Association to advertise his company's commitment to excellence.

PLCAA is a valuable resource for John Wagner, of the GreensKeepers Inc., Muscle Shoals, AL. "They've helped me to make the transition from the golf course to lawn care," says Wagner a former golf course superintendent.

ALCA is appreciated in Erie, PA, where John Allin employs more than 40 year-round employees at his Allin Companies landscaping and snowplowing enterprise. "It has raised our level of professionalism several notches since we joined five years ago," he says.

"The first time we visited one of the shows we got an eye-opening experience as to how the other companies see themselves as professionals, and we have changed our opinion of ourselves," Allin explains. The workers now strive

to win ALCA safety awards, management's marketing strategies are more coherent and employees' attitudes are more business-like and client-oriented.

"The money we spend (on dues, traveling and hotels) is

minor compared to the return that we get; ALCA satisfies my needs in a big way."

Allin: ALCA a big help

to his firm

Allin has also been instru-

mental in forming the national Snow and Ice Management Association, based in Erie, PA. The association offers information on how to run a profitable winter business.

David P. Harris of Illinois is considering join-

ing ALCA after 18 years in the lawn care industry. He previously belonged to PLCAA, but has since sold his Liqui-Green Lawn and Tree Care and focused his attention on the Bloomington-based Harris and Associates, a design-build firm.

"ALCA looks pretty good to me so I'll probably be joining that," Harris says. "I don't join associations unless I think it's necessary," he says adding that PLCAA served him well

> in lawn care. Opportunities for networking, attending seminars and walking the trade show floor are significant, and Harris especially values the roundtable discussions featuring out-of-town businesses owners and their insights.

"And you weren't giving away trade secrets to

your direct competition," he says.

Education is what Becky



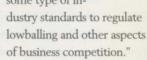
Harris: valued PLCAA membership

Turner wants from the Perennial Plant Association. Turner. "They cover the whole gamut of growing, maintaining and selling," says Turner who owns Perennial Point in Wilkes Barre, PA.

The green industry can use some sharper teeth

when it comes to policing its own ranks, according to

Michael Martin, commercial division manager at Outside Unlimited Inc. of Hampstead, MD. "I think there needs to be some kind of governing body that looks over the industry," Martin says. "There should be some type of in-



Nothing extreme, mind you, but Martin suggests that some sort of ethics system is needed. "I don't want to have 'Big Brother' looking over our shoulders, but sometimes things are too loose." A plant inspection or certification program would be helpful to review the problem of too-small root balls and other aspects of unfair competition, Martin believes. "If I'm putting in a 2-inch caliper

maple, I want to see somebody else's 2-inch caliper maple look the same way."

Allowing established business owners to share their expertise with up-and-coming landscape managers via PLCAA's new mentoring program is great idea, says Dale Amstutz, who owns Northern Lawns Inc. in Omaha, NB. "They're lining up people to help each other," he reports.

The association-based contacts and friendships formed by Amstutz have been a great

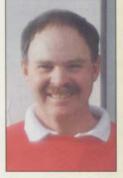
help to this industry veteran. "I think we were in business one year when we started attending, and I haven't missed a national meeting since," he says.

To Amstutz, anyone in this industry—even a start-up operation—should be-

long to associations. "This is not the place to cut corners," he advises. "That's a lot of money for a small business to shell out, but once you go you'll find yourself coming back year after year.

"It's not a direct business profit and loss type of thing. You've got to go with an open mind and a willingness to make things happen," he points out.

"You have to be out there shaking hands and passing out business cards."



Flint: devotes energies at state level

High tech, high touch

Dow AgroSciences interacts with landscape professionals in an on-going commitment to industry innovation

By BRUCE MIEHLE, Marketing Manager, Turf, Ornamental and Technical Products, Dow AgroSciences

seedling unfurls new leaves leaves that are genetically engineered to resist damaging pests. A team of scientists invents a compound designed to prevent insect damage in landscapes while minimizing risk to the delicate natural balance of the environment. These discoveries are made in the laboratory.

Thousands of miles away, at an East Coast research site, another scientist converses with a landscape professional. They're talking "residual," "callbacks" and "split apps." These discoveries are made in the field

The success of Dow AgroSciences depends on the many interactions between these two forms of discovery one "high tech" in the laboratory, the other "high touch" with communication and feedback in the field.

Innovations you ask for

For example, landscape professionals have long requested a new kind of pest control that combines superior efficacy with the benefits of biological controls. That was the impetus for Dow AgroSciences' recent introduction of Conserve* SC turf and ornamental insect control. As always, research that began in a test tube was taken to the

field - quite literally - as you told us what did and didn't work. In the end, we are as reliant on you as we are on the advancement of science. It is through you, the professional, that we discover new and better ways to improve our landscapes and serve your customers. Through the dual discovery of "high tech" and "high touch," we continue our commitment to commercialize one significant

new product in a major global market each

Broader perspective

Our recent consolidation and name change further reflect this commitment to broad-scale discovery. On January 1 of this year, DowElanco officially changed its name to Dow AgroSciences, reflecting its new status as a wholly owned subsidiary of The Dow

Chemical Company. This followed Dow's acquisition of Eli Lilly and Company's portion of what was once a joint

Our name, Dow AgroSciences aptly sums up our strategic commitment to agricultural industries - from turf and ornamental, to crop production and urban pest control. At the same time, the acquisition strengthens our ability to fund new scientific discovery through our traditional pest control products and to bring you, the customer, the technologies needed to stay competitive in a changing market.

Also critical to this initiative is our

majority ownership of the biotechnology venture Mycogen, which researches, develops and markets genetically enhanced, insect-resistant crops. This collaboration will teach us even more about the science of agriculture.

'In Touch' through technology

In the end, it is clearly our ability to communicate that sets us apart. To spread the word about new discoveries,

> to be sure; but, more importantly, to listen to the real experts — the people who make their living with turf, trees and ornamentals.

> Our new Web site now harnesses the power of the Internet so that we can continue the journey of discovery together. Not only does it serve as a quick, efficient tool for targeted information on products and usage tips, it also make our world a

little smaller by enabling every customer to communicate through cyberspace. And it can help to link you with more than 25 sales and technical support representatives dedicated to the industry.

As we approach the year 2000, we at Dow AgroSciences are confident that this marriage of "high tech" and "high touch" will help us to discover even more ways to put our innovations at your fingertips. Who knows what's ahead? We'll find out together.

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Bruce Miehle: customer response an important part of new product development

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Dr. Terrance P. Riordan Turfgrass Plant Breeder University of Nebraska

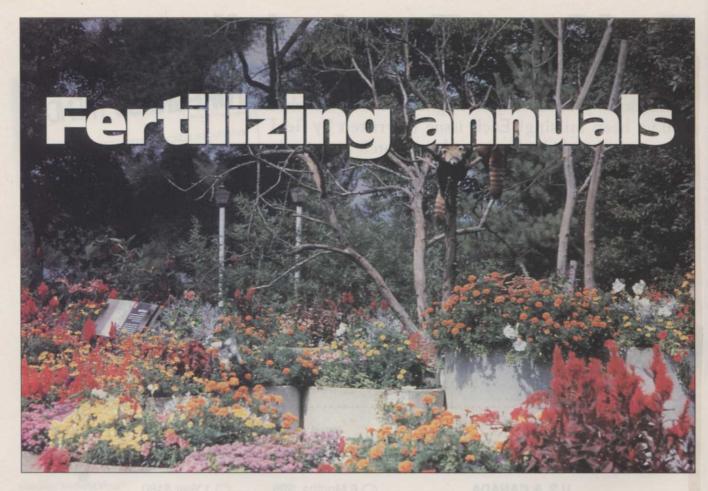


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Keep your annuals in blooming health with sun, water and fertilizer.

By NANCY STAIRS/ technical editor

nnuals are a staple of the urban landscape. Their lives, however brief, are very productive. They bloom from the time they are mature until frost. In areas of no or mild winters (zones 8 to 24) some annuals will continue to bloom throughout the winter.

The key to a productive annual planting is to keep the plants growing steadily with water and fertilizer, and removing dead blooms

Most annuals prefer full sun and welldrained soil, although there are some annuals which actually do better in relatively infertile soil, such as cosmos, gazania, nasturtium, portulaca and poppies.

When planting annuals, it is a common practice to mix fertilizer into the soil prior to planting. Incorporating fertilizer into the soil before installation helps the plants become established and produce flowers. At establishment, a complete fertilizer with a lower percentage of nitrogen and potassium and higher percentage of phosphorus can be mixed into the top two inches of soil. This initial application will generally provide sufficient nutrients for the first half of the growing season. However, a midseason application of fertilizer will not only benefit the plants but will also extend the flowering period, with the annuals continuing to grow and bloom through the remainder of the season.

Soil that has been enriched with a good composting mixture will not generally need additional fertilizer throughout the growing season as the release of nutrients will be slower. However the compost may not provide the initial boost to the plants at the time of planting and the addition of a fertilizer product may be appropriate.

Post-planting feeding

If you don't incorporate a granular fertilizer into the soil before planting, give the plants an application of a complete fertilizer about two weeks after planting. A second application can be done about six weeks later and in warmer zones a third application may be appropriate another 6-8 weeks later.

When applying fertilizer the plants should not be limp and the soil should not be dry. Water thoroughly the day before and again after fertilizing.

Using a liquid fertilizer throughout the season is another option. This method of application is more expensive and must be applied more often, due to the fact that liquid applications are leached through the soil more quickly than dry applications. Follow the manufacturers directions, applying as often as every seven days to four weeks. Like granular fertilizers the proportion of phosphorus should be higher than the nitrogen and potassium.

Slow release fertilizers such as plastic-

sulfur-coated urea and others have potential for fertilizing annual beds. These materials are useful where you will not or cannot fertilize after planting. Generally, they last from 4 to 12 months in the soil. However, slow-release fertilizers are more expensive although they may reduce labor costs. Once these materials have been applied you have given up control of the

fertilization program and, thereby, plant growth rates. You can choose to apply an immediate-release fertilizer mid-way through the season to boost flowering but that would make the increased expense of slow release fertilizers unnecessary. Keep in



This beautiful border of annuals will retain its vibrant color and health for months provided it receives sufficient moisture and the proper nutrition at the proper times.

mind that coated fertilizers may release more quickly when they are applied to the surface rather than lightly incorporated into the soil. This may be due to cracking of the plastic coat caused by higher temperatures or fluctuating moisture levels and UV light.

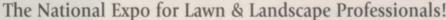
In general, most annuals don't require a lot of fertilizer and a couple of applications during the growing season are sufficient. Over-fertilizing will cause a buildup of soluble salts in the soil, especially if the soil is heavy, and can damage the plants. Thorough watering can help leach these salts away from the root zone to reduce future damage. When slow-release materials are used, exces-

sive salts cannot be leached out since additional water increases fertilizer release.

Don't forget that removing dead blooms and seed heads will also go a long way in prolonging flower production of your annuals. **LM**



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Methods to stop moving soil

Erosion steals the Green Industry's lifeblood, soil. Here are some materials to minimize erosion's damage.

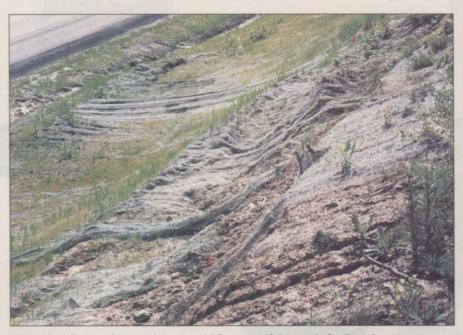
By NANCY STAIRS/ technical editor

are soils are vulnerable to soil erosion, particularly on steep slopes and long, uninterrupted slopes. Silty soils, fine sandy soils, soils low in organic matter and soils with an impermeable subsoil layer erode easily.

The loss of topsoil, organic matter and soil elements isn't the only effect of erosion. It makes slopes unstable, creates rills and gullies, and deposits soil in lakes, ponds and reservoirs. This limits the ability of vegetation to establish and worsens water quality.

Water can carry particles of soil in suspension. The faster the flow of water, the larger the particles that can be transported. The movement of water following the ice age provides extensive evidence of the power of water to transport and deposit large materials. In comparison, the meandering, twisting path of a river controls its erosive ability by slowing the speed of water flow, and reducing the size of particles that can be transported. The steeper the slope and the straighter the stream bed - the faster the flow of water and the greater the capacity for soil transport.

Even the simple action of raindrops has powerful erosive capabilities. An individual drop of rain may not seem serious but, when occurring in multiples, as precipitation tends to do, the effect can be devastating. Merely by dislodging a particle of soil,



Correct installation of materials is essential for successful control of soil erosion. Heavy spring rains devastated this newly planted roadside even though a fabric covered it.

the rate of erosion is sped up by releasing that particle for movement.

Slowing the movement of water is essential when dealing with site disturbance. Stripping a slope of plant materials or creating a slope composed of exposed soil, even temporarily, can be quite destructive.

There are many materials and methods available for slowing water movement, at least one of which is suitable for any slope maintenance situation.

Mulch resists erosion

Placing mulch materials helps mitigate erosion by reducing the direct impact of precipitation. Used in conjunction with seeding, mulch aids in establishment by conserving moisture and creating favorable conditions for seed germination when suitable application rates are used. Mulch materials include straw, hydromulch applications of wood cellulose fiber, or even wood chips, as well as

mulch matting.

Straw mulch provides good site protection and encourages plant growth. Straw is effective both in absorbing raindrop impact and in moderating the soil surface climate. Straw is inexpensive but must be anchored to keep it from blowing away. Fire hazard, weed growth and cleanup cost should also be considered.

Wood fiber, although not as effective as straw, is a weed-free, low-fire-hazard mulch and may require less labor to apply. Wood fiber will provide almost complete ground cover but does not have enough mass to absorb the energy of raindrops and flowing water. Wood fiber should be considered in situations where slopes are 2:1 or steeper; where vehicle access is limited to >50 feet (15 m); where weed growth or fire hazard may be a concern; or where mulch must be applied on a windy day.

Mulch can be lost from wind or runoff and should be anchored where slope or wind action may affect its usefulness. For straw, mechanical crimping or a tackifier such as asphalt emulsion or wood cellulose fiber are necessary. (A tackifier sets to form a protective skin which bonds to the earth yet allows penetration of moisture and subsequent growth of seed.) The use of mulch netting must also be considered to keep mulch in place on steeper slopes or where concentrated water flows occur.

Matting another option

Mat materials such as excelsior or jute, matting are used to stabilize easily eroded areas, while vegetation is being established. Consider matting for small sites in urban areas, steep slopes, highly erosive soils or where difficulties with vegetation establishment are possible. Matting isn't generally used alone but in conjunction with seeding.

Dense mats hold soil in place, absorb water and hold it near the soil surface. Less dense mats, such as chicken wire or plastic mesh, will hold applied mulch materials but will not provide any soil protection themselves. Mats must be installed with complete contact with the soil, otherwise

erosion can occur below. A layer of straw underneath a fabric increases effectiveness.

Two common matting products are Erosion Control Blankets (ECBs) and Turf Reinforcement Matting (TRM). ECBs are generally made up of natural fiber materials such as coconut fiber, excelsior or wood products, or jute yarn, and they are usually biodegradable. These products hold seeds and soil in place until vegetation is established. They also protect the soil surface from water and wind ero-

sion and offer shade and heat storage, thus creating ideal conditions for seed germination. ECBs are commonly used on steep slopes, low flow channels and as a flexible bioengineering textile.

Turf reinforcement mats

Turf reinforcement mats are similar to ECBs, but also capture soil, to fortify or building up existing earth. TRMs are usually made from synthetic polymers or other durable manmade materials. They're used in stormwater channels, dams and dikes,



Inexpensive straw mulch is often used with netting to increase the success of erosion control on some projects.

banks and shorelines, retention and detention basins and on steep slopes or swales. Although matting can be expensive, it is available in many different grades.

Hydroseeding valuable tool

In hydroseeding a slurry of water, mulch, seed, fertilizer and tackifier are applied together. Additional erosion control materials may also be included in the mix. The speed of application, particularly for large and or steep areas, can be an effective method to reduce soil erosion except in areas of point source discharge or concentrated water flow. In these situations, additional steps, such as the application of straw or the placement of mats, to further stabilize the slope and retain seed, may be appropriate.

Vertical mulching

In dry climates, hydromulching, or tackified or crimped straw may not be as effective as they are in areas with more seasonal moisture. In some cases, where moisture or irrigation is limited, vertical mulching may be a suitable technique. The placement of upright straw, sticks or brush upright in the soil will slow water movement, provide channels for water penetration, trap seeds and dust, shade and cover seedlings, and provide organic matter to the soil. Broom corn, straw, brush and reeds are suitable materials. **LM**



Straw wattles can be used on steep slopes with low visual requirements to slow water movement. Soil particles are deposited, allowing vegetation to become established and stabilize the slope.



Take action on local issues

A local issue has arisen that threatens your business or industry. The issue is primarily driven by emotion, not fact, and is gaining media attention. You have been asked to get involved. Here's what you do.

By PARRY KLASSEN

hen a contentious issue arises in a community or region, make personal contact with every potential ally familiar with the issue. Or-

ganize a meeting or conference call with all interested parties. This meeting should include persons or companies directly impacted by the issue, as well as those who could be impacted in the future. Benefits of a face-to-face meeting as opposed to a conference call:

provides the opportunity to learn

where everyone stands on the issue;

▶ facilitates development of an action plan and gives moral support to those impacted by the issue. Other like-minded people find they are not alone in fighting an issue and that action is being taken.

Gather local articles written about the issue and related issues from other areas to distribute at the meeting. Gather published industry information to provide facts and background for letters, speeches and other correspondence.

Develop a plan

Begin developing a plan of action. This should contain several key points:

- ▶ Define your objective. An objective should briefly explain what the group aims to accomplish from a big-picture perspective. It should be a simple sentence or two that does not include specific tactics.
- Outline key audiences. Identify primary and secondary audiences to target for the most impact.
- Name allied organizations (current and potential), individuals, companies, institutions and government agencies that can provide support, ideas and make other contributions to the group's objective.
- ▶ Identify issue leaders. To the extent possible, identify one or two individuals (especially if you are not local) who will serve as local issue team leaders. These individuals will coordinate activities and organize meetings.

Self-made obstacles: how industry defeats itself

Don't let this happen to you:

The 'Toxic Legacy' series in the Fontana

Daily Bulletin blamed pesticides, air pollu-

tion and toxic dumps for death and illness.

1) Lack of willingness to be "out front" Some people prefer not to lend their names or companies to an issue for fear of attracting negative publicity. There is always this possibility, but the result of doing nothing can be more damaging in the long run.

- 2) No support from would-be allies Often, it seem that obvious allies will not participate in coalition activities. Efforts must be made to overcome reluctance.
- 3) Lack of momentum over time The issue may "drag" over time, making it difficult to maintain high action interest by coalition members. Regular updates to the coalition will keep your members alert to the issue.

-PK