Bluegrass on comeback trail, turf breeders say

By MARK LESLIE

BELTSVILLE, Md. — Bluegrass, out of fashion since perennial ryegrasses broke onto the scene, may be on the road to a comeback in golf course circles. Turfgrass breeders are conquering the obstacles of lower height of cut and density, and are hoping to improve seed yield and heat tolerance.

"We've opened the door for closecut bluegrasses," said Dr. Doug Brede, research director at Jacklin Seed Co. "In fact, I think we've started a whole phenomena... It opens up a totally different option for people. On a scale of 10, I'd give it an 8 on an order of earth-shattering if I were a superintendent."

"Where superintendents have had the difficult choice of a ryegrass fairway which does not have the ability to spread and repair divots, or bentgrass fairways with much higher maintenance costs, bluegrasses will become a much more considered choice," said Dr. Virginia Lehman, director of research at the Lofts Seed Co. research farm in Lebanon, Ore.

"People used to use Kentucky bluegrass on fairways almost exclusively, partially because there were not a lot of options," said Kevin Morris, national director of the National Turfgrass Evaluation Program (NTEP), headquartered here. "They worked pretty well except that summer patch and necrotic ring spot started to become a problem and we had no control for them. When the perennial ryes came along, and were easy to seed and looked nice, people started to use them exclusively. But, since then, we've found that rye is not perfect, either."

"You can blow out a lot of ryegrass with winter kill," said Dave Oatis, director of the U.S. Golf Association Green Section's Northeast Region. Ryegrasses also suffer from poor divot recovery, attacks of snow mold, brown patch and red thread. And now gray leafspot has emerged as a devastating

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Buffalograss breeders hoping for supers' change in attitude

By MARK LESLIE

PHOENIX, Ariz. — Hailed a few years ago as a solution to water restrictions and chemical applications, buffalograss has instead drawn more attraction as an "accent" grass on golf courses. Yet turf breeders remain optimistic about the future of buffalograss on golf courses.

A native grass on prairies, buffalograsses are known for drought-hardiness, low fertility requirements, disease- and insect-resistance, heat- and cold-tolerance and other attributes. They require only one-fourth to one-half the water needed for Bermudagrass, so with growing concern about water availability, research on buffaloes has drawn widespread attention. They re-emerged in a handful of research programs just a dozen years ago — a New York minute in the time clock of turf breeders.

"We're looking at this as developing a grass for the next century," said Dr. Terry Riordan of the University of Nebraska, a key breeder of buffaloes. "We're only in our 12th year, but the new varieties we have are much better than we've had in the past."

Riordan touted the density, color and uniformity of the newer buffalograsses and said two Northern types that can tolerate mowing down to 5/8 inch should be available next year.

Nevertheless, buffalograss hasn't been without its critics among those who have tried it in the field. The main negative is that stands of buffalograss may be invaded by the more aggressive Bermudagrass.

Golf course architect Ken Dye of Houston, who has specified buffalograss on a couple of courses, said: "We don't do it anymore. Our overall experience has been mediocre. The newer varieties are definitely better... But the experience we've had is that contamination over time is significant. Within five or 10 years, 10 to 20 feet of your buffalograss rough is taken over by Bermudagrass that has spread from the fairway.

"So until someone figures how to make stronger buffalograss, or a chemical to keep out Bermuda, I can't see putting the two

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National Kentucky bluegrass test progress report for medium-high input

Name	AB1	IA1	IA2	IL1	IL2	IN1	KS1	KY1	MA1	MD1	ME1	MI1	MN1	MO1	MO3	NC1	NE1	NJ1	NJ2	OH1	OK1	ON1	PA1	QE1	RI1	UB1	UT1	VA1	WA1	Mean
*Midnight	6.3	6.5	5.7	6.6	6.5	6.3	7.0	7.5	6.0	5.0	6.7	6.4	6.1	4.4	7.0	5.8	6.3	6.7	7.2	8.0	6.5	5.5	6.3	7.8	6.3	6.8	5.8	4.4	6.7	6.3
*ZPS-2572	6.7	7.3	6.1	7.2	6.4	5.4	6.8	7.3	6.1	5.7	6.4	6.3	6.2	4.5	7.2	6.3	6.5	5.2	6.8	7.6	6.5	4.9	6.3	7.4	6.3	6.9	5.5	4.2	5.8	6.3
*Unique	7.0	6.8	6.8	6.2	5.9	6.1	5.8	7.4	6.3	5.7	6.5	6.4	6.7	5.0	6.7	5.4	6.5	5.3	5.3	7.8	6.9	5.1	6.6	7.6	5.3	5.8	6.8	5.9	6.0	6.3
*Total Eclipse	6.0	6.2	6.4	7.3	5.3	5.5	6.7	8.0	6.3	5.2	6.6	6.0	6.0	4.1	7.2	5.4	6.3	5.1	7.3	7.3	6.2	4.5	6.7	7.8	6.6	7.3	6.2	4.1	6.4	6.2
*Award	7.0	7.1	6.0	6.9	5.3	5.5	6.4	7.3	5.5	5.8	6.4	6.6	5.8	4.4	7.0	5.6	6.2	4.5	6.9	8.0	6.5	4.7	7.2	7.2	7.0	6.3	5.9	4.5	6.5	6.2
PST-B2-42	7.0	7.2	6.4	6.7	6.3	6.5	6.3	7.3	6.0	4.8	6.6	7.1	6.0	4.5	6.3	6.0	7.0	4.5	5.3	7.9	5.9	5.1	6.0	7.8	5.7	6.0	6.6	5.2	6.0	6.2
PST-B0-141	5.7	6.7	7.0	7.3	6.7	6.0	6.1	7.1	6.7	5.7	6.4	6.2	6.0	4.3	6.3	6.5	6.5	4.4	5.4	8.0	6.4	4.8	6.2	7.9	6.0	5.3	6.7	5.8	5.8	6.2
*Blacksburg	6.7	7.3	6.9	6.3	6.2	6.2	6.7	6.0	5.5	6.0	6.4	6.5	6.2	5.6	6.5	5.4	5.5	4.9	5.4	8.0	5.8	5.2	7.8	7.8	6.2	5.5	6.3	5.1	5.9	6.2
Absolute	7.0	6.9	5.9	7.3	5.3	6.1	5.7	6.6	5.1	5.8	6.4	6.7	6.2	5.0	7.0	5.7	5.5	5.0	5.8	7.9	6.4	5.5	7.2	7.8	6.1	6.4	6.2	4.4	6.4	6.2
*Odyssey	7.0	5.7	6.8	7.4	5.2	5.6	6.3	7.2	5.9	5.4	6.7	6.6	5.4	3.9	6.9	6.1	5.3	4.8	6.8	8.1	6.8	5.4	6.5	7.4	6.2	6.8	6.0	4.8	5.7	6.2
*Nuglade	6.3	6.0	6.6	6.5	5.3	5.3	6.4	7.3	6.3	5.5	6.8	6.1	5.7	4.5	6.9	5.8	5.3	4.5	6.7	8.1	7.3	4.9	6.8	7.3	6.5	7.0	5.8	4.0	6.8	6.1
*Quantum Leap	6.7	6.3	5.7	6.8	5.7	5.3	6.4	7.5	5.5	5.3	6.0	6.3	5.8	4.8	6.4	5.7	6.8	4.8	7.1	7.7	5.9	5.3	7.0	7.5	6.6	7.0	5.3	4.7	6.3	6.1
*America	5.3	5.7	6.5	6.9	6.5	6.5	5.8	7.0	6.3	5.7	7.0	6.3	6.0	4.4	6.4	5.8	7.0	5.6	5.3	7.7	5.9	4.7	6.2	7.3	6.3	5.7	6.7	5.7	5.8	6.1
*Rugby II	7.0	5.6	6.3	7.0	5.3	5.6	6.2	7.0	5.8	5.4	6.2	6.7	6.0	4.2	6.9	5.3	6.0	5.1	6.5	7.6	6.5	5.0	6.7	7.3	6.5	6.3	5.9	5.0	6.6	6.1
J-1576	6.0	5.8	5.7	6.9	5.9	5.2	6.3	7.8	5.9	5.4	6.2	6.3	5.8	4.4	6.5	5.9	6.0	4.7	6.7	7.5	7.0	4.8	6.2	7.6	6.8	7.1	5.9	4.7	6.6	6.1
PST-B3-180	6.0	5.7	6.2	6.8	6.5	6.0	7.0	7.2	6.3	5.5	5.8	6.0	6.0	4.7	6.3	6.0	5.2	5.0	5.3	8.1	6.4	5.3	6.1	7.4	6.5	5.7	6.6	5.1	6.2	6.1
PST-638	6.3	5.9	6.0	6.7	7.1	5.6	6.2	5.8	5.0	5.7	6.8	6.7	6.3	4.4	6.7	5.6	6.2	5.8	6.6	7.3	6.1	4.8	6.6	7.6	6.6	5.6	5.1	4.7	5.8	6.1
LSD	**1.3**	**1.6**	**1.1**	**0.7**	**1.2**	**0.8**	**0.9**	**0.9**	**0.9**	**0.9**	**1.6**	**0.6**	**0.6**	**1.0**	**0.5**	**1.0**	**1.0**	**0.9**	**1.0**	**0.7**	**0.9**	**0.9**	**1.0**	**0.5**	**0.8**	**1.1**	**0.8**	**1.0**	**0.6**	**0.2**

** — Commercially available in the United States in 1997.*

SEED FIRMS WITH TOP ENTRIES

Midnight — Standard Entry
ZPS-2572 — Zajac Performance Seeds
Unique — Turf-Seed
Total Eclipse — Jacklin Seed
Award — Jacklin Seed
PST-B2-42 — Pure-Seed Testing
PST-B0-141 — Pure-Seed Testing
Blacksburg — Turf-Seed
Absolute — Medalist America
Odyssey — Peterson Seed
Nuglade — Jacklin Seed
Quantum Leap — Roberts Seed
America — Pickseed West
Rugby II — Medalist America
J-1576 — Jacklin Seed
PST-B3-180 — Olsen-Fennel Seed
PST-638 — C.R. Funk, Rutgers University

The following are conditions at the sites of the bluegrass national tests, including, in order, location, soil texture, soil pH, nitrogen applied (in pounds per 1,000 square feet), mowing height (in inches) and irrigation practiced:

AB1 — Olds, Alberta, Canada, N/A, N/A, 2.1-3.0, 0.5-1.0, N/A.
IA1 — Ames, Iowa, sandy clay loam, 7.1-7.5, 2.1-3.0, 2.6-3.0, to prevent stress.
IA2 — Ames, Iowa (traffic), sandy clay loam, 7.1-7.5, 2.1-3.0, 2.6-3.0, to prevent stress.
IL1 — Urbana, Ill., silt loam and silt, 6.1-6.5, 3.1-4.0, 1.1-1.5, to prevent stress.
IL2 — Carbondale, Ill., silty clay loam, 6.1-6.5, 4.1-5.0, 1.1-1.5, to prevent stress.
IN1 — West Lafayette, Ind., silt loam and silt, 7.1-7.5, 3.1-4.0, 0.6-1.0, to prevent stress.
KS1 — Manhattan, Kan., silt loam and silt, 6.6-7.0, 3.1-4.0, 0.0-0.5, to prevent stress.
KY1 — Lexington, Ky., silt loam and silt, 6.1-6.5, 3.1-4.0, 1.1-1.5, only during severe stress.
MA1 — Amherst, Mass., silt loam and silt, 6.1-6.5, 5.1-6.0, 0.0-0.5, to prevent stress.
MD1 — Silver Spring, Md. (dense shade), loamy sand, 4.6-5.5, 2.1-3.0, 2.1-2.5, to prevent stress.
MD2 — Silver Spring, Md. (shade), silt loam and silt, 6.6-7.0, 2.1-3.0, 2.6-3.0, to prevent dormancy.
ME1 — Orono, Maine, N/A, 5.6-6.0, 5.1-6.0, 1.1-1.5, to prevent stress.
MI1 — East Lansing, Mich., sandy loam, 7.1-7.5, 2.1-3.0, 2.6-3.0, to prevent stress.
MN1 — St. Paul, Minn., silty clay loam, 7.1-7.5, 2.1-3.0, 1.6-2.0, to prevent stress.
MO1 — Columbia, Mo., silty clay loam, 6.1-6.5, 3.1-4.0, 1.1-1.5, to prevent stress.
MO3 — St. Louis, Mo., silty clay loam, 6.6-7.0, 4.1-5.0, 2.6-3.0, to prevent dormancy.
NC1 — Raleigh, N.C., sandy clay loam, 5.6-6.0, 2.1-3.0, 1.1-1.5, to prevent stress.
NE1 — Lincoln, Neb., N/A, N/A, 3.1-4.0, 0.0-0.5, to prevent stress.
NJ1 — North Brunswick, N.J., sandy loam, 6.1-6.5, 3.1-4.0, 1.1-1.5, to prevent stress.
NJ2 — Adelphia, N.J., sandy loam, 6.1-6.5, 5.1-6.0, 1.1-1.5, to prevent stress.
OH1 — Columbus, Ohio, silt loam and silt, 6.6-7.0, 2.1-3.0, 2.1-2.5, to prevent stress.
OK1 — Stillwater, Okla., silty clay loam, 6.6-7.0, 3.1-4.0, 1.6-2.0, to prevent stress.
ON1 — Guelph, Ontario, Canada, Sandy Loam, 7.6-8.5, 3.1-4.0, 2.1-2.5 no irrigation.
PA1 — University Park, Pa., silt loam and silt, 6.6-7.0, 3.1-4.0, 1.6-2.0, to prevent stress.
QE1 — Quebec, Quebec, Canada, N/A, N/A, 3.1-4.0, 0.6-1.0, N/A.
RI1 — Kingston, R.I., silt loam and silt, 6.6-7.0, 3.1-4.0, 1.1-1.5, to prevent stress.
UB1 — Beltsville, Md. (high maintenance), silt loam and silt, 5.6-6.0, 3.1-4.0, 0.6-1.0, to prevent stress.
UT1 — Logan, Utah, silt loam and silt, 7.1-7.5, 4.1-5.0, 0.6-1.0, to prevent stress.
VA1 — Blacksburg, Va., N/A, N/A, 3.1-4.0, 1.1-1.5, N/A.
WA1 — Pullman, Wash., silt loam and silt, 5.6-6.0, 5.1-6.0, 1.6-2.0, to prevent stress.