National Bentgrass Putting Green Test 1st-year Results

Name	AZ1	GA1	GA2	IA1	IL1	IL2	KS1	KY1	KY2	MA1	MI1	MN1	MO1	MO2	NH1	NJ1	OK1	PA1	RI1	SC1	TX1	VA1	WA1	WA3	WI1	WI2	Mean
*A-4	7.2	4.0	2.1	6.7	5.5	7.1	6.9	7.7	7.6	6.1	6.0	7.8	7.3	7.3	6.7	6.0	6.6	6.6	6.1	5.2	7.1	6.6	6.7	6.3	7.4	7.8	**6.5**
*L-93	6.6	4.3	1.9	6.6	5.3	6.3	6.9	8.0	7.4	7.5	6.3	7.3	6.9	6.9	5.9	7.3	6.4	7.4	6.2	5.1	6.4	6.1	6.2	5.7	7.2	7.3	**6.4**
*Providence	6.2	4.2	2.4	6.5	5.9	6.5	6.9	7.4	7.5	7.3	5.8	6.9	7.6	7.5	7.1	6.2	5.9	6.8	6.0	4.3	7.1	6.0	6.4	5.8	7.3	7.2	**6.3**
*A-1	6.1	3.9	2.2	6.1	5.3	5.7	6.0	8.1	7.4	7.3	5.2	7.4	6.6	7.2	5.2	7.2	6.3	7.3	5.8	5.6	6.7	6.4	6.5	6.2	7.6	7.4	**6.3**
*Crenshaw	6.4	3.9	2.3	5.8	5.5	6.7	7.5	7.2	7.4	7.0	5.8	6.9	6.9	7.4	6.2	6.5	6.1	6.1	5.9	5.0	7.1	6.2	6.7	4.9	6.9	7.1	**6.2**
*Cato	7.3	4.1	2.0	6.6	5.1	5.3	6.7	8.0	6.8	7.4	5.8	7.2	7.0	7.0	6.7	5.7	6.0	6.8	6.5	5.0	6.0	6.1	6.0	6.0	7.1	7.3	**6.2**
*G-6	6.2	4.1	2.2	6.3	4.8	5.5	5.3	7.7	6.8	7.5	5.5	7.5	6.3	7.0	6.4	6.6	6.7	6.5	5.8	5.1	6.3	6.2	6.1	6.0	7.3	7.3	**6.1**
*G-2	6.2	3.9	2.1	5.4	4.9	5.7	5.4	7.8	7.1	6.5	5.8	7.8	6.9	7.2	5.9	6.8	6.1	6.7	6.1	5.1	5.9	6.1	6.5	5.9	7.2	7.5	**6.1**
*Southshore	6.0	4.5	1.9	6.2	4.9	6.5	6.6	7.1	6.5	6.1	5.5	7.5	7.1	7.2	6.4	5.9	5.7	6.7	6.2	5.1	6.8	5.8	6.3	5.5	7.2	6.6	**6.1**
SYN 92-1	6.1	3.9	2.2	5.8	5.1	6.5	7.0	7.1	7.3	6.6	5.2	7.4	7.1	7.3	5.3	5.8	5.9	6.1	5.9	4.4	6.5	6.1	6.1	6.2	7.0	6.8	**6.0**
SYN 92-5	5.7	3.9	1.9	5.8	5.1	7.1	5.6	7.1	6.6	6.4	5.5	6.5	6.8	7.1	5.1	6.2	5.9	6.3	5.4	4.4	6.9	6.5	6.5	6.4	7.1	7.2	**6.0**
SYN 92-2	5.7	4.4	2.3	5.3	4.5	7.3	6.5	6.7	7.2	6.0	5.3	7.3	6.9	7.1	5.8	6.0	5.5	5.7	5.7	4.4	6.5	6.3	5.9	5.7	6.8	6.8	**5.9**
*SR 1020	5.9	4.3	2.4	5.6	4.8	5.7	6.1	7.1	6.8	5.9	5.5	7.1	6.8	7.0	6.4	5.1	5.8	5.8	6.1	4.6	7.2	5.6	6.3	5.5	7.0	6.9	**5.9**
*Pennlinks	5.0	4.3	2.5	5.5	5.0	6.4	6.5	7.7	6.5	5.8	5.2	6.8	7.3	7.4	6.0	5.4	5.3	6.2	5.3	4.7	6.1	5.5	6.3	5.2	6.8	7.0	**5.8**
*Regent	5.4	4.3	1.8	5.7	4.7	6.0	6.5	7.1	6.7	6.2	5.2	7.0	6.8	7.3	6.2	5.8	5.4	5.6	5.4	4.3	7.2	5.4	6.1	5.2	7.1	6.4	**5.8**
BAR WS 42101	5.9	3.9	1.7	5.3	4.6	5.5	6.5	7.4	7.2	5.7	5.3	7.4	6.8	7.0	5.9	4.8	5.5	6.8	5.6	3.9	6.0	5.9	6.4	5.5	7.1	7.3	**5.8**
MSUEB	4.8	4.1	2.2	5.4	4.7	6.7	6.0	7.2	7.2	5.6	5.2	6.6	7.5	7.2	5.3	5.8	5.3	6.3	5.2	5.0	5.7	5.3	6.1	4.7	6.9	6.7	**5.7**
ISI-AP-89150	5.0	3.9	1.7	5.5	4.8	5.0	5.9	7.3	6.1	6.6	5.2	7.2	7.2	7.2	5.6	5.3	5.3	6.3	5.2	4.0	6.5	5.5	6.5	5.7	7.1	6.5	**5.7**
*18th Green	5.4	3.7	1.7	5.2	4.1	4.7	5.5	6.8	7.1	6.3	5.3	7.5	7.1	7.3	7.2	5.2	5.7	5.9	4.9	4.0	6.1	5.9	6.0	4.9	6.5	7.0	**5.7**
*Lopez	4.8	3.9	3.2	5.5	4.3	6.3	5.9	7.7	6.0	6.1	5.2	6.8	7.2	7.1	5.6	5.8	5.1	5.6	5.2	3.4	6.4	5.4	6.1	4.8	6.8	6.7	**5.6**
*Pro/Cup	5.0	4.1	1.7	4.8	4.5	5.1	6.6	7.3	7.2	5.7	4.8	6.7	6.6	7.1	6.0	5.8	5.3	5.5	5.6	3.6	6.5	5.5	6.1	5.3	6.8	6.6	**5.6**
DG-P	5.0	3.9	1.8	4.7	4.2	5.7	5.7	7.5	6.0	6.1	5.2	7.0	6.9	7.1	5.8	5.3	5.3	6.2	4.9	3.8	6.5	5.3	5.6	5.2	7.0	6.6	**5.6**
*Penncross	4.9	4.3	2.7	5.3	4.7	6.1	5.9	7.0	7.3	5.2	5.2	6.8	7.0	7.1	6.2	4.7	4.9	5.3	4.8	3.5	7.0	5.2	6.2	4.8	6.2	6.1	**5.5**
*Trueline	4.8	3.8	2.2	5.2	4.3	4.0	6.4	7.3	6.9	5.5	4.3	7.0	7.4	7.1	6.3	5.9	5.1	5.4	5.6	3.4	6.1	5.4	6.0	4.8	7.1	6.6	**5.5**
*SYN-1-88	4.8	4.6	2.0	4.3	4.8	5.1	5.9	7.1	6.7	4.9	4.7	6.8	6.7	7.1	5.0	5.3	5.3	4.5	4.8	3.8	6.5	5.3	6.0	4.5	6.6	6.3	**5.4**
*Tendenz	2.5	3.9	4.4	3.4	3.3	5.3	4.3	5.8	5.1	5.0	4.2	6.5	6.3	6.8	5.9	4.2	3.7	5.1	3.8	3.1	6.1	5.7	5.1	4.4	5.9	5.8	**4.8**
BAR AS 492	2.4	4.8	5.2	3.6	3.1	4.1	5.6	4.6	4.6	3.8	3.5	6.3	6.0	7.0	2.7	3.6	3.6	4.5	5.0	2.5	5.2	5.1	4.5	4.2	6.8	6.5	**4.6**
*Seaside	3.7	4.3	3.3	3.5	3.9	3.9	4.9	6.3	5.8	3.8	4.0	6.4	6.0	7.0	3.6	3.0	4.0	3.3	4.8	2.8	6.3	3.8	5.1	3.1	5.6	5.6	**4.5**
LSD Value	**0.7**	**0.7**	**0.7**	**0.9**	**0.6**	**1.8**	**1.4**	**0.5**	**0.6**	**0.9**	**0.8**	**0.8**	**0.7**	**0.6**	**0.4**	**0.6**	**0.4**	**0.7**	**0.9**	**0.8**	**1.2**	**0.5**	**0.6**	**0.4**	**0.5**	**0.5**	**0.2**

** — Commercially available in the United States in 1995.*

Blending cultivars the answer for some

By MARK LESLIE

Turfgrass blends. For some golf course superintendents, they are the answer to the equation as to the best turfgrass to buy.

Providence and SR 1020 equal Dominant. Cato and Crenshaw equal CNC.

The idea is simple. Seed your favorite grass along with another that has characteristics lacking in your favored turf. For instance, Crenshaw is susceptible to dollar spot. Cato is not. Mixing the two results in an excellent blend.

The demand certainly exists. "I get 20 calls a week for Crenshaw and Cato, and I don't even sell it," said Steve Tubbs, vice president of Turf Merchants Inc. "I know there is demand that is not being met. [Blends] are real and they are making their mark, especially under the banner of being heat-tolerant."

With a rash of new, high-quality grasses entering the marketplace this fall, more possibilities exist for blends. The most pronounced appears to be Lofts' Crenshaw and L-93. Pickseed West owns Cato, making the Crenshaw-Cato mix a bit of a problem. The appearance of L-93 as a top-rated cultivar solves that problem.

Indeed, Lofts research director Dr. Rich Hurley said: "We'd actually like a three-way blend: L-93, Crenshaw and Southshore. Crenshaw-Southshore has been popular."

Dr. Milt Engelke of Texas A&M University added that superintendents can take advantage of some of the aggressive new grasses "that tend to thatch but have tremendous traffic tolerance... If the course will run only 10,000 to 20,000 rounds, they need a light Crenshaw in the blend or to do heavy verticutting. If a super understands a grass's strengths and weaknesses and manages toward them, the management doesn't have to preclude its use. PSU A1 and A4 and the PSU G2 and G6 produce heavy thatch. But you can manage for that."

The following are conditions at the sites of the bentgrass 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:

AZ1 — Tucson, Ariz., sand, 7.6-8.5, 3.1-4.0, 0.1575, to prevent stress.
CO1 — Fort Collins, Colo., sandm, 7.1-7.5, 4.1-5.0, 0.0-0.5, to prevent stress.
GA1 — Griffin, Ga. (high soil pH), sandy clay loam, 5.6-6.0, 2.1-3.0, 0.6, to prevent stress.
GA2 — Griffin, Ga. (low soil pH), sandy clay loam, 3.6-4.5, 2.1-3.0, 1.0, no irrigation.
IA1 — Ames, Iowa, silty clay loam, 7.1-7.5, 3.1-4.0, 0.5, to prevent stress.
IL1 — Urbana, Ill., silt loam and silt, N/A, 2.1-3.0, 0.0-0.5, to prevent stress.
IL2 — Carbondale, Ill., silty clay loam, 6.1-6.5, 3.1-4.0, 0.0-0.5, to prevent stress.
KS1 — Manhattan, Kan., sand, 7.6-8.5, 3.1-4.0, 0.1562, to prevent stress.
KY1 — Lexington, Ky., sand, N/A, 4.1-5.0, 0.1875, to prevent stress.
KY2 — Lexington (Griffin Gate GC), sand, N/A, 4.1-5.0, 0.1875, to prevent stress.
MA1 — Amherst, Mass., sandy loam, 6.1-6.5, 3.1-4.0, 0.0-0.5, to prevent stress.
MI1 — East Lansing, Mich., loamy sand, 6.6-7.0, 8.1+, 0.1875, to prevent stress.
MN1 — St. Paul, Minn., silty clay loam, 7.5, 2.1-3.0, 0.0-0.5, to prevent stress.
MO1 — Columbia (traffic), Mo., sand, 7.1-7.5, 5.1-6.0, 0.1562, to prevent stress.
MO2 — Columbia, Mo., (no traffic), silt loam and silt, 6.1-6.5, 1.1-2.0, 0.1562, to prevent stress.
NH1 — Durham, N.H., sandy loam, 5.6-6.0, 3.1-4.0, 0.0-0.5, to prevent stress.
NJ1 — North Brunswick, N.J., sandy loam, 6.1-6.5, 4.1-5.0, 0.25, to prevent stress.
OK1 — Stillwater, Okla., sand, 7.1-7.5, 4.1-5.0, 0.1875, to prevent stress.
PA1 — University Park, Pa., loamy sand, 6.1-6.5, 2.1-3.0, 0.0-0.5, to prevent stress.
RI1 — Kingston, R.I., silt loam and silt, 6.6-7.0, 4.1-5.0, 0.1875, to prevent stress.
SC1 — Florence, S.C., sandy loam, 6.1-6.5, 5.1-6.0, 0.25, to prevent stress.
TX1 — Dallas, Texas, loamy sand, 6.1-6.5, 7.1-8.0, 0.15-0.25, to prevent stress.
VA1 — Blacksburg, Va., sand, 5.6-6.0, 5.1-6.0, 0.0-0.5, to prevent dormancy.
WA1 — Pullman, Wash., silt loam and silt, 5.6-6.0, 3.1-4.0, 0.1875, to prevent stress.
WA3 — Puyallup, Wash., (native soil), sandy loam, 5.6-6.0, 5.1-6.0, 0.0-0.5, to prevent stress.
WA4 — Puyallup, sand, 6.1-6.5, 7.1-8.0, 0.0-0.5, to prevent stress.
WI1 — Madison, Wis., sand, 7.6-8.5, 2.1-3.0, 0.1875, to prevent stress.
WI2 — Maidson, silt loam and silt, 6.6-7.0, 2.1-3.0, 0.1875, to prevent stress.

New bents superlative

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have shown a tendency to thatch, he defends them. "The results to date show they are appreciably denser and finer textured," he said. "But they are bred that way to tolerate a lower height of cut. Better density also means better wear tolerance."

The next generations of bentgrasses should reach even higher plateaus, the breeders believe.

"I think the most important thing is putting quality," Hurley said. "People make a big deal about dollar spot. But that is the easiest disease to control. I'm interested in less spike marks, more upright growth — that sort of thing."

"With today's irrigation, and as good as superintendents are today, I'm not as interested in sheer heat tolerance as I am in disease resistance," Lynch said. "Our ultimate goal is to reduce the amount of pesticides and fungicides used."

Whatever bentgrass superintendents choose, Engelke said, "The problem we have is getting them to recognize that they have these tools and they now have to take advantage of them by changing management practices... The super has to get to know his environment, which greens are problem greens, and manage that way."