

# Turfgrass Information Center

## 2018 Annual Report

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tic.msu.edu

### Highlights

**59,000+ Searches • 66% Linked to Full-Text • 9,100+ New Records • 13,900+ Records Indexed**  
**82 Academic Consortium Members Worldwide • 67% of TGIF Records Digitally Secured**

### 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. At the end of 2018, the Turfgrass Information File database (TGIF) had over 298,000+ records (with over 65% 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 the 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- Collect and preserve published and unpublished materials relating to turfgrass science, culture, and the management of turfgrass-based facilities, including golf courses, parks, sports fields, lawns, sod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.
- Assist users of the collection and online system by helping them to identify and locate materials that meet their needs.
- Provide a physical user workspace and cooperative electronic infrastructure in support of collaborative turfgrass scholarship.

For more information about the Turfgrass Information Center, see: <http://tic.msu.edu>

### TIC Endowment

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

- TIC activities continue a 50+ 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. Most 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.

To find out how you can help support the TIC, see: <http://tic.msu.edu/endowment>

## TGIF, the Database

TGIF provides enhanced citation 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, and explore thousands of records for articles, books, fact sheets, and more online.

To learn more about searching the database, see:

<http://tic.msu.edu/search>



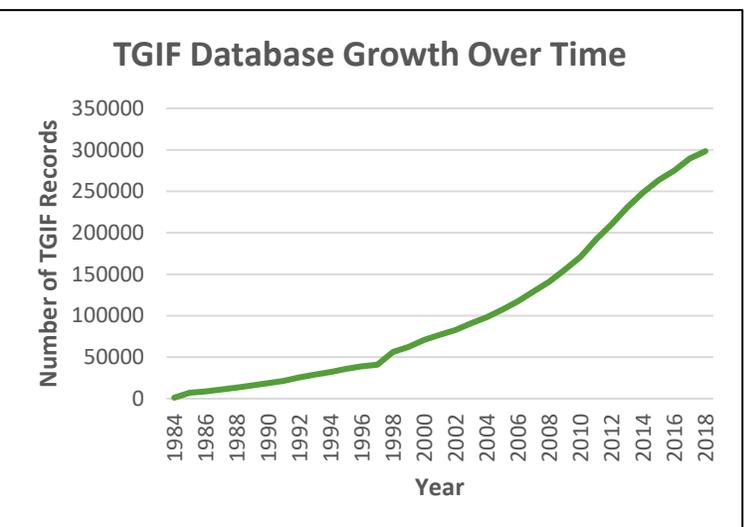
## Database Construction

The Turfgrass Information Center creates Turfgrass Information File (TGIF) database 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 for entry into TGIF:

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

## 2018 TGIF Summary Construction & Usage Statistics

New records created	9,194
Issues closed <sup>1</sup>	2,089
Records modified in current year, but created previously <sup>2</sup>	16,626
% Full-text	65%
Records newly indexed	13,965
Total records in database	298,409
Total TGIF Searches	59,074
Fastlinks	564,052
Total Search and Fastlinks <sup>3</sup>	623,126
<sup>1</sup> Periodical issues which have had the descriptive record & indexing completed on all articles selected for inclusion in TGIF. <sup>2</sup> Records created in another year, but edited/enhanced in 2018. <sup>3</sup> Excludes Fastlinks and searches on non-Drupalized archive sites	



Descriptive records are the “base record” and contain general citation information like title, source, author, pagination, year, and any links to the item. After the descriptive record stage, items move to the indexing stage. Here, items are manually reviewed and keywords are assigned using a controlled vocabulary, the *Turfgrass Thesaurus*. As the indexing stage requires an understanding of the content of the item, this stage requires greater time to complete.

Records with URL links are considered to have the full-text available. Records with the text of the item contained within the TGIF record are considered full-text searchable, since that text can be searched in TGIF directly. There are nearly 55,000 full-text searchable records within TGIF!

## Characterizing the Full-Text Available Content within TGIF in 2018

**66% Records with full-text availability** (6% that may have secondary access restrictions)

**39% Records with full-text availability provided through MSU Libraries' efforts** (11% with restricted access)

**26% Records with full-text not provided through MSU Libraries' efforts**

18% links to periodical articles

2% links to book-like items

5% remaining links. These are to a variety of materials, including blueprints, videos, images, judgments, online presentations, patents, podcasts, and slide sets

## Digital Curation

Since May of 2014, TIC has been working to ensure the ongoing preservation of vital turfgrass resources by scanning or digitally capturing items with records in the TGIF database. As we do not yet have copyright permissions for many of these items, our digital vault is access-restricted and used primarily for verifying that TGIF records remain accurate and up to date. At the end of 2018, 67% of items described in TGIF have been digitally secured.

## TIC Use and Users

### Users of the Turfgrass Information File

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

- Contributing Cooperators with Blanket-Access agreements exist for 14 different organizations and associations, plus all State of Michigan residents, allowing members to access TGIF from the member-only section of the organization’s website.
- 82 Academic Consortium Members with Campus-Wide Access, representing 43 states in the USA, 4 Canadian provinces, and 7 other countries.
- Corporations with Blanket-Access, allowing several turfgrass industry corporations ongoing access to TGIF for their research, technical, regulatory, or product support staff, via their own intranets.
- Annual Members with their own personal logon can be found all over the world.

More information about current user groups can be found at: <http://tic.msu.edu/tgif>,  
or for information regarding memberships, see: <http://tic.msu.edu/subscribe>

## Highlights of Efforts for Cooperators

### Digitization & Archiving

Access to full-text research reports or other management content is a serious challenge for turf professionals. The Turfgrass Information File, originally conceived to index and abstract the literature of turfgrass, has taken dramatic steps to increase retrievability so users may directly access the full-text of identified articles and other items of interest—over 66% of TGIF records now link in this way!

## New Electronic Resources in 2018:

**Golf Course Superintendents Association of New Jersey** (The Greenerside);  
**Connecticut Association of Golf Course Superintendents** (Connecticut Clippings)

## Upcoming Electronic Resources:

**Golf Course Superintendents Association of Ireland** (Greenside); **Iowa State University** (Iowa State University Research Report); **Kansas State University** (Central Plains Turf Conference; K-State Turfgrass Research; Ornamental and Turfgrass Research; Results of Turfgrass Investigations: Variety Trials: Growth Regulator Trials; Turfgrass Field Day [Kansas]); **"The Office"** (Golf Illustrated [London]); **Michigan State University** (Michigan State University Turfgrass Field Day; Michigan Turfgrass Report; Michigan State University Turfgrass Research Summary); **Michigan-regional Golf Course Superintendents Chapters** (Course Conditions; A Patch of Green; Turf Times [Northern Michigan Turfgrass Association]; Western Views); **New Jersey Turfgrass Association** (Clippings); **New Mexico State University** (Proceedings of the New Mexico Turfgrass Conference; Proceedings of the Southwest Turfgrass Conference); **New Zealand Sports Turf Institute** (Annual Report on Green Keeping Research; New Zealand Turf Management Journal; Proceedings of the New Zealand Sports Turf Convention; Report of Proceedings New Zealand Greenkeepers' Association); **North Carolina State University** (Proceedings of the North Carolina Turf Conference & Trade Show; Proceedings of the North Carolina Turfgrass Conference); **Ontario Golf Superintendents' Association** (ONCourse); **Pocono Turfgrass Association** (Chips & Putts); **Rutgers University** (Report on Turfgrass Research; 3-Day Turf Course Proceedings; Rutgers Turfgrass Research Field Days; Rutgers Turfgrass Symposium; Turf Conference Highlights; Lawn and Utility Turf and Golf and Fine Turf Short Courses); **The Scotts Company, LLC** (Lawn Care; Proceedings of the Scotts Turfgrass Research Conference; The Scotts Company Archive); **STRI** (Turfgrass Seed); **Turfgrass Producers International** (American Sod Producers Association Midwinter Conference Proceedings; ASPA Bulletin; Business Management; Journal of Environmental Turfgrass; Lawn Institute Harvests; Lawn and Landscape Digest; Lawn-O-Gram; The Lawn Institute Press Kits; Turfgrass Producers International E-Newsletter); **United States Golf Association** (USGA Regional Turfletters); **University of Georgia Cooperative Extension** (Proceedings of the Southeastern Turf Conference); **University of Illinois** (Illinois Turfgrass Research Report; Proceedings of the Illinois Turfgrass Conference); **University of Wisconsin-Madison** (Wisconsin Turfgrass Field Day; Turfgrass Field Day for Homeowners; Wisconsin Turfgrass Conference; Wisconsin Turfgrass Research Reports); **The USGA, The USGA Green Section & The Mid-Atlantic Association of Golf Course Superintendents** (National Turf Field Days)

For a complete list of TIC-hosted full-text resources, see: <http://tic.msu.edu/browse>

The cumulative effort of creating a digital PDF collection online now totals over 10,500 periodical issues from 40 titles & 360 book-like volumes, totaling 511,800 pages.

## 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. Our thanks for their continued vision and support!

Throughout 2018, 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 be donated in order to use resources to acquire scarce materials for the collection.

During the 2018 reporting year, a significant number of particularly special historic items were acquired for the Noer Collection – continuing a series of extraordinarily fruitful acquisition years. **Most notable among these historic materials** were:

- Toogood, E. Kemp. 1900. *Toogood's Treatise on Lawns, Cricket Grounds, &c.* Southampton: Toogood & Sons. See: <https://tic.msu.edu/tgif/flink?recno=223069>
- Noer, O. J. 1928. *The ABC of Turf Culture.* Cleveland, Ohio: The National Greenkeeper, Inc. See: <https://tic.msu.edu/tgif/flink?recno=251>. Note: While this is our 3rd copy of this masterwork – really the figurehead book of the entire collection – this copy is in much better condition than 2 of the others.
- Toro Manufacturing Company. 1931. [*Toro Equipment Catalog for 1931*] [with 1931 Price List]. Minneapolis, Minnesota: Toro Manufacturing Company. See: <https://tic.msu.edu/tgif/flink?recno=300158>

- H. Pattison & Co., Ltd. 193x. *Pattison Equipment & Requisites for Golf Courses*. Stanmore, England: H. Pattison & Co., Ltd. See: <https://tic.msu.edu/tgif/flink?recno=295452>
- National Golf Foundation. 1947. *Golf Range Operator's Handbook*. Chicago, Illinois: National Golf Foundation. See: <https://tic.msu.edu/tgif/flink?recno=210962>
- Golf Foundation. 1963. *Making Room for Golf*. London: Golf Foundation. See: <https://tic.msu.edu/tgif/flink?recno=167739>
- Department of Agriculture, Victoria. [1971]. *Turf Manual*. Melbourne: Department of Agriculture, Victoria. See: <https://tic.msu.edu/tgif/flink?recno=101513>

For further details about 2018 donations to and acquisitions for the Noer Collection, please see the complete Noer Collection Report for 2018 here: <https://tic.msu.edu/sites/default/files/images/Noerrpt18.pdf>

For more about the Noer Collection see: <http://tic.msu.edu/noercollection>

## James B Beard Turfgrass Library Collection

In 2003, Texas A&M Professor Emeritus James B Beard donated a significant portion of his own private collection of turfgrass materials to the Michigan State University Libraries. It formed 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 collection's development. Dr. Beard's profound impact on the field of turfgrass science cannot be overstated. His approach to the discipline was fundamentally unique, and he was personally involved in the evolution and recognition of the science itself – from a research, teaching, and outreach perspective. All those in the turf world (and his impact was truly worldwide) have benefited from his relentless advocacy and scholarship.

But beyond all that, he was the reason for our own ongoing work here at the Turfgrass Information Center. From his early interest in 'things bibliography' that lead the way in building a strong turfgrass collection at the MSU Libraries, through the arrival of the O. J. Noer Collection in the late 1960s, to the donation of the James B Beard Turfgrass Library Collection in 2003, Dr. Beard's efforts were the foundation of the work that we do now. All of it would not have happened unless he did what he did.

During the year of 2018, the Turfgrass Information Center received materials from Dr. Beard prior to his passing, including 56 periodicals and monographs.

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

## News

- The launch of *The Greenside* archive site was a momentous occasion, as it is the first of the Turfgrass Information Center's digital collections to be made maximally accessible according to WCAG 2.0 standards for web accessibility, resulting in scans that are easier to use for people with certain disabilities. For example, all of the pictures and graphics in these PDFs have a text layer (alt text) behind them, meaning that people who are visually impaired and using screen reader programs can still know roughly what the images show. Additionally, each scanned PDF is run through optical character recognition (OCR) software and manually corrected afterwards, to ensure that the underlying text is accurate. Michigan State University, the MSU Libraries, and the Turfgrass Information Center are committed to facilitating access to our resources in order to reach the broadest possible audience. This archive site represents the hard work of many different people across multiple units here in the Libraries, including the Gerald M. Kline Digital and Multimedia Center, the Turfgrass Information Center, and the Digital Repository Team. While *The Greenside* site may be the first maximally-accessible digital archive launched under the Libraries' current Five Year Accessibility Plan, it will not be the last!
- 2018 was a historic year for the Turfgrass Information Center and the Michigan State University Libraries as it marked 50 years since the original Noer Collection items were donated to MSU. The Noer Collection has grown by leaps and bounds since its arrival in 1968. Over the years, major donations to the Collection have come from a number of noted

agronomists as well as from organizations including the United States Golf Association Green Section (USGA), the Golf Course Superintendents Association of America (GCSAA), the Milwaukee Metropolitan Sewerage District (MMSD), and Turfgrass Producers International (TPI). These gracious donations, together with the Libraries' continued acquisitions of turfgrass materials, have allowed the Noer Collection to grow in both size and scope over the last 50 years.

Today, the MSU Libraries' turfgrass holdings — comprised of both the O.J. Noer Memorial Turfgrass Collection and the James B Beard Turfgrass Library Collection — constitute the finest publicly-available collection of turf related material anywhere in the world. Online, a continuing series of biographical profiles of Noer and related posts kicked off the celebration in August 2018, including a caption contest, and a TGIF searching contest.

- In late 2018, we were happy to launch the prototype site of the James R. Watson, Jr. Image Archive. The sample of digitized slides include selections from a total of about 19,000 images, in a variety of photographic formats, that were taken by Dr. Watson across his career. He retired from the Toro Corporation after a long career as one of the most influential turfgrass agronomists of the 20th century. His photographic legacy documents many of the turf facilities, individuals, equipment, cultural practices, and research efforts that he worked on or engaged with across the globe — and across all sectors that make up the world of turfgrass science. Materials are made available courtesy of the family of Dr. James R. Watson, Jr. Support for the processing work has been provided by [The Toro Foundation](#).

## Staff

2018 was another year of change here in the Turfgrass Information Center! In October, Nicholas DeVolder accepted a Library Assistant IV position here in TIC! During his undergraduate career at Michigan State University, Nick worked for four years as a student employee within the Turfgrass Information Center. Nick graduated from MSU in May 2017 with a Bachelor of Arts in Economics and continued to work at TIC in an on-call capacity until March 2018 when he took a Laboratory Technician job with Prism Analytical Technologies in Mt. Pleasant, Michigan. Nick will be responsible for student supervision of the office student group as well as learning all aspects of TGIF data entry, so that he may eventually run the descriptive serials group. Welcome back, Nick!

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*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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