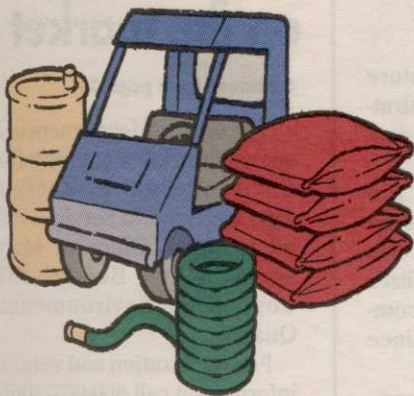


Briefs



SENTINEL ON TRIAL THIS SUMMER

DES PLAINES, Ill. — Field trials in 11 states involving a new systemic turf fungicide, Sentinel 40WG, are planned this summer by Sandoz Agro, Inc., under an EPA-approved Experimental Use Permit.

Sentinel GW is a broad-spectrum, long-lasting systemic fungicide for the golf course market. Diseases included in the EUP are summer patch, dollar spot, brown patch, red thread, stripe smut, rust, copper spot, gray leaf spot, gray snow mold, pink snow mold, southern blight and necrotic ring spot.

SMITHCO APPOINTS MILLER

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.

FREE PUMP OFFER FROM ROOTSINC.

ROOTSinc. is offering a free Reike model MR60-CPD dispensing pump to all first-time purchasers of the 55-gallon drums of ROOTS, ironROOTS and NoburN.

The pump, normally a \$30 value, offers 360-degree dispensing, while delivering 10 ounces per stroke.

This pump offer is available through 1992. For more information call 203-786-5295.

DEXTER, FORD NEW HOLLAND TEAM UP

Dexter, MI-Sweepster, Inc. recently reached an agreement with Ford New Holland, Inc. to purchase Ford's model 710 Leaf Loader product line. Financial details were not released.

Calling it a "strategic growth acquisition," Sweepster Vice President Jim Bareden said the move "solidifies our place in the fast-growing waste recycling industry." The deal calls for a purchase of all machines and parts inventory along with all tooling patents and documentation.

The Model 710 Leaf Loader is a diesel-powered machine towed by a dump truck. A beater and brush in combination lift the leaves off the street and feed them to a thrower.

Ciba-Geigy, biosys enhance marketing relationship

PALO ALTO, Calif. — Ciba-Geigy and biosys, a manufacturer of biological insecticides, have signed a research and development funding and international marketing pact.

Under terms of the agreement, Ciba-Geigy will provide biosys with \$5 million over two years for research and development of beneficial nematode strains and formulations. Ciba-Geigy will also be responsible for the promotion and marketing of biosys' nematode-based products.

In 1991, Ciba-Geigy became the exclusive distributor of biosys products in the United States for the turf and ornamental market. Ciba-Geigy's first biological insecticide product, Exhibit, was developed and manufactured by biosys.

The active components in biosys' range of biological insecticides are beneficial nematodes, microscopic organisms that kill a host of soil-dwelling insect pests. Nematodes are designed to be harmless to humans, plants and animals, leaving no harmful residues in the soil or ground water. In fact, the United States and several European countries exempt nematodes from all registration requirements.

The newly signed, 15-year agreement grants Ciba-Geigy exclusive rights to market and distribute biosys' present and future beneficial nematode-based products for insect control in the agricultural and horticultural crop markets worldwide, except the United States.

Continued on page 48

PSI delivers 3,000th pump

Dallas-based Pumping Systems Inc. recently delivered its 3,000th pump station to Coosaw Creek, a new golf project currently under construction in Charleston, S.C. Greenwood Development Co., owners of the new project, have chosen Arthur Hills to design the new Coosaw Creek Country Club, while contractors Paul Clute & Associates have been retained to build the course. Jon Malmberg of Watermark Consultants, an irrigation consulting firm based in Charlotte, will provide irrigation design and specifications.

PSI pump station number 3,000 was sold by Smith Turf & Irrigation, PSI distributor for both the North and South Carolina territories. For the past six years, Smith has been PSI's Distributor of the Year.

Coosaw Creek's milestone pump is a 2500 GPM, VFD system featuring PSI's new PumpWatch software package. PumpWatch is now standard on all PSI stations with PLC logic. The VFD drive, as well as all electrical components, will be American-made Allen-Bradley.



Polymer application over a wide area requires heavy, specialized equipment, and has been described as "surface disruptive."

Pulling more than their weight

Ongoing experiments prove polymers useful in droughty soils

By Hal Phillips

Cross-linked polyacrylamide is a mouthful, but this granular polymer has impressed industry observers with its ability to soak up free water in soil and store it for the plant's use.

Under a microscope, polymers look something like a honeycomb. So it's not surprising the rock-salt-like substance can hold up to 400 times its weight in water.

While polymers have already been used in producing disposable diapers and cat box filler, several modern cross-linked polyacrylamides have hit the golf course market: Hydrosorb, Terra-Sorb, Water Grabber, Soil Moist, Water Lock and Broadleaf P4, to name just a few.

"Imagine a plate full of spaghetti," suggests Dr. Jeff Nus, an independent consultant and former member of the Horticulture Department at Kansas State University. "The gaps and holes between the strands contract and expand, giving the cross-linked polyacrylamide its wa-



Polymer crystals start out small — but after absorbing several hundred times their weight in water, they grow accordingly.

ter-absorbing capabilities.

"When the individual crystals... are injected into a turf/green situation, the crystals begin to hydrate and absorb the free water and fertilizer picked up by the water molecules. As leaf transpiration creates a demand, both the water and fertilizer held in the soil profile and hy-

Continued on page 45

Feds display recycled goods June 29-30

By Peter Blais

Buyers representing the U.S. Department of Defense's 250 golf courses will be among those attending the federal government's first trade fair to showcase recycled products in Washington, D.C. on June 29-30.

President Bush ordered federal agencies last October to accelerate their purchases of recycled products. Federal purchases represent the single biggest market for recycled products.

Additionally, representatives from state and local governments are being encouraged to attend, as well as manufacturers, entrepreneurs, investors and corporate procurement specialists.

"The president has required us to promote cost-effective ways of using recycled materials. We are favoring the purchase of such

items," said David Moffett, the U.S. Navy's golf specialist.

Chemicals and fertilizers in recycled containers, benches, signs and other products made from recycled materials are used on golf courses, Moffett noted.

Many golf courses and other government facilities are looking at composting programs, added Nancy Stehle, deputy director of the environment in the Office of the Assistant to the Secretary of the Navy.

The fair is expected to draw 2,000 attendees and 180 exhibitors to the Washington Hilton. Admission and booth space are free.

State officials who have made significant strides in purchasing recycled products will offer training sessions to vendors on how to enter the government marketplace.

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Caterpillar strike leaves mark on the industry

Continued from page 1

force. He proved a prophet.

"They've got a pretty good inventory over there," he said at the time.

Some golf course builders and contractors went about their business untouched by the walkout of 12,000 employees. Yet Bill Kubly, president of Landscapes Unlimited, said months of inactivity from the nation's largest manufacturer of heavy equipment did change the market.

"I was talking to one of our subcontractors the other day, and he

said he was having trouble coming up with second-hand, rubber-tired scrapers," said Kubly, who noted that most course builders don't own real heavy equipment, like scrapers.

"It's strange," Kubly continued. "Late last fall, the market was real soft because the whole economy has been soft. We were able to pick up some scrapers at a 30-percent savings. But now, the short supply has driven up the price."

That situation is unlikely to change anytime soon. Caterpillar production has been crippled for nearly six

months. Workers didn't return in force until April 20.

However, "There's so much equipment in the country right now, it'd take a year before we'd begin to feel it," noted Eldredge. "The price of equipment may have gone up. But if the economy were better — and it looks to be improving — it wouldn't have made much of a difference."

According to Eldredge, while the strike took place right next door, it never hit home at Wadsworth. "I don't know that it has affected us," he said.

"It was a real sad situation," said Bob Steele, vice president at Paul Clute and Associates. "We haven't felt any effects. We're pretty well equipped with scrapers — we own most of our equipment."

"But if this thing had gone on for three or four months, into the summer, it could have become difficult to get scraper parts, among other things."

Kubly said he's pleased the struggle ended when it did. "As the whole economy turns up, this strike could have really slowed us down."

Polymers

Continued from page 43

drated crystals are absorbed through the plant-feeder root system."

Once deposited, studies show the polymer makes roughly 95 percent of the absorbed water available to the plant. It's estimated that 15 pounds of polymer per 1,000 square feet will store 1/2 inch of typical irrigation water; 30 pounds will store 1 inch.

Nus has found polymers most effective on tees and greens.

"Polymers work best in drought-ridden soils, and we build greens and tees out of sand-based root zones, which are traditionally drought-ridden soils," Nus explained. "Peat can only hold 20 times its weight in water."

Don Courtney, director of golf operations at the 54-hole Wigwam golf complex in Litchfield Park, Ariz., has experimented with polymers in several trouble spots. He also applied polyacrylamides to half his driving range, leaving the other half untreated.

"Where we've put it down, it has kept the grass greener and held water well," he explained. "In between fertilizer applications, the plots do stay greener."

Courtney is impressed. But with further experiments underway on fairways and roughs, he's not quite ready to issue an unqualified endorsement. "I'm holding back until I see more," he said.

Nus agrees the jury is still out, and he issues these words of caution: "These materials are so absorbent, there is a point of no return. If used improperly, they can be counterproductive."

"Before you can promote any of these materials, you have to have a firm basis in scientific research, and that research is just starting to hit the review stage."

The cross-linked polyacrylamide must be applied underneath existing turf, a problem for superintendents. The Olathe Model 831 Polymer Planter, for example, is pulled by a 40-horsepower tractor and deposits the crystals after individual blades slice the turf at depths of 2 1/2 to 4 1/2 inches.

"It uses grooving, rotating blades on 6-inch centers. It's a heavy-duty machine," said Nus, who noted the Olathe 831 is "surface disruptive" and better suited to athletic fields.

According to Nus, there are alternatives for the golf course industry, namely high-pressure, liquid injectors and smaller-blade products: "vibrating, slicing, plow type things." However, these two products are currently going through the patent process, he said.

Despite the shortage of appropriate applicators and grounded scientific research, Nus said polymers should not be considered "down-the-road" technology.

"It's upon us," he said. "There's a lot of interest, but we have to be sure we know what we're talking about before we start publicizing it."



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