Fields of green

A contractor uses crop-sensing technology to save money and improve athletic turf conditions.

By JONATHAN KATZ

The athletic fields Pat Hester's Clintar Landscape Management franchise maintains near Barrie, Ontario, have never looked greener, thanks to technology commonly used in agriculture. Last spring, the company began using GPS and crop-sensing equipment to record data about turf health each time it mows a field.

The data allow Hester to analyze turf conditions remotely, eliminating extra on-site visits. The company also uses the GPS-enabled location information to target areas that require fertilizer rather than performing blanket applications.

The system has helped Clintar save about $1,800 per fertilizer application on athletic fields, Hester says.

"Before, we would fertilize the whole field and apply the same amount every time," Hester says. "Now, before we go out fertilizing we'll pull out the readings, print them and outline the areas where we're going to direct our fertilizing and areas where we're going to go lighter."

Fuel expenses have declined as well, with fewer trips to the sites, though Hester has not tracked those exact savings. The system cost approximately $13,000. Hester says he expects to see a return on the investment within three years.

SENSING A PROBLEM

Hester first heard about the technology at sports turf seminars. He wanted a way to more efficiently manage his properties, some of which were three hours apart.

"For me to check on them was a full-time job, which I don't have the time to do," says Hester, who purchased a system called GreenSeeker from GPS technology provider Trimble Navigation. The system comes with a sensing unit, which the company mounted to a mower, and software.

The sensing unit shoots a beam of light from the front of the mower, takes a reading and stores information about the field. Hester downloads the data into the software program, which plots the readings on a satellite image. From there, he can see any stressed turf areas. The readings are color coded and graded on a scale of zero to one. For instance, a dark green reading of 0.9 indicates healthy turf. A yellow reading of 0.4 represents unhealthy turf.

Green, healthy plants reflect light differently than stressed plants do, resulting in different data readings.

"It's a critical heads up that allows us to tailor the care of that field," Hester says. "I know I have to do something to get that grass growing properly, whether it's fertilize or treat for pests or adjust the irrigation schedule."

He says the system has had a positive impact on customer satisfaction. The ability to quickly address problems reduces the need for his clients to conduct costly field renovations.

"We learned a lot about the condition of our fields and were able to put together a proper maintenance plan," said Rick Mutuchky, central operations supervisor, Simcoe County District School Board, for whom Hester maintains 18 fields. "The technology is very impressive."

The only challenge Hester says he's faced with the system is the number of steps required to read the data. "It's a lot of clicking to get the info from the tractor into where I can see it," Hester says. He expects the system to become less complex in the future with software updates. LM

Katz is a freelance writer based in Cleveland.

The Ticker: **MAINTENANCE**

Polaris Industries will supply **Ariens Co.** with a work vehicle under the Gravely brand. Polaris has executed similar partnerships in the past, such as its ongoing partnership with **Bobcat Co.**

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Texas landscape firms **Greater Texas Landscape Services** (GTL) and **Hadden Landscaping** merged. Terms weren't disclosed. The firms will exist as individual corporate entities and will share resources. Tucson, Ariz.-based The Groundskeeper will be the parent company of both. Hadden has locations in Plano and Fort Worth. GTL is based in Lewisville and has other service locations in Waco, Austin, San Antonio, Rio Grande Valley and Houston.