



Turf of the Month:

Common Bermudagrass



The San Diego State Aztecs football team practices on this field, which features a mixture of ryegrass, bluegrass, kikuyu, hybrid Bermuda and common Bermuda. Photo courtesy: Randy Frater, San Diego State University.

By Mike Augsdorfer

In a sense, common Bermudagrass isn't really common anymore, at least not for athletic fields. While it is found on many golf course fairways and some home lawns, common Bermuda is somewhat passé in sports turf applications. Hybrid forms of Bermuda, which are more difficult to maintain, are now *de rigueur* in the sports turf industry, primarily due to simple aesthetics: The hybrid Bermudas simply look better than common Bermuda. However, common Bermuda is still used by some schools and municipalities because common Bermuda is less expensive to develop and maintain than the hybrids.

Common Bermudagrass (*Cynodon dactylon*) shares many characteristics with its hybrid siblings [see "Turf of the Month: Hybrid Bermudagrass," March 1995 *sportsTURF*]. It is a warm-season grass that has been used on athletic fields in Florida, Arizona and California, where summer temperatures can soar into triple digits. However, it tends to go

dormant below 55 degrees. Although common Bermudagrass is highly drought-resistant, it can go dormant in summer if irrigation is withheld or neglected; but a simple weekly deep soaking is all the irrigation necessary to keep common Bermudagrass green and healthy.

Like the hybrids, common Bermudagrass is not shade-tolerant, but it can withstand heavy use. While most hybrid varieties of Bermudagrass are sterile [see sidebar], common Bermudagrass can be seed-propagated. Bermudagrass spreads very quickly via aggressive stolons. However, these aggressive stolons are among the factors that can contribute to heavy thatch production in common Bermudagrass.

Bermudagrass, also known as wiregrass,

couchgrass and devilgrass, was introduced to the U.S. in 1751 from eastern Africa. Common Bermudagrass, which is sometimes called Arizona common, has deep roots and is easily grown in most soils. As a result of its vigorous growth rate, common Bermudagrass often turns



This professional croquet court was established in 1989 with common Bermudagrass. Photo courtesy: Dr. A.J. Powell, Jr., University of Kentucky.

up as a weed where it is not wanted. Common Bermudagrass is susceptible to a number of diseases, including dollar spot, leaf spot, brown patch and pythium blight. Pests such as nematodes, armyworms, sod webworms and Bermudagrass mites can attack common Bermudagrass and cause problems. A conscientious program of turfgrass maintenance is ordinarily the best defense against any potential problems caused by disease or pests; but in severe cases, treatment with fungicides or pesticides may be necessary.

Common Bermudagrass seed germinates in two to four weeks under ordinary conditions. Recommended fertilizer ratios run up to one pound of nitrogen per 1,000 square feet each growing month. Since it grows rapidly, common Bermudagrass requires frequent mowing. Cutting height can be anywhere between a half inch and 1.5 inches.

A Very Hardy Grass

Despite the relative ease with which a common Bermudagrass field can be developed and maintained, its popularity as an athletic turf has diminished while

the popularity of hybrid Bermuda has accelerated. David Dymond of Duda & Sons, Inc., a turfgrass producer located near Orlando, FL, is among those who think that common Bermuda has seen better days. "Common Bermudagrass was originally a pasture grass in Florida," he relates. "It's a very hardy grass." Dymond points out that common Bermuda is no longer popular as a sports turf in Florida. Most athletic facilities have adopted hybrid Bermuda or other turfgrasses, and common Bermuda, says Dymond, is used primarily for erosion control along highways in Florida.

Edward Davis of R&D Sod Farms in Florida concurs. "People have only started using it in the last few years," he explains. "St. Lucie County is using it on a ballpark right now." Davis thinks that common Bermudagrass would be nearly obsolete except for its use to control erosion along the highways. "It just doesn't look as lush as the hybrids," he relates. "We've put it on some driving ranges, but there's no one who would use it on a high-class athletic field." Despite the aesthetic drawbacks, Davis likes

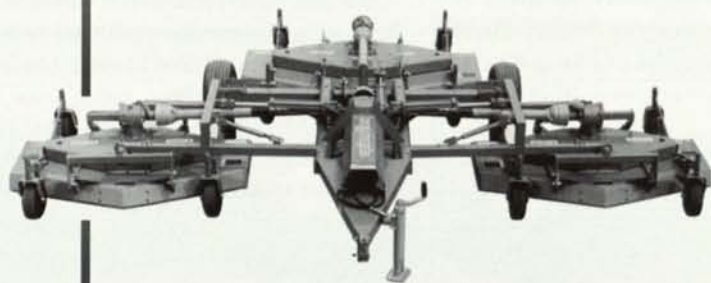
common Bermuda for its durability and easy maintenance. "It's easy to maintain," he notes. "It can be maintained with a rotary mower." Insects, says Davis, are generally not a big problem. "We haven't had a mite problem or anything like that."

Craig Slade, a turfgrass and IPM consultant with LVF Turf in Indio, CA, says that despite the overwhelming popularity of Bermudagrass hybrids, common Bermuda remains a viable athletic turf. "It's a strong, durable grass that, once established, is virtually impossible to get rid of," notes Slade. He cites the radical growth habits of common Bermudagrass as its most distinguishing characteristic. "It just wants to take over any place it's put," he says. Slade adds that common Bermuda is very popular as turfgrass for school athletic fields and city parks. "With proper maintenance you can have nice, healthy common Bermuda," Slade relates. Proper aeration and fertilization are important with common Bermudagrass, says Slade. "A lot of people feed it more than it

continued on page 24

Want CUTTING EDGE Technology

While you are mowing . . .



Rear Discharge Technology =

\$avings X 3 !!!

CYCLONE FLEX MOWER



BEFCO, Inc.
P.O. Box 6036
Rocky Mount, NC 27802-6036
800-334-6617 FAX (919) 977-9718

call **BEFCO**
1-800-334-6617

Save **MONEY**
with **BEFCO Technology:**

- Cleaner Cutting than side discharge or air tunnel mowers
- Lower Horse Power for Wider Cut (3 Decks DON'T require 3x HP!!!)
- Mow at Faster Speeds
- NO windrowed thatch
- High Capacity (8-12 acres/hour)
- Leaf & Thatch Mulching
- Safe Operations

Common Bermudagrass

continued from page 23

really needs," Slade admits. "It needs very low amounts of nitrogen."

Many of the practice fields at San Diego State University are overseeded with common Bermudagrass, reports Randy Frater, lead groundskeeper at the university. "We use quite a bit of it on the fields," he relates. The grounds crew at San Diego State uses a mix of common Bermuda, bluegrass and ryegrass to overseed the practice fields. "About five percent of the mix is common Bermuda," says Frater. "We have to overseed them quite often because they get quite a bit of wear." Frater plans to renovate one of

the main football practice fields this spring. "In most cases we cannot afford to sod an entire field, and my second choice would be to seed the field with common Bermudagrass," he reveals. "However, since our fields are used year-round, we always include blue- and ryegrass in with our seed mix; that way we can seed any time of the year and expect sufficient germination."

Success in Hawaii

Dr. Charles Murdoch, a turf specialist with the University of Hawaii, says that common Bermudagrass has enjoyed tremendous popularity as an athletic turf in Hawaii. "Most of the athletic fields in Hawaii were planted originally

with CB," he relates. Murdoch was involved with the reconstruction of an athletic field at Honolulu's Punahau School. "We used common Bermudagrass because it's easier to plant from seed, and at that time there weren't any seeded varieties available," he explains. "Also, there aren't large sod farms in Hawaii, so it's difficult to get what you need."

In many cases turf managers are turning to some of the new seeded varieties of common Bermudagrass [see sidebar] for athletic-field applications. "You're going to see dominance of the new seeded hybrid," says John McShane, vice president of Stover Seed in Los Angeles. "I think we're selling more

Seed-Propagated Hybrids

If turf were ice cream, Bermudagrass might be the Baskin Robbins of turfgrasses. Crossbreeding has produced numerous varieties of this hardy grass. Most of the better-known varieties of Bermudagrass are sterile and must be propagated by planting plugs, but several seed-propagated varieties have been developed recently.

"Seed-propagated turf hybrids are new from a commercial standpoint," says Arden Baltensperger, Ph.D., director of turfgrass research for Farmers Marketing Corp. and emeritus professor of agronomy at New Mexico State University. "We have recently developed several intraspecific or fertile hybrids that appear to be promising."

Baltensperger explains that these new seed-propagated forms of Bermuda are quite different from the hybrids that were developed previously and are already popular on athletic fields. "Interspecific or sterile hybrids, such as Tifway, Tifgreen and Santa Ana, resulted from crosses of different species of *Cynodon* and are sterile triploids requiring vegetative reproduction. Intraspecific or fertile hybrids result from crossing two highly self-sterile clones of the same species — *Cynodon dactylon* in this case." He adds that the harvested seed is first-generation hybrid seed. "The 'fertile' intraspecific hybrids are possible because of the high self-sterility of some clones of Bermudagrass," Baltensperger explains. "We developed

clones by repeated intercrossing and selection of desirable turf-type plants from domestic and Australian material."

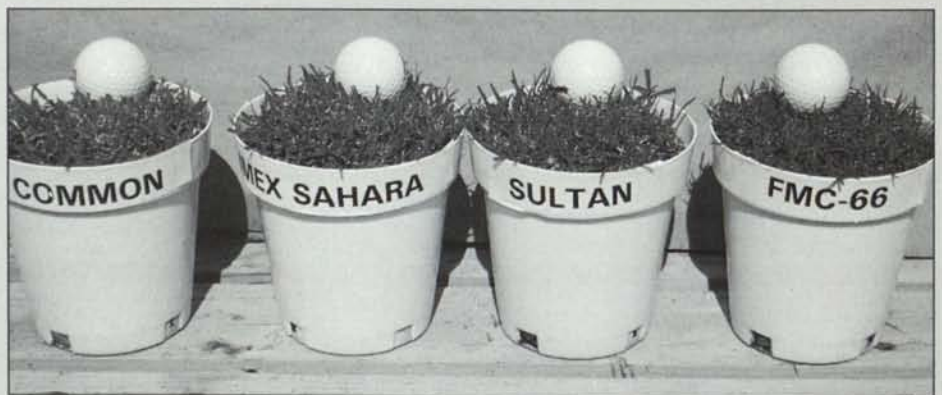
These new hybrids offer additional options for users seeking Bermudagrass with specific performance characteristics. "Two of our 'fertile' hybrids have significantly higher leaf and shoot density, lower shoot extension rates and finer leaf texture than the commercially available synthetic varieties such as NuMex Sahara, Sonesta, Primavera and Sultan," Baltensperger relates. He adds that these hybrids are similar to Tifway in density, texture and growth.

The seed-propagated versions of Bermudagrass are not widely used for sports turf yet. "The sterile, vegetatively propagated hybrids —

Tifway, Tifgreen, Santa Ana and some Midiron — are now most common," Baltensperger admits. "However, when seed of our new hybrids is available, some may use these because of desirable characteristics and ease of establishment."

While the new seeded hybrids have not yet been tested under sports turf conditions, Baltensperger expects good results when they come into common use. "We expect these new hybrids will have good wear tolerance," he says. "In experimental plots in Florida, Arizona, New Mexico and Australia, we have not observed any serious disease or insect problems."

If these seed-propagated versions of Bermudagrass are successful, users will have even more choices in selecting turf for athletic facilities.



Common Bermudagrass shown alongside three seeded varieties: NuMex Sahara, Sultan and the newest variety, Princess (labeled FMC-66). Photo courtesy: Dr. Arden Baltensperger.

than ever." Hybrids, he says, are much denser than common Bermudagrass. "You don't want to put Bermuda in places where you have flower beds — it has a very aggressive nature," McShane notes. Winter use is tough on a common Bermudagrass field, says McShane. "When you're using a field in the winter, you tend to destroy the grass. The Bermudagrass is dormant, and it can't replace itself." Many schools use their athletic fields for soccer right after football season. "Soccer really takes a toll," says McShane.

Nutri-Turf, Inc. of St. Louis, MO, is working extensively with a new seeded variety of Bermuda called Quickstand. "We're bringing a lot of Quickstand Bermudagrass in the St. Louis area," says Gary N. Bovard, a spokesman for the company. "We've done a number of high schools in Quickstand." Bovard reveals that Busch Stadium in St. Louis has plans to replace its artificial surface with seeded Bermuda. "This grass seems to have very high cold tolerance," remarks Bovard.

The Quickstand variety was first collected at the University of Kentucky by Dr. Harold Rice, and Dr. A.J. Powell, Jr., turf extension specialist at the university, began evaluating it for turf in 1982. "It was a material that we had observed growing in the mountains of Kentucky," explains Powell. Although Quickstand produces very little seed and is propagated primarily by vegetative means, it is considered a common-type Bermuda. "As far as we know, it was not hybridized," relates Powell. He adds that the grass is very aggressive and withstands cold temperatures better than some other varieties of Bermuda. "We're right on the edge of the transition zone, so it had to be winter-hardy," he notes. Powell adds that he has not seen any problems with disease in Quickstand Bermudagrass. "We have not had any spring dead spot with it," he admits. "We've got it on soccer fields and on croquet fields."

Turfgrass researchers continue to tweak common Bermudagrass in an effort to develop a better, more durable variety suitable for heavy use in sports turf applications. Each improvement offers turfgrass managers more choices. Despite the increasing popularity of hybrid forms, common Bermudagrass remains a staple for turfgrass managers, especially those on a tight budget. □

Finally, A Mid-Sized Topdresser for 1/3 the Price of the Big Boys.



For many turf managers, large-area topdressers are way too expensive, while "finesse" topdressers are too limited in what they can do. If that's what you've found, The Millcreek Topdresser/Spreader is your answer. First, it's

about 1/3 the price of typical large-area topdressers. No it doesn't hold 6 cubic yards, but it spreads 2 cubic yards in 7 minutes and will easily topdress a football field in less than a day. It's safe and simple for a single operator. Plus it's unsurpassed for spreading compost, grass clippings, infield mix, lime, top soil, de-icing materials and more. With a 10-year guarantee on the floor, you get long-term spreading efficiency and versatility at a price you can handle today. Call for your FREE information.



Patented Spreading Action

Millcreek's patented "PowerBrush" action and adjustable directional fins enable you to spread almost any flowable material in paths from 3' to 10' wide. A single operator needs no tools for safe, easy adjustments. PTO or engine-drive. 2 cu. yd. capacity.

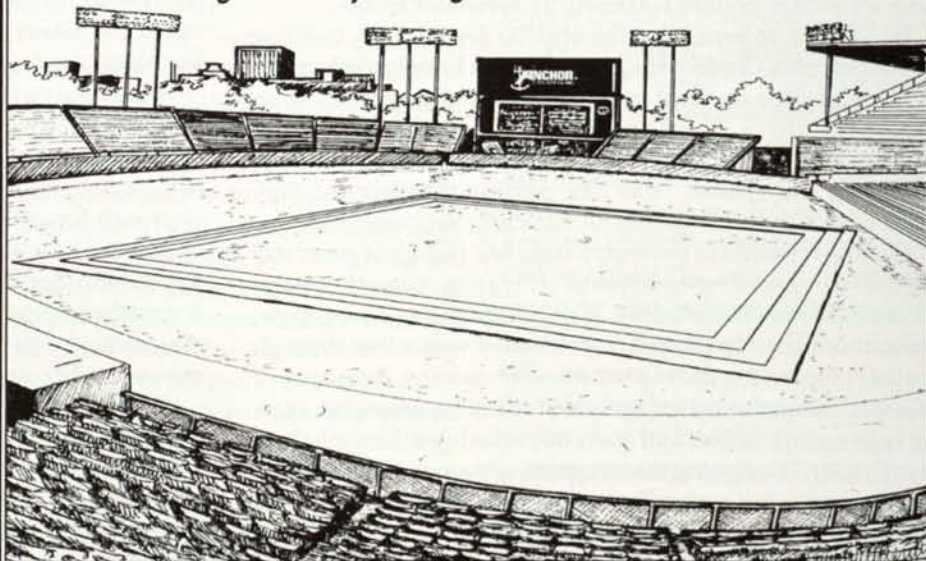


2617 Stumptown Rd.
Bird-in-Hand, PA 17505
1-800-879-6507
Dealer inquiries invited.

Circle 111 on Postage Free Card

Ballfield Covers from Anchor Industries COVER YOUR BASES WITH QUALITY

Little League to Major League - We've Got You Covered



ASK ABOUT OTHER QUALITY ANCHOR PRODUCTS

- Gym Floor Covers
- Infield Mound Covers
- Custom Tarps
- Wind and Sun Screens
- Fence and Wall Pads

For A Free Quote or More Information Call:

1-800-255-5552

Quality, Craftsmanship & Service Since 1892



Circle 112 on Postage Free Card