August 1, 2007 Field Day Recap

Water Wick; Jim Gates & Co., Inc.

Sisis Veemo Mk2; Jim Gates & Co., Inc.

Toro Multi Pro 1250; Storr Tractor Co.

Toro Groundsmaster 7200 with Polar Trac System; Storr Tractor Co.

Weidenmann Aerator; Aer-Core, Inc.

ASV Scout SC-50; Binder Machinery

Redexim-Charterhouse Verti-Quake 2516; Clarkton Sports Turf Services

ASV RC-60 Posi-Track Loader; Binder Machinery

Binder Machinery
As a result of conducting an irrigation audit on my site, I was able to save over $2,000.00 dollars in my irrigation budget and over 150 hours of my personal time.

Remember that the idea is to irrigate the soil, not the turf. Consider the concept of the soil as an H2O bank account for your turf. Just like your personal checking account, try to maintain a prudent balance of moisture in the root zone so as not to become overdrawn and stress the turf.

References
Delaware Cooperative Extension

References
Delaware Cooperative Extension

Dr. Henry W. Indyk
Graduate Fellowship in Turfgrass Science

As many of you know, the turfgrass industry lost a dear friend and colleague in September 2005. We will all miss Henry very much and would like to ensure that his legacy lives on. The Indyk family would like to establish a memorial fellowship to support graduate students interested in applied turfgrass science. This fellowship is being endowed by a group of turfgrass professionals with the financial resources to help an advanced degree in turfgrass science student throughout their graduate studies. To honor the memory of Henry’s name, we will need to raise a total of $400,000. Your generous support at this time will bring us closer to reaching this goal.

To make a tax-deductible contribution today, please send a check payable to the Rutgers University Foundation, 7 College Avenue, New Brunswick, NJ 08901. Be sure to indicate “Indyk Fellowship Turfgrass” in the memo portion of your check. If you desire, you may provide a donation in the form of a pledge payable over several years.

For information on other ways to support this fellowship, please contact Dr. Bruce B. Clarke, Director – Rutgers Center for Turfgrass Science (732) 932-0650, ext. 351; or barry@rancocas.rutgers.edu or John Pignone, Director of Development, at the Foundation, by calling (732) 932-7600 or email: development@ruf.org.

George Bannerman, Bannerman Ltd.,
talks to attendees on August 1 at Adelphia.
SPORTS FIELD IRRIGATION AUDITS - PART II

Editor’s Note:
This article is a continuation of an article Sports Field Irrigation Audits – Part 1, which can be found on Page 6 of the July/August 2007 edition of SFMANJ Update

Don Savard, CSFM, CGM

At this time it is necessary to gather information from outside sources. I used information gathered from the internet that was published by the Delaware Cooperative Extension Service and from the book “Sports Fields-A Manual for Design, Construction and Maintenance” by Puhalla, J; Krans, J; Goatly, M; John Wiley & Sons Inc.

Next I had to determine the average water holding capacity of my soil. Different soil textures have different water holding capacities depending on soil pore space. Sandy soils have large pore spaces between the soil particles, silt loams and clays have minute pore spaces. While sandy soils with their large pore spaces can absorb volumes of water quickly, the water also drains quickly. The soils such as silt loam and clays hold their water much longer. My soil type was silt loam which has an average water holding capacity of 0.17 to 0.23 inches of water stored per inch of soil; multiply by 12 to get inches of water per foot of soil (Delaware Cooperative Extension).

Following that, the next step was to find out how much water the turf needed and was using and figure out the irrigation volume and frequency. A turfgrass plant is more than 90% water and requires a different amount of water than a shade tree. Evapotranspiration, the process where available water in the soil evaporates into the atmosphere and transpiration the process where a plant gives off water vapor and oxygen as a byproduct of photosynthesis, is higher during the warmer parts of the year than other times. So, transpiration rates vary every month.

Monthly Potential Evapotranspiration (PET) values can vary slightly from year to year and PET values vary by month. The PET value for Delaware in May is 3.72 inches; for daily PET values divide the monthly PET value by 30 (Delaware Cooperative Extension). If you can measure the ET at your site, you can become very precise.

The water requirement Crop Coefficient (Kc) is a scale used as a multiplier in irrigation audit equations. The water requirement crop coefficient for cool season turfgrass is 0.6 to 0.8; the water requirement crop coefficient for warm season turfgrass is 0.5 to 0.70 (Puhalla et al., 2001).

Using the information found from my data collection as well as the information in the preceding tables, I was able to find the irrigation frequency using the following formula:

\[
\text{Irrigation frequency} = \frac{\text{average water holding capacity x root depth x management allowable depletion}}{\text{monthly potential evapotranspiration x crop coefficient}}
\]

I found the run time frequency using the following formula:

\[
\text{Run Time} = \frac{60 \times \text{irrigation frequency} \times \text{potential evapotranspiration} \times \text{crop coefficient}}{\text{net precipitation rate} \times \text{irrigation application efficiency}}
\]

So what did I find out after all that work? Irrigation frequency is all about evapotranspiration which varies each month. Assuming average temperatures and humidity and no rain, I would only need to irrigate once every 7 days in May. Because there is less evapotranspiration in April, I would need to irrigate once in 14 days. In July there is more evapotranspiration so I would need to irrigate every 4 days.

I found that the run times would vary from about 108 minutes in April, to 113 minutes in July to 117 minutes in May. For convenience, I rounded up to 120 minutes for the audit in May. My Kifco water reels were calibrated to travel 60 feet per minute, applied ½ inch of water during the first run time. So, by pulling back out a second time immediately following the first run, I could supply the field with a full inch of water.

(continued on page 12)
Business Solutions: Learn More and Save Big.

“The other supplier in town said that he could save me a dime a rotor, but can he save me $3,500 on my yearly cell phone bill...?”

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I have been selling quality turf care equipment for over thirty years. I am still amazed how so few customers refer to their owners/operator manuals until it is too late or not at all. These manuals are a great source of information for the supervisor, operator and mechanic.

When taking in a trade on equipment, I try to always recover the original manuals from the account to pass on to the new owner. Often the condition of these manuals condition indicates that they have not been referred-to much! It is a good idea to always record the model and serial number of the equipment on the cover of the manual for quick reference when discussing the need for service or parts. It also a good idea to make sure you read and understand the operators’ manual for your machine before operating or servicing it. Become familiar with all safety signs (decals) on the machine. Some manufacturers provide operator training videos which help demonstrate procedures for safe operation and daily maintenance.

Preventative maintenance of your equipment will help you to get the most out of your investment. If you do not have a preventative maintenance program it would be good to start one soon. Sometimes we go long stretches between those rainy day opportunities. Doing scheduled maintenance and adjustments will prolong the life of your equipment, help prevent expensive downtime and give the best possible quality of cut and performance. Experience has shown that a high percentage of problems have developed over a period of time and could have been prevented by adjustment, lubrication, or other required maintenance.

When referring to the manual, take into consideration how harsh your conditions are and remember that manufacturer recommendations for service are the minimum requirements. If we have a long dry spell and your equipment is working daily in a particularly dusty environment you may wish to consider oil and air filter changes more often.

Some of my customers have come-up with great maintenance schedules which they live by. Keeping records for each machine insures that maintenance procedures are being performed at the proper time. These records could also help you predict parts to have on hand. By keeping blades, belts, filters, etc. on-hand, you will not be caught in a situation where important maintenance was not performed on-schedule because of a lack of parts.

Know what is contained in your manufacturer’s warranty. Most warranties are two years in the commercial field. When talking to a service manager regarding a possible warranty issue you will need to refer to those model and serial numbers. Remember? … The model and serial numbers you wrote down on the front cover of your manual!

Fred Castenschiold is Sales Representative, Storr Tractor Company and SFMANJ Vice President.

Good communication is the cornerstone of great professional relationships. One communication strategy that is often overlooked is dress. How you dress is another way you communicate to your peers, your staff, your employer and the end users of your sports fields.

Dressing in a professional manner suggests that you are well organized and portrays self-confidence. The impression is of one who is knowledgeable and in control. (Wow, all of that from a pair of Dockers and a golf shirt!). Obviously, we aren’t talking coat and tie — unless the occasion calls for it. When you are physically working beside your staff on the field, of course you will be wearing work clothing, but think about keeping a change of clothing at your office for meetings or when you will be spending several hours in the office more visible to your employer.

Consider providing collared staff shirts to bring a more unified appearance to your crew, but wear a different color shirt so that you are distinguishable as the manager in charge. Be conscious of what your clothing says about you — faded tee shirts promoting old rock groups may bring a bit of nostalgia to your day, but they do not do much to position you as a professional sports turf manager.

Impressions do count. According to Ollie Stevenson, author of 101 Great Answers to the Toughest Job Search Problems, found that in an interview situation, interviewers make an immediate overall judgment about you in the first five seconds. That applies to all first impressions. Five seconds isn’t long so you are being judged on what you wear and how you react. Make the first five seconds count. Be dressed appropriately and remember, professionals do shake hands. Be sure your grip is firm and sincere and you make direct eye contact when you greet someone.

How do you dress for your chapter meetings? What type of role model are you for those who are just entering the profession and what type of message are you sending to them?

The job of a sports turf manager requires a strong knowledge of agronomy, pest management, environmental issues, sports strategies, and intimate knowledge of rules and regulations so that you can maintain safe playing surfaces for your athletes. Be recognized for the knowledge, skills and abilities you bring to the game and garner the respect you deserve. Don’t let a sloppy appearance downplay your importance when it is so easy to dress more professionally.

Fred Castenschiold
Storr Tractor

The term subsoling refers to tillage of the subsurface without inversion for the purpose of breaking-up dense soil layers that restrict water movement and root penetration.

What Manual?
By Fred Castenschiold

DID YOU KNOW?

The term subsoling refers to tillage of the subsurface without inversion for the purpose of breaking-up dense soil layers that restrict water movement and root penetration.

Use the Easiest Non-Verbal Communication Strategy to Enhance Your Professionalism
Sports Turf Managers Association (STMA), Lawrence, KS

Sports Field Managers Association of New Jersey

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New Jersey Turf & Landscape Conference and Expo 2007:
Sports Field Managers Program
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Trump Taj Mahal Casino-Resort, Atlantic City, NJ

WEDNESDAY, DECEMBER 5, 2007

1:00-1:30  SFMANJ Business Meeting
3:30-2:15  Management strategies for high traffic fields
Dr. Dr. Mike Goatley,
Virginia Tech
2:15-2:45  A cost-based approach to assess task management
Don Savard, CSFM, CGM,
Salesianum School
2:45-3:30  Environmental turfcraft for Sports Fields
Kevin Trotta, North Rockland
School District

THURSDAY, DECEMBER 6, 2007

THURSDAY AM
7:00-8:00  Early bird Sports Field Managers Networking roundtable
8:00-8:30  Elements of Sports Field Construction
Dr. Mike Goatley,
Virginia Tech
9:00-9:30  Grant writing: What you need to know
Beth Richmond,
Bedford Recreation
9:30-10:00  Low-impact pesticides for turf
Brad Park,
Rutgers University

THURSDAY PM
12:00-12:30  Bermudagrass use for Sports Fields in the Mid-Atlantic
Mike Kelley, Poty Tech
High School, Delaware
12:30-1:00  Selecting a synthetic infill system
Ken Nethercot,
Brick Township Parks
1:00-1:30  IPM at a NJ high school: Myths vs. reality
Rich Watson,
Pine Hill School District
1:30-2:00  Management of synthetic infill systems
Kevin Malone,
CSFM, Columbia University

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