LUIKENS BUSY IN THE SOUTHLAND

CONROE, Texas — Richard Luikens Golf Services here is consulting on several construction projects scheduled to open this fall in Texas, Arkansas and Louisiana. Luikens, former director of golf course maintenance for The Woodlands Resort & Country Club in Houston, assisted in the grow-in with Beacon Lakes Golf Club and Green River Golf Course in Houston, Ridge Pointe Country Club in Jonesboro, Ark., and Cypress Bend Golf Course in Many, La. For more information contact Luikens at 409-441-5190.

NY TURF SHOW NOV. 12-15

ROCHESTER, N.Y. — The annual New York State Turfgrass Association Turf and Grounds Exposition will be held Nov. 12-15 at the Rochester Riverside Convention Center. This year's event will feature educational seminars, trade show and keynote speaker Paul Maguire, a former Buffalo Bill and commentator for NBC Sports football coverage. For more information contact 800-873-TURF.

MSU’S VARGAS ON THE CUSP OF PIONEERING RESEARCH

By MARK LESLIE

Dr. Joe Vargas has been a professor of botany and plant pathology for 28 years at Michigan State University, where he has been involved in teaching, research and extension. His has helped develop the pseudomonas aeurofaciens (TX-1) biological control organism that is proving useful in treating warm-weather diseases when applied through EcoSoils’ Bio-system (see August ’96 Golf Course News). Discovered the first bacterial disease in turf on Toronto creeping bentgrass; reported the first resistance by a turfgrass pathogen to a systemic fungicide and later reported the first resistance to UMI fungicide by the dollar spot organism; developed the first mathematical prediction model for a turfgrass disease and developed a fungicide timing model for summer patch that is used worldwide.

Golf Course News: Can you tell us about your work on injecting disease-resistant genes into bentgrass?

Joe Vargas: The USGA funded a project for this at MSU. Dr. Miriam Sticklen isolated a chitinase gene from an elm tree and is trying to incorporate it into creeping bentgrass. Since most fungi have chitin in their cell walls, theoretically, a chitinase in the turf plant should produce chitinase that could attack the cell wall or the fungus and destroy it. A year from now, we should know how successful we have been.

GCN: What is the nature of MSU’s work on sand green construction?

JV: The USGA has funded a project to look at mixes for USGA-spec greens conducted by Drs. Crum, Rieke and John Rogers. USGA greens are still the most popular. Hopefully this will lead to some minor refinements to make them even better.

GCN: What are you discovering about using peat moss to minimize damage from hydraulic oil leaks?

JV: Most researchers believed, for many years, that the heat of the hydraulic oil killed the turf when a mower hose ruptured. Attempts to remove the oil with soap or wetting agent failed. Zorbit Technologies approached us with a product called Peat Sorb, a super dry peat moss.

New zoysiagrasses fulfilling prophecies of the past

Cheaper product forecast for zoysias

College station, Texas — Faster production cycles for the new zoysiagrass varieties should translate to better — and cheaper — availability. Good news because availability has been a problem.

Concerning his grasses, Dr. Milt Engelke of Texas A&M University told Golf Course News in 1994, “more vegetative types will come on line, and they will use 20 to 30 percent of the water required by Meyer, which translates to 50- to 70-percent less water than used for hybrid Bermudagrass. These also will have excellent cold hardiness and very low fertility requirements.”

In the late-summer of 1996, Engelke has proven prophetic.

“It’s all true,” said Engelke. “Actually, I’ve known this for five years. We’ve just been taking a long time getting them (zoysiagrasses) out.”

A more moderate Susan Samudio, head tendent at Rolling Hills Country Club in Wichita, Kan., which solid-sodded its fairways, green surrounds and tees — 34 seasons between $45,000 to $60,000.”

Rolling Hills had a mix of ryegrass and bentgrass, and a season mix that proved hard to maintain.

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Zoysia prophecies hit gold

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Using the zoysiagrass standard-bearer, Meyer, Van Arendonk figured annual savings:

- 20 to 50 percent in water use;
- $21,000 for fungicides, not having to spray ryegrass fairways;
- $5,000 to $10,000 for mowing because Zoysia requires only about 1-1/2 pounds a year compared to ryegrass's need of 3-1/2 pounds. The reason: a faster production cycle. "It has always had plenty of winter-hardiness ... but it never was used further south because Bermudagrasses, with their better production cycle, were a better choice."
- Some of the newer varieties of zoysia produce two crops in a year, or sometimes three crops in two years, "even here in the Dallas area," Engelke said. Zoysia's best fit is from the Mississippi south because Bermudagrasses, with their better production cycle, were a better choice.
- Quicker production is not universal. JacklinGolf, whose fields are in Georgia, has found difficulty speeding up seedhead production. "We thought it [three crops in two years] was possible the first year or two because they [zoysias] do put out good seedheads," JacklinGolf associate plant breeder Susan Samuldo said. "But if your location gets a freeze, that fall crop is not worth the harvest because the germination is so low and you still have the expenses. We just keep the fall crop mowed. Further south you might be able to do it."

Zoysiagrasses in test categories

The latest data in the National Turfgrass Evaluation Program trials reveals not only which zoysiagrass cultivar stands in "mean quality ratings," but in a number of other categories as well. And the leading varieties in these small tests are sometimes overshadowed by others when it comes to such judgments as spring greenup, drought tolerance and fall density. The leaders in each rating are:

- Genetic color: DALZ 8516, 6.6; Emerald, 6.5; DALZ 8508, 6.3; Belair, Royal and Cavalier, 6.2.
- Spring greenup: Sunburst and TC 5918, 9.2; Emerald and DALZ 8501, 9.0; Meyer and QT 2004, 8.5; Sunburst, 79.8; Korean Common, 73.7; JZ-1, 78.9; TC 5918, Marquis and TGS-W10, 78.2.
- Percent living ground cover (spring): CD 259-13, 82.6; Crowne, 81.6; DALZ 8516, 10.6; Meyer and QT 2004, 80.5; Sunburst, 79.8; Korean Common, 73.7; JZ-1, 78.9; TC 5918, Marquis and TGS-W10, 78.2.
- Percent living ground cover (summer): Sunburst, 91.2; CD 259-13, 90.0; QT 2047 and TC 5018, 87.6.
- Winter color: Diamond, 6.8; DALZ 8501, 5.8.
- Drought tolerance (wilting): Crowne, 8.3; Palisades, 7.3; DALZ 8501 and El Toro, 7.0; JZ-1, 6.7.
- Drought tolerance (dormancy): Emerald, 5.8; Cavalier, 5.5; DALZ 8508, 5.1; DALZ 8516 and Diamond, 5.0; DALZ 8501 and Royal, 4.9.
- Fall color (September): DALZ 8516, 7.7; Belair, DALZ 8701 and Palisades, 7.3; Meyer, JZ-1, Omni, QT 2004, Marquis and TGS-W10, 6.7.
- Fall color (Dec.): DALZ 8516, 6.8; Diamond, 6.6; Cavalier, 6.2; Palisades, 5.9.

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We will see two crops in a year, or three crops in two years, even here in the Dallas area."

And while zoysias have problems in common in the Eastern states. Most zoysias have a problem in West, where it is very good in these grasses."