

Editorial Focus: Fertigation

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 are working to improve their offerings, tackle the renovation market and 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."

According to Turf Feeding Systems' Michael Chaplinsky, courses can save an average of \$14,000 to \$40,000 a year by installing a fertigation system that costs between \$7,000 and \$20,000.

"The fertilizer is less expensive, you don't have to use the labor or machines to spread or spray fertilizer, 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."

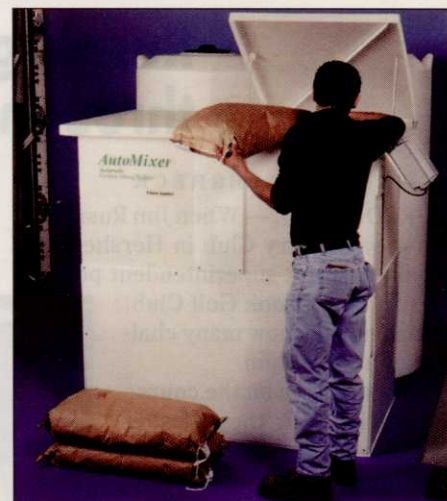
DISSOLVING THE BARRIERS TO MARKET

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 system," 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 liquid fertilizer.

Nash's PlantStar has been offering a mix-



Turf Feeding Systems' new Auto-Mixer

ing 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 days' 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 working 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 superintendent in an area who jumps out there and has success with it, nobody wants to be last in line."

Overcoming fertigation learning curve

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get better nutrient uptake in the turfgrass.

"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 system every night of the week except for the weekends," he continued. "Forty per-

cent of our fertilization is done through fertigation."

With such complicated soil structure, Porter has found that fertigation makes the management of the course much easier. "Without it I would be spending a lot on labor," he said. "The ease of application is also a plus. I just tell a guy to load the machine every night."

INFRASTRUCTURE REQUIREMENTS

All three superintendents caution that a fertigation system requires significant investments in infrastructure.

At Irondequoit, Holfth expanded his pump house from eight by 12 feet to 28 by 26 feet. "We more than doubled the size," he said. "We had to fit in two 1,000-gallon tanks, one 500-gallon tank and one 300-gallon tank. Plus we had to do the containment to make sure if a tank leaked it would not go into the ground or the wet well."

A good quality irrigation system also helps, said George.

"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.

Holfth 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.

As more companies produce water-soluble products, however, more superintendents will likely follow Porter's lead. "We buy all soluble now," Porter said. "It is one-fourth the price of regular fertilizer." ■



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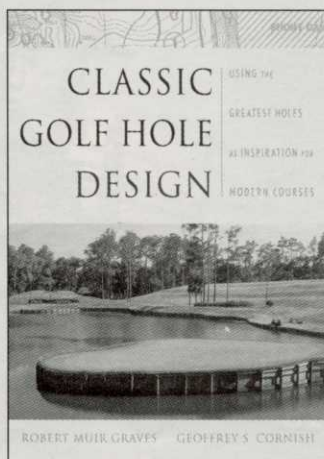
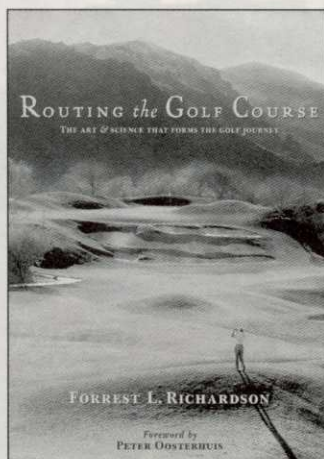
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