Electronic Resources

The Turfgrass Information Center continues to seek out agreements with publishers to digitize turf-related periodicals. We are pleased to announce the availability of three new electronic resources - two of which the publishers have agreed to make publicly-available! To find out more about the background of TIC's electronic resources endeavors, a list of all electronic resources now offered, and how your publications can be digitized by TIC, check out http://tic.msu.edu/fulltext.html.

New Digital Archive Site — The Grass Roots

The Grass Roots is the Official Publication of the Wisconsin GCSA. The earliest versions of the now storied magazine began in the 1970's as a simple membership newsletter. In 1984, Monroe Miller volunteered for the Editors position and the publication quickly expanded into a true educational and communications tool for the membership. During Mr. Miller's tenure as Editor, information about turf research, reports on monthly meetings, national meetings, and the always anticipated feature articles were eagerly read by the membership. In 2008, Mr. Miller retired as Editor and the long time Business Manager of the Magazine David Brandenburg took over. Today's Grass Roots is still published bi-monthly with content and features that most of our members read cover to

Sports Turi Manager Magazine Now Completely Digitized and Publicly-Available

Members of the Sports Turf Association (STA) and the greater turfgrass industry now have access to the complete back files of the **Sports Turf Manager** (STM) and its predecessor the **Sports Turf Newsletter** through a partnership between the STA and Michigan State University's Turfgrass Information Center (TIC).

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SportsTurf Now Digitized and Publicly-Available

SportsTurf Magazine is the official publication of the Sports Turf Managers Association (STMA) and the definitive resource for sports turf and athletic facility managers. Published monthly, it presents comprehensive coverage of sports field management practices, emerging technologies and research. Features include facilities and operations, irrigation and

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theTGIFdatabase

Sneak Peek—Golf Course Design...Online

In 2006, authors Geoffrey S. Cornish and Michael J. Hurdzan published their definitive Golf Course Design: An Annotated Bibliography with Highlights of Its History and Resources. See our Blog entry written after its publication, from March 12, 2007, which described our take on the significance of this work within the whole of the literature. Here also is the link to the TGIF record for this unique book:

http://www.lib.msu.edu/cgi-bin/flink.pl?recno= 109655

Fast forward to 2010. TIC is most pleased to report that the authors have most kindly agreed to permit us to incorporate their authoritative observations, evaluations, and rankings into the corresponding TGIF records for the evaluated works (mostly books). This project is just beginning, but here is

a sneak peek at the kind of comments and valueadded content that will begin to show within some TGIF records — this sample shows how the data appears, to begin with, for 4 specific items – click on the 'More detail' link for each to see the details included:

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

We very much look forward to making this extraordinary content available to TGIF users over the next few months — and please watch for further announcements in the future. But our thanks to Mr. Cornish and Dr. Hurdzan for helping to raise the caliber and awareness of the richness, and usefulness, of the historic design literature on behalf of all!

Managing "Turf Topics" Search Content within TGIF

The "Turf Topics" series of pre-searched sets of TGIF results emphasize current and more widelyavailable publications on a specific issue in turf culture or turf facility management. They basically permit TGIF users to find selected results using only their mouse. Up to this point in time, users could not manipulate the presented results further, except by using the "Mark" check-box to select specific items within the search set. In order to permit further limiting (say, by type and/or year of publication), "Turf Topics" now appears as a listed field under the "as a" drop box adjacent to each of

the 3 possible search lines available on the "Guided Search" screen. This makes it possible to not only place limiters on the content within each

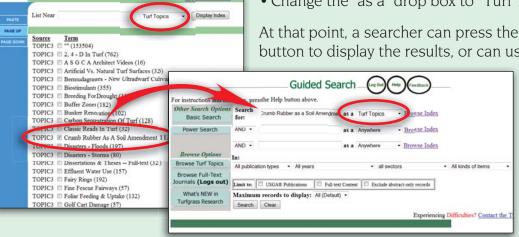
Turf Topic, it also makes it possible to combine or cross Topics.

To use this feature. from TGIF's Guided Search:

- Select "Browse Index" next to any of the search
- Change the drop down box on the Index screen to "Turf Topics" and press Display
- Check the box(es) for the Topic(s) you wish to review (to move to next/prior pages use the "PAGE UP" and "PAGE DOWN" buttons on the left. sidebar)
- Press "Paste"
- Change the "as a" drop box to "Turf Topics"

At that point, a searcher can press the Search button to display the results, or can use the limiting

> drop boxes to narrow further the contents of the Topic(s) chosen.



New Feature Quickly Identifies Records with Abstracts and Keywords

The default TGIF record display format is "Brief Table". When this table display debuted several years ago, it vastly improved the space efficiency of how records were displayed. If users wanted more information than was being displayed in the table format, they would click the MORE button to see the additional information contained in the record, read the abstract or assess the assigned keywords. This could be frustrating to users, however, as not all records in TGIF have abstracts written or keywords assigned.

Now, TGIF users will be able to immediately tell if by pressing MORE there will be an abstract or keywords before even clicking on it! If there is an abstract for the record, a graphic looking like Ab will display under the MORE button. Similarly, records with assigned keywords will have a graphic underneath the MORE button indicating the presence of keywords: Kw.

In addition to the Ab and Kw graphics as part of TGIF's "Brief Table" display, TIC has added three

additional graphics to Brief Table to give users a better sense for what may be contained within the TGIF record:

indicates that the record has a link to another record. Examples of this include multiple parts of items, an item and a response letter to that item, or related items.

indicates that the record has a link to multiple other records for sub-items. For instance, the record for a book may show this graphic if records exist for individual chapter records as well.

Extra indicates that the record contains additional content not found within or from the item itself, for instance annotations about the item from Cornish and Hurdzan's Golf Course Design: An Annotated Bibliography with Highlights of Its History and Resources.

Help Us to 'Finish TGIF'!

It has long been our intention to make TGIF an 'exhaustive' database covering the published turfgrass literature. Since TGIF construction started in 1984, there was a substantial literature already published to that point in time. Beard, Beard, and Martin's 1977 Turfgrass Bibliography: From 1672 to 1972 (see R=9280 at http://www.lib.msu.edu/cgi-bin/flink.pl?recno=9280) provided subject and first named author access to citation data for the 16,000+ items they recorded up through 1972, but the gap between 1973—1984, the identification of additional older literature, the desire to have online access to fuller record formats, and the ability to link to digitized full-text versions, all combined to push us to 'get the old stuff done.'

[Notice the title phrase here, and that last one, are somewhat qualified. We (and hopefully you, as a TGIF user) will always continue to identify missing pieces of the puzzle; even when we declare TGIF 'done' on the older stuff.]

But we're getting close now. Between 2003-2008, The Toro Foundation supported efforts to tackle this important task, and a cumulative total of 15,060 records were added to TGIF representing materials published between 1880-1983. We currently estimate that there are perhaps another 6,200 records remaining to create to 'finish this up'—and we need your help on this one. Please help us to find a supporter to get this done—and there are recognition benefits for doing so. Here is a project description of the effort, and what it will take: http://tic.msu.edu/pdf/Retrospective-Processing-Prospectus.pdf

Thank you for any help you can give us to get us closer to this goal! Call or e-mail Pete Cookingham (cooking1@msu.edu) if you have any leads, interest, or questions about this opportunity.

TGIF Behind the Curtain

Ever wonder what it takes to produce over 12,000 new TGIF records every year for subscribers? This section explores the various stages of TGIF processing, including the abstracting and indexing portions explained by the student employee team leaders.

The Dynamics of Descriptives

Whether you are a long-time subscriber to the Turfgrass Information Center (TIC) or a more casual newcomer you may wonder how all this information on the topic of turfgrass appears here. Other questions such as why are there differences between one record and another or what exactly makes up a record may occur to users of the Turfgrass Information File (TGIF) at any stage of involvement. The purpose of this series of blog entries is to explain what is behind TGIF; and specifically this blog entry explores the topic of what makes up a descriptive record whether it is from a periodical, book or from the web.

TGIF is a database of turf related records for research items and management assembled and available by subscription or blanket arrangement. Before any additional data, such as indexing terms or abstracts are added, an initial descriptive record must be created by a TIC employee. Descriptive records come from a variety of sources including newsletters, magazines, scholarly journals, books or book chapters as well as articles from the Internet. The one commonality is the topic of turfgrass.

When inputting records, materials are prioritized by their publication date and the value and quantity of turf related materials contained in them. Current publications receive higher priorities, while older publications, dating from the mid 1980's back to the 1800's are "retro-processed". Retroprocessing is a important function within the database as it adds many valuable resources to TGIF that may be exclusive to the Iames B Beard Turfgrass Library Collection, the O.J. Noer Memorial Turfgrass Collection, institutional libraries or to turfgrass researchers/ professionals personally. With both processes, TIC inputs recent information while simultaneously inputting and updating older records that are relevant to turfgrass.

Employees take each selected item and create a record for it within the database. We include vital information found within each item and that may include, but is not limited to:

- Title
- Author
- Author Affiliation
- Page Numbers and Length
- Section/Column names
- Additional Notes (such as pictures, tables, figures and graphs)
- Web URL and access conditions

After the descriptive portion of the record is complete, it is given a record number in the database. After all of the selected articles in a publication are input, the records then go to proofing where another descriptive employee ensures that all of the data is accurate and has been properly inputted and formatted. •

The Art of Abstracting

Jaymee Mason, TIC Abstractor

Once a publication has completed the descriptive stage, it then moves on to the next step where each record within that publication receives an abstract. To fully comprehend the art of writing an abstract, a proper definition of the term is in order: an abstract is a condensed form of a piece of writing, which captures the essence and main purposes of that more extensive piece. In the world of turfgrass. a journal or magazine article. web material, and scholarly research make up the vast majority of the field's literature, and therefore make up the type of literature that is abstracted at the Turfgrass Information Center (TIC).

When a TIC abstractor sits down to write an abstract, there are various factors taken into consideration that affect the writing process. These factors include, but are not limited to:

- Article length
- Publication type
- Article title
- Genre
- Article topic

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The Art of Abstracting

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To put this process in more concrete terms, an abstractor would approach the writing of a research report abstract differently than that of a personal profile. This is because, stylistically, each sentence of an abstract begins with a descriptive verb, which explains the key points of the article. Some commonly used verbs include: discusses: describes: summarizes; and suggests; however, there is a plethora of verbs from which to choose. For efficiency's sake, the first thing an abstractor will consider is the genre and once that is determined he or she will dig into the collection of commonly used verbs and narrow down which will be most applicable to that genre or article topic. The abstractor will often use the title or introductory paragraph of that article to determine its key points. An integral piece to the abstracting process is selecting important quotes from the article, which reflect these key points and support the abstractor's claim that the article does in fact suggest. describe, summarize, etc., whatever the abstractor has indicated it has. The completed abstract will include these parts and considerations, effectively summarizing the main purposes in order of their appearance in the article. However, the product is not considered final until the abstract has been peer reviewed by another abstractor, who checks for any syntactical and grammatical errors, as well as for any key points or quotes which

the peer-reviewer may feel vital to the purpose of the article.

The abstracting team at TIC and the products they produce serve several purposes, all of which culminate into an over arching goal—to make the Turfgrass Information File (TGIF) a more convenient and efficient tool for all the individual intents of its subscribers. When a subscriber searches any given term, not only will TGIF provide that user with any articles with abstracts containing that term, but the abstract itself will provide a synopsis of that article, letting the subscriber know if that article will be worth reading. The abstract also serves the purpose of ensuring efficiency within TIC itself in that the abstract is used to suggest indexing terms to the TIC indexer. The greater purpose that the abstract then serves goes beyond just "capturing the essence" of any given article - it is to acknowledge the significance of the TGIF subscribers' and TIC workers' valuable time.

The Importance of Indexing

Paul Zerkle, TIC Indexer

Most, if not all, textbooks are accompanied with an index that the reader can refer to at any time. An index serves the purpose of helping the reader to find a specific page in a book where a term they are looking for is located. The Turfgrass Information File (TGIF) also has an index, but it is not in paper form, rather it is contained in the online database for any subscriber to search. At the Turfgrass Information Center (TIC) we have a thesaurus full of

terms related to turfgrass. It is the indexer who then adds the terms to each descriptive record and in turn expands the "digital index."

After the descriptive and abstracting stages the publication moves to the indexing stage. The process of indexing at the TIC involves the indexers scanning through an item and choosing the key terms that fit the best. The indexer selects a number of these key terms, the goal being to encompass the overall point of the article, webpage, book chapter, etc., within them. Parts of a certain publication that are taken in to consideration when indexing are:

- Title
- Figures, tables, graphs, and pictures
- Paragraph headings
- Abstract (included in the publication or written by TIC abstractors)
- Type of item

These features are helpful, but as there may be few of these in any given item, it is the job of the indexers to thoroughly review whatever he or she is indexing. Just like with descriptive and abstracting stages, the indexing must be peer-reviewed by another indexer to check for spelling errors and that the terms chosen fit the overall theme of the indexed piece.

Each record that is indexed also gets a Sector assigned; a sector indicates what area of the turfgrass industry a given item relates to. For example, an item about St. Andrews Links would

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The Importance of Indexing

continued from p.5

have the sector "Golf courses," or an item about how to mow a lawn would have "Lawn turf" as a sector. Along with Sector there are other important fields that are helpful to the users when searching the database:

Facility name: used when an item is about a specific golf course or turf facility with a specific name; if an article is about Augusta National Golf Club, that would go in the Facility name field along with the city and state where it is located.

Business name: used if the item discusses a particular business in depth. The name of the business goes here along with the location (city, state, or country).

Subject's name: used when an item talks about a specific person in detail. The person's name is entered last name then first name. Example: Noer, O. J.

Trade name: used when a specific pesticide, insecticide, herbicides or any other chemical is talked about in an item. The scientific name of the active ingredient is entered as a keyword and the common/trade name goes into this Trade name field

So what does all this mean for the users of TGIF? It means that TGIF is an extremely specifically searchable database. Standardized terminology enhances the precision and accuracy of searches. Additionally, the index enables searching to compensate for regional, common versus scientific names, and in some cases language differences. For example, a Basic Search of "pink snow mold" will search for both "pink snow mold" and "Microdochium patch"; a search of "Couchgrass" will search for "Couchgrass" and "Cynodon dactylon"; a search for the Spanish word "Vallico" will search for "Vallico" and "Lolium perenne".

The importance of indexing lies in its ability to make TGIF a more efficient and easier tool for the users of the website. All in all, the indexers keep the wheels moving at the TIC in order to provide subscribers with the best overall experience while searching TGIF. •

Selection from So Many Sources

Long before descriptive records get created for items in the TGIF database, preparations are underway for what will get records created, and to what level of granularity. As part of its mission to "collect and preserve published and unpublished materials relating to turfgrass science, culture, and the management of turfgrassbased facilities", the Turfgrass Information Center amasses peer reviewed publications, technical reports and conference proceedings, trade and professional publications, local professional newsletters, and popular magazines as well as monographs (books), theses and dissertations, fact sheets and brochures, software, and web documents. The TGIF database includes materials from government, college/university,

professional organization, and private publishers. While coverage emphasizes Englishlanguage materials, it also includes coverage of non-English languages. Items come from TIC purchasing them; TIC receiving complementary or donated subscriptions to magazines, journals, and books; and from materials purchased by other units of the Michigan State University Libraries.

After materials have been acquired, they are reviewed for relevancy to determine if it is within the scope of coverage of the TGIF database. Subjects covered by TGIF include:

- Description and biology of turfgrass species and cultivars
- Description and biology of turfgrass pests, weeds, and other related organisms
- Turf culture methods and techniques
- Turf care equipment and equipment maintenance
- Golf and sports facility maintenance
- Turfgrass breeding and improvement
- Turfgrass seed production
- Sod production, installation and maintenance
- Sod and turfgrass seed industry trends
- Regulatory and political aspects of turf culture
- Turfgrass water use
- Golf and sports facility industry trends
- Golf course architecture and design
- Lawn and landscape management industry trends
- Turf user/turf manager relations

Selection from so Many Sources

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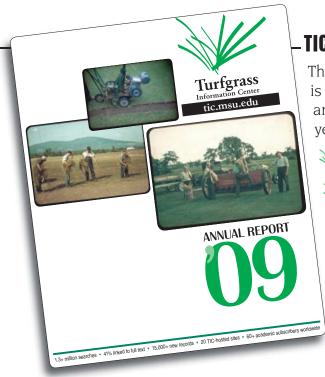
- Turf-related business management
- Profiles of turf-related businesses and facilities
- Biography of turfgrass researchers and professionals
- The lawn in popular culture
- Environmental aspects of turf culture
- Social and historical aspects of turf culture
- Turfgrass as a land use form

For magazines, journals and articles from websites, each article is reviewed. Book-like items, theses, dissertations, and similar items are also looked at to determine if they are relevant to the subject areas covered, but they are additionally reviewed to see if the individual sub-pieces (book chapters for instance) are

relevant. There are times when a TGIF record is created for the book as a whole, times when a record is created for the book as a whole and separate records created for chapters, and even times when there is no record for the book as a whole but records for individual chapters (for instance when the book is mainly about the game of golf but a chapter in the book focuses on golf course architecture).

Each year the amount of materials TIC reviews for possible entry into the TGIF database is immense. Consider in the year 2009 around 15,000 records were created. This represents 15,000 individual magazine articles, books, chapters, articles from websites, etc., that were within the scope of TGIF coverage. While that may not seem like all

that much, remember that one relevant article in a magazine may be buried within many, many irrelevant articles, all of which need to be individually assessed. Sill, this shows only a portion of the selection work that took place in 2009 since many items are reviewed and have no records created from them. For example, an issue of Crop Science may have 50 articles individually looked at. but none are within the scope of TGIF! A more meaningful selection metric for journals/magazines is reported in the TIC Annual Report as "Issues Closed" and "Zero-Hit Issues" ("hits" are the number of selected items). For 2009, TIC completed TGIF processing of 4,000 issues but of those over 1.200 had no "hits"! •



TIC Annual Report 2009 Now Available _____

The third Annual Report of the Turfgrass Information Center is now available. The report is called **TIC** Annual Report 2009 and is linked from the TIC public website. Highlights for the year include:

1.3+ million search results presented

₩41% of TGIF records now link to full text

15,000+ new TGIF records

20 TIC-hosted websites for full-text content

60+ academic subscribers worldwide

10 organizations with blanket-access arrangements to TGIF

The Grass Roots

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cover to advance their careers and to stay informed of events and information throughout Wisconsin and beyond. The Grass Roots has received numerous awards from the GCSAA over the years for Best Chapter Publication with a volunteer editor. The success of this publication is due to quality writing, dedication by talented volunteers, and gracious support from companies in the turf industry that help offset the publication costs by advertising.

We hope you enjoy reading the archived editions of *The Grass Roots*. It provides a unique insight to the past of our industry, and details the actions of former members and decision makers that shaped the path to where we are today.

This restricted-access archive, an ongoing cooperative project of the Wisconsin Golf Course Superintendents Association and the Michigan State University Libraries, will feature *The Grass Roots* content from 1975 to the

present less 1 month. WGCSA members may access it through the member-only section of the WGCSA website. TGIF subscribers may access it by logging in to TGIF, choose Browse Full-Text Journals, then click on The Grass Roots.

Sports Turi Manager Magazine

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In the past, STM readers could search the cumulative index on the STA website for article citations, or subscribers to the TIC's Turfgrass Information File (TGIF) could search for articles but would obtain only the abstract. In either case they would have to physically obtain the article themselves. Digitization provides a much more usable tool, removing the step of having to go and find a particular issue of STM, assuming readers even had access to it. Through the new online digitized archive, which can be accessed at http:// archive.lib.msu.edu/tic/stnew/, readers can browse year-by-year or search by term to retrieve PDF files of articles.

The addition of the full content of the publication is the result of the cooperation and dedication of TIC and MSU staff and students. involving more than 87 issues of the magazine, 1,300 pages of material, manually splitting nearly 1,400 PDFs, harvesting the citations for more than 400 turfgrass-related citations and linking more than 900 citations to the PDFs. As part of the ongoing cooperative project as new issues are produced materials will be scanned and made available six months following the date of publication.

Sports Turf Association members continue to enjoy complete subscriber access to the Turfgrass Information File, the most comprehensive publicly available collection of turfgrass educational materials in the world, via the Michael J. Bladon Educational Link. Login to www.sportsturfassociation. com and follow the link under the "Members Only" section.

The Sports Turf Association was conceived in 1987 when at a brain storming session at the University of Guelph a broad segment of the turf industry endorsed its need. Of particular concern at that meeting was the need to minimize and avoid injury to participants using athletic fields where they relate to sports turf. Two decades later the Sports Turf Association continues to promote better, safer sports turf through innovation, education and professional programs. Visit www. sportsturfassociation.com for more information or contact the STA office at 519.763.9431. info@ sportsturfassociation.com. •

Recently Launched:

- The Grass Roots Cooperatively with the Wisconsin Golf Course Superintendents Association
- Sports Turf Manager Cooperatively with the Sports Turf Association
- **SportsTurf** (Includes **Golf and SportsTurf**) Cooperatively with Sports Turf Managers Association and M2Media360

Now Under Construction:

- Greenkeepers (Includes Césped Deportivo) Cooperatively with Asociación Española de Greenkeepers)
- CUTT Cooperatively with Cornell Cooperative Extension

Forthcoming:

 Noer/Milorganite® Division MMSD Image Collection ~ Cooperatively with the Milwaukee Metropolitan Sewerage District and the O.J. Noer Research Foundation

Sports Turf

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drainage, tools and equipment, field science, and association programs. **SportsTurf** is BPA Audited.

STMA is the not-for-profit. professional association for the men and women who manage sports fields. Since 1981, the association and its dozens of local chapters have been providing education, information and sharing practical knowledge in the art and science of sports field management. Its more than 2,600 members oversee sports fields and facilities at schools, colleges and universities, parks and recreational facilities, and professional sports stadiums. The membership's goal is to manage natural turf and synthetic surfaces to produce safe and aesthetically pleasing playing surfaces for athletes at all levels of playing abilities. STMA also has the support of commercial members that furthers the industry through continuous advancements in technology.

This archive, an ongoing cooperative project of M2Media360, STMA and the Michigan State University Libraries, features public access to **SportsTurf** from 1985 to the present, less two months.

TIC Salutes Its Student Employees

April 11-17, 2010, was National Student Employment Week. 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! The following quote, which appears on the back page of *The Bulletin of the United States Golf Association Green Section*, 9(2), February 1929, sums up how TIC staff feel about the valuable contribution of our student employees:

"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

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 completion of *The Grass Roots* and *Sports Turf Manager* archive sites, the creation of over 15,000 new records in 2009, the development of a new in-house software program to help indexers add keywords to records faster and more effectively, and an abstracting style guide to help ensure consistency in abstracting.

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 for 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.

e Box Score

Number of TGIF Records: 166,000+

Number of electronic resources hosted by TIC: Over 20 including reference content integrated into TGIF

2009 TIC online search total: 1,388,958



Turfgrass Information Center

Stay current on happenings with TIC
by following the blog at:
http://tic.msu.edu/blog.html
and check out past issues of *The Sward* at:
http://tic.msu.edu/swardarchive.html

TIC Staffing Changes -

Several recent operational and staffing changes involving TIC have taken place over the past several months, and as a result there are some new faces involved with TIC!

Sue Depoorter is now working in the Libraries' Conservation and Preservation unit. Leslie Behm has now joined the Libraries' Special Collections unit. Aaron Tomak has joined TIC as a half-time library assistant having previously worked in the MSU Libraries' Circulation department. In addition, Mike Schury has

assumed expanded supervisory responsibilities within TIC. On top of all that, TIC has administratively moved from the Libraries' Public Services Division to a new unit, Digital Information Services, headed by Assistant Director Shawn Nicholson. Please help us welcome Aaron and Shawn to the turfgrass world, and congratulations to Mike on his promotion!

A special thanks is in order to Sue, who during an almost ten year span working in TIC was in continuing contact with many of our users and supporters. Her involvements, in particular, with the steady growth of the Noer Collection monographic holdings over that period, and work associated with the likewise steady improvement in the Center's physical facility, are contributions that will be valued on into the future by all users of TIC and TGIF. •



Shawn Nicholson Assistant Director for Digital Information



Aaron Tomak TIC Library Assistant