the most wear comes from an opposing team's mascot — that long-horn steer sure knows how to tear up the turf."

#### **Exposure to Recycling**

Brooks also serves as director of EXPO's three-year-old recycling program and makes an annual report to the governor on its progress. They recycle all the traditional items — and a lot more. For example, the special soils for specific events, such as the clay for tractor pulls or soil mix for cattle shows, are stored in separate "dirt barns" until needed in the indoor arena. After use, the soils are picked up and returned to the barns for storage.

With the broad range of maintenance needed and the rapid-fire succession of events, cross training is a must. Fitzsimmons says, "We train everyone for everything here, from operating all the equipment to moving between the grounds and horticulture crews. If employees show initiative, we start channeling them into the various certification programs for training in all aspects of the job, including leadership, customer service and state policies. If they don't show initiative, they won't last long here anyway. All our positions require hustle and commitment, but they're filled with opportunity."

Education doesn't stop with the crew. All three members of the management team have completed the 304 hour program to qualify as certified public managers.

This trio arrived at EXPO through varied and roundabout routes.

Brooks, an STMA member, honed his flair for organization and his personnel management skills during his years of military service. After retiring eight years ago, he joined the grounds staff to "help out a friend." Soon he was grounds section supervisor and, by 1991, had moved up to branch manager.

Fitzsimmons credits his 36 years of military service for much of his management savvy. He settled in Louisville because of a promise to his family to "opt out" of military moving when the first of his three sons entered high school. That happened in 1976 when he was stationed at Fort Knox. His 1988 retirement lasted two weeks. He started at EXPO driving a tram, moved to the grounds section and up through the ranks, taking over the position of grounds section supervisor when Brooks became branch manager.

Hypes gathered a broad assortment of horticultural and management skills on her road to EXPO. As a kid, she worked in a truck farm. While picking up some college credits, and majoring in horticulture, she worked in a garden center greenhouse. Deciding she liked the outdoors better, she moved into the nursery area of the garden center. Following that, she spent eight years working for a farm supply store; then a year as a floral designer. She's been with EXPO for ten years.

It's obvious that ability, mutual respect and teamwork guide this smoothly functioning unit — and that they, and their facility, stand up well to all the EXPO-sure.  $\Box$ 

Bob Tracinski is the manager of communications for the John Deere Company in Raleigh, NC, and public relations co-chair for the national Sports Turf Managers Association.



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## ROOKIES

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Elite, a leading manufacturer of small, disc blade push-forward-type trenchers, builds its machines for strength, durability and speed. Its trencher digs 20 to 30 feet per minute. Its new plow blade cuts straight on the left side of the trench, with a radius cut on the right side, making old flower beds look crisp and new. See a demonstration at Elite's booth at EXPO '96, in Louisville, KY, and ask about the company's new cup-tooth blades.

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#### **New Microbial Inoculant**

Soil Technologies has released a new microbial inoculant under the trade name Bac-Pack. Bac-Pack is a composition of selected seed and root bacteria known to be of benefit to a growing plant. The microbes have been selected for their antifungal activity, nitrogen-fixation ability and their capacity to mobilize phosphorous. Available as a dry seed treatment or liquid product, the wet formulation also contains a plant-extracted antioxidant which may aid plants during stress periods such as high heat summer months.

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# Are You Ready for Some Football?

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#### By Steve and Suz Trusty

ong before Hank Williams, Jr., sings out his season-opening Monday Night question, "Are You Ready for Some Football?" sports turf managers across the country lay the groundwork for a positive answer.

Though the resources and rewards for high school field care aren't as extensive as those for college and pro-level fields, the intensity and commitment of the athletes, coaching staffs, team supporters and fans are par. High school programs don't just produce good players, they help mold good citizens. And sports turf managers play a vital role.

At the high school level, football practice begins in early August. Kick-off games come in early September. Fields must be in good, playable condition despite challenging weather, tight budgets and limited preparation time. For sports turf managers, getting ready for football is a year-round job.

There's little downtime for fields in "good weather" zones like the Florida peninsula and the program of John T. Holecko, supervisor of grounds for the Collier County Public Schools, Naples, FL.

#### **Resting in Florida**

Holecko says, "With a total of 150 acres of bermudagrass turf within our school system, allocating money and



A pro team, like the Denver Broncos, may have bigger, better funded facilities than a high school, but the work that goes into each is basically the same. Photo courtesy: Steve and Suz Trusty.

labor power is a constant concern. Our four high schools each have a sports complex, with a football game field, combination soccer-practice field and baseball-softball field. Along with the full contingent of team sports at freshman, junior varsity and varsity levels, the fields are used for PE and for band practices and performances.

"Our fields are a very sandy native soil planted to Tifton 419 bermudagrass. By the mid-June end of the school year, the football game and practice fields are showing wear, especially across the lines and on the sidelines."

Holecko has a maximum of eight weeks to whip all the football and practice fields back into shape. These fields are overseeded with annual ryegrass immediately following football play each year to add density for winter soccer play and to keep the bermudagrass from getting "scuffed."

Holecko says, "We start getting ready for fall football as soon as school is out for the summer. Temperatures and use generally cause the annual ryegrass to 'melt out' in May. If any remains, we spot spray before moving into the field rejuvenation program.

"We core aerate in at least two directions, topdress with 45 or 46 tons of ortona sand (a coarse, angular sand) per field and apply 800 pounds of Milorganite per acre. The rainy season begins the end of June and runs through September, with rains tapering off in October. Adequate moisture and natural high temperatures are ideal for the bermudagrass. We'll gradually raise the mowing height to 1 1/2 inches, and let the fields 'rest' so the existing turf can fill-in and regroup.

"As practice and game time approach, we'll gradually lower the height of cut to one inch and adjust timing of the twicea-week mowing to fit team, band and field striping schedules."

#### **No Windows in Massachusetts**

The Nantucket Public Schools of Nantucket, MA, are located on an island 30 miles off Cape Cod. Grounds Supervisor Jim Davidson says, "This section of the northeast has been in near drought conditions for the past two summers, and it's been dry into June. We're fortunate that our school system has its own well and our three athletic fields have irrigation systems."

The high school has one football field, which is used for both practice and play by the varsity and junior varsity teams. The field also is used by PE classes. All of the athletic fields are "rented out" for community sports programs when not used by school programs during the summer months.

Davidson says, "As a community school with virtually non-stop field use from spring warm-up through November, we have no 'windows' for maintenance or field resting periods. All procedures must be 'worked into' play and practice schedules."

The native, sandy soil fields are on a regular fertilization program, with applications made four times a year. Lime is needed annually to keep pH levels in line

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with turf needs. Ocean salt air is a continual influence.

Davidson says, "We need tough, salt tolerant grass varieties here. Our base turf is a combination of bluegrasses and perennial ryegrasses, but we're gradually moving to turf type tall fescues. We core aerate twice a year, allowing the cores to dry on the turf surface and breaking them up with normal mowing. We fertilize and overseed with the fescue in conjunction with our April aeration, then provide sufficient moisture to help the seed get established.

"We fertilize again in mid-June, then in late summer or early fall, with the season's last application made after football wraps up in November. Once practices and play begin, we'll fill in worn spots, reseed and irrigate as needed, always working procedures around field use."

#### "Cleating It" in California

Mother Nature is a little kinder to Gary Cook, director of maintenance for the San Benito High School District in Hollister, CA. He deems the climate "ideal," with Maintenance crew installs sod at the Dallas Cowboys' Valley Ranch practice facility. Photo courtesy: Thomas Bros. Grass.



temperature variations generally in the 15 degree range year-round, and only occasional temperature "spikes" into the 100s.

Cook says, "Our football game field is reserved for games — by the freshman, junior varsity and varsity teams, along with the Pop Warner league. So the field is in play from the first part of September through the second week of November, with only a one or two week reprieve each year.

"Practices are held on the three soccer fields adjacent to the football field. Last year, we moved the band on-field practice to the lighted soccer field, but with little visible change in field condition, we'll probably move it back to Wednesday nights on the football field this year.

"The turf is a combination of perennial ryegrass, bluegrass and dwarf fescue. We apply slow-release nitrogen fertilizer in January. In February, we scarify, then overseed with perennial ryegrass. We'll overseed with bluegrass the end of April, In the late spring, mowing height moves up from 1 3/4

continued on page 26



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#### **Football Fields**

continued from page 25

inches to 2 1/4 inches. In July, we aerate, overseed with bluegrass again and apply a 21-7-14 fertilizer."

Cook gradually drops the mowing height back down on the practice and game fields to reach 1 3/4 inches before play begins. An application of liquid nitrogen fertilizer on the game field greens it up for opening night.

Cook says, "About three weeks into the season, we'll overseed with dwarf fescue without topdressing. Players 'cleat it in.' We generally get about a 30 percent germination rate, which helps thicken the turf for the remainder of the season."

#### **Investment in Resiliency**

Gregg Roberts, director of facilities and planning for the Placer Union High School District in Auburn, CA, has three high schools with comprehensive sports program facilities. He says, "We've been converting our sports fields from a mixture of 'clump' grasses to bermudagrass over the last several years, usually tackling one or two fields each year. For 1995, we're doing the premier football field at Del Oro High School. We'll remove the sod from the middle of the field, re-establish the grade and re-sod approximately 2,700 square feet with Tifway 419 bermudagrass. We'll use Round-Up on the remainder of the field — from the hash marks out — and 'row plant' bermudagrass sprigs right through that treated turf."

Each of the district's game fields are used by freshman, varsity and junior varsity football teams. Their practices are held on the outfield section of the baseball field. Only one high school has a marching band, and their practices shift from field to field to minimize damage.

Field conditions are different at each of the high schools. One school is at a 200foot elevation, has a decomposed granite field base and receives approximately 20 inches of precipitation annually. The second school is at a 1,200-foot elevation, has a field of topsoil over a shale base and receives between 40 and 60 inches of precipitation annually. The third school is at a 2,500-foot elevation, has a clay soil field and receives between 60 and 80 inches of precipitation annually.

Roberts says, "We aerate the fields three to four times a year. We topdress twice with a 70-percent sand, 30-percent topsoil mix; break-up and drag in the cores the other time or times. The fields are fertilized four times a year, generally in early March for baseball, right before spring soccer, in August and at the end of fall play.

"Starting with the second growing season, the bermudagrass fields are overseeded with perennial ryegrass in November, just before colder weather begins. Boys' football and soccer run through November, leaving only December and January as 'downtimes' for the fields."

"The switch to bermudagrass has required more maintenance effort and an investment in the right equipment to mow, topdress and aerate, but we've gained superior playing surfaces with long-term resiliency," says Roberts. "If you make a commitment to an improved



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field, you also need to commit to doing everything to keep it in top shape."

#### An Arizona Upgrade

Dan Sabol, Canyon Del Oro High School in Tucson, AZ, oversees 75 acres of grounds that serve a student population of nearly 2,700. The high school has one game field for football and soccer and three practice fields. School is out in mid-May. Football practice begins in early August.

Sabol says, "We have freshman, junior varsity and varsity teams and a marching band. Pop Warner football uses the facilities during September and October, and local soccer clubs practice and play here on weekends.

"Our fields are a sandy, native soil. We've gradually upgraded the game field soil profile over the last seven or eight years by topdressing with washed mortar sand. The playing fields are seeded with Sun Devil bermudagrass. It's very hardy and holds up well to the wear and tear.

"Our combination of high temperatures and low humidity force us to keep newly seeded areas moist for the one to four weeks it takes for germination. The seeded bermudagrass takes from six to ten weeks to get established. We keep the mowing height a bit high —1 1/2 inches — and have had no complaints. The extra top growth gives more protection to the plant's crown."

Sabol will aerify, fertilize and topdress at least two fields at the beginning of the summer vacation in mid- to late-May and do the competition field and remaining practice field a week or two later, following a PeeWee mini-camp. A football "passing" camp comes in for a week in July, and two-a-day practices start the first week in August.

Sabol says, "We apply one pound of actual nitrogen to all the sports fields every three weeks. We're in the process of setting up a fertigation system to make that task easier. To combat our alkalinity, we apply gypsum to the fields every three months. We make an initial preemergence weed control application in March, and follow up with half-rate applications in June and September.

"Fields are core aerated every two to three weeks and the cores dragged back in. This has developed a good soil profile on the practice fields without topdressing. Fields are overseeded with winter ryegrass. The heat takes it out quickly in the spring. During practice and play seasons, we overseed bermudagrass as needed in any worn areas using a mix of equal parts seed, sand and ammonium phosphate."

Though credit is often slow in coming, sports turf managers at the high school level do more than a "pretty good" job. For example, Sabol's competition field has been the host field for one of the Copper Bowl football teams ever since that bowl started. And the Minnesota Vikings spent a week on the field one year to get in some warm weather practice.

Hey, Hank, are you ready to start singing?  $\Box$ 

Steve and Suz Trusty are partners in Trusty & Associates, a consulting firm located in Council Bluffs, Iowa. Steve is Executive Director of the national Sports Turf Managers Association.



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# **STMA** in action

### **STMA Chapter News**

**Colorado Chapter**: CSTMA will hold a Mid-Summer Seminar on July 12 at Suplizio Field in Grand Junction, CO. A flyer will be sent with further information.

Make plans now to take part in "The 1996 Lawnmower-Man Open" Golf Tournament set for July 23 at the West Woods Golf Club in Arvada, CO.

For information on this seminar or the golf tournament, the Colorado Chapter or other upcoming events, call the 24-Hour CSTMA Chapter Hotline/FAX: (303) 438-9645 and leave a message, or contact: Troy Smith, Denver Broncos, at (303) 649-9000.

Florida Chapter #1: The Florida Chapter will meet on August 6 at the Orange Bowl Press Box. Meeting host Dale Sandin, Orange Bowl sports turf manager, will give a slide presentation on Olympic Trials Soccer. A stadium tour will complete the day's activities.

Plan to participate in the "Turf Rodeo" on August 29 held in conjunction with the Florida Parks and Recreation Association (FPRA) activities at the Rolling Hills Country Club in Ft. Lauderdale. This event allows your crews to showcase their skills and provides a great opportunity for networking.

Chapter dues notices will be going out soon. This is a super time to invite others to join the chapter.

For more information on these activities, the Florida Chapter, and other pending events, contact: John Mascaro, (305) 938-7477.

Minnesota Chapter: MSTMA's second Workshop on Wheels has been set for Tuesday, July 16. Participants will meet at Midway Stadium in St. Paul at 8:00 a.m. Facilities included in the tour are the new athletic field construction at Bethel College, the recently completed fields at the Woodbury Athletic Complex, a new maintenance building facility at the City of Burnsville, a tour at Peterson Seed Company and a tour of the Dred Scott field complex at the City of Bloomington. The tour concludes at 4:00 p.m. back at Midway Stadium with tailgating provided prior to the Saint Paul Saints baseball game. This year, touring turf managers will have the opportunity to



Colorado Rockies Groundskeeper Mark Razum gives Summer Seminar students an up-close look at Coors Field. Photo courtesy: Steve and Suz Trusty.

assist hands-on with field preparation for the evening's game.

MSTMA also is planning a Fall Workshop to be held in mid-September. Further details will be announced soon.

For information on these events, the Minnesota Chapter or other upcoming activities, contact: Brian Deyak, at (612) 255-7223.

**Midwest Chapter**: Training with the Bears is planned for Wednesday, July 24, at the Chicago Bears Training Facility in Lake Forest, Illinois. The meeting will include a tour of the new stateof-the-art training facility.

For more information on this meeting, the Midwest Chapter or other upcoming events, call: The Chapter Hotline (847) 439-4727.

Iowa Chapter: The Iowa Sports Turf Managers Association will hold a Football Workshop on July 9 at ISU's Cyclone Stadium, Jack Trice Field. Registration opens at 8:30 a.m., with the program running from 9:00 a.m. to noon. Aspects of the ISU rug-to-turf renovation project are the meeting's focus. Bob Sodders, Story Construction project manager, will detail the mechanics of the renovation project from initial planning to completion. Dave Minner, ISU Horticulture Department, will discuss the project's materials selection and testing, and the characteristics of the drainage system. Mike Andresen, ISU athletic turf manager, will focus on project-driven changes in maintenance, including equipment, the fertilizer and pesticide programs and irrigation. Attention will then shift to the practice facility, with Sodders

detailing considerations and progress. The various components of the renovated field will be outlined during a walking tour. Steve Trusty, STMA executive director, will present news from national — including an update on the annual conference.

The Iowa Turf Institute/ISU Field Day will be held on July 18 at the ISU Turf Farm.

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

**Southern California Chapter**: The Southern California Chapter's next meeting is planned for August 31 at the Epicenter Stadium in Rancho Cucamonga. Activities include a stadium tour, a dinner and camaraderie break, and the opportunity to attend the game between the Rancho Cucamonga Quakes ball team and a worthy opponent.

For information on this event, the Southern California Chapter and upcoming activities, contact: Chris Bunnell, (619) 432-2421.

#### STMA Chapters on the Grow

**Arizona**: For information on the newly forming Sports Turf Managers Association of Arizona, on upcoming events or to find out how you can get involved, contact: Bill Murphy, City of Scottsdale Parks and Recreation Department, at (602) 994-7954.

**Kansas**: The newly forming Kansas Chapter is meeting regularly on the last Wednesday of each month. The July 31 meeting will be held at Lawrence-Dumont Stadium. It begins at 4:00 p.m. and will last approximately two hours.

A mid-September seminar is in the planning stages. The same seminar format will be repeated during the designated week at different sites across the state starting in East Kansas and then moving on to Central and West Kansas locations.

For more information on the monthly meetings, the September seminars, or the organization, contact: Mark Schimming of Wichita Baseball Inc., at (316) 292-2907, extension 205.

#### **CSTMA's Summer Seminar**

Blue skies, bright sun and crisp mountain air greeted 180 people at Denver's Coors Field on June 5. Though it would



Attendees are shown the step-by-step processes of home plate maintenance. Photo courtesy: Steve and Suz Trusty.

have been a great day for a baseball game, this group was far from the "traditional" ballpark fans. These were sports turf managers from the Colorado area devoting a day of their time to honing their skills through focused information sessions and hands-on demonstrations.

CSTMA's Summer Seminar offered something for everyone. Registration started the day-long opportunity for networking. Attendees chatting over coffee and doughnuts exchanged friendly greetings and informal "updates" on their own fields and facilities.

Colorado Chapter President Dave Rulli opened the general session with a positive report of chapter business and activities. STMA Executive Director Steve Trusty was next on the program with news from headquarters on STMA, the chapter-national connection, and updates on the Annual Conference plans. Colorado Springs will be a spectacular setting for the educational sessions and trade show, and the Colorado Chapter is working up some great tours and fun events.

Morning educational sessions "hit" all aspects of sports turf maintenance, from the equipment overview from L.L. Johnson Dist. Co. and the mowing efficiency and productivity presentation by Rick Cairns of the Toro Company, to the topic "How to Build Safer and More Durable Athletic Fields" by Jim Tanner of Aimcor, to the "What's New in Turf?" presentation by Dr. Tony Koski of Colorado State University. Whether an individual sports turf manager focused on the nuts and bolts of growing grass, mowing grass, skinned area care and maintenance or a combination of all these, there was something new, something thought provoking, something "worth a try" to take home and use.

Mark Razum, head groundskeeper for the Colorado Rockies' Coors Field, invited everyone to get an up-close and personal look at the field following the lunch break. The group split in two for the afternoon sessions, alternating between the stadium tour and the field demos.

The guided stadium tour worked from the dugouts through the visitors locker room, press box, and even the party and luxury suites of this sparkling new facility. With a seating capacity of 50,249 (including 874 seats that are "mile high"), this \$215.5 million stadium-ballpark is a winner with the public and the finances. Sell-out crowds are the norm.

Down on the field, the results of the work of Razum and his ten-person crew were obvious. In the bullpen, separate stations focused on daily maintenance of the mound and home plate. Attendees were shown the step-by-step processes. It's here that the message of "look" and "feel," the "art" side of field maintenance, can come across. At the mound and the home plate stations, the construction of these two vital areas was detailed, also.

Stringed-off sections of the infield showed the various stages of skinned area preparation. The groups moved from stage to stage as crew members explained the procedures that had occurred and the "look" that resulted. An especially "artful" demonstration on using the mat drag even earned a round of applause.



Colorado Chapter President Dave Rulli opened the general session with a positive report of chapter business. Photo courtesy: Steve and Suz Trusty.

Along the right field line, Razum demonstrated field painting procedures. Equipment from L.L. Johnson was displayed along the left field line.

And throughout the day, the friendly chats and networking continued, as attendees shared ideas on what they heard and saw and how it all fit in to their individual programs. As Rulli says, and chapter seminars emphasize, "Sports turf managers do the same things. Whether you have six-year-old players or million-dollar players, they need quality fields."  $\Box$ 



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## SportsTURF http://www.aip.com Building the Safest

## Building the Safest Field on Any Budget

#### By Steve Wightman

s sports turf managers, we are challenged with the responsibility of furnishing a field with beautiful green grass that provides for safety, playability and aesthetics. And, the real challenge is providing all of this under extremely heavy field use that probably would be classified by many as field abuse.

The success of our challenges is dependent upon our own personal dedication, education and experience. Budget plays a vital role in the degree of success and determines one's expectations.

#### Expectations

To set realistic goals in building and maintaining a field requires a thorough knowledge of priorities based on the budget available. Don't expect to provide a Camden Yard or a Coors Field on a nickel! To best utilize the budget available, priorities must be clearly identified in maximizing each precious dollar. If the grass is a "Heinz 57" with every type of grass and weed there is but herbicides are not in the budget, then make it the best "Heinz 57" field with proper irrigation and mowing.

#### **Priorities from the Ground Up**

The key to maximizing the budget is setting priorities when building or maintaining a field. Before you can set priorities, you must know what the most important items are in building or maintaining a field and juggling your budget to get the most out of it. Water is the lifeblood for healthy turfgrass, and a good irrigation system is one of the top priorities in providing strong, healthy green grass. Photo courtesy: Hunter Industries.

#### Turfgrass

1. Soil Rootzone Composition

The long-term success of a healthy turfgrass is dependent upon a growing medium that provides optimum physical, chemical and biological soil properties. Proper soil medium provides for adequate drainage, water and nutrient retention; beneficial microbial activity for the enhancement of organic conditions; firmness yet resiliency for safe playing conditions; maximum benefits from fertilization and irrigation; a buffer from the detrimental effects of heat, cold and drought stress; and a healthy growing medium for turfgrass that helps prevent the encroachment of weeds, disease and insects.

In other words, the soil rootzone composition is the single most important element in providing healthy turfgrass. A soil specialist or the local Extension Service is a good resource for help in determining the best soil composition for your rootzone mix.

2. Turfgrass Selection

Choosing the proper turfgrass species and variety for a specific area and use is another top priority for success. If the turfgrass selection is adapted to the specific area, then its physiological growth habits will assist turf managers in providing an optimum, safe playing surface, not hinder them.

Most turfgrasses that are rhizominous usually provide better wear tolerance and recuperative ability than the bunchtype turfgrasses. Warm season grasses are normally better suited in the southern regions where soil temperatures are above 70 degrees while cool season grasses do better when soil temperatures are below 70 degrees. In a southern region where heavy use takes place in the winter when soil temperatures are below 70 degrees, then perhaps a cool season choice would be more appropriate.

A turfgrass specialist such as a local Extension Service or university is a great resource for help in determining the best



turfgrass selection for your particular situation.

3. Irrigation

Water is the lifeblood for healthy turfgrass, and a good irrigation system is one of the top priorities in providing strong, healthy green grass. An irrigation system that is properly designed, installed and maintained will yield years of service in promoting healthy turfgrass.

Providing optimum uniformity of water distribution with matched precipitation rates from head to head should not be left to chance. Utilizing the services of a licensed irrigation consultant and contractor to design and install the irrigation system is your best insurance for success. With a properly designed and installed system, maintenance becomes a lot easier; however, the integrity of the system must be maintained by using only those products and components originally designed for the system. To intermingle different components in the same system drastically diminishes the efficiency of the system.

There exists another very important ingredient in the overall effectiveness of the irrigation system — prudent management. No matter how well the system was designed, installed or maintained, if it is not managed properly, the growth of the turfgrass will suffer greatly. Providing optimum water to the ever-changing growth habits of the turfgrass requires a thorough knowledge of the physiological characteristics of the turfgrass species and cultivar along with soil conditions, prevailing climatic conditions and field usage.

#### **Maintenance** Priorities

Chances are that most sports field managers have inherited their respective fields from a construction that took place years ago and that probably included very little thought and money. And, as a result, soil conditions and turfgrass species may be far less than ideal for