

Thigpen, owner of NuTech Soils, a Trenton, N.C.-based fertility analysis and variable-rate application company. “I was the first one in North Carolina to do GPS on the farm. I saw the technology and decided to take it to the golf course.”

Thigpen uses GPS technology to balance soil levels with accuracy once thought impossible. Thigpen soil samples a golf course, and each sample is GPS referenced.

“By taking multiple samples all over the golf course, we’re able to take the data, process it and put it back to that point,” he says.

NuTech will take as many as 10 samples per acre, the results of which allow a superintendent to apply only what’s needed to each area.

“Our application equipment can put what the superintendent wants in that location,” Thigpen says. “The machine will change thousands of times per hole depending on what’s needed.”

The benefits of this process are economical and ecological.

“We’re cutting fertilizer consumption by at least 30 percent,” Thigpen says.

Tom Bailey at Wade Hampton is an early adopter of this technology as well.

“Historically, everything’s been done on a one-, two- or three-acre basis,” Bailey says. “You’d take one or two samples off a fairway, now we’ll take a couple of hundred. We can tailor our fertilizer to what each region of the fairway needs.”

Never one to slow down, Thigpen is taking the concept to the sprayer market. (See Part 1, “Smart Spray,” in the August issue.)

“We have an alliance with Toro and are doing individual tip control on sprayers,” Thigpen says. “We have sub-centimeter accuracy — not sub-inch, sub-centimeter. There’s instant gratification because you see the tip turn on and off, and it won’t overlap.”

Because the popularity of NuTech’s systems has grown, Thigpen is providing superintendents with more GPS options.

“We have a program in which each golf course can do their own sampling in-house,” he says. “We teach them how, then they take it and run with it. They evolve the system to what they want to do with their golf course. By having a handheld unit, they can do sprinkler heads, boundaries and a water management program.”

As technology evolves, entrepreneurs such as Schultz, Ryan and Thigpen will continue to tweak and improve their systems, while creative superintendents will continue to find new ways to use them.

“It’s just an all-around win-win for everybody,” Thigpen says. “You’re giving the superintendent a new tool in a new era of technology.” ■

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APPED UP

With today’s apps, superintendents have control in the palm of their hand.

BY BETH GERACI SENIOR EDITOR

Superintendents looking to know the forecast or manage paperwork straight from the course now have those tools right at their fingertips, courtesy of the latest apps.

Bob Porter, superintendent at Hiawatha Golf Course in Minneapolis, Minn., spoke about one of his favorites, **Evernote (1)**, at the 2012 GIS. The app enables superintendents to access and organize their files and record and store information from anywhere.

“It acts as a repository for anything you want to remember,” explains Porter, who uses it to search for and send invoices, discover products and take notes.

And interest in apps is growing, he says.

“When I gave my talk at the GIS there were 100 people in the audience,” he says. “There was standing room only.” Compare that to his talk three years ago, when just 30 people attended.

Like Porter, Justin Ruiz, CGCS at Indian Summer Golf & Country Club in Olympia, Wash., uses Evernote to organize invoices and collect information from the Internet. The app aficionado also posts to his blog and edits Word documents through apps such as **Blogsy** and **Quickoffice**, and relies heavily on the **Weather Channel (2)** app for help on the job.

“I always go to the 10-day forecast and try to plan projects around that,” he says. “In the Northwest, if you can get a break from the rain, you try to get as much as you can do.”

Adam Moeller, agronomist with the USGA Green Section Northeast, likes the **Sun Seeker (3)** app, which allows superintendents to analyze sunlight at any point on the course at any time of day. “If we wanted to know what the sun pattern will be standing on one green and

how that sun angle changes throughout the day on September 30 at 10 a.m., we could do that,” he says.

Looking ahead, Porter says, “the more of us that are using technology, the more we can speak to each other and learn what others are using. It broadens your horizons.”

