Superintendents overcoming fertigation learning curve

By Andrew Overbeck

While fertigation and injection systems have been available for many years, more superintendents are tuning into the benefits of applying liquid fertilizers and other nutrients through their irrigation systems.

Once a superintendant has learned how to use a fertigation system, he or she will continue to help further the understanding of how well-designed irrigation systems can save water, energy and fertilizer costs, but also can improve playing conditions by constantly providing a high-quality granular and then 1 spoon-feed with the fertigation system all summer long," he said.

As a result I don't have peaks and valleys like other courses in the area. With the constant feed, I get good color and quality.

Down the road at Inrondequoit Country Club in Rochester, N.Y., superintendent Rick Hollof also is learning how to best use his new fertigation system that was installed as part of a $1.5 million golf course and irrigation system renovation.

"I had been moving toward using liquid fertilizers and plant growth regulators," said Hollof. "When it came time for a new irrigation system, this was my chance to add fertigation. So far in our first season, we are using it for 70 percent of our fertilization."

As George and Hollof sort out their fertigation programs, other superintendents, like Ryan Porter at Old Ranch Country Club in Seal Beach, Calif., depend on their systems to keep their courses up and running.

Porter takes a fertigation system to distribute eight tons of gypsum monthly onto the 18-hole layout to help fight the water-hogic, high-sodium soils. Using liquid fertilizer for foliar feeding also helps him

Seeded bermudas are narrowing the quality gap

By Andrew Overbeck

After nearly a decade and a half of work, turfgrass breeders have introduced seeded bermudagrasses that are closer to the quality of the best vegetative varieties. Beyond the obvious cost savings associated with using seed versus sod, some seeded varieties also require less water and have better cold tolerance.

"In the past seeded bermudagrass was pretty far away from vegetative varieties but the gap is closing," said Kevin Morris, executive director of the National Turfgrass Evaluation Program based in Beltsville, Md. "Seed is cheaper to use, and it has better cold hardiness. If you want to establish something quickly they are a good choice."

Seeds West's Princess seeded bermudagrass has topped the NTEP quality rating in recent trials for seeded varieties.

According to Seeds West director...
Fertigation market expanding

By ANDREW OVERBECK

Fertigation and nutrient injection system use has expanded over the last 10 years, primarily due to the growth in new construction as many golf course designers and irrigation architects specified the systems to help with grow-in. Now that an estimated 10 to 20 percent of courses in the U.S. have fertigation systems, suppliers and irrigation architects specified the construction as many golf course design-
target lower-budget courses.

Efforts are being placed on education, better technology and on-site mixing.

"The technology and the concept is growing by leaps and bounds," said PlantStar's Ed Nash. "Courses are starting to recognize the value of injection systems beyond grow-in. They are a great tool for the long-term maintenance and management of turf."

With new construction down, suppliers are finding that existing courses are looking to fertigation to get an edge on competition and save money.

"The percentage of people ordering fertigation systems with their pump stations is certainly up," said Allen Olson, who runs Flowtronex's Nutrifeed division. "They are looking at how they can save money and fertigation is a good tool to do that."

"Overcoming fertigation learning curve"

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"The fertilizer is less expensive, you don't have to use the labor or machines to spread or spray fertili-zer, and the feeding is light so you don't have flushes of growth that require more frequent mow-
ing," he said. "You also use less water, save electricity and cut down on pump station use."

Because of the education challenges involved in fertigation systems, regional supplier Moyer & Son in Souderton, Pa., offers what it calls "circle support." The company not only installs fertigation systems and provides the liquid fertilizer, but it also helps superintendents use the units properly.

"Following up is important," said John Ripp, golf course sales manager. "We are teaching people how to run the equipment and write programs and be efficient in the use of the systems."

DISSOLVING THE BARRIERS TO MARKET

One of the largest barriers to growth in the market is the belief that you need a high-tech irrigation system to use fertigation properly.

"It doesn't need to be a high-tech sys-
tem," said Chaplinsky. "With wind moving the impact zone and light feeding every time, the evenness is surprising. We can make it work with any reasonably designed system and save the course money."

The other large stumbling block is the fact that many parts of the country do not have access to liquid fertilizer. Suppliers have solved that problem by offering mixing systems that use soluble fertilizer packs to create individual batches of liq-
uid fertilizer.

Nash's PlantStar has been offering a mixing system since 1986 and other companies are working on similar units. Turf Feeding Systems is rolling out its Auto-Mixer this summer that allows courses to make four to five day's' worth of supply at a time. Flowtronex is working on an agreement with soluble fertilizer maker SQM North America to provide courses with a ready supply that can be mixed in a blending pump.

With these moves, suppliers are work-
ing to expand fertigation use. However, the strongest motivator is word of mouth.

"Nobody wants to be the guinea pig," said Olson. "But when you have one superin-
tendent in an area who jumps out there and has success with it, nobody wants to be last in line."

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"If I don't put out gypsum, we will have hard spots develop on our fairways within three to four weeks," said Porter. "It is one of our right hands."

"We have gypsum in the water at all times, and we fertilize through the sys-
tem every night of the week except for the weekends," he continued. "Forty per-
cent of our fertilization is done through fertigation."

"A reliable system is necessary," he said. "And one with a central controller makes it easier. We have a new Rain Bird system that can calculate the number of gallons I am putting out, so it makes it easy to calibrate for fertigation."

The final piece of the puzzle is getting liquid fertilizer to the pump station.

Holloft has a gravel service road that comes right up to the pump house, but George wound up running a 2,000-foot two-inch feeder line from a parking lot to the pump house so the pressurized delivery truck could recharge the storage tanks.

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