

Simulating Real-Life Conditions Provides Valuable Learning Tool

By Jeff Higgins

Much of our everyday knowledge comes from using simulators — driving, flying, surgery — and now superintendents can take the same approach with golf at FarmLinks GC in Sylacauga, Ala.

FarmLinks is a new 18-hole championship golf course developed by Pursell Technologies as a dedicated site for product research and experimentation, as well as environmental studies. Created as an educational “living laboratory,” FarmLinks conducts ongoing research on a course that experiences real-world wear and tear.

The company manufactures Polyon controlled-release fertilizer and Precise controlled-released pesticides. The program was originally intended to be a giant test plot for the firm’s products. Shortly after its conception, however, the company realized the course’s potential for developing other golf-related products, from equipment to seed to greens mixes. Now a number of industry partners use the facility to study and demonstrate their products or prototypes.

Best of all, the knowledge being gained from

such tests can ultimately benefit every golfer and superintendent.

A one-of-a-kind opportunity

Most golf research is conducted on plots at universities or places that mimic real golf course conditions. Many of those facilities don’t experience realistic stresses and factors. Because FarmLinks is an actual golf course, it faces the same issues and problems that superintendents and golfers do under real-world conditions.

What’s more, researchers literally have the whole place to work with. Typically, other facilities are limited to replicating small test plots, such as 5 feet by 5 feet. At FarmLinks, a whole fairway or entire hole may be dedicated to a certain program of treatment. That way, we’re able to compare not only the efficacy of that treatment or product, but also its real-life longevity, economics and other criteria.

The concept provides a nonbiased approach that allows superintendents to evaluate different technologies better. Products can be applied side-by-side to see what happens. That’s truly educational, because visiting superintendents can look at the test areas and gauge the differences for themselves.

Visitors also have the luxury of that experience without worrying about golfers hitting on top of them. While it is a real golf course environment physically, we can control the traffic on it.

Evaluating economic impact

We look at applied research in the big picture context, as everything comes back to the economics of maintaining a golf course. When a product is tested, we also study the time and labor involved in using it.

For fertility programs, the plan is to take each hole and dedicate it to a different technology. Our goal is to maintain the turf quality similarly for the entire golf course, with certain variables factored in from hole to hole to provide a larger base of

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An aerial overview of Pursell Technologies’ FarmLinks GC gives superintendents an idea of what this research station looks like.



Farmlinks GC allows numerous different industry companies to conduct their research under real-world conditions.

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 research. For example, if we apply a water-soluble product like ammonium sulfate on one hole we may need to apply that fertilizer every three weeks to maintain the same quality of, say hole No. 2, which may use one application of fertilizer all year.

By keeping the turf quality the same throughout, we can then look at how many applications of each product it takes to accomplish that quality. Then there's an overall cost associated with that—labor, equipment, fuel, the product itself—so at the end of the year we can accurately say, "OK, this program cost x dollars a year and this one cost 2x." We're not only looking at just fertilizer performance, we're assessing its economy as well.

Unfortunately, many superintendents today are in a Catch-22 situation — they're told to improve turf quality conditions, but with smaller budgets. In many ways, a superintendent's job is as much about management of money and people as it is agronomics. With the work at FarmLinks, we hope to help superintendents look at their budgets and better manage projects, time or capital.

Every aspect studied

We want to help superintendents learn how to do things more efficiently, and tighter maintenance budgets can affect everything. Having an entire golf course at our disposal opens up countless opportunities to learn about all of those aspects of golf course maintenance. Among the products and practices being researched are pesticides, turfgrass, equipment, irrigation hardware and software, soils and much more.

For example, Toro is working on new technology for an irrigation system that can program and

maintain a certain soil moisture level, say 40 percent. Using sensors, the system automatically turns on a certain set of sprinkler heads for that area or zone if soil moisture falls below 40 percent.

During construction, we tried different grow-in treatments, fertility treatments, application timings and rates, and we have some data already.

Syngenta is studying insect, weed and disease control. We are testing different varieties of bentgrasses on putting greens, and for chipping greens we looked at varieties of Ultradwarf bermudagrasses vs. Tifdwarf.

We're evaluating about 25 different active ingredients formulated with our Precise controlled-release pesticide technology. We're looking at the performance of various fungicides, herbicides and insecticides.

All of this research requires a lot of attention to detail. Mark Langner is director of applied research, and he protects the integrity of all studies by ensuring that none of the treatments or processes are compromised. Ironically, a golfer may see some areas that are not in pristine condition, but that's part of research.

A third-party firm was hired to evaluate the course's environmental impact, both during construction and on a recurring basis to measure the effects of routine maintenance. Using eight monitoring stations, specific audits are conducted for water quality (surface and subsurface), erosion, wildlife and plant life. Again, it's all to help the entire golf industry know more about itself.

Experience the future

One of the most exciting aspects of the concept is that it's there for everyone to enjoy and learn from. Each year, more than 1,000 superintendents, academics, golf professionals, students and others play the course and observe product performances and results along the way.

You can preview prototypes of equipment and products before they're available. These are impressive items in operation, and it's not likely you'll see them at a field day or tradeshow.

In addition to seeing new ideas still in development, guests offer their own feedback. It's all like having an insight into the future of turfgrass management technology and getting a head start on your cohorts.

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QUICK TIP

What better time to strengthen the turfgrass plant as we move into the late fall and winter months than providing a sound fall fertilization program. The Andersons provides several fall fertilizer options for both cool- and warm-season grasses. For more information, visit our Web site at www.andersonsgolfproducts.com or call 800-225-2639.