

Organic product veteran speaks out

Interview with Robert Riley, founder of Green Pro Services, Inc.

EXPECT MORE from Your Weather & Turf Management Systems

LIGHTNING FOOTBALL ONLINE WEATHER CENTER

LEAF WETNESS | SOIL MOISTURE | WEATHERBUG STREAMER | E.T. CONTROLS

LIVE WEATHER
FROM: LIGHTNING STADIUM
TEMP: 88 F TEMP RATE: +1.8 F/hr
WINDS: 2 mph ENE
HUMIDITY: 60%
RAIN RATE: 0.00 in/hr
DAILY TOTAL: 0.02 in MONTHLY TOTAL: 3.41 in

AREA WEATHER

Station Home	DB	Dist	Temp	Winds
Maryland Science Center	2.45	56 miles	86	ENE 2 mph
Frederick Scott Key School	2.41	2.04 miles	84	E 5 mph
Worrell Park School	2.38	2.78 miles	85	ENE 3 mph
Laboratory	3.42	3.41 miles	85	E 4 mph

LOCAL FORECAST
FOR: Baltimore, MD

Today
Increasing clouds. Highs in the lower 80s. Light winds.

Tonight
Occasional showers. Not as cold with lows in the lower 50s. Southeast winds 10 to 15 mph. Chance of rain 80 percent.

Friday
Cloudy with showers likely. Highs in the upper 60s. Southeast winds around 10 mph. Chance of rain 70 percent.

Friday Night
Cloudy. Showers likely in the evening... then a chance of showers after midnight. Lows in the mid 50s. East winds around 10 mph. Chance of rain 80 percent.

HISTORICAL OBSERVATIONS
DAILY DATA >
MONTHLY DATA >
STATION GRAPHS >

STADIUM CAMERA
New Laptop: 26.7% 20 Day 200 Day

LOCAL RADAR
Doppler Radar WeatherBug
Light Precipitation Intensity Heavy 4.00mm 80°F
Color Altitude

Additional Radar Set:
National Radar National Radar
National VTEC National VTEC
National ID National ID
National Composite National Composite
National Tornado National Tornado

WeatherBug Professional
Presented by WeatherBug Professional
© AWS.com/WeatherBug Professional, Inc. 2004



WeatherBug offers...

- 27 weather data parameters from your site
- Active alerts based parameters you define
- Composite Maps that include current weather, current weather contour, NEXRAD radar, current satellite info, and lightning for better analysis and forecasting
- Historical data
- Lightning forecasts and strikes data

...all on one easy-to-use web interface that can be accessed by any PC with an Internet connection.

WeatherBug, owner and operator of the largest weather network in the world, is proud to offer the most comprehensive weather and turf management solution available.

Call us today to learn more about the cost-effective program used by NFL and MLB franchises to better manage their venues. It will change the way you operate your facility.

Contact Stuart Margel at 1-800-544-4429, ext. 1635 or e-mail smargel@aws.com.



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.

ST: 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.

ST: 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.

ST: 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

partially decomposed. 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 go 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: What do you mean by "nutritional imbalances"?

RR: For optimal function, nature must be in balance. Upset the balance and performance suffers. Optimize balance and nature will respond favorably. Specifically, this is about nutritional balance within the soil. At least 30+ necessary nutrients are required and they must be available in the correct proportions. The soil grows what it is "programmed" to grow. For instance, there is a nutritional profile that is more likely to grow grass, and a different profile that is more likely to grow weeds. Growing 100% turfgrass is "unnatural" to nature, but



by altering various components within the soil, we can optimize that process.

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-

**EVERGREEN™ Turf Blankets...
...trusted around the world!**

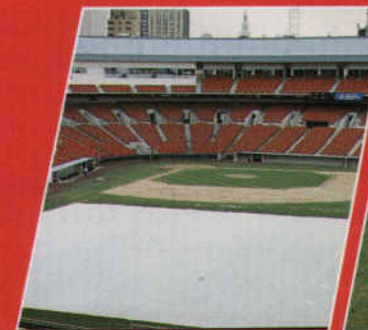
**"Getting Money's Worth...,
Very Satisfied..."**

wrote **Ron Crooker**, Director Plant Operation,
Upper Iowa University, Fayette, IO

- Earlier spring green-up
- Faster seed germination
- Deeper root development
- Delays dormancy in fall
- Ideal winter blanket
- 3 & 7 yr. warranty covers
- Best for quick turf repairs
- Available in any size

**Want to know more?
CALL TOLL FREE
1-800-387-5808**

**COVERMASTER™
COVERMASTER
COVERMASTER**
MASTERS IN THE ART OF SPORTS SURFACE COVERS



Covers for baseball fields are readily available.



Covered...



Uncovered...

It works on the greenhouse principle, every time!

EXCESS HEAT ESCAPES THROUGH THE PATENTED VENTING SYSTEM
AIR, WATER AND HEAT PENETRATE THE COVER, WARMING THE SOIL
INCREASES ROOT DEVELOPMENT

covermaster.com

E-MAIL: info@covermaster.com

COVERMASTER INC., 100 WESTMORE DR. 11-D, REXDALE, ON, M9V 5C3 TEL 416-745-1811 FAX 416-742-6837



Circle 145 on card or www.oners.ims.ca/5062-145

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 were created for every imaginable aspect of our lives. Special

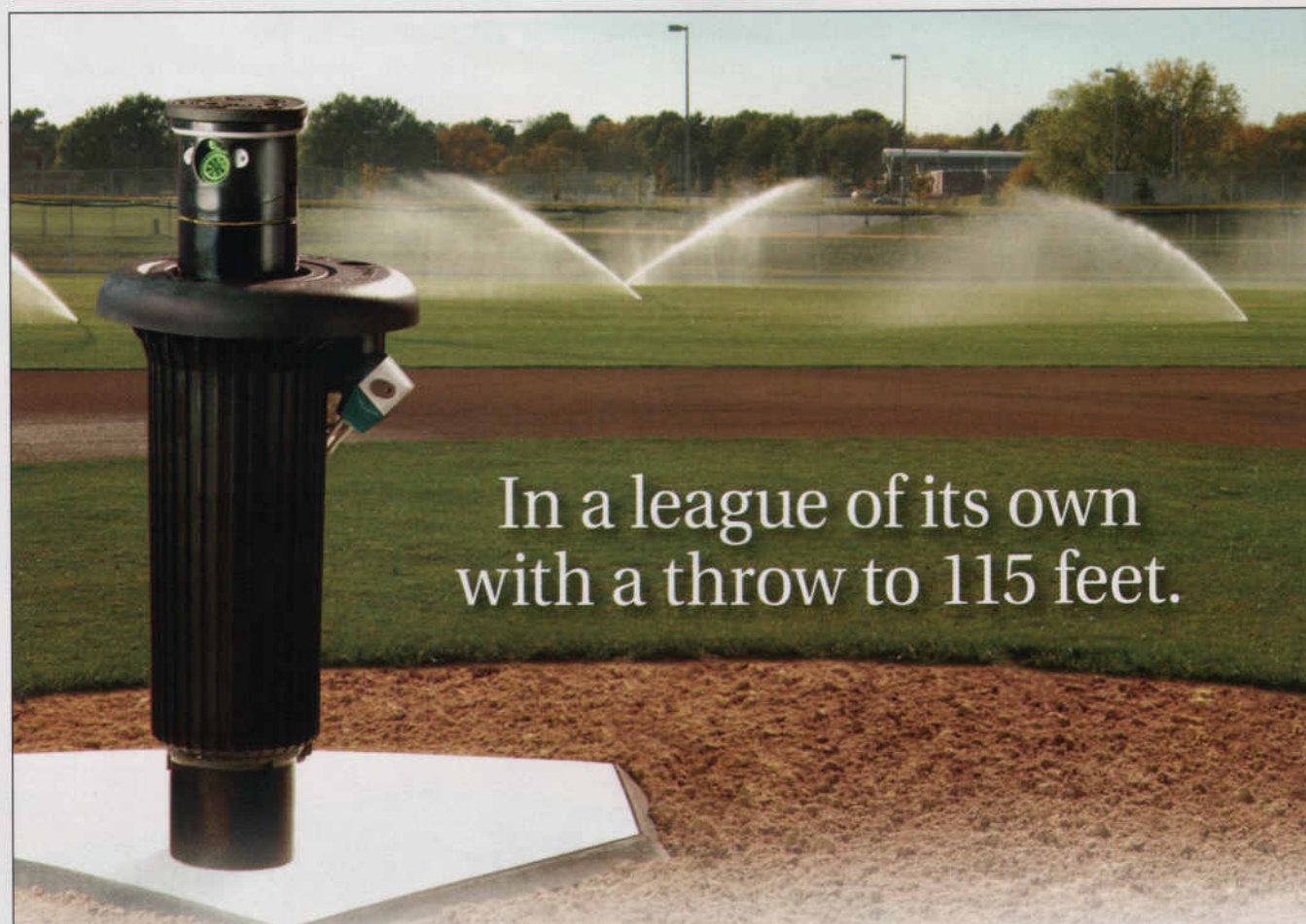
chemical solutions for turf problems and the latest mechanical equipment were, and still are by many, considered to be modern and progressive. The research and development process has taught us much and the information has value. Yet, I feel strongly, and have proven empirically, that too much emphasis 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. **ST**

Contact Robert Riley at 1-800-645-6464.



In a league of its own
with a throw to 115 feet.

Install Confidence®. Install Rain Bird® 115-E Commercial Rotors.



Exclusive Rain Curtain™ Nozzle Technology uniformly distributes water throughout the entire radius range — even close in around the head to eliminate dry spots. Rotor shown with optional artificial grass cover.

The Rain Bird 115-E Rotor distributes water farther than any other commercial product currently available—up to 115 feet. This performance advantage is just one reason why the 115-E Rotor is the ideal choice for large turf and artificial surface applications where maximum spacing is required. Additional advantages include:

- Rain Curtain™ Nozzle Technology — large droplets for consistent performance, effective close-in watering and even distribution over the entire radius.
- Valve-in-Head configuration allows the flexibility to zone each rotor individually to efficiently maintain flow control and run times.
- Built-in, factory preset pressure regulation for optimal nozzle performance.
- Adjustable stator can be set for rotation times as short as 90 seconds to accommodate high-speed wetting or cooling applications.
- Expanded radius of throw provides uniform head-to-head coverage from around the playing surface perimeter. Fewer heads and less trenching are required, which saves time and money.

Unrivaled performance. Efficiency. Value. That's the Rain Bird 115-E Commercial Rotor. For additional details see your Rain Bird distributor, or visit www.rainbird.com.



TURFVIGOR

TurfVigor, a liquid microbial fertilizer, maximizes nutrient uptake while improving turf color and quality. Perfect for sports turf applications, TurfVigor 9-3-6 improves plant health, accelerating recovery from physical damage and maintains root mass under high-stress conditions. Available in 2.5-, 15- and 110-gallon containers, TurfVigor should be applied with water and is perfect for spoon-feeding applications. Combining patented high-impact microbial strains, biostimulants, and macro and micronutrients in one formula, this easy-to-use liquid fertilizer helps turfgrass hold up under temperature, drought, physical injury and other stress-causing environmental conditions.

Novozymes/800-342-6173
For information, circle 073 or see <http://www.oners.ims.ca/5062-073>