is well suited for the areas being maintained. Mowing height has a major impact on weed density. The higher the mowing height, the fewer the number of weeds at a site. Weed seed requires light for germination and development. A thick, dense turf will restrict light penetration to the soil surface and suppress weed germination.

Any disorder that thins turf will lead to increased weed growth. Maintain appropriate fertilization, irrigation and soil pH for optimum turf growth, and correct insect and disease pests. Also, correct soil compaction problems. Certain weeds, like prostrate knotweed and goosegrass, can grow better in dry, compacted soil than in desired turfgrass species. Other weeds, like annual bluegrass and yellow nutsedge, grow well in wet sites. Create an environment that is best suited for turfgrass growth.

**Chemical control**

There are a variety of preemergence and postemergence herbicides registered for use on turf. Consult herbicide labels for specific directions on use. Some products can only be used on established turf, and will damage turf if applied at seeding or soon after. Check which turf species can be treated with a given herbicide.

**Annual grasses:** Annual grasses are usually controlled chemically with preemergence herbicides (crabgrass prevention). Goosegrass germinates a little later than crabgrass, so split applications are often used to control this weed. Most of the preemergence crabgrass herbicides will not control emerged crabgrass, so proper application timing is important. The available products differ in how long they control crabgrass. Shorter residual products need repeat applications for season-long control. This is especially true in southern states, which have a longer crabgrass season. Crabgrass can also be controlled postemergence in turf. Applications are most effective when applied prior to tillling.

**Perennial grasses:** There are no selective controls for most perennial grasses that infest turf areas. In most cases, the only option is to kill all plants using a nonselective postemergence herbicide, and then reseed the treated area after the weed has been controlled.

**Perennial sedges:** Perennials account for most of the sedge problems in turf, especially yellow nutsedge. Perennial sedges are primarily controlled with postemergence herbicides. Yellow nutsedge will stand out in turf during the summer, as it grows above the turf. Plants are treated when they are actively growing and have sufficient foliage to absorb the chemical. Mowing must be restricted for a week after application to allow for chemical absorption and translocation. Repeat applications are often required for season-long control.

**Annual and perennial broadleaves:** Broadleaf weeds have generally been controlled with postemergence herbicides. These products are usually a mixture of two or three active ingredients. Do not apply these products during windy conditions, due to the potential for injury to ornamentals or other sensitive broadleaves growing nearby. Certain broadleaves can be controlled from seed using preemergence herbicides. A postemergence herbicide can be applied to control existing weeds. Follow with a preemergence herbicide application to stop further germination of the weed. Check the herbicide label to see if that product will control the predominant broadleaves on your fields.

Sports turf managers must develop a year-round weed management program. This program can be developed by scouting for and identifying weeds when they are in flower. Scout summer weeds in late summer or early fall, and scout winter weeds in spring when they are blooming. Appropriate cultural and chemical controls can then be chosen to manage these species. Such a program will improve the appearance of your turf, and will prevent weeds from getting the best of you.

Jeffrey Derr is an associate professor of weed science at Virginia Tech. He conducts research on weed management in turf, ornamentals and other horticultural crops.
The outfield had more peaks and valleys than the Asian economy, and the weeds were as plentiful as the thin, brown patches that passed for grass." Wow - what a description of an athletic field. But, this lead-in taken from The Arizona Republic newspaper is the introduction to a positive article - not a negative one.

The article is titled, "Community spirit wins turf war for benefit of kids in Chandler." The field described - in far from glowing terms - is located at the Chandler, Ariz., Boys & Girls Club. The positive side of the story is that this field was the focus of a massive renovation as the service project of the Sports Turf Managers Association of Arizona.

Mike Greene, the branch executive for the Chandler Boys & Girls Club was quoted as saying, "I've been here for seven years, and we've been talking about getting that field fixed up ever since I got here."

STMAAZ President Kris Kircher is the Chandler parks maintenance irrigation coordinator. One of his quotes in the article explains much about why the renovation wasn't happening: "We estimated it was going to cost $100,000 to repair the broken (irrigation) line and fix up the field, and there just never seemed to be the money for it."

Trite as it may sound, where there's a will, there's a way. Unleash a bunch of dedicated individuals aimed at achieving a common goal, and anything is possible.

According to Kircher, response was overwhelming. Once the site was designated and the call for assistance issued in late January, more than 25 vendors kicked in with donations of various types of equipment and supplies to get the job done.

Individuals, sports turf managers and local members of the community gathered at the field on Friday nights and Saturdays until early April. They rolled up their sleeves to pitch in and do whatever it took to transform the field to good, playable condition.

Most STMA affiliated chapters, and the groups in various stages of chapter formation, have made a commitment to give something back to one of their local communities in the form of a similar service-project outreach. The sites chosen for these service projects are always fields in need, often for a wide variety of reasons. They lack the funds necessary for renovation or repair - again, usually for a wide variety of reasons.

For vendors, donations of dollars, products, equipment, or equipment use could be compared to stripping profits off the bottom line. Nevertheless, they give. The field work is donated: freely and cheerfully given after the end of a long working day, or on a cherished day off. The professional sports turf managers know exactly what they're getting themselves into, and "just do it" anyway.

Another of Kircher's quotes from the Arizona Republic article sums up the motivation behind such ambitious projects and such dedication: "A lot of emphasis goes to Major League Baseball and colleges for having beautiful, safe fields," he said. "Our feeling is that everyone should have a safe, quality field to play on, from Little League on up."

Congratulations, Chandler Boys & Girls Club! We know you'll put that great field to good use.

Congratulations, STMAAZ! You've started the spring season with a wonderful glow of good feeling - and have given some great encouragement for others out there to get going on their own service projects.
Chapter news

MAFMO Chapter: The MAFMO Chapter STMA will hold an Irrigation Seminar with Toro from 8:00 a.m. to 3:00 p.m., May 20, at Cedar Lane Park in Columbia, Md.

Plans are beginning for the chapter's first "Seminar on Wheels" event to be held June 9. The tour will start and end at the Bowie Baysox. Further details will be announced soon.

For information on these events, the chapter's pending Internet connection, the MAFMO Chapter, or upcoming activities, contact the Hotline: (410)290-5652.

Midwest Chapter: The Midwest Chapter will hold an "Athletic Field Construction Seminar" July 29, at the Carol Stream Park District, Carol Stream, Ill. The Panther Football Field will be highlighted.

For information on this event, the Midwest Chapter or other pending activities, call the Chapter Hotline: (847) 622-3517.

Florida Chapter #1: The Florida Chapter #1 will meet May 19, in conjunction with the Miami Shores Parks and Recreation Department. This meeting will focus on all-purpose sports field maintenance.

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

Nor-Cal Chapter: The Northern California Chapter announces its first "Summer Field Day", which will be held Thursday, May 28. The day-long seminar will be conducted in and around the athletic facilities on the campus of Stanford University.

The university boasts some of the finest athletic training, competition and spectator facilities in the nation, including: Stanford Stadium, Sunken Diamond, Maples Pavilion, and the new Taube Family Tennis Center, to name just a few. Attendees will tour behind-the-scenes and hear about Stanford's entire sports turf and facilities management program.

In addition, an early bird technical session on sports turf will be offered, along with specific educational field demonstrations, and the latest in tools, equipment and supplies the sports turf industry has to offer.

For information about the program, vendor exhibits, or to be added to the Nor-Cal Chapter mailing list, contact Janet Giff: (530) 758-4200, or fax (530) 758-1488.

For general information about the Nor-Cal Chapter, contact Gail Setka at the U.C. Davis Grounds Office: (916) 752-5035, or fax (916) 752-9631.

Iowa Chapter: The Iowa Chapter will hold a "Wheels Tour" of Des Moines June 18. Attendees will meet...
at Sec Taylor Stadium; tour Wakonda Club, Lincoln High School, Des Moines Soccer Facility, and Hoover High; and return to Sec Taylor Stadium for a tailgate party and the Iowa Cubs night game with the Tucson Toros.

July 8, the Iowa Chapter will meet at Kinnick Stadium at the University of Iowa, Iowa City. Featured speakers for this event are Ken Mrock of the Chicago Bears, Ted Thorn of the University of Iowa and Mike Andresen of Iowa State University. The chapter will also participate in the “Iowa Turfgrass Field Day,” which will be held July 16, at the ISU Horticulture Research Station in Ames.

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

Colorado Chapter: The Colorado Sports Turf Managers Association will hold its “Summer Seminar” June 18, at Broomfield Community Park in Broomfield.

The CSTMA “Mountain Seminar” is planned for July 17, at Steamboat Springs.

CSTMA’s annual golf tournament, “Lawnmower Man Open,” will be held Monday, July 13, at West Woods Golf Course in Arvada.

For more information on these events, the Colorado Chapter or upcoming activities, call the 24-hour CSTMA Chapter Hotline/Fax: (303) 438-9645.

Mid-South Chapter: The Mid-South Chapter is STMA’s newest affiliated chapter.

Chapter officers are:
- Robert Bodi, Bellevue Baptist Church President
- Louis Jennings, City of Ripley Vice President
- Jim Calhoun, BWI Commercial Vice President
- Chuck Singer, Hardfour, Inc. Treasurer
- Chip Houmes, Novartis Secretary

Regional membership directors are:
- Bud Thigpen, Millsaps College Southern Mississippi and Louisiana
- Bill Marbet, Southern Athletic Fields Middle and East Tennessee
- Kerry Page, City of Collierville West Tennessee
- Harold Ross, City of Olive Branch Northern Mississippi
- James Horton, City of Birmingham Alabama
- Kenny Grant, Alliza Sod Farm Kentucky

The Arkansas regional membership director position is open as of this date. For more information on the chapter, any of the regions or pending activities, contact Chip Houmes: (901) 377-5081, or Jim Calhoun: (901) 755-1305.

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KAFMO Chapter: The Keystone Athletic Field Managers Organization STMA has plans in the works for a mid-July meeting.

For information on this event, other upcoming activities or the KAFMO Chapter, contact Dan Douglas, Reading Phillies Baseball Club: (610) 375-8469 X-212.

Minnesota Chapter: The Minnesota Sports Turf Managers Association will hold its “Workshop on Wheels” July 15. It will start and end at Midway Stadium in St. Paul.

For information on the Workshop, the Minnesota Chapter or other pending activities, contact Connie Rudolph: (612) 646-1679.

Southern California Chapter: For information on the Southern California Chapter or pending activities, contact the Chapter Hotline: (888) 578-STMA (toll free in Southern California).

Chapters on the grow

STMAAZ: The Sports Turf Managers Association of Arizona will meet at 6:00 p.m., May 14, at A to Z Equipment Rental & Sales, 4050 E. Indian School Road, Phoenix. A summer seminar to be held in Show Low is also in the works.

For information on meetings, the Arizona Chapter or upcoming events, contact Bill Murphy, City of Scottsdale Parks and Recreation Department: (602) 994-7954, or Kris Kircher, City of Chandler Parks & Recreation Department: (602) 796-2728.

Indiana Chapter: Plans are moving forward for the formation of a new chapter in Indiana. For information on this developing chapter, contact Terry Updike, B & B Fertilizer: (219) 356-8424, or fax (219) 356-8429.

Michigan Chapter: A new chapter is taking shape in Michigan. For information on this newly forming chapter, contact Rick Jurries, West Ottawa Public Schools: (616) 395-2364.

Great Lakes Chapter: The Great Lakes Chapter continues to move forward. For information on the newly forming chapter, contact Joe Zeilinko of Athletic Field Services: (800) 897-9714, or Boyd Montgomery of the Sylvania Recreation Corporation: (419) 885-1982.

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

Nevada Chapter: Plans are moving forward on the formation of a Nevada Chapter of STMA. For information on this developing chapter, contact Ibsen Dow: (702) 649-1551.

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5. Irrigation: None Manual Automatic _
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7. Does baseball field have lighting for night games?
8. Number of events on baseball diamond per year.
9. Types and number of events on diamond other than baseball?
10. How many months during the year is the field used?
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"I want to seed a new baseball field and also overseed the worn-out parts of my football field. Both fields have automatic irrigation systems. My boss and I are arguing about the amount of seed needed to do a good job. What do you suggest for seeding cool-season grasses in the Midwest?"

Let me first encourage you both to keep open the channel of communication that you have already established. A good debate shows that you both are willing to share your opinion, as well as listen to others - even if they seem to be wrong.

Recommendations usually provide a range of seeding rates. For example, under non-traffic areas and in places that have a full growing year to establish turf, Kentucky bluegrass is generally seeded at 1.5 to 2.5 lbs. per 1000 sq.ft., and perennial ryegrass at 7 to 9 lbs. per 1000 sq.ft.

For your newly constructed baseball field, these rates may be sufficient if you plant in September and don't open the field until June. However, most programs need the field as soon as possible, and this is why many sports turf managers use the higher range of the seeding rate recommendation.

I have actually had good success on some fields by using even higher rates than the ones I've mentioned. Here are a few good arguments for using higher than normal seeding rates:

- Spring seeding where weed competition is anticipated: A healthy population of knotweed and crabgrass seed can exist in high-traffic areas, where turf is worn away. One way to give the edge to turf establishment is to plant more seed that competes for space during germination and helps crowd out the weeds. An application of the preemergence herbicide Siduron is safe to use on new seedings, and is very helpful in reducing crabgrass competition.

- Late spring seeding where summer mortality is expected: Spring seeding of cool-season grasses can sometimes be a disaster because of the high seedling mortality caused by summer drought, heat, disease and weed competition. If this is the only time that you get the field for renovation, you don't have a choice. Making the best of the situation with higher than normal seeding rates just might make the difference by providing some type of reasonable turf cover before the start of the next season. Expect a quicker turf canopy cover that shades the ground and reduces excessive soil heating, which accentuates drying and direct heat stress.

- Short window for renovation: High seeding rates are beneficial when you only have one or two months to complete renovations before play resumes.

In all of these situations, I have produced turf cover noticeably faster by seeding Kentucky bluegrass at 3 to 4 lbs. per 1000 sq.ft., and perennial ryegrass at 10 to 20 lbs. per 1000 sq.ft. At these seeding rates, you can afford to lose as much as 50% of seedlings that germinate and still have enough plants to completely cover the ground. Seeding rates higher than these usually result in too many seedlings that compete with each other. This can actually delay maturity of individual plants, and can result in a juvenile stand of grass that is easily damaged by traffic.

Kentucky bluegrass is usually mixed with perennial ryegrass. Ryegrass has better wear tolerance and establishes quickly, while bluegrass produces rhizomes that spread, fill in bare spots, and create a more sod-bound mat of grass.

The old rule of thumb was to not use more than 20% perennial ryegrass (by weight) in a mixture with bluegrass. The thinking was that the aggressive-establishing ryegrass would 'out compete' the bluegrass and dominate the stand.

We have had good success with as little as 40% bluegrass in the mixture with ryegrass. A mixture of 40% bluegrass (1.6 lbs.) and 60% ryegrass (2.4 lbs.) seeded at 4 lbs. per 1000 sq.ft. will contain 24 bluegrass seeds and 3.8 ryegrass seeds per square inch. There is plenty of bluegrass at this rate and ratio to allow for establishment of both grasses.

Fields are dominated by ryegrass in the high-traffic areas because they have been continually overseeded with only ryegrass. I suggest that you keep at least 30% Kentucky bluegrass in your overseeding mix to prevent ryegrass from dominating the stand.

David D. Minner, Ph.D., is an associate professor with the Department of Horticulture at Iowa State University. He also serves on STMA's Certification Committee. To answer any turf question that's been on your mind, contact Dave at: ISU, Hort. Dept., Ames, IA 50011; or call (515) 294-2751, fax (515) 294-0730, or e-mail dminner@iastate.edu
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