

Nutramax Laboratories® Inc.

Nutramax Laboratories® Inc.

2208 Lakeside Blvd.
Edgewood, Md. 21040
410-776 4000
800-925-5187
Fax: 410-776 4009

Web address:

www.nutramaxlabs.com

Staff

George Barger, Key Golf
Corporate/Sales Contact
410-776-4012

Jose Casasola, Key Golf
Technical Contact
410-776-4011

Beth Anderson, Customer
Service
800-925-5187

Dr. Robert Henderson,
President/CEO

Ed Sharbaugh,
Executive Vice President

Product focus:

Nutramax Laboratories® Inc. pioneered the use of amino acids in turfgrass management. The action of amino acids, the building blocks



of all protein, enhances physiological mechanisms that control photosynthetic activity, and water and nutrient efficiency. The L-amino acids obtained by enzymatic hydrolysis of selected natural protein in MACRO-SORB® and QUELANT® provide the same L-amino acids plants require to resist stress and synthesize their proteins, enzymes, chlorophyll and other organic compounds.

Facility:

Nutramax Laboratories moved to its state-of-the-art, 72,000-square-foot manufacturing/distribution/research/corporate office facility in Edgewood, Md., in 1999. The



Nutramax Laboratories, Inc.

company is known for its high-quality nutraceuticals for people, animals and turfgrass. The manufacturing facility is capable of producing finished product following pharmaceutical good manufacturing practices.

Technical support, sales, training and customer service:

MACRO-SORB® and QUELANT® products are available from distributors nationwide. Call 800-925-5187 to find a distributor near

you. Nutramax Laboratories can answer your technical questions about MACRO-SORB® and QUELANT® amino-acid products at 800-925-5187.

Major product lines:

Nutramax Laboratories provides a unique and ecologically sound solution in its line of amino acid biofertilizers. Its four products: MACRO-SORB® foliar, MACRO-SORB® radicular, QUELANT®-Ca (amino acids with chelated calcium) and QUELANT®-K (amino acid potassium supplement) deliver 18 vital amino acids. By replacing biologically active amino acids, the net effect is healthier and more efficient turfgrass that's better able to withstand stress.



Products are manufactured like pharmaceuticals in a pharmaceutical environment and are backed by laboratory research.

ProSource One

ProSource One

6555 Quince Rd., Suite 202
Memphis, Tenn. 38119
877-350-3999
Fax: 901-751-4500

Web address:

www.prosourceone.com

E-mail address:

twitcher@prosourceone.com

Date founded: 1985; Feb. 2,

2000, changed name to
ProSource One

Staff

Bob Lee, Director

Sam Pace, National Sales
Manager

Tim Witcher, National
Marketing Manager

A New Year Is Coming

Season's Green-ings!

At a time when most of what you see out the window is brown or white, who's thinking green? It's hard to believe that spring will be here before we know it. Springtime means long days of getting your course ready to reopen. After that, of course, the days get even longer and more stressful. Now is the time that superintendents lean strongly on their distributor reps.

As you plan for your new season, think green. Green tees, green fairways, green—well, greens. That will immediately lead you to think of ProSource One, one of the top distributors of turf and ornamental products for use on golf courses. Our line of products includes brands from the leading manufacturers as well as our own line of high-value products such as Strike Three® ULTRA. We can also meet all your seed needs.

ABOUT US
Welcome to a Greener World

PROSOURCE ONE
(877)-350-3999

HOME | WHAT'S NEW | MISSION STATEMENT | EMPLOYMENT OPPORTUNITIES

ABOUT US | CATALOG | NURSERY AND ORNAMENTALS | TURF | AQUATIC | FLORIDA AGRICULTURE | VEGETATION MANAGEMENT | CONTACT US

ProSource One is a Memphis, TN based Distribution Company that supplies fertilizers, chemicals, seed, and services to professional users throughout the United States. The markets that we service include the professional turf market, the ornamental and nursery market, vegetation management, and the Florida Specialty Agriculture market. ProSource One's professional sales staff is trained to bring solutions to our customers. We strive to identify our customer's needs, and to provide products that will assist them in reaching their goals.

Below is a list of our corporate management team. To contact the management and field representatives in your area see the [Contact Us](#) page.

<p>Bob Lee Director 901-758-3427 blee@prosourceone.com</p> <p>Sam Pace National Sales Mgr. 662-746-9581 space@prosourceone.com</p> <p>Keith Woodruff National Acct. Mgr. 309-661-1593 kwoodruff@prosourceone.com</p>	<p>Tim Witcher National Marketing Mgr. 419-384-3109 twitcher@prosourceone.com</p> <p>Sandra Kaiser Supply & Operations Mgr. 901-758-3425 skaiser@prosourceone.com</p> <p>Jeff Mobley National T&O Marketing Mgr. 904-543-1802 jmobley@prosourceone.com</p>
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ABOUT US | **PROSOURCE ONE** | **CONTACT US**

CATALOG | **VEGETATION MANAGEMENT**

NURSERY AND ORNAMENTALS | **FLORIDA SPECIALTY AGRICULTURE**

TURF | **AQUATIC**

Welcome to a Greener World

6555 Quince Rd., Ste 202, Memphis, Tennessee 38119, 877-350-3999

Access to all of these brands enables ProSource One representatives to recommend the best solution to any situation that arises on your course. Our reps are knowledgeable, experienced and service-oriented. Just ask your friends and colleagues who use ProSource One for all their turf and ornamental needs.

To locate the ProSource One representative nearest you, log on to www.prosourceone.com or call toll free 877-350-3999. Your sales rep and business partner is just a mouse click or phone call away — waiting to welcome you to a greener world.

Seed Research of Oregon

Seed Research of Oregon

27630 Llewellyn Road
Corvallis, Ore. 97333
800-253-5766
541-757-2663
Fax: 541-758-5305

Web address:

www.sroseed.com

E-mail address:

info@sroseed.com

Date founded: 1983

Staff

Mike Robinson, President

Bill Dunn, Vice President

Dr. Leah Brilman,

Research Director

Tom Pape, National Accounts

Manager

Skip Lynch, Bentgrass Product

Manager

Helen Lucas, Export Sales/
Warm Season Manager

Terry Walker, Operations

Manager

Mary Harer, Export Sales

Coordinator

Scott Harer, Regional Sales

Manager

Mike Hills, Regional Sales

Manager

Bryan Muntz, Regional Sales

Manager

Jerome Maguson, Forage Sales

Manager

Matt Webb, Marketing Specialist

Product focus:

Mike Robinson founded Seed Research of Oregon in 1983 with the vision to specialize in the development of improved, unique turfgrass varieties for the professional turf manager, especially superintendents.

This focus on unique germplasm collections has led to the introduction of industry benchmarks like Providence and SR 1119 creeping bentgrass, SR 7200 velvet bentgrass, SR 4200 perennial ryegrass and Grande tall fescue. Seed Research of Oregon is the seed industry leader in quality production, cleaning and blending, ensuring its customers of the highest mechanical and genetic purity.

Research:

Following an alliance with Advanta Seeds Pacific in 1999, Seed Research of Oregon's grass breeding program has become one of the world's largest, most complete grass breeding and research program. This research and development includes intense work with all of the major cool-season turfgrass species, forage grasses and warm-season grasses. It is also aggressively pursuing the development of grass species, not traditionally considered for turf use, for site-specific and niche applications.

Seed Research was one of the first companies to recognize the critical importance of including endophytes in its turf varieties. It is working hard to ensure that not only do its varieties have endophytes, but that they have superior endophytes.

Seed Research is also committed to exploring the increased options available through utilization of biotechnology. It is applying the science of grass genomics to understand and utilize new sources of resistance and stress tolerance, and is exploring genetic engineering as sources of unique genes that might benefit turf users.

Seed Research of Oregon is committed to reducing the inputs necessary to obtain quality turf for the benefit of the environment and is a proud charter member of the TPI Water Rights Campaign.



Distribution:

Leading seed distributors throughout the world have become an integral part of SRO's success. With distributors in every region, service and expertise are a local phone call away.

Major product lines:

Offering both the Seed Research and Royal Brand lines, SRO has one of the most complete lines of high-quality, cool- and warm-season grasses available. Its complete lines of bentgrasses (creeping, colonial and velvet), Kentucky bluegrasses, perennial ryegrasses, fine fescues, tall fescues (including the world's first rhizomatous variety — Grande), zoysiagrasses, bermudagrasses, buffalograss, bahiagrass and centipedegrass is second to none. With a well-equipped warehouse, SRO contributes a high percentage of certified mixes and blends to the market and has a facility in Arizona that oversees its warm-season program.

Technical support, training:

Seed Research of Oregon is passionately dedicated to personalized customer service. Its philosophy has always been to provide the best technical support to assure total satisfaction. This commitment to quality service includes its free specification writing service (the Seed Specification Survey), on-site consulting, the dedicated professionals of its SRO Advisory Committee and its informative research-based Web site at www.sroseed.com.

Whether planting a new lawn, renovating a high school sports field or building a multimillion-dollar golf course development, Seed Research of Oregon has the quality seeds needed and the expert service to back it up.

Syngenta Professional Products

Syngenta Professional Products
P.O. Box 18300
Greensboro, N.C. 27419-8300
336-632-6000

Web address:
www.syngentaprofessionalproducts.com

About Syngenta: Syngenta is a worldwide company based in Basel, Switzerland. The U.S. Syngenta Professional Products Group, a group within Syngenta Crop Protection, is located in Greensboro, N.C. Formed in November 2000 by the merger of Novartis Agribusiness and Zeneca Agrochemicals, Syngenta is listed on the Swiss Stock Exchange and in London, New York and Stockholm.

Staff
Dr. Joseph DiPaola, Golf Market Manager
Dr. David Ross, Technical Manager
Heiri Gugger, President, Syngenta Crop Protection, North America
Keelan Pulliam, Group Head of Professional Products

Product focus:

At Syngenta, our vision includes providing customers with the best turf and ornamental products and services in the industry and building optimal packages of chemistries and technology to help our customers.

In all, Syngenta Professional Products provides more than 40 products for turf and ornamental, vegetation management, pest management and seed treatment markets. That means

we're in a good position to provide the best solutions for our customers' operations, tailored to the industry's concern for the environment, and to deliver effective and efficient management tools.

Manufacturing facilities:

Syngenta Crop Protection Inc. operates four regional technology centers and two research stations in the United States. These facilities use laboratory greenhouse and field studies in insect, disease and weed control to test for biological efficacy and to develop the regulatory studies needed for product registration.

Syngenta Crop Protection operates four manufacturing facilities in the United States and two formulation facilities. These facilities manufacture herbicides, fungicides and insecticides using methods that protect worker safety while producing the highest-quality products possible for our customers.

Technical support, sales, training and customer service:

Syngenta's national sales force dedicated to turf and ornamental is the point of contact between the company and its customers. They are complemented by a focused customer-service or-



Syngenta Professional Products is based in Greensboro, N.C.

ganization and by a field research team (also dedicated exclusively to turf and ornamentals) that are available to answer technical questions from customers.

Syngenta conducts research collaborations with more than 400 universities, research institutions and private companies worldwide. It has a research and laboratory work force of 5,000 employees worldwide.

Major product lines:

Syngenta is committed to providing products and resources to help turf and ornamental pro-

professionals do their jobs better. We've coupled our extensive industry-leading product lines — such as Heritage[®], Daconil[®], Banner MAXX[®] and Subdue MAXX[®] fungicides; Barricade[®] and Touchdown[®] PRO herbicides; Primo MAXX[®] turf growth regulator; and Avid[®] insecticide — with our experience and technical expertise to provide Syngenta customers with valuable resources like GreenCast[™] and GreenPartners[™].

Textron Golf, Turf & Specialty Products



Bunton Gear Drive



Bob-Cat ZT 100 Series

TEXTRON

GOLF, TURF & SPECIALTY PRODUCTS

Textron Golf, Turf & Specialty Products

11524 Wilmar Blvd.
Charlotte, N.C. 28273
888-922-TURF
Fax: 704-588-0184

Web address:

www.textronturf.com

Date founded: 1832

Staff

Greg Hyland, Chairman & CEO

David Rivers, Executive Vice President

Peter Whurr, Vice President
Product Management for Turf
and Professional Lawn Care

Bill Robson, Director of
Marketing for Vehicles, Turf
and Professional Lawn Care

John Chiera, Sales Director
Professional Lawn Care

Product focus:

Textron Golf, Turf & Specialty Products manufactures a full range of vehicles and turf maintenance equipment for professional lawn care, golf, turf, sports field and industrial applications. The company offers multiple brands — specifically Bob-Cat® and Bunton® mowers and Ryan® lawn renovation equipment — to meet the diverse needs of landscape contractors and lawn-care professionals.

Manufacturing facilities:

Textron Golf, Turf & Specialty Products manufactures Bob-Cat and Bunton brand mowers at its 198,000-square-foot manufacturing plant in Johnson Creek, Wis. Ryan aerators and renovation equipment are built in Lincoln, Neb., at a 691,000-square-foot manufacturing facility. Other Textron brands — Brouwer®, Cushman®, E-Z-GO®, Jacobsen®, Ransomes® and Steiner™ — are manufactured in Charlotte, N.C.; Dalton, Ohio; Ipswich, England; and Augusta, Ga.

Technical support, sales, training and customer service:

Textron Golf, Turf & Specialty Products markets its Bob-Cat, Bunton and Ryan brands through an extensive distribution network. The company provides total sales and service

support to distributors, dealers and customers throughout North America.

Major product lines:

Bob-Cat and Bunton offer lawn-care professionals a wide choice of midsize walk-behind and zero-turn, ride-on mowers, including new fuel-injected and diesel models. Bob-Cat — tough, affordable. Bunton — it's a pride thing. Ryan, at the core of healthy turf, features walk-behind, tow-behind and tractor-mounted Lawnaire® aerators and other leading lawn renovation equipment.



Ryan Lawnaire IV

The Toro Co.

The Toro Co.

8111 Lyndale Ave. South
Bloomington, Minn. 55420
952-888-8801
Fax: 952-887-8693
Your Local Distributor:
800-803-8676

Web address:

www.toro.com

E-mail address:

turfequipment@toro.com

Date founded: July 10, 1914

Executives

Tim Ford, Vice President and
General Manager, Commercial
Products

Bill Hughes, Vice President and
General Manager, Irrigation
Products

Products and financing:

Leadership and innovation are at the heart of Toro's products. There's always another slate of new products, and now the latest irrigation control sits in the palm of your hand. But the most important thing we do all year is learn about your challenges, at your course, day after day. That's the hallmark of our ability to produce the products you prefer. Once you've chosen the best from Toro, we can work with you to structure the right financing solution for you and your course.

Manufacturing facilities:

Toro irrigation products are manufactured in Riverside, Calif., while the computerized irrigation central control systems are configured at Toro NSN in Abilene, Texas. All Toro vehicles and golf course mowing equipment are produced in Tomah, Wis. Multi Pro® sprayers are designed and manufactured in Evansville, Ind.

Technical support, customer service:

Toro's Customer Service programs include technical support for equipment and irrigation maintenance through its distributor network and total irrigation support by the Toro National Support Network (NSN). Toro NSN offers 24-hour-a-day computer support to subscribing superintendents. In addition, Toro offers technical training classes for golf course equipment managers and technicians at its training facility in Bloomington, Minn.

Major product lines:

Toro offers a complete line of turf maintenance equipment including Reelmaster®, Greensmaster® and Groundsmaster® mowers, SitePro™ and E-OSMAC central irrigation control, MultiPro® sprayers, 800S Series sprinklers, Workman® utility vehicles, ProCore™ aerators, Sand Pro® bunker rakes and a full line of debris equipment.



Reelmaster 5500-D

Golfdom

DECEMBER 2001

This card is void after February 15, 2002

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NAME (please print) _____ JOB TITLE _____
 FIRM _____
 ADDRESS* _____
 CITY _____ STATE _____ ZIP _____
 *Is this your home address? Yes No
 PHONE (____) _____ FAX (____) _____
 E-MAIL ADDRESS _____

I would like to receive **GOLFDOM** free each month: Yes NO

Signature _____ Date _____

1. My primary business at this location is: (fill in ONE only)

GOLF COURSES

- 01 10 Daily Fee/Public
- 02 20 Semi-Private
- 03 30 Private
- 04 40 Resort
- 05 50 City/State/Municipal
- 06 55 Other Golf Courses (please specify) _____
- 07 60 Golf Course Architect
- 08 70 Golf Course Developer
- 09 90 Golf Course Builder
- 10 105 University/College
- 11 100 Others Allied to the Field (please specify) _____

2. Which of the following best describes your title? (fill in ONE only)

- 12 10 Golf Course Superintendent
- 13 15 Assistant Superintendent
- 14 25 Owner/Management Company Executive
- 15 30 General Manager
- 16 35 Director of Golf
- 17 70 Green Chairman
- 18 45 Club President
- 19 75 Builder/Developer
- 20 55 Architect/Engineer
- 21 60 Research Professional
- 22 65 Other Titled Personnel (please specify) _____

3. What is your facility's annual maintenance budget?

- 23 A More than \$2 Million
- 24 B \$1,000,001-\$2 Million
- 25 C \$750,001-\$1 Million
- 26 D \$500,001-\$750,000
- 27 E \$300,001-\$500,000
- 28 F \$150,001-\$300,000
- 29 G Less than \$150,000

4. If you work for a golf course, how many holes are on your course?

- 30 A 9
- 31 B 18
- 32 C 27
- 33 D 36+
- 34 E Other (please specify) _____

Please send Golfdom to the following people at my organization:

Name _____
 Title _____
 Name _____
 Title _____
 Name _____
 Title _____

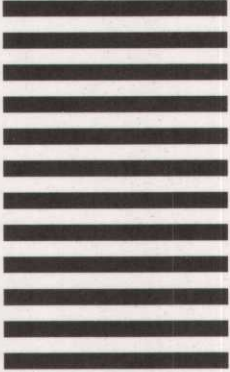
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102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294	306
103	115	127	139	151	163	175	187	199	211	223	235	247	259	271	283	295	307
104	116	128	140	152	164	176	188	200	212	224	236	248	260	272	284	296	308
105	117	129	141	153	165	177	189	201	213	225	237	249	261	273	285	297	309
106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
107	119	131	143	155	167	179	191	203	215	227	239	251	263	275	287	299	311
108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	312
109	121	133	145	157	169	181	193	205	217	229	241	253	265	277	289	301	313
110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	314



NO POSTAGE
 NECESSARY
 IF MAILED
 IN THE
 UNITED STATES

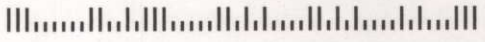
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 FIRST-CLASS MAIL PERMIT NO 950-024 PITTSFIELD MA

POSTAGE WILL BE PAID BY ADDRESSEE



Golfdom

ADVANSTAR COMMUNICATIONS INC
 PO BOX 5129
 PITTSFIELD MA 01203-9392

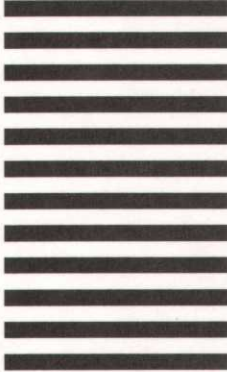




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Golfdom

ADVANSTAR COMMUNICATIONS INC
 PO BOX 5129
 PITTSFIELD MA 01203-9392



Golfdom

DECEMBER 2001
 This card is void after February 15, 2002

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NAME (please print) _____ JOB TITLE _____
 FIRM _____
 ADDRESS* _____
 CITY _____ STATE _____ ZIP _____
 *Is this your home address? Yes No
 PHONE (_____) _____ FAX (_____) _____
 E-MAIL ADDRESS _____

I would like to receive GOLFDOM free each month: Yes No

Signature _____ Date _____

1. My primary business at this location is: (fill in ONE only)

- GOLF COURSES**
- 01 10 Daily Fee/Public
 - 02 20 Semi-Private
 - 03 30 Private
 - 04 40 Resort
 - 05 50 City/State/Municipal
 - 06 55 Other Golf Courses (please specify) _____
 - 07 60 Golf Course Architect
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- 34 E Other (please specify) _____

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Name _____
 Title _____
 Name _____
 Title _____
 Name _____
 Title _____

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104	116	128	140	152	164	176	188	200	212	224	236	248	260	272	284	296	308
105	117	129	141	153	165	177	189	201	213	225	237	249	261	273	285	297	309
106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
107	119	131	143	155	167	179	191	203	215	227	239	251	263	275	287	299	311
108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	312
109	121	133	145	157	169	181	193	205	217	229	241	253	265	277	289	301	313
110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

Pest forecasting has always been an inexact science. With a dearth of accurate pest-predictive models, you might consider employing the local medium from the carnival to tell you when grubs will attack your course.

Before you hire Madame Pomfrey and her crystal ball to predict your pest problems, however, may I offer you an alternative? Try the Turf Pest Outlooks Web site (www.turfpestoutlooks.com), developed in partnership between Syngenta's Golf Division and the Pest Forecasting Group, a Warrenton, Va.-based group that develops proprietary pest forecasting formulas.

While other Web sites use similar technology to predict regional pest outbreaks, this site offers superintendents opportunities to receive pest warnings across the country.

"We used to distribute pest warnings in our newsletters that we sent out to our customers," says Joe DiPaola, Syngenta's golf market manager. "Two years ago, we decided we wanted to start putting the information on the Web. The Pest Forecasting Group contacted us, and we formed a partnership."

The Pest Forecasting Group creates its predictions after gathering weather data for a specific area at two-week intervals. Then it plugs those conditions into formulas to determine when conditions are ripe for any number of pest problems.

Right now, the list of diseases the group tracks including brown patch, dollar spot, gray leaf spot, pythium blight and summer patch. The group also tracks insect threats so you can zap them before they destroy your turf.

When you log onto the site, you see general reports about current pest problems, broken down by region. Then you can drill down for more detailed reports to isolate specific microclimates in your state.

Since the site has weather data from the past 30 years for your area, you can compare current conditions to those during past pest infestations. Armed with that information, you can be on the lookout for problems before they strike.

DiPaola emphasizes that the site isn't meant to diagnose disease on specific courses. Instead, it gives superintendents a

Refined Forecasts Foretell Fine Future

BY FRANK H. ANDORKA JR.



BEFORE YOU HIRE
MADAME POMFREY
AND HER CRYSTAL
BALL TO PREDICT
YOUR PEST
PROBLEMS, MAY I
OFFER YOU AN
ALTERNATIVE?

welcome weapon in their ongoing battles with diseases and insects.

What an amazing tool it will be if the predictions turn out to be fairly accurate. Wouldn't you love to have a heads up when weather conditions in your area might promote gray leaf spot? Wouldn't you love to know when white grubs may be creeping their way on to your course *before* they decimate it? Those kinds of predictions are what Turf Pest Outlooks is designed to make.

It's not a perfect site, but if Syngenta and its partner continue to refine it, the site is sure to be a success — and more accurate than tarot cards at predicting pest outbreaks.

The system is constantly being refined, DiPaola says. The site needs to include predictions that account for irrigated turf, and DiPaola says he wants the site to expand the list of pests it tracks.

On the advice of superintendents, Syngenta and the Pest Forecasting Group will also tweak the time their site is updated. DiPaola says the partnership discovered that it was updating the site too late for superintendents to make optimum use of the information they received. The partnership will rectify the problem by the spring.

"This is an evolving science we're dealing with," DiPaola says. "It's a journey we're still taking, but we're excited about the start we've made. As we continue to refine it, we hope to make it even more useful for superintendents."

So before you spend \$20 the next time the carnival is in town, try Turf Pest Outlooks first. Madame Pomfrey doesn't need the extra cash.

Frank H. Andorka Jr., managing editor of Golfdom, can be reached at 440-891-2708 or fandorka@advanstar.com.

Real-Life Solutions

■ NAPLES GRANDE GC, NAPLES, FLA.

Right as Rain

Water-absorbing polymer soil amendment helps superintendent solve landscaping irrigation woes

BY LARRY AYLWARD,
EDITOR

When they began building

Naples (Fla.) Grande GC in 1998, workers blasted caprock on the property to create lakes. Instead of hauling the busted rock off-site, they stockpiled it and later used it to build a 30-foot berm around the golf course. It was a great idea to get rid of the rock, but it also presented a difficulty.

Problem

Plants, bushes and trees built on a rocky berm around the golf course had trouble surviving because there wasn't enough soil on top of the berm to hold water.

Solution

A water-absorbing polymer was added to the soil to help it maintain water. The polymer absorbs 35 to 60 times its weight in water and later reduces it to a plant's root zone. Now the landscape life is thriving.



MAT ANDERSON/MICHIGAN STATE UNIVERSITY

The problem

After the berm was built and topped with dirt, it was landscaped with plants, bushes and trees. Unfortunately, the rocky berm, comprised mostly of calcium, didn't have enough soil on it to adequately hold water in many areas. Poor water retention led to inferior growing conditions.

It was a battle to keep the landscape plants — including viburnums (hedges) and bougainvilleas (shrubs) — from withering away and dying. Naples Grande superintendent Gary Mull and his staff devoted a lot of extra time to their care.

"The plants began to suffer about one month after we put the landscape in," Mull says. "We tried to hand water, fertilize and baby them."

Nothing helped.

The fact that an appro-

If you look closely, you'll see Hydrozone globules attached to the roots. But Hydrozone won't compete with the root systems for available water.

priate landscape irrigation system wasn't installed didn't help matters. "We were relying on turfgrass sprinkler heads to maintain a lot of the landscape areas, but they didn't work very well," Mull says.

Viburnums require more water than turfgrass. Hence, the turfgrass flooded when the viburnums were watered. The bougainvilleas, which require less water than the viburnums, also received too much water.

Mull and his crew were forced to hand water and adjust sprinkler heads for proper watering of turf and landscape.

"It was a constant battle," Mull says. "We should have installed the proper

landscape irrigation system."

After a year, several plants, bushes and trees on the berm were suffering or dying because of poor water retention. Mull knew something had to be done.

The solution

Jim Applegate, vice president of operations at Naples Grande, phoned a friend who operated a soil amendment company in Garland, Texas. Applegate asked his friend, Bobby Womack, president of AAdvanced Water Management, if he had any advice on how to combat the problem.

Womack had more than advice. His company manufactured a product called Hydrozone that helps in such situations.

Hydrozone is a water-absorbing polymer that absorbs 35 to 60 times its weight in water and later releases the water to a plant's root zone. Hydrozone, a white free-flowing powder with little or no odor, lessens water loss caused by evaporation and percolation, the company says. When integrated into the growing medium properly, it reduces run-off by at least 50 percent.

Hydrozone was developed to have a limited capacity to absorb water so it doesn't compete with the root systems for available water, according to the

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