

# Start A Lasting Relationship



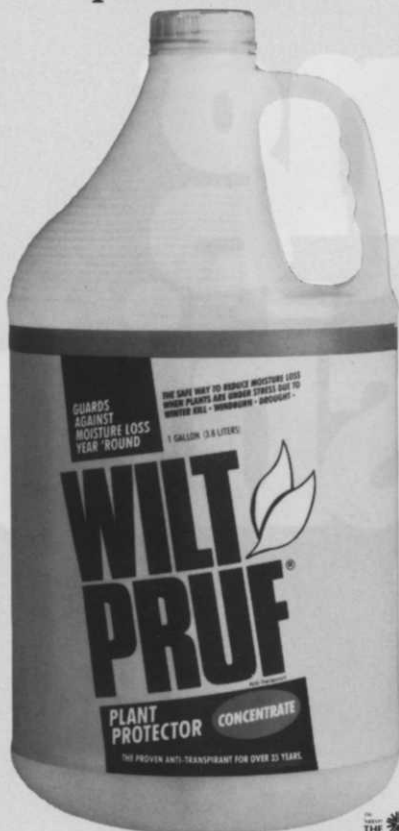
Ninety-six percent of the professionals, commercial users and homeowners we talked to told us they love the way their Gravelys perform. Our two-wheel tractors are popular favorites. They produce a smooth quality cut, provide a choice of rear or side discharge and bagging. And they give years of reliable performance. The relationship starts with a test. Try a two-wheel tractor today. **GRAVELY**

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selective broadleaf herbicide composed of the amines of 2,4-D, mecoprop and dichlorprop.

The product is labeled for both cool- and warm-season grasses on golf courses, lawns, parks and ornamental turf.

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### Piggyback forklift carries pallets through most terrain

Spyder's new S-35X Material Handler carries its load between two hydraulically-powered front drive wheels.

This system provides lift capabil-



ities up to 4,000 pounds though the unit only weighs 3,000 pounds. A conventional forklift carrying the same weight would have to way 12,000 pounds, according to the company.

The light weight allows it to operate on rough muddy terrain. With the S-35X's patented telescoping legs, it can maintain a level load on slopes up to 30°.

The telescoping legs also allow it to load itself onto the rear of a truck piggyback style for transportation to a work site.

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### Computer engineered mowers cut 21 inches

Exmark Manufacturing computer-designed its new 21-inch self-propelled



and walk-behind mowers for operator convenience. Both models feature a

durable, light-weight rear deck and are powered by 4 hp Briggs & Stratton engines.

They feature variable speed control and differential action for easy maneuverability on curves and hillsides.

An optional rear-bagger gives the operator extra leg room and can be attached and detached quickly.

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### Liquid cleaner/degreaser works on any surface

Simple Green general purpose cleaner and degreaser can be used on any washable surface, unpainted or painted, leaving no objectionable residues.

The product is used with cold water and sponged, mopped or sprayed to lift food, blood, oil and grease stains. It can also be used with salt water.

The concentrated liquid is not flammable or harmful to skin, causes no damage or irritation to the eyes and is non-abrasive.

The biodegradable product is environmentally safe and meets OSHA safety standards.

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### Synchromesh transmission smooths shifting on tractor

The Mitsubishi 4501 tractor features a synchromesh transmission designed to smooth gear shifting even when the tractor is in motion.

Tachometer, fuel meter and coolant thermometer are arranged on the instrument panel for easy monitoring and control.

The tractor is equipped with position, draft and mixed control standard. It has a four-cylinder, water-cooled overhead-valve engine and dry single-disc clutch.

The 4501 is available in either two- or four-wheel drive.

Circle No. 198 on Reader Inquiry Card

### Biotech powder deposits break up soil compaction

Turftech powder from Soil Technologies is made of billions of single-cell plants per pound. The non-toxic, living product is mixed with water and sprayed on turf to help break up compaction and improve absorption.

The reproducing plant cells deposit a sugar, which binds together

# A reliable old friend.



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bentgrass  
formulation  
now available.

Always read and follow  
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chemical product.

For outstanding and economical broad-spectrum weed control, one product stands alone. LESCO Three-Way Selective Herbicide.

The combined efficiency of 2, 4-D, MCPP and dicamba stops more than 30 weeds with a single application. Including tough problems like ground ivy and spurge.

And just as important is the cost effectiveness of Three-Way. Why pay more for herbicides that do less?

Outstanding weed control at an economical cost. No wonder LESCO Three-Way Selective Herbicide is still the first choice of professional turfgrass managers.

It's nice to know you can rely on an old friend. Order today.

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clay particles in the soil, creating larger, more absorbent aggregates.

The larger aggregates open pore space and loosen soil, reducing compaction. Greater pore space improves water infiltration and root development.

The larger spaces also hold nutrients, reducing fading between fertilizer applications. In saturated conditions, the larger pore spaces improve drainage.

At first, Turftech is applied two to four times annually, but with soil condition improvements, that frequency

drops to one or two times annually. It can be applied year-round.

Circle No. 199 on Reader Inquiry Card

### '88 golf car models have improved designs

Columbia's 1988 model Par Cars include a new dashboard with easy access to key-controlling forward/reverse directions, shorter length for improved maneuverability, dura-spike long life floor mats and improved, long-wear individual bucket seating.



Circle No. 200 on Reader Inquiry Card

Equipment for the turf care professional.

# Olathe

## Setting the standards for sweepers.



Feel like your grass clippings may be getting ahead of you? Try this model 54HL 5' self-propelled sweeper unit with high lift for large area cleanup. 24hp engine, hydraulic-drive, with optional thatcher, sweeps wet or dry materials using 'sure-grip' rubber fingers.

Olathe personnel have been helping solve leaf/debris problems for over 30 years. Ranging in size from our model 42 (36" wide, 5hp tow-behind) to the large area tow units which are the 166e, the 166hl and the 65 PTO (all with 5' width, 5 cu. yd. capacities). Ground and high lift models.



Model 65 PTO-powered 5' width



Model 166e 5' hydraulic ground dump



Model 166hl 5' width, 8 1/2' lift



Model 42 tow — type, 1/3 cu. yd. 5 hp, 3' swath, finger or brush reels.



Write or call your local Olathe/Toro dealer for free demo or call 1-800-255-6438.

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### Four-gallon steel sprayer built for backpack use

The Maruyama MHU18D is a four gallon stainless steel sprayer built for backpack operation.

A lever arm actuates a gear-driven piston pump. A special independent pressure tank facilitates opening the unit without pressure loss or chemical splash. A strong trigger lever is



ideal for on/off spot spraying.

A standard five-head ring nozzle discharges a fine droplet/mist with a swirl pattern for effective plant coverage. An optional herbicide nozzle is designed to reduce drift. The filter basket incorporates a measuring cup to assist in chemical-to-water ratios.

Circle No. 201 on Reader Inquiry Card

### Reels operate separately on triplex greensmower

Bunton's new triplex greensmower is available with either an 18 hp, twin-cylinder Onan engine or 16.5 hp three-cylinder water-cooled Kubota diesel.

Independently operated reels allow the operator to raise individual cutting units completely from the ground to prevent turf damage by dragging during multiple mowing patterns.

All reels, carriage frames, catchers and reel motors are interchangeable, and the bedknife-to-reel adjustment is easy.

The hydrostatic closed circuit drive requires fewer valve banks and



# We dare you to make this simple comparison.

Go ahead. Compare Scag commercial mowers to the competition. After you do, we're sure you'll agree that no competitive mower is easier to use than Scag.

## Compare Cutting Speed

Scag walkers, thanks to a 4-speed gear box, cut faster than most competitive, belt-driven machines. And Scag mowers give a manicure finish cut every time.

## Compare Maneuverability

Twin Power Belts™ on the Scag walker, offer double friction to pulley surfaces so belts won't slip in normal cutting conditions, even when wet. A high rear clearance for curb climbing and balanced engine placement add to Scag's easy handling. The tight turning radius and patented pivot mount frame make the Scag rider more maneuverable than conventional belly-mount tractors.

## Compare Ease of Maintenance

Scag's simple modular construction allows for easy replacement of spindle bearings and drive wheel pulleys, and on-site wheel and tire changes. Belt adjustment requires no tools. And 80% of the service parts for Scag walkers and riders are interchangeable. Easy maintenance and a smaller parts inventory add up to savings for you.

## Compare Durability

Scag mowers are built to outlast and outperform the competition. Our riders

and walkers are constructed from the highest quality parts and materials, like over-size cast iron pulleys, rugged pneumatic caster wheels and heavy duty spindles.

**SCAG**  
POWER EQUIPMENT

**IT SIMPLY  
COSTS LESS.  
AND CUTS  
MORE.**

Ask your dealer about the complete line of Scag mowers from 8 to 18 hp riders and walkers with cutting widths from 32 to 61 inches.

For free literature write: Scag Power Equipment, W226 N900 Eastmound Drive, Waukesha, WI 53186 or phone (414) 544-4090.

Circle No. 166



hydraulic pumps for lower maintenance.



Circle No. 202 on Reader Inquiry Card

### Compact flood lamps perform with low wattage

The 4300 Series architectural mini-flood lamps from Kim Lighting offer four low wattage lamp sources—40-watt fluorescent, 60-watt incandescent, 13-watt PL lamp and 35-watt high pressure sodium.

The series' die-cast swivel assembly locks solidly into place with positive locking teeth for proper fixture aiming. Improved photometrics in-

clude an Alzak reflector system.

The 3/16-inch lens is clear acrylic on the 40-watt fluorescent models and clear tempered glass on all other models.

All models are suited for both down- and up-lighting, with a maximum tilt of 60 degrees from vertical in either exterior or interior.

Circle No. 203 on Reader Inquiry Card

### Roto-Hoe adds to snow thrower

Roto-Hoe has added two new features to its Model 969 snow thrower attachment. The new 180-degree swivel spout and heavy duty skids give the machine improved performance and



durability.

Model 969 is one of 20 attachments

for Roto-Hoe's Models 910 and 990 rear tine tillers.

Circle No. 204 on Reader Inquiry Card

### Tractors adapted to landscape management

The Deutz-Allis 6200 series of tractors, formerly marketed primarily to



commercial grain and livestock farmers, can be adapted to a wide range of landscape management uses.

The air-cooled diesel engines were built for years of hard work, the company says. All controls are right where they should be, easy to reach and use. Visibility is clear and unobstructed in any direction.

Circle No. 205 on Reader Inquiry Card

Before you fertilize . . .

# GET THE THATCH OUT!

According to turf experts, **excessive thatch** must be **removed** after a hard winter in order to have healthy turf in the spring. Thatch prevents **nutrients** from reaching down into the root structure. Result: the lawn cannot breathe and grow properly.



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# RUGGED, POWERFUL, VERSATILE AND SIMPLE TO OPERATE.

**From compact, walk-behind models to powerful riders, Bobcat trenchers are loaded with advanced design features to make trenching easier for do-it-yourselfers and professionals.**

**The T108. Precision power for do-it-yourselfers.** The T108 packs plenty of power on a compact frame that maneuvers easily through gates,



around shrubbery and close to walls or sidewalks. All controls are within easy reach at the operator station.

With a 36" digging depth, it's ideal for running electrical and water lines as well as cable TV and telephone lines.

**The T116. The ultimate walk-behind trencher.** Do-it-yourself trenching is made easy with the fully hydrostatic, walk-behind Bobcat T116 trencher. It makes short work of digging up to a 48" deep trench — even in tough soil.

Advanced hydrostatic power drives the wheels and digging chain, and automatically matches machine speed to ground conditions. A limited-slip, two-speed axle is used on the T116 for constant two-wheel drive. And all controls are within easy reach at a position behind the unit.



Bobcat trenchers are easy to transport from jobsite to jobsite.



Choose from four model sizes, with trenching depths ranging from 24" to 60" to fit your trenching job.

**The T135 and T136. Rugged, powerful, reliable — the best trenchers in their class.** The diesel-powered T136 and gasoline T135 combine the best of two worlds—the performance of advanced hydrostatics plus plenty of horsepower. And both models' 60" digging depth handles a wide range of trenching jobs. Utilities. Construction. Plumbing. Electrical. And more.

A two-lever, hydrostatic system propels and steers both models, and provides independent ground and chain control to match unit speed to changing ground conditions. Hydrostatic power also means fewer parts.

You'll trench straighter and faster with Bobcat features such as automotive-type steering. Easy to reach controls. Solid, stable frame. And 360 degree visibility.



**The T906 Backhoe. Add versatility to your rider trencher.**

Your Bobcat rider trencher\* becomes a tough backhoe with the T906 backhoe attachment. Its rack and pinion swing and tip-up operator seat provide outstanding power and operator visibility. The T906 digs up to six feet deep. And it comes with four bucket sizes to fit your needs.



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# How to Use Embark® PGR to Reduce Mowing Costs for Ornamental Turf:

**This proven PGR program for irrigated, low-traffic ornamental turf saves you 3 mowings or more per treatment . . . while at the same time thickening up the grass and improving its appearance. Read about our special \$100.00 demonstration incentive offer.**

**Everett Mealman, President**  
PBI/Gordon Corporation

For several years, universities, landscape management professionals and PBI/Gordon have been experimenting with PGRs in an effort to adapt their usage to ornamental turf. The problems that have concerned all of us are discoloration and the long-range effect that a PGR might have on the health of turf grass.

Today, we can confidently report that PBI/Gordon has a proven program for using Embark PGR on irrigated, low-

traffic ornamental turf. It is based on 2 years of testing by Washington State University researchers. Furthermore, this program has been fine-tuned and successfully used on hundreds of acres of commercially managed ornamental turf.

It reduces the maintenance cost by eliminating 3 and sometimes 4 mowings of cool-season grasses that would otherwise be required and, in the process, measurably enhances the

vibrant green color and long-range health of the turf.

It is a major breakthrough in landscape management and we are announcing a special, one-time \$100.00 demonstration incentive offer to help you test the program.

## Four reasons why our Embark program works

In the first place, the rate for Embark is reduced from 1½ pints per acre to 1 pint. The objective is not to totally shut off the growth so that no mowing is necessary. Rather the objective is to *slow it down* to such an extent that the number of mowings can be reduced by 50% or more for a period of up to 6 weeks.

The second factor is the use of Ferromec® AC Liquid Iron Complex in the program. Ferromec is PBI/Gordon's patented iron/urea molecule bond that is foliar absorbed and circulates within the plant so rapidly that green-up occurs within 24 to 48 hours. It is an ideal tank-mix companion because Embark does not begin its work until 48 hours after application. Thus, when Ferromec is combined with Embark, it has the green color firmly fixed before Embark kicks into gear.

In the third place, Embark and Ferromec AC can be tank mixed with either Classic Trimec® or Super Trimec Turf Herbicide, thus giving the PGR/Iron treatment a free ride, since you are going to spray Trimec anyway.

And, finally, there is the fact that Embark is a true Plant Growth Regulator, in contrast to some so-called PGRs that are actually herbicides to be applied at low rates which all too often

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Paul Constant, left, president of Constant Care Inc., and Everett Mealman examine the tillering and root development of a plug of grass from a shopping center lawn treated with the Embark/Ferromec program in the spring and autumn of 1987. This photograph, taken on October 7, clearly shows the lush, thick, vibrant green turf produced by the Embark/Ferromec program!





may stunt the growth and weaken the plants.

Embark, on the other hand, is a PGR in the strict meaning of the word. It is absorbed through the blades and translocates to the growing point (at the base of the blade), where it acts to suppress seedhead development and stem elongation. The energy which would normally be used to produce rapid growth of leaves, stems, and seedheads for you to mow, is diverted to root and rhizome development.

### Timetables and program for using Embark PGR on ornamental turf

A tank mix of Embark, Ferromec AC, and Trimec is applied in the spring, ideally timed to catch the seedheads. This would be a window of about 4 to 6 weeks between the time when the grass begins to green up and when you can feel the seedhead in the boot.

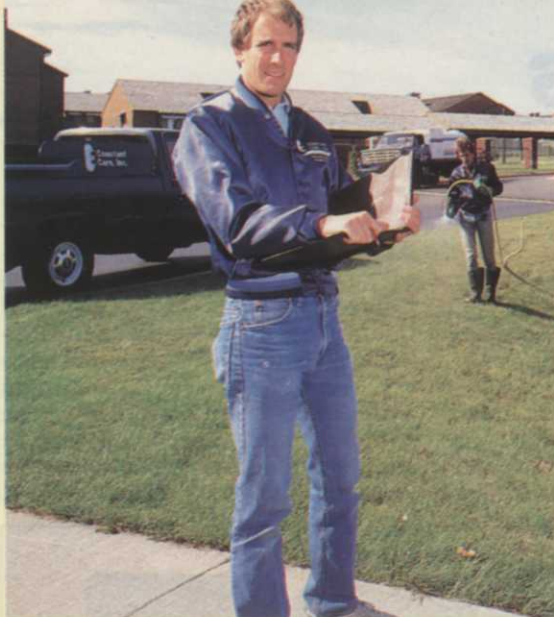
This treatment will result in lush, vibrant green, weed-free turf that is growing so slowly that at least half of the regular mowings can be eliminated for up to 6 weeks.

The Embark will wear off at about the same time that hotter weather starts causing untreated grass to lose some of its color and condition. But because the Embark treated grass has been on *slow-hold* and conserving the energy that would otherwise have been dissipated on *fast-forward*, it will start living it up and reach a zenith of beauty when the untreated grass has run out of gas.

Along about August 15, or when cool-season grasses start to grow vigorously again, repeat the treatment. The need for mowing for the next 6 weeks will also be reduced by 50% and more.

### The experience of a leading landscaper with Embark PGR

One of the most successful users of the Embark program for ornamental turf is Constant Care Inc., who is one of the leading landscape management contractors in the Kansas City area. It's evident why they would be an early adapter to Embark, when you know their business creed. Paul Constant,



"We've been experimenting with PGRs for 4 or 5 years," says Bill Gordon, director of commercial landscaping maintenance for Constant Care Inc., "and we've found that Ferromec AC is the vital element in making the Embark PGR program feasible for ornamental turf. Other irons simply don't work fast enough."



president of the corporation, states it this way:

"Our mission is to provide a total, turn-key job: landscape design, installation and maintenance, including turf, ornamentals, and even irrigation. We seek and serve progressive clients who recognize that exterior decoration is every bit as important as interior decoration.

"We will provide these clients with an overall landscaping look that projects a clear image of top quality; and we will accomplish this objective within the framework of a budget that is competitive, and at the same time sufficiently profitable so that we can grow and prosper and adequately compensate our dedicated people who make it happen."

No wonder Constant Care is on the leading edge of progress, rather than mired in a status quo mind-set that bases landscape management charges on an a la carte menu rather than the *mission accomplished* bottom line that the client really wants!

No wonder Constant Care Inc. is one of the 30 fastest growing companies in the Kansas City area!

### \$100.00 demonstration incentive offer:

Admittedly, using Embark PGR on ornamental turf is a challenging thought, and thus it is that we want to suggest that you test the program on 8 acres of turf so you can see for yourself the unprecedented impact that Embark is destined to have in the management of ornamental turf.

To test the program on 8 acres of irrigated, low-traffic turf, you will need 1 gallon of Embark, 22 gallons of Ferromec, 2 gallons of Super Trimec or 4 gallons of Classic Trimec. When you have completed testing a minimum of 4 acres, you are entitled to your check for \$100.00.

Call us toll-free to let us know that you want to participate in the test. We will tell you how to manage the program, and will refer you to a distributor in your area who will supply you with product and any information you need.



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PLANT GROWTH REGULATOR

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692-1187



## Green industry coalition

To the editors:

In your "Outlook" in December, 1987, *LANDSCAPE MANAGEMENT*, you commented on the need for a green industry coalition to address potentially adverse issues.

You should know that there is such a coalition that exists in different forms with different players, depending on issues. NAA, PLCAA, The

American Association of Nurserymen, The Associated Landscape Contractors of America, The Golf Course Superintendents and the Professional Grounds Management Society, frequently work together on issues of common interest. We each know when it is time to rally support and when there are issues we need to work separately on. Perhaps we don't

blow our own horns enough on this subject, and there's no question about the fact that we could do more of it.

I think it's a great idea for you to mention it and keep pushing the concept. By doing so, we can only gain support for our individual and collective efforts.

**Robert Felix**

National Arborists Association  
Amherst, N.H.

## Lighting up landscapes

To the editors:

Just wanted to tell you and your staff that I liked the article "Tips for lighting up Christmas landscapes" in the December 1987 issue. I have never seen an article on the subject and thought it was a clever idea, offering good tips and information.

Have a good year and keep up the good work!

**Dorothy Borland**

The Turf Expert  
Denver, Colo.

## Non-toxic herbicide?

To the editors:

"Non-toxic herbicide is also biodegradable" (Dec. 1987, pg. 55). I am sure this title drew attention from many of your readers on first glance. Before you go out and stock up on your biodegradable vegetation control, you may wish to consider two points:

1) There is no such thing as non-toxic and it is against most Canadian and U.S. regulations to advertise any product as being such. Products are only "relatively non-toxic" as it is impossible to provide experimental evidence that anything is safe; only non-safety can be experimentally demonstrated.

2) The word biodegradable is also a nice advertising slogan describing one of the eight major factors which influence pesticide fate and behavior after contact with the soil, namely microbial degradation. When I think of biodegradable, the first products which come to mind are a relatively common family of chemicals referred to as "phenoxies." For example, MCPA is rapidly degraded by soil microbes to the simple compounds of  $CO_2$ ,  $H_2O$  and  $C_{12}$  and has an average half-life in soil of 14 days. Seedbeds and grass can be replanted as soon after an application of MCPA as with the triglyceride (fatty acid) products being promoted by Safer.

**Kent E.M. Groves**

ChemlawnRexdale,  
Ontario, Canada

# FORBÉ

*most*



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America are fertilized  
with Milorganite.**



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