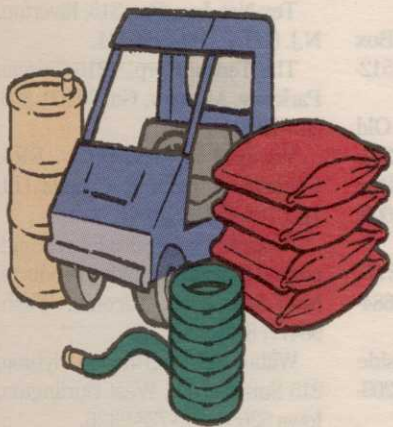


## Briefs



### CLAWSON MOVES UP AT SOLATROL

SAN DIEGO — Dan Clawson has been appointed director of North American sales for Solatrol, Inc. He will oversee marketing and distribution of the company's light-energized irrigation management system throughout the United States and Canada.

Meanwhile, Kurt Pennerberg has been promoted to Western regional sales manager at Solatrol.

Added to the marketing team were regional sales managers Mark DeLange, southern California; Jerry Zella, northern California, and Mike Deveraux, Florida. Lee Andersen is the new sales representative for California counties Orange and San Diego.

### FREUND JOINS HUNTER OUT WEST

Ron Freund recently joined Hunter Industries as its regional golf manager for nine western states and four Canadian provinces. His territory includes Washington, Oregon, Idaho, Montana, Wyoming, North and South Dakota, Utah, Nebraska, British Columbia, Alberta, Saskatchewan and Manitoba.

Freund will represent Hunter Golf products, including the ETC controller and Golf Series sprinklers and valves. He will also direct sales efforts and introduce new products.

Freund was previously affiliated with Formost Construction Company in Temecula, Calif. As a product superintendent, he recently directing irrigation layout and installation at three Arnold Palmer-designed courses in Hawaii: Mauna Kea (second 18), Hawaii Prince Hotel, and Turtle Bay.



Ron Freund

### MILLER TO MANAGE SOUTHEAST REGION

Emil Miller has been appointed as marketing manager for Smithco's Southeastern region, according to President Ted Smith. Miller will be responsible for all phases of marketing for Smithco distributors and end users throughout 13 southeastern states and the Caribbean.

Miller, based in Fort Lauderdale, was formerly with DeBra Turf & Industrial Equipment as consultant for the golf industry on Florida's east coast. While at DeBra, he was recognized in each of the past two years for outstanding performance in sales and service.

# Backers, skeptics assess mesh-grid technology

By Hal Phillips

Imagine, if you will, a bucket firmly packed with sandy soil. Turn the bucket over and stand atop the resulting "castle" of a dirt. Impossible, right?

Not necessarily.

If the soil has been mixed with soil reinforcement meshing, the sandy soil will support your weight — or so say advocates of this fledgling technology, designed to alleviate divot damage and increase load-bearing capability while re-

sisting compaction. Its official moniker goes something like this: randomly oriented, interlocking mesh, high-sand root zone system (or mesh system, for short). And studies from Dr. James Beard and Samuel Sifers at Texas A&M vouch for its performance in a wide range of golf course applications.

Mesh systems are fairly simple. Thousands of mesh rectangles (50mm by 100mm) are mixed into soil which occupies the upper four to six inches of a high-sand root zone. For their ex-

perimentation, Beard and Sifers used Tifway Bermudagrass. Assessments were conducted four times during each growing season starting in 1985.

"The evidence suggests that mesh elements have an interlocking, three-dimensional aspect that imparts a flexing action," wrote Beard and Sifers in a paper presented at this year's GCSAA conference in New Orleans.

Mind you: This is not a one-piece, horizontal

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### THEN AND NOW...

A before (above) and after study of the 14th fairway at the Minami Course on the island of Hawaii, where erosion blankets were employed as construction tools.



## Label restrictions in store for atrazine products

By Hal Phillips

The Environmental Protection Agency has accepted a voluntary proposal by Ciba-Geigy to add a number of label restrictions to atrazine products and to carry out additional water monitoring and educational initiatives on this herbicide.

The action was taken by Ciba-Geigy to reduce surface water contamination by atrazine, particularly in waters used for drinking. Three other EPA-registered manufacturers of atrazine products — Drexel Chemical Co., IPC, and Oxon Italia — will also augment their label restrictions.

Atrazine is one of the most widely used herbicides in the United States, according to the EPA, which believes an estimated 80-90 million pounds are applied annually. While its main use is the protection of corn and sorghum crops, atrazine is used in the Carolinas to kill weeds lurking in Bermudagrass fairways.

"Some courses in the Southeast will elect to use atrazine in Bermuda fairways when the grass is dormant, normally in January, February and early March," said Patrick O'Brien, director of the USGA Greens Section, Southeastern Region. "It's used in areas where they don't overseed,

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## Erosion control manufacturers unite

Fifteen manufacturers of rolled erosion control products have organized the Erosion Control Technology Council to take the lead in establishing standards and use practices for the industry.

Jeff Rodencal of The Tensar Corp. in Morrow, Ga., was elected to a two-year term as ECTC chairman last September.

Rodencal, erosion control product manager of Tensar, said there is "confusion in the marketplace" caused by "an explosion" of new products coupled with hundreds of designers and engineers who are specifying erosion control products with no general guidelines. "We want to get the government agencies involved," Rodencal said. "Now we have 50 states (drafting regulations). We want to take the best and standardize across the industry."

The first reports will be given in June by the ECTC's Testing and Evaluation Committee, Product Identification and Classification Committee and Market Information Committee.

### Roll call

Allegheny Lawn Products, Inc., 11967 Perry Hwy., Wexford, Pa. 15090; 800-245-2967.

American Excelsior Co., P.O. Box 50678, Arlington, Texas 76011; 817-640-1555.

Atlantic Construction Fabrics, Inc., 1801-A Willis Road, Richmond, Va. 23237; 804-271-3071.

Belton Industries, 8613 Roswell Road, Atlanta, Ga. 30350; 800-225-4099.

Ben Terra America, Inc., P.O. Box 9485, Moscow, Idaho 83843; 800-882-9489.

Bridge Builders/Fox Lake Construction, Inc., 65 Hickory Gap Road, Franklin, N.C. 28734; 704-369-5735.

Contech Construction Products, Inc., 1001 Grove St., Middletown, Ohio 45044; 513-425-5896.

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## Agri-Diagnostics kicks off environmental awareness campaign

MOORESTOWN, N.J. — Agri-Diagnostics Associates, a biotechnology company and manufacturer of the Reveal Turf Disease Kit, has launched a nationwide promotional campaign to raise awareness among golfers about how golf course superintendents are applying sound environmental practices to golf course maintenance.

The campaign—which targets golfers, greens committees and club members — is unique because it involves golf course superintendents directly.

Reveal Turf Disease Detection Kits are used nationwide to provide early discovery of turf diseases and to encourage judicious use of fungicides.

As part of the campaign, if golf course superintendents purchase at least three Reveal kits by Aug. 30, 1992, a donation will be made toward the placement of an advertisement that highlights environmental stewardship, managerial attributes, and trade professionalism.

The advertisement, which is a component of

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# Opinions differ on capabilities of mesh reinforcement technology

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layer similar to those used in sod production.

"One of the problems with the mesh element is confusing it with horizontal layers," said Sifers, a research associate at A&M. "These are random, which gives you the three-dimensional stability. And they're going to stay there. That's the key."

Beard and Sifers believe mesh systems have three immediate, practical golf course applications.

- Divot reduction and recovery — Beard and Sifers assert that mesh

systems reduce divot size (particularly with regard to lateral tear), and the replaced divot grows back at twice the rate. The Beard/Sifers study maintains that mesh installation at Santa Anita Park resulted in "an eight- to ten-fold reduction in divoting from intense horse racing."

This is no bunk, according to Samuel Stimmel, a former golf course superintendent who manages the Sports Turf Division at Kurtz Bros., an Ohio-based construction and soil mixing firm. Stimmel has used meshing in several different environ-

ments, including golf tees, cart paths and athletic fields. Not only does he stand by the bucket test, he's a divot-reduction believer.

"This material does provide a resistance to shearing," Stimmel said. "It also provides a better recovery rate because the three-dimensional structure maintains the crown of the plant. This stuff enables you to enhance stability without sacrificing infiltration."

Yet, not everyone is so sure.

"All mesh products provide marginal capacity to make turf wear more like fake turf, but it's incremental,

fractional," said Dr. Michael Hurdzan, president of Hurdzan Design Group. "When bent grass rips, bent grass rips."

"The best thing to do is build a driving range tee, half with the mesh and half without it. Then let people go at it for a while. That would show us something."

- Cart path alternatives — Beard and Sifers believe mesh installation provides enough soil stabilization to allow "green" cart paths. The mesh technology was developed (in Britain during the late 1960s) to strengthen

soil in anticipation of civil construction projects. "Mesh-stabilized turf root zones have proven successful in supporting very heavy load pressures from emergency vehicles," wrote the team of Beard & Sifers, who noted that meshing also provides a more aesthetic alternative to blacktop.

Stimmel stands by this assessment, as well. "Usually, when you run traffic over an area, you get compaction and the turf dies," he explained. "With this, because it creates this three-dimensional structure, it resists compaction and the turf stays alive... You could even create fire access to your clubhouse with this stuff — using no concrete, just turf."

Hurdzan agrees: "The best use for this material is for stabilizing root zones. It think it makes sense when you build a cart path."

- Water retention — Though testing on this attribute has not proved conclusive, Sifers maintains that meshed areas hold moisture better than "untreated" turf.

"Our studies have shown that the moisture content is always a little higher in the meshed areas," said Sifers. "There's been better infiltration, better water retention with the mesh. That's our theory, anyway."

Sifers said these water conservation properties combined with a resistance to compaction has researchers curious about green application. Sifers and his colleagues at A&M have laid mesh elements down in one half of a U.S.G.A.-spec putting surface. Results should be forthcoming this summer, said Sifers.

Until then, Hurdzan remains dubious. "It sounds good," he said. "But it's a claim, not a fact."

According to Stimmel, the meshing runs about \$6.18 per pound, and proper application requires about 11 pounds per cubic meter of turf. Stimmel said the meshing worked out to an extra 80 cents per square foot of turf, using a four-inch profile.

However, these figures are not set in stone. "One of our continuing problems has been deciding how much to mix in," said Sifers.

Both Stimmel and Sifers understand there are dubious consumers out there, though Sifers doesn't understand why. "I think they need to have a little knowledge. There's plenty of documentation now," he said.

Hurdzan counters: "If this stuff is so great, why haven't people started using it?"

Stimmel understands the skepticism because, at one time, he was a skeptic.

"If I had to point to drawbacks, it would have to be people's perceptions," he said. "People believe you've got to aerify twice a year, but with this stuff, you don't. And that's hard to swallow."

"I'm a former superintendent, and I was dubious at first. But after watching it perform, we were like, 'Wait a minute...' And you just keep coming up with applications."

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