

the same turf may indicate a nutrient deficiency.

The problem may be a function of the root system, a result of soil conditions, a result of an imbalance between certain elements in the soil, or the result of other influences on the plant's growing environment or on the plant itself. A "gut" reaction might be to fertilize immediately to augment the deficient element. However, this can be a big mistake if the cause of the problem has not been identified.

The first step should be an investigation of what is occurring between the adequate supply of nutrients in the soil and the uptake by the plant. Field conditions must be assessed. Compaction may be restricting the supply of oxygen and nutrients to the root system. Areas saturated with water may be restricting the performance of the root system. Insects or disease organisms may be affecting plant vigor and reducing the plant's ability to absorb and process nutrients. Physical damage to the roots, plant crown or leaf tissue of the grass plant may be limiting the efficiency of the plant's growth functions. Such environmental factors as extreme temperatures and inadequate moisture supply may be affecting nutrient absorption. These are easy to identify, but there

are many additional factors to consider.

For example, there may be a nutritional imbalance in the soil. An element of imbalance may be introduced temporarily through the water supply, either in natural rainfall or through irrigation. Changes in field use patterns, especially in specific areas of the field, may be increasing stress levels on the turf in those areas to the degree that their ability to absorb and process nutrients is reduced. In any of these situations, general fertilization, without regard for the nutritional status of soil and/or the turfgrass plant, may force plant response that will increase plant stress levels and add to the problem rather than reducing or eliminating it. Certain minor elements which the grass plant requires in minimal amounts, such as iron, may be applied in a form that can be absorbed by the leaf tissue without stimulating overall plant growth and increasing stress levels.

An additional factor to consider in relation to tissue testing results is the optimum level of nutrients needed for an athletic field. The sports turf manager must assess the condition of the turf during its active growth and high use periods to gauge how the plant performs. At higher levels of the rec-

ommended range, if the plant is too lush and soft, excessive tissue damage may occur as a result of increased susceptibility to wear from athletic activities. At lower levels, sufficient nutrients may not be available to meet the greater needs of the plant, and growth may be restricted. Generally, the preferred maintenance practice is to tailor the fertilization program to the mid-level of the recommended range, and to adjust nutrient levels up or down according to plant performance.

Fertilization should be based on plant needs according to tissue test results. It should not follow a rigid, pre-determined schedule. Used correctly, tissue testing is a very important tool in being attuned to the needs of the grass plant. It can help develop strategies to provide for those needs using precise, well-defined measures. □

*Dr. Henry Indyk is Turfgrass Consultant-GSI Consultant for Turfcon, Somerset, NJ. His primary focus is sports fields and golf courses. Dr. Indyk has served as STMA Vice-President, Secretary, Board Member, Awards Committee Member and Conference Chair. He is co-Chair of STMA's Certification Committee.*

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# STMA in Action

## Arizona Fall 1997 Turf Seminar

**B**right blue skies and comfortable temperatures added to the beauty of the Mesa, Arizona setting, as attendees gathered for the Sports Turf Managers Association of Arizona Fall 1997 Turf Seminar on November 13th.

The Chapter had put together a great program. Mesa's Hohokam Stadium was buzzing with early morning activity. Exhibitors set up table-top displays in the concourse, and equipment and irrigation system displays "on the turf" just across the entry area drive and adjacent to the stadium entrance. Smiling chapter members greeted the attendees at the registration table in between the display areas. They invited visitors to stop by the displays to visit with exhibitors before the kick-off of the educational sessions.

Everyone then gathered for coffee and pastries and the morning's sessions. Chapter President, Kris Kircher, Irrigation Coordinator - Parks Maintenance for Chandler, Arizona, opened the seminar with a welcome to attendees and a thank you to exhibitors. First on the program was Harold Gentry, City of Mesa. He gave an overview of Hohokam Stadium, complete with details of the field construction and the maintenance program tailored to the new characteristics of the field.

Next, STMA Commercial Vice President Dr. Henry Indyk of Turfcon spoke on "Basic Soil Profiles of the Southwest." Dr. Indyk illustrated the specifics of the soil profiles and addressed the special challenges Southwest soils present to sports turf managers.

Next came STMA President, Mike Schiller, Superintendent of Parks for

the Rolling Meadows (Illinois) Park District. Schiller showcased some of his experiences as an STMA member, Board member and STMA President. As an active member of both the national association and the Midwest Chapter, he emphasized the tremendous networking opportunities available to STMA members. He spoke of the extensive communication and sharing of information on new and innovative programs and facilities.

STMA Executive Director Steve

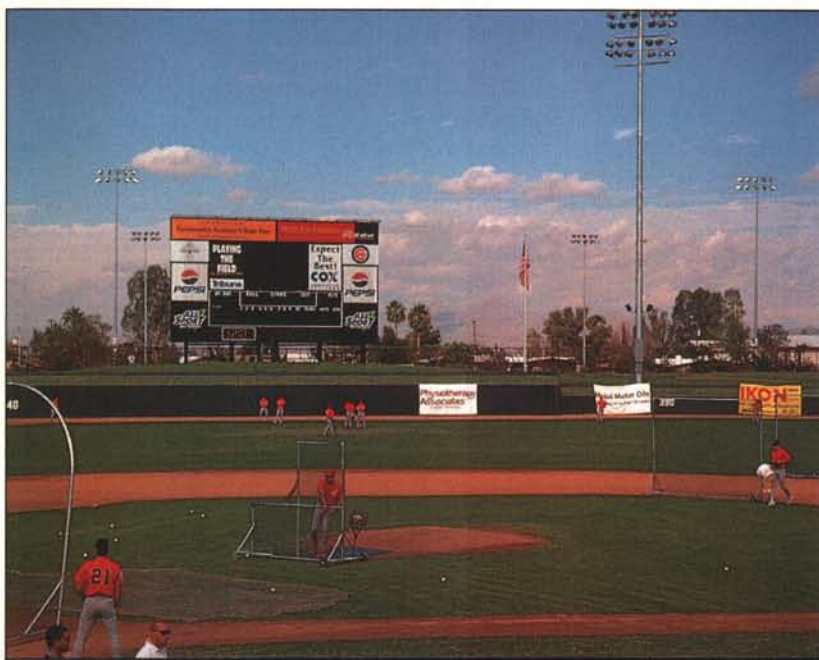
being fine-tuned. A show of hands among attendees indicated that the program is on the right track. Approximately 10 percent had achieved the projected levels of combined education and experience to qualify for application for testing. Another 10 to 20 percent were within a year or two of reaching that status.

Before the lunch break, Kircher introduced the other national board members attending the Seminar: STMA Secretary Eugene Mayer, Technical Training and Support Manager for The Scotts Company; and President-Elect Steve Guise, Business Development Director for Valley Crest in San Fernando, California.

Attendees moved outside to mingle, visit and pick up their lunch plates. They even had a chance to watch a little pre-game batting practice. The break gave attendees more time to circulate among the displays and visit more with exhibitors.

Following the break, the group gathered back at the meeting room for a presentation on "General Grounds Maintenance" by STMA Board Member L. Murray Cook, Baseball Stadium and Sports Field Manager for Disney's Wide World of Sports complex in Lake Buena Vista, Florida. Cook gave details from his national and international work in baseball, and described the construction and operation of the multi-field, multi-sport Disney facility.

Following Cook's presentation, attendees were invited to stay for the afternoon game. Mesa will be the site of STMA's 10th Annual Conference and Exhibition on January 13 - 17, 1999, and the Arizona Chapter used



Mesa's Hohokam Stadium hosted the STMA of Arizona Fall 97 Turf Seminar on November 13. Courtesy: Trusty & Assoc.

Trusty spoke next. Trusty noted the range of services provided by STMA, including the bi-monthly newsletter, Sports Turf Manager; the Jobs Hotline; the Web Page; the Membership Roster and Resource Manual; and the annual Compendium, a handy resource of articles by and about sports turf managers. He said the national Headquarters exists as an additional resource for members and can be easily reached by the 800 phone number, by fax or by direct e-mail.

Trusty also outlined the Certification program, which is still





Attendees were able to survey to field as they looked over new equipment on display. Courtesy: Trusty & Assoc.

the afternoon and evening following the Seminar to give national board members a preview of some of the probable sites for Seminar on Wheels tours. They were *extremely* impressive.

This super group of hosts and the combination of excellent tour sites, a great hotel, conference and exhibition facility, and the beauty of the Southwest all promise to rate next year's conference among the finest yet. Be sure to mark your calendars now for the 1999 Conference.

#### Chapter News

**Keystone Athletic Field Managers Organization (KAFMO Chapter):** On February 19, the KAFMO Chapter



Shown during its construction, BOB is a probable Seminar on Wheels stop for the STMA's 1999 Conference. Courtesy: Trusty & Assoc.



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will hold seminars in conjunction with the Pennsylvania Recreation and Parks Society. Further details will be announced soon.

For information on this event, other upcoming activities or the KAFMO Chapter, contact Dan Douglas, Reading Phillies Baseball Club, at (610) 375-8469

**Florida Chapter #1:** Florida Chapter #1 is planning a meeting for March 18 at Pro Players Stadium.

The meeting focus will be Field and Equipment Safety. Further details will be announced soon.

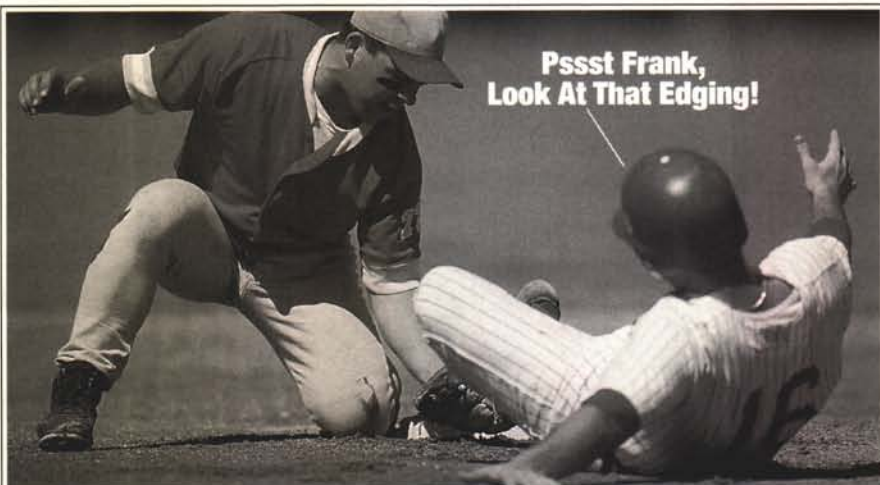
For further information contact John Mascaro at (954) 938-7477.

**Midwest Chapter:** For information, call The Chapter Hotline at (847) 439-4727.

**The Iowa Sports Turf Managers Association:** For information, call Lori Westrum in The Turf Office at (515) 232-8222 or FAX to (515) 232-8228.



**Grant Trenbeath (center), Head Groundskeeper for the Arizona Diamondbacks, gives the STMA Board and Arizona Chapter members a tour of BOB (Bank One Ballpark). Courtesy: Trusty and Assoc.**



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**MAFMO Chapter:** For information, contact the Hotline at (410) 290-5652.

**Colorado Chapter:** For Information, call the 24-hr CSTMA Chapter Hotline/fax at (303) 438-9645.

**Minnesota Chapter:** For information, contact Connie Rudolph at (612) 646-1679.

**Southern California Chapter:** For information, contact The Chapter Hotline at (888) 578-STMA.

### Chapters on the Grow

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

**Mid-South Chapter:** The newly forming Mid-South Chapter of STMA will hold its next meeting in mid-February. More details will be announced soon.

The Mid-South Chapter serves Tennessee, Mississippi, Alabama, Arkansas, and parts of Louisiana, Missouri and Kentucky. For more information, contact Chip Houmes at (901) 377-5081 or Jim Calhoun at (901) 755-1305.

**Nevada Chapter:** Plans are moving ahead for the new chapter. For information, contact Ibsen Dow at (702) 649-1551.

**Great Plains STMA:** For information, contact Mark Schimming of the City of Wichita at (316) 337-9123.

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