A worksheet for field surveying. The existing elevation can be marked on the top of each box, and proposed elevations inside the box.

Use grade stakes and string lines (or laser grading, of course) to control accurately your construction process. Using a dozer for rough grading, we try to get within one inch of the contour plan. Then we use a tractor for final grading and seeding.

Again, remember to account for settling, so your final, settled contours reflect your plan. Expect about one inch of settling for each six inches of new or loosened soil.

Once your renovation or reconstruction is complete, it's nice to have the luxury of completely shutting off traffic from the turf until the season begins. That's particularly important for the thirty days after the work is completed, when the soil is still settling and the turfgrass is getting established. Game fields are obviously easier to control than practice fields in this regard.

On many soccer and football fields, springtime provides the ideal time to lay the groundwork for safe, competitive, easy-to-maintain turf during the late summer and fall. It's easy to become so focused on baseball and softball fields in the spring that there's little time left over for the fall sports fields, but taking time for some pre-season conditioning can pay big dividends when the games of autumn begin.

Jim Puhalla is president of Sportscape International Inc. in Boardman, OH.

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A day doesn't go by when we don't see or hear the statement, "Visit our Web site on the Internet," with an odd looking address that starts with "Http://...."

The Internet and the myriad applications available on it, particularly the World Wide Web, or "Web," are fast becoming the new communications media and will soon become as necessary as the fax machine has become in business operations.

The turfgrass industry has not been left out of this growing media. Along with many associations, including the Professional Lawn Care Association of America (PLCAA) and university turfgrass extension services, several lawn care companies also have a presence on the Web.

First, a little background on the Internet and the World Wide Web. Even though they are often used interchangeably, there is a difference between them. The Internet is basically a "world wide network of cooperating smaller networks." Any network can hook into the larger network that comprises the Internet.

A good example of a similar type of network is the telephone system. The local phone companies (GTE, Unitel, Ameritech) are connected together with the long distance carriers to form a large nationwide telephone network system. We can easily make phone calls across the country as long as we have the correct phone number and someone is willing to answer a call. The Internet is similar in that we can access any computer system on the Internet as long as we have the correct address and someone is willing to allow you into their system.

There are several different application systems that can operate over the Internet, just as the current phone system can handle not only voice, but also fax, digital and video. Of particular growing interest is the World Wide Web, an application system consisting of a global collection of media (text, graphics, audio and video) linked using the Internet as the connection scheme. A common term used for this collection of linked media is hypermedia or the term "hypertext."

Hypermedia or hypertexts are documents that reside on one computer with links into other documents. Of course, the document might be within the same file, in a file on the same computer, in a file on a computer within the same network, or in a file on a computer in another network somewhere else on the Internet.

Unlike CD-ROM databases or books that have a unique method of access, the World Wide Web consists of a variety of browsers and servers that follow a standard for the delivery and display of content. It is also a very associative system where just about anyone can attach links from their Web document to any other Web document in the entire World Wide Web space.

So, the World Wide Web is about making content or information available on the Internet. For those of us in lawn care, it is a means of providing specific information about lawn care while also providing information about related issues without having to reprint or reproduce the auxiliary information.

For example, one lawn care company on the Web has links into university turf extension Web sites containing extension bulletins related to lawn care.

Connecting to the Internet and the World Wide Web is becoming easier as the interest for accessing the Web grows. Several options are available even to the small, one-person lawn care service. All that is required is a computer, a fast modem, some software and a local dial-up access phone number.

The Web browser software, with its point-and-click interface, has been the key to making it easy to access the Web.

Even though there are several Internet providers available in most communities, for those of you new to "surfing the Internet," I would recommend obtaining an account with one of the major computer information services such as CompuServe or America OnLine. Along with their own proprietary high-quality content, these services now provide access to the World Wide Web, including some hand-holding for those who get overwhelmed by the "Net." (Author's note: I am partial to recommending CompuServe as it is an Ohio-based company even though America OnLine is easier to use.)

Both of the services, along with several other Internet service providers, supply the means for a lawn care company to create its own Web site and establish a "presence on the Web." But, that is for a later article. For now, take a look at the Web and what it has to offer you. At least take a look at PLCAA's new Web site at http://www.plcaa.org.

Bob Boufford is an assistant professor of agronomy at Clark State Community College in Springfield, OH. This article was reprinted from Ohio Lawn Care Association News, Vol. 6, No. 2.
LETTER TO THE EDITOR

A Community Asset

I read your fine article on Steve Wightman as Man of the Year in your January 1996 issue. Steve has also been an integral part of the turf management at Patrick Henry High School in San Diego. I first talked to Steve just a couple of months after he arrived in San Diego. I was actually calling for his predecessor; not knowing that Steve was the new guy in town.

I have been actively involved in field maintenance as a parent volunteer with the San Carlos Little League for 15 years. When my oldest son started playing football at Patrick Henry, I was asked to join the parent football booster club. I was immediately shown the field. Thus a call to Steve to ask if he ever volunteered some time and knowledge for a high school field. There was no hesitation in Steve saying, “Sure, I’ll be glad to take a look.” Fortunately the field is only ten minutes away from Jack Murphy Stadium.

The first thing he told us was, “There is a drainage problem you need to address.” Unfortunately, like most school districts, there was no money to solve the matter at that time. Steve gave us a list of remedial measures that would probably buy us some time. The remedial action worked, and the football team continued to practice and play for several years. Two years ago, at my request, he surveyed our baseball infield, which had not been totally renovated in 25 years. He met with school officials and parents and gave us a recipe for redoing the field. Two months later we had a new infield — top to bottom. It was a total community effort. Steve would come by periodically and check on it to see how we were doing.

Last spring the football field finally gave up the ghost, and the school district was at a loss as to how to renovate it — or else they would have to close it because of a playing-safety concern. Again, Steve to the rescue. He again volunteered his time and expertise and designed an underground drainage system using a black corrugated drain pipe. The school district agreed to fund the project to finally do the job correctly once and for all.

You should have seen the expressions on the school district officials’ faces when the system was tested and you could actually hear the water flowing into the main drain from all parts of the field. We invited Steve and his wife to be our guests at homecoming this past fall to say thank you. He had to leave at half time as he had to be in Fullerton at 7:00 a.m. the following morning to help install the baseball field and mound at Fullerton State University; the same field you refer to in your article.

Professionally I serve as a council representative for Judy McCarty in the City of San Diego. Last spring one of the city’s multi-purpose fields finally failed after 20 years of constant use. I again called on Steve for his recommendations. As a result, the city renovated the entire field and replaced 20,000 square feet of sod. It was the largest field renovation and resodding/reseeding project the city has ever done, according to their landscape maintenance department.

It is great to see someone of Steve’s stature receive such a deserving award and to read about this very involved individual in your magazine. I have forwarded a copy of the article to the superintendent of schools, as she is the individual who gave the go-ahead to spend the funds to redo the football field at Patrick Henry High.

Jay Wilson
San Diego, CA

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if you have any questions regarding submissions.
Reducing Herbicide Rates for Summer Weed Control in Bermudagrass

By B.J. Johnson

Bermudagrasses are widely used for home lawns, athletic fields, golf courses, and recreational parks throughout the southern parts of the United States. To maintain a desirable quality turf, several factors are needed in the overall management program. One of these is the use of herbicides to control crabgrass and goosegrass during the spring and summer.

When preemergence herbicides are applied to a bermudagrass turf at recommended rates for more than one year, are we using too much of the chemicals? Research conducted at the Georgia Station from 1993 through 1995 shows that preemergence herbicide rates can be reduced during the second and third years and still maintain effective crabgrass and goosegrass control.

Procedure

Five preemergence herbicides (Barricade, Surflan, Dimension, pendimethalin, and Ronstar) were applied at various rates over a three-year period for crabgrass and goosegrass control in common bermudagrass. The recommended herbicide rate will be referred to as 1X rate.

The 1X herbicide rates in the crabgrass experiment were 0.75 pound ai/A for Barricade, 2.0 pounds ai/A for Surflan, 0.5 pound ai/A for Dimension, 3.0 pounds ai/A for pendimethalin, and 3.0 pounds ai/A for Ronstar.

In the goosegrass experiment, the 1X rates were 3.0 pounds ai/A for Surflan and 0.75 pound ai/A for Dimension, while the rates for Barricade, pendimethalin, and Ronstar were the same as given for crabgrass. There were five weed control programs for each herbicide in the crabgrass and goosegrass experiments.

For example, the rates used in the second weed control program were 1/2X in 1993 followed by 1/4X in 1994 and 1995.

Weed Control

With the increasing environmental and regulatory pressures, it may be necessary to reduce the total quantity of herbicides used for weed control in turfgrasses. Reducing herbicides not only would be beneficial to the surrounding environment, but would reduce the overall cost for the turf manager. What level of weed control do we really need? For golf greens, weed control should be maintained at a 100-percent level, while less than 100 percent would probably be acceptable in most industrial parks, athletic fields and home lawns.

Crabgrass Control

When preemergence herbicides were applied the first year (1993) to an untreated turf, all herbicides required a full (1X) rate to control 90 percent or more crabgrass in common bermudagrass. To maintain this level of control during the following two years, the rates for Barricade, Surflan and pendimethalin can be reduced to 1/2X the second year, followed by 1/4X the third year. Rates for Dimension can be reduced to 1/4X the second and third years. Ronstar applied at reduced rates did not control crabgrass as effectively as did the other herbicides. Ronstar required a 3/4X rate the second year followed by a 1/2X rate the third year.

Although full herbicide rates were required to maintain at least 90 percent crabgrass control during the initial year of treatment, the control was maintained at this level with reduced rates the following two years. The Dimension rate can be reduced by 75 percent the second and third years; Barricade, Surflan and pendimethalin rates can be reduced by 50 percent the second year and 50 percent the third year.

Goosegrass Control

None of the preemergence herbicides controlled goosegrass effectively in common bermudagrass during the first year (1993). The poor control was related to drought stress during May through July when only seven inches of rainfall occurred. This was ten inches below normal. However, 90 percent or higher goosegrass control was obtained during the second and third years with Dimension, Ronstar, Barricade and pendimethalin. For Dimension and Ronstar, the rates can be reduced to 1/2X the second year and 1/4X the third year, while the rates for Barricade and pendimethalin can be reduced to 3/4X the second and 1/2X the third year. Surflan controlled less than 70 percent of the goosegrass during the first and second years and less than 90 percent during the third year.

Even though none of the herbicides controlled goosegrass during the first year, the control was maintained at 90 percent or more during the second and third years using reduced rates. For Dimension and Ronstar, the rates can be reduced by 50 percent the second year and 75 percent the third year, while rates for Barricade and pendimethalin can be reduced by 25 percent the second year and 50 percent the third year.

These results show that full preemergence herbicides are not needed after the initial year of treatment to maintain effective crabgrass and goosegrass control in bermudagrass. It is not known what the performance of reduced rates will be in other turfgrass species. The results would probably be similar in other warm-season grasses, but not in tall fescue.

B.J. Johnson is with the University of Georgia, and his work in the area of turfgrass tolerance and overseeded greens has been supported by the Georgia Turfgrass Foundation Trust. His article comes from the Georgia Turfgrass Association's newsletter, GTA Today, Vol. 11, No. 1.
The Iowa Sports Turf Managers Association: ISTMA will host a Little League “Baseball Field Maintenance” mini-workshop on April 20 from 10:00 a.m. to noon at the South DSM Little League Complex.

ISTMA will hold a “Soccer/Football Facility Workshop” at the Dubuque Soccer Complex on June 4 from 8:00 a.m. to 3:30 p.m. Registration opens at 8:00 a.m. Morning sessions begin at 9:00 a.m. and include the following topics: “Volunteerism”; “Soil Sampling and How to Tailor a Fertilizer Program to Test Results”; “Football/Soccer Field Use Management”; “Aeration Explanation and Demonstration”; and “Topdressing Explanation and Demonstration.” The noon break features lunch with the vendors and the official opening of the demonstration area.

Afternoon activities include the following: “Mowing Techniques and Demonstration”; “Irrigation Alternatives”; “Seeding/Overseeding Practices and Demonstration”; and “The Safety Inventory and Its Importance.”

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

Florida Chapter #1: The Florida Chapter will meet on May 21 at Joe Robbie Stadium. Meeting topics will include the field’s prescription athletic turf (P.A.T.) system. The field will be set up for baseball, and a tour of the facility will be provided. Meeting host is Alan Sigwardt, sports turf manager of Joe Robbie Stadium.

For more information on this meeting, the Florida Chapter, or other pending activities contact: John Mascaro (305) 938-7477.

Midwest Chapter: The following are the chapter officers for 1996: Lonnie Berg, Hinsdale South High School, president; Marc Van Landuyt, Van’s Enterprises, Ltd., past president; Scott Pippen, Village of Lincolnshire, vice president; Don Michaels, Conserv FS, treasurer; and Mike Trigg, Waukegan Park District, secretary.

The Midwest Chapter’s next meeting is scheduled for May 22 at South Park of the Park Ridge Recreation and Park District in Park Ridge, IL. The central theme is turf irrigation systems. Industry experts will discuss the pros and cons of different irrigation systems and methods.

“Training with the Bears” is planned for Wednesday, July 24, at the Chicago Bears Training Facility in Lake Forest, IL. The meeting will include a tour of the new state-of-the-art training facility.

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

Minnesota Chapter: The following are the chapter’s 1996 officers and board of directors: Ken Dehkes, Hamline University, president; Mike McDonald, University of Minnesota, Bierman Athletic Complex, past president; Shannon Hendrickson, Farmington I.S.D. #192, president-elect; Tom Rudberg, University of St. Thomas, Minnesota Turf & Grounds Foundation, representative; Mark Sullivan, Truegreen-Chemlawn, director at large; and Brian Deyak, secretary/treasurer.

The chapter’s second “Workshop on Wheels” has been set for Tuesday, July 16, in conjunction with a St. Paul Saints game. More details on this day-long event will be announced soon.

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

Colorado Chapter: CSTMA will be holding its “Summer Seminar” on June 5 at Coors Field in Denver, CO. Educational sessions will be held in the morning, followed by field tours in the afternoon. Seminar host is Mark Razum, head groundskeeper of the Colorado Rockies’ Coors Field.

CSTMA also will hold a “Mid-Summer Seminar” on July 12 in Grand Junction, CO. More details will be announced soon.

For information on these seminars, 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.

Southern California Chapter: The SO CAL Chapter will hold “Sports Turf Day” at Dodger Stadium on Sunday, April 28, beginning at 9:00 a.m. Activities will include a behind-the-scenes tour of the stadium, a special presentation by a Dodger speaker, a Major League brunch in the Stadium Club and great seats for the 1:05 p.m. game between the Dodgers and the Chicago Cubs. Cost is $40 per person. Attendance is limited to 50 people. Registrations must be post-marked before April 19. Call or fax reservations or questions to Steve Guise at (714) 578-0215.

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

STMA in Action

STMA Chapters on the Grow

Arizona: The newly developing Arizona Sports Turf Managers Association will be meeting April 11 from 7:30 a.m. to 3:30 p.m. The morning sessions will focus on baseball field preparations and will be held at the Oakland A’s Training Facility at Papago Park. For the afternoon, the meeting will move to Arizona State University’s Sun Devil Stadium, where sessions will focus on soccer and football field preparations.

A second meeting is scheduled from 7:30 a.m. to 3:30 p.m. on May 8 at the University of Arizona at Tucson. Meeting host is Dr. David Kopetz. More details will be announced soon.

For more information on these meetings or the forming chapter, contact: Bill Murphy, City of Scottsdale Parks and Recreation Department at (602) 994-7954.

Kansas: Chapter formation is underway in Kansas. A steering committee has been formed, and monthly meetings are on the docket. For more information — and especially to get involved — contact: Mark Schimming of Wichita Baseball, Inc. at (316) 267-3372.
Groundskeepers Management Academy Announces Dates

Groundskeepers Management Services has announced the sites and dates of their academies, which include 12 hours of educational classroom instruction on topics such as turf physiology, soil analysis, pest and weed control, easy maintenance techniques, irrigation and field liability.

Academy members also participate in 20 hours of field preparation including mound/homeplate repair, edging, dragging, watering and grass mowing techniques.

The 1996 academy sites and dates are as follows: Millington, TN, on June 12-13; Kissimmee, FL, on September 15-19; Peoria, AZ, on September 29-October 3 and Orlando, FL, on January 19-23, 1997. For more information, call Floyd Perry, Grounds Maintenance Services, (800) 227-9381.

Ridge Remover Attachment

The Kromer Co., of Mound, MN, has developed a new attachment for its popular Athletic Field Maintainer (AFM). Due to incorrect infield maintenance, a dangerous ridge of infield material is often hidden by the grass around the skinned area of ball diamonds. The new attachment, designed to remove this ridge, is a rotary hydraulic-driven nylon bristled broom that spreads this ridge to the infield where it is leveled by the broom attached to the AFM vehicle.

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