIC continued digitization of materials from its various cooperators.

Cooperators	Title	Screen Image	Scope of Project	
American Society of Golf Course Architects	<i>Architects Gallery</i>		Year Range	n/a
			Total PDFs	n/a
			Total TGIF Records	412
Asociación Española de Greenkeepers	<i>GreenKeepers</i>		Year Range	1999-Present
			Total PDFs	1014
			Total TGIF Records	343
Canadian Golf Superintendents Association	<i>GreenMaster</i>		Year Range	1965-Present less 3 months
			Total PDFs	7,619
			Total TGIF Records	2,212
The British and International Golf Greenkeepers Association	<i>Greenkeeper International</i> & preceding titles of BGGA, SIGGA, EIGGA, & BIGGA publications (upcoming)		Year Range	19XX-Present
			Total PDFs	11,652
			Total TGIF Records	3,859
Cornell Cooperative Extension	<i>CUTT</i>		Year Range	1990-Present
			Total PDFs	576
			Total TGIF Records	246
Golf Course Superintendents Association of America	<i>The Golf Course</i>		Year Range	1916-August 1923
			Total PDFs	152
			Total TGIF Records	128
	<i>Golf Course Management</i>		Year Range	1933-Present less 1 month
			Total PDFs	34,516
			Total TGIF Records	11,981
	<i>The National Greenkeeper</i>		Year Range	1927-October 1933
			Total PDFs	2,112
			Total TGIF Records	1,173
	<i>Proceedings of the GCSAA Conference</i>		Year Range	As published, 1927-1998
			Total PDFs	2,993
			Total TGIF Records	1,759
Golf Course Superintendents Association of Northern California	<i>Thru the Green</i>		Year Range	1972-Present less 1 year
			Total PDFs	5,462
			Total TGIF Records	886
Individual Authors	<i>Turfgrass-Related Theses/Dissertations</i>		Year Range	n/a
			Total PDFs	727
			Total TGIF Records	443
International Sports Turf Institute, Inc.	<i>TURFAX</i> (upcoming)		Year Range	1992-2002
			Total PDFs	374
			Total TGIF Records	292
International Turfgrass Society	<i>International Turfgrass Society Research Journal and Proceedings</i>		Year Range	1969-Present less 2 years, with author permission
			Total PDFs	1,293
			Total TGIF Records	1,408

Cooperators	Title	Screen Image	Scope of Project	
Michigan Turfgrass Foundation	<i>Proceedings of the Michigan Turfgrass Conference</i>		Year Range	1972–2005
			Total PDFs	1,974
			Total TGIF Records	1,659
Midwest Association of Golf Course Superintendents	<i>On Course/ Bull Sheet</i>		Year Range	1948–Present
			Total PDFs	10,293
			Total TGIF Records	2,853
Minnesota Golf Course Superintendents' Association	<i>Hole Notes</i>		Year Range	1974–Present
			Total PDFs	7,520
			Total TGIF Records	2,567
Milwaukee Metropolitan Sewerage District	<i>Noer/Milorganite Image Collection (upcoming)</i>		Year Range	1924–1976
			Images available	9,368
North Coast Media, LLC	<i>Golfdom</i>		Year Range	1927–Present less 6 months
			Total PDFs	27,336
			Total TGIF Records	15,269
	<i>Turfgrass Trends (upcoming)</i>		Year Range	1992–2001
			Total TGIF Records	641
Sports Field Managers Association of New Jersey	<i>Update</i>		Year Range	2001–Present
			Total PDFs	932
			Total TGIF Records	213
Sports Turf Association	<i>Sports Turf Manager/Newsletter</i>		Year Range	1987–Present less 6 months
			Total PDFs	1,621
			Total TGIF Records	477
Sports Turf Managers Association	<i>SportsTurf</i>		Year Range	1985–Present less 2 months
			Total PDFs	7,458
			Total TGIF Records	2,709
Sports Turf Research Institute	<i>Bulletin for Sports Surface Management/ International Turfgrass Bulletin/ Sports Turf Bulletin</i>		Year Range	1951–Present less 1 year
			Total PDFs	2,466
			Total TGIF Records	1,716
	<i>Journal of Turfgrass and Sports Surface Science</i>		Year Range	1929–2007
			Total PDFs	1,602
			Total TGIF Records	1,746
	<i>Turfgrass Seed (upcoming)</i>		Year Range	1977–2003
			Total TGIF Records	19
Turfgrass Producers International	<i>TurfNews</i>		Year Range	1977–Present less 1 year
			Total PDFs	6,026
			Total TGIF Records	2,390

Cooperators	Title	Screen Image	Scope of Project	
United States Golf Association	<i>USGA Green Section Record</i>		Year Range	1921–Present
			Total PDFs	6,904
			Total TGIF Records	5,812
	<i>USGA Turfgrass and Environmental Research Online</i>		Year Range	2002–Present
			Total PDFs	244
			Total TGIF Records	243
	<i>USGA Turfgrass and Environmental Research Summary</i>		Year Range	1950, 1951, 1956, 1959, 1977, 1983–Present
			Total PDFs	1,517
			Total TGIF Records	1,332
Wisconsin Golf Course Superintendents Association	<i>The Grass Roots</i>		Year Range	1975–Present less 1 month
			Total PDFs	5,319
			Total TGIF Records	1,822

Collections

O.J. Noer Memorial Turfgrass Collection

Beginning with the arrival of portions of the personal collection of O.J. Noer in 1968 (transferred to MSU via the O.J. Noer Research Foundation), the O.J. Noer Memorial Turfgrass Collection has continued as the strongest publicly accessible library of materials relating to turf science and culture in the world. The Noer Foundation continues to support Noer Collection development and the TIC Endowment Campaign. Our thanks for their continued vision and support!

Throughout 2012, donations and new acquisitions continued to build the Noer Collection. Newly-published turfgrass-related materials, as well as all identified, available, and affordable historic turf materials are purchased by the MSU Libraries on an ongoing basis, if publishers, authors, or interested third parties do not otherwise donate them to the Collection. TIC would, of course, prefer items to be donated in order to use scarce resources to acquire additional materials for the collection.



O.J. Noer

For more information about the Noer Collection see:

<http://tic.msu.edu/noer.html>

Historical Acquisitions to the Noer Collection

Several items of particular historic significance were purchased for the Noer Collection during 2012. See the list of historically significant items as reflected in their TGIF records here:

<http://www.lib.msu.edu/cgi-bin/flinkss.pl?srch=NOEROLDBUYS12>

Continuing Acquisitions for the Noer Collection

Acquisitions for the Collection continue on an aggressive basis by the MSU Library as a part of the ongoing efforts to build the collection. Hundreds of such items are purchased every year.

Here is a list of sample titles acquired during 2012 for the Noer Collection as reflected in their TGIF records:

<http://www.lib.msu.edu/cgi-bin/flinkss.pl?srch=NOERNEWBUYS12>

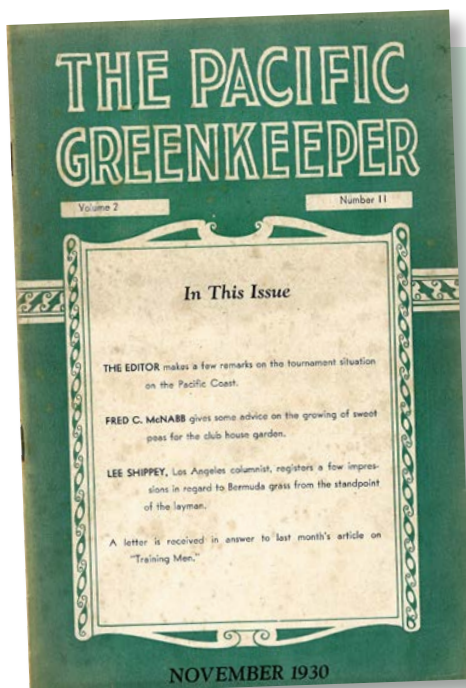
Your Donations Make a Difference!

Several significant, large-scale transfers of materials were donated so that TIC can continue to build and further enhance the uniqueness of the Noer Collection. During 2012, we have received these donations of particular note:

1. Multi-item donations & transfers:

- a. USGA Green Section (Golf House—National Green Section Office, Research, and Regional Offices, especially the Mid-Atlantic), a continuing stream of items, including periodicals, technical reports, books and booklets, theses and dissertations, reprints, conference proceedings, and annual research reports. The Green Section's ongoing, sustained effort to make sure we have materials in hand to both process for TGIF and build the collection is very much appreciated. Thanks especially to Kimberly Erusha, Andrea Yurcik, and Mary McConnell at Golf House, Marti Zontek and Pat Stairiker in the Mid-Atlantic Region, and Diane O'Rorke in the Northeast Region. We would be particularly remiss if we did not note especially the long tradition of the late Stanley J. Zontek, Senior Agronomist with the USGA Green Section, in promoting the availability of materials and support for the Collections. We do, and will, remember!
- b. James T. Snow, New Jersey, a large number of turfgrass books, technical reports, and bulletins published from the 1920s to the present, including a significant number of historic works and unusual items.
- c. Chris Harriman, Mid-Atlantic Association of Golf Course Superintendents (MAAGCS), a substantial run of *Turfgrass Matters* (and earlier titles of the MAAGCS newsletter, 1971-2009, in preparation for the creation of a digital archive site for this periodical by TIC).
- d. Barbara Mikel, Golf Course Superintendents Association of Northern California, another substantial run of *Thru the Green*, and earlier titles of the GCSANC newsletter, primarily 1972-1988, for addition to the digital archive site for this periodical.
- e. James Spindler, Florida, two shipments of trade and professional periodicals.

story continues ➤



Elusive Periodical Enhances Noer Collection

While there are not very many turf periodicals that we have not been able to see or at least verify the existence of, one that has been long-elusive to us is *The Pacific Greenkeeper*. We were surprised and most pleased to find a single issue of this early turf magazine within the donated materials belonging to Dr. Fred V. Grau. The issue we received is a 12 page (plus covers) November 1930 issue (Volume 2, Number 11).

The Pacific Greenkeeper was produced for an American and Canadian west coast audience by the Southern California Greenkeepers' Association, and aimed at club managers and green committee members as well as greenkeepers. The sample issue we have is bit light on turf agronomics, including: an editor's note regarding the state of golf tournaments in California during 1930, an article on tending to sweet peas, "An essay on Bermuda grass", and a letter to the editor discussing why the physical appearance of a man reflects on himself and not the greenkeeper or club he works for.

Perhaps most surprisingly, the only references to this magazine we see in Google all seem to end up pointing back to use here at the Turfgrass Information Center—which is not very helpful at all. There are no records for this item within WorldCat, which is generally recognized to be the single strongest verification

tool for these sort of items in the world. There are also no samples of this item within the James B Beard Turfgrass Library Collection here at Michigan State University.

Fortunately, the United States Golf Association (USGA) does have a number of these issues at Golf House (it appears to be a decent run from 1929-1932—with a number of missing issues therein) and so we may have to rely on that for much of our eventual processing for whatever turf-related content there may be within it.

Ultimately, what we would really like to do is obtain a complete run, or continue to build towards a complete run, of *The Pacific Greenkeeper*. Should anyone have any information or leads on this title, we offer our thanks in advance!

- f. Peter Dernoeden, Maryland, solid runs of the *Journal of Turfgrass Management* and *The Agronomist*, 1979-1987.
 - g. Gary Mannies and Nancy Spraggins, Best Approach Publications, a shipment of recent golf course yardage guides produced by Best Approach, totaling 47 items.
 - h. Cliff Haka, MSU Libraries, continuing partial runs of golf periodicals, and a continuing supply of yardage guides and scorecards.
 - i. Frank Roggenbuck and Mark Collins, Hancock Turfgrass Research Center, MSU, periodicals and separate materials also, especially MSU turf extension materials from the past.
 - j. Mr. Kevin Morris, National Turfgrass Evaluation Program, continuing archive copies of NTEP reports.
 - k. John Stone, Wisconsin, a range of marketing materials relating to Milorganite from the 1960s.
2. Other donations:
- a. David Norman, Virginia Golf Course Superintendents Association, *Environmental Best Management Practices for Virginia's Golf Courses* (2012).
 - b. Peter Yagi, Washington, *The Art of Putting* (facsimile ed.) (1904 & 2011), and *Adventure Golf* (2005).
 - c. Don Stein, Wisconsin, *Factors Affecting Soil Test Results and Recommendations for Turfgrass Areas* (Thesis) (1976).
 - d. Mel Lucas, Jr., Massachusetts, copies of FEGGA *Talking Turf* 2008-2009).
 - e. Tisa Overman, Wisconsin, *Wartime Maintenance* (Manuscript) (194x).
 - f. Shawn Nicholson, Michigan, yardage guide.
 - g. Ray Richard, Massachusetts, his *Golf Construction Field Book* (2012).
 - h. Aaron Cookingham, Michigan, *Turf Irrigation Manual* (5th ed.) (1994).

Please note that the donation of items from a wide range of individuals are important, necessary, and appreciated in order to continue to build a comprehensive collection. Thank you to all our donors!

Do you have materials which could help researchers, students, and scholars better understand the rich history and tradition of turf culture? Consider giving them a permanent home, accessible, retrievable, and preserved, in a known, public, and secure location as a part of the Noer Collection. See <http://tic.msu.edu/needs.html> for further information about items which we seek.

In particular if you know of someone who will be retiring or moving, please have them contact us before disposing of materials. We recognize that in many cases the significance of items may well be uncertain—that is both okay and quite normal.

James B Beard Turfgrass Library Collection

Texas A&M Professor Emeritus James B Beard donated a significant portion of his private collection of turfgrass materials to the Michigan State University Libraries in 2003. It forms a distinctive entity within the Turfgrass Information Center that had its origins in Beard's research while he served on the faculty at Michigan State University from 1961 to 1975. Since no significant body of turf materials existed in any university library, he recognized both the need for and the opportunity to build a literature collection in support of turf science, research, and teaching. Thus his involvement was critical to both the Noer Collection and his own.

During 2012, Dr. Beard continued to transfer materials, including both monographic and periodical content, to MSU, totaling some 588 items.

Other individuals have likewise contributed materials this past year directly to us to add to the Beard Collection, including Dr. Waichi Agata of the Nishinohon Green Research Institute of Japan, who donated recent issues of the *Half Annual Report of the NGRI*.

For more information about the Beard Collection see: <http://tic.msu.edu/beard.html>



James B Beard



The DMC and TIC: A Perfect Pair

In 2005, a concerted effort was made across the board by the Turfgrass Information Center to proactively expand the availability of full-text and digitized turf-related materials online; in 2005, only 21% of TGIF records provided full-text. Today, it remains a major goal of the Turfgrass Information Center (TIC) to link our records to full-text materials; as of June 2012, more than 50% of records in TGIF linked to the full document. To accomplish this goal, TIC works collaboratively with the Digital and Multimedia Center (DMC) of the Michigan State University Libraries. The DMC is run by John Shaw and is assisted by Laura Carter and Grace Metz, in addition to the 22 students employed to help run such an extensive center. Both the DMC and TIC are within the MSU Libraries' Digital Information Unit, of which Shawn Nicholson is Assistant Director.

The DMC provides several multimedia and technical services to the Michigan State University community. Two of the MSU Libraries' Collaborative Technology Labs are housed within the Digital and Multimedia Center, both an interactive white board lab and a SmartBoard lab.

DMC houses well over 11,000 movies available for viewing and rental as well as maintaining sets of course reserves in electronic format to support current MSU classes. These materials are available to use in any of the 46 deluxe user carrels that are decked out with various media equipment. The DMC provides information and advice to all faculty, staff and students regarding both hardware and software purchases as well as counsel on audio, video or print digitization.

The majority of work done within the Digital and Multimedia Center is scanning services and digitization. DMC simultaneously produces work for various other MSU Libraries Collections, its main clients being the MSU Libraries' Special Collections and the MSU Libraries' Turfgrass Information Center."

The DMC is capable of scanning a vast array of materials using any of their several high-tech scanners. For single sheets without extensive binding, Canon imageFORMULA DR-9080C Color Production Scanners are used. These Canon sheet feed scanners are capable of scanning 50 color pages-per-minute in portrait mode. On occasion, an Epson Expression 10000XL Graphic Arts flatbed scanner is used on smaller bound objects for its capability of concurrently scanning both sides of a large book or image in detail.

A scanner often employed is the Bookeye 3 which are able to scan images, text, and even 3-D objects in black and white, grayscale, and color. Bookeyes are perfect for batch scanning, something the Digital and Multimedia Center does a large share of. The Bookeye scans books and magazines at 400 pixels per inch (ppi) on a flatbed measuring 24x36 inches, and its camera can capture a color scan in 3 seconds at 400 pixels per inch (ppi).

For items measuring as large as 33 x 46.5 inches, the DigiBook SupraScan A0 planetary scanner can be used. This scanner may be considered the "big gun" of scanning, boasting a high-resolution motorized camera of the sort used in spy satellites. This camera is capable of capturing images in 300-600 ppi, and includes features such as a sensor calibrated to measure the distance between the work and the camera, a motorized cradle to hold the work in progress, moving lights to cover the entire work surface, and bi-directional scanning. The SupraScan is ideal for fragile, oversized or bound objects.

After the scan, a student employee then takes the scanned images and processes them by cropping, rotating and checking for quality of the scans. These images are then turned into OCR'd PDFs using AbbyyFineReader 10 Professional Edition. (OCR stands for Optical Character Recognition, a technology that allows scanned documents and images to be turned into useable data such as a word processing file). After an entire document has completed this process, it is sent to a round of final quality control; this involves a page by page check of each scan using the original item as the control. If a PDF does not meet standards or is an incorrect file, the incorrect/missing pages are scanned again. Each client for whom they perform scans has their own set of standards related to how the document in question will be used and stored. Once every piece matches expectations, the uncorrected images stored as TIFFs are kept in a dark archive, while the issue-level PDFs go to coordinating project managers.

Mike Schury is the project manager of digitization projects within the Turfgrass Information Center. There, his team uses these issue-level PDFs to create digital archive projects for which TIC has contracts with publishers or other copyright holders.

Above, from left: John Shaw, Operations Manager for DMC, prepares turf journals for digitization. A DMC student employee uses the BookEye scanner. TIC student employees process scanned images for archiving and for issue-level access.

As in DMC, the TIC team is made up of dedicated students who act as the driving force behind project completion. First, a table of contents is created for each issue processed to match the publication's content. The issue-level PDF then undergoes a process of splitting and linking so as to extract individual articles and page segments and link them to an archive website. The issue-level PDF is typically split in two ways: each article within may be extracted individually and segments of usually 10 pages at a time may be extracted as a group. The splitting of articles is most useful to the users who would like to access the article they are searching in the easiest manner possible. This means that if an article begins on page 55 but continues on page 10, the user does not have to go through the hassle of searching the entire PDF for its continuation. Instead, the article is split to include only the pages to which it pertains and in the order of the article (page 55, then page 10 in this example). On the other hand, page segment PDFs help in representing the physical issue electronically — users can flip through

it as they would the print publication, including full page advertisements that would not be included in an article split. After the splitting and linking has been completed, each PDF and the linked table of contents page is triple-checked for accuracy to maintain the high quality of the digital archive.

The finished product can be seen within our Publicly-Accessible and Restricted-Access Full-Text Archive sites at <http://tic.msu.edu/pubjrnlbrowse.htm>. Publically available journals include titles such as *SportsTurf* and the *USGA Green Section Record*; these are available for viewing by the general public, through corresponding TGIF records or by conducting a Google search for the desired title. Our Restricted-Access archive sites feature *Golf Course Management*, *Turf News* and many more, which are available to TGIF subscribers and to each cooperating organization's membership via that group's website.

Outreach and Publicity



Currently there are six main methods of proactive communication with users, including several new social media outlets:



- *The Sward*, the quarterly publication of TIC—**now an e-newsletter!** Back issues available at: tic.msu.edu/swardarchive.html
- TIC Blog, available at <http://tic.msu.edu/blog.html>
- RSS Feeds, including of the TIC blog (<http://tic.msu.edu/ticblog.xml>), and recent articles with records added to TGIF from sources TIC classifies as “Refereed” (available for TGIF users from the Conditions and Terms of Use screen)
- Facebook: Like us at “Turfgrass Information Center”
- Twitter: Follow us “@TurfLibrary”
- Google +: Circle us at “Turfgrass Information Center”

These communication tools highlight additions and enhancements to the TGIF database and digital archives, happenings within the unit, and visits to TIC by scholars and other people of interest from around the world. Readers can also find useful tips on using TGIF and helping TIC.

People & Facilities

Volunteers and Interns

Interns from library and/or information science graduate programs provide staffing for projects that might not otherwise be completed for years. These placements have historically been from the University of Michigan and Wayne State University, but TIC welcomes interns from other programs as well.

Volunteers such as retired faculty or graduate students contribute time and expertise to work on projects that the staff and student employees would not have time to complete or the knowledge to complete.

Student Employees

Since nearly the beginning of construction on the Turfgrass Information File (TGIF), the Turfgrass Information Center has relied heavily on student employee labor to produce high-quality, immediately-available TGIF records. Additionally, as TIC continues to partner with publishers and associations to digitize and make available publications, roles played by TIC student employees continue to expand. Student employees are relied upon to create descriptive (citation information) records, add keywords,

write abstracts, determine online article availability, maintain URLs, design websites, create web pages, file and organize materials, serve walk-in traffic, and an assortment of other tasks!

“All that I have accomplished, or expect, or hope to accomplish, has been and will be by that plodding, patient, persevering process of accretion which builds the ant-heap—particle by particle, thought by thought, fact by fact.”

—Elihu Burritt (*The Bulletin of the United States Golf Association Green Section*, 9(2), February 1929.)



Similarly, the Center truly could not run, nor could the TGIF database have grown so much, nor could as many new features have been and continue to be added, without student employees. For example, recent accomplishments primarily achieved through student employee efforts include the creation of over 18,000 new TGIF records, helping push the total number of TGIF records over 200,000. Perhaps most significantly – passing the milestone of 50% of TGIF records linking to full-text of the item. Other achievements include the condensing and reorganization of our vertical sequential files, and the completion of three new serial archive sites as well as significant progress on three more.

The work performed by student employees is important and valued. A round of applause for the sheer amount of work and effort these students put forth; gratitude from all the researchers, students, and practitioners helped via TGIF searches, archive sites and other TIC online resources; and thanks by all the staff at the Turfgrass Information Center.

Full-time Staff & Library Administration

Early in 2012, TIC was given permission to post for a new full-time staff position in the department. This position would primarily be responsible for connecting with our users through creating training materials and guides as well as handling our growing online and social media presences. Additionally, the position comes with student supervision tasks. In May, Elisabeth Mabie began work in this new position. She is already a familiar face in the department, having started in February 2008 as a student employee, climbing the ranks of student roles to eventually work on-call after her graduation from Michigan State University in May 2011.

Aaron Tomak, who had been with TIC since July 2010, accepted a different position in the Michigan State University Libraries in September. We wish him the best in his new role of assisting with inter-library loans and thank him for his contributions to the TGIF database and operations of the Turfgrass Information Center. For now, the roles Aaron filled will be handled by Elisabeth Mabie and Mike Schury.



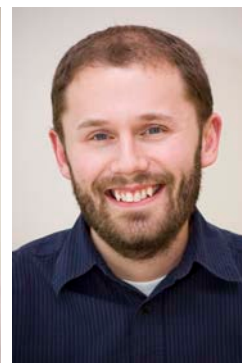
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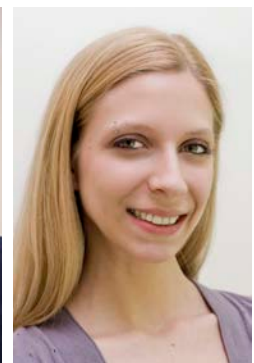
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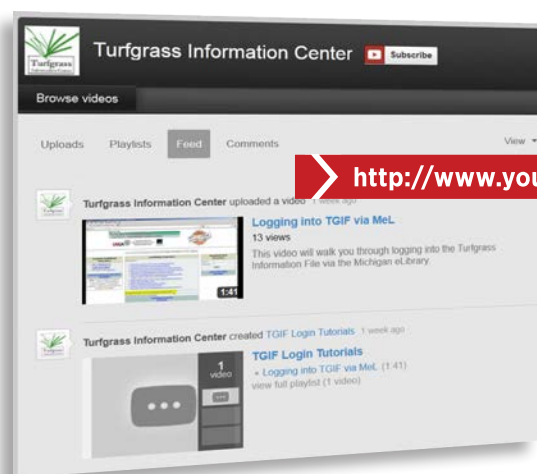
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Facilities

The Turfgrass Information Center facility provides both public and staff workspace in supporting access to the various collections and the TGIF database. The facility is normally open to the public 40 hours per week for walk-in use for the physical materials; the digital materials are accessible nearly 24/7. Please email or call ahead if you have special needs or interests!

Future Directions and How You can Help

Future Direction	How You can Help
Launch a prototype image collection presentation, based on the Noer/Milorganite® Image Collection.	See http://tic.msu.edu/noermmsd-prospectus.html .
Continue to build the TIC Endowment Fund to help guarantee future financial stability of both TIC and TGIF.	Support the TIC Endowment Campaign yourself and/or encourage other individuals, organizations, and groups to become involved and do so as well. See http://tic.msu.edu/endowment.html for information on how to help!
Continue the push to increase the percentage of full-text material linked directly from within TGIF.	Encourage your local, state/provincial, national, or international organizations to become a digital cooperator, and to make their publication(s) available to the turfgrass world. See http://tic.msu.edu/fulltext.html for more information.
Explore avenues to provide greater access to the increased number of archive-like items within TIC's collections	Increase TIC's receipt of collections of archive-like materials and supporting documentation of significance as well as apprise TIC of any potential archive-like materials of significance in need of a home. See: http://tic.msu.edu/needs.html
Continue negotiations to increase the number of turf users that can access TGIF through their professional, corporate, and academic organizations. Increase availability of guidance and training materials, online and offline, to help users better utilize all TGIF has to offer.	Subscribe to TGIF for yourself or for your academic institution, or encourage your professional organization to become involved so that its members can easily use TGIF. See http://tic.msu.edu/subscribe.html for further details.
Continue to find support to aggressively process older turfgrass literature with the intention of "completing" TGIF coverage for pre-1984 materials within the next several years.	<ul style="list-style-type: none"> • Donate needed materials to the Collection, and encourage others to do the same. See http://tic.msu.edu/needs.html for further specifics. • Volunteer time at the Center. Your expertise can help the indexing of print and visual materials. • See the sponsorship project prospectus on retrospective processing at http://tic.msu.edu/pdf/Retrospective-Processing-Prospectus.pdf.



TIC on YouTube



<http://www.youtube.com/user/TurfgrassInfoCenter?feature=watch>

The Turfgrass Information Center is pleased to announce the introduction of Turfgrass Information File tutorial-style videos. The first set of videos is focused on helping TGIF's contributing cooperators login to the database. After that set is completed, the focus of the videos will be on using the various TGIF searches and the other components of the Turfgrass Information File that are available to users. These videos are currently in production and each will be released on the Turfgrass Information Center YouTube channel as they become available. Keep an eye on our social media sites or blog for these releases!

The first video completed in the "Logging In" series is designed to help residents of Michigan login to TGIF via the Michigan eLibrary (MeL).



Turfgrass

Information Center

tic.msu.edu

The Turfgrass Information Center would like to thank supporters for their ongoing contributions, be it financial or donations of needed materials.

We appreciate your continued dedication that benefits turfgrass research and management.

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The Turfgrass Information File is a cooperative project of MSU Libraries and the United States Golf Association (USGA).

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