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CIRCLE NO. 123





SPECIAL REPORT

Grow-In

Growing in a golf course can be a complicated, time-consuming and painstaking process. It's also a time for a superintendent to rise to the occasion

By Anthony Pioppi

If there is one rule for grow-ins, it is: There are no rules. If there is one guarantee for grow-ins, it is: Problems will occur.

Talk with superintendents who have grown in courses, and they will tell you each one has its own problems. There are no specific plans to follow, and spending up to a 100 hours a week nursing new turf is the rule rather than the exception.

"It takes all of your time to do a grow-in correctly," says Mike Osley, superintendent at Aurora (Colo.) Hills GC, who was part of grow-ins in Colorado and Florida. "It took away time from my family."

Architect Brian Silva, a former USGA regional agronomist, heaps accolades on those who bring a layout to life. He refers to a golf course in the middle of a grow-in as "a moving target" because the layout is not developing in a uniform fashion, but in staggered segments. Greens, for instance, can be seeded months apart, requiring greatly differing irrigation and fertilization practices.

The process can get even more complicated as soil types vary from one end of the property to another. Raising the stakes is the fact that even a slight error on young turf can have dire consequences.

"It is much like [taking care of] a young child," says Brad Zimmerman, superintendent of Boulder Point GC in Elko, Minn., which he grew in. "You're taking care of everything it needs. It's so dependent on what you give it. If you miss [a fertilizer application] by a day, everything loses its color."

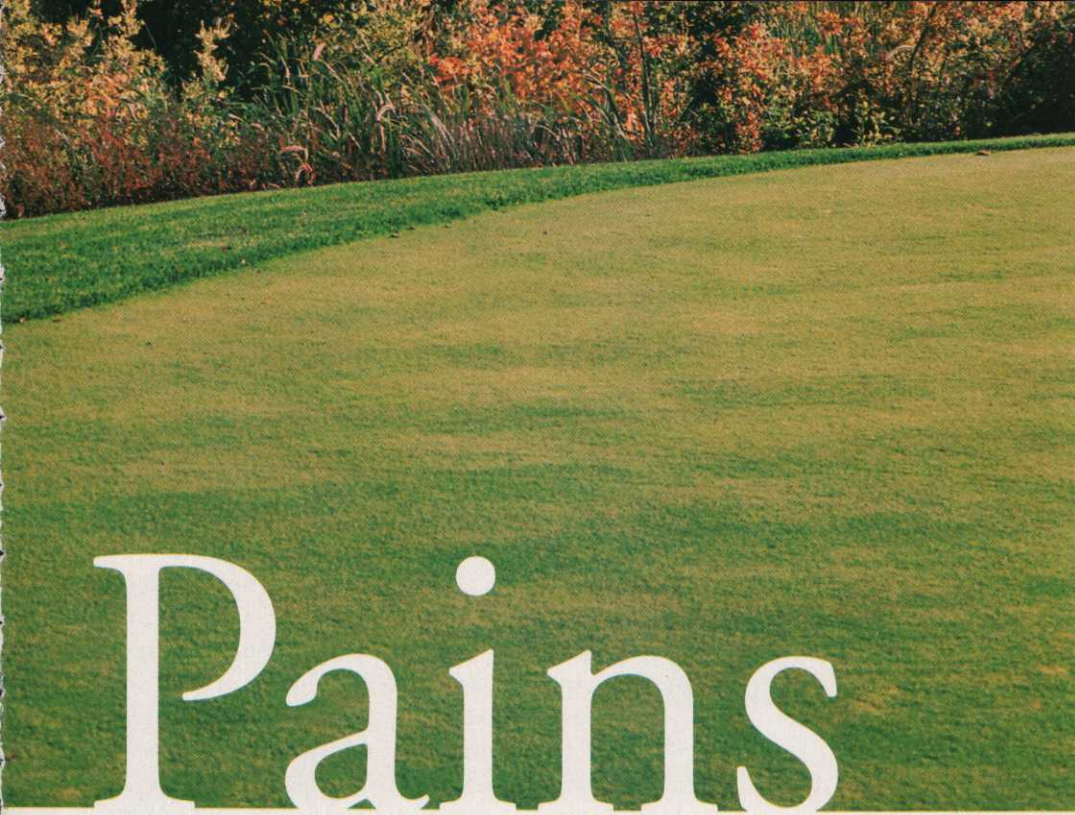
Lon Chatfield grew in and remains superintendent at St. Johns Golf and CC in St. Augustine, Fla. He, too, says the golf course is quick to react to how it's treated, especially with drainage issues.

"You're going to know in a hurry what kind of soil you have," he says. "It's strictly hands-on. During the grow-in, you're not in [your office] at all."

Chuck Welch concurs. He just finished his third grow-in, Silva's Black Rock GC in Hingham, Mass., which opened last August.

His pregrow routine, he says, is to "do a little research and some soil testing to find out what it needs."

The Black Rock project had its share of interesting problems. The soil used to cover what was mostly a rock quarry came from Boston Harbor as part of the Big Dig highway project. It was not until the growing process was well underway that Welch discovered the



PHOTOS BY GEORGE PEET

The grow-in process at Black Rock CC had its problems, but superintendent Chuck Welch took them in stride.

Pains

soil was high in sodium and full of weeds. More problems occurred later when it was discovered the irrigation water also had a high salt content.

While that may have been enough for some superintendents to blow their tops, Welch took it in stride. Such problems, he says, are always part of the grow-in.

During the construction of Nonesuch River GC in Scarborough, Maine, the course was hit with 19 inches of rain over a 24-hour span, washing away the wall-to-wall seeding that had taken place five days earlier. Some greens remained under water for two weeks.

"You can't get angry. It's just another thing to deal with," Welch says.

Zimmerman was also the victim of precipitation that washed away part of the golf course. "The biggest surprise was how much damage rainfall can do," he says.

One way to avoid unnecessary surprises is to talk with area superintendents before and during the grow-in about the area's weather patterns. This is a particularly good idea for those superintendents who are new to an area. Even a little advice on weather patterns can save a lot of headaches.

"You have so much information even before you do this because of what other guys have gone through," Chatfield says.

Osley says it's wise to know who's the boss. "Mother Nature is in charge. You have to react to whatever Mother Nature wants to do."

The fact is, though, every golf course is unique, and a superintendent must adapt to the situations as they arise.

"You're dealing with so many soil types, sunlight and shade," Zimmerman says. "You don't treat all portions of the golf course the same. You might have a little feel. What you're doing, really, is flying by the seat of your pants."

With all the craziness of the grow-in, Osley says documenting the work is vital. He advises against solely relying on memory. Osley kept a daily journal as well as a photo album during his two grow-ins. On a monthly basis, he took pictures of each hole from the tee and fairway landing points. Both proved to be helpful down the road.

Because there are so many details to deal with, Silva says one common error he has seen over the years is the tendency to do too much rather than sit back and let nature take its course.

"I think the difficult thing is somehow you have to leave it alone," he says. "You do have to exercise some patience. It is possible to overmedicate the patient."

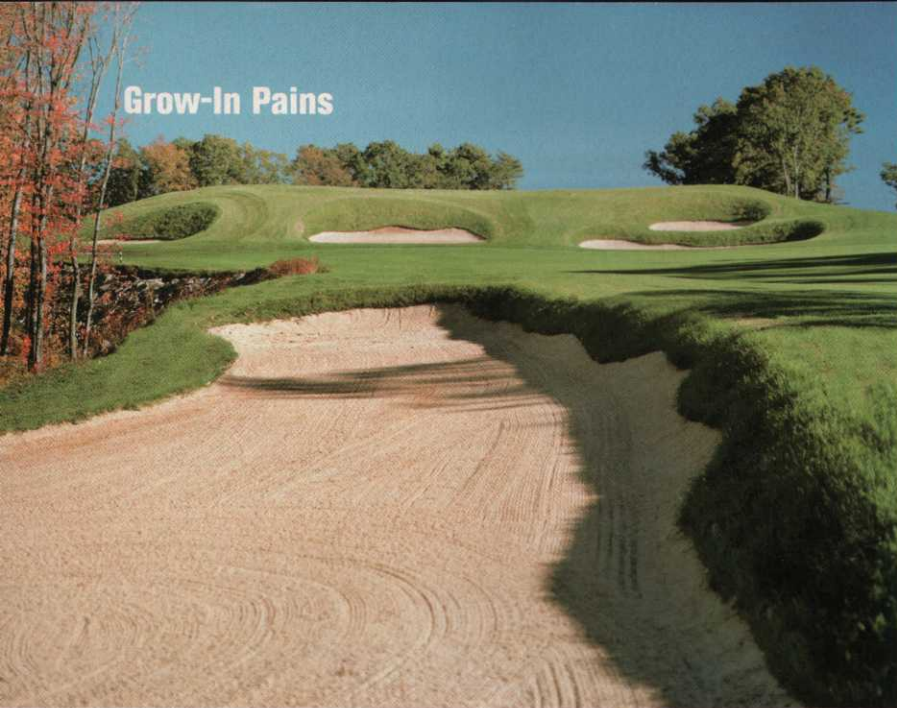
But it's also possible to rush the patient along too quickly, something superintendents have to get across to course owners. "The pressure to open is overwhelming," Silva says.

Zimmerman agrees. He says the entire process would have a different pace if it were

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There are plenty of products to help with a grow-in. See page 76

Grow-In Pains



Brian Silva, who designed Black Rock CC pictured here, says a big part of a grow-in is sitting back and letting nature take its course.

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up to superintendents. "If we could pick the opening date, we'd probably do it more slowly."

Cost-cutting attempts by course owners can also cause problems.

"I'm not sure that's the time you should be considering [savings]," says Sandy Clark, superintendent at Barona Valley Ranch and

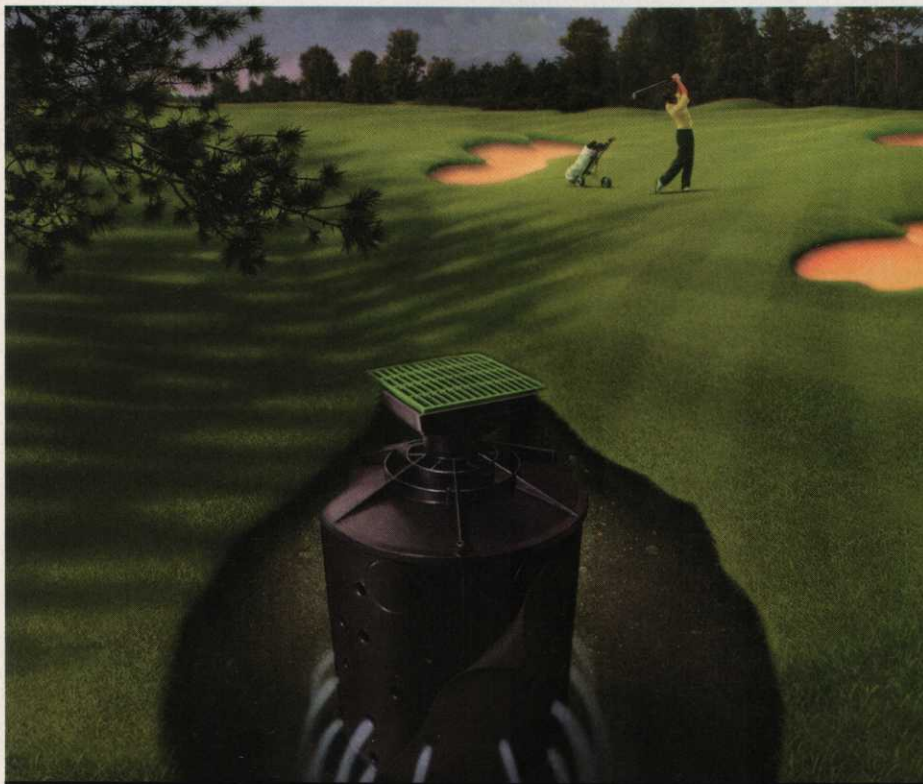
Casino in Lakeside, Calif. "I've got to believe that by pinching pennies, you're going to pay for it down the road."

Many superintendents say the worst day is turning the course over to the golfers. Osley likens it to raising a child who you've nurtured for so long, then one day sending him into the world on his own, an inevitability that can't be denied. "But the good superintendents I've talked with know that is the goal," Osley says.

When all is said and done, however, no matter what they've been through from droughts to floods and everything in between, most superintendents relish their grow-in experiences.

"It's really enjoyable to be part of something that is drawn on a piece of paper and becomes a reality," Osley says. "There's a lot of reward in watching your efforts turn into something." ■

Pioppi is a free-lance writer from Middletown, Conn.



Avoid extra water hazards

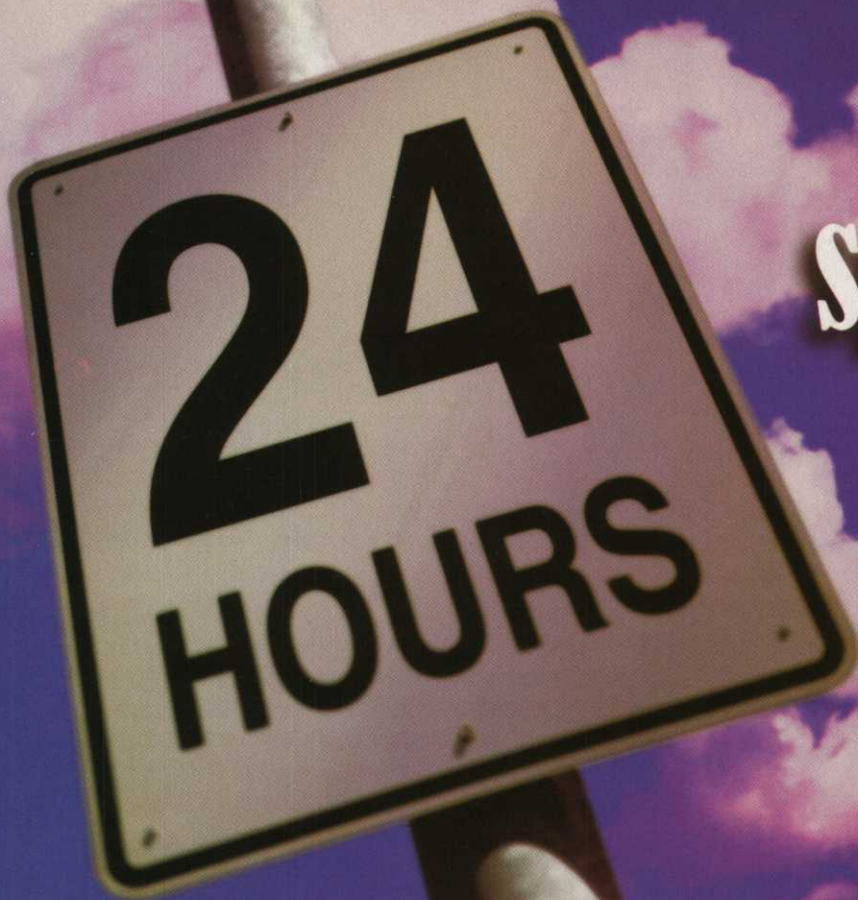
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Just add a few drops to your tank mixture and you'll see plant response within 24-48 hours. That's because QuickSilver blocks chlorophyll synthesis causing the release of peroxides that result in rapid plant cell degradation. And because of its excellent range of effectiveness across wide temperature ranges, it's suitable for many regions across the U.S.

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CIRCLE NO. 131

To Help with the GroW-In

There are plenty of products to help you with a grow-in – from seed to fertilizer. Here are some that can assist you

Granular biostimulant

Milliken Turf Products, in conjunction with Emerald Isle Ltd., offers GroWin Granular Rootzone Amendment, proven to accelerate germination on newly seeded turf and to accelerate establishment and maturity of seeded, sodded and sprigged turf. Independent university research shows that superintendents can open up play on new or rebuilt turf up to one month earlier by incorporating GroWin in their green and tee rootzone mixes, the company says.

GroWin is an all-natural mixture of amino acids, fish and feather meal, vitamins and micro-organisms that produces growth hormones in the plant. In addition, GroWin accelerates germination from the effects of its seaplant extract content and its ability to retain plant-available moisture.

GroWin has been rigorously tested in more than 10 university studies on several varieties of turf to prove its efficacy. For more information, contact 800-845-8502.

Rapid turf establishment

Sustane Natural Fertilizer has demonstrated its Sustane 4-6-4 All Natural Turf Starter to be one of the most efficient formulations for rapid establishment of newly seeded or sodded turfgrass. New and re-

gressed golf courses throughout the world have specified Sustane 4-6-4 expressly for this purpose, allowing the courses to open three to six months sooner.

For more information, contact 800-352-9245 or www.help@sustane.com.

Bunker technology

IVI-GOLF offers SandTrapper, which the company says eliminates bunker maintenance. Built around advanced polymer technology, this synthetic matrix is designed to grab sand particles and keep them in place. The binding properties also promote water flow under the sand layer and maintain separation with the soil or clay substrate.

SandTrapper works effectively on two different but related problems – washouts and contamination. For more information, contact 888-970-5111 or www.sandtrapper.com.

'Smart' Upgrade

The new Smart OSMAC upgrade from **Toro** provides stand-alone capability for OSMAC RDR and E-Series satellites, making it ideal for grow-ins, overseeding and new construction, Toro says.

With multiple starts and multiple stations per program, Smart OSMAC increases control and adds flexibility to turf management. Factory default programming, which is set for eight programs and eight stations per program, can be quickly downloaded to the satellites from a PDA or laptop for immediate watering. Alternately, software included with Smart OSMAC enables users to create or edit programming through the PDA or a desktop computer. This information is then downloaded to the satellites, and the new commands are accessed through a hand-held radio.



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PHOTOS BY GEORGE PEET



From left: low fertilizer, low fertilizer plus GroWin, high fertilizer and high fertilizer plus GroWin.

Put rebuilt greens and tees back into play one month earlier by using GroWin in your mix.



"By incorporating GroWin into the top of our sand mix, we have a playable tee in 30 to 60 days. Without the GroWin the tees take one month longer to be ready to play."

Bob Steinman, CGCS golf course superintendent at Beekman Country Club, Hopewell Junction, New York.

"We constructed a new fairway, and I wanted the sod to have every advantage. Where we used GroWin, the turf was greener, it needed less water, and it had deeper roots, even though the sod was laid over sandy, gravelly soil."

Bob Nielsen, golf course superintendent at Bedford Golf and Tennis Club, Bedford, New York.

"GroWin is an all natural mixture of amino acids, fish and feather meal, vitamins and micro-organisms that produce growth hormones for the grass plant. It's the result of 20 years of research using natural, organic materials as a fertilizer base to increase effectiveness. GroWin speeds up initial plant growth and rooting because it provides major and minor nutrients in a matrix that supports the microbial activity associated with nutrient availability. It also speeds germination because of a hormonal response due to the seaplant extract in GroWin."

George Seaver, Manager of Research at Emerald Isle.

Dr. Roch Gaussoin of the Dept. of Agronomy and Horticulture at the University of Nebraska studied GroWin for the establishment of bent grass. **The GroWin resulted in faster establishment of turf than traditional grow-in procedures.**

Trials at the University of Rhode Island and the University Arkansas displayed similar fast growth results. **Root and leaf growth increased on average 300 percent when using GroWin. Root growth reached below three inches in 30 days.**

On average, addition of GroWin resulted in approximately a 300% increase in the foliar growth of Penncross... and an 83% increase in the foliar growth of Bermuda... The range of increases in foliar biomass was from 40% to 679%"



The results mirrored those of the foliar measurements...In the untreated USGA turf, only 11-18% of the total root system occurred below 3 inches...In USGA turf treated with GroWin, 22-25% of the roots were produced below 3 inches.

GroWin is cost effective. Just rake in 25 lbs per 1000 sq. ft. into the top one inch of your root zone mix— it will cost you less than five cents per square foot. Your new turf will have stronger roots faster, and you can play on it up to 30 days sooner than with traditional establishment methods.

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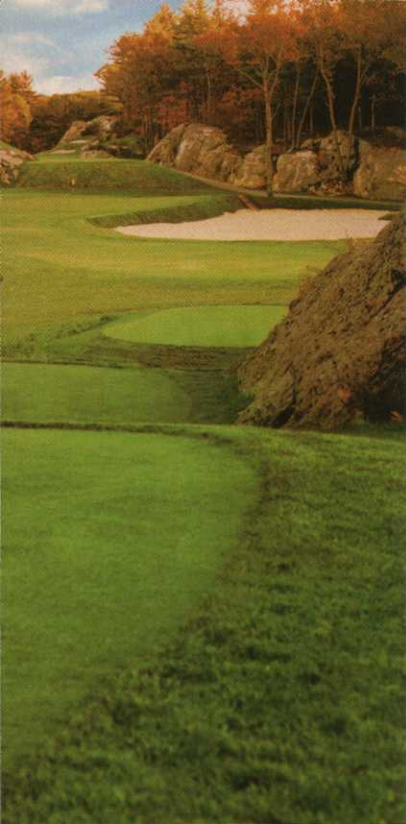
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There are several nutrient products on the market to treat newly seeded and established turf.



Continued from page 76

As a stand-alone system, Smart OSMAC can be used prior to central-control installation, and it also provides reliable backup in case of disruption to the central control system. The system can be set to run up to 10 programs simultaneously, with one station per program.

For more information, contact 909-688-9221.

Roundup-tolerant fescue

Turf-Seed offers Aurora Gold, a glyphosate-tolerant hard fescue ideal for creating weed-free areas and soil stabilization in numerous applications, including golf course roughs. Aurora Gold is the result of natural breeding and selection conducted by Pure Seed Testing, an affiliate of Turf-Seed.

Studies at Rutgers University show that Aurora Gold tolerates up to 16 ounces of glyphosate per acre, with less than 8 percent damage, even with repeated applications. This tolerance makes Aurora Gold an effective component of a maintenance program to control annual bluegrass on golf courses, Turf-Seed says. When controlled in the rough, annual bluegrass is less likely to contaminate fairways and greens. To control resistant broadleaf weeds, a weed control program, including broadleaf herbicides, may be required.

Aurora Gold's drought and shade performance make it ideal for many situations, along with a low-growing habit that requires minimal mowing.

For more information, contact 503-651-2130, www.turf-seed.com.

Tall fescue

Lebanon Turf Products introduces its newest innovation in seed varieties — DaVinci tall fescue. DaVinci was selected for improved disease resistance, fine leaf texture, high endophyte level and dark green genetic color.

It also exhibits excellent drought and heat tolerance, the company says. DaVinci will be available this fall.

For more information, contact 800-233-0628 or www.lebanonturf.com.

Sediment control

North American Green offers SedimentSTOP Biodegradable Filtration System, a sediment control product designed to significantly reduce soil loss caused by stormwater runoff.

The product is 100-percent biodegradable and traps soil particles while allowing runoff water to pass through.

For more information, contact 812-867-6632, www.nagreen.com.

Bunker lining

Green Mountain International has been granted a patent on the Klingstone process for lining bunkers.

Klingstone has been used on golf courses throughout the United States to lower maintenance costs by stopping contamination of bunker sand and sidewall erosion.

Because it is applied as a liquid, it conforms perfectly to any bunker shape. Klingstone is easy to apply and durable. Tim Johnson, superintendent of Springhill GC in Wayzata, Minn., was instrumental in developing the application techniques and procedures.

For more information, contact 800-942-5151, www.klingstone.com.

Stump cutters

Vermeer Manufacturing offers the SC90 (9 horsepower) and SC130 (13 horsepower) stump cutters, which feature enough power to remove stumps up to 3 feet in diameter. The unit's slim width allows it to be easily maneuvered into tight spaces.

Convenient lift handles, located on each side of the unit, make for easy two-person loading, which eliminates the need for ramps.

For more information, contact 888-837-6337.

New turf protectors

Becker Underwood's BioGain and Canteen work in tandem to treat newly seeded or established turf, according to the company.

BioGain is designed for use in spray application programs to reduce stress and stimulate root growth through enhanced water and nutrient uptake and to correct iron deficiencies in turf.

Canteen, a performance-enhanced spreader and soil penetrant, loosens compacted soils, improves seed germination, delivers pesticides and fertilizers to the root zone, and assists wetting of spray-tank mixes, according to the company.

For more information, contact 800-232-5907 or www.beckerunderwood.com.

Turf blankets, porous ceramics

Profile Products introduces its Futerra revegetation blankets, which hold the seed bed in place and provide mulch that speeds grass germination, according to the company.

Other features include lightweight design, soil-bonding action that prevents washouts and seed migration, complete degradation and accelerated germination that is 15 percent to 90 percent higher than alternative products, the company says.

Profile also offers Profile Porous Ceramics for greens construction. Each ceramic particle has 74 percent pore space, which holds water and oxygen in a nearly perfect balance, and stores nutrients vital to growth, according to the company.

For more information, contact 800-366-1180 or www.profileproducts.com. ■



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