Turfgrass Information Center
2013 Annual Report

Highlights

910,000+ Searches • 58% Linked to Full-Text • 20,300+ New Records
About 10 Million PDFs Displayed of TIC-Hosted Materials • 74 Academic Subscribers Worldwide

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 230,000+ records (with over 58% 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• Collect and preserve published and unpublished materials relating to turfgrass science, culture, and the management of turfgrass-based facilities, including golf courses, parks, sports fields, lawns, sod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.

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 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.

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

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 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

Descriptive records are the “base record” and contain general citation information like title, source, author, pagination, year, and any URL to the item.

After the descriptive record stage, items are moved 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 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.
TGIF Summary Construction Statistics

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<tbody>
<tr>
<td>New records created</td>
<td>20,355</td>
<td>18,548</td>
<td>21,193</td>
<td>15,618</td>
<td>15,049</td>
<td>11,749</td>
<td>12,259</td>
<td>9,732</td>
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<tr>
<td>Toro Foundation subset</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>2,635</td>
<td>2,668</td>
<td>2,633</td>
</tr>
<tr>
<td>Issues closed</td>
<td>8,813</td>
<td>3,752</td>
<td>2,437</td>
<td>2,717</td>
<td>4,000</td>
<td>1,483</td>
<td>1,782</td>
<td>2,351</td>
</tr>
<tr>
<td>Zero-hit issues</td>
<td>4,942</td>
<td>1,533</td>
<td>663</td>
<td>912</td>
<td>1,245</td>
<td>518</td>
<td>769</td>
<td>633</td>
</tr>
<tr>
<td>Records modified in current year, but created previously</td>
<td>51,177</td>
<td>24,848</td>
<td>30,732</td>
<td>17,719</td>
<td>42,034</td>
<td>34,659</td>
<td>20,388</td>
<td>18,440</td>
</tr>
<tr>
<td>% Full-text</td>
<td>58%</td>
<td>53%</td>
<td>46%</td>
<td>44%</td>
<td>41%</td>
<td>36%</td>
<td>33%</td>
<td>24%</td>
</tr>
<tr>
<td>Total records in database</td>
<td>231,831</td>
<td>211,941</td>
<td>193,607</td>
<td>172,589</td>
<td>157,530</td>
<td>142,481</td>
<td>130,732</td>
<td>118,473</td>
</tr>
</tbody>
</table>

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

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<tbody>
<tr>
<td>Descriptive Records</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Abstracted Records</td>
<td>48%</td>
<td>50%</td>
<td>52%</td>
<td>56%</td>
<td>57%</td>
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<tr>
<td>Indexed Records</td>
<td>54%</td>
<td>57%</td>
<td>60%</td>
<td>65%</td>
<td>69%</td>
</tr>
<tr>
<td>Indexed and Abstracted Records</td>
<td>44%</td>
<td>47%</td>
<td>49%</td>
<td>53%</td>
<td>55%</td>
</tr>
<tr>
<td>Full-text Available Records</td>
<td>58%</td>
<td>53%</td>
<td>46%</td>
<td>44%</td>
<td>42%</td>
</tr>
<tr>
<td>Full-text Searchable Records</td>
<td>23%</td>
<td>25%</td>
<td>22%</td>
<td>22%</td>
<td>21%</td>
</tr>
<tr>
<td>Full-text Available, Indexed, and Abstracted Records</td>
<td>25%</td>
<td>25%</td>
<td>24%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Full-text Available, Indexed, Abstracted Records, and Full-text Searchable Records</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
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</tbody>
</table>
### Characterizing the Full-Text Available Content within TGIF

#### 2013
- **58% Records with full-text availability**
  - 4% Records with full-text availability that may have secondary access restrictions
- **36% Records with full-text availability provided through MSU Libraries' efforts**
  - 13% Records with restricted access but available to all TGIF users
- **22% Records with full-text not provided through MSU Libraries' efforts**
  - 14% links to periodicals articles
  - 2% links to book-like items
  - 6% remaining links. These are to a variety of materials, including blueprints, databases, images, judgments, online presentations, patents, podcasts, and slide sets

#### 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 periodicals 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 periodicals 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

### Tic Use and Users

#### Tic and Tgif Summary Use Statistics

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<tbody>
<tr>
<td>Total Tgif Searches</td>
<td>113,601</td>
<td>118,357</td>
<td>115,183</td>
<td>127,422</td>
<td>114,518</td>
<td>104,749</td>
<td>84,957</td>
<td>68,640</td>
<td>57,860</td>
<td>46,402</td>
</tr>
<tr>
<td>Tic-hosted Electronic Resources Searches (excluding Browsing)</td>
<td>14,548</td>
<td>16,940</td>
<td>20,444</td>
<td>20,313</td>
<td>20,949</td>
<td>19,902</td>
<td>17,974</td>
<td>16,490</td>
<td>18,126</td>
<td>10,803</td>
</tr>
<tr>
<td>Fastlinks</td>
<td>783,918</td>
<td>966,225</td>
<td>1,180,572</td>
<td>1,166,399</td>
<td>1,253,491</td>
<td>776,007</td>
<td>248,976</td>
<td>186,198</td>
<td>76,789</td>
<td>18,905</td>
</tr>
<tr>
<td>Total Searches and Fastlinks</td>
<td>912,067</td>
<td>1,101,522</td>
<td>1,316,119</td>
<td>1,314,134</td>
<td>1,388,958</td>
<td>900,658</td>
<td>351,907</td>
<td>271,328</td>
<td>152,775</td>
<td>76,110</td>
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#### Tic-hosted Electronic Resources Use, Including Browsing

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<tbody>
<tr>
<td>PDF Views</td>
<td>9,699,200</td>
<td>10,083,370</td>
<td>5,671,629</td>
<td>3,895,237</td>
<td>3,607,201</td>
<td>2,462,361</td>
</tr>
</tbody>
</table>
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 12 different organizations and associations, allowing members to access TGIF from the member-only section of the organization’s website.
- Academic Institutions with Campus-Wide Access, representing 40 states in the USA, 4 Canadian provinces, and 6 other countries. A Trial Access arrangement is available for qualifying, interested institutions.
- 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 Subscribers with their own personal logon can be found on 6 continents.

More information about current user groups can be found at: http://turfweb.lib.msu.edu/starweb/login.htm, or for information regarding subscriptions, see: http://tic.msu.edu/subscribe.html

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 58% of TGIF records now link in this way!

<table>
<thead>
<tr>
<th>New Electronic Resources in 2013:</th>
<th>Electronic Resources Currently Under Construction:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenkeeper International, TURFWX, Turfgrass Trends</td>
<td>The Florida Green, Golf Course Industry,</td>
</tr>
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</tbody>
</table>

Upcoming Electronic Resources:

- The Green Sheet, Lawn Care Industry, Lawn & Landscape,
- Michigan State University Turfgrass Field Day, Noer/Milorganite® Image Collection,
- The Proceedings of the Conference of the Mid-Atlantic Golf Course Superintendents, Turfgrass Matters

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

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 2013, 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 resources to acquire scarce materials for the collection.
To learn more about some historic Noer Collection acquisitions in 2013, see:  
http://ticpass.lib.msu.edu/cgi-bin/flinkss.pl?srch=NOEROLDBUYS13

Most notable among these is:

  See:  http://ticpass.lib.msu.edu/cgi-bin/flink.pl?recno=33166. This early survey, while having commercial overtones associated with Coe-Mortimer’s lawn fertilizer series, still contains some interesting and more wide-ranging observations on equipment, establishment, and cultural practices.

For a sample set of 2013 regular Noer Collection acquisitions, see:  
http://ticpass.lib.msu.edu/cgi-bin/flinkss.pl?srch=NOERNEWBUYS13

For more about the Noer Collection see: http://tic.msu.edu/noer.html

**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 2013, Dr. Beard continued to transfer materials, including 411 periodicals and monographs. Other individuals have likewise contributed materials this past year directly to us to add to the Beard Collection, including Mike Bavier and David Gilstrap.

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