Prairie Buffalo vs Hybrid Bermuda

No. mowings per 2 months Prairie Buffalo
Source: Texas A&M

Water use in gallons

Prairie Buffalo vs Hybrid Bermuda

Source: Texas A&M

Beating the heat

Buffalo billed as wonder grass

BY PETER BLAIS

Barton Creek Country Club in Austin, Texas, is experimenting with two varieties of buffalograss that will eventually be available nationwide and could save the golf industry millions of dollars annually in water, fertilizer, pesticide and mowing expenses. Prairie buffalograss developed at Texas A&M University was introduced to the perimeter rough and along steep bunker faces of the new Ben Crenshaw-designed course beginning in late June, Continued on page 24

Isolite expected barrier-breaker

BY MARK LESLIE

Isolite is no panacea, Lou Haines is quick to say, but it could lower the body count in impending water wars. Haines, the technical services director of New Golf Concepts, Inc., of Westminster, Colo., is optimistic that tremendous inroads will be made into America's golf courses by Isolite, which Continued on page 26

UK is definitely no U.S.

BY BRADLEY S. KLEIN

A revolution in golf course maintenance in the United Kingdom has begun at the same time its greenkeepers are being lured to Continental Europe. The culprit causing an Americanization of greenkeeping is television, according to Brits in the industry. The pull to Continental Europe has meant higher salaries that are double and triple the $15,000 to $22,000 earned in the United Kingdom. British and International Golf Greenkeepers Association Chairman Ivor Scoones acknowledged the "brain drain" is a living force between England and the continent. Budget troubles at home tend to magnify the difference between earning a course in one place or the other, BIGGA Executive Director Neil Thomas said greenkeepers in Great Britain, who historically have had low maintenance budgets, now "have to deal with public perceptions about how a golf course should look."

Many British golfers have turned their back on "the links model" and become fascinated by what might be called the Augusta model, he said. The role of televised tournament golf cannot be underestimated. Club members, having watched The Masters on the tube, ask their club secretary why their greens and fairways aren't picture perfect, lush and plush, he said.

Greenkeepers explain that even Augusta National is timed to peak at a particular point in the year. "The links model" is more about tight turf and rougher greens, but that's not what most golfers want these days, he said. Greenkeepers explain that even Augusta National is timed to peak at a particular point in the year. "The links model" is more about tight turf and rougher greens, but that's not what most golfers want these days, he said.

Discrimination stops at supers' desk

BY MARK LESLIE

Discrimination doesn't exist on groundskeeping crews at country clubs around the nation — even those that exclude certain people as members, according to superintendents surveyed. "Segregation and integration are just not an issue (on grounds crews)," said Gerald Faubel, president of the Golf Course Superintendents Association of America and superintendent at Saginaw (Mich.) Country Club. "I have never seen any discrimination whatsoever with regard to race or sex on a grounds crew." Faubel's remarks followed the debate at Shot Creek Country Club in Birmingham, Ala., in which the club's discrimination against blacks threatened to prevent the PGA Championship from being played.

"If you found any segregation in grounds crews it would really surprise me," Faubel said.

James Singerling, executive vice president of the Club Managers Association of America and a former club manager, said clubs "never have a hiring policy." Continued on page 19
Buffalograss

Continued from page 1 according to superintendent Tim Long. All 18 holes should have some Prairietm by late fall.

Prairie will be commercially available on a limited basis this fall, to a greater degree next spring and in full production by 1992, according to Texas A&M Associate Professor Milt Engelke.

Buffalograss 600 developed at the University of Nebraska will be placed in additional rough areas this fall, said Associate Professor Terry Riordan. It will be available on a limited basis the next two years and in full production by 1993, said Riordan.

Take a snap shot of the oldest working Cushman® Turf-Truckster® on your golf course. If it's one of the oldest in the U.S. and Canada, you could win:

**Grand Prize:**
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Air fare, lodging, and $500 spending money for the 1991 GCSAA Show in Las Vegas, plus a 35mm camera. 

**Second Prize:**
$500 Cash and a 35mm camera.

**Third Prize:**
All contestants are eligible for a drawing to receive a free 35mm camera. Five winners will be drawn at random.

*All cameras to be awarded are an Olympus® 350 Super Zoom.*

Take a look at buffalograss, according to superintendent Tim Long. All 18 holes should have some Prairie by late fall.

"Some of the grasses we're developing could be used in fairways," said Riordan. "But that's not our goal. We want to use them in low-maintenance areas.

"They'll never replace bentgrass or Bermuda greens. Genetically, it's just not the same grass. But it could function that way. It's certainly better than bare ground."

The seed mix for Prairietm is a blend of fescue, Poa pratensis, Festuca arundinacea, and Kikuyu, a tropical species." added Engelke: "You won't find it going into the fairways at expensive, private courses. But there are a lot of courses out there with $100,000 maintenance budgets where it could prove popular. It's a very acceptable product that can be maintained well with little water, mowing or pesticides."

Compared to hybrid bermudagrass, which dominates Southern courses, Engelke said Prairie buffalograss:
- requires one-fourth the water;
- thrives on one-third the nitrogen, one to two pounds annually per 1,000 square feet compared to four to six pounds for Bermuda;
- is more resistant to turf diseases and insects so requires less pesticides, fungicides or herbicides;
- can be mowed as infrequently as once every two months as opposed to once a week for Bermuda;
- leaves fewer clippings to dispose of after mowing;
- has slightly better shade tolerance and requires an average of just two to three hours direct sunlight;
- tolerates severe cold having survived minus-43 degree temperatures last winter while bermudagrass was dying throughout the South;
- greens up earlier and goes dormant later, and;
- resists soil compacting better and is well suited to heavy traffic areas like cart path aprons. But it is not roses. There are drawbacks.

The major one is availability. With only 100 acres currently in production, Prairietm's price of $3.50 to $4.50 per square yard is double hybrid Bermuda's $1.50 to $2, Engelke said. That should change as production increases.

"Prairie will be about the same price as Bermuda with a couple of years, the Texas A&M professor predicted.

Prairie doesn't turn the dark green of Bermuda, although that can be helped along with additional nitrogen. On the other end, when it goes dormant, Prairie turns a deep golden color that Engelke said is "quite pretty."

"Buffalograss may not be a panacea. But it's certainly an alternative for today's environment-conscious courses," said Engelke.

**Barton Creek's experience**

The Crenshaw course at Barton Creek, scheduled to open next spring, was a logical initial site for buffalograss since Crenshaw Douget Turfgrass Inc. is licensed to market Prairie and 600.

"We put Prairie in the buffer and transition zones from the native areas," said Long, whose new course is planted primarily with Bermuda 419. "It's adjacent to critical environmental features (primarily Barton Creek) because it has low fertilizer requirements. And we shouldn't have to mow it after the first year."

Prairie grows to a height of six inches. "The ball is still playable even at that height. And Crenshaw likes its aesthetic value as a transition to the taller native grasses...It has a kind of a feathery look and waves in the wind," Long said.

Barton Creek is in a semi-arid area, receiving an average 32 inches of precipitation annually.

"I hope we just have to water it once a week or so in summer to maintain its color," said Long. "We water the Bermuda five or six times a week from May through September.

"It has great cold tolerance, too. All the courses planted in Bermuda around here really suffered last winter. But a small plot of Prairie we had came through just fine. I understand they can grow it well into Canada."

Whereas Bermuda can only be planted about six months a year, Prairie's cold tolerance allows it to be planted basically year-round. That will allow Barton Creek developers to continue planting Prairie along roadways and in residential areas this winter, Long said.

"If they don't have to irrigate those areas it will mean a considerable capital expense savings," the superintendent said. "And they shouldn't have to mow it more than once or twice a year."

Buffalograss is a dense-growing turf with an extensive root system, helping it stabilize and control erosion along steep surfaces. Extreme slopes and bunker faces were the first places Long installed the Prairie sod. Sprigging the remaining

**Continued on page 25**
The new buffalograsses will require 50 percent less water, fertilizer, pesticides and mowing than bluegrass, he added. "It will be valuable anywhere water and environmental issues are important. It's much more adaptive than we ever thought," Riordan said.

A worker installs prairie buffalograss alongside a bunker at the 17th hole of the new Ben Crenshaw-designed course at Barton Creek Country Club in Austin, Texas. This Texas A&M-developed buffalograss is one of the new semi-arid grasses being developed around the world.

Continued from page 24

The future

"Over the next six to 10 years perceptions about buffalograss will change dramatically," Engelke said. "Buffalograss is at the same stage as tall fescues were in the early 1960s. Over the next decade, tremendous advances were made in tall fescue color, mowing heights, water usage."

"Comparing buffalograss to other turf types is like comparing the Model T to today's cars. But in 10 years you'll see similar changes to those we saw with tall fescue. It's a tremendous plant for the future. But we're just opening the door. Buffalo and zoysia will be the dominant warm-climate grasses of the next decade."

One of the major changes will be the availability of buffalograss seed. Prairie and 609 are both vegetative-type grasses, meaning they are available only as sod, plugs or sprigs.

"We're working with companies that hope to have buffalograss seed available within a couple of years," said Riordan. Prairie and 609 were both bred for Southern courses, said Riordan, who is taking over much of Engelke's buffalograss research allowing the Texas A&M professor to concentrate on bentgrass and zoysia.

But buffalograss will eventually be available throughout North America. Experimental plantings have thrived from British Columbia to Florida.

The future wave of buffalograsses, some of which will be released next spring, will be better suited to Northern Plains and Western courses where Kentucky bluegrass dominates, Riordan said.

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Isolite

Continued from page 1

is formed from diatomaceous earth and processed at more than 1,800 degrees.

A former golf course superintendent, Haines said Isolite (pro-nounced ees-o-lite) has "uncountable applications" for his ex-col leagues.

"From a both a technical and practical standpoint, it's going to be a big, big product," he said. "It has tremendous water-saving capacity, especially with the sand greens we're growing grass on now, and these sandy soil areas where water percs right through the sand profile," Haines said.

"You might save that much under an ideal situation, but I don't like to say that," he said. "In the real world I think we're looking at savings closer to 25 to 40 percent, depending on the soil type."

He said Isolite has applications on both ends of the soil scale from a tight clay to an open sand and pretty much everything in between, depending on what you want to do.

"But Haines moderates that statement.

"You're going to have a lot of wars in the very near future on water use. You realize in talking to people in California, Arizona and Nevada, that water is getting to be a very, very serious thing.

"We hope this will be a solution," Seth Hunt, president of Foremost Solutions environmental consulting company in Denver, Colo., and former personal assistant to the Environmental Protection Agency in Washington, D.C., is one of many who believe it will be a solution for many areas outside golf courses.

A member of New Concepts' board of directors, Hunt said research and development scientists at the EPA are interested in investigating Isolite.

"Everyone on the environmental side is excited about it," he said. "Scientists hear of it and immediately their minds get in gear and they think of new ideas for it."

Hunt said Isolite has "no environmental liabilities. It's an asset to the environment. It reduces fertilizer use. It reduces pesticide use. It has no toxic biproducts."

One of the more interesting ideas for its use was as a layer above a hazardous waste site.

Meanwhile, Haines said Isolite also saves in fertilizer costs, holding fertilizer so it doesn't leech through the soil.

Haines said Isolite has no similarity to polymers. "Imagine holding a sponge in your hand. The sponge absorbs the water because the pore spaces fill with water. Isolite is the exact same thing as the sponge except it is hard. It will neither contract nor expand. It's a hard sponge full of pores that fill up with water. You can't wring out the water out like you can a sponge but the grass roots can extract that water from the Isolite particles."

He added that Isolite also "holds air in some of the pore spaces and provides an ideal environment for the micro-organisms that we must have in the soil in order to grow grass," he said. "Where do the roots grow in the plant? They grow in the pore space between the soil particles. That's where the fertilizer, water and air and everything else are... So the more porosity we can provide, the more friable our soil is, the better plants we can grow in it and the better things we can do with it."

New Golf Concepts President William D. Leary says, "The benefits in water conservation and environmental enhancement which Isolite can provide to America are phenomenal."

And the firm's publicity claims Isolite "has the ability to reduce water usage 50-65 percent."

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Meanwhile, a note of wariness about any new product on the market was added by Bill Bengeyfield, recently retired national director of the U.S. Golf Association Green Section.

Bengeyfield said "legitimate research" must be done by scientists independent of the company.

"There are so many slips twist the cup and the lip... Independent research just has to be done on it... The company's tests don't count in the world of science," he said.

Indeed, New Golf Concepts plans other tests besides the one at Sadona.

Haines projects that Colorado State University will apply Isolite to a USGA-spec sand green; a replica of a bentgrass fairway; and to clay soils "to see how well we can open up clay to increase porosity and percolation and prevent compaction... which is one of the main nemeses on the golf course where there are cart paths and high-traffic areas."

He said the company is also negotiating with other universities to perform tests in other areas of the country.

"We want to get testing established in different soils and climate conditions," Haines said. "We will have some excellelent results by this time next year from our Colorado State studies. For the other studies, it will depend on how quickly we can get them started."

Continued on page 27
Isolite
Continued from page 26
"It will take a year for meaningful and objective results to report. But at the same time we are getting more and more information from the Japanese studies. The Tokyo Agricultural Experimental Station results will be in hand in August." Isolite is being used on 15 percent of the 1,500 golf courses in Japan, where it has been developed for nine years. The results there cent of the 1,500 golf courses in Japan, where it has been developed for nine years. The results there reportedly have been "dramatic," according to New Golf Concepts.

Isolite is incorporated into the ground through fertilization, verti-cutting, and slit-trench machines. But Haines said it is ideally added during construction when it is tilled into the top six to eight inches of soil.

"There is no such thing as a panacea," Haines said. "As a former superintendent I know that. We've just got a good, practical product that is going to help superintendents solve a lot of problems.

"And you can't go wrong with it. It is basically an inert product. You can't burn with it, or change soil pH with it. There's no chemistry to it. You're just putting a bunch of sponges in the soil."

"It's cost?"

"It's a little high right now, but I think we will get a price reduction soon," said Hunt. "We will pass any price reduction on to the end user."

"Offset cutting units on the 2243 allow you to stagger your wheel tracks by simply changing your direction of cut."

The board of directors of the Golf Course Superintendents Association of America will play the Canadian counterpart in the first of what will hopefully be an annual tournament, according to GCSAA President Gerald Faubel.

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The Americans will tee off Sept. 27 at Club de Golf Cedarbrook in St. Sophie, Quebec, against the team from the Canadian Golf Superintendents Association. "We want to give the Canadians a win," said Faubel.

Oakmont CC lures Latshaw back
Oakmont will host the women's 1992 U.S. Open and the 1994 men's U.S. Open.

Huntcor is serving as the general contractor on the project.

Due to the high yield and abundance of the red maples, AmeriAquatix has initiated an extensive research project at its Paradise Valley, Ariz., course.

Florida firm gives away 10,000 trees
AmeriAquatix, Inc., of Deerfield Beach, Fla., which is involved in lake and wetland management, has donated more than 10,000 red maple seedlings to a number of south and central Florida environmental and agricultural organizations, according to President Thomas LaTta.

AmeriAquatix has initiated an extensive research project at its Sarasota, Fla., facility to propagate a selection of indigenous wetland trees form seed and introduce them back into their native environments.

Due to the high yield and abundance of the red maples, AmeriAquatix has initiated an extensive research project at its Sarasota, Fla., facility to propagate a selection of indigenous wetland trees form seed and introduce them back into their native environments.

The club house was designed by Cornoyer-Hedrick Architects & Planners, Inc. and Huntcor is serving as the general contractor on the project.

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