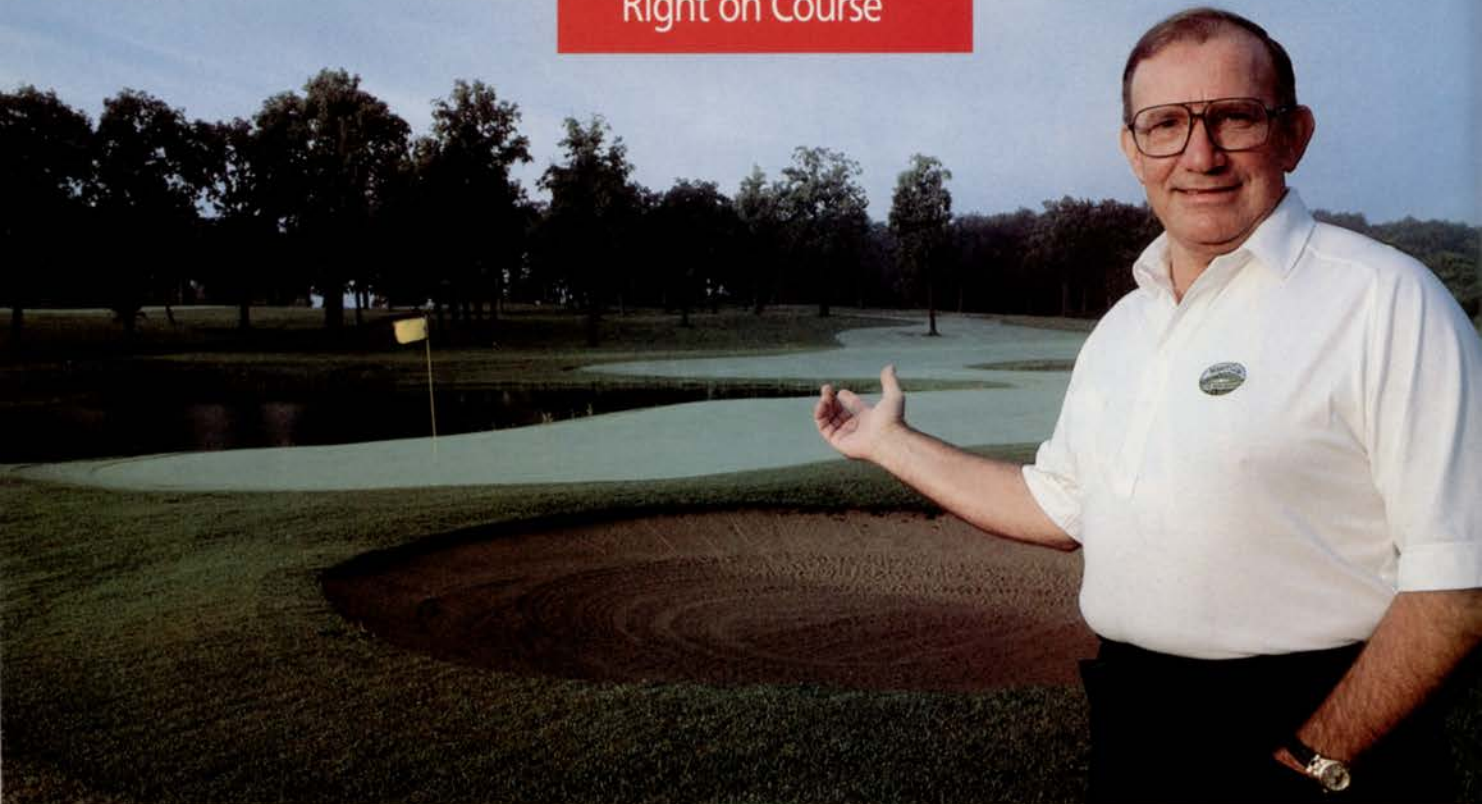


The Penn Pals:
Right on Course



Oscar Miles, CGCS, overlooks the 6th hole at the Merit Club, Libertyville, Illinois.

PennLinks Greens. Penneagle Fairways. Penncross Tees. The 'Penn Pals' Are Picture Perfect At The Merit Club.

Superintendent Oscar Miles, with Club President Ed Oldfield's affirmation, specified all the grassing of this Robert M. Lohmann designed club. With a clean canvas and open palette, Oscar began with PennLinks greens, Penneagle fairways and Penncross tees, framing them with bluegrass/fine fescue/wildflower and prairiegrass roughs. You couldn't paint a more attractive picture.

Oscar chose PennLinks greens for its rapid establishment, marvelous root system, a crown and stolons that take topdressing, upright, grainless qualities and good, consistent color ... the best putting surface available.

He selected Penncross for tees because they recover from divot scars more quickly.

And the Penneagle fairways? Oscar chose Penneagle for its upright growth, reduced thatch development, low nitrogen requirement and good drought and dollar spot resistance. He seeded at 80 lbs. per acre for immediate turf development and

erosion control. The fairways were playable in 8 weeks. Oscar's crew usually mows fairways in the evening and leaves the clippings; recycling nutrients while reducing removal and fertilizer costs.

Oscar articulates it best: "The unique coloring of the 'Penn Pals' contrasts beautifully with the grassing around them, defining the target areas. And with the dew on the bents early in the morning, they're a marvelous work of art."

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AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



This blow to pesticide registries goes almost unnoticed by media

When Sen. Joseph Lieberman (D-Conn.) first chaired a Senate subcommittee on lawn care pesticides, his witnesses testified that the pesticides had caused them excessive physical distress. Some claimed they were inflicted with a disease, multiple chemical hypersensitivity, better known to Sen. Lieberman and his staff as MCS.

The national media readily picked up the testimony of this small group of one-issue crusaders.

The American College of Occupational and Environmental Medicine (ACOEM), we hear, now officially disputes the integrity of some of this testimony. It says the witnesses may indeed be sick—but not necessarily with MCS.

The ACOEM, which is composed of 5,300 physicians, wrote a letter to Chuck Charlow of Lieberman's staff. The letter said the ACOEM "concluded that (MCS) is an unproven hypothesis that requires further credible scientific research."

This conclusion, incidentally, is the same one reached by the American Academy of Allergy and Immunology in 1986, the American College of Physicians in 1989, and the American Medical Association in 1992.

The ACOEM's opinion doesn't preclude the existence of MCS, but the letter to Lieberman's staff *did* say this:

"ACOEM opposes an open national registry program for persons with potential or alleged sensitivity to lawn care pesticides. Although there may be anecdotal reports...this type of information cannot be used to prove the existence of a condition or determine the magnitude of any problem—if one exists [*italics mine*]."

"There is no evidence that establishing an open registry will aid persons who might have such a sensitivity. Such an open registry would include persons with a wide array of health problems, including psychological disorders. Participation in an open registry could have a negative

impact if participation was perceived as a validation of a diagnosis of chemical sensitivity, even though an individual's symptoms could be due to some other factor."

Of course, the people who claim to have MCS probably don't care much what the ACOEM thinks. Most probably don't trust the medical community very much. In our opinion, however, two key observations were made in this letter:

- 1) MCS is an unproven hypothesis; and
- 2) ACOEM specifically opposes establishing open registry programs as proposed by Lieberman.

Fifteen states already have pesticide registries or are considering them. But the bigger questions are:

- Should some lawmaker who knows little about either chemicals or exposures be drawing lines in the dirt at the feet of the lawn care community?

- Isn't it about time the rest of the U.S. Senate and the voting public become disillusioned with Lieberman's continued campaign against lawn pesticides? After all, the issue hasn't ever gotten out of subcommittee; and when New York Attorney General Robert Abrams used the controversy in his re-election campaign, he was met with a big yawn from the public.

- And isn't it time the national media, flaming liberals and sentimentalists that they are, realize that news value also exists in a letter from a highly-regarded medical organization to a senior U.S. Senator?

Earlier this year, Lieberman announced that he plans to introduce another strict piece of pesticide regulation legislation during the 103rd Congress.

Sometimes, it makes you wonder.

LANDSCAPE MANAGEMENT

"WE KNOW YOUR TURF"

DECEMBER 1993 VOL. 32, NO. 12

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Until now, we have stopped just short of doing everything possible in providing the ultimate in visual definition. The one location where we can still improve—which, ironically, is the most important in all of golf—is in highlighting the hole itself.

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The PLCAA's new president, Lou Weirichs, will remain active in Green Industry Expo negotiations. He also wants the association to reach out to members.

Ron Hall

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ASK THE EXPERT

DR. BALAKRISHNA RAO

Surflan on grassy weeds

Problem: We have used Surflan to manage annual grassy weeds. In some situations we have had poor results. What do you think we may be doing wrong? How can we get better results with Surflan? (Virginia)

Solution: From your question it is not very clear whether you used Surflan as a pre-emergence material before the grassy weeds emerged or as a post-emergence herbicide to manage already established weeds.

Surflan is a selective pre-emergence herbicide for control of annual grasses and several broadleaved weeds. It does not work as a post-emergence herbicide.

If you have used Surflan as a pre-emergence herbicide and experienced variable results the following explanation might be helpful. Make sure that you are following good mixing procedures when tank mixing. Follow the guidelines given in the label while mixing Surflan alone or in combination with other materials. It is important to have agitation all through mixing as well as spraying. Without proper agitation Surflan may settle to the bottom of the sprayer tank. This could contribute to poor results. Surflan does not have to be incorporated. However, it should be watered in within 21 days with $\frac{1}{2}$ - to one-inch of water.

Read and follow label specifications for better results.

Locust tree seedlings in the lawn

Problem: Please advise on the best means to control locust tree seedlings that have invaded my lawn from my neighbors locust tree "jungle." (New Jersey)

Solution: Locust is extremely sensitive to triclopyr, which is contained in Turflon lawn herbicides.

Products containing 2,4-D would be less effective but could be used if triclopyr is not available. If the locust is a true seedling—that is, derived from seeds—there should be no injury to the parent tree. If, however, the locust is a root sucker, systemic herbicides such as triclopyr or 2,4-D may translocate to the parent tree and cause injury.

While the seedlings or suckers are very small, regular mowing can help manage the problem.

Read and follow label specifications for better results.

Pin oaks and pH

Problem: One of our clients wants to install a blacktop parking lot. In this area there are a number of large pin oak trees. They were interested in using limestone as a base underneath the blacktop cover. Our concern is this operation will increase the pH and cause nutrient deficiency. Since pin oaks are very sensitive to alkaline pH, we are interested in finding some solution to neutralize the limestone effect. Is there an easy method to deal with this problem? (Iowa)

Solution: Your concern of using limestone under a blacktop parking area and potential increase in pH causing nutrient deficiency is also a major concern to me.

Pin oaks are extremely sensitive to alkaline pH. Although reports indicate that limestone material can provide a better compacted and stronger base for parking lots, there is a potential for soil pH increase. Unfortunately, there is no "quick fix" solution or product to deal with the problem.

Sulfur or sulfur containing products may be used to lower the pH effect. However, our experience and research indicates that it would be impractical to lower the pH to a desirable (neutral) level without causing an adverse effect on plants.

Your best option is to suggest using river gravel as a base. In addition to this, provide good cultural practices such as watering, mulching, fertilizing and aerating to help improve plant health.

Provide pest management as needed.

Reader responses to past questions

What goes with black walnut?

The following are readers' comments regarding a question concerning what kinds of plants can be planted or grown within the root spread of black walnut trees (January 1993 LM):

"Please add Hosta to your list of plants growing under black walnut." Source: The Hosta Book: Making Sense of Gardening, by Paul Aden, Timber Press, Oregon.

On wolmanized wood

"The column in the July 1993 issue of LANDSCAPE MANAGEMENT ran an item entitled "Defining Wolmanization."

The local lumber store representative badly misled you when you sought his answer to the question, resulting in an incorrect response.

The term is in fact a trade name for a particular brand of pressure-treated wood. There are many such trade names, including SupaTimber, which is offered by those who purchase chemicals from our company, Chemical Specialties, Inc. These brand names refer to wood that has been pressure treated with chromated copper arsenate (CCA), a wood preservative that is highly effective in deterring decay and insect attack.

Of further interest to your readers, a new wood preservative, ACQ, ammoniacal copper quaternary, is now on the market. It is just as effective as CCA but does not contain chrome or arsenic. This product is new, and is currently being marketed under the brand ACQ Preserve."

For more information, contact Chemical Specialties, Inc., One Woodlawn Green, Suite 250, Charlotte, NC 28217.

Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.

Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.

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Landscape waste disposal: No free ride

Lawn/landscape business owners come up with individual strategies to deal with landfill bans and rising costs.

■ Eric Cross says his Hackettstown, N.J., company used to have a problem getting rid of landscape wastes. But not too much anymore.

"We worked around it," says Cross, of Duke's Landscape Management. "We had to."

No wonder. The admonition "*No Landscape Wastes*" is being bolted onto the gates of landfills across the United States. To date, 22 states have banned yard and garden wastes from landfills. More probably will follow.

Even where they can still be dumped, collecting, moving and getting rid of things like leaves and grass clippings can be a sizable expense, particularly in urban centers.

Pampered Lawns, headquartered in Houston, brings its landscape refuse back to each of the company's four locations, and disposes of it in 40-cubic-yard containers. A commercial refuse hauler then, at a charge of \$250 per load, takes the material to a landfill.

"It is an expensive proposition," admits owner Dwane McNabb. "We have looked at the possibilities of separation and grind-

ing. I feel that at some point it could be more economical to separate and either have a storage area to have a grinding service come into, or haul it to them and convert it into compost."

Lots of options? An informal survey by *LANDSCAPE MANAGEMENT* magazine indicates that green industry business owners are exploring all options to deal with the clippings, brush, and leaves generated in maintaining clients' properties.

Almost always they must meet the issue alone, keeping a wary eye on how much it will increase costs to customers.

"It's a tough enough industry. We don't need any extra expenses," says Cross.

Many landscape managers are trying to reduce waste at its source.

"We don't bag clippings unless it's absolutely necessary, like inside a fence around a pool area," says Cross. "We just have to educate the customer that the clippings break down. The customer has to realize that clippings do not promote thatch and create other problems."

Steve Browder of SDB Services in Charleston, S.C., says, "Some of my customers don't even realize that I'm using a mulching mower. Some are reluctantly accepting that we want to leave the clippings on. Most are aware enough because of the publicity that clippings are getting, and they're gladly accepting it anyway."

Here are some other possible solutions:

1. Higher cuts—"We're mowing grasses at 3- or even 3½-inch heights," adds Kevin Mill of Mill Brothers Landscape &

Nursery, Fort Collins, Colo. "It's taken us years to bring our height of cut up. People used to think that two inches made for the best look."

But, Mill admits, "We're still having a hard time trying to convince some of our customers that you don't have to bag the clippings every cut."

2. Leave the clippings—

Russell M. Riega of R&R Landscaping in Lodi, N.J., often sees only two options: either leave the clippings on the lawn or put them on a truck and look for a place that will accept them.

"When it's applicable, we leave the clippings. But when we can't, dumping is a problem. I could pay \$120 for one load," says Riega. His company works in about 30 communities, and each town has its own regulations about what it will and will not accept, he explains.

Riega thinks manufacturers of mulching mowers still have some work to do. "We need better mulching machines, machines that can chop the clippings even smaller," he says.

3. Recycle—Waste management experts claim that the sheer volume of organic landscape material shortens the working life of landfills. This is both an economic and—to a lesser extent—envi-



ronmental issue. Developing a new landfill is increasingly costly. Some of this expense comes from fulfilling ever-more-stringent environmental considerations.

es

Anyway, waste experts reason, much of the 33-35 million tons of landscape waste created annually on America's maintained properties can, and should, be recycled into useful product.

Charleston's Browder was one of several business owners telling LM that they've recently purchased chipper/shredders. So, while some woody refuse can be chipped or shredded into mulch, more landscape waste is starting to end up in compost facilities at either municipal or commercial sites. Large-scale composting is making noises like it's going to erupt into a

full-blown industry.

Writers Robert Steuteville and Nora Goldstein in the May 1993 issue of *BioCycle* magazine, for example, claim that the number of yard waste composting facilities increased from 2,201 to 2,981 from 1991 to 1992—35 percent!

Grass clippings represent most of the waste generated by landscape professionals in spring and early summer. But many compost sites are still wary of accepting clippings. Usually, these sites have a longer history of composting leaves. In fact, many compost facilities count on a certain volume of leaves as an ingredient in their compost "recipe."

3. Watch those charges!—That doesn't necessarily translate into a free ride for landscape professionals. Compost facilities, even community-operated ones, often levy dumping charges.

Lebo Newman of Redwood Landscaping, for example, says it costs \$20 to \$30 a cubic yard to dispose of landscape waste in compost facilities near his home base of Santa Rosa, Calif.

Likewise, Paul Stolar of Longmeadow (Mass.) Landscaping, pays to dispose of leaves in a community compost site. Like many such facilities in the Northeast and New England, Stolar must prove that he

actually works in Longmeadow before he can dispose of the leaves. The site will not accept grass clippings though.

4. Waste holding areas—Meanwhile, lawn/landscape business owners like Scott Wagner of Landmark Landscape Management in Richmond, Va., look to either sign agreements with neighboring farmers to take some of their leaves. Or, they're buying or considering buying additional property to serve as landscape waste holding areas.

Landfill charges, he says, are "almost prohibitive." And, in the late fall and winter when the rains come, wet leaves can add up to a staggering bulk. And expense.

Adds Kevin Mill in Fort Collins, Colo., "we're definitely thinking about acquiring some land to hold some of this material which we can then reuse."

He also says he is going to have to do a better job of explaining the problem of landscape refuse to clients.

"I don't think we've—and I mean both our company and in the industry itself—done a good enough job of showing them through the course of a season, particularly in dollars and cents, what they could save if they weren't paying us to handle all these clippings and material," says Mill.

—Ron Hall



This 3-acre yard waste disposal facility in Erie County, Ohio, is operated by Barnes Nursery. Recently blacktopped, it's a first-rate site that will receive organic material that's no longer allowed in Ohio landfills.

Landscape fabrics for weed control



Unmulched fabrics on left have no weeds; weeds evident in mulches atop fabrics on right.

Photos courtesy Dr. Bonnie Appleton, Virginia Tech University

Virginia Tech researchers Bonnie Lee Appleton and Jeff Derr offer insights into using geotextiles in landscapes.

■ Black plastic does a good job of suppressing weeds. That's why it's commonly used in commercial vegetable production. It's made of non-porous polyethylene and works best when laid over moderately moist soil.

However, placing it over wet soil prevents evaporation of excess soil moisture and promotes root rot or fungal decay. It doesn't allow oxygen, needed for root respiration, to infiltrate. Carbon dioxide often builds up to toxic levels. Black plastic can harm valuable trees and shrubs if placed around them.

Landscape fabrics, on the other hand, are porous. They permit exchange of water and gases. This is true, to one degree or another, regardless of composition (polyethylene, polypropylene, polyester),

construction (woven or non-woven, spun-bonded or needle-punched), or color.

But the bigger questions involving landscape fabrics are:

- Do they control all weeds?
- Are they easy to install?
- Do they harm valuable plants?

Virginia Tech researchers Bonnie Lee Appleton and Jeff Derr found some answers to these questions by putting various landscape fabrics through four years of field trials at the Hampton Roads Agricultural Experiment Station in Virginia Beach.

The first thing they noticed was that some fabrics are more porous than others. Even so, most fabrics suppress annual weeds fairly well. In fact, they found that landscape fabrics left uncovered, without mulch, do a very good job of stopping weeds. Most residential and commercial landscape customers don't find this aesthetically acceptable though.

No guarantee—Using landscape fabrics does not, however, guarantee weed-free beds.

For example, a layer of more than an

inch or two of a fairly small-particle-size organic mulch, such as ground pine bark, atop a fabric creates a good growing medium for weed seeds, the researchers discovered. The more porous the fabric, the more likely weed roots will push into the soil beneath.

Derr and Appleton say that one inch of ground pine bark is enough to protect the fabric from ultraviolet rays that cause deterioration, yet not deep enough to allow many weeds to sprout.

Larger or less-compacting organic particles (chunk pine bark and pine straw) can be used in deeper layers. These mulches, being more open, are less likely to sustain much weed growth. But, why use an underlying fabric at all with mulch piled as high as four to six inches?

Also, tenacious perennial weeds such as yellow nutsedge and bermudagrass can grow up under geotextiles and force their way up through fabrics. Again, fabrics that are less porous have more of a chance of curbing these weeds.

How about trees?—But does the limited porosity of landscape fabrics harm trees and shrubs?

The researchers planted all of their mulch/fabric test plots with red maple whips then monitored soil moisture and temperature for two years on a biweekly basis. Control plots were left bare or covered with black plastic.

Derr and Appleton discovered differences in soil moisture and temperature, but mainly between plots with no cover and plots with black plastic.

Among the geotextiles, almost no statistically significant differences were found in soil conditions, although the textiles' porosity varied from only 3 percent open (Weed-X) to as much as 40 percent open, they report. Very little difference in tree height or caliper was evident from one fabric to another.

The researchers also report that those fabrics that were very porous had tree roots growing in and through them. Sometimes roots even grew on top of fabrics that had a layer of moist organic mulch on top of them. As the fabrics were peeled up, quantities of tree roots often came up with them.

Caution advised—The researchers advise caution in installing fabrics in areas where plants may be added or changed every few years. Trees and other established plants can be stressed if portions of fabric surrounding them are pulled up

continued on page 12