Want to make a diamond sparkle?

Build a Workman® to work for you.
By combining the attachments and tools you need to do jobs better and faster, powered by our versatile 2 or 4 wheel drive vehicle.
Like this Workman® vehicle with 3 pt. hitch groomer.
Or use the optional 540 PTO and mow the outfield.
Add mid PTO and operate split bed attachments; compressor, pressure washer, 4200 watt integrated generator and more.

What are your maintenance needs? Build a Workman® vehicle to work for you.

Team up a Rahn® groomer, compressor & split bed.
Mowing is a breeze with split bed, 3 pt. hitch & 60” PTO rotary.
So is spreading with PTO and a 3 point hitch.
Workman® hauls 2000 lbs. of cargo in its full bed.

© 1995 The Toro Company. The Toro Company, 8111 Lyndale Avenue South, Minneapolis, Minnesota 55420. “Toro” and “Workman” are registered trademarks of The Toro Company. “Rahn” is a registered trademark of RAHN Manufacturing.
FIELDSCHOICE is a specially formulated soil amendment that can help you take action against the compaction problems that plague today's active sports fields. Effective using standard aerification equipment as well as in new construction, FIELDSCHOICE adds to the vigor and durability of high traffic areas found in football, soccer and baseball fields.

FIELDSCHOICE is kiln-fired to fuse raw material into hard crystalline particles, which will not break down, even under extreme traffic and environmental conditions. The loose, aerated growing conditions created by the introduction of FIELDSCHOICE results in increased vigor, root density and depth. Similarly, the large size of the FIELDSCHOICE particles makes them extremely effective in breaking up clay bound soils, and in permanently maintaining both aerated conditions and high infiltration rates.

The naturally porous structure of FIELDSCHOICE provides for a high level of moisture and air migration. In dry periods, this product's natural capillary action lifts water and nutrients to the root zone, making them available to the plant. FIELDSCHOICE's ability to retain up to 63% of its weight in water also allows it to hold moisture and nutrients, preventing them from leaching out of the root zone.

So, take action against compaction with FIELDSCHOICE. For the name of the distributor nearest you or to request test data, contact Premier at 800/829-0215.
MAIN EVENTS

8 Sun Devils Close to Heaven on Field of Year
Arizona State University’s Sun Devils baseball team spends a good part of each year close to heaven — playing on the precisely manicured field of Packard Stadium — the 1995-1996 Beam Clay® College Baseball Diamond of the Year.

14 Painting and Striping Athletic Fields
Players and fans expect fields to be functionally and attractively marked. Here’s a basic guide to the equipment and know-how that will help you do it.

18 Mississippi State’s Golf and Sports Turf Management Program
Mississippi State University’s sports turf program helps students enter the workforce equipped with the educational background and the practical skills necessary to do the job. Employers, students and universities all benefit.

26 Integrated Weed Management — Natural Turf Management, Part 4
The keys to preventing weed infestations are optimum turf management practices and an integrated weed management program. Together, they can create a dense, vigorously growing, competitive stand of turfgrass that will resist invasion by most weeds.

28 Spring Conditioning for Autumn Games
With winter turning into a chilly memory, it’s time for some sports turf managers to focus their minds on fall. Now’s the time to perform some of the renovation operations that will lead to lush, beautiful turfgrass in the autumn for football and soccer fields.

LINE-UP

STMA Message 5
Front Office 6
Calendar 36
Internet 32
Letters 33
Chemical Log 34
STMA in Action 35
Industry Happenings 36
Rookies 36
Classifieds 38
Ad Index 38

On the Cover:
Arizona State University’s baseball team swings into spring in Packard Stadium, Beam Clay’s College Baseball Diamond of the Year. Photo by and courtesy of: Brian Johnson.
Spring is here! How do I know? The Masters is being played at Augusta National. I'm excited because my brothers and I were fortunate enough to get tickets to Tuesday's practice rounds. What a magnificent place — full of traditions, immaculate grounds, great food and well-behaved fans.

For the golfer, which I am, the Masters is a sign that spring is here, the harbinger of summer.

I can tell it's spring by traveling through town and seeing soccer being played on our soccer fields; seeing the softball and baseball fields busy as people of all ages clamor to get in shape and sharpen their skills for the new season.

In the South, the perennial ryegrass overseeing makes way for the bermudagrass.

On the college and high school scene, track moves outdoors.

And we all want to shed a little of the winter weight so we can look good in a swimming suit.

Spring is a time of rebirth, of new life, a time of excitement and activity. Spring is a time to try new ideas, to do new things — maybe you can find a way that saves time and effort.

New for me this spring is a job change. I've just been named the superintendent of parks for the Rolling Meadows Park District of Rolling Meadows, IL. I'm looking forward to the challenges this new position will bring.

I'd like to thank the Schaumburg Park District — especially Dan Otto, superintendent of parks, and Jerry Handlon, executive director of the Schaumburg Park District — for all their support, and for allowing me to be as active in the Sports Turf Managers Association as they have over the years. I hope this spring brings you challenges equally as exciting — and that for you, too, STMA is a big part of it.
Whatever's Easy

Even after reading Bob Boufford's lucid article in this issue, I am still not sure I understand the difference between the Web, the Internet, America OnLine, CompuServe or many of the other amazing components of the system that links computers around the world, and so far, I'm not sure I care. Without knowing the difference between the Web or the Internet, or whatever it is, I have, to my mind, successfully been using the thing for several weeks now. In fact, I think I have proven even an idiot can use the Internet, the Web, the Whatever.

True, my employer, Adams Publishing, supplied all the components — modem, server and search "engine" — so I didn't have to do any wiring or installing, but once all the gizmos are up and running, the rest is as easy as using a TV remote control. The only difference I can see is the terminology involved. With the Whatever, you use your "mouse" (remote control) to "click" (change) to another "link" (channel). The links, just like TV channels, contain information that instructs, entertains or tries to sell you something. Learning to use the Whatever takes about five seconds, the amount of time required to master the art of (1) pointing to a link with a mouse arrow and (2) clicking a mouse button. Getting comfortable takes maybe two to four hours of repeating the two steps, before the light dawns that there's really nothing else to it.

Mastering the two steps, you can then go on to the search for information, working from one link to another or using indexes to find links of interest. The outcome can be access to files with information that, if available in a library, might take days to dig out. For instance, from the few hours I've searched, I've hooked up with the Plant Variety Protection office, Seed Certification Agency, Cooperative Extension network, National Integrated Pest Management system, U.S. Department of Agriculture, University of California at Riverside's Plant Pathology Department, California's Integrated Pest Management program and, last but not least, the agronomy files at the University of Guelph in Ontario, Canada — a school I'd never heard of but now appreciate because of its excellent information on turfgrass.

I've also come to appreciate Adams Publishing's Green Net — which, like the other first-rate links, is high on information and low on advertising. If you want to see for yourself, just enter the following address into your browser: http://www.aip.com. Then, start surfing. Yes, you may get "lost" at times, but it's non-life-threatening, and you'll find lots of information. It's easy.

Send announcements of your events two months in advance to: Editor, sportsTURF, 68-860 Perez Road, Suite J, Cathedral City, CA 92234. Fax: (619) 770-8019.
Pennington Seed offers a broad variety of specialty turfgrasses for varying climatic conditions and turf needs. Our new varieties are developed from extensive research and testing. They have been chosen for their hardiness and beautiful green color so you get the best results possible when you plant Pennington Seed.

All Pennington Seed varieties, blends and mixtures are available with our exclusive PENKOTED® protective coating. PENKOTED® Seed contain a fungicide, a natural insecticide and growth stimulants which insure the Pennington Advantage.
By Bob Tracinski

Arizona State University's Sun Devils baseball team spends a good part of each year close to heaven — playing on the precisely manicured field of Packard Stadium — the 1995-1996 Beam Clay® College Baseball Diamond of the Year.

Maintaining that piece of heaven in the hot-house environment of Tempe, AZ, is the daunting responsibility of Brian Johnson, athletic facilities coordinator and head groundskeeper, and what he deems "a tremendous crew."

Consider that Packard Stadium is "just" one field within the multiple facility framework so typical of the university sports scene. Besides Packard Stadium, the Arizona State University sports system includes a second baseball field, the Sun Devils' football stadium, two football practice fields, a softball field, the track facility, tennis courts and the basketball stadium. Add the pro football Arizona Cardinals to the picture and things become even more complicated.

Then consider that ASU has a total of three full-time employees for the majority of these athletic facilities. Johnson "runs" the baseball, track and tennis facility programs. Pete Wozniak covers the football practice facilities, softball, and Sun Devil Stadium. Mike Tomah covers the Sun Devil skyboxes and the University Activity Center. These three full-time facility coordinators have a "pool" of five to six students that work for them. The only help they receive is from long-time STMA member Don Follett, who is in charge of the football playing field at Sun Devil Stadium.

As Johnson points out, with the multiple and often overlapping sports programs, "Everyone does whatever it takes, anywhere, to get the job done. We cover all the sports, from baseball and football to basketball, gymnastics and tennis. For example, during the first baseball conference series the first weekend in March, we had four other events going on at the same time, the season's first track meet, a tennis competition, women's softball, and women's basketball."

Johnson stresses the crew's team effort. He says, "Flexibility is the key to making it work. We three 'full-timers' work well together, and we've had the same students on the work team for a couple of years. In the past, we'd have a student for one semester, and then start over with a new student. With this core group of students, we're seeing real professional results. They care about field conditions and take pride in their work, and we really appreciate it. I'd put them up with the professional spring training site staffs anytime. For them to juggle this with all the classes and study is super."

With so much going on, the full-time staff meets at the beginning of every week to develop a master plan. Field and facility use schedules fluctuate "all the time," and the student crew members have classes, papers and projects to "fit in." Johnson says, "We generally have a base crew scheduled for a few hours each day, but we have to be flexible. It's a matter of seeing who is available and what's happening, and planning the day accordingly.

"We're pleased to have been selected the Field of the Year, especially because it's a confirmation of our sports turf management program. This is what the field looks like. We didn't change our
basic procedures or do anything special to prepare before submitting our entry.”

**Trouble in Paradise**

Packard Stadium isn’t without problems.

The stadium and original field were constructed in 1974 on generally poor soil, with lots of clay and pretty poor drainage. In 1992, a sand based infield was installed.

Johnson says, “The original infield soil was excavated to a depth of 2 1/2 feet and a hard-pan base prepared. The area was then filled with washed, medium-grade, mortar sand from a local source. There’s no underground drainage system, just the hard pan below the sand, but there’s enough sand that the natural drainage works. The infield was sodded with Tifway 419 Bermudagrass following the construction. The outfield turf is common Bermudagrass.

“Prior to 1992, there was no sprinkler system. We just hooked the hose to a quick coupler located behind the mound. During the construction, four sprinkler heads were installed in the infield, positioned halfway between the bases.”

With Tempe’s traditionally high temperatures and low humidity levels, Johnson and crews face a constant struggle to keep things green. The poor soil in the outfield creates “hot spots” that require continual attention. In addition, poor overlap of the sprinkler system puts too little water in some areas, too much in others, causing further problems. But redoing the sprinkler system and reconstructing the whole outfield is not in the plans.

Johnson says, “Irrigation starts in earnest in April and May. Because of the high heat and low humidity combination, we have to ‘flood’ the field to get water to the turf roots. Lighter irrigation simply evaporates before it can be absorbed. Temperatures generally start to cool off in September.”

The university falls under state funding, with only so much water allotted for use by the whole campus. Though athletic fields had traditionally taken more water than allotted, overall campus water use had fallen within or a bit below the total allotment. During the summer of 1995 there were 20 consecutive days of temperature highs at 110 degrees or higher with very low humidity. Overall summer temperatures hovered in the 100-plus degree range. For the first time, total campus water use exceeded the allotment.

Johnson says, “The overage triggered a look at athletic facilities and water use. Actual water use figures had never been made available to us before. We’re now getting figures that show what the allotment is for the year — and what is actually being used. Obviously, we’ll be tracking irrigation closely. The university also is considering building a lake for use by the on-campus golf course — which will cut the total campus water use.”

**Sea of Bodies**

In addition, Packard Stadium faces an all-time high in field use.

There are 45 to 55 Sun Devils’ home games on the schedule. The team uses the field for practice also. Practice begins right after Christmas and runs at least through May 31. Team preparations for Omaha’s College World Series in June can push practice even later. Fall practices take place in August and September.

This year, for the first time, a “developmental” game schedule has been added. These games provide experience for the younger players, and the coaches are enthusiastic about its beneficial effect on the program. However, it adds 32 games to the schedule — and they’re all home games. These games will take place on what would have been off days on last year’s schedule.

For the past four years, ASU has hosted a college summer league following the Sun Devils’ season. This league plays a 49 to 55 game schedule, averaging seven or eight games a week.

Also add in 20 days of baseball camps for kids of all ages. Some of these days come in March, during spring break; some fit in just before and just after the summer college league games; some come in the fall, and the most extensive camp is held during the week between Christmas and New Years. Packard Stadium also hosts the 41 Senior World Series games each November.

Once or twice each season Fan Photo Days fill the field with avid fans seeking an up-close opportunity for getting photos of and with, and autographs from, the players.

Then there are the “occasional” events. Johnson says, “This January, the baseball team went to the Oakland A’s facility to practice during all the activity surrounding the Super Bowl. There were only a few activities on the Packard Stadium field. The main one was the Nat Moore Youth Football Clinic, a Super Bowl two-day event. There were 26 football fields marked out and 3,000 kids and the NFL players instructing them. I was helping paint the football field for the Super Bowl, but did slip in one morning for a peek. I could hardly see the grass for all the bodies out there. It was an ‘interesting’ experience, especially coming ten days before the baseball season opener.

“George Toma’s crew supplied us with some pre-germinated seed. We put down the seed immediately after the clinic and applied ammonium nitrate, and it came out looking great.

“We also hosted a special sales conference for Wilson Sporting Goods during 1995. They wanted a baseball atmosphere to introduce some new products to their vendors. We painted their logo on the field. They set up tents and arranged displays for a hands-on introduction. It went well.”

**Looking for a Break**

With all this field use, there are few windows for procedures. Johnson says, “There may be a month between the end of the summer college league and the start of the Sun Devils’ regular practice schedule. The second break is approximately 1 1/2 months, from the end of the Senior World Series games around November 15 to the Youth Camp right after Christmas. The team starts back on January 2 or 3.

“We get ready for winter overseeding immediately following the Senior World Series. Normally that would be done continued on page 10
College Diamond

continued from page 9

here in mid-October, rather than mid-November. By then it can get chilly here for perennial ryegrass germination. A couple of years ago we got to frost level shortly after the seed went down, but it came out okay."

Johnson manages to work one core aerification procedure into the late summer schedule. Then, in mid-November, they core aerify in a couple of different directions and verti-slice, lowering the blades to scalp the bermudagrass down to the dirt. They also pin-spike the field to create small openings so the seed can get down into the growing media.

Johnson says, "We overseed both the infield and outfield turf. We usually get the first overseeding down around the 20th to the 22nd of November, using Scotts Divine Perennial Ryegrass applied with a Scotts hand spreader. We don’t use pre-germinated seed for the first application."

"We’ll see a lot of growth within two to three weeks, depending on the weather. Because of the configuration of the stadium and the angle of the sun at that time of year, there are some spots that don’t get as much sunlight. About two weeks after the initial application, we follow up with pre-germinated seed in the sparse areas. I’ll pre-germinate seed about once a week for the next month, continuing to supplement the seeding as the perennial ryegrass fills in and gradually takes over. We have until the Christmas break for the grow in."

The perennial ryegrass keeps going until mid-May. Then the Arizona heat wipes it out, and the bermudagrass takes over. Johnson says, "The turf looks uniform for most of the year. There’s just a small transition at the beginning of each changeover."

Johnson works with Scotts on the nutrient program. They take soil samples every fall and draw up the annual program based on test results. Currently, they’re using an 18-9-18 fertilizer with selected minors. Johnson says, "I’ll look at the total fertilization scheduled for the month and make half-rate applications as evenly spaced as possible. We want a steady feeding, with no flush of rapid growth. In 1995, the team took Mondays off. So we applied fertilizer on Sunday night and soaked it in, giving the field a day of no activity following fertilization. This year we don’t have that luxury. We’ll analyze the field use schedule and work in fertilization where it fits best."

Daily maintenance is done with two staff members. There may be six or seven people involved on game days.

Johnson says, "On game days, we set up the batting cages and prep the mound and plates in the early morning. We line the field with crushed marble rather than chalk. There are no side areas with fungo circles and no walk-ups to home plate, so we lay down Enkamat and cover it with geotextile material, and the players hit from that. We put a fungo net in front of home plate. Then, after batting practice we pull it all off. We drag the skinned area again, water lightly, and touch up the lines."

The logo is painted on the field for three or four series a year. Generally, the crew brushes in the logo two days before the event and then fills it in with paint on the first game day.

continued on page 12