

# Show Me The Data!

Research your products before you buy.

BY TODD LOWE



4 ft. x 4 ft. pieces of plywood are placed over the nursery green to provide check plots for the evaluation of the efficacy of applied products. Numerous check plots are maintained to evaluate various products. (Photo courtesy of Travis Moore, Club at Sonterra, San Antonio, Texas.)

A memorable moment in the movie *Jerry Maguire* took place when Tom Cruise's character had a meeting with a client who ended the conversation by repeatedly shouting, "Show me the money!" A similar scene has taken place between vendors in the turfgrass industry and me when they discuss details of their products' attributes. It usually begins low key, as the salesperson discusses the product's applications and mentions several superintendents who use the products on a regular basis. It then escalates, producing a multitude of claims from reducing thatch, reducing nematodes/diseases, increasing

nutrient availability, to simply improving overall turf health and playability. This leads me to repeatedly exclaim, "Show me the data!"

There are many well-respected salespersons in our industry who supply a variety of products, such as fungicides, insecticides, herbicides, and fertilizers to sustain high-quality golf course turf. Some of these products have been thoroughly tested through years of university trials before reaching the marketplace. However, there are a host of biostimulants, hormones, soil microbes, and amendments that are simply packaged and sold without any university research to substantiate

their claims. Most of these products do not harm turf, but are they worth the cost?

Hippocrates stated it best when he said, "Science begets knowledge, opinion ignorance." Independent research is needed to document whether or not a product provides some benefit to turf. In the absence of scientific fact, we are left to formulate our own opinions. USGA agronomists are non-partial and are not financially motivated by their recommendations. As such, we rely on data gathered by university scientists in research trials or empirical observations from fellow golf course superintendents to make



sound agronomic recommendations for golf courses.

Research studies are generally designed and evaluated by scientists in replicated field plots. Greenhouse trials are helpful, but the most useful data come from turf plots maintained as near to “real world” conditions as possible. It is also recommended that these studies be conducted on turfgrass in similar regions. Data from potato crops in Idaho does not quite correlate to bermudagrass putting greens in Florida!

Most superintendents do not utilize untreated check plots, so it is difficult to evaluate whether the treatment or some other factor like weather or mechanical cultivation had a greater impact on turf response than the product applied. One superintendent remarked how well the greens per-

formed after an application of soil amendment “X.” However, the same treated greens were deep-tined to incorporate the amendment. So, did the amendment or deep-tine aeration have the most impact on turf quality? Without untreated check plots with deep-tine aeration only, it is impossible to know.

In the absence of university trials or reliable testimonials, we recommend performing on-site research trials at your golf course. Nursery greens are ideal for studying products. If the product is for tees, fairways, or roughs, then an out-of-sight location on the practice area or driving range might be suitable. It is imperative to include untreated check plots by covering an area of turf during application. This can be as easy as laying down a sheet of plywood on the turf prior to application.

Make sure to mark the corners of the untreated area with turf paint so that treatment effects can be evaluated. Be aware that some products contain fertilizer, and make sure that the transient improvement is not simply a reaction to additional nitrogen. Evaluate the color, but also turf density and rooting as well.

Golf course maintenance budgets are continually scrutinized, forcing superintendents to focus on the basics and leaving less room for “non-essential products.” Before spending resources on items that may provide marginal benefits to your course, request non-biased data from reputable turfgrass scientists, or perform your own on-site trials with untreated check plots.

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*This check plot has not received any applications this year. It serves as a good illustration to the players and course leadership as to what the greens would look like without fertilizer and plant protectants. This is a valuable sales tool to help justify such expenses. (Photo courtesy of Travis Moore, Club at Sonterra, San Antonio, Texas.)*