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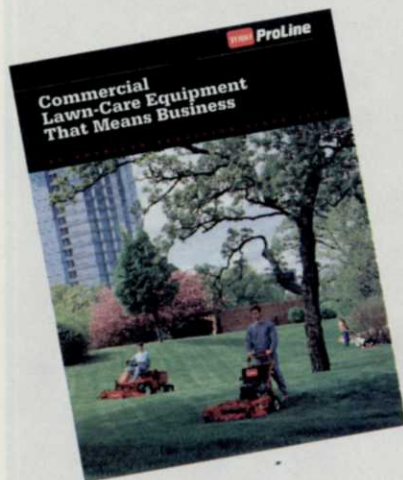
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Seed Company

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TURF-TYPE PERENNIAL
RYEGRASS

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Circle No. 129 on Reader Inquiry Card

SURVEY from p. 40

"We have lots of flowers—you name it, we've got it," Lawrence observes, ticking off begonias, impatiens, petunias, geraniums, snapdragons and salvia.

He says the club purchases 200 to 300 flats each year at a cost of between \$6 and \$7 per flat.

"Last year, we had a full-time gardner to pull weeds, fertilize, edge the beds and water," says Lawrence. "This year, we're putting one of our regular crews on them."

Faron Stoops at Chambersburg Country Club in Scotland, Pa. uses chrysanthemums, geraniums, impatiens and tulips—certainly nothing elaborate, but plants that provide plenty of color.

"It's probably a little more expensive to

plant and maintain the flowers," Stoops notes, "but you've got to weigh how they look. We put them where golfers can see them (around the clubhouse, between holes, around tees and around greens), but not where they're in play." Stoops started adding both annuals and perennials about seven years ago, and reports excellent acceptance by the club's members.

"Annuals offer the most prolific flowering of all groundcovers or ornamentals," points out **Jim McMahon** of Coronis Landscaping, Nashua, N.H. "Though they only live for one season, they bloom throughout the growing period, producing continuous color.

"Annuals are the correct choice whenever a big splash of color is desired."

—Jerry Roche

PLANTING AND CULTURE OF SELECTED ANNUALS

PLANT	WHEN TO PLANT	EXPOSURE	SPACING
<i>ageratum</i>	after last frost	semi-shade; full sun	10-12"
<i>babysbreath</i>	early spring; summer	sun	10-12"
<i>balsam</i>	after last frost	sun	12-14"
<i>calendula</i>	early spring; shade late fall	sun	8-10"
<i>candytuft</i>	early spring; late fall	sun	8-12"
<i>China-aster</i>	after last frost	sun	10-12"
<i>cockscomb</i>	early spring; summer	sun; shade	10-12"
<i>coleus</i>	after last frost	sun	10-12"
<i>cosmos</i>	after last frost	sun; partial shade	10-12"
<i>dahlia</i>	early spring	sun	12-14"
<i>forget-me-not</i>	spring; summer	sun; partial shade	10-12"
<i>four-o'clock</i>	after last frost	partial shade, shade (summer)	12-14"
<i>gaillardia</i>	early spring thru summer	sun	10-12"
<i>impatiens</i>	after last frost	sun; shade	10-12"
<i>larkspur</i>	late fall	partial; deep shade	6-8"
<i>lupine</i>	early spring; late fall	sun	6-8"
<i>marigold</i>	after last frost; summer	semi-shade; sun	10-14"
<i>morning glory</i>	after last frost	sun	8-12"
<i>nasturtium</i>	after last frost	sun	8-12"
<i>pansy</i>	after last frost	sun	6-8"
<i>petunia</i>	late fall	sun or shade (summer)	12-14"
<i>phlox</i>	early spring	sun	12-14"
<i>poppy</i>	early spring thru summer	sun	6-10"
<i>portulaca</i>	after last frost; late fall	sun, shade (summer)	10-12"
<i>rudbeckia</i>	spring; summer	sun	10-14"
<i>scarlet sage</i>	spring; summer	sun; part shade; shade (summer)	8-12"
<i>snapdragon</i>	spring; late fall	sun	6-10"
<i>spider plant</i>	early spring; spring; fall	sun	12-14"
<i>sunflower</i>	after last frost	sun	12-14"
<i>sweet alyssum</i>	early spring	sun	10-12"
<i>verbena</i>	after last frost	sun	18-24"
<i>vinca</i>	after last frost	sun	10-24"
<i>zinnia</i>	after last frost	sun	8-12"

Source: "Through the Green" (Georgia Golf Course Supts. Assn.)



IN NEW JERSEY'S "BROWN PATCH ALLEY... I'VE HAD GREAT SUCCESS WITH DACONIL 2787®."



*Tim McAvoy,
Superintendent,
Fox Hollow Golf Club
Somerville,
New Jersey*

"This part of New Jersey might be called 'Brown Patch Alley,'" exclaims Tim McAvoy, certified golf course superintendent at Fox Hollow Golf Club in Somerville, NJ. "The terrain, the soil, and the grasses we grow seem to make us more susceptible." Fortunately, Tim has found that Daconil 2787® Flowable Fungicide from ISK Biosciences Corporation "has a great ability to stop Brown patch every time."

Stops Dollar spot, too!

Fox Hollow's greens are bentgrass, Tim says, "and unfortunately, *Poa annua*." Recently renovated tees are 100% bentgrass, while the fairway grass is a combination of fescue, rye and *Poa*. That makes the fairways more susceptible, he believes, to Brown patch and Dollar spot.

"The fairways are where I use Daconil 2787 most," he says. "Starting in late June, I pretty much follow a 10- to 14-day preventive schedule for both diseases."

"We try to make good use of all the products and cultural practices available to us," Tim adds. "We use a slow-release urea-type fertilizer in the spring and then little or no nitrogen until

September. We watch the water so we're not exceptionally wet, and we dethatch and do some other things to keep the microclimate as cool as possible when the turf is under the most stress."

Tank mixing saves time.

Besides great Brown patch and Dollar spot control, superintendents get still another important benefit from Daconil 2787: "The flowable formulation is compatible with so many other products," says Tim, "I can tank-mix and knock out two or three diseases. With so much acreage, tank mixing really helps me stay within my personnel budget."

And with Daconil 2787 as the cornerstone of Tim's disease-control program, he doesn't have to worry about disease resistance, either: "As far as Daconil 2787 is concerned, I don't think there's ever been a documented case of resistance. I've always had great success with Daconil 2787."

Have you got a Daconil 2787 success story? Tell us about it. If we use your story in an ad, we'll donate \$100 to your favorite charity. Write Jackie Tengler, ISK Biosciences Success Stories, 5885 Landerbrook Dr., Suite 215, Cleveland, OH 44124. Always follow label directions carefully when using turf and ornamentals plant protection products.

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**The cornerstone of your
turf management program.**



LAWN CARE INDUSTRY

Emergency relief!

Mid-season rescues of dying lawns are grounds for good customer relations, to say nothing of new customers!

■ It's rounding June, heading for July.

You think you've got control of the summer schedule, when you get a frantic call from some guy who says his lawn is a mess. The reason his name doesn't ring a bell is that you've never worked on his lawn. He was always one of those "it's-too-expensive-and-I-enjoy-doing-it-myself" guys.

But what a summer. Too much rain. Disease. Insects. It was all too much for the average do-it-yourselfer. If only he had hired you in the fall to rejuvenate his tired old turf and put him on a preventive program, it wouldn't look so bad now.

But you agree to help, in the interest of human relations.

Like new—"That's the nature of our business," says Jim Anderson, All-Seasons Service, Itasca, Ill., when asked about mid-season lawn rescues. But the results aren't always the same. The amount of life a crew can breathe back into a damaged lawn, says Anderson, "depends on the time of year they get the call."

"Every year is a little bit different," says Kathy Juntgen of Emerald Green, Fort Wayne, Ind.

"[Homeowners] call when the dandelions get out of hand, and they panic; or else they had another company that mistreated the lawn, or they themselves made a mistake," says Juntgen, who's in business with her husband, Steve. "There have also been times when chinch bugs were a serious problem."

The usual plan of action for a lawn rescue involves slit seeding, fertilizing, and plenty of water, which is the biggest mistake homeowners make. When high utility bills threaten, people just don't water

enough in hot, dry weather. For weed or insect problems, standard practice is to use the appropriate control product.

"Within 60 to 90 days, we can have it back in shape," says Anderson. "Some lawns are totally gone, but that doesn't mean we can't do anything to revive them."

"Lawn care has come a long way, so you don't see lawns in that bad of condition in this day and age," explains Juntgen. "People will call for advice, we tell them

what to do and they they go out and do what they wanted to all along."

Winning them over—Anderson has had great success in keeping these mid-season converts as long term customers. He says every one whose lawn he saves remains a customer "for years afterwards."

Emerald Green also has a good conversion rate. "We're a smaller company," says Kathy, "that goes more on service than volume." So it can easily find room on its roster for new acquisitions.

—Terry McIver

COMPLAINTS AS OPPORTUNITIES

■ If a customer—a landscape client, a member of the golf course, a citizen using one of your athletic fields—has a complaint, you have a tremendous opportunity to build customer loyalty.

A survey by the U.S. Office of Consumer Affairs shows that when complaints are successfully resolved, 73 percent of the complainers would buy that product or service again.

Conversely, when customers had minor problems but did not complain, nearly 67 percent would not buy the same product or service again. The three reasons mentioned most often for not complaining were:

- It wasn't worth their time and effort.
- They believed complaining wouldn't do any good.
- They didn't know how to or where to address complaints.

To handle complaints successfully:

- 1) Listen.
- 2) Sympathize.
- 3) Avoid justifying or making excuses.
- 4) Ask questions.
- 5) Agree on a course of action.
- 6) Inform and involve others who need to know.
- 7) Monitor the progress in resolving the complaint.

Composting offered to contractors

Acts as 'holding company' for land used to process landscape debris.

■ GreenCycle, Inc. of Northfield, Ill., has mastered the science and business of composting, just in time for the projected increase in the need for alternatives to landfill sites.

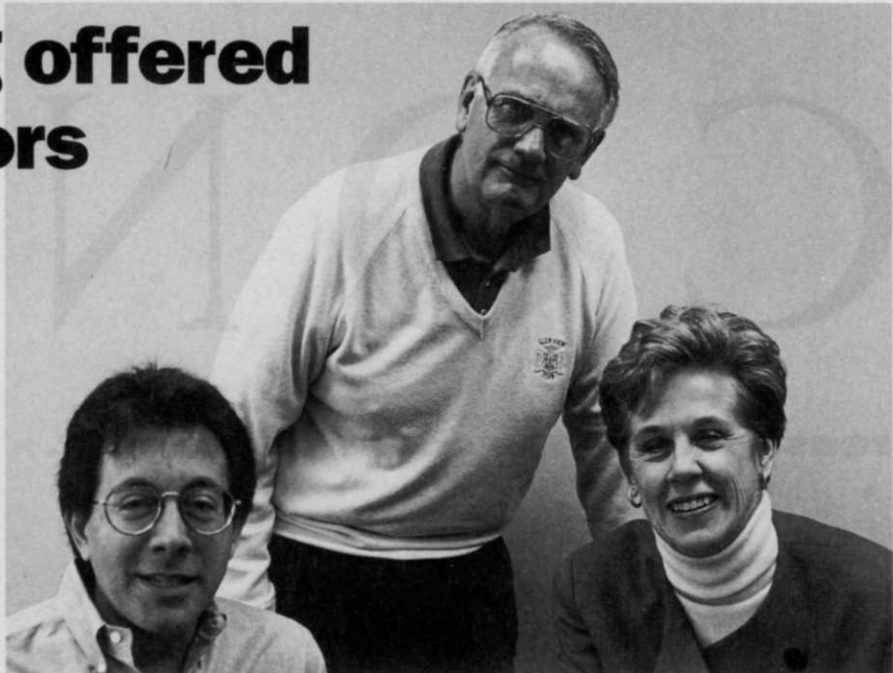
Along with the belief that landfill sites are becoming depleted is the realization that yard waste, by its very nature, is reusable.

GreenCycle began its service in July of 1992 and has grown to where it now operates composting sites in Missouri, Massachusetts, Georgia, Connecticut, Illinois and Indiana. Proposals are pending for several other sites throughout the U.S. The company services primarily municipalities, private landscape contractors and waste disposal companies.

The company expects to process about 600,000 cubic yards of material into approximately 150,000 cubic yards of high-quality compost in 1994.

Sites are as small as five acres, and tipping fees are competitive. And it's important they blend in with the community, lest the citizens complain about odors, as has happened to other composting companies.

The actual time it takes to process debris into usable compost is about 120 days. The resulting mulch or soil amendment is sold to farms, greenhouses, nurs-



David Wagner, Peter Repenning and Caroline Repenning (left to right) form joint ventures with local operators.

eries, landscape contractors, sod farms, golf courses, parks, home gardeners and other associated industries.

A family affair—GreenCycle is run by Caroline Repenning, president; David Wagner, vice president of marketing; and Peter Repenning, vice president of operations.

"A well-managed composting site quickly reduces yard waste to useful, environmentally-safe humus," says Caroline Repenning. "When sites are planned properly and managed correctly, it costs less to turn yard waste into valuable compost than it costs to employ other disposal methods. And using the correct technology eliminates the overpowering odor which often results from stockpiled yard waste, a com-

mon phenomenon of poorly-run facilities."

To eliminate odors, waste is formulated, mixed and shredded before it has a chance to rot and begin emitting odors. The byproduct is clean: no viable weed seeds or pathogens remain, and virtually all the pesticides in the initial material are broken down into benign, inorganic carbon compounds.

Even though pesticide residues are unlikely, the company goes ahead and tests for them anyway. Any which might remain are broken down into benign, inorganic compounds by the heat and microbial digestion of the composting process.

Joint ventures—GreenCycle has formed joint ventures with local operators who chalked up years of experience on their own prior to this association.

One is a former owner of a solid waste disposal company; another has eight years of experience in the composting business.

But don't confuse this arrangement with a franchise approach. Repenning says these are not franchise agreements. The local operators help GreenCycle in its search for land, which the company then leases.

GreenCycle arranges sufficient project funding for site development and operation, and provides each site with necessary general management and financial skills, a uniform operating plan and a national corporate identity.



GreenCycle will produce 150,000 cubic yards of compost in 1994.

Choose Bayleton this year for the same

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And the year before that. And the year

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For more information, contact Miles Inc., Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.

It may be the most consistently rewarding choice you make.



Circle No. 118 on Reader Inquiry Card

HOT TOPICS

Clinton, EPA detail pesticide control plan

WASHINGTON—The Clinton administration wants to establish stricter testing standards for agricultural pesticides.

Environmental Protection Agency director Carol Browner also says the agency would examine sources of pesticide exposure, from playgrounds to drinking water.

A proposed bill would:

- Require comprehensive studies of the pesticide levels in food eaten by infants and children.
- Set a single health-based, scientific standard for all pesticides used on all foods, covering all health risks.
- Decree a seven-year deadline for banning pesticides that cannot be proven safe.
- Reduce pesticide use by helping farmers institute alternative methods of pest control.

The bill is a response to a recent USDA study which found pesticide residues on more than 60 percent of fruits and vegetables sampled. Most of those residues, however, were below federally established tolerance levels.

The bill, as proposed by the Clinton administration, would define a pesticide residue as unacceptable if it causes one excess case of cancer per million cases.

If passed, the legislation would change how the government determines the cancer risk from exposure to control products and require that infants and children receive special protection because, according to the bill, they eat more fruits and vegetables in proportion to their body weight.

Additionally, the legislation would scrutinize control product use around public grounds and monitor pesticide

residues in drinking water more fiercely.

The legislation would widen the parameters by which it judges product safety, requiring new levels of testing for possible effects on the brain, reproductive system and immune system. A "negligible risk" standard would mean the product could only be used in amounts where there is a "reasonable certainty of no harm."

The bill was carefully worded to enlist the support of the public—with the stated concern for "infants and children," and by saying the bill is meant to "ease the burden" on farmers by providing them with non-chemical means of pest control.

But the bill would also increase the amount of paperwork farmers do to document their chemical use.

Ripple effect—The turf and ornamental chemicals market would certainly be affected by the legislation, as many agricultural control products are used in the specialty chemical industry.

Allen James, executive director of Responsible Industry for a Sound Environment (RISE), says the level of scrutiny the administration wants to impose on product testing is not new, but certainly would be more extensive,

"These products undergo 120 tests,

including testing in those areas," says James, "however, the procedures and science are not in place (for the higher level of testing). The current tests cover most of those areas adequately."

"If the new law goes into effect and imposes a larger range of testing," says James, "the EPA will be further burdened. There's no way it could accomplish the testing" (within the seven-year deadline).

According to James, the agency is having enough trouble as it is, trying to reregister products under existing standards.

The Clinton proposal will compete with two other pending bills. One, a less-restrictive bill, has the support of the food industry and American Farm Bureau Federation, and has a majority of support in the House and 20 sponsors in the Senate.



James: Proposed bill would burden EPA and industry.

2,4-D/cancer link 'weak' says EPA panel

WASHINGTON—An EPA-sanctioned panel says that existing studies of the herbicide 2,4-D have not demonstrated a cause-and-effect link with cancer, according to a report by the Industry Task Force on 2,4-D Research Data.

The group convened in April of 1993 to evaluate the carcinogenicity of 2,4-D after studies suggested a cancer link. It issued its latest report in late March of this year.

The EPA must now consider these latest finding in evaluating the need for further regulatory action on 2,4-D.

More than 4000 studies have been made of 2,4-D since 1948.

ELSEWHERE

**Turf researcher
Jack Murray dies,
page 50**

**EPA to monitor
small engines,
page 50**

**Worker law targets
golf courses in Sept.,
page 50**

UNPRECEDENTED

* Showing a marked departure from **Previous Practices**

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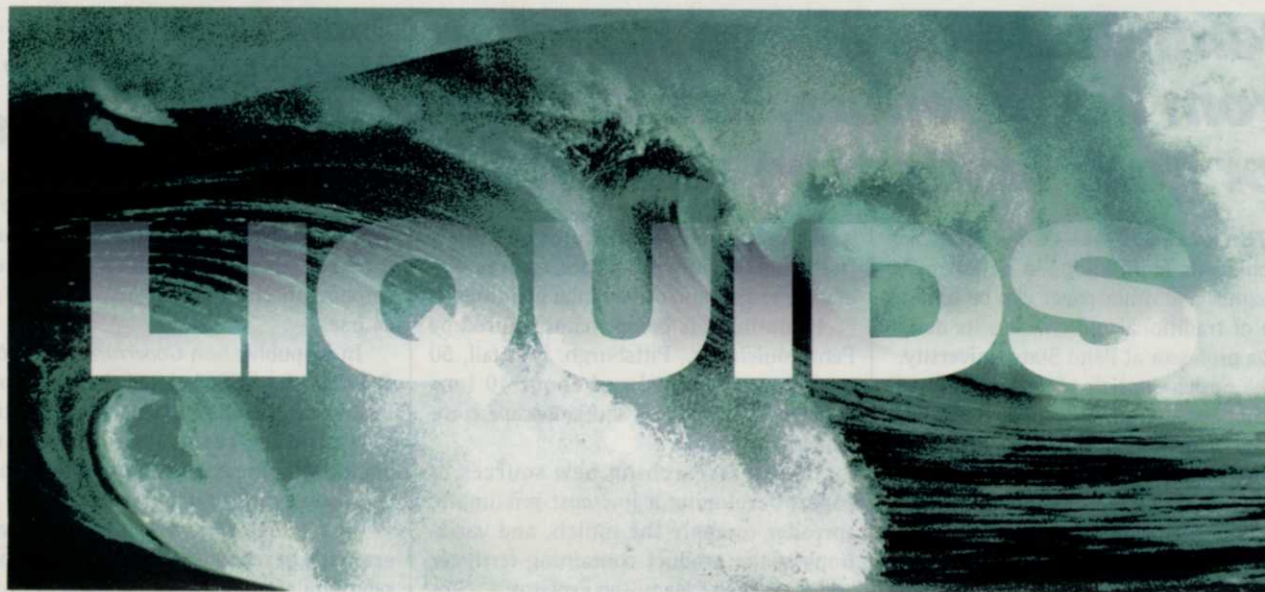
liquid concentrate. Growth Products is pleased to release Nitro-30 SRN (30-0-0) an unprecedented nitrogen source for consistent release with no surge growth. This liquid source of methylene urea contains a variety of shorter chain nitrogen polymers which provide optimal initial and residual turf response.

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Circle No. 105 on Reader Inquiry Card

Agronomist, researcher James 'Jack' Murray dead of cancer

BRADENTON, Fla.—James "Jack" Murray, former USDA research agronomist, died on May 15 at his home here after a long battle with cancer. He was 54.

Murray was an internationally-known expert in turfgrass breeding and management.

Throughout his professional career, Murray authored or contributed to 104 scientific publications, 47 technical reports and 26 work progress reports.

He served on many committees and organizations within the turfgrass community, including the Turfgrass Division of the Crop Science Society of America, the Musser International Turfgrass Foundation and the International Turfgrass Society.

Murray's research efforts led to the development of Belturf Kentucky bluegrass and Belair zoysiagrass. Belturf has

been used as a parent in producing improved Kentucky bluegrass cultivars like Adelphi, Majestic, Eclipse and America.

Murray also developed tall fescue with improved stress tolerance and improved tolerance of aluminum and acid soil conditions.

In the mid-'80s, Murray developed a zoysiagrass and tall fescue mix that provides a year-round green turf with less maintenance.

Murray investigated standard maintenance practices such as mowing and water and discovered methods to minimize



Jack Murray

maintenance costs while maintaining quality turfgrass.

Murray was a founder of the National Turfgrass Evaluation Program (NTEP) and its first director from 1980-1988. The NTEP tests turfgrasses nationwide and provides the most comprehensive information on grass selection in the U.S.

Murray was also a charter member of the National Sports Turf Council.

A frequent speaker at local, state, national and international meetings, Murray provided consultation on the management of turfgrass at many sites, including the White House and Arlington National Cemetery in Washington, D.C. and the Laurel and Pimlico Race Tracks in Maryland.

Murray is survived by his wife Bobbie and son Paul. The family asks that donations be sent to the Hospice of Southwest Florida, 6055 Rand Blvd., Sarasota, FL 34238; or to the Woodland Baptist Church, 9607 State Rd. 70 East, Bradenton, FL 34202.

Penn State develops mulch from newspapers, magazines for golf, landscape markets

STATE COLLEGE, Pa.—A new landscape mulch made from chopped newspapers, magazines and other paper can be used in place of traditional mulch, says its developer, a professor at Penn State University.

The mulch consists of small green pellets that resemble rabbit food. It's spread over areas such as golf courses and lawns where grass seed is applied. The pellets expand when wet, so only a thin layer is needed to cover a large site.

The new product, for which a patent is pending, is called Pennmulch. Agronomy instructor George Hamilton developed it.

"Traditional mulches present problems," says Hamilton. "Hydromulching requires an expensive machine and a high-volume water source. Straw often contains weed seeds, tends to blow away, and is difficult to store and handle. In addition, soil micro-organisms that break down straw also deplete soil nitrogen."

Pennmulch pellets can be spread by hand or by using conventional spreaders. It can also be used in combination with a starter fertilizer.

"Although it was designed for use in

grass seedbeds," Hamilton continues, "we're looking into other uses, such as vegetable gardens and ornamental plantings."

Pennmulch is being manufactured by Penn Mulch Inc., Pittsburgh. Last fall, 50 tons were produced and about 40 tons were sold to turfgrass and landscape companies.

"We're researching new sources of paper, developing a low-cost pneumatic spreader to apply the mulch, and variations of the product containing fertilizer and grass seed," Hamilton explains.

"Material-wise, it's more expensive than hydroseeding or straw," he admits. "But as we increase production facilities in the next six months, the cost should come down. Plus, depending on the site you want to use it at, there could be considerable labor savings in applying it."

Pennmulch is being distributed mainly throughout the northeastern section of the U.S., but can be freighted anywhere in the country.

To find out more about the product, call Penn Mulch Inc. at (800) 792-5537.

Deadline Sept. 23:

New worker law hits golf courses

LAWRENCE, Kans.—The Golf Course Superintendents Association of America says the new Worker Protection Standard for Agricultural Pesticides will have an impact on the operations of many golf courses.

In its publication *Government Relations Briefing*, the GCSAA noted that the Worker Protection Standard covers all golf courses that produce turfgrass or ornamental plants, whether for use exclusively on the golf course or for general public sale.

"It requires employers to provide workers with personal protection equipment, safety training and warning signs to protect laborers from hazards stemming from exposure to pesticides," the *Briefing* article said.

The new federal standards will take effect Jan. 1, 1995, but pesticide safety training materials must be developed and distributed by Sept. 23 of this year.

The bill stipulates that a worker may enter an area treated with a pesticide during the restricted entry interval on the label if four conditions are met, one of which is disallowing any hand labor. For more information, contact GCSAA's government relations program at (913) 832-4470.