Sustainability & biological turf fertility products

Turf managers are increasingly incorporating biological products into their turf fertility programs to improve plant health and appearance as well as to complement their environmentally sustainable practices, according to a recent survey conducted on behalf of LebanonTurf. Survey respondents were asked to consider biologicals as products based on a wide range of living organisms, including microbes, bacteria, mycorrhizae, seaplant extracts and hormones, that are added to a fertilizer prill or delivered as stand alone products.

According to survey respondents, 51% currently use biological products as part of their normal turf fertility program; 45% said they expect to increase their use of biologicals in the next 2 years. Sixty-six percent use biologicals as a complement to traditional fertilizer products, while 31% said they are experimenting with these types of products. Less than 1% said they use biologicals exclusively.

Ninety percent said they consider biological products either essential (30%) or moderately important (60%) to their fertility programs. In addition to improved plant health and appearance (53%) and environmental friendliness (35%), 12% indicated “cost-effectiveness when compared to traditional fertilizers” as an “important” benefit of biofertilization.

Ninety-five percent of those responding said they were either very satisfied (31%) or mostly satisfied (64%) with the results they achieved with biological products.

At a biofertilization conference in late September that LebanonTurf sponsored and I attended, Roch Gaussoin, professor of agronomy and extension turfgrass specialist from the University of Nebraska, said, “Biofertilization benefit turf and the environment while helping end-users save money. In our tests, we have seen the opportunity to reduce fertilizer application rates by up to 30% over granular or dry fertilizers with no change in performance.”

Gaussoin said most academics dismissed these products early on but his research shows that they can generate an equivalent response in plants at lower inputs.

“[Biological products] are not widely accepted in the academic community,” said Gaussoin. “One reason is that microorganisms are not well understood though after water they are the next most significant factor in plant health. Biofertilization is enhancing beneficial organisms in the soil to facilitate nutrient availability and uptake. For example, nitrogen is naturally in soil waiting to be released and microbial-based products enable that nitrogen to release.”

From my corner of the world, it appears that as more turf managers focus on sustainability practices, we are likely to see increased use of what one presenter called “biofertility” products. It might be wise to ask your peers if they are changing practices and/or products, as well as make sure you check out what’s available at the trade show portions of January’s STMA Conference in Austin.

Department of We Messed Up

We should have credited Marti Vocke of Graff’s Turf Farms in Colorado for the photo on page 18 of last month’s issue as well as one that appeared on page 37 in our February 2010 issue. Thanks for your magnanimity, Marti.