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A superintendent/mechanic tandem have perfected

Once a Superintendent...

Always a superintendent? We asked supers-turned-



THE TEAM APPROACH

At Francisco Grande Resort & Golf Club in Casa Grande, Ariz., superintendent Juan Rascon (right) and head pro Kent Chase work together to shore up the bottom line See this month's Public Arena, page 54.

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SIGN O' THE TIMES **GCSAA** actively pursues public-access members

By HAL PHILLIPS

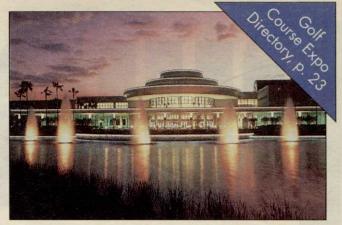
AWRENCE, Kan. - To keep pace with changing demographics in the industry, the Golf

Course Superintendents Association of America (GCSAA) is poised to more actively include superintendents at public-access golf facilities.

The GCSAA's newly formed Public Golf Resource Group met in October to discuss ways the association could reach out more effectively to superintendents at daily-fee and municipal golf courses, according to Chief Operating Officer Joe O'Brien.

"We talked about better providing services to our members in the public sector and attracting new members from it," said O'Brien. "The numbers speak for themselves.'

Two-thirds of the nation's golf facilities are public access: daily-fee, municipal and resort. The percentage is climbing higher: From 1990 through 1993, 80 Continued on page 42





ORANGE COUNTY CONVENTION GENTER ORLANDO, FLORIDA NOVEMBER 11-12, 1994

A NATIONAL EXHIBITION AND GONFERENCE FOR OWNERS, SUPERINTENDENTS, MANAGERS, AND DEVELOPERS OF **PUBLIC-ACCESS GOLF FACILITIES** COURSE NGF

Allied golf associations back Expo

By MARK LESLIE

ORLANDO, Fla. - Hailing public-access golf as the fuel driving golf development and the game's key component, leaders in the industry have high expectations for Golf Course Expo.

The Expo, to be held at Orange County Convention Center here Nov. 11-12, is the only national trade show and conference targeting superintendents, managers and developers of public-access facilities. The U.S. Golf Association Green Section has helped develop the education Continued on page 22

Noise laws drown out **bottom** line

By PETER BLAIS

SOMERS POINT, N.J. - Rounds are down, overtime pay is up and the prospect of spending thousands of dollars on new equipment is looming at Greate Bay Country Club, all because of the town's noise ordinance here.

Up the coast at Greenwich (Conn.) Country Club, the grounds crew spent many days and lots of money creating a berm to muffle noise from its power equipment to try to keep ahead of the noise laws the suburban New York community is considering.

Farther south, Lochmere Country Club's revenues dropped the past two summers when it was forced to hold golfers off Continued on page 5



MIRROR, MIRROR

Who's the fastest growing management company of them all? A strong argument could be made for KSL Recreation, which owns and manages La Quinta Hotel and Resort, seen above. Sixteen months ago, KSL owned nothing. But after purchasing LaQuinta and other high-profile resorts, then acquiring The Fairways Group, KSL has established itself as a player in the ever-growing club management market. See page 43.

Experts decry inconsistent root-zone mixes

By MARK LESLIE

The contractor building a Texas sports field rejects the root-zone materials delivered for construction. The material is then trucked to a nearby golf course under construction, where it is accepted.

This incident, experts say, points to a problem infecting golf course construction: Sand and root-zone mixes shipped to project sites differ - sometimes wildly from samples approved in soil laboratories.

"It happens all the time," said Dr. Norm Hummel of Cornell University, who spent a sabbatical year in 1992-93 checking the status of the nation's soil testing for the

U.S. Golf Association. "In most cases, it's not intentional. But I'm sure there are situations where some maliciousness is involved.

"This is a tremendous problem," agreed Glen Watkins, president of Root Zone Mix in Muleshoe, Texas, who does quality-control work on sports field and golf course construction. "It can be a total nightmare to go on a job and check the sand and, lo and behold, it's entirely different than what it is supposed to be."

In the wake of court cases over failure of golf greens, course builders and soil Continued on page 40

DEVELOPMENT

Builder, beware what you're buying

Continued from page 1

labs have been left trembling in financial fear. The entire golf industry is taking steps to curb faulty construction. Early and frequent soil testing is key.

"It's prudent and the industry has not been doing it, and it is catching up with them," said Steve MacWilliams, vice president of Turf Diagnostics and Design in Olathe, Kan. "It's almost negligent if you don't do quality control. Architects are making out checks with their clients' money. Whether they feel they have the best supplier in the world and they are working with all top-quality companies, they still have to do it.

"It's not a reflection on anyone in the process as much as that Murphy's Law dictates."

"All the major architects are testing [materials]," said architect and builder Rees Jones.

Perhaps none are testing as meticulously as Bob Cupp, whose staff agronomist, Billy Fuller, sees that every truckload of sand is perc-tested and full soil tests run throughout a project.

Obtaining material that meets rigid specifications should not be difficult, especially with the recent growth of specialized soil blending companies.

"We're not talking 'art' here," Cupp said. "We're talking hightech soil blending. And we're just barely approaching the same types of consistency requirements as the AIA [American Institute of Architecture] specifies for structural support."

Inconsistency is usually the fault of the sand supplier, Cupp said. "Normally speaking, it's a loose operation that some sandpit owner delivers. Now, thanks to litigation, the contractors know it had better be right."

That the delivered sand differs from preliminary lab tests, and even from one truckload to the next, can be attributed to nature and to the fact the supplier may be working in a different spot than when he provided the sample to the lab.

"There are a lot of reasons for a change in the sand," said architect Michael Hurdzan of Columbus, Ohio. "Sand changes in the vein. The washing operations may be done differently. The shaker apparatus may wear out or not be as efficient.

"Also, we order 10,000 or 12,000 tons of sand for an 18-hole golf course. As long as a pit is meeting specs for big contractors, a lot of them [suppliers] are not going to worry about us little guys."

Hurdzan also pointed to the addition of organic matter to sand as "multiplying the potential for complications. Organic matter is even more variable — in weight, moisture, carbon-nitrogen ratio, amount of organic matter to ash, even the decomposition state of it," he said. "All of that influences the performance properties... Peat actually decomposes in the mix pile. If it sits in the pile for a month or two, it may change from 80-20 [sand-to-peat blend] to 90-10 or 92-8."

Watkins slammed home the quality-control discrepancy. "Sports field owners and architects are much, much more demanding and technical and expect a whole lot more than nearly all golf courses," he said.

Who performs quality control varies from job to job. It can be a Hummel or Watkins. The developer can hire a maintenance superintendent to control such tests. The contractor can depend on labs alone to check root-zone materials. Blenders should test the mix at intervals throughout a work day.

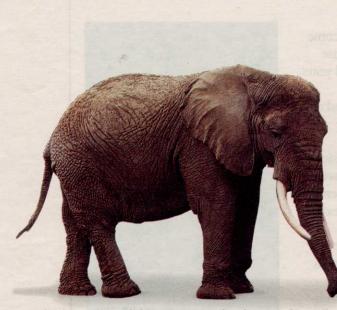
Watkins suggested testing all sand before peat or other organic matter is added. MacWilliams recommended checking the sandpit itself "because you don't have back-haul considerations." "Contractors should work with

a lab in the mix development — in Continued on next page

QC cost minimal in overall scheme

What does a quality-control program cost? "Typically, the average cost for one hole is \$15,000, including irrigation, dirt work, etc.," said Glen Watkins, president of Root Zone Mix. "So \$15,000 times 18 or 19 holes equals quite a bit of money. The cost to know you're getting what you're supposed to be getting is insignificant." A quality-control person costs about \$1 per ton for mix, he said. Turf Diagnostics and Design's Steve MacWilliams said testing — to confirm sand fractions and organic content of the mix — costs \$115 per sample for every 1,000 tons. Assuming 10,000 to 12,000 tons of sand for a golf course, that equals \$1,500 to \$2,000, he said, or 2-1/2 cents per square foot on the green.

Saying he has known instances when bad materials were delivered "inadvertently, but never intentionally," Wadsworth Golf Construction Co. President Paul Eldredge said: "It's a major problem if it happens, because it costs a couple hundred thousand dollars. That once when it does happen is the one everybody talks about. It's like the murder down the street."



The charge of Hannibal from Spain over the Alps into Italy set off a series of crushing defeats on Roman armies. Elephants helped power Hannibal's army over treacherous mountain terrain.

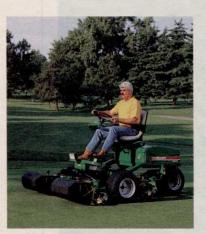
218 B.C.



The Charge of the Light Brigade during the Crimean War checked Russia's ambitions in Eastern Europe. The battle was immortalized by Alfred Lord Tennyson in the poem, "The Charge of the Light Brigade."

1854

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DEVELOPMENT

All precautions said lost if top dressing inconsistent with root zone

By MARK LESLIE

The green is built to U.S. Golf Association (USGA) specifications. The root-zone mix is perfect. The turfgrass is looking exceptional. All is rosy with the world, right? Well, not necessarily.

"The biggest problem right now with USGA greens is when superintendents don't use the absolute — and I mean absolute — same material in their top dressing process for the years to come," said architect Rees Jones. "I'm not talking material someone says is 'almost the same.' I'm talking about the exact same source."

Jones decried the practice of superintendents to use the same sand suppliers they have always used simply because they trust them.

"This happens all the time," he said. "Huge mistakes are made a lot. These suppliers don't change their mix from course to course. They're not specifically customizing top dressing for each course, as we have specifically customized it for each course."

Top dressing greens with a blend that does not comply with the root-zone mix "can create a new perch water table that chokes off everything we've done," Jones said.

"Ideally, you top dress with what you build the greens with," agreed Steve MacWilliams, vice president of Turf Diagnostics and Design in Olathe, Kan. "The primary rule is: Don't top dress with a finer material, which would layer out the green in the top two to three inches. You can go in with coarser sand."

The superintendent should go to the trouble of getting the sand and mixing it himself, Jones said, suggesting it is a good idea to purchase a small blending machine.

MacWilliams passed on some tips concerning top dressing materials:

• When top dressing is delivered, bag a portion of it and store it away. It may come in

handy if there are turf problems and you want to see if the problem was the top dressing.

• If superintendents are communicating with their associations and a sand company starts delivering bad product, the association can go to the supplier and lay down the law.

• If superintendents makes it known they are quality-controlling their top dressing, the supplier knows it must supply good material.

...

In addition to stressing a compatible top dressing blend, Jones said, "Superintendents have to change their watering practices on USGA greens.

"They need to be flushed by heavy watering and then not watering, rather than lightly watering all the time. The biggest mistake I see is a superintendent lightly watering them. That water stays on the top. The roots come up to the top. And you start developing a sick thatch that you have to keep aerifying out."

Builder beware!

Continued from previous page deciding the best mix," Hummel said. "What is mixed by hand in the lab differs from what you get in the field where they might be running the materials through screw augers or belts to mix them. I suggest the blender run a couple of calibrations to come close to what was developed in the lab.

"After the machine is properly calibrated, it should be tested every 1,000 tons. The test would entail basically the organic matter to make sure it is being metered in proper proportions and sand size. If something is off, and that is not unusual (especially the percentage of organic matter), put a hold on that stockpile until a complete physical analysis is run on it."

Watkins tests the blend every hour on site.

Other suggested cures for the root-zone material problem:

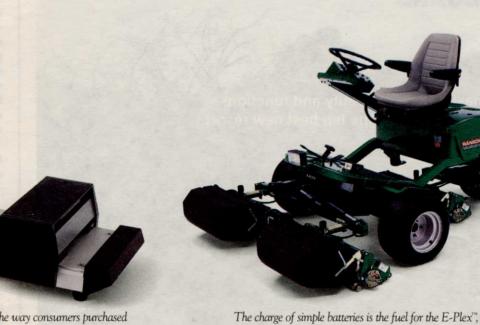
• Pre-qualify the material before it goes to bid to the contractor, said Mike Pierce, president of Dakota Peat.

• "Never let a blending company purchase the materials," Watkins said. "It puts a person in a compromising position if they are furnishing the materials."

• Make sure the lab being used is competent in dealing with soils.

• Developers should reserve the right to see all tests and information pertaining to a project, since more and more contractors have a code-of-ethics agreement that no one can see test results except the person who paid for them, Pierce added. Their contract should give them the right to require proof of purchase on the sand and peat moss, and verify it by going directly to the mining company or manufacturer to inspect all documentation.

November 1994 41



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