continued

FXG Corp Raindrip Inc

Leaf Burners

Bock Industries Inc

Lighting Systems

Barebo Inc. Columbia Cascade Timber Co GTE Sylvania Intermatic Inc Lighting Prods Div McGraw-Edison Co Little Giant Pump Co Sub Tecumseh Prods Co Musco Sports-Lighting Inc Spring City Electric Mfg Co Westinghouse Electric Corp Lamp Div Wheel Spray Corp

Lightning Protection Systems

Independent Protection Co

Litter Receptacles

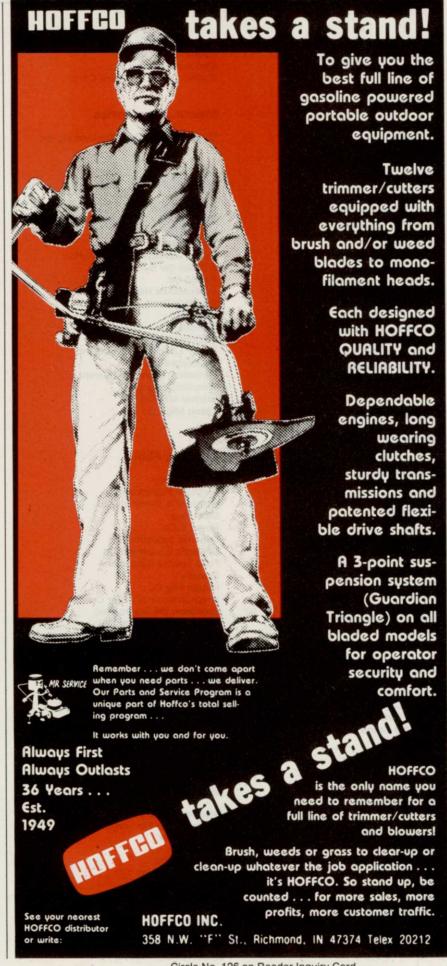
Architectural Precast Inc **BigToys** Clean City Squares Inc Columbia Cascade Timber Co **FXG Corp** Kay Park Rec Corp Landscape Structures Inc Lesco Inc. Miracle Recreation Equipment Co Standard Golf Co

Loaders

American Trencher Inc Atwater Strong Div Bingham Equipment Co Bush Hog JI Case J I Case Drott Div Caterpillar Tractor Co Charles Machine Works Inc Howard S Crane Inc. Deere & Co Dynamic Industries Inc **Engineering Products Co** Ford Tractor Operations International Harvester Co **Kubota Tractor Corp** Little Giant Products Inc Long Mfg NC Inc Massey-Ferguson Melroe Co Div Clark Equipment Prentek Corp Sperry New Holland Turf Vac Corp Wheel Horse Products Inc Yanmar Tractor (USA) Inc

Loading Ramps

Giant Vac Mfg Inc Magline Inc Melcher Mfg Co



continued

Salsco Welding & Fabrication Inc Worksaver Inc

Log Splitters

Bingham Equipment Co Bush Hog J I Case Comanche Steel Products Inc Deere & Co Didier Log Splitters Mfg Dynamic Industries Inc Ford Tractor Operations **FXG Corp** Giant Vac Mfg Inc Carl Heald Inc Karl Kuemmerling Inc Lindig Mfg Corp Morbark Industries Inc MTD Products Inc Poulan/Weed Eater Promark Products Inc. Robush Engineering Co Vermeer Mfg Co Wheel Horse Products Inc Winkler Hydraulics Yanmar Tractor (USA) Inc

Markers, Field

Laurie Carlson & Assoc Ltd Marco Div of Llo-Mar Mfg Co Minnesota Wanner Co National Industries Corp Pioneer Mfg Co Richway Industries Ltd Smithco Inc

Measuring Wheels

Gandy Co Lesco Inc **Professional Turf Equipment** Rolatape Corp Safety Test & Equipment Co Westheffer Co

Mist Blowers

B & G Equipment Co Broyhill Co Buffalo Turbine Agricultural Equip Co Howard S Crane Inc Echo Inc FMC Corp Friend Mfg Corp HMC/The Green Machine Karl Kuemmerling Inc Root-Lowell Corp Solo Inc Stihl Inc Tanaka (USA) Co Ltd Trebor Corp Vandermolen Corp Westheffer Co.

Moisture Sensors

Howard S Crane Inc Hardie Irrigation Hinds Int'l Inc

Hydro Terra Corp Karl Kuemmerling Inc. Soilmoisture Equipment Corp

Mower Accessories

Middlesworth Mfg & Engineering Inc

Mower Parts

Alamo Group Buck Haven **Bunton Co** Bush Hog Comet Industries/Div of Hoffco Goodall Div Bunton Co Hoffco Inc International Harvester Co Lawnboy Prod Group Lesco Inc MoTrim Inc MTD Products Inc Power Lawnmower Parts Inc Ransomes Inc Sensation Power Equipment Simplicity Mfg Inc Vrisimo Mfg Co Yazoo Mfg Co

Mowers, Flail

Alamo Group Bingham Equipment Co Bomford & Evershed Ltd Bush Hog Deere & Co Dynamic Industries Inc **Edwards Equipment Co** Ford Tractor Operations Gravely Haban Mfg Co International Harvester Co Jacobsen Div Textron Inc Mathews Equipment Co Middlesworth Mfg & Engineering Inc MoTrim Inc Mott Corp Tiger Corp Toro Co/Commercial Prods Div Turner International Eng Ltd United Farm Tools Inc Vemco Corp of America Vrisimo Mfg Co Yanmar Tractor (USA) Inc

Mowers, Reel

Brouwer Turf Equipment Ltd Jacobsen Div Textron Inc Jerry Clipper Lesco Inc Locke Mfg Inc MTD Products Inc National Mower Co Princeton Mfg Co Ransomes Inc Roseman Mower Corp Toro Co/Commercial Prods Div Turner International Eng Ltd Wheel Horse Products Inc

Mowers, Rotary

Alamo Group American Honda Motor Ariens Co Bingham Equipment Co Bomford & Evershed Ltd **Bunton Co** Bush Hog J I Case Deere & Co Edwards Equipment Co **Engineering Products Co** Excel Industries Inc. Exmark Mfg Co Ford Tractor Operations Giant Vac Mfg Inc Goodall Div Bunton Co Grasshopper Co Gravely Haban Mfg Co Heckendorn Mfg Co Homelite Div Textron Inc Ingersoll Equipment Co International Harvester Co Jacobsen Div Textron Inc F D Kees Mfg Co **Kubota Tractor Corp** Kut-Kwick Corp Lawnboy Prod Group Locke Mfg Inc Long Mfg NC Inc Magic Circle Corp Massey-Ferguson Middlesworth Mfg & Engineering Inc MoTrim Inc MTD Products Inc Nunes Mfg OMC Lincoln/Cushman-Ryan Ransomes Inc Rvan Turf/OMC Lincoln Sarlo Power Mowers Inc Scag Power Equipment Inc Sensation Power Equipment Simplicity Mfg Inc Smithco Inc Smithco Inc **Snapper Products Equipment** Solo Inc Tiger Corp Toro Co/Commercial Prods Div Tradewinds Inc Turner International Eng Ltd United Farm Tools Inc Vicon Farm Machinery Inc Walker Mfg Co Wheel Horse Products Inc. White Outdoor Products Willsey-D Inc Woods Div Hesston Corp Yazoo Mfg Co

Mowers, Sickle Bar

Alamo Group Bingham Equipment Co Deere & Co Gravely Haban Mfg Co International Harvester Co Kinco Mfg MoTrim Inc Sensation Power Equipment Solo Inc Sperry New Holland

INTRODUCING the BROUWER GREENSMOWER



don't just take our word....COMPARE

- · QUALITY
- . RELIABILITY
- SERVICE

THE NEW BROUWER GREENSMOWER ... built to meet the challenge of the modern golf course. For a superb "tournament finish" on your greens trust the Brouwer Greensmower to deliver, cut after cut. Compare it to the competition and see that feature after feature it comes out ahead. Features like special hardened alloy steel bedknife and cast iron holder, bearing mounted gears in the traction and reel drives; gear engage from main drive on the reel clutch; 1/8 in. to 1-3/16 in. setting for height of cut, self pre-load taper roller bearings; transport sulky and many more. A combination of built-in quality engineering features that no other greensmower can match and that guarantees your greens will be the envy of others who choose to miss the "finest cut"—CUT THE BROUWER WAY.

BROUWER TURE EQUIPMENT LIMITED

7320 Haggerty Rd./Canton, MI. 48187 Telephone (313) 459-3700 Woodbine Avenue/Keswick, Ontario, Canada L4P 3E9 Telex 065-24161 Telephone: (416) 476-4311

continued

Mulchers, Hydraulic

Bingham Equipment Co Bowie Industries Inc Finn Corp Goossen Industries Reclamare Co Reinco Inc Thermoguard Co Weldco (WA) Inc

Net Layers

American Excelsior Co

Netting

American Excelsior Co
Arthur Enterprises Inc
J A Cissel Mfg Co
Conwed Corp
Covers Unlimited
Ross Daniels Inc
Delmarva Textile Co
Eaton Brothers Corp
International Reforestation Suppliers Inc
Rothwell Seeds Ltd

Nozzles & Accessories

Broyhill Co Chemilene Co Citrus Systems Inc Delavan Corp **Encap Products Co** Friend Mfg Corp Gilmour Mfg Co Hardie Irrigation Hotsy Corp Hydro Rain Hypro Div Lear Siegler Inc Lesco Inc Liqui*Lawn Corp Marco Div of Llo-Mar Mfg Co Melnor Industries Micron Corp Pex Inc Power Spray Technology Inc Sorensen Sprayers Inc Spraying Devices Inc Spraying Systems Co Strong Ent Inc Thorco/Master Sprayers Tri-Con Inc Westheffer Co

Patio & Walkway Materials

Hoechst Fibers Industries Interlocking Paver Mfrs Assoc

Picnic Tables

American Playground Device Co BigToys Columbia Cascade Timber Co Kay Park Rec Corp Miracle Recreation Equipment Co Playworld Systems Trojan Playground Equipment Mfg Co

Pipe

Advanced Drainage Systems Inc Comanche Steel Products Inc Westheffer Co

Planters

Architectural Precast Inc
Beck Mfg Co
BigToys
Clean City Squares Inc
Columbia Cascade Timber Co
Deep Root Corp
Ellis Mfg Co
International Harvester Co
International Reforestation Suppliers Inc
Lesco Inc
Miracle Recreation Equipment Co
Parker Interior Plantscape
L J Rench & Co

Plants & Trees

Parker Interior Plantscape L J Rench & Co

Play Structures

American Playground Device Co BigToys Columbia Cascade Timber Co Delmer F Harris Co Landscape Structures Inc Miracle Recreation Equipment Co Playworld Systems

Plows, Sand Trap

Jacobsen Div Textron Inc Smithco Inc Toro Co/Commercial Prods Div

Pools, Decorative

L J Rench & Co

Post Drivers

Deere & Co Dynamic Industries Inc Guest Industries Inc McMillen Div Rhino Sales Corp Shaver Mfg Co Worksaver Inc

Post Hole Diggers

Allegheny International Hardware Group Ames Co Bingham Equipment Co Bush Hog Howard S Crane Inc Deere & Co Feldmann Engineering & Mfg Co Ford Tractor Operations Ground Hog Inc Hoffco Inc Kubota Tractor Corp
Karl Kuemmerling Inc
McMillen Div
Melroe Co Div Clark Equipment
Don Savage Co
Seymour Mfg Co
Shaver Mfg Co
Spyder Sales & Service Inc
Stihl Inc
Tanaka (USA) Co Ltd
Wheel Horse Products Inc
Worksaver Inc
Yanmar Tractor (USA) Inc

Pressure Gauges

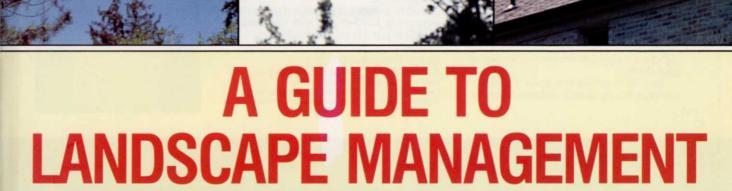
Broyhill Co
Encap Products Co
FMC Corp
Friend Mfg Corp
Hypro Div Lear Siegler Inc
Irrometer Co
Minnesota Wanner Co
Pex Inc
Power Spray Technology Inc
Smithco Inc
Spraying Devices Inc
Strong Ent Inc
Thorco/Master Sprayers
Tuflex Mfg Co
Westheffer Co

Pruners, Hedge

Allegheny International Hardware Group American Standard Co Ames Co Arthur Enterprises Inc Bartlett Mfg Co Chisholm-Ryder Co Corona Clipper Co Echo Inc **Emblidge Corp** Fairmont Hydraulics Fanno Saw Works Friend Mfg Corp Gilmour Mfg Co HMC/The Green Machine International Reforestation Suppliers Inc Jameson Corp Karl Kuemmerling Inc. Safety Test & Equipment Co Seymour Smith & Son Inc. Stanley Hydraulic Tools Vandermolen Corp D J Wilson Co Hermann A Wirth

Pruners, Tree

Allegheny International Hardware Group
American Standard Co
Ames Co
Arthur Enterprises Inc
Bartlett Mfg Co
Chisholm-Ryder Co
Corona Clipper Co
Echo Inc
Emblidge Corp
Fairmont Hydraulics
Fanno Saw Works
Friend Mfg Corp
Gilmour Mfg Co





New Team prevents your weeds with allseason stamina. It's gentle on cool season turf grass, including bluegrass, ryegrass and other fairway grass species. And new Team preemergence herbicide consistently delivers better control, longer control for your crabgrass. It also provides head-to-head goosegrass control.

New Team spreads very easily. The clay carrier makes equipment calibration simpler

and application more accurate. It also reduces dust problems.

Call time-out on crabgrass and goosegrass on your turf, for all season. With new Team.

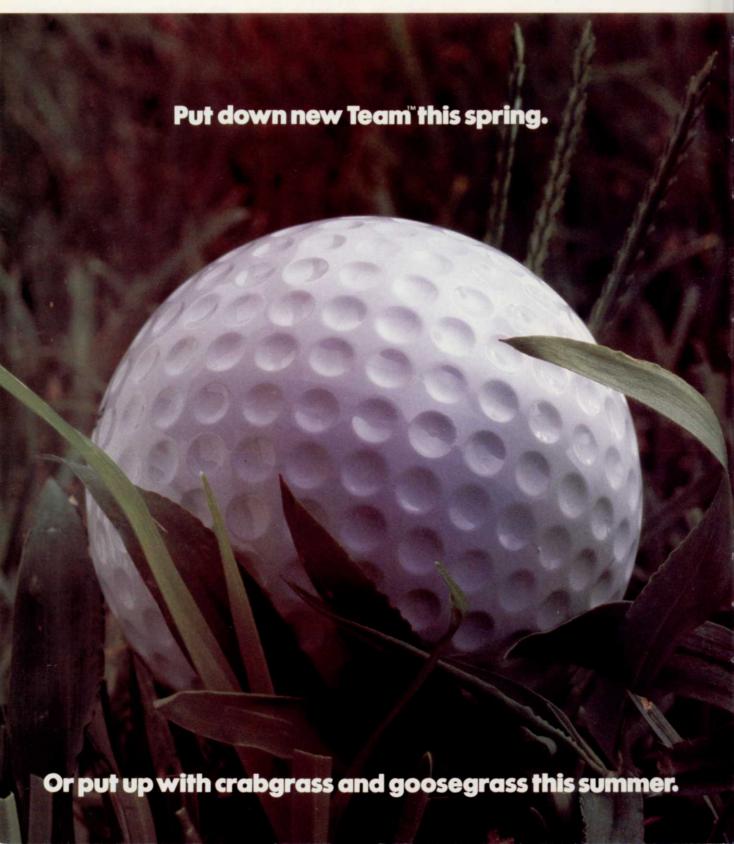
Talk to your Elanco distributor soon.

Or write:

Elanco Products Company A Division of Eli Lilly and Company

Dept. E-455. Indianapolis, IN 46285; U.S.A.
Team*—(benefin + trifluralin, Elanco Products Company)
Refer to the Team label for proper application instructions.





A GUIDE TO LANDSCAPE MANAGEMENT

CONTENTS

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

In cool-season weed control, an ounce of prevention is truly worth a pound of cure.
PAGE 4



Weed prevention in warm-season grasses

Southern turf managers no longer need to adapt cool-season weed controls to their warm-season turf. PAGE 6



Controlling turf diseases

Preventative characteristics and spectrum of control are of utmost importance. PAGE 8



Weed and disease control for ornamentals

How to preserve the intended impact of the landscape design with preemergence herbicides. PAGE 10



Keeping landscapes picture perfect

Controlling unsightly and costly aquatic weeds that upset nature's balance.

PAGE 12

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



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

—Joe Norris Jamestown, N.Y. 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

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



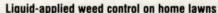


product that fits this need in a new product from Elanco, called *Team*™. *Team* offers a longer residual with effective crabgrass and goosegrass control at an affordable price.

"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-tospread clay particle from Elanco. Team sprayable and Team in combination with granular fertilizers will be available in early 1986 through selected formulators.





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



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

—Harold Neal Tulsa, Okla. crabgrass and poa annua.

"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^{TM} 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.

