

GOLF COURSE NEWS

Zoysiagrass sod is

Supplies limited, growers say

BY MARK LESLIE

Zoysiagrass sod is growing in popularity, but a short supply will drive up the price this year, experts say.

"Fewer acres of Zoysia are harvestable this year because of weather damage, so the prices will be driven up for a season," said Douglas H. Fender, executive di-

rector of the American Sod Producers Association in Rolling Meadows, Ill. "Some golf course superintendents have called us looking for Zoysia sod. Some can't find it for hundreds of miles away from their courses."

Fender said weather has been the biggest problem.

"We had freezes in December that took out a lot of grasses, especially warm-season varieties. Then flooding hit in the spring along Texas, Louisiana, Arkansas and

Alabama."

In the wake of that damage, the price of Zoysiagrass sod rose "astronomically," Fender said. "Yet, for growers it was often an empty hope because there was no product to sell."

Regardless of the short-term outlook, the future looks bright for Zoysia sod producers because their product is becoming increasingly popular at golf courses.

Why? "Its characteristics are matched more closely with what

An exclusive industry survey

Company Address Contact person Telephone number	Type Zoysiagrass sod grown	Cost/Square Yd.	Acres harvestable in August 1990	Type of soil sod grown in	Provide refrigerated transportation?	Region served	Company Address Contact person Telephone number	Type Zoysiagrass sod grown	Cost/Square Yd.	Acres harvestable in August 1990	Type of soil sod grown in	Provide refrigerated transportation?	Region served
Beauty Lawn Zoysia 603 Union Rd. Lebanon, OH 45036 Jay Frick 513-424-2052 Circle No 201	Meyer	N/A	100	Mineral soil	No	Mid-South	Emerald View Turf Farm PO Box 146 Cedar City, MO 65022 Jim Keeven 314-634-3444 Circle No 212	Meyer	N/A	30	Sandy loam	No	Midwest
Beck's Turf Nursery PO Box 752 Auburn, AL 36830 Cynthia Beck 205-821-0969 Circle No 202	Meyer Emerald Mattrella	1.90	330-350	Sandy loam, clay	Yes	S'east	Emerald View Turf Farm 1722 Highway 79 O'Fallon, MO 63366 Ed Keeven Jr. 314-281-2120 Circle No 213	Meyer	N/A	50	Mineral	No	Midwest
Big Creek Turf Farm Box 155 Oneida, AR 72369 Gere Carnathan 501-572-2740 Circle No 203	Meyer	2.00	50	Silt loam	Yes	South, S'east	Emerald View Turf Farm PO Box 215 Columbia, IL 62236 Tom Keeven 618-281-6050 Circle No 214	Meyer	N/A	30	Sandy loam	No	Midwest
Big River Turf Farm RR 2, Box J-9 Hollandale, MS 38748 Larry Goss 601-378-2006 Circle No 204	Meyer	1.60	25	Sandy loam	No	S'east	Glen Oak's Turf RR 1 Camilla, GA 31730 Susan Taylor 912-336-7783 Circle No 215	Emerald Meyer	1.98	40	Sandy loam	Yes	S'east
Brookmeade Sod Farm RR 1, Box 547 Doswell, VA 23047 Louis Brooking 804-883-6338 Circle No 205	Meyer	3.50	3	Sandy loam	No	Virginia	Green Acre Sod Farms 12300 S. Mingo Rd. Bixby, OK 74008 Gene Forrest 918-369-5918 Circle No 216	Meyer	2.25	120	Sandy loam	No	Mid-South
Canadian Valley Turf Farm PO Box 424 Spencer, OK 73084 Christopher Roberts 405-771-5122 Circle No 206	Meyer	2.70	50	Loamy/ slightly clay	No	Mid-South	Green's Grass Farm RR 6, Box 289 Dothan, AL 36303 James Green 205-794-6410 Circle No 217	Emerald Meyer	1.75	35-40	Sandy loam	No	S'east
Caroland Farms Turfgrass 2794 N. Pacolet Landrum, SC 29356 David Slater 803-457-3327 Circle No 207	Belair Emerald Meyer	N/A	1	Sandy loam	Yes	S'east	Hernando Zoysia Farm 121 Malone Rd. Hernando, MS 38632 Pat Traicoff 601-429-9521 Circle No 218	Meyer	2.25	10	Silt loam	No	Mid-South
Carroll Sod Farm RR 1 Counce, TN 38326 Frank Carroll 901-689-5522 Circle No 208	Meyer	2.00	5	Silty clay loam silt loam	No	S'east	Hughhins Sod Farm RR 2, Box 98A Red Level, AL 36474- McRhee Hughhins 205-222-8581 Circle No 219	Meyer	N/A	650	Sandy loam	No	S'east
Cherry Point Farms, Inc. PO Box 128 Brunswick, TN 38014 Wayne McGowan III 901-829-4797 Circle No 209	Meyer	2.15	20	Silty clay loam	No	100 miles	Kidwell Turf Farms, Inc. 1925 Puddledock Rd. Petersburg, VA 23803 Charlie Haley 804-733-7170 Circle No 220	Meyer	3.60	5-7	Sandy loam	Yes	Mid-Atlantic
Cowikee Turf, Ltd. PO Box 56 Eufala, AL 36072 Ronald Nixon 205-687-6751 Circle No 210	Matrella Emerald Meyer	1.80	50	Sandy loam	No	S'east	Mason's Tree & Turf Farm 905 Sanbar Ferry N. Augusta, SC 29841 Jack Mason 803-827-0331 Circle No 221	Meyer	1.53	40	Riverbottom soil	No	South
Double Springs Grass Farm PO Box 706 Searcy, AR 72143 George Friedrich 501-729-5847 Circle No 211	Meyer	2.25	100	Silt loam	Yes	1,200 miles	Meyers Turf Farms, Inc. RR 1, Box 69 Stilwell, KS 66085 Lorna Meyers 913-681-2667 Circle No 222	Meyer	2.25	20	Black mineral	No	U.S.

more popular and more expensive

the buyer is looking for today," Fender said. "They're developing improved varieties that have a smaller leaf structure and are deeper green. They give you more tolerance, in the transition zone especially. If you put a Bermudagrass in and you get a cold spell, you can lose it. If you put Zoysia in, you're going to keep it."

Superintendents agree. "A lot more courses are going with it," said David Stone, superintendent at The Honors Course in

Ooltewah, Tenn. Stone said The Honors was "solid sodded" in Zoysia in 1985 after winter kill wreaked havoc on the Bermudagrass fairways.

"The first year the course was open we had significant winter kill on the Bermuda fairways. We also had some Zoysia on the course and it had no winter kill at all," Stone said. "So, superior winter hardiness is one reason more people are using it... Zoysia does great in both hot sun and cold winters.

"Superior playing surface is another reason. Even when the Bermuda was real good, Zoysia was better."

Jan Beljan, an architect with Tom Fazio Golf Course Designs and an avid golfer, likened Zoysia to heaven on a golf course.

"In the wintertime playing on Zoysia is one of the greatest experiences you'll ever have in hitting the ball because you just don't get a bad lie," she said.

Stone said: "The ball sits totally

on top of the blades. It doesn't sink down in the grass at all."

Stone added that in the South, superintendents with Bermudagrass have to raise their cutting heights "quite a bit" in the last part of summer to help protect it through the winter. "That's not necessary with Zoysia. We mow it a little under 1/2 inch year-round," he said.

Fender said Zoysia's aggressive growth is another positive characteristic. "Zoysia fills in an area

quickly," he said. "Many people sprig or plug Zoysia for this reason."

Cathy Morrow, national sales manager for Pursley, Inc., a sod producer in Bradenton, Fla., and Salisbury, Md., said Zoysia's popularity has increased "principally because people are interested in more drought-tolerant grasses. Also, on golf courses they want grasses that are more wear-tolerant as well. Plus, it has better survival

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Nutri-Turf, Inc. PO Box 758 Fayetteville, TN 37334 Tony McCartney 615-433-9700 Circle No 223	Meyer	2.50	10	Loam	Yes	Mid-South	Super Sod - Perry Rt. 1, Box 1270 Ft. Valley, GA 31030 Lee Kaney 800-535-1320 Circle No 234	Emerald Meyer	1.53	50	Sandy loam	No	S'east
Oakwood Sod Farm, Inc. Rte. 11, Box 662 Salisbury, MD 21801 Gary Wilber 301-742-3086 Circle No 224	Meyer Belair	2.70	6	Sandy loam	No	Mid-Atlantic	Super Sod-Georgia 119 Murrell Ave. Lakeland, GA 31635 Ben Copeland 800-634-1672 Circle No 235	Emerald Meyer	1.53+	200	Sandy loam	Yes	East
Palmetto Turf Farms 2320 S. Delljoe Cir. Florence, SC 29501 Sandra Jones 803-346-5029 Circle No 225	Emerald Meyer	1.65	140	Sandy loam	No	S'east	Super Sod-Carolina Rte. 3, Box 150 Orangeburg, SC 29115 Joe Livingston 800-255-0928 Circle No 236	Emerald Meyer	1.53	250	Sandy loam	No	South, East
Pursley, Inc. Bradenton, FL 34202 5803 Braden Run Walter Pursley Jr. 813-753-1625 Circle No 226	Cashmere Meyer	N/A	50	Sandy loam and clay	No	S-east Mid-Atlantic	Tulsa Grass & Sod Farms 5638 S. Rockford Tulsa, OK 74105 Ray Valentine 918-744-8324 Circle No 237	Meyer Matrella	N/A	75	Loam	Yes	Oklahoma
Quail Valley Farms, Inc. 7501 Kanis Little Rock, AR 72204 David Hildebrand 501-224-8873 Circle No 227	Meyer	N/A	85	Silt loam	Yes	South	Turf Center, Inc. 1409 Spencerville Rd. Spencerville, MD 20868 Dave Van Kirk 301-384-6300 Circle No 238	Belair Meyer	6.75	2	Sand, clay	No	Md., N.Va.
Richard's Turf Nursery Rt. 2., Box 281 Peculiar, MO 64078 Richard Becker 816-884-3206 Circle No 228	Meyer	N/A	6	Loam	No	Missouri	United Turf Rt. 1, Box 170 Powells Pt., NC 27966 Gary Lucks 919-491-8561 Circle No 239	Meyer	2.50	30	Sandy loam	Yes	Mid-Atlantic
Richland Creek Sod Farm PO Box 87 Buford Sta. Rd. Lynnville, TN 38472 Michael Coker 615-527-3897 Circle No 229	Meyer	1.75	100	Sasser	No	250 miles	Warren's Turf, Inc. Rte. 1, Box 26A Buckholts, TX 76518 Martin Manuel 512-446-5057 Circle No 240	Emerald Meyer El Toro	2.75	7	Mineral	No	Texas
Riverside Turf Farm PO Box 127 Ft. Gaines, GA 31751 Raymond Morris 912-768-2884 Circle No 230	Meyer Emerald Matrella	N/A	300	Sandy loam	No	S'east Mid-Atlantic	Lee Wilson & Co. PO Box 96 Wilson, AR 72395 Robert Fuller 501-655-8311 Circle No 241	Meyer	N/A	40	Silt loam	No	Arizona
Riverview Sod Ranch PO Box 100 Leonard, OK 74043 Charles Binney 918-366-4141 Circle No 231	Meyer	2.25	5	Sandy loam	No	N'east Okla.	Winrock Grass Farm PO Box 3437 Little Rock, AR 72203 Frank Whitbeck 501-375-0749 Circle No 242	Emerald Meyer Matrella	2.25	300	Sandy loam friable clay	No	Central S'east, S'west East
Sod Atlanta, Inc. PO Box 921136 Norcross, GA 30092 J. Kenneth Morrow 404-525-2272 Circle No 232	Emerald Meyer	2.25	65	Silty clay	No	S'east	Winstead Turf Farms 8676 Memphis-Arlington Rd. Memphis, TN 38134 Bobby Winstead 800-624-8873 Circle No 243	Meyer	2.25	60-100	Silt loam	No	Mid-South
Summit Hall Turf Farm 21300 River Rd. Poolesville, MD 20837 Frank Wilmot 301-948-2900 Circle No 233	Meyer	4.95	15	Silt loam	No	Mid-Atlantic							

Endophytes a critical find for research

Nature more important in face of environmental constraints, says USDA official

BY MARK LESLIE

As research redoubles to develop turfgrasses that are resistant to every malady and attack from nature, the use of a natural fungus will play a significant role, according to the national director of the U.S. Department of Agriculture's National Turfgrass Evaluation Program.

Speaking from his Beltsville, Md., office, Kevin Morris said "use of endophytes will be more and more prevalent in developing varieties of grass."

An endophyte is a fungus that lives within plants and gives them natural resistance to certain surface insects.

"With the use of pesticides being restricted, this is going to be a bigger and bigger factor," Morris said.

"There are quite a number of perennial ryegrass varieties that have high levels of endophyte in the seed. It was first found in perennial ryegrass and has been bred into several perennial ryegrass varieties."

Now, breeders are searching for endophyte in other species.

Morris said it has been discovered in fine leaf and tall fescues, leading to work to incorporate it into those species.

"It's not as prevalent as it is in ryegrass right now, but it will be down the road. Hopefully we'll find one for Kentucky bluegrass — and maybe bentgrass, eventually," he said.

Asked for a timeframe for the public to expect new endophyte-laden varieties on the market, Morris said: "In practical terms, if they find an endophyte somewhere in Kentucky bluegrass it will be five or six

years before it will be readily available to buy."

Burn research

Meanwhile, turfgrass companies in the Northwest are making progress in research into ways to cope with a possible future ban on field-burning.

Doyle Jacklin, vice president of marketing for Jacklin Seed Co. of Post Falls, Idaho, reported that "some varieties of seed are being developed that aren't affected as much as current varieties by absence of burning."

The seed industry contends that field-burning doubles or triples seed yield. Jacklin Seed has confirmed those claims on a 40-acre test site, but in the meantime has also found some new varieties that call for special attention.

"We found that burning tripled production of many varieties, doubled production of others, and just increased yield of some,"

Jacklin said. "But there are a few that, by luck or happenstance, aren't affected so much.

"We have selected those with a good response and will proceed in developing them, even though they might not be as good a seed as others."

Seed yield under a no-burn situation "is a key consideration in developing new varieties," Jacklin said.

More Varieties Available

Other Seed Research cultivars bred for golf courses include:

- SR 4000 Perennial Ryegrass
- SR 4100 Perennial Ryegrass
- SR 4200 Perennial Ryegrass
- Nova Perennial Ryegrass
- SR 3000 Hard Fescue
- SR 5000 Chewings Fescue
- Titan Tall Fescue
- Trident Tall Fescue
- SR 8200 Tall Fescue

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Zoysia sod

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ability in drought periods than other grasses like fescues and bentgrasses."

Morrow said improved Zoysias are being developed for other qualities, such as shade tolerance.

Stone said Zoysia's advantages are balanced somewhat by its susceptibility to brown patch in early spring and grubs that do it more damage than Bermuda.

Yet that apparently detracts little.

"I'm amazed people are going that route (sodding fairways), especially using Zoysias, because Zoysia is generally the most expensive to produce," Morrow said.

She said in the Southeast Bermudagrass sod costs 14 to 18 cents per square foot, whereas Zoysia sod costs 20 to 30 cents.

Mel Lavery, director of private real estate for Hallmark Cards, said at Hallbrook Farms Country Club in Leawood, Kan., the course was sodded at a cost of more than \$6 million.

While "a fair amount" of the rough was

sodded with bluegrass, 40 acres of Zoysia sod was laid, including all the fairways and some collars.

"Kansas is in the transitional zone and I don't know anyone else in the transition zone who did not use Zoysia," Lavery explained of the decision to use Zoysia.

Will the increased demand mean sod farms will increase their acreage of Zoysia?

They have the capability, according to Fender, who said most Zoysia farms also produce other types of turfgrass.

Asked if Pursley would do so, Morrow said: "I imagine, yes, if the demand is there. We have the capability."

Fifty of Pursley's 1,500 acres of sod are now in Zoysia. Other farms have as much as 200 or 300 acres of Zoysia.

A drawback for producers is that Zoysia can't be harvested as often as some other warm-season grasses, Fender said.

Morrow said a farm in the Sunbelt might get one harvest per year of Zoysia, while sod grown in the North probably would

Seed outlook

Continued from page 1

said: "The crops look tremendous this year, because of good growing weather... Every crop is great, even wheat."

But Hays and others tempered the optimism, saying the heavy supply will mean lower prices for most grasses except the high-quality, proprietary varieties that golf courses buy.

Seed Research of Oregon's president, Mike Robinson, said the 1990 season industrywide is mixed.

"The volume of seeds will be excellent," he said, "but there's probably more seed available than will be needed. We're in an over-supply situation in general. Some of the older varieties are more readily available than the newer varieties."

"Prices are off a little bit on the ryegrasses and bluegrasses, but not on the bentgrass and tall fescues."

"Proprietaries will hold their prices. Then you'll have a huge gap between them and the common varieties," Patterson said. "You'll see a 5- to 10-percent price reduction in some proprietaries, but overall they won't go down much in price... Top-quality proprietary varieties probably sold out earlier this year."

Hays said many companies that are growing expensive, proprietary crops "have had some failures and they need an average year to get their money back."

Robinson said his 40 distributors have bought all his company's proprietaries this year.

"Ryegrasses, bluegrasses, tall fescues, bluegrasses, fine fescues and so on are all sold out," he said, explaining that that seed is still available in the distribution chain.

But that's not the case at all companies, Robinson said. "A lot of companies are coming out with pretty cheap prices, so obviously they have seed to sell."

Kevin Morris, the national director of the U.S. Department of Agriculture's National Turfgrass Evaluation Program, said the golf industry's increased demand for bentgrasses will mean supply problems.

"There's more bentgrass on the market now but supplies are still tight on them. They don't have the production, especially on the new varieties, to keep up with the demand," he said.

Morris predicted that perennial ryegrass supplies will be good, as will Kentucky bluegrass, "except some of the proprietary varieties."

Marketing techniques said changing

The marketing of seed has evolved into a more sophisticated creature.

"We are marketers. We sell our seed first, then contract for the acreage we need," said Scott Patterson, vice president in charge of turf seed at Peterson Seed Co. in Savage, Minn.

Referring to a "carry-over" supply of turf seed from last year's crop that is pushing down prices, Patterson said the seed industry would not get caught with an over-supply if all the companies did business in this manner.

"There is still a lot of companies that do business the old-fashioned way, putting acreage in and then going out and selling it. But that philosophy is going more and more to the wayside," Patterson said.

While the prices for common turf seed plummet with over-supply, Patterson said, "The mentality has been to hold prices on proprietary varieties. There's more to it than just growing costs. You've got royalties, administration fees, advertising, a lot of costs they didn't used to consider."

"We've gotten smarter about our marketing product. Fifteen years ago I can't say we (in the seed industry) were the smartest marketing people in the world."

Company officials agree the marketplace has a "carry-over" of seed. Because of wet springs in the Midwest, Northeast and Mid-Atlantic states, homeowners and others didn't plant as much seed as normal. In Texas, Arkansas and other regions that were flooded last spring, the growing season is past for most of the public.

But golf course superintendents must carry on.

"We envision that especially in the golf course trade, sales should be excellent this fall," Robinson said. "Golf courses are not so seasonal. The ones in the South are going to overseed no matter what. In the North it's more of a homeowner market. If the weather is bad and housing starts are down, that's reflected in the marketplace."

"We're finding that a lot of golf courses in the North are having problems. It's hot and humid weather, they're getting a lot of diseases and a lot of kill on grass, and they will be doing a lot of seeding this fall with perennial ryegrasses and bentgrasses."

Heavy rains could harm the harvest, which started a little late, but otherwise the harvesting should carry on through July.

The new seed will be bagged in September and October.