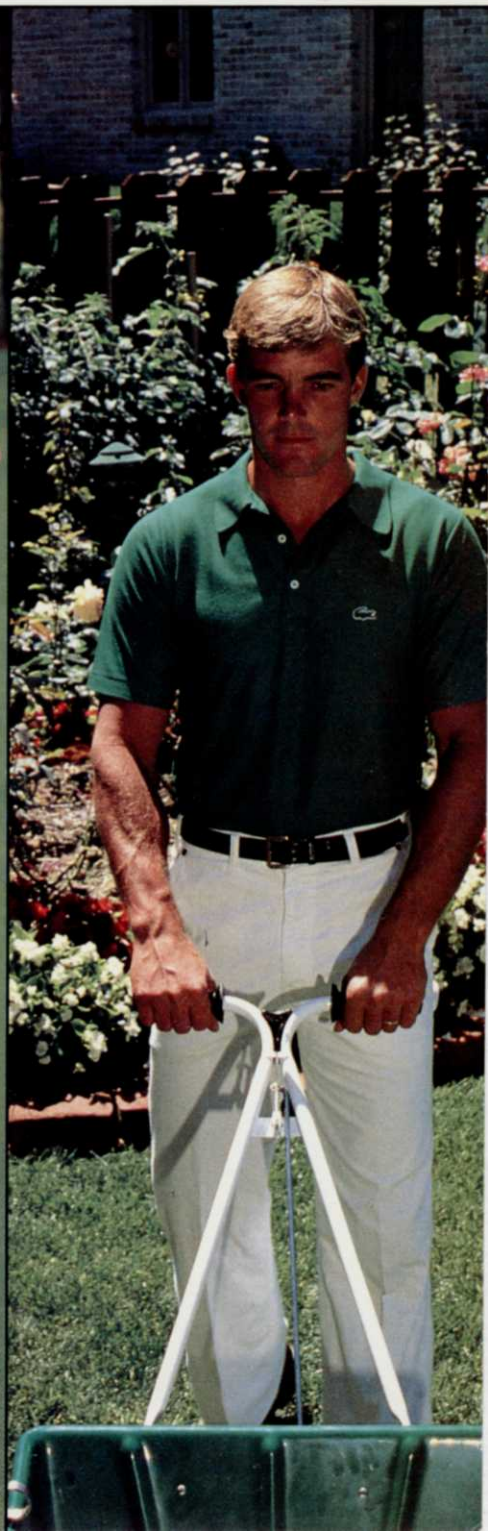
A GUIDE TO LANDSCAPE MANAGEMENT



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The science of landscape management today is more of planning ahead than reacting to problems. Products that prevent weed problems with predictable control have replaced emergencies. When curative products are required, the problem is often less serious when preventative measures were originally taken than if they were not. Advances in preventative products, such as preemergence herbicides, have improved the predictability of results landscape managers depend on. These advances include longer length of control, control of a wider range of target pests or weeds, and products designed to fit the needs of various regions of the country depending on climactic conditions.

Preemergence herbicides and combinations of preemergence herbicides with fertilizers and other compounds provide labor savings and more precise control, allowing landscape managers to more fully utilize their time and resource allocations.

With this new technology, the landscape manager must establish new standards by which to compare products. Cost per package is no longer a sufficient comparison. Lower rates per acre, longer length of control, broader spectrum of control, and greater effectiveness and residual must be figured into the equation.

New compounds are more effective in smaller quantities, reflecting a concern for the environment and resulting in significant savings to the landscape manager in storage, shipping and application. These compounds provide the landscape manager and golf course superintendent with products that fit their management needs. They are also more controllable and dependable, and help satisfy the public's concerns regarding the environment. These are the products of the future.

Jerry Roche
Editor

Weed prevention in cool-season grasses

Each year, unwanted grass and broadleaf weeds are a multimillion dollar problem. They rob beauty from lawns, golf courses and landscaped areas; steal water, nutrients and profits; and squander millions of dollars in labor as workers try to remove them.

But in weed control, an ounce of prevention truly is worth a pound of cure. That's why more and more professionals are using preemergence herbicide programs to control weed problems before they get started.

Turf management practices differ according to the turfgrass manager's needs. Length and spectrum of control are two of the most important variables turfgrass managers must decide upon when choosing a preemergence herbicide. For the turf manager who wants control of specific problem weeds such as crabgrass in the spring, or poa annua in the fall, the full season preemergence herbicide may not be necessary. Control of the target species is the concern. A herbicide that offers this control with a predictable length of residual control in the soil would be the best value to him and less costly than the full season control products. The predictable length of control also allows him to control the target weeds and still utilize cultural practices such as

'If you time it right, it'll work fine. Timing is the key.'

—Joe Norris
Jamestown, N.Y.

Moila Country Club, St. Joseph, Mo.

reseeding or overseeding without concerns for germination of the desirable grass seeds.

The eight- to ten-week control with a single application of *Balan*® offers excellent crabgrass and poa annua control with maximum overseeding safety. This predictable length of control offers the turf manager flexibility to utilize the cultural practices he needs to maintain the best growing environment.

Balan is available in a granular formulation from Elanco or sprayable formulations and fertilizer combinations from formulators. "I use *Balan* on all our tees, and we have 27 of them with 18 more opening soon," says Ed Benoit of Shadow Lake Country Club, Penfield, N.Y. "We're getting good results. I keep using the Elanco products, so they've got to be working. We have by far the most beautiful public course around, and Elanco products are helping to keep us beautiful."

On the other hand, some turf managers need a longer length of control. Golf course superintendents desiring crabgrass and goosegrass control, and lawn care operators who apply preemergence herbicides early in the season on their first rounds need a product with a longer residual. Cool season turf managers now have a product that fits this need in a new product from Elanco, called *Team*™. *Team* offers a longer residual with effective crabgrass and goosegrass control at an affordable price.

"I just started using *Team* this year, and it looks like it's doing a pretty good job," says Joe Norris of Jamestown Park Golf Course, Jamestown, N.Y. "If you time it right, it'll work fine. Timing is the key."

Team is now available on an easy-to-spread clay particle from Elanco. *Team* sprayable and *Team* in combination with granular fertilizers will be available in early 1986 through selected formulators.

Liquid-applied weed control on home lawns

Weed prevention in warm-season grasses

For years, southern turf managers have had to take products developed for northern turf and adapt them to their situation. Today, a number of products have been introduced specifically for warm-season turf maintenance.

The southern turf season is considerably longer than its northern counterpart. Management programs for both warm-season turf and winter overseeded turf are necessary. Preemergence herbicides, such as *Balan*, have long played an important role in both programs.

Southern turf managers typical apply preemergence herbicides in February or early March for crabgrass, barnyardgrass, and foxtail control. In June, they re-apply for goosegrass control. Finally, annual bluegrass is a threat from October through December.

In addition to length of control, preemergence herbicides vary in their effectiveness on target weeds. *Balan* has shown consistent effectiveness against crabgrass and poa annua.

'My fairways and tees are just as clean as can be.'

—Harold Neal
Tulsa, Okla.

"This is the fifth year we've used two applications of *Balan* a year," notes Harold Neal of Tulsa Country Club, Tulsa, Okla. "My fairways and tees are just as clean as can be. We don't use any postemergence products at all, we've had such good success with *Balan*. And, we've also been using *XL*™ on problem goosegrass areas and get great control."

To meet the need for highly effective crabgrass and goosegrass control with one application, Elanco recently introduced *XL*. *XL* offers a longer residual and allows turf managers to control crabgrass and goosegrass with only one application timed preemerge in the early spring.

Neal reports "great control" of problem goosegrass areas using *XL*, as does Bill Bird of The Greens Country Club, Oklahoma City, Okla.

"We have no weeds whatsoever," Bird says. "We used it last year under an experimental label, applying it around

Bay Hill Country Club, Orlando, Fla.

'We have no weeds whatsoever...we're clean so far.'

—Bill Bird
Oklahoma City, Okla.

April 1st. We had absolutely no poa annua in our fairways until almost the first of December. We were a little late this year—around April 10th—but we're clean so far."

As in the North, the lawn care industry in the South needs a preemergence product that fits their treatment cycles. The longer residual and improved goosegrass control of *XL* gives lawn care companies improved weed control for their customers. An *XL* application in February yields effective control of both spring and summer weeds.

If a sprayable formulation is preferrable to a granular application, lawn care companies can use *Surflan*® flowable formulation (for bermudagrass only). *Surflan* can be applied in the spring for crabgrass and goosegrass control or in the fall for poa annua control. *Surflan* is available in quarts and gallons from Elanco.

Sea World, Orlando, Fla.

Controlling turf diseases

Preventative maintenance is not only an issue when dealing with annual grass and weed control. The same concept holds true when dealing with turf disease control. Preventative measures for dealing with diseases of the turf allow the turf manager to control the turf pathogens before they reach the visible symptom state, when control measures become more costly, not to mention the fact that the damage is already evident, unsightly and detrimental to the health of the overall stand of turf.

But preventative characteristics are not the only important aspect when choosing a turf fungicide. Spectrum of control is also an important issue. Does the fungicide control the major turf pathogens such as dollarspot and brown patch? Furthermore, does the fungicide remain effective throughout the vulnerable period of the turfgrass?

These are the primary concerns of both golf course superintendents and lawn care companies. If a fungicide meets these qualifications, the turf manager should use it. One such fungicide meets these qualifications and also helps manage the populations of annual bluegrasses, a problem weed in both cool-season turf and winter overseeded turf in the south.

'I can apply Rubigan closer to my overseeding dates and not affect the seedlings.'

—Jim Ellison
Orlando, Fla.

Rubigan® 50W is a locally systemic fungicide offering effective control of dollarspot, Fusarium blight, stripe smut, pink and gray snow mold, and is active on large brown patch—activity that can be enhanced with a Daconil 2787 tank-mix. In four years of field use, users report excellent control of dollarspot. For only 10 to 14 cents per 1,000 square feet per day of control, *Rubigan* offers economical control of dollarspot, even resistant dollarspot. *Rubigan's* multi-sites of inhibition also help reduce the worry of pathogens developing resistance to *Rubigan* treatments.

An extra benefit of *Rubigan* to cool-season turfgrass managers is the gradual reduction of poa annua, reduction that

Crooked Stick Country Club, Indianapolis, Ind.

'On most greens, we've had 100 percent control.'

—Stan Wreyford
Mansfield, Tex.

can only be achieved with cumulative rates of two to three ounces per 1,000 square feet and proper management practices. With *Rubigan*, turf managers can maintain disease-free poa or gradually reduce it. It's their choice.

Rubigan is safe on all commonly-grown turf species when used at recommended rates. Furthermore, application rates are considerably less than conventional fungicides, requiring less storage and handling.

In southern turf species, *Rubigan* provides fungicidal control and season-long elimination of annual bluegrass. No deactivation of *Rubigan* with activated charcoal is required before overseeding as is the case with preemergence herbicides, offering considerably greater seed germination safety.

Stan Wreyford of Walnut Creek Country Club in Mansfield, Tex., has nothing but compliments for the makers of *Rubigan*. "It does one fine job," he says. "We went in with *Rubigan* last year for the first time. Our overseeded greens had at least 50 percent poa annua. We've had at least 95 percent control, and on most of the greens it's 100 percent.

"We've had a lot of positive comments, mostly on the greens' appearance. The golfers are also saying that they're putting better now, too. Even though that's mostly psychological, if that's what they believe, they're the ones that count."

Rubigan's activity on poa annua in northern cool-season turf is also being realized by golf course superintendents. Joe Norris of Jamestown Park Golf

Course, Jamestown, N.Y., agrees. "I've never been loaded with poa annua, but *Rubigan* has gotten rid of what I had," he says. "It seems to be working real well. I plan to keep on using it."

And Jimmy Ellison of Bay Hill Country Club, Orlando, Fla. has special uses for *Rubigan*.

"It works well with our program because we're a golf resort," Ellison says. "I can break up the rates—a little bit now, a little bit later—and still get effective control on my greens. I can also apply it closer to my overseeding dates and not affect the seedlings."

Martin Marietta plant, Orlando, Fla.

Weed and disease control for ornamentals

The one single most important responsibility of the landscape manager is preserving the intended impact of the landscape design. Each plant has its place and purpose. Rising labor costs have made hand work previously necessary for proper design preservation and weed control impractical. The choice becomes one of fewer plant beds or replacing labor with preemergence ornamental herbicides.

Labor-saving tricks used by nurserymen for years are now spreading into landscape maintenance. Season-long control of grassy and broadleaf weeds in more than 150 species of ornamentals is possible with *Surflan* and *Treflan*®.

Surflan is a sprayable formulation that is safe to apply over the top of ornamentals. *Treflan* is a granular formulation offering the most economical control of annual grass and broadleaf weeds in ornamentals. Considerable labor savings result from the use of these pre-emergence herbicides in ornamentals.

"I use *Surflan* and *Treflan* in our flower beds," notes Joe Volk of Alliance Country Club, Alliance, Ohio. "We have no weeds in our beds, so I know that they're working. Their efficiency has saved us a lot of time and money."

Weed control may preserve the landscape design, but disease control preserves the sensitive plants sometimes used in landscape architecture. One of the most devastating diseases of ornamentals is powdery mildew. Dust wettable powder fungicide formulations are an unsightly solution to powdery

'We have no weeds in our beds, so I know Surflan and Treflan are working.'

—Joe Volk
Alliance, Ohio

Commercial landscape in a warm-weather locale

mildew control in that the cure is almost worse than the disease.

Locally systemic fungicides, such as *Rubigan EC*, are rapidly absorbed and utilized by ornamentals to prevent and control powdery mildew. *Rubigan's* long residual activity eliminates the need for weekly fungicide applications common with many fungicides. Without damage to ornamentals and roses by powdery mildew, they remain as beautiful as they are popular.

Wyndham Hotel, Orlando, Fla.

New ways to keep your landscape picture perfect

Aquatic weeds are not only unsightly, costly and upsetting to nature's balance, they have been extremely difficult to control—until *Sonar*®* came along. *Sonar* is a completely new kind of aquatic weed control product. It's the first one that controls hydrilla and other problem weeds without affecting water quality or wildlife.

Unlike previously available products, *Sonar* carries no label restrictions against fishing, swimming, or drinking treated water, which allows this herbicide to be used without interrupting water use. It has no detrimental effects on fish, game birds, insects or other organisms such as plankton, and it is not harmful to nearby trees and shrubs that are not growing in the water.

In lakes and reservoirs across the United States, *Sonar* has demonstrated its effectiveness on a variety of aquatic weeds while, with proper application design, often leaving desirable populations of native plants. One application has lasted from one to two years, showing *Sonar* to be an economical method of long-lasting weed control.

In an extensive evaluation program under an experimental use permit, *Sonar* has reduced hydrilla despite an increasing infestation of this plant elsewhere. In Florida, *Sonar* has been proven in testing to be extremely effective on hydrilla. One treatment with this product removed hydrilla from areas which had been choked with this persistent weed for more than five years.

Before-and-after photos of what Sonar can do for lakes and ponds

Even with its wide spectrum, *Sonar* can be used selectively, removing unwanted exotic plant species while leaving desired populations of native species, depending on timing, rate of application, and other management factors.

Besides hydrilla, *Sonar* controls a wide range of submersed and emersed plants and shoreline grasses. This includes members of the families of watermilfoil, pondweed, duckweed, waterlily, paragrass and reed canary grass. *Sonar* does not control algae.

Sonar works by causing a bleaching or chlorosis at the terminal bud or growing points of the plants. With growth checked by *Sonar*, the target plants slowly deteriorate without any shock to the water environment.

Sonar is available in both liquid and pellet forms to fit any available application equipment. Because of its concentrated formulation, applicators report they can treat large areas quickly, covering 100 acres or more per day with an airboat, even more with aerial application.

*EPA registration of *Sonar* is pending. Check with your Elanco representative to determine when *Sonar* becomes registered for sale and use in the U.S.