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The grass along the fence in the photo at left was killed with a fast-acting systemic post-emergent herbicide. Obviously, no professional groundskeeper could abide this ugly mess, so the dead vegetation has to be removed with expensive hand labor. The systemic product is recommended for lawn renovation so, naturally, vegetation will

grow back as new seeds germinate, resulting in an endless cycle of retreatment, ugly dead vegetation and more hand labor. Clean up a fence line with Dyclomec and vegetation will never again be a problem, because an annual preemergent application of Dyclomec will form a vapor barrier and keep the area absolutely clean.

Dyclomec turns Problem Areas into Beauty Spots

... and the vapor barrier eliminates repeated investment of hand labor to clean out dead vegetation.

Dyclomec is surely the most efficient herbicide that has ever been offered to professional landscapers. In fact, it is called the *landscaping herbicide*.

Now, at last, the groundskeeper can easily and economically achieve that manicured look, which consists of contrast. Of sharply defined areas where immaculate turf is contrasted with areas of beautiful, naked earth. Where ornamentals grow in an area of beds that are free of any distracting growth.

Until the advent of Dyclomec, such pristine landscaping could only be achieved with repeated investments of hand labor to clean out dead vegetation resulting from an endless cycle of regrowth and retreatment with a systemic herbicide.

But once an area has been cleaned up with Dyclomec, hand labor to remove dead vegetation will never again be necessary because an annual application of Dyclomec will keep the area absolutely clean. How is this possible?

On the page at the right are step-by-step illustrations of how Dyclomec works. Understanding its principle will help you discover the many laborsaving, money-saving ways it can help you in landscape maintenance.

We urge you to read it carefully and call us toll free if you have any questions.



Dyclomec Applicator for Uniform Distribution

Because proper distribution of Dyclomec is important, this patented Acme Spred-Rite® G Spreader is the ideal tool. Granules are gravity-fed through deflector spikes that give a uniform pattern. Hold the head high for a wide swath; lower for a narrow swath; remove it for the finest line of control. Regulate flow with interchangeable orifice disks. Spreads any granular material. Lightweight. No moving parts.





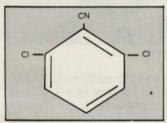




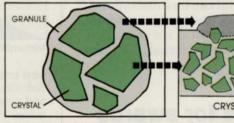
Dyclomec with its pre-emergent and postemergent action is ideal for vegetation control in mulch, or bark around roses and ornamentals, or in flagstone and

gravel walkways. It works its way down to the ground and forms a vapor barrier which provides season-long weed control and maximum safety to desirable plants.

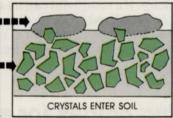
How Dyclomec controls weeds without harming ornamentals:



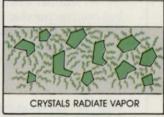
Dyclomec is a 2.6-dichlorobenzonitrile, commonly known as Dichlobenil. This unique herbicide goes directly to a vapor stage without going through a liquid stage. It is activated by temperature and soil moisture.



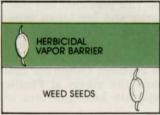
 This remarkable herbicidal compound of razor-thin crystals is uniquely processed by PBI/Gordon to make a precise granule.



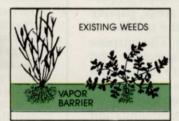
3. Granules are spread on soil surface. Moisture carries the Dyclomec crystals into the upper layer of soil. Because of adsorption by soil particles, lateral movement is minimal.



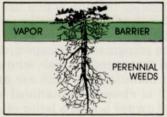
 Temperature and soil moisture activate the Dyclomec crystals and they begin to radiate a herbicidal barrier. This continues for an entire growing season, and the spent crystals disappear, leaving no residue.



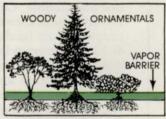
 In this vapor barrier no plant cell division can occur. Seeds trying to germinate in the barrier will die. Sprouts below this zone will be killed as they try to penetrate the barrier.



 Existing vegetation such as shallowrooted grasses and annual weeds having root structures in this barrier will likewise be affected and die after two to three weeks.



 Certain perennial weeds coming out of dormancy and attempting new growth within the Dyclomec barrier will run into the same dead end: they will be killed by the vapor.



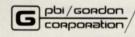
Dyclomec, when used as directed, does not affect woody ornamentals, shrubs and trees that have deep roots extending well below the herbicidal



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Dyclomec 50-lb. bag not available in Washington, Oregon, Idaho; Neither size is available in California.

Call Gordon's Technical Service Department

If you have any questions about where and how to use Dyclomec, we invite you to call us. Our technical people have a combined experience of 95 years in working with the Dyclomec chemical.

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BARRIERTM LANDSCAPING HERBICIDE

ANDSCAPE

CLCA forms review committees

A series of blue ribbon Professional Review Committees are being set up in the 19 chapters of the California Landscape Contractors Association to assist the Contractors State License

Efraim Donitz, president of the CLCA, said the Professional Review Committees will provide qualified expertise to the CSLB during hearings on complaints filed against contractors

by home owners.

"We feel it is our responsibility to provide the expert knowledge and experience necessary to arbitrate fairly a complaint by a home owner against a contractor," Donitz said. "We feel it is our responsibility to provide the expert knowledge and experience necessary to arbitrate fairly a complaint by a home owner against a contractor. If a complaint can be substantiated, the contractor should be penalized since he does not represent the industry well. Likewise, if the complaint is not sound, the contractor should be freed of any unnecessary financial burden or harm to his reputation."

NLA accepting entries for awards

The National Landscape Association is currently accepting entries for the National Residential Landscape Awards Program, now in its 14th year. All single family residential properties are eligible. Categories include active use areas, passive use areas, entrance areas (public areas) or the entire residential property. Any landscape professional may enter. The purpose of NLA's program is to recognize landscape professionals who create the design, and those professionals who are responsible for its execution and maintenance; both are awarded certificates when a project is chosen for national recognition. In addition, the property owner is sent a letter of commendation from the president of the NLA.

Entries will be judged on the basis of excellence, as well as practicality of design, selection of plants and materials, execution of the design and maintenance of the project. Scope of the project will be considered only in determining the category of

Projects chosen for national recognition will be announced Feb. 6 at the NLA/GCA Landscape/Garden Center Manage-

ment Clinic in Louisville, KY.

For an entry form, contact the National Landscape Association, 1250 I Street NW, Suite 500, Washington, D.C. There is a fee and other requirements to enter. Deadline for entries is Nov. 1, 1983.

1984 Galt House in Louisville

The 1984 National Landscape Association and Garden Centers of America Management Clinic will be Feb. 5-8 at Galt House, Louisville, KY. Interested persons should contact NLA at its new address.

the firm's original name was based on the fact "that no other name describes our company as well -- it says who and where we are and what we are in business to do."

The company has also completed its corporate acquisition of the Northern California sod production interests of John Nunes, who will continue his relationship with the company as contract sod grower in Tehachapi, CA.

Pacific Sod's management team



Richard Rogers

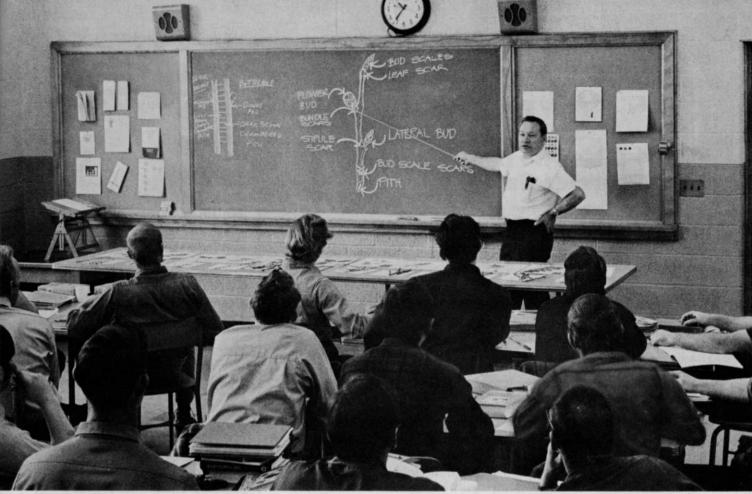
now consists of, in addition to Rogers, Bob Goodrich, senior vice president and general manager, Roger Ogilvie, senior vice president and chief financial officer, Jack Gribben, vice president in charge of advertising, Bill Tavener, vice president and general manager of wholesale sales, John Culbertson, vice president and marketing director and Ben Lucas, assistant vice president and general manager for northern California. Lucas and Tavener are located at the company's northern California base in Patterson, the others at Pacific Sod's corporate headquarters in Camarillo.

EVENTS

Bring your slides to Sports Turf Show

The Sports Turf Managers Association will co-sponsor its third educational conference with the National Institute on Park and Grounds Management Nov. 6-10 at the Hyatt Hotel in Birmingham, AL. Turf managers for the Cleveland, Green Bay, WI, and Milwaukee professional sports stadiums will discuss their management systems. Topics to be covered include getting wet fields in shape fast, new low maintenance turfgrasses and field renovation in the Mid-Atlantic states. "Bring your slides and pictures along to share as others can benefit from what you do,"

continued on page 16



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GOVERNMENT

UPDATE

2,4-D May Be Bargaining Point in Pesticide Battle

The workhorse of selective weed control for years, 2,4-D, appears to be a bargaining point in the battle to defend pesticide use in urban areas.

Jerry Faulring, president of Hydro-Lawn in Gaithersburg, MD, and former president of the Professional Lawn Care Association of America(PLCAA), recently predicted 2,4-D could be outlawed at certain levels of government before the end of this year. Faulring based his opinion on a flurry of pesticide legislation at the state and local level during the past 18 months.

The PLCAA, the National Arborist Association, and the 2,4-D Coalition have formed a pro-pesticide coalition called the National Environmental Law Foundation. The group will counter moves by environmental organizations seeking new legislation to ban important chemical tools and require impractical prenotification of owners of property adjacent to sprayed areas. Faulring is on the board of the new coalition.

Faulring suggested in a recent article in Lawn Care Industry magazine 2,4-D use be eliminated if possible since further defense of the pesticide would be difficult considering current local legislation developing against the product. "We could probably muddle through this year and next without 2,4-D by passing the buck for less weed control onto the government, as we did when chlordane was suspended for turfgrass use," Faulring said. "If we find the solution first(to 2,4-D), we could use our self regulatory advantage as a promotional advantage."

Another possible sign 2,4-D's position has changed is the recent sale of many of Dow Chemical's 2,4-D trademarks to Vertac, a privately held, Memphis-based chemical manufacturer. Chemical Week, a McGraw-Hill publication, speculated the sale of the trademarks was a move by Dow toward products with patent protection. Monsanto and Du Pont have stopped producing 2,4-D leaving SDS Biotech, Vertac and Dow as the only manufacturers in the U.S.

Dow Chemical's business manager for domestic agricultural herbicides, A. Charles Fischer, said the company will not reduce its capacity to produce 2,4-D, but will not take the product all the way to distributors. Velsicol and other chemical companies have chosen to sell some technical herbicides to reformulators rather than market to distributors. Therefore, Dow's move could be simply part of a trend of marketing to reformulators rather than to the distributor.

The point is 2,4-D is being used by environmentalists against urban pesticide applicators and Faulring believes the industry can relieve this political pressure by developing an alternative to 2,4-D before legislation requires it.

Some progress has been made in finding an alternative to 2,4-D in agriculture but that has not been true so far in the turf industry. Faulring stresses that 2,4-D is a vital component of turf herbicides and is not an evil toxin as the public has been led to believe. Yet, as agriculture has done, it is wise for the turf industry to also seek substitutes for 2,4-D in case politics win over the facts.

said Mike Schiller of STMA. For more information, contact Executive Secretary Erik Madisen, Jr. at (414) 733-2301.

EQUIPMENT

New Toro brands on National Tour

Toro's "Greatest Show on Turf" tour will visit 40 cities this fall to showcase the Minnesota manufacturer's new products, including the Hydraulic 5-unit Reelmaster 350-D, 5-and 7-blade Reelmaster Gang Mowers and the 36-and 52-inch Walk Behind Mowers.

'The Road Show allows us to show



customers our products in action, but more importantly it gives our customers a chance to meet with their peers and and us to discuss their turf care needs," said Dennis Brown, marketing programs manager. The tour, which began in August, is expected to end in December.

LANDSCAPE

Ohio Short Courses begin in December

The 1983-84 series of the Landscape Design Short Courses for Residential Properties, sponsored by the Cooperative Extension Service of the Ohio State University, will begin Dec. 12. The series of five, three-day programs will continue until Aug. 1, 1984.

Course offerings are as follows: Course I - Landscape Design, Dec. 12-14; Course II - Advanced Landscape Design, Jan. 11-13; Course III -Design Detailing. Prerequisite is Course II; Course IV - Landscape Drawing Rendering, March 21-23; Course V - Planting Design, Prerequisite is Course II, Aug 1-3.

All courses are \$95. For registration information, contact Fred K. Buscher, Area Extension Center, OARDC, Wooster, OH 44691, (216) 263-3831.

Circle the Reader Service numbers of those items of interest to you.

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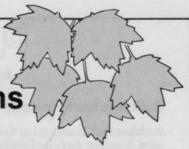
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By Douglas Chapman, horticulturist, Dow Gardens, Midland, Michigan

When leaves fall, work remains



NOVEMBER JOB FOCUS

- 1. Deciduous Tree and Shrub Planting
- 2. Mulching and Winter Protection
- 3. Fall Turf Fertilization
- 4. Dormant Lawn Seeding

November's maintenance log includes projects that assure next year's landscape. The tasks that highlight November are deciduous tree and shrub planting, mulching and winter protection, fall turf fertilization, and dormant lawn seeding.

Moving deciduous plants

After deciduous trees and shrubs have lost their leaves, one can easily transplant them with a high degree of success. The plant's size should really dictate whether to transplant balled and burlapped or bare root. Considering a commerical landscape, most trees and shrubs should be transplanted B and B. Why? Although the plants are dormant, there are still needs for water and a full knowledge that winter conditions are a severe stress on trees and shrubs. When transplanting B and B, not only is the chance of frost heaving reduced, but also the root system is kept moist and, therefore, ready to initiate growth in the spring. After heavily watering the new transplant, one should also mulch heavily. This heavy mulch over the root system helps reduce the effects of winter; reduces water loss and modifies temperature extremes.

Winter protection

Generally, winter protection is designed to reduce or modify the harsh conditions of winter. For evergreens that means shading from winter sun and/or wind, thereby, reducing sun scald or transpiration damage, e.g. southwest injury. This windbreak, or shading, can be nothing more than snow fencing, burlap, or, after Christmas, used Christmas trees—anything that will slow down the wind and, thereby, reduce transpiration loss to the foliage. One must remember, the root system is still frozen. Further, those bright, clear sunny days of winter can often result in sun scald and/or frost cracking. Therefore, shading protection against these is extremely important.

Mulch is the landscape's blanket or insulation. It reduces temperature fluctuation and, therefore, holds the soil frozen later in the spring while reducing temperature fluctuation during winter, thus fewer "false starts" during early spring. Further, it keeps the plants from being heaved out of the soil. The mulch to be applied can be compost, straw, wood chips, or any organic matter that modifies climatic extremes. Further, it is better to use something that can be left on the beds or worked in, becoming part of the soil- organic matter. This practice modifies winter temperatures, conserves moisture and helps reduce weed competition.

Late fall feeding

Late fall turf fertilization in the northeast is becoming a more current practice. This practice gives one the opportunity to apply fertilizer during a slower maintenance period rather than the busy spring. Further, it places the fertilizer in a position to be utilized early in the spring. Results at Ohio and Michigan State universities have shown that on heavy soils, fall fertilizer can be extremely effective while encouraging early spring green-up. When considering a sandy or well-drained soil, early spring fertilization, after the frost is out of the soil but before growth starts, is still best. One should be alerted that late fall fertilizer should be applied to the soil before it freezes. If here is frost in the soil, the fertilizer will simply leach away and not be effective but when applied prior to the soil freezing, the fertilizer will literally freeze in the root zone and be ready for spring.

Dormant seeding

Dormant lawn seeding can be an effective way of having a quality lawn for early spring. The lawn is prepared in the standard method — rototill the soil, work in the fertilizer, but not seeded in the fall until after dormancy has set in usually Nov. 1 to 15. Further, the newly seeded areas should be mulched to reduce chance of erosion and/or desiccation of seed. The advantages of dormancy-seeding include early spring germination of seed and, therefore, establishment of lawn — even earlier than one could seed during the spring months. Further, the grass becomes established before the weeds start. It spreads the installation of that lawn into a period of the year when horticultural tasks are less demanding.

November's landscape log should include preparation for the next growing season. This preparation is highlighted by deciduous tree and shrub transplanting, winter protection, fall fertilization and dormant lawn seeding. November becomes an important landscape maintenance month. One can dictate the quality of next season's landscape at a period when the press of current landscape maintenance is reduced.

By Balakrishna Rao, Ph.D., and Thomas P. Mog, Ph.D.

Builders leave weeds

Problem:Our landscaping firm establishes lawns in new housing developments. Often, the builders leave the property in the back undisturbed about 20 to 25 feet from the house foundations. In these areas we find lots of annual and perennial weeds. Even though we follow standard lawn establishment procedures, we still find a lot of perennial, grassy weeds later. The clients think the weeds are in our seed mix. Can we use Roundup or fumigation to kill the weeds prior to establishment?(Ohio)

Solution:Perennial grassy weeds in lawns present serious turf quality problems. Prior to tilling, grading and seed bed preparation, the first step in soil preparation should be to control persistent weeds. This requires use of nonselective herbicides or soil fumigation.

Use of nonselective herbicides such as amitrole, dalapon, or glyphosate should make the existing vegetation easier to manage. However, these chemicals will not have any effect on viable seeds in the soil which may cause problems later. In your situation, soil fumigation is preferred so that all the viable weed seeds in the seed bed are killed.

Application of herbicides or fumigants will add to your job cost. You should explain the weed situation to your customer and tell them how weed control now will save them time and money later.

If the customer selects fumigation, you have two choices, methyl bromide or metham (Vapam). Only certified pesticide applicators can apply methyl bromide, a gas.

Topdressing selection

Problem: Every year we have used either Dacthal or Betasan in the spring for preemergent control of crabgrass in lawns. Still we get a number of calls from clients in the summer about crabgrass problems. What are we doing wrong? We are thinking of using post-emergent materials like DSMA or MSMA. (North Carolina)

Solution: The best approach to crabgrass management in established turf areas is the use of preemergent herbicides like the ones you mention. If you are getting too many calls about crabgrass in the summer, it is important to make an on-site evaluation of the problem to understand why crabgrass is present in the specific areas.

Several factors could contribute to the crabgrass problem. Preemergents herbicides provide a thin chemical barrier which is toxic to germinating crabgrass seddlings. Variable results will occur when this barrier is disturbed by raking, traffic, insect activity, heat, and/or photodegradation of the active ingredient. Check your application timing and consider a second application at half rate.

Success in managing crabgrass with post-emergent materials, like DSMA or MSMA, dependss upon proper timing of the application. For best results, the

mateiral should be applied to juvenile seedlings(two-leaf stage). Depedning on the number of seeds carried over from the previous year, the best you can expect is only 60 to 65 percent control. Quite often the problem is recognized only when the crabgrass is mature. Variable results have been observed when DSMA or MSMA were applied to mature stands.

Crabgrass after spraying

Problem: Please give some of the benefits of topdressing and the things we should consider when selecting topdressing materials.(Pennsylvania)

Solution: Topdressing is being used widely in the management of quality, golf course putting greens. If properly managed, there are several benefits of topdressing, including thatch control, leveling and smoothing of the soil surface, improvement of soil properties, and winter turf protection.

The topdressing mix should be compatible with the existing soil for the best results. For example, the addition of sand on turf growing on silt loam soil may cause layering and problems in water movement and retention. These will lead to restricted root develop-

Since all sands are not the same, as far as water movement and retention, it is important to use only sand which will allow percolation of 4 to 10 inches of water per hour. The United States Golf Association recommends sand sizes from 1.0 to 0.1 mm for topdressing.

Peats also show different properties. If feasible, use excellent, laboratory-tested, commercial mixtures. If you are making your own mixtures, have the sands, peats, and soil tested by a recognized laboratory for percolation rates.





Balakrishna Rao is plant pathologist and Thomas Mog is pest management specialist for Davey Tree Expert Co., Kent, OH.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.