

# Not Your Father's Fertilizer

New technologies have expanded the possibilities, but it takes homework to decide which one is best for you

By Frank H. Andorka Jr.,  
Associate Editor

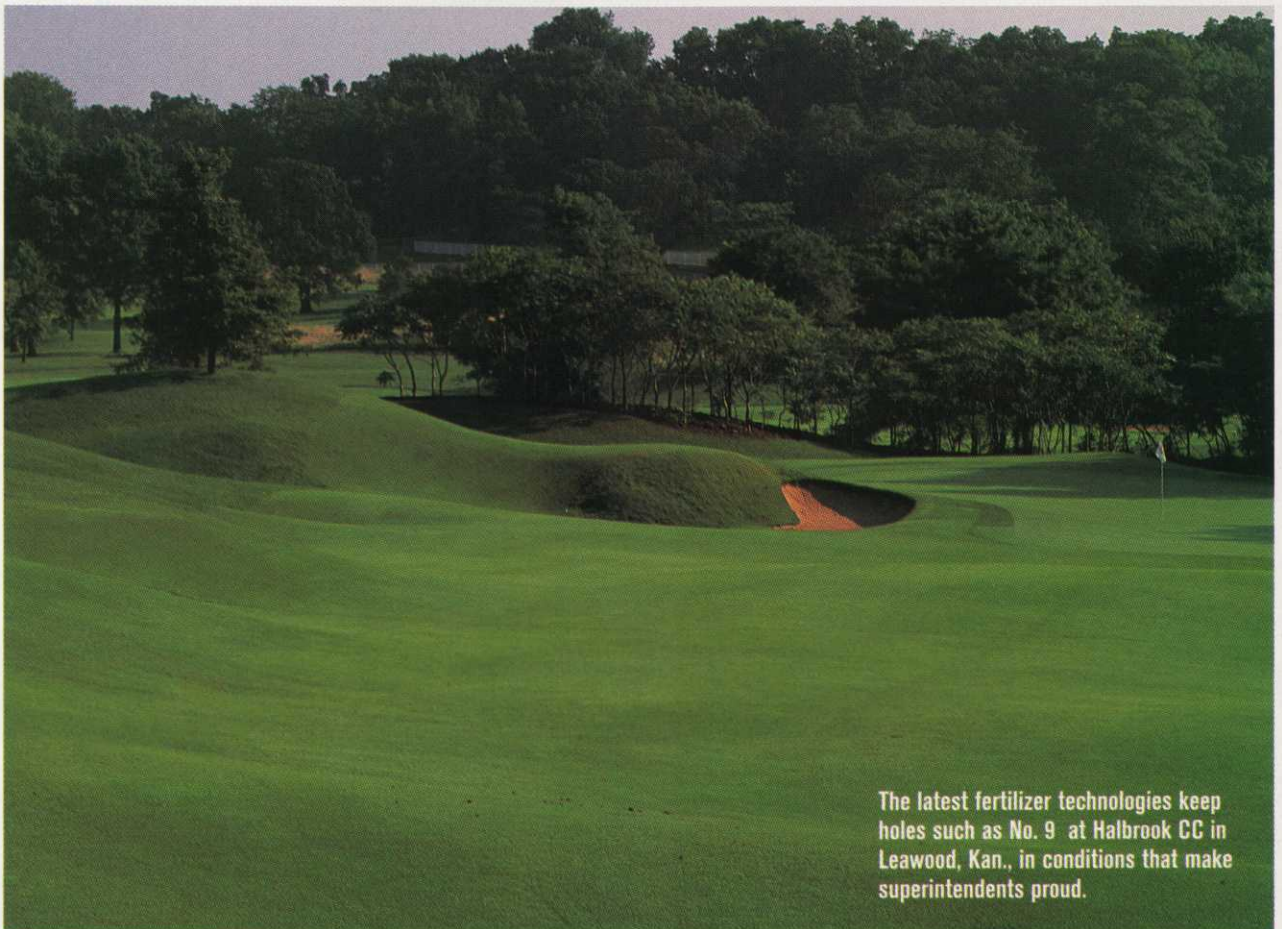
**G**eorge Frye, superintendent of the Ocean Course at Kiawah Island Golf & Tennis Resort in Kiawah Island, S.C., says fertility programs, like subtle legal differences between states, depend on where courses are located.

With all the new products coming on the market, Frye says careful consideration should take into account factors such as grass type, weather conditions — even water quality.

“Fertility programs are not one-size-fits-all propositions,” Frye says. “When fertilizers fail, it’s most likely because the superintendent didn’t analyze the problems well enough and figure out which products were best for his or her course.”

Stephen Ludwig, superintendent at Gettysburg CC, a private 9-hole course in Gettysburg, Pa., says there’s a lot of trial and error involved in picking a fertility program, but the latest technologies have significant advantages if a superintendent can afford them.

*Continued on page 84*



The latest fertilizer technologies keep holes such as No. 9 at Halbrook CC in Leawood, Kan., in conditions that make superintendents proud.

*Continued from page 82*

"Slow-release products give you a good release value at a reasonable price," Ludwig says. "They're a little more expensive, but when you're looking to keep your course in the best shape possible, you have to be willing to spend the money."

Though computer technology reportedly changes every 18 months, fer-

tilizer technology doesn't change nearly as quickly. Manufacturers of slow-release fertilizers work each day to improve the products similar to those that have been around since 1955. Their use, however, didn't expand rapidly until coated products reached the market in the late 1970s and early 1980s, says Jeff Higgins, director of marketing for Pursell Tech-

nologies. The products from that era, which consisted of urea and potassium coated with sulfur, worked fine, but they were unstable because sulfur is a brittle coating at best, Higgins says.

"The problem with that technology is that sulfur buckles under pressure too easily," Higgins says. "With strictly sulfur-coated products, there were too many instances where the fertilizer acted like a fast-release product, which didn't help the superintendents at all."

Their instability also increased costs for the fertilizers because brittle coatings made the fertilizers difficult to ship, Higgins adds. So developers returned to the labs and developed polymer coatings far more stable than sulfur. "It gives superintendents more control over the length of release," Higgins says of the coatings.

Pursell has worked hard to standardize its coating technology in its Polyon product to avoid the inconsistent release of the fertilizer. "We listened to the superintendents, who were telling us they needed 100 percent of the nutrients released when they wanted them released," Higgins says.

Charlie Ulevich, superintendent at Hayfields CC in Hunt Valley, Md., says inconsistent release was the problem he had with granular fertilizers in the past. He doesn't like the flush of top growth a sudden release of fertilizer creates.

"I've used synthetic granulars in the spring, and they were good products," Ulevich says. "The problem, however, is that when you depend on myriad environmental factors to produce a perfect release, you're asking for trouble if those factors don't appear at all or don't occur in the right order."

The Scotts Co. heard complaints such as Ulevich's before, so the Marysville, Ohio-based company unveiled a new line called Premier Fairway Fertilizer at last month's GCSAA show. The new line, which combines the technologies of the company's Poly-S and Extend fertilizers, offers superintendents new flexibility, says Don Brougher, Scotts' marketing manager. It will even-

*Continued on page 86*

## THE CASE FOR FERTIGATION

### High-tech control meets old-fashioned plant nutrition

By Frank H. Andorka Jr.,  
Associate Editor

Superintendents are always looking for ways to improve their turf care practices. When it comes to delivering plant nutrition, fertigation opens new possibilities.

Charlie Ulevich, superintendent at Hayfields CC in Hunt Valley, Md., says he's been a granular man all his life, but now he's in the process of converting his fertility program to fertigation instead.

"If the system is right, it takes a lot of the guesswork out of your fertilization program," Ulevich says. "It allows more flexibility and takes human error out of the equation."

The keys to fertigation are:

- having an irrigation system sufficient to handle the added responsibility of delivering plant nutrients; and
- being able to buy the fertilizers in quantities that don't make it cost-prohibitive.

Dan Pierson, superintendent at Wilmington CC in Wilmington, Del., says the resources at his disposal allow him to buy fertilizer in 1,000-gallon increments, which makes his fertigation program work.

When he compares his return on investment for fertigation to the use of granular fertilizers, the system pays for itself, Pierson says. In a traditional fertilizer product, the plant only takes up between 45 percent to 60 percent of the nutrients, he says. With fertigation, that number jumps to between 80 percent and 90 percent.

"We're getting such a result from our fertigation program that our fertilizer budget has remained the same, but we're delivering higher quality products than we used

to," Pierson says. "Fertigation produces almost an immediate impact on the golf course. It's amazing to see."

The case for fertigation isn't all black and white, however. Without a proper irrigation system, a course may not get the nutrient coverage it needs, says George Frye, superintendent of the Ocean Course at Kiawah Island Golf & Tennis Resort in Kiawah Island, S.C.

"If you don't have the right system, your application runs the risk of being spotty," Frye says. "You need to make sure your system covers the whole area you need covered because if it's not, the grass won't get the nutrition it needs."

Fertigation can also depend on the weather conditions, Frye says. In windy conditions, superintendents may have trouble getting the proper application.

"While it's easy to say 'Move to fertigation,' as with any other fertility program, you have to make sure it's right for you," Frye says. "Examine all the variables before you make a decision."

Expense is also a concern. Andree-Anne Couillard, turfgrass technical services manager for The Scotts Co., a Marysville, Ohio-based company, says liquid fertilizers don't last as long as granular fertilizers, thereby increasing costs through more frequent applications.

Still, Pierson and Ulevich both say the expense is worth it for the amount of control a superintendent gains with fertigation. Ulevich says superintendents can get an expensive irrigation system for around \$10,000, and Pierson says microfeeding is the wave of the future.

"Fertigation actually reduces labor costs because you don't have your crews out there putting the fertilizer down by hand," Ulevich says. "You have full control over where the fertilizer goes and when."

## Fertilizer

Continued from page 84

tually allow Scotts to customize fertilizers for the release characteristics that superintendents need in specific regions of North America.

"We discovered the two technologies we had were complementary to each other in a lot of ways," says Andree-Anne Couillard, Scotts' turfgrass technical services

manager. "That's why we decided to create the new combined products to give superintendents more flexibility."

When the Poly-S and Extend technologies are combined, they produce a more tailored release of nitrogen over time to give superintendents the results of both initial greening and longevity of release, Couillard says. Al-

though both technologies are slow-release, Poly-S is used primarily for its early green-up, while Extend's main attribute is its extended release of nitrogen.

Lange Professional Fertilizer Products has tried to stabilize the nitrogen in its Agrico Turf fertilizer, arguing the volatility of the source produces uneven results. Michael McCarthy, director of marketing for Lange, says an enzyme in Agrico Turf prevents the nitrogen from releasing before it's actually necessary for plant growth.

"The plant gets the nitrogen in the form it needs on an as-needed basis," McCarthy says. "It doesn't evaporate the way it would if you were to put straight urea in the ground."

**"the best money I've spent this year... a no-brainer."**

Wayne Van Arendonk, CGCS  
Rolling Hills Country Club  
Wichita, KS

**"guys just don't know what they're missing..."**

Jerry Coldron, CGCS  
Boone Links/Lassing Pointe  
Florence, KY



**"Nitrogen is to plants what candy is to kids."**

MIKE MCCARTHY  
Lange Professional  
Fertilizer Products

McCarthy says Agrico Turf also prevents plants from getting too much of a good thing.

"Nitrogen is to plants what candy is to kids," McCarthy says. "If it's available, the plants will use it. That doesn't produce the healthiest plants and makes them susceptible to disease and stress."

Agrico Turf also locks itself to soil molecules, which reduces the environmental concerns that all golf courses face, says McCarthy.

Ludwig says though it's hard work determining the best fertilizers for the turf, picking the right product will produce better results in the long run.

"You have to try certain things to see how they work on your course because your course is not a test plot," Ludwig says. "Do your research. With all the products available to you today, there will be one out there designed to meet your needs." ■

**TurfNet**  
1.800.314.7929  
www.turfnet.com

Circle No. 158