



# On 'thin edge' with sand greens? Rieke presents nutrient strategy

By MARK LESLIE

COLUMBUS, Ohio — Declaring that superintendents “are on the thin edge” by putting high stress and low mowing heights on turfgrass, Dr. Paul Rieke proposed a nutrient strategy for sand greens.

Although unknowns abound concerning such things as micronutrients, and the impact of iron, manganese and fertility in general, the Michigan State University professor warned superintendents “you’d better know what’s in the ground.”

Soil and tissue tests are becoming staples in modern greenkeeping, helping superintendents control fertility, water, turf growth, thatch or pests, Rieke said during a session at the Ohio Turfgrass Conference and Show here.

“Sand greens are unique and must be controlled differently,” he said. And, he stressed, on many older courses where the top 2 to 3 inches are sand, the superintendents are actually managing sand greens during the colder months because the roots are often only growing in the sand.

“At that time,” he said, “you basically will be managing the greens fertilitywise as you would a sand green.”

“That’s when the roots are only in the sand layer, and the soil below is no longer impacting the plant,” Rieke added.

Rieke told superintendents tending sand putting greens:

- They need to be top dressing more in the spring and fall, when thatch accumulates, than during the summer.

- Higher phosphorus levels will not enhance poa annua (“I’ve seen no data to substantiate that claim.”)

- A rate of 30 pounds per acre is best for phosphorus, which is required for root growth.

- Surface application of phosphorus is as good as injection.

- During the first couple of years after establishment of turf, apply 6 to 8 pounds of nitrogen annually, including some organic sources with the application. Reduce the annual nitrogen as appropriate in subsequent years.

- Consider a late-fall application of nitrogen as part of the fertility program.

- On most sand greens, superintendents are not able to get by with less than 5 pounds of nitrogen a year.

- Follow soil tests for phosphorus levels, applying it throughout the season.

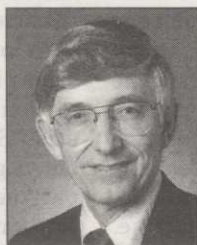
- Apply potash regularly at a rate related to the nitrogen rates.

- Use soil tests to determine the annual potassium needs for sandy loams and finer soils.

Spread potassium throughout the growing season.

- Monitor calcium based on pH and magnesium levels.

- Know what is in the irrigation water. (“You’re getting sulfur, calcium and magne-



Dr. Paul Rieke

sium from sources you don’t know,” he said.).

- Consider a micronutrient package, including high iron, some manganese, a little bit of zinc and copper. (“But watch your balance.”)

- Tissue testing is a

valuable tool. (“Make sure to shake the sand out of your sample because it will throw off the results big-time.”)

Rieke said more research needs to be done on micronutrients, iron, manganese, zinc and copper.

“Micronutrients? That is kind of a black box,” he said. “We don’t

really have any information on that. That work hasn’t been done... In micronutrients we’re dealing with a situation in which different sands will give you different responses...”

That is why he recommended

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## Panel on disabled scheduled for GCSAA Conference and Show

By Bob Spiwak

The Golf Course Superintendents Association of America (GCSAA) has scheduled a round table discussion entitled "The Americans with Disabilities Act (ADA) and Golf Courses" for its February convocation in Anaheim, Calif.

Set for 2-5 p.m. on Friday, Feb. 6, the panel will include Greg Jones, president of The Association of Disabled American Golf-

ers; Jerry Coldiron, superintendent at Lassing Pointe Golf Course in Kentucky; and Peggy Greenwell of the U.S. Department of Justice.

According to Cynthia Kelly Smith, government relations counsel for GCSAA, several

other participants have been invited. Smith said that she gets a call each week from a superintendent somewhere about the ADA.

The GCSAA convention program notes, "This government relations program will feature

a panel of experts discussing the ADA and its impact on golf...compliance issues, case studies, advice on handling complaints and the status of the government's draft golf access guidelines are a few of the topics that will be covered

in this interactive, topical session."

Smith noted that the ADA involves not only superintendents, but architects, the rules of golf, and the way golf is played.

"More superintendents need to be aware (of ADA ramifications) and they need answers," he said. "We are hoping to work with the disabled community and we all agree this [forum] will be a good way."

## Biologicals and biorationals are emerging

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*chloronicofinyls imidadoprid*, is very effective as a broad-spectrum, long-residual insecticide.

- The *halofenzide* Mach 2, a molt-accelerating compound, gives excellent control of white grubs, billbugs and beetles.

The synergism between the Cruiser nematode and Merit (used at 1/10th the recommended rate) provides 100-percent control of Japanese beetle grubs, Grewal said.

Grewal warned that *fipronal* had an adverse effect on the natural population of nematodes.

The OSU professor said more work needs to be done in a number of areas, especially on fungi and bacteria biologicals as well as to develop products to control white grubs.

"We need to try to understand the naturally occurring biocontrols that are already there and easy to establish... They save water, the environment, money and much more," Grewal said.

## Rieke: Are your roots in sand?

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a micronutrient package.

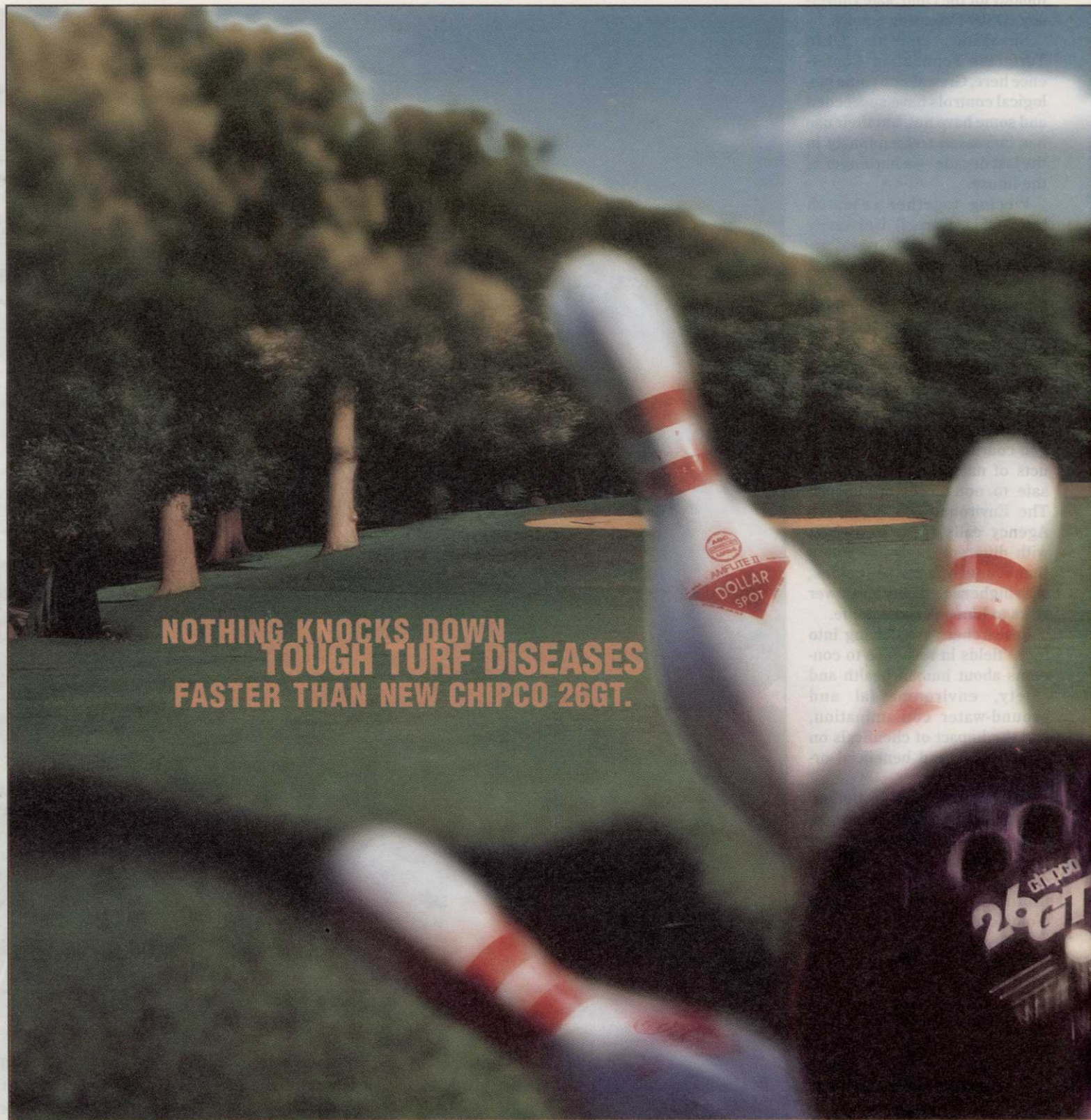
He suggested that superintendents look at soil-ratio tests. Calcium (Ca) should have a 60- to 85-percent saturation in soil test reports, magnesium (Mg) 8 to 12 percent and potassium (K) 5 to 8 percent.

The ratios, Rieke said, should be less than 6.5:1 for Ca:Mg; less than 13:1 for Ca:K; and less than 2:1 for Mg:K.

"Are we overfertilizing?" Rieke asked. "Maybe we are."

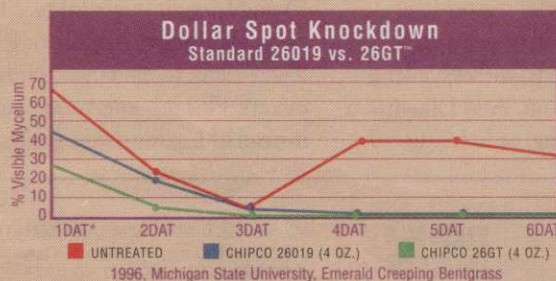
He said granular fertilizer should be applied to sand greens in the spring and fall, including some slow-release material; and the turf should be spoon-fed during prime playing season, using mostly soluble fertilizer with sprays through the irrigation system.

Finally, he said superintendents should "do all you can to get oxygen into the soil," adding that is an important factor that has been overlooked.



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