

The *Sideline* Report

Iowa Sports Turf Managers Association

June 2012



ISTMA hands the Chapter Challenge Baseball Trophy to the MN STMA in 2011. Help us win it BACK!

Join the ISTMA in the 2012 Chapter Challenge in Blaine, MN July 6-7

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For more information regarding articles and advertising rates contact the editor.

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A Letter from the President

Jason Koester, CGCS, Grinnell College



I typically don't write about weather in my articles due to the early deadlines and the quick changes in the weather patterns but this past winter and early spring were unprecedented. In my last article, I was hoping for the warm weather trend from the winter to continue into the spring for a jump start to the growing season, maybe I should have asked for the winning power ball numbers. I had to pinch myself, look at the calendar and keep thinking it can't be this warm in March can it? I keep detailed records for each Sports Turf management season, including weather trends, turf conditions, irrigation start up/shut down and many more categories, looking back on our winter and early spring records we might be somewhat puzzled.

The unseasonably warm winter and early spring we had were remarkable. To this point it has been great for our sports fields I can't believe how thin spots that were dormant seeded took off and have filled in. I never saw my fields that green as early in the season and not to mention the mowing- WOW it was hard to keep up for a while. I absolutely loved working softball and baseball games in short sleeves and shorts instead of five layers of clothes and still being cold. With that being said as I compose this article it has been cold and rainy conditions with a few frosty days! What is this bizarre world? No it is Iowa and with the weather you just never know what your going to get, just hold on and see what happens.

I would like to challenge the ISTMA membership to nominate one of our many deserving facilities and Sports Turf Managers for a ISTMA award that are presented at our annual meeting in January. The categories are field of the year for baseball, softball, football, soccer and Sports Turf Manager of the year. The nominating process is simple click on this link (www.iowaturfgrass.org/istmaawards.htm), download the form, fill out the information for the nominee and get it mailed to the Iowa Turfgrass Office post marked by October 31 2012. Do not be intimidated it isn't an essay contest, just an awesome way to showcase many deserving ISTMA members. Keep your eyes and ears open and nominate a fellow ISTMA member.

The membership committee is compiling a recruitment slide show for potential membership groups. When the show is completed we will share the link with everyone and you can forward it to anyone that would be interested in benefiting from an ISTMA membership.

I have received a few pictures for the 2013 Membership Social slide show, but we still need a lot more. Please share any pictures of your facility, projects, family and/or pets. We would love for you to share your photos. send to me at jkkoester@yahoo.com or Jeff Bosworth at jeff.bosworth@drake.edu.

The Chapter Challenge with the Minnesota chapter will be held in the city of Blaine {located in the Twin Cities area} on Friday and Saturday July 6-7. Softball game on Friday night at 5 with bocce ball and food following. A best shot golf tournament will be held on Saturday morning at 8 with lunch to follow. Join in on the fun and help the ISTMA defend our golf title and reclaim the softball trophy. Please contact Tim Van Loo, CSFM or the Iowa Turfgrass office if you interested in participating

The following Quote by Former NFL Quarterback Brian Sipe is something to keep in mind as we are in a busy season "The only way to maximize potential is to be calm in the mind."

Thank you for your membership, commitment and support of the ISTMA. You make this an outstanding organization to be a part of!

This is a picture that was circulating on the STMA Facebook page. I think it is very accurate of how each one of us feels at various points of our sports turf management career.



Weather

TJ Brewer, CSFM, Burlington Bee's

Our profession leads us to become the go to guy on many topics. Not only are we the ones everyone comes to when they need advice on their lawn. We get to be the problem solvers and troubleshooters of a lot more. We get to deal with plumbing, electrical, carpentry, equipment maintenance and of course the weather. I often wonder if it wasn't for our special breed would the world still rotate. I mean really can't you guys figure something out on your own? I am blessed to be not only the grounds guy, but also the facilities guy. I know some of you have separate people that are in charge of the facilities but I think our problem solver attitude is what makes us the one they expect the answers from.

I understand the perception that we know a lot about plumbing because we have that entire pipe in the ground. I mean this stuff is always breaking and we are always fixing it, so that must make us the expert. Now just because I can fix and irrigation leak or change a head doesn't mean you have to call me when someone does a number on the toilet and there is brown water flooding the bathroom, but I can fix it. I really enjoy the electrical questions. I really enjoy the ones that make me look real smart like: "TJ the light switch in the men's bathroom isn't working." These usually lead to me looking like a genius when I either a.) Change the light bulb or b.) Check the breaker. Now if it goes too far beyond this call someone else... but usually I end up looking like an electrical genius. I often times wonder about these people and hate to think what kind of shape their home is in.

Another misconception is that since I seem to be pretty handy fixing up and keeping our equipment in shape doesn't mean I can help you with that strange noise your car makes when you get up to highway speed. I do know my way around a vehicle, and that vehicle just so happens to be my own... if you want help getting your car running like it did 10 years ago find a mechanic. I understand now why they are so expensive. It is from years of dealing with people like this. Another thing we tend to be pretty good at is carpentry. It seems like we are always building something to make our lives easier. But once again people, just because we can do this doesn't mean we can come into your house like Mike Holmes. One thing I want to make clear is to thank

all of these people for making me feel smart and feel needed. I just wonder why everyone thinks we have so much free time. Now the one that really gets me is the weather.

When I was in college I never took a class on meteorology and everything I know about it has been learned from the 10 o'clock news and watching the internet radar. There is at least one week a year (this week), and it just so happens to be when we have games that the weather man is WRONG! When this happens and I am in a full on rant about how pissed I am at the weather man people always say: "he is never right". I understand this, but I am not talking about the inconvenience of getting a little wet running to my car after work because I didn't think I would need my umbrella. I am talking about three days and three inches of rain that was supposed to be an evening of light showers with little accumulation. Now I kind of enjoy seeing how accurate I can be with my forecast even setting times I expect it to start and stop raining. I consider myself pretty good at being able to figure out what is going to happen and when, sometimes more accurate than the guys that are paid to do it. This is where I run into my biggest grudge.

People come to me looking for a forecast. Most importantly my coaches and office staff, now this is important because there can be serious consequences if I am wrong. As I have already bragged myself up a little bit I want you all to understand that I am not always right and depend heavily on forecasts provided by several

Continued on Page 5



Dan Klindt
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Weather Continued...

different resources. If these forecasts are kind of right I am okay, if they are wrong, well you get the point. Just the other day they were very wrong! They said a little bit of rain tonight and we have been getting a lot of rain since. Now you ask how is this an issue. Well as you know I am a baseball field manager and we are supposed to have a game tonight. How is this a problem? When the little bit of rain tonight turned into four days of almost non-stop rain I haven't had time to put the tarp on or more importantly dry out the field. I don't know how it is looking; I just really wish the guy was right Monday night when he said: "clear tonight with showers beginning tomorrow late morning early afternoon." If he would have said the heavens are going to open at about 6:00 am tomorrow I would have been happier and my field would be drier! So I understand, they aren't always right, but as I am standing outside my shop in a puddle with my head and shoulders getting wet I am listening to the radio and the guy is saying: "It is mostly clear with the chance of afternoon showers and record highs today". So apparently this wet stuff falling from the sky is not rain. This is where I open my hand, shake my head back and forth, and put

my head in my palm. I understand you can be wrong with a forecast, but right now? At least look out the window, something! I mean the radar I am looking at even shows that it is raining!

So in conclusion I leave you with a question to ponder. How is it that meteorology is considered a science? I thought in science stuff needs to be proven. I spent a lot of time, not much that I enjoyed, in different science classes trying to prove stuff that I didn't understand, or want to. So if I had to do this I wonder how these people get away with unproven tactics. I also wonder if my science teachers are happy that this profession is putting such a black eye on the term 'science'. Now I know this is a tough gig, but come on. Here you go if meteorologists can be wrong all the time and this is acceptable then why do I get a rash of shit when I am wrong because of him? I mean really! This guy spent time learning how to predict this and I get in trouble for it. If you couldn't tell I am not a happy camper this week. I hope you are all having a great year and all is well. Don't worry; there are blue skies out there somewhere, just not right here and not right now.

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Count on it.

EPA Denies Petition on 2,4-D Pesticide

Kate Shenk, D.C. Legislative & Regulatory Services

In a petition filed on November 6, 2008, the Natural Resources Defense Council (NRDC) requested that EPA cancel all product registrations and revoke all tolerances (legal residue limits in food) for the pesticide 2,4-dichlorophenoxyacetic acid, or 2,4-D. After considering public comment received on the petition and all the available studies, EPA is denying the request to revoke all tolerances and the request to cancel all registrations.

By way of background, in 2005, as part of the regulatory process to ensure pesticides meet current regulatory standards, EPA completed a review on the registration and on the safety of the tolerances for 2,4-D. EPA determined that all products containing 2,4-D are eligible for reregistration, provided certain changes were incorporated into the labels and additional data were generated and submitted to the EPA for review.

During the recent review of the petition from NRDC to revoke the tolerances, EPA evaluated all the data cited by NRDC and new studies submitted to EPA in response to the reregistration decision. Included in the new studies is a state-of-the-science extended one-generation reproduction study. That study provides an in-depth examination of 2,4-D's potential for endocrine disruptor, neurotoxic, and immunotoxic effects. This study and EPA's comprehensive review confirmed EPA's previous finding that the 2,4-D tolerances are safe.

EPA also carefully reviewed NRDC's request that the Agency cancel all 2,4-D product registrations. Based on studies addressing endocrine effects on wildlife species and the adequacy of personal protective equipment for workers, the Agency concluded that the science behind our current ecological and worker risk assessments for 2,4-D is sound and there is no basis to change the registrations.

2,4-D is a phenoxy herbicide and plant growth regulator that has been used in the U.S. since the 1940s. It is currently found in approximately 600 products registered for agricultural, residential, industrial, and aquatic uses. There are 85 tolerances for 2,4-D. EPA published the

NRDC petition for public comment on December 24, 2008.

Below are EPA documents responding to NRDC's petition on 2,4-D including a pre-publication copy of the agency's Federal Register Order. These documents are also available on EPA's website at www.epa.gov/pesticides. When the Federal Register document is published in mid-April, it will be available with the related documents in docket EPA-HQ-OPP-2008-0877 at www.regulations.gov. A 60-day period for filing objections and requests for a hearing on the Order runs from the date of publication in the Federal Register.

Related Documents:

- April 7, 2012, Pre Publication Copy Notice: 2,4-D; Order Denying NRDC's Petition to Revoke Tolerances (PDF) - (99 pp, 416K, PDF)
- April 7, 2012, Letter to NRDC: EPA Denial of November 6, 2008 NRDC Petition to Cancel All 2,4-D Registrations (PDF) - (10 pp, 81K, PDF)
- April 7, 2012, Memorandum to Public Docket: EPA Response to Issues Raised in Public Comments, but Unrelated to Issues in NRDC 2,4-D Petition (PDF) - (4 pp, 94K, PDF)



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Attend a Summer Event!

Jeff Wendel, CGCS, Iowa Turfgrass Institute

Thanks to everyone who supports the Iowa Turfgrass Institute, the Iowa Turfgrass Office and the Iowa GCSA, ISTMA and IPLCA. Your membership and event attendance is critical to the programs, public education efforts and to the very existence of these groups. The following is a list of summer events, please mark your calendars! Thanks again to all who support these events. For complete information visit: www.iowaturfgrass.org/events or [click here](#) for the ISTMA homepage.

The Extension Fundraiser event is very important to Dr. Minner's effort visiting Turfgrass Managers across Iowa, the event is administered by Iowa GCSA but benefits all Turfgrass Managers, so please get a team together and participate! Very special thanks to the Iowa Golf Association for their generous support of this event! Visit www.iowagolf.org to join the IGA Partners Program. Partners Program is for all amateur players.

June 19th - Extension Fundraiser Copper Creek GC, Pleasant Hill

Host: Joe Pfiffner, CGCS

Noon Registration & Lunch

1 PM Shotgun Start

Education: Current Trends - Dave Minner, PhD

Cost: \$50 includes golf, cart, education and meal

[Tee Sponsor Form](#)

[Print Registration Form](#)

[Register Online](#)

[MapQuest Directions](#)

Hors D'oeuvres afterward sponsored by TurfWerks

[Meet Jacobsen President David Withers](#)

July 11 - ITI Field Day Classic Jewell Golf & CC

Host: Brian Abels

\$50/Player includes 18 holes/w cart, lunch & dinner

9:30 AM Optional Education: Dr. Marcus Jones, ISU

10:30 AM Registration/Lunch

11:30 Shotgun Start - Modified Scramble

[Thanks to all Field Day Classic Sponsors!](#)

[Register Online](#)

[Registration Form](#)

[MapQuest Directions](#)

Tee Sponsors are sold out for this event.

Support ISU Turfgrass Research and Drs. Christians, Jones & Minner. Call the Iowa Turfgrass Office if you are interested in display space at Field Day.

July 19 - ITI Turfgrass Field Day Turfgrass Research Station, Ames

Host: Marcus Jones, PhD

\$30 Per person

Pesticide Training available for additional \$20 fee

8:00 AM : Registration with Coffee and Donuts

8:45 AM : Introduction - Registration Tent

9:00 AM : Blue and White Tours Begin

10:00 AM : Red Tour (PAT) Begins or Switch Blue and White Tours

11:00 AM : Turfgrass Insect, Weed & Disease ID Tour

12:15 PM : Lunch and visit the Vendor Trade Show

[Exhibitor Registration](#)

[Register Online](#)

[Registration Form](#)

[MapQuest Directions](#)

August 28 - ISTMA Summer Baseball Workshop Modern Woodman Park, Davenport

If you have trouble with online registration, please call the office at 515-232-8222 and we will help you get set up to use the online registration software. Also, remember you can access the secure sites from the Online Directory, just click on the link to the left titled ISTMA Secure Site.

Iowa Turfgrass Field Day Program

July 19, 2012

2012 Turfgrass Field Day will be held at the ISU Horticulture Research Station in Ames, Iowa. Coffee, donuts and Lunch will be provided. PAT will be offered at an additional cost.

Field Day Registration \$30

Field Day Registration plus PAT \$50**

** PAT is not offered at a stand alone rate of \$20. Must be purchased with a Field Day Registration

Student Registration \$10 with PAT \$30

8:00 am Registration (coffee & donuts)
8:45 am Introduction - Registration Tent

GCSAA Certification
Application has been made for GCSAA
Education points.
Check www.iowaturfgrass.org for details.

Time	RED- PAT	BLUE	WHITE
9:00	Please attend either Blue or White Tour. PAT will begin promptly at 10:00 You must sign in for the Pesticide Training!	Pre & Post Emerge Crabgrass Study - Nick Christians, PhD	Japanese Beetle & Other Invasive Pests - Laura Jesse, PhD
9:15		Glyphosate Resistant Ryegrass - Marcus Jones, PhD	Boom Cover Demonstration - John Newton, CGCS & Derek Richards
9:30		Traffic / Seeding Study - Andrew Hoiberg, PhD	Turf Disease Decisions - Dave Minner, PhD
9:45		Bluegrass / Ryegrass Cultivar Trial - Dan Strey	Logo Painting Demo - Tim Van Loo, CSFM
10:00	Sprayer Spreader Calibration - Troy McQuillen	Pre & Post Emerge Crabgrass Study - Nick Christians, PhD	Japanese Beetle & Other Invasive Pests - Laura Jesse, PhD
10:15	Safe Application Techniques - Minimizing Drift and Hazard to Humans and Pets - Troy McQuillen	Glyphosate Resistant Ryegrass - Marcus Jones, PhD	Boom Cover Demonstration - John Newton, CGCS & Derek Richards
10:30	Right of Way-Impact of Treatment on adjacent areas and nature of pesticides in ROW - Robert Hartzler, PhD	Traffic / Seeding Study - Andrew Hoiberg, PhD	Turf Disease Decisions - Dave Minner, PhD
10:45	Pesticide Stewardship - Neric Smith	Bluegrass / Ryegrass Cultivar Trial - Dan Strey	Logo Painting Demo - Tim Van Loo, CSFM
11:00	Turfgrass Insect, Weed & Disease ID Tour		
12:15	LUNCH		

* Blue and White Tours repeat starting at 10:00am. Please feel free to switch from Blue to White at 10:00 am or mix and match talks to fit your interest between 9 and 10 and join PAT at 10:00am. The Turfgrass Insect, Weed & Disease ID Tour will include Red, White and Blue Tours is required for PAT Credit

** **To receive PAT credit an extra fee of \$20 will be applied to the \$30 registration fee for Field Day.** Please attend the Blue or White Tour talks from 9 to 10 and join the RED-PAT tour at 10:00, you must also attend the 11:00 Tour to receive PAT Credit.

For more information please visit www.iowaturfgrass.org or call 515-232-8222.

Iowa Turfgrass Field Day

July 19, 2012 - Registration

Company Name _____

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City _____ State _____ Zip _____

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Field Day Registration Fee Includes lunch	\$30.00
Field Day Registratin with PAT** <small>** PAT credit WILL NOT be given unless the extra \$20 fee is paid</small>	\$50.00
Student Registration Fee Includes lunch	\$10.00
Student Registration Fee Includes PAT & lunch	\$30.00

Field Day Registration: Please list names of all attendees. Attendees MUST pre-register for PAT.

Name	PAT? - Add \$20	Name	PAT? - Add \$20
	Yes No		Yes No
_____	Yes No	_____	Yes No
_____	Yes No	_____	Yes No
_____	Yes No	_____	Yes No
_____	Yes No	_____	Yes No
_____	Yes No	_____	Yes No

Register Online at: www.iowaturfgrass.org/events.htm

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ISTMA VS. Minnesota STMA



CHAPTER CHALLENGE! July 6-7, 2012 Blaine, MN

The Agenda for the July 6-7 Chapter Clash will be as follows:

Friday, July 6

4:00 PM - Tour of the National Sports Center
5:00 PM - Softball Game
6:30 PM - Barbecue / Bocce Ball / Beverages

Saturday, July 7

8:00 AM- Golf (\$40 per person) at Victory Links
Golf Course (at the National Sports Center)
12:15 PM - Lunch

Hotels near the National Sports Center in Blaine

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Call 515-232-8222 to Register. Please Register by June 19, 2012.
For more information visit www.iowaturfgrass.org/events.htm



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Warm Spring Issues: Clarifying Grub Control Applications

Zac Reicher, PhD & Fred Baxendale, PhD, University of Nebraska - Lincoln

May 10, 2012

Although we expect grub development to be a bit earlier this year, it is difficult to predict exact emergence of adults, the ensuing egg-laying, and then the all-important presence of the root-damaging larval stage. We are recommending grub control applications only slightly earlier this year, probably early to mid-June as opposed to late-June to mid-July in most years. Following is a list of facts and considerations when considering white grub control.

- The adults of white grubs are masked chafers (Fig. 1), Japanese beetle (Fig. 2) or and to a lesser extent, May/June beetles (Fig. 3). The first two have annual life cycles while the latter has a two or three year life cycle. In the Great Plains, annual beetles emerge in May through July depending on the weather, mate and lay eggs within a month. Upon hatching, the larvae begin feeding on roots, usually in August through late fall when they burrow deeper in the soil with cooling temperatures (Fig. 4). Larvae usually move to the surface in the spring and feed undetected because of ample moisture, pupate, and emerge in the summer starting the cycle over. Japanese beetle adults will feed on over 400 different species of plants, whereas masked chafers do not feed as adults (Baxendale and Gaussoin, 1997).

- White grub damage comes in two forms. The first is typical root feed in susceptible species leading to drought stress and potentially death in August and September (Fig. 5). A second and usually more severe form of damage results from foraging birds and animals animal feeding on the larger grubs in September and October (Fig. 6).
- Though large grub larvae may be present in the soil now, their sheer size makes control difficult. Additionally, these larvae are causing little additional damage, so control is justified. Lastly, research suggests that insecticide applications made early in the spring may reduce natural occurring beneficial insects that help reduce white grub populations. (Rogers and Potter, 2003).
- Surprisingly few lawns are affected by white grubs. Surveys suggest that only about 10% of lawns are affected by white grubs and require treatment.
- Since grubs feed primarily on organic matter, lawns less than five years old and/or low maintenance lawns will rarely experience grub problems and insecticides are usually not needed. Conversely, heavily maintained and fast-growing lawns with generous fertilization and irrigation will produce ample organic matter in the soil and are prone to grub infestation and damage.

Continued on Page 13



Figure 1-3 (left to right): The night-flying copper- color southern masked chafer (photo by Reicher), metallic green Japanese beetle with distinct tufts of white hair at edge of wings (photo by Reicher), and the large brown, tan or black May/June beetle (photos by Reicher).

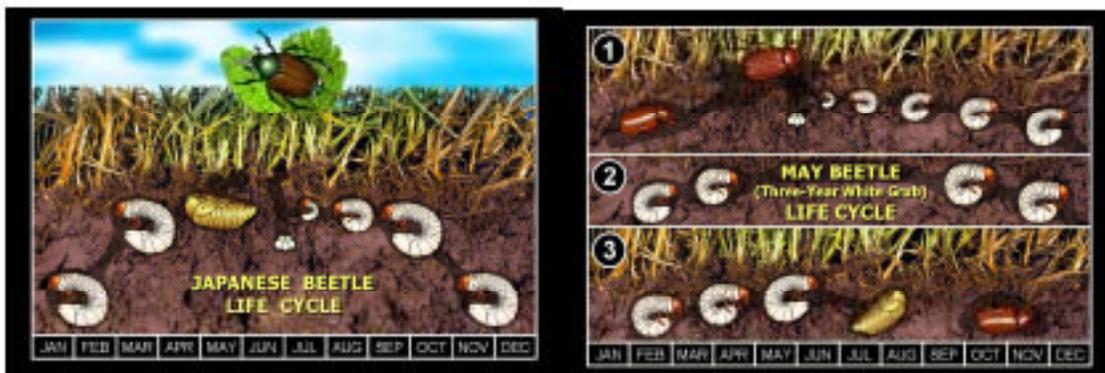
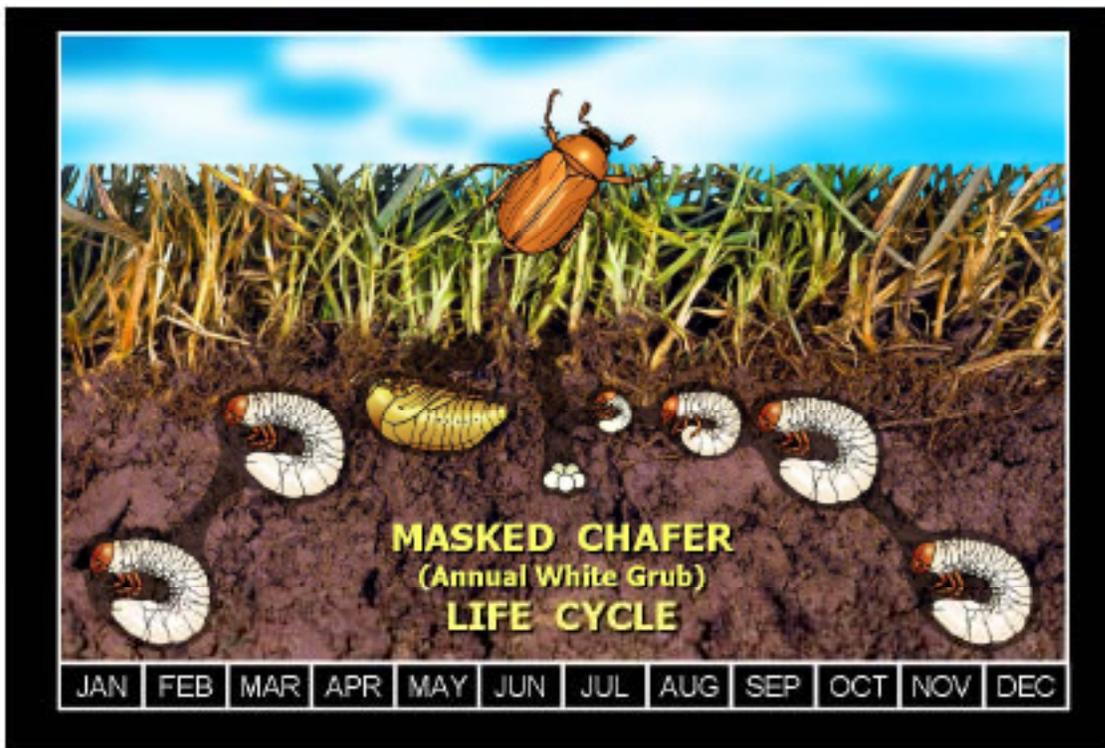


Figure 4: Life cycles of masked chafer, Japanese beetle and May/June beetles in the mid-west .



Figure 5: Typical turf damage from white grubs where turf will go dormant and often die due to a compromised root system and restricted ability to take-up water. (photoby Reicher)



Figure 6: Typical turf damage from animal foraging for white grubs. This damage is more common now than direct grub feeding damage and is more difficult to repair. (photo by Reicher)

Warm Issues Continued...

- Because of their preference for organic matter, white grubs tend to be problematic in the same lawns or same areas on a golf course, sports complex, etc. year after year. Furthermore, adult beetles may be attracted by certain landscape plants (rose, linden, crabapple, grape) in the case of Japanese beetles, or night-lighted areas in the case of masked chafers. One reputable researcher suggests that areas damaged the previous year stand an 80% chance of damage the following year (Shetlar, 2012). Therefore, a history of white grub damage often justifies preventive controls. Conversely, there is little need to preventively treat areas without a history of damage. The exceptions to this are fall-used athletic fields where player safety cannot be put at risk and thus these areas may need to be treated preventively regardless of the history. Preventive applications are also suggested on certain areas of golf courses and other high value areas.
- The last two generations of insecticides include the neo-nicotinoids (imidacloprid [Merit and others including Allectus], thiamethoxam [Meridian], clothianidin [Arena, included in Aloft], and dinotefuran

[Zylam]) and the anthranilic diamides (chlorantraniliprole [Acelepryn]). These products are very effective for white grub control, have a long residual in the soil, and are generally environmentally friendly. These products work best on small larvae and thus must be applied preventively (better too early than too late).

- Though white grub development is regulated by temperature, researchers have had limited success developing models for white grub development including adult flight, egg laying, and the presence of larvae in the soil (Gelernter and Stowell, 2000). It may be more accurate to schedule applications based on the presence of adults because larvae will be predictably present two to four weeks after the adults are observed feeding on ornamentals (Japanese beetles) or flying into porch lights at night (masked chafers). However, the current insecticides are more effective when applied early and thus most schedule preventative applications based on the calendar.

Continued on Page 14

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The advertisement features a photograph of a baseball game in progress, with a catcher in blue and red gear, a pitcher in a dark blue uniform, and a batter in a white uniform sliding into a base. In the bottom left corner, three bags of TURFACE ATHLETICS conditioner are shown in green, blue, and orange. The background is a blurred baseball field with a chain-link fence.

Warm Issues Continued...

- In a nice summary of white grub control from applications made throughout the summer, Dr. Dave Shetlar at The Ohio State University shows clearly that application windows are very wide (2012) (Table 1). However, when averaged over insecticide and rate, July applications produce better control than any other month. This suggests that these insecticides are likely breaking down when applied earlier than July and are slightly less effective on older larvae when applied after July. Some reports suggest that certain insecticides (imidacloprid) might provide adequate control up to the third instar stage (George et al., 2007). Regardless of application date, watering-in insecticides will always improve grub control.
- Curative controls like Dylox may be needed if more than 8-10 grubs per square foot are found, grub damage is detected, and/or animal feeding is occurring. Watering-in curative treatments will improve control plus help the turf survive additional grub feeding.
- Though biologically-based products (nematodes, B.t.) have the potential to control white grubs, in consistent control is frequently seen with these products.
- Like all pesticides, it makes no sense to apply white grub insecticides indiscriminately out of fear. These “new” insecticides are far less injurious to the environment than past versions, but there is still some concern about their effects on soil microorganism, natural enemies, pollinators, etc. (Kreutzweiser et al., 2008; Kunkel et al., 2001; Rogers and Potter, 2003).
- More information is also available in the NebGuide: White Grubs in Turf at <http://www.ianrpubs.unl.edu/e-public/live/g1619/build/g1619.pdf>

		DATE OF APPLICATION					
		May	June	July	To Aug 15	To Sept 10	
Insecticide	Ib ai/A	Average % control [number of test]					Average
Chlorantraniliprole [Acelepryn]	0.10	95 (12)	94 (12)	93 (70)	- (0)	- (0)	94
	0.15	99 (8)	95 (7)	94 (6)	- (0)	- (0)	96
	0.20	95 (4)	100 (4)	95 (5)	- (0)	99 (1)	97
Clothianidin [Arena and others]	0.20	63 (2)	79 (1)	98 (5)	100 (1)	100 (1)	88
	0.25	100 (5)	90 (1)	99 (5)	- (0)	84 (3)	93
	0.30	92 (1)	100 (3)	99 (2)	83 (2)	97 (1)	94
Imidacloprid [Merit and Others]	0.25	97 (3)	91 (6)	97 (14)	90 (1)	- (0)	94
	0.30	79 (26)	90 (45)	95 (55)	93 (32)	93 (41)	90
	0.40	81 (2)	94 (2)	96 (9)	79 (3)	100 (2)	90
Thiamethoxam [Meridian]	0.20	60 (8)	97 (14)	96 (26)	93 (15)	85 (12)	86
	0.26	84 (6)	95 (4)	100 (6)	95 (10)	90 (6)	93
	Average	86	93	97	90	94	

Table 1. Comparison of insecticide efficacy on Japanese beetle or masked chafer grubs by month of application. Data compiled from studies published in Arthropod Management Test (1976-2011) where checks had >4 grubs/ sq ft and significant results (adapted from Shetlar, 2012).

2012 Spring Baseball Workshop Recap

TJ Brewer, CSFM, Burlington Bees

I don't know if there is a better way to spend a spring day than to skip work and go to the ballpark. And I know there is nothing I would have rather been doing May 15th than hanging out at Werner Park, the home of the Omaha Storm Chasers. The ISTMA had another very successful workshop filled with an overwhelming amount of information. After a some coffee and donuts provided by G&S Solutions the day started with a talk by Paul Hoffman from Earthworks on the importance of organic fertilizers and where they can fit into your program. This was followed by a great session put on VanWall Equipment Company on reel mower maintenance. The morning continued with Dr. Zac Reicher from the University of Nebraska speaking about the effects the mild winter and early spring have had on turf. The final part of the morning consisted of panel discussions on infield skin materials, conditioners, and mound clays featuring Paul Zwaska (Beacon Athletics), TJ Brewer (Burlington Bees), Tom Burns (Diamond Pro), Eric Pollock (G&S Solutions), Jack Weil (G&S Solutions), and Mitch McClary (Omaha Storm Chasers).

After a great ballpark lunch thanks to Diamond Pro we headed outside so Paul Zwaska and Brian Myrland of Beacon Athletics could show us some of the new products available to make our jobs a little easier and our fields a little better. Dan Blank head groundskeeper at TD Ameritrade Park, home of the College World Series, shared many great ways to keep our transitions smooth and some neat ways to really show off our skills with fancy patterns in the turf and small tricks like keeping our grass edges clean cut. Next Tom Burns of Diamond Pro shared the importance of infield conditioners while explaining the different varieties available and giving tips on how to maintain a Major League quality skin.

The final topic of the day was the most technologically advanced with a sprayer demonstration by Van Wall Equipment that is GPS controlled allowing more accurate applications in less time than a standard sprayer. The day concluded with a raffle of great prizes including shirts and hats from Beacon Athletics, D&K Products, & Diamond Pro; A full soil and water analysis

Continued on Page 16



Workshop Continued...

provided by Earthworks and D&K Products; two infield skin soil structure analysis provided by G&S Solutions; and a sifter scoop shovel provided by Beacon Athletics. Congratulations to the winners!!

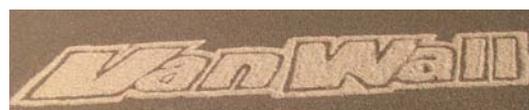
I hope all that attended got as much out of the day as I did. It was great to see all of you and I want to make sure I emphasize the importance of the sponsors: Diamond Pro, Beacon Athletics, G&S Solutions, D&K Products, and VanWall Equipment Company. With

out these companies an event like this would not be possible.

I would also like to thank the Omaha Storm Chasers for providing a beautiful facility for the event and Mitch McClary and his staff for doing a great job of organizing and hosting it. Once again this was a great day full of an unbelievable amount of information. Keep in touch for information on future workshops hosted by the ISTMA.



Thank You to our Sponsors! Beacon Athletics, D & K Products, Diamond Pro, G&S Solutions and Van Wall Equipment.
The following pictures were logo's designed into the infield skin.



To Water or Not to Water... That is the Question?__

Amy Fouty, CSFM and Brian McDougal

Today, we live in a world powered by technology. It's hard to imagine how people survived without the technology we take for granted every day. Our cell phones, computers, and laptops, what we would do without them? Even the advances in technology within the Turfgrass industry have improved dramatically from just ten years ago. Technological improvements in our equipment, genetically improved turfgrass species, chemicals, fertilizers, and improved irrigation systems. Just think what the future may hold for our industry.

One piece of technology growing in popularity in the Turfgrass industry is the use of soil moisture sensors. This type of technology has caught our attention in regards to improving our Environmental Stewardship of our areas, maintenance practices, and playability of our varsity athletic fields at Michigan State University. Through field testing with Toro turfguard wireless sensors and daily use of Spectrum Technologies TDR (time domain reflectometry), this technology is improving

the management of our irrigation applications and consistency of the playability of our fields. Our approach to using the sensors and TDR is establishing optimum moisture content in correlation to our fields playing conditions, during the varsity seasons and off seasons.

Continued on Page 18



An advertisement for BUSH Sports Turf. The background is a photograph of a baseball game in progress on a well-maintained field. Overlaid on the image is a large, stylized logo for 'BUSH' in black and green, with 'SPORTS TURF' in a smaller font below it. To the left of the logo, a list of services is provided: DESIGN SERVICE, CONSULTING, FIELD CONSTRUCTION, IRRIGATION & DRAINAGE, and FIELD RENOVATION. At the bottom of the advertisement, the phone number 877-787-2676, the SportsTurf MANAGERS ASSOCIATION logo, and the website WWW.BUSHTURF.COM are displayed.

Water or Not to Water Continued...

Through constant monitoring over the years, specific moisture percentages have been established for each of our fields. Daily readings with the TDR tell us if we need to adjust our irrigation for an event or upcoming weather conditions.



This technology takes the guess work out of the age old question of, “to water or not to water?” We are able to teach students and staff to access the readings online or take field readings to assist in hand watering, irrigation set up, etc. The first year we used the TDR in Spartan Stadium we reduced our irrigation by one-third. This in turn will reduce the expense of inputs for the areas we maintain.

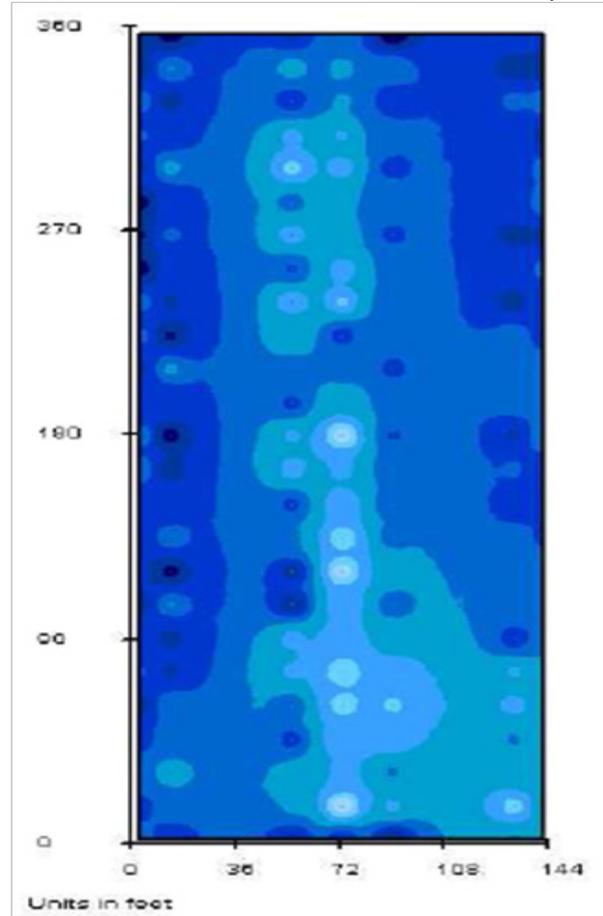
In spring 2010, 175 points were collected with our TDR at five yard spacing’s to determine distribution uniformity of Spartan Stadiums soil moisture content. With the assistance of software provided by Spectrum Technologies, the data was used to develop a visual representation of Spartan Stadium’s moisture content following irrigation. The figure to the right shows the moisture content of Spartan Stadium. With a one percent crown, you can see the driest part of the field is down the middle, and then increases in moisture content as you get to the edge of the field.

Color Legend				Count
	25.7	to	28.1	3
	28.1	to	30.5	7
	30.5	to	32.9	21
	32.9	to	35.3	25
	35.3	to	37.7	50
	37.7	to	40.1	38
	40.1	to	42.5	23
	42.5	to	44.9	8

Units of measurement are in "Standard WWC"

Another area of interest in regards to the use of moisture sensors would be in our softball and baseball infield skins. Is it really necessary to flood your infields prior to a game or to apply smaller amounts building up to game day? Is it possible to obtain optimum playing conditions for your infield while maintaining consistent moisture content? This consistent moisture content would be based around infield materials, evaporation rates, weather and the optimum conditions you’ve established for your infield.

We have been very fortunate in the Midwest to have an ample supply of fresh irrigation water through lakes, river, and groundwater supplies. Many areas of the country have not been so fortunate, and over the next two decades fresh water will inevitably become a precious resource. As professionals we must prepare for the future by incorporating the technology available to us today in our best management practices. Though these programs and equipment can be a little intimidating at first, it will save you money, time, and resources in the long run if we take the time to use them. Whether it is a home yard, fairway, tee, green, or athletic field the investment in the future should be made today.



How to Mow Your Yard. A Rebuttal of a Consumer Reports Article

Rodney St. John, PhD, Kansas State University

I've been getting a few questions about a article in the recent Consumer Reports magazine. The article was written to help homeowners save time and reduce their workload in maintaining their landscape. The article had some good tips. But I need to clarify one of the tips that was presented regarding the 1/3 rule of mowing. Just to remind you of what the 1/3 rule is. It states that you should never remove more than 1/3 of the leaf tissue when you mow. I'll explain more about the benefits of the 1/3 rule below. One of the important facts of the 1/3 rule is that during some of the rapid growing times of the year, like the spring and fall for cool season grasses, you may need to mow every 4-5 days instead of just once a week. But it also means during the slower growing times like July and August, unirrigated tall fescue/Kentucky bluegrass lawns may not need to be mowed but every 9-14 days.

So the article was written to save people time in maintaining their yard. Consumer reports quoted a well know turf scientist as saying, "Most domestic grasses can thrive with 50% or more of the blade removed." The article went on to state that 'you can let the lawn grow to about 5 1/2 inches before mowing. ...it will reduce mowing frequency by about 25 percent.... Hours saved annually: up to 10.' I think these statements made by the turf researcher and Consumer Reports are incorrect and misleading. I'll explain where the problem is below.

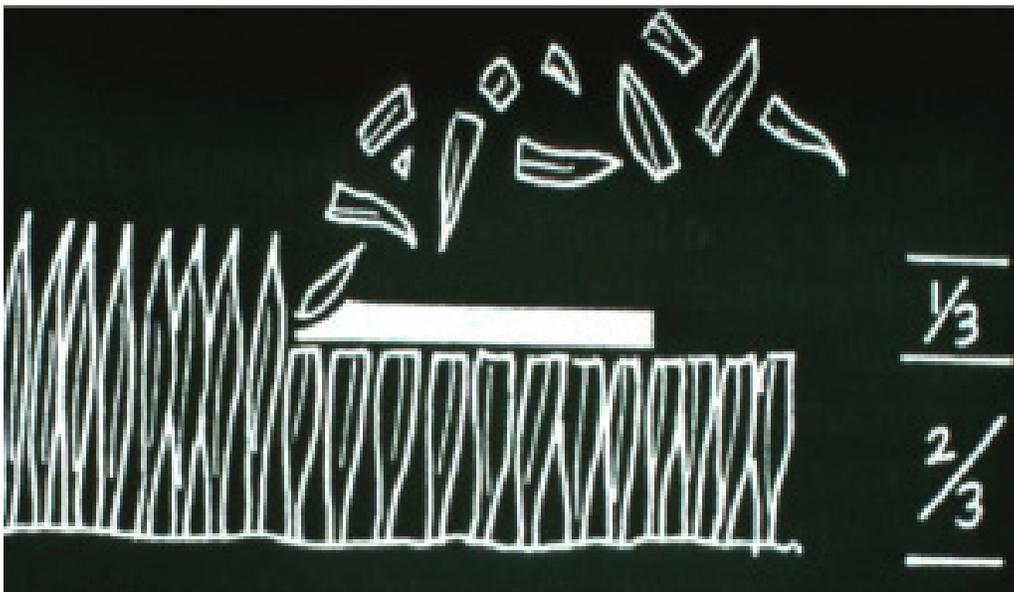
Why do we recommend the 1/3 rule?

There are several reasons for following the one third rule, but the most important are: 1. Health of the grass plant and lateral spread, and 2. Clipping management and Environmental sustainability.

Health of the Grass Plant:

The researcher states that the plant will tolerate mowings that remove 50% or more of the leaf blade without undue harm to the plant. In the article he says, "(the 1/3 rule) was inspired by research conducted in the 1950's by scientists at the U.S. Department of Agriculture who were evaluating Kentucky bluegrass as a forage grass. If you are feeding cows, the 1/3 rule will give you the most rapid leaf production. But if your goal is a good-looking lawn, we're now saying it is OK to take more off." I agree that strictly speaking from the health-of-the-lawn perspective, removing more than 1/3 of the leaf blade would probably not cause too much harm to the individual grass plant. But there is more to the lawn than just one plant. Frequent mowing that comes by following the 1/3 rule stimulates lateral growth (sideways, across the lawn), and that is the type of growth we want. We want the grass to spend it's energy and time spreading out across the lawn, not spend all of it's energy growing up in to the air. This will create a thick, dense lawn that will look beautiful, be comfortable to walk and play on, and reduce weed

Continued on Page 20



When mowing, only remove 1/3 of the leaf tissue. Which means for tall fescue that you want to maintain at 3.5 inches high, never let it grow higher than 4.6" before you mow it.

How To Mow Your Yard Continued...

populations. So if we take the turf researcher's recommendation and remove 50% or more of the leaf blade each time we mow, the grass will be growing tall and not necessarily spreading out, possibly reducing the density of the lawn. So we want to continue to follow the 1/3 rule to make sure we are mowing frequently enough at the right height to insure that the lawn continues to spread out and stay thick, rather than grow tall and spindly.

Clipping Management and Environmental Sustainability:

The second and equally important reason for following the 1/3 rule is clipping management. Most people bag their lawns, because they are not following the 1/3 rule and they leave large, unsightly clumps of grass on the yard. So they bag it, to prevent the piles of grass from disrupting the appearance of the lawn and to prevent the piles of grass from accumulating that can actually smother and kill the lawn in spots. But by following the 1/3 rule, the clippings are cut small enough that they can be easily distributed across the lawn with a side discharge or with a mulching mower. So if you took the Consumer Report's advice and decided to start letting

the grass grow to 5.5 inches or more before you mow, odds are that the clippings will not be easily dispersed back into the lawn, and you will have to bag it. I haven't evaluated every lawnmower out there, I suppose some mowers can successfully mulch that much grass without having to bag it, but most homeowners buy inexpensive mowers that are not the best mulchers and the homeowner will still end up bagging to prevent clumps of cut grass laying on the lawn.

I can't stress it enough. Don't BAG. First and foremost, those clippings contain nutrients and by recycling those nutrients back into the lawn you can reduce your fertilizer needs by 25-33%. Secondly, in some city's those clippings end up in the landfill. Landfill space is becoming smaller and smaller and we don't need to be adding grass clippings to the landfill when they can be recycled back into the yard. Now, some city's like Olathe, will collect the yard waste and compost it for their residents, and some people compost their plant material on their own property. In those instances, removing the clippings isn't so bad, but it is still a lot of time and work and it will increase the amount of fertilizer you need to

Continued on Page 21

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How To Mow Your Yard Continued...

apply to your yard. So keep the clippings on your yard as much as possible. The article also stated 'You should also bag clippings during a lawn-disease outbreak, in which case they might need to be taken to the landfill instead of being added to your compost pile.' This statement is not true for almost all lawns in Kansas and Missouri. The fungal diseases that attack tall fescue and Kentucky bluegrass are predominately Brown Patch and Dollar Spot, respectively. The organisms for these diseases are already in your soil, and collecting the clippings will not greatly reduce the severity or the spread of these diseases. The only time I'd be concerned about collecting and composting clippings is if you are applying pesticides. Read and follow the label. Most pesticides have a statement that says the clippings should not be collected for compost until 30 days have past, but some products have much longer wait times. Read the label of your product to be sure. Or just don't bag. (Do you see a trend here?)

So Follow the 1/3 rule and don't bag your clippings. With that being said....

I do know that there are times like when you go on

vacation, or it is raining and raining and you can't get out in the yard and mow frequently enough. Think of the 1/3 rule and don't bag rule as 'guidelines.' Try to following it as much as you can, but don't loose sleep about it when mother nature or outside forces prevent you from mowing often enough. Usually what I recommend in those situations where the lawn has gotten away from you and is really shaggy is one of two choices: 1. Mow it and bag it and then get back to following the rules. OR 2. Mow it 2 or three times. First, raise the mower as high as it will go and mow it and mulch or side discharge the clippings back into the yard. Then lower the mower a notch or back to your original setting and mow the yard again, either that same day or the next day. Mow and repeat if necessary until you get back to your recommended height. And then get back to following the rules.

For more information about proper mowing or proper care and maintenance of the grasses in your lawn, check out the Publications Section over at KSUTurf.com. Homeowners can also get more help from their local extension office.



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Sports Turf Professional Development

Troy McQuillen, Kirkwood Community College

Professional development refers to the skills and knowledge obtained for both personal and career advancement. (Wikipedia) With-in the sports turf industry we are fortunate to have professional development that encompasses all types of facilitated learning opportunities, ranging from college degrees, formal coursework, conferences, and workshops. Many sports turf managers have described professional development as intensive, collaborative, realistic, and informative. (STMA 2004)

As you think about your own professional development, ask yourself this question? When is the last time you or your staff participated in non-required professional development? I would guess for many that this is a difficult question to answer. I could respond with. Are you aware that ISTMA sponsors workshops in addition to the yearly conference that could be close to your area? Are you aware that many of your peers already participate in these events to better their education? Did you know that in addition to speakers, there are

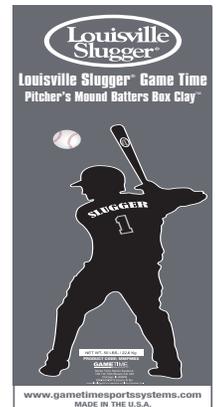
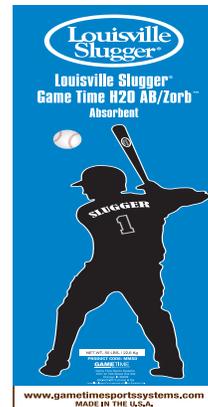
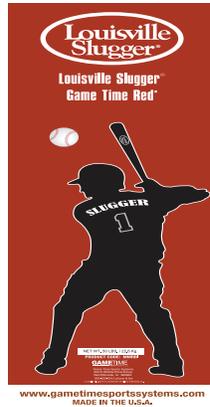
demonstration, tours, and vendors to connect with at the workshops?

One goal of the ISTMA organization is to provide professional development opportunities with diverse topics in assessable locations. Many past workshop supporters described the events as informative, innovative, hands-on, and great networking opportunities. Each of the three workshops scheduled this year promise all these qualities and more. Workshops are scattered throughout the state to give sports turf managers and opportunity to attend. Many venues, topics, speakers, and demonstrations have been set-up to provide the best professional development in sports turf in the area.

I would encourage anyone that has never attended an ISTMA workshop or it's been a while since you have educated yourself in this profession please join us. All workshop dates and details can be found at www.iowaturfgrass.org along with more information mailed to your address.

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