Stress tests bear fruit
Super-dwarf Bermudas gain favor

By MARK LESLIE
BELTSVILLE, Md. — Turfgrass breeders are concentrating more on warm-season varieties than cool-season types and their work is bearing fruit, some of it extraordinary, according to the national director of the National Turfgrass Evaluation Program (NTEP).

Advances are being reported on zoysiasgrass and seeded Bermudagrass fronts, yet vegetative Bermudas may prove the greatest immediate impact on golf courses, said NTEP’s Kevin Morris. “Even though bentgrass is the ultimate in quality in the

Operations biz has new Player: Gary

By HAL PHILLIPS
SINGAPORE — Not content with its considerable presence in the design, golf academy and club-manufacturing markets, the Gary Player Group has entered the course operations business, touting a full-service ability to develop, manage and brand its member clubs.

Unveiled here at Golf Asia ’97, Gary Player Management Services (GPMS) has already signed its first club, Verdemar Golf Club, a Philippine project still in the early stages of development. However, don’t read too much into the GPMS decision to launch in Asia-Pacific, where its sister course-design and academy divisions are better established, compared to the U.S.

By MARK LESLIE
BENTGRASS, Ill. — Despite reports that others are concentrating more on warm-season varieties, vegetative Bermudas may prove the greatest impact on the golf course, according to NTEP’s Kevin Morris.

The goal is to get a

Participation rates lag, compared to course supply

By PETER BLAIS
Golf’s two main growth indicators, the number of golfers and rounds played, remained relatively flat at 25 million and 477 million, respectively, in 1996, according to a National Golf Foundation (NGF) report.

But while demand continued stagnant, the golf industry continued to increase the course supply at a near-record rate, with 442 courses coming on line last year. Though concerned about this seeming demand/supply imbalance, the NGF and others remain optimistic about golf’s future, peering their hopes on the continued interest of aging Baby Boomers and the newfound interest of their offspring, the so-called Echo Boomers.

“I don’t think those numbers are a true indicator of the interest in the game,” said Myrtle Beach, S.C. architect/developer Ken Tomlinson, who

Golf, ecology look to curb ‘Us vs. Them’

By BILL SUGG
WASHINGTON, D.C. — "Let’s think beyond golf," said Audubon impresario Ron Dodson during last month’s day-long symposium, Golf Environments of the 21st Century: Integrating Wildlife Conservation Into Golf Courses of the Future, held here at the National Geographic Society (NGS). "Our purpose in creating cooperative sanctuary systems was to create a vehicle that would lead to communication among a whole variety of individuals across the country. We are beginning to see that now. We are
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The most efficient systemic fungicide against root infections, he said, is Aliette because it is the only one that will move downward in the plant. Other systemic fungicides mainly move upward.

In the meantime, other cool-season diseases are also increasing, Jackson said, singling out take-all patch and necrotic ring spot.

Take-all patch is lurking at golf courses, particularly where new courses are being built on new woodland sites. The antithesis to summer patch, which attacks poa annua and leaves bentgrass alone, take-all patch kills bentgrass and leaves poa annua.

"It is a pernicious disease," Jackson said, causing the grass to die as first the roots then the crowns succumb. New sites are infected by airborne spores, going wherever the air currents carry them.

Take-all patch occurs where there are bentgrasses, the soil pH is higher than 6.2 or so, and there is plenty of surface moisture.

To combat take-all patch, a superintendent should lower the pH with ammonium sulfate and apply organic amendments such as Milorganite, Lawn Restore and Sustain to build up a good microbial population, Jackson said.

Necrotic ring spot, he said, "is a real pain on sodded Kentucky bluegrass lawns ... and we're seeing it in golf greens on poa annua."

Cool, wet weather favors the disease. He suggested supplementing the turf with organic amendments such as those for take-all patch, topically or preferably incorporated in the soil prior to sodding or seeding. Jackson said Heritage fungicide has activity against all these diseases and is "a powerful new weapon for our arsenal" for turf-disease control agents.

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Bermuda that plays as well in the South as bent does in the North."

Citing the vegetative Bermudas Champion (from Coastal Turf Inc. in Bay City, Texas) and TW72 (from Dr. Wayne Hannah’s breeding program at the University of Georgia), Snow said, "These two grasses and probably several others look like they may do that."

Indeed, owners of the new wunderkind Champion said 10 18-hole courses have converted to their turf and another 40 will do so this year, including former bentgrass tracks. One of those is Barton Creek Club and Conference Center, where superintendent Dale Miller has been able to compare Champion to the standard dwarf Bermudas as well as bentgrass: "There is noticeable difference — density mainly — between normal dwarf Bermuda and Champion," Miller said. "The old standard dwarf averages 1,000 to 1,200 shoots per decimeter. Champion averages 3,000. It’s as dense as every bentgrass except the new Penn State A and G series that run around 3,500 shoots."

Miller installed Champion on his Fazio Course two years ago, replacing Penncross bentgrass, and in July will begin replacing the bent with Champion on the Arnold Palmer-designed Lakeside Course.

"You can mow this stuff so low," he said. "It makes a lot of difference on a tee where you can cut it at 1/8 inch as opposed to 3/8 to 1/2 inch. It's a major improvement."

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Citing "some grumbling" among superintendents that the new super-dwarf Bermuda is too dense, Miller said: "But when 328 was the best Bermuda putting surface and dwarfs came along, everyone said the same thing. It's just a matter of superintendents learning how to take care of it."

The quandary facing developers building new golf courses is whether to use the standard dwarf Bermudas or the new ones. If they choose the older types, Miller said, they may face a changeover in four or five years to keep up with competition.

Bentgrass breeders have made giant strides in recent years, developing cultivars to push further into the South. These cultivars, Morris said, are finer-textured, extremely dense, and designed for high-level courses that mow very close and have aggressive aerating and verti-cutting regimes. Nevertheless, Bermuda-grasses will be coming into the marketplace to rival the bents even on putting surfaces.

Champion, for instance, "not only tolerates low height of cut, but is easily managed at that height," said Mike Brown of Coastal Turf, which produces it. "We recommend it be mowed at 1/8 inch, but some mow at 1/10 inch. It actually increases density when you lower the cut. It's very, very dwarf-type."

"When you get that much density the leafs get crowded and turn up. It makes for a good putting surface and doesn't show any grain," he added. "Less knowledgeable golfers even think they are playing on bentgrass."

Brown attributed his grass's density to its growth deep into the ground and make abundant rhizomes. "If you hallmark it, or scalp it you don't hurt the rhizomes down deep and it grows right back," he said. "The cooperative potential is phenomenal."

Brown's father Morris discovered Champion on a green he had planted in the late 1960s. In 1987 Morris started looking for other dwarf Bermudas. "He brought home a greenhouse-full," Mike recalled. This is the one that stood out and that's how it got its name. It cleaned off a spot for itself. It just took over the weeds."

Snow said more testing needs to be done on all the new Bermudas. "It will be interesting to see if one grass does as well in one area as another — especially under humid conditions."

At this point, there is not enough acreage of Champion being grown to meet the demand. That may be a good sign for others, especially those breeders said. "Some Bermudagrasses."

"We're looking now at seeded Bermudas for putting greens," said Arden Baltensperger, emeritus professor of agronomy at New Mexico State University (NMSU) and researcher for Seeds West in Phoenix, Ariz. "I don't think it will quite compete with Tifgreen, Tifdwarf and this new Champion. But the beauty of the seeded variety on the green is, if you have a little damage you can just seed it. It would be a big advantage."

NMSU and then-Farmers Marketing Corp. released the drought-tolerant NuMex Sahara seeded Bermuda in the late 1980s. It was "open" rather than dense. The next generation, Baltensperger said, along with competitors such as Jackpot and Mirage, are medium dense. NMSU and Seed West's new Princess, a seeded hybrid due on the market next year, is "most dense," Baltensperger said. Yet, it is not green quality. On the docket for seeded Bermuda breeding, he said, is refining cultivars for characteristics beyond density.

"We will look at disease-resistance," Baltensperger said. "We have some leaf spot on some of these in the South. We want to maintain cold tolerance and we probably will look for something even more dense and finer than where we are with Princess... There will be a little less forage, less shoot elongation."

Progress in seeded Bermudas has been phenomenal, he said. "Fifteen years ago, I could hardly find even a researcher who thought it was worthwhile working on seeded Bermudas. But Charles Taliaferro, the late Howard Kaerwer and I thought there was a place for them... It sure has turned around."

Many of these grasses and others will be placed in NTEP trial plots which will be planted this year. The first report on that test will be in mid-1998, Morris said.