WOW! We're Going To Disney World!

Here's a preview of Disney's Coronado Springs Resort and the Walt Disney World Sports Complex -- the sites for STMA's 9th Annual Conference and Exhibition -- January 14th - 18th, 1998.

Top center is a "stylized" view of the Coronado Springs Resort, our headquarters hotel, that opens this summer. Besides great rooms, fun eating spots and ample meeting space, nestled behind this welcoming entrance are swimming pools, a walking-jogging trail circling a lake, outdoor courtyards and...so much more.

Moving clockwise among the photos, taken during the construction, you'll see an overview of the Walt Disney World Sports Complex. We'll tour this "Wide World of Sports" with venues for over 30 different sports clustered on the 200 acre site. This shot was taken from near the top of the 7,500 seat Ballpark stadium and includes only a tiny portion of the sports facilities on site.

The bottom photo shows "Main Street," the central walkway leading to the numerous on-site events. The building to the left in this photo is the fieldhouse, new home of the Harlem Globetrotters, and the site of our trade show.

The photo on the left is the view from the front of the Ballpark toward the 5,000 square foot pavilion in the "town green" that anchors the center of the sports venues.

And then there's ....

Mark your calendar now -- You've just "gotta" see it!

STM

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“Promoting Better & Safer Sports Turf Areas”
President’s Message

by Mike Schiller, President

Just before the official, calendar-proclaimed, arrival of spring, your STMA Board was thinking warm thoughts of -- your 1998 Conference and Exhibition. And -- even better, we were exploring the exciting possibilities that will become the exciting "realities" January 14 to 18, 1998.

Wow says it all!

Okay -- it was my first trip to "Mouse World" and I was overwhelmingly impressed with the expanse of Disney property, the quality level of Disney services and the whole Disney World experience.

AND -- even more than that -- I was in AWE of the new Walt Disney World Sports Complex. Our meeting was held in a conference room on-site, thanks to the generosity of Disney, and the courtesy extended to us by every "cast member" was superb.

To quote the Disney brochure, "Disney’s Wide World of Sports will be the world’s premier sports destination devoted to providing athletes, fans and all others moved by the spirit of sports competition an opportunity to be involved in the drama and exhilarating fun of sports every single day."

Lofty goals, yes, but backed by the Disney commitment and some great people whose enthusiasm for sports -- and for sports turf -- is exhilarating and contagious. Those of you who have met fellow STMA members Jon Strantz and Murray Cook have seen that sports turf commitment in action. During our visit, we were welcomed by the team’s inspirational leader, Reggio Williams, Vice President of Walt Disney World Sports and former NFL linebacker with the Cincinnati Bengals, by Bill Squires, General Manager of the Sports Complex, and by Larry Lundy, Director of Sports Marketing. Each expressed their enthusiasm for working closely with STMA and their excitement about the 1998 Conference.

You’ll see fantastic facilities for over 30 sports in this 200 acre complex. We took a short-form of the tour that will greet you in January, donning hard-hats because, with the Grand Opening slotted for May 15th, construction was very much in process. From the top of the Ballpark Stadium, which seats 7,500, you can catch a glimpse of the famous Disney theme parks. Besides the premium Stadium field, there’s the Softball Quadruplex; Baseball Quadruplex and two Youth Baseball Fields -- and that only covers two of the sports that will be played here.

The impressive Fieldhouse, with space for 6 full-size, hardwood-floor basketball courts, will become the official training camp site of the Harlem Globetrotters, their team tryout and player development center and much more. The Fieldhouse also will be the site for our Conference Exhibition, providing a unique opportunity for vendor-attendee interaction following the same highly popular format of the 1997 Conference with some exciting additions.

Your board once again put on those hard hats to tour our headquarters hotel, The Coronado Springs Resort. Construction of this beautiful facility will be completed this summer. This extensive property is designed to provide meeting and reception space that combines the "intimate" advantages of privacy with premium resort-style services. STMA has negotiated special room rates for this caliber property for Florida in January -- continued on page 3.
President’s Message  
continued from page 2

$123 -- single or double occupancy. Tax is currently 11%. And, as a Disney property, it offers the full inter-park transportation package.

And -- your Conference Committee is working with Disney to provide a special multi-day, multi-park admission package so you can add some family vacation time to the beginning or the end of the Conference.

During the short breaks in our meetings, we scouted for Tigers, some of us trying to catch a glimpse of the great young golfer, Tiger Woods, who was on-site for a combination exhibition and taping, others for Tigger, the famous character from Winnie-the-Pooh. Be assured, your 1998 Conference will have something special in store for everyone!

How Do You Do...?
The Question — How Do You Prepare Your Fields for Spring Activity After Winter?

Answered by David Hanus, Bryan (TX) Independent H. S. District

Our bermudagrass athletic fields experience heavy use from fall football and winter soccer, so we like to start recovery work on them as soon as soccer is over and the weather permits, usually mid-March. Our first step is to mow the fields at a lower height than normal to encourage green-up and reduce thatch. Re-entry requirements for school grounds in Texas make it difficult to apply herbicides on a timely basis, so this scalping and the resumption of our normal mowing schedule reduces the need to treat for any winter weeds.

Soil compaction is the main problem on the fields, so most of our early spring work is spent on aeration. This will be our second spring to deep tine aerify the fields with an Aer-way unit with 7” shatter-tines. We’ve been able to get 5-inch penetration even on our most compacted fields, so it’s done a good job of breaking up the soil profile. Each field is aerated in at least two directions, with a second aeration scheduled 4 weeks later.

Soil tests in January help determine the amounts of gypsum to apply, which is used to offset the high sodium found in our local water supply. Each field receives half of its gypsum allotment in April. The first of the regular fertilizer applications won’t be done until soil temperatures reach at least 70 degrees. After that we start our normal bermudagrass maintenance schedule to transition out perennial ryegrass on the overseeded fields and to encourage as much growth and recovery as possible before football practice starts again in April.

Answered by Mike Trigg, Waukegan (IL) Park District

Since Illinois weather is so unpredictable, we pack as much spring preparation as possible into the fall. For example, we’ll repair any worn turf areas and core aerify soccer fields. During late fall and winter we check material supplies and place orders so we’ll have everything on hand we need when the weather breaks. We start with a field/facility check on EVERYTHING, infield and outfield condition, lighting, turf condition, fencing, benches, bleachers, etc. The MAIN thing is to do the pre-planning so we are ready for spring. The requests for athletic field use come earlier each year and the window of opportunity can vary so much that you have to be prepared for anything.

continued on page 4
How Do You Do...?
continued from page 3

Answered by Jack Thompson, Northwest Nazarene College, Nampa, ID

At our school, much of the equipment is used not only for turf care, but also for snow removal. Before we switch over the brooms to mower decks, the brooms are used for removing thatch. This allows us to get the proper start to our season. We apply a pre-emergent on our turf areas and weed control in the flower beds. Then we aerate all the turf areas, concentrating our efforts on the athletic fields because of compaction from extreme use. In these areas, we aerate in three or four different directions.

After that, we are ready to use our topdresser with a mixture of 50% sand and 50% topsoil. If there are areas that need to be overseeded, we do this before the topdressing. Although we do our heaviest fertilizer application in the late fall, we do apply a light fertilization in the early spring.

Now we’re ready for the start up of our sprinkler systems on campus and the mowing season.

Answered by Timothy Peterson, Arizona Cardinals

No two fields are completely alike. The following steps have worked for me the last four (4) years. I start my preparations about the end of December and this process continues until the first of May.

I start with a good soil sample in November. Because our fields are sand-based, every two years I add gypsum at 1,000 lbs. per acre. The three fields are cored and this year, the cores were collected. Next an application of phosphorous, usually triple phosphate (P205) is applied at 1 lb. per 1,000 sq. ft. Assuming the field pH is between 7 and 7.5, an application of water soluble sulfur with Mn and Fe is applied at 5 lbs. per 1,000 sq. ft. (if pH levels are higher, more applications may be required to amend this condition). I next top dress with sand. About 3 weeks after that I de-thatch in two perpendicular directions and then scalp the grass to remove unwanted stubble. I await the warmth of spring before fertilizing. We use one application of granular fertilizer @ 5 lbs/M and two applications of flowable K with Fluid Minors package, one week apart. Sometime in May, I apply a time release 32-3-8 fertilizer at 5 lbs/M and stand back — instant job security. This work is good until about the 15th of July when I start it all over again.

Answered by Jack Schmidgall, Town of Danvers (MA)

As of March 24th, the fields in Danvers have still been freezing at night. Average soil temperatures have been 38° in direct sunlight. With 18 ball fields to prepare by the middle of April, our first step is to do a visual survey and make a written list of procedures and materials required to attain our goal. We start this at the beginning of March because each field has its own drying characteristics which will determine how it can be worked.

At this point in the game, our initial concern will be the preparation of our clay surfaces which we will scarify and grade well enough to begin practices and scrimmages. Drying agents will be used as necessary. This year, we have the added challenge of winter weed growth in the clay areas and the clumping of annual bluegrass which has to be removed mechanically AND by hand. Once the temperatures start to rise, we will apply weed control to thoroughly resolve this problem.

Once the turf is dry enough, we can core aerate and de-thatch the infields. This must be done before our first scheduled chemical application (currently set for April 15th). In the meantime, we try to maintain our daily clay maintenance and keep the practice fields up and running. We are now in the process of scheduling overtime crews so that we can take advantage of every minute of cooperative weather in order to meet our responsibilities.

IS THERE AN STMA AWARD IN YOUR FUTURE?

There could be IF you start planning NOW!

Each year, STMA gives awards for Fields of the Year and Research, AND we award Scholarships. One of these COULD be YOURS!

Look for the How To article in our next newsletter.

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Soil-Water-Turf Relationships*  
by Dr. Henry Indyk  

Intelligent and efficient water management for healthy and vigorous growth of turfgrasses for aesthetic and/or utilitarian purposes requires a basic understanding of soils, water, plants, and their interrelationships.  

SOILS  
Soil is a very complex heterogeneous medium with physical/chemical and biological properties which alone or with their many interrelationships influence soil-water relations and turfgrass growth. Functions of soil include: anchorage and physical support of turf plants; water reservoir; plant nutrient reservoir, and supporting medium for utilitarian purposes. The three distinct layers included in the soil profile are commonly called top soil, subsoil and parent material (or bedrock).  

An ideal soil with optimum conditions for plant growth consists of two major factions: 50% solids (further broken down as 45% mineral, 5% organic matter) and 50% pore space (as 25% water [liquid] and 25% air [gaseous]). Though a small percentage, the organic matter content is an essential difference between productive and non-productive soils.  

Total pore space varies with soil type; with somewhat less in sandy soils and somewhat more in clay soils. Air and water porosity are inversely related and subject to extreme fluctuations, depending on soil moisture conditions.  

The term "soil separates" refers to the different size particles it contains. These are designated as sand (further classified from coarse to fine), silt and clay. Soil "texture" classification is based on the amount of sand, silt and clay present. Soil "structure" refers to the arrangement or grouping of the individual soil separates. Texture and structure in large measure determine the general characteristics of the soil: soil porosity, water movement, water holding capacity and infiltration.  

WATER  
Soil must contain a certain amount of available water to function as a medium for growth of turfgrasses. The manner in which the water is supplied, its infiltration, movement, storage and control must be understood and considered in its relationships to soils and plants.  

Infiltration rate refers to the rate at which water moves into the soil before puddling or runoff occur. This is affected by soil texture and the physical condition of continued on page 9
Welcome New STMA Members

Ian Anderson
Tullahoma Recreation Dept.
Tullahoma, TN

Christopher Bartos
Pima County Parks
Tucson, AZ

Jeff Bertrand
Idaho Falls Braves
Idaho Falls, ID

Chris Calcaterra
Atlanta Braves
Fayetteville, GA

Chris Conradson
Univ. of Colorado
Boulder, CO

Dan Douglas
Reading Phillies
Reading, PA

Alan Fritsche
City of Houston
Houston, TX

Abel Gonzales
City of Houston
Houston, TX

James Hlavaty
Student/Clark State Comm. Coll.
Springfield, OH

Tim Irving
Student
Olds, AB Canada

Scott A. Lingle
Florida Marlins
Melbourne, FL

Justin Mullis
Student/Clemson Univ.
Clemson, SC

Nelson R. Oneal
City of Arlington
Arlington, TX

Plaisted Companies, Inc.
Steve Young
Delano, MN

Louis A. Romanelli
Brandies Univ.
Waltham, MA

Bob Schneider
Ridgefield Parks & Rec.
Ridgefield, CT

Turf-Seed, Inc.
Russ Hayworth
Scottsdale, AZ

Ray Weekley
Chantilly Turf Farm
Chantilly, VA

Ann Arber Press
Skip DeWalt
Chester, MI

Mike Behns
David City Ball Assoc., Inc.
David City, NE

Mark Borgwardt
City of Bloomington
Bloomington, MN

Jon Canavan
Student/NW Missouri State
Stuart, IA

James Cooney
City of Las Vegas
Henderson, NV

Paul M. Edwardson
City of Bloomington
Bloomington, MN

Norman Galloway
City of Arlington
Arlington, TX

Lynn Griffen
North Jeffco Parks & Rec.
Arvada, CO

Dennis Hoffman
Quality Care
Coralville, IA

John Kasza
City of Westminster
Westminster, CO

Jose R. Marquez
Grama-Tech 2000
Las Piedras, PR

Kerry Nalley
State Univ. of W. Georgia
Carrolton, GA

Pacific Sod Co.
John Rector
Camarillo, CA

Gilbert Pulley
BYU
Provo, UT

Thomas A. Rubel
City of Aspen
Aspen, CO

Rod Smith
Univ. of Nevada-Las Vegas
Las Vegas, NV

Casey Underwood
Student/Virginia Tech
Radford, VA

Brook Whitaker
Univ. of Texas Men’s Athletics
Austin, TX

Marlene Bain-Pelster
Univ. of Illinois @ Chicago
Chicago, IL

Jo Bennett
City of Arlington
Arlington, TX

Steve Bourcy
City of Westminster
Westminster, CO

Color Wheel Paints
Jeff Bauman
Pembroke Pines, FL

Randy Danley
City of Ripley
Ripley, TN

Ed Estridge
Florence School Dist. One
Florence, SC

Gardner Turfgrass, Inc.
John Maleske
Chandler, AZ

Brian G. Harmon
Vassar College
Poughkeepsie, NY

Alissa Horrigan
Thomas Bros. Grass
Austin, TX

Michael J. Kleinmeyer
Lyons Township HS Dist. 204
Western Springs, IL

Lynn C. Maxson
Nebraska Wesleyan Univ.
Lincoln, NE

Dennis Neitcz
Student/Univ. of Minnesota
Woodbury, MN

Liam Philpotts
Fleet (Line Markers), Ltd.
Malvern/Worcester, England

George O. Robinson
City of Aspen
Aspen, CO

Raechal Sager
Student/Univ. of Wisconsin-Madison
Madison, WI

Sports Turf Technology, Inc.
Robert E. Brady
Dracut, MA

Jeff Wakefield
Univ. of Texas Men’s Athletics
Austin, TX

Kimberly White
Univ. of Pittsburgh @ Greensburg
Greensburg, PA

Mike Barbato
USAF Academy
USAF Academy, CO

John Bermea
City of Houston
Houston, TX

Raul Bueno
San Jose State Univ.
San Jose, CA

Sharlotta Connally
Arlington Parks & Rec.
Arlington, TX

Jack Davis
Cumberland Plateau Co.
Lebanon, VA

David Flumbaum
Univ. of Maryland
College Park, MD

Luc Gionet
City of Montreal
Montreal, PQ Canada

Jack Hershberger
Delmarva Shorebirds Baseball
Salisbury, MD

Invisible Structures
Stan Schone
Aurora, CO

Ed Kovalesky
Durham Bulls Baseball
Durham, NC

Iain McGuffie
Fleet (Line Markers), Ltd.
Malvern/Worcester, England

Pickseed West
Christie McDowell
Tangent, OR

Rollin’ Sod, Inc.
Edward E. Woerner
Elberna, AL

John H. Schmidgall
Town of Danvers
Danvers, MA

Dennis Suit
San Jose State Univ.
San Jose, CA

Coleman Ward
Auburn Univ.
Auburn, AL

Editors Note: John Reese, City of Canton, OH, was incorrectly listed as a student in the last newsletter. I apologize for any inconvenience.
WELCOME TO STMA'S NEWEST AFFILIATED CHAPTER:

The Keystone Athletic Field Managers Organization (KAFMO Chapter STMA) has completed all requirements for affiliation and was officially recognized as an affiliated chapter by the STMA Board at the March 14th - 15th, 1997, Board Meeting.

Their next event, a Field Day with Floyd Perry, sponsored by the Chapter, will also include the members of the Pennsylvania Recreation and Park Society. One Field Day will take place on May 15th in central Pennsylvania at Hampton Township on Harrisburg's West shore. A second Field Day will be held on May 16th in western Pennsylvania at Slippery Rock State University. Registration for each Field Day will begin at 8:30 AM, with the Clinic Sessions running from 9:00 AM to 3:00 PM. For more details on these Field Day events, contact: Don Fowler at (717) 485-4709.

For more information on the KAFMO Chapter STMA or other upcoming events, contact: Dan Douglas, Reading Phillies Baseball Club, at (610) 375-8469, extension 212.

Florida Chapter #1: STMA

The Florida Chapter’s next meeting will be an Aerification and Thatch Seminar -- with equipment demonstrations and educational classes. This Seminar will be held June 4th at Miami Dade Community College - South Campus in conjunction with the Dade County Cooperative Extension Service.

For more information on this meeting, other upcoming activities or the Florida Chapter, contact: John Mascaro at (954) 938-7477.

Midwest Chapter: STMA

The Midwest Chapter: STMA will meet on June 12th at Demaree Stadium of Merrillville High School, Merrillville, Indiana, STMA's 1994 Football Field of the Year. Activities will include a tour of the facility and sessions on field construction and maintenance.

For more information on this event, the Midwest Chapter or other pending activities, contact: The Chapter Hotline (847) 439-4727.

Colorado Chapter

The Colorado Chapter: STMA will hold their next meeting on Friday, June 13th at Sky Sox Stadium. The meeting will open with Dave Rulli's President's Message and an introduction by Mark Leasure. Activities will include Vendor talks, a session on infield mix presented by Ken Norkosky, and a tour of the stadium. Attendees will also enjoy a cookout and the Sky Sox baseball game.

The Chapter also will hold a meeting on Friday, July 18th, at Wagner Park in Aspen, Colorado, the home of the World Rugby Tournament. Further details on this meeting will be announced soon.

For information on these meetings, the Colorado Chapter and other upcoming events, call the 24-Hour CSTMA Chapter Hotline/FAX: (303) 438-9645.

Minnesota Chapter: STMA

The Minnesota Chapter will hold its 3rd Annual Seminar on Wheels event on July 16th. While the complete site list is yet to be announced, the schedule already includes ending the day with a tail gate party and St. Paul Saints game.

For information on this event, the Minnesota Chapter or other upcoming activities, contact: Connie Rudolph at (612) 644-0639.

The Iowa Sports Turf Managers Association

The Iowa Sports Turf Managers Association will hold a Baseball Workshop from 1:00 PM to 4:30 PM on August 8th at Sec Taylor Stadium in Des Moines. Sessions will cover daily and post-season maintenance of the mound, plate and infield; fertility; building your own low-cost equipment; and repair of turf areas including: overseeding, seed pre-germination, sod and plugs.

For more information on this Workshop, the Iowa Chapter or other upcoming activities, contact: Lori Westrum at The Turf Office at (515) 232-8222 (phone) or (515) 232-8228 (fax).

Southern California Chapter: STMA

For information on the Southern California Chapter or pending activities, contact: Chris Bunnell at (619) 432-2421.

STMA Chapters on the Grow: see page 10

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Doc’s Dugout - An Inning From Our Past

by Dr. Kent Kurtz - STMA Historian

Little is known about the early groundskeepers except that they worked long, hard days and, until recently, didn't have much to work with in terms of grasses, products, supplies and equipment. These early groundsmen learned their trade from “trial and error,” and expanded upon their successes and failures. There were no formal courses or classes available to them and even if there had been, the long working days and demands of the facility took up most of their waking hours. In the early years, many of the groundskeepers came into the position by working their way up from a clubhouse boy like Roy “Cotton” Bogren of the Chicago Cubs. Bogren worked under groundskeeper, Bob Dorr, for many years and inherited the job upon Dorr’s retirement. When Bogren retired, the position was passed on to understudy, Frank Capperelli, under the guidance of Lubie Veal, who was brought over from Cincinnati to become the Assistant Stadium Operations Director. Lubie is now retired and works with the minor league ball parks. In the old days, ball parks like Wrigley Field were used much like stadiums today for multi-purpose events. Besides being the home of the Chicago Bears for many years, Wrigley Field hosted such major attractions during World War II, as a women’s softball league, soccer, circuses, pro boxing and wrestling, skating and ice skating. Likewise, Chicago’s Comiskey Park hosted soccer, rock concerts, demolition derbies, the Chicago Cardinals (now the Arizona Cardinals), and, of course, the Chicago White Sox.

During the ‘30s, ‘40s and ‘50s, under the tutelage of Emil Bossard, head groundskeeper at Cleveland Stadium, the groundskeeping profession began to gain impetus. The entire Bossard family became a major influence on the early emergence of the groundskeeper The Emil Bossard School of Groundskeeping was the training available at that time for the care of ballfields. George Toma, NFL and Kansas City Royals, was one of its early graduates. Emil also had three sons who became groundskeepers. Harold and Marshall remained at Cleveland when Emil retired, and Gene went to Chicago to take over duties at Comiskey Park. Harold had a son, Brian, who was Head Groundskeeper at San Diego’s Jack Murphy Stadium. Steve Wightman took over the duties there when Brian left to take over the duties at Yankee Stadium. Unfortunately, Brian died suddenly in 1991, leaving his cousin, Roger (Gene’s son) as the sole surviving 3rd Generation groundskeeper in the Bossard family. Roger is currently head groundskeeper at Comiskey Park in Chicago. He began working for his father, Gene, in 1967 and took over as head groundskeeper when Gene retired in 1983.

Comiskey Park saw its first baseball game on July 1, 1910. For 80 years, the old park lured such name players as Babe Ruth, Lou Gehrig, George Kell, Cy Young, Ted Williams and Mickey Mantle. When the new Comiskey Park opened in 1991, right across the street from the old stadium, the exploding scoreboard, center field bleachers, arch window and even the infield soil were brought to the new site to carry on a tradition.

I have known Roger Bossard for the past 14 years as a close friend, colleague and professional. In my opinion, he is one of the best baseball men in this country. Roger is the epitome of the word “groundskeeper.” He is a self-made man who learned “on the job” from both his grandfather and his father. He entered the field quite young, attended some college, and set his sites on becoming head groundskeeper when his father retired.

Proof of Roger’s dedication is the new Comiskey Park. Several years of study and testing went into the park. The drainage system was developed and patented by Roger. I remember visiting him in the late 1980’s and attending a game. Roger came to me at the end of the 3rd inning and led me under the stands and through the tunnels at the old park to his research lab. At the time, he was experimenting with several sand rootzones and drainage systems trying to determine the best soil medium and drainage to use in the new stadium field. He also sought input from his closest friends and colleagues to reaffirm his decision. The result was a field that gives Roger pride. He says, “We get 2 inches of rain and we’re playing within a half hour with no standing water.” A wet spring and near record rainfall in 1994 was a real challenge that kept Roger and his 24-person grounds crew on guard. But, the new field pulled through.

Besides maintaining Comiskey Park, Roger is involved with the White Sox spring training fields in Sarasota, Florida. In 1998, the Sox will be moving to a new complex in Tucson, Arizona, that Roger has been involved in. In addition, he has worked with the St. Louis Cardinals new field at Busch Stadium where he recommended a new selection of common bermudagrass, “Quick Stand,” developed at the University of Kentucky by Dr. A. J. Powell. He has also been consulting with the Cleveland Indians, New York Yankees, Seattle Mariners, Tampa Bay Devil Rays and the Phoenix Diamondbacks.

Through all the years I have known Roger, I have been greatly impressed with his achievements and with him as a friend and a person. I find him to be a hard working, humble and friendly individual who strives for the very best through reading and seeking advice from his closest friends and colleagues. When it comes to manicuring a baseball field, he’s one of the best. What impresses me most about Roger is that he is carrying on the great Bossard tradition and legacy to the next level. Keep up the fine standards you have set for yourself and the sports turf profession, Roger. You have many friends who appreciate your dedication and professional ethics.

STM
Soil-Water-Turf Relationships*

continued from page 5

the soil surface, including compaction, salts, moisture content and organic mulch.

Soil moisture is determined on the basis of tenacity with which water is held in soil. The term "gravitational" (non-capillary) refers to water which moves rapidly downward due to gravity; "capillary" to water which is held in the small pores at varying tenacities; and "hydroscopic" to water which is held very tenaciously and exists as a very thin film at the solid-liquid interface.

Percolation is the movement of gravitational water through the soil profile. Percolation rate is affected by soil texture, impeding layers, textural zonation and the depth of the soil profile.

Infiltration rate, soil moisture levels and percolation rate all must be considered to determine the maximum rate of applying supplemental irrigation.

The depth of water movement is affected by the depth of the soil profile; the texture of the soil, and the soil moisture content. Water does not move down through the soil until the absorptive capacity of each soil particle is satisfied; only then is the added water free to move to the next particle. Depth of movement is used in determining the maximum amount of water to apply during each time of irrigation.

Water holding capacity (or field capacity) refers to the water retained by the soil after gravitational water has drained. This is affected by soil texture, the percentage of organic matter contained; the aggregation; the depth of the soil profile; and the degree of compaction. Water holding capacity is used to determine the amount and frequency of irrigation.

Available water refers to the portion of water retained by the soil between field capacity and the permanent wilting point of the turfgrasses. Constant replenishment of water is required due to water loss from surface runoff, drainage through the soil, evaporation, and transpiration.

*(Condensed version of the handout supplied by Dr. Indyk in conjunction with his presentation at the 8th Annual STMA Conference held in Colorado Springs, CO, in January of 1997.)
Members on the Move

Bucky Trotter, Board Member, Category II, formerly with the University of Kentucky, has taken the position of Director of Sports Fields & Facilities Maintenance with the University of South Carolina, Columbia, SC.

Jim Haun, former student member, has taken the position of Head Groundskeeper for the Beloit (WI) Snappers.

Tim Carr, former Athletic/Rec. Grounds Attendant at the University of New Hampshire, has taken the position of Head of Grounds & Landscaping at Upper Iowa University, Fayette, IA.

Ryan VanTilburg, former student member, has graduated from Eastern Kentucky University!!

CONGRATULATIONS GUYS!!

Employment Opportunities

The Quad City River Bandits (IA) have an opening for Head Groundskeeper.

The Toronto Blue Jays Florida Operations has an opening for a Grounds Superintendent.


The Butte (MT) Copper Kings Baseball Club, Rookie League affiliate of the Anaheim Angels, has an opening for Groundskeeper.

The Lowell (MA) Spinners, have an opening for a Head Groundskeeper

The Boise (ID) Hawks have two (2) openings for assistants/interns.

The Waukegan (IL) Park District has an opening for a full-time Parks Maintenance Worker III.

For more information on these openings contact STMA Headquarters at (800) 323-3875 OR call the Jobs Hotline at (712) 366-1145.

STMA Chapters on the Grow:

The Mid-Atlantic Athletic Field Managers Organization (MAFMO)

This is an active group currently working toward STMA affiliation. MAFMO will team up with Toro for an Irrigation Seminar which will be held on Wednesday, May 21st from 8:00 AM to 3:00 PM at Cedar Lane Park in Columbia, Maryland. Sessions will cover how to: assess your irrigation needs; design your system; calculate cost; install it and troubleshoot problems. The Seminar will include both classroom instruction and "hands on" demonstrations and troubleshooting. Space is limited to insure top quality instruction, so act now.

For more information on this Seminar, MAFMO, or other upcoming activities, contact the Hotline: (410) 290-5652.

Arizona:

For information on the Sports Turf Managers Association of Arizona or upcoming events, contact: Bill Murphy, City of Scottsdale Parks and Recreation Department, at (602) 994-7954.

Great Plains Sports Turf Managers Association

For Information on the Great Plains Sports Turf Managers Association or upcoming events, contact: Mark Schimming, City of Wichita, at (316) 337-9123.

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Headquarters Update

by Steve Trusty, Executive Director

Your Board of Directors had a very busy meeting March 14th and 15th. Part of the time was spent planning an even better conference for 1998 than the record breaker that we had in Colorado Springs. See this issue’s cover story for some of the highlights of what promises to be another outstanding opportunity to get together with your peers from around the country. Thanks to those of you who took time to fill out the conference evaluations. The Conference Committee and your board have some excellent suggestions for future conferences.

Speaking of the Colorado Springs Conference, the board received the good news that income above expenses for that event was approximately $37,000.00. The Board has now been able to put some money into savings. STMA is on strong financial footing and your association can start working on additional programs to benefit the membership.

One of those programs is certification for sports turf managers. Be sure to carefully read the story on page 14 about the Certification Committee’s second productive meeting. They have put a terrific amount of work into preparing preliminary plans for a positive program that will increase the professionalism of Sports Turf Managers. The time to think it through thoroughly is NOW, before final decisions are made and materials are printed.

STMA continues to grow. See the notice about the membership recruitment program on this page, that your board has approved. This program rewards everyone who sponsors a new member and provides a special incentive to the top promoter of STMA. The real winners will be those individuals that you introduce to an organization that is going to help them grow professionally. Remember also that a larger and stronger membership will provide more benefits to all.

Your board officially recognized the newest STMA Chapter. Welcome to the Keystone Athletic Field Managers Organization (KAFMO) Chapter. This Pennsylvania group started meeting about two years ago. They have just completed the process of incorporating as a chapter of STMA. They have approximately 200 members and have already held some very worthwhile events. Take special notice of the article in the March issue of sportsTURF. I look forward to visiting this new chapter on May 15th and presenting them with their gavel.

Other Chapter visits that have been confirmed to-date include the Colorado Chapter’s Commercial Vendors event on April 10th and the Minnesota Chapter’s Seminar on Wheels on July 16th. I look forward to seeing you soon.

Interest in forming new chapters remains high in various locations. If you would like to get involved with chapter activities in your area, contact headquarters for an update on what is happening or what you might do in your part of the country.

Your nominating committee is seeking individuals willing to serve STMA as board members and officers. If you feel a strong commitment to STMA and would like to get involved, contact Nominating Committee Chairman, Greg Petry. If you would like to recommend someone, contact them and make sure they are willing, and then send their name on to Greg.

Members are always welcome to attend or provide input for Board Meetings. To help you plan, the Board has set the dates and locations for their next three meetings. They will meet on July 11th and 12th in Canton, Ohio. On November 14th and 15th, they will meet at the site for the 1999 STMA Conference, the Sheraton Mesa, in the Phoenix area. The customary first of the year meeting in conjunction with the Annual Conference will be held January 13th at the Coronado Springs Resort.

Hopefully you have received your new Membership Roster and Resource Manual. If you haven’t and don’t within the next few days, let Headquarters know. Make good use of this resource and be sure to thank the advertisers.

Take special notice of your mailing label on this issue of the Sports Turf Manager. If you see your name highlighted it means that, at the time of this writing, we had not received your dues for 1997. If you mailed your dues in the last couple of weeks, I’m sure that they just crossed in the mail. If you have not mailed them yet, please do so ASAP. If your dues aren’t received by May 30th, you will be dropped from membership. You’ll miss out on all sorts of things, including the new compendium, this newsletter, your new membership certificate and card, and all sorts of other benefits of STMA membership. If you have any questions or need a new dues invoice, please contact us at 800/323-3875.

Until next issue, may your problems be small and your successes huge.

Help STMA Grow

Share the STMA story with another sports turf manager
Once they join, they’ll start receiving the benefits of membership

AND

You’ll be rewarded as well
Between NOW and MAY 31st - IF YOU
Sign up 1 new member - You earn an STMA cup
Sign up 3 new members - You earn an STMA hat
Sign up 5 new members - You earn an STMA shirt

The individual who signs up the most new members earns a FREE registration to the 9th Annual STMA Conference & Exhibition at the Coronado Springs Resort & Walt Disney World Sports Complex in Florida January 14-18, 1998.

A Membership Application is included in this Newsletter Just call 800/323-3875 for more applications.
(Be sure to write YOUR name on the "referred by" line.)
The STMA Board met on March 14th and 15th, 1997, at the Walt Disney World Sports Complex, which will host part of the Conference and Exhibition to be held January 14th - 18th, 1998. In order to plan the Conference details more effectively, Friday afternoon was spent touring the Sports Complex, the Disney portion of a proposed Seminar on Wheels tour, and the headquarters hotel, another Disney property, the Coronado Springs Resort. Considerable time was spent on Conference planning on Saturday, integrating into the Conference format the feedback supplied by 1997 Conference attendees and vendors in their evaluation forms and the verbal comments made to Board members and to Headquarters. Stay tuned for the exciting details soon to be announced!

Notable items from the financial report include income over expenses on the 1997 Conference of approximately $37,000. A portion of this amount, along with the 75% of income over expenses at the end of the 1997 fiscal year, will be placed in interest bearing accounts with use of these reserve funds authorized by a two-thirds vote of the STMA Board. A portion of the remaining funds will be allocated to Committee work, with the major focus given to the Membership and Certification Committees.

Information on all past decisions on scholarship and awards programs will be directed to the Awards and Scholarship Committee for review so that recommendations on any changes or updates can be submitted to the board at the next (July) meeting. See the note on page 4 about preparing now for Awards & Scholarship consideration.

Chapter Sponsors for 1997 are: Gold Sponsor -- Novartis; Silver Sponsors -- The Scotts Company and Hunter Industries. Thanks to these companies for the funding that allows an on-site visit to each affiliated chapter during the year, and to those selected active forming chapters that are making significant progress towards affiliation. The purpose is to improve communication between the chapters and national and to become more responsive to member needs.

The Keystone Athletic Field Managers Organization (KAFMO Chapter STMA) completed the requirements for affiliation and was officially recognized by the Board.

The Membership Committee (chair - Bucky Trotter) will explore the possibility of developing market analysis to determine the long-range direction of STMA, including the focus, needs, services, and costs. A "new member contest" is introduced on page 12 of this newsletter and a membership application has been included to get you started.

Highlights of the Certification Committee progress are included on page 14 of this newsletter.

The Nomination Committee (chair - Greg Petry) wants members to consider getting involved at the national level. See the note in the Headquarters Report.

Headquarters is gathering details on proposed sites for the Conference in the year 2000. See the Headquarters Report for the dates and sites of the next STMA Board Meetings.
Plans for Certification Program Initiated

Your Certification Committee spent a full day on March 16th, hashing out a lot of details on the whys and wherefores of developing a certification program for STMA. While much work remains, they came up with a number of ideas that they would like input on from the STMA membership. None of the following ideas have been set in stone, they have not even been presented to the Board. They are certainly a good starting point for discussion. All STMA members are encouraged to carefully read the following information and provide their thoughtful, constructive comments to Headquarters. All comments received will be shared with the committee and given careful consideration.

The first part of the discussion covered the purpose and benefits of a certification program.

The purposes could include: to raise professionalism in the industry; to establish credentials that signify a specific level of expertise, that will open up career opportunities and promote the sports turf manager and the profession; to provide recognition for professionals, for the performance of those responsible for managing all sports fields; to create better salary opportunities; to stimulate and motivate improved performance and increase professionalism; to increase opportunities for education and training.

After considering numerous possibilities the committee felt that the best title for those certified through the program would be -- Certified Sports Turf Manager (CSTM)

In order to apply for the designation CSTM, an individual would have to obtain a certain number of points. These points would be earned through a combination of education and experience. A consensus was reached to recommend the following program:

**EDUCATION**

<table>
<thead>
<tr>
<th>Minimum education — high school diploma or the equivalent</th>
<th>No points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turf Certificate Program</td>
<td>2 points</td>
</tr>
<tr>
<td>Two-Year College Program</td>
<td>2 points</td>
</tr>
<tr>
<td>Non-Turf</td>
<td>2 points</td>
</tr>
<tr>
<td>Turf or Related Plant Science</td>
<td>8 points</td>
</tr>
<tr>
<td>Four-Year College Program</td>
<td>8 points</td>
</tr>
<tr>
<td>Non-Turf</td>
<td>8 points</td>
</tr>
<tr>
<td>Turf or Related Plant Science</td>
<td>16 points</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>24 points</td>
</tr>
<tr>
<td>Turf or Related Plant Science</td>
<td>24 points</td>
</tr>
</tbody>
</table>

**EXPERIENCE**

Points earned per year (2000 hours = 1 year)

| Sports Turf Experience | 1 point per year |

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**Supervisory Turf Experience**

(*Assistant, foreman or lead position*) 3 points per year

**Sports Turf Manager**

(*Top Position*) 6 points per year

It is suggested that a total of 40 Points would be required to qualify for application

A written resume would be submitted as part of the application process and the application and resume evaluated to determine if the individual is qualified to apply for certification.

If all qualifications for application are met, the individuals would then take a multiple choice test that would be set up in sections. Each section would have to be passed in order to become certified. A passing grade would be 80%. If a section of the test does not receive a passing grade, only that part of the test would have to be retaken -- if accomplished within a set period of time (could be 1 year or 2 years). If a person continued to fail that portion or go beyond the time limit, they have to start all over.

**Suggested Sections for testing include:**

**Agronomics**
- basic soils
- basic horticultural calculations
- turfgrass establishment
- turfgrass selection
- water management
- turfgrass cultural practices
- fertilization

**Pest Management**
- Weeds, Insects, Diseases

**Administration**
- Budgeting
- Communication
- Supervision
- Safety/Compliance/First Aid

**Sports Specific Field Management**
- Baseball/softball
- Football
- Soccer, lacrosse, field hockey and others
- Field layouts
- Markings
- Design

**STMA history and the certification process**

When a person successfully passes all sections of the test they would be visited by an a CSTM panel for an evaluation of performance. This would be an on-site visit by at least two people to look at fields, shops, records, etc. This would continued on page 15
Plans for Certification Program Initiated

continued from page 14

take into account budget and labor limitations so that making the most of resources is a consideration. Upon passing the pre-determined criteria the individual would receive the designation Certified Sports Turf Manager (CSTM).

An educational manual and a list of resource materials and aids would be developed to help individuals prepare themselves for better sports turf management and certification.

A budget needs to be developed before costs can be determined, but the plan would be to charge for application, testing and for re-certification. Charges would be high enough to cover the cost -- but affordable. STMA members would receive a break on the costs.

It is suggested that Re-certification would be on a 5 year cycle. The requirements haven’t been thoroughly thought out yet, but would include a certain number of CEUs that would have to be attained over the specified period. CEUs could be given for educational sessions attended, including those at the STMA Annual Conference, and qualified sessions of state and regional turfgrass conferences. Credit would also be given for such things as Association activities, community involvement on a volunteer basis for sports fields, being a speaker on an accredited program, serving as STMA national or chapter officer or committee chair.

The requirements for re-certification would be announced as a part of the overall program.

A certification board of review will be needed to address any questions on decisions rendered.

Those individuals attaining the designation of CSTM would receive a plaque or certificate to hang in the office, national and local news releases, and certification patches, etc. CSTMs also would be honored at the January conference each year.

There also would need to be a process for de-certification -- and for review of that decision.

The STMA code of ethics will need to be resurrected.

The next STMA board meeting will be July 11th and 12th. The committee plans to have some definite recommendations at that time for board approval. It is further planned that the overall program will be formally introduced at next year’s conference in Orlando.

All members are encouraged to give the above information serious consideration. STMA wants a program that will signify a measurable level of professionalism, but at the same time not be so restrictive that very few people can attain the designation CSTM or be willing or able to apply.

To assure that your thoughts receive consideration by all committee members, please put your thoughts in writing and send them by mail, fax or e-mail to STMA Headquarters by May 15th to assure time for consideration. Headquarters will then copy the replies and send them to all committee members. If you would like to visit with individual committee members to help you develop your thoughts, feel free to talk with them whenever you have the opportunity.

Committee members are:
Dr. Henry Indyk, Chair, Turfcon; Dale Getz, University of Notre Dame; Floyd Perry, Grounds Maintenance Services; Dr. A. J. Powell, University of Kentucky; Dr. David Minner, Iowa State University; Mary Owen, University of Massachusetts; Ross Kurcab, Denver Broncos Football Club; Bob Patt, Thurman Munson Memorial Stadium; Dr. Tony Koski, Colorado State University; Mike Varner, Michigan Battle Cats and Chip Toma, NFL.

They are going to be working very hard to develop the best program possible. Please help them help STMA by providing your thoughtful comments at your earliest convenience.

STM

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* Available upon request.