Organic product veteran speaks out
Interview with Robert Riley, founder of Green Pro Services, Inc.

SPORTSTURF: What got you started working with organic products?
Robert Riley: When I used chemical products and methods some 30 years ago, I realized that the turf was not responding the way I thought it should. The root structure was never very good; thatch was a problem, as were diseases. In fact, I recorded that it took more and more effort and money to maintain the turf. It got to the point that every lawn had to be plug aerated and de-thatched every year.

SPORTSTURF: Is this what made you move into organics?
RR: As I did more and more research, the fundamentals of soil biology, plant nutrition, and the relationship between the two became very clear to me, and explained why I was having problems with diseases and why I couldn’t get a good root system. By pulling together and organizing the available research, plus my observations on lawns, I was able to develop the principles for designing organic turf care products and procedures. Since then, it has been an ongoing process of development, testing, refining, re-testing, etc.

SPORTSTURF: Organics have been touted and tried before with less than acceptable results. What makes your products different?
RR: There are some fundamental differences. First, there has to be the recognition that turning to organics is not just “using” organics. Rather, it is gaining the knowledge of how the earth’s natural systems work, and then using specific materials, timed to work in concert with these established natural systems. The commonly used materials available today, typically animal byproducts can’t reliably or effectively do the job.

SPORTSTURF: Isn’t organic “organic”?
RR: No. Organic products are either animal organics or plant organics. Some organics, sewage sludge for instance, can be very high in heavy metals, which are somewhat toxic. Cow manure can contain weed seeds. It makes a difference whether they are completely or only

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Most organic products, including composts, are not ready to "go to work" immediately. In a sense, the soil's process of getting some organic materials ready to work actually consumes some of the components that are supposed to be available for turfgrass support. Turf managers have not gotten the response that they were seeking so they concluded incorrectly that organics don't work, or are slow to work.

In order to be effective and efficient, the organics applied must be ready to do their job as close to immediately as possible. Moreover, ALL of other materials used (e.g. N.P.K. fertilizers) must be in balance and work together synergistically.

**ST:** How are your organics different?
**RR:** The materials are completely decomposed, so no further time is needed for them to provide the benefits to the soil and to the plant. Our plant-based organic products can also have as much as 40 times more organic content than a similar volume of other organics. That alone makes a huge difference in turf performance. Also, some organics have heavy metals and other undesirable components, which can be toxic to the soil and create nutritional imbalances.

**ST:** How does aeration work with organics?
**RR:** Most maintenance programs today approach aeration as a "mechanical" process, using a machine to poke holes in the ground. It is very inefficient, ineffective and expensive. If you were to aerate in two different directions, university calculations report that less than 10% "aeration" of the surface is possible. We also have to realize that in many parts of the United States it is impossible to mechanically aerate during certain times of the year.

Even under the most ideal conditions, which seldom exist, penetration is measured in inches, and the period of "aeration" measured in days or weeks. We want our soil aerated 100% of the growing season, as deep down as possible, because that is the most important part of working in concert with the earth's natural systems.

**ST:** How do you aerate?
**RR:** We use biological methods. Our method is more advanced and we've used it successfully for the last 30 years. Our program aerates 100% of the surface area all season-long. And the cost of using our Natural Aeration process is but a fraction of mechanical aeration, plus it saves money in other ways.

For instance, we have athletic fields with roots over 15 inches deep. That means grass plants have a greater root system for storing food energy, providing for a tougher turf to withstand wear-and-tear, thus requiring less seeding. It means that the soil can hold 15 inches of water, a larger reservoir of water, which can save as much as 30% in watering costs. In some areas of the country that represents a huge savings. It also means a larger "warehouse" of nutrients to draw upon for a better nutritionally balanced turf.

Combine all these bonuses with the elimination of de-
thatching and aerating equipment and labor, and the savings can be very significant. Plus, it produces a better turf that requires fewer pesticides. From every perspective, it is better for the environment.

ST: What do you see as the future of organics in sports turf maintenance?
RR: The 20th century was the age of "A Better Life Through Chemistry" and chemical solutions where created for every imaginable aspect of our lives. Special chemical solutions for turf problems and the latest mechanical equipment were, and still are by many, considered to be modern and progressive. The research and development process has taught us much and the information has value. Yet, I feel strongly, and have proven empirically, that too much emphasis has been placed on the grass plant and not enough attention paid on the growing medium, the soil.

Combine this with the large group of turf people who have ventured into organics only to be disappointed by products and/or procedures that didn’t work well enough. They too often mistakenly conclude that organics don’t work.

What is really driving organic products today is environmental concerns and public pressure. In the rush to capitalize on this shift, some companies are developing products that are environmentally responsible but are often budget-busting and/or poor performers. They are trying to use the symptom management paradigm of the chemical companies rather than going back to the basics of how the biological processes within and between the soil and the plant take place. Performance is a matter of fundamentals.

I am optimistic about the future of organics. It has so many benefits, both economically and environmentally, and it is consistent with the way nature functions, the way that the natural biological and chemical processes have worked together for thousands of years.