

# line of walk mowers owe you a living.



**COMMERCIAL 21-5**  
Our intermediate,  
5 hp, 4 cycle, hand-  
propelled mower.

**COMMERCIAL 21-5**  
Our intermediate,  
5 hp, 4 cycle, self-  
propelled mower.

**COMMERCIAL 21-4**  
Our new side discharge,  
4 hp, 4 cycle, hand-  
propelled mower.

**21" COMMERCIAL**  
Our lightweight but  
rugged, 2 cycle, hand-  
propelled mower.

bagger model.

For really big jobs,  
our 6 hp Commercial 25 gives  
you smooth handling over  
rough terrain and reliable  
service day in, day out.

And, for quick trims to  
light mowing, our 21" Commer-  
cial 2-cycle mower is the light-  
weight with heavyweight  
features.

Want more information  
on any or all of our Commercial  
walk mowers? Call your Toro  
distributor. Or, mail the coupon.

**TORO**<sup>®</sup>

**The Professionals<sup>™</sup>**

**Tell me more, Toro.**

I'm interested in Toro Commercial  
walk mowers. Please have my  
distributor call me.

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_  
area code number

Mail coupon to: The Toro Company  
Commercial Marketing Dept. GBS-030  
8111 Lyndale Ave. S., Minneapolis, MN 55420

## Selective herbicides for use on turfgrass

(Editor's note: The following list is compiled for general information ONLY. It is against federal law to use any herbicide in a manner inconsistent with its label. For specific information on any product listed, please write the information number on the Reader Service card and mail it.)

**BASF Wyandotte Corp.**, 100 Cherry Hill Rd., Parsippany, NJ 07054

Basagran

Active ingredient: *bentazon*

Formulation: *Soluble liquid applied wet*

Weed labeled for control: *yellow nutsedge, wild mustard, mallow and others*

Apply postemergent at 1—2 qts./A

Write 301 on free information card

**Best Products**, P.O. Box 267, Lathrop, CA 95330

Best Betasan 4E

Active ingredient: *bensulide*

Formulation: *Emulsifiable concentrate*

Weeds labeled for control: *crabgrass, watergrass, goosegrass, annual bluegrass and foxtail, among others.*

Apply preemergent at 5.6 fl. oz. of the 4E per thousand or 1.9 lbs of the 12.5G per thousand for crabgrass. For annual bluegrass, use 9.4 fl.oz. or 2.4 lbs per thousand.

Write 302 on free information card

DCPA

Formulation: *5% Granular*

Weeds labeled for control: *crabgrass, carpetweed, chickweed, spotted spurge, among others.*

Apply preemergent at 200 lb. /A

Certain bentgrasses are not tolerant.

Do not use on dichondra.

Write 303 on free information card

**Cleary Chemical Corp.**, P.O. Box 10, Somerset, NJ 08873

MCPP

Active ingredient: *mecoprop*

Formulation: *liquid*

Weeds labeled for control: *Most broadleaves.*

Apply at 1-½ oz. per thousand.

Toxic to fish

Write 304 on free information card

MCPP + 2,4-D

Formulation: *2 lb. MCPP + 11 lb. 2,4-D (acid)/gal.*

Weeds labeled for control: *Most broadleaves.*

Apply at 1 ½ oz. per thousand

Toxic to fish, toxic to flowers and shrubs.

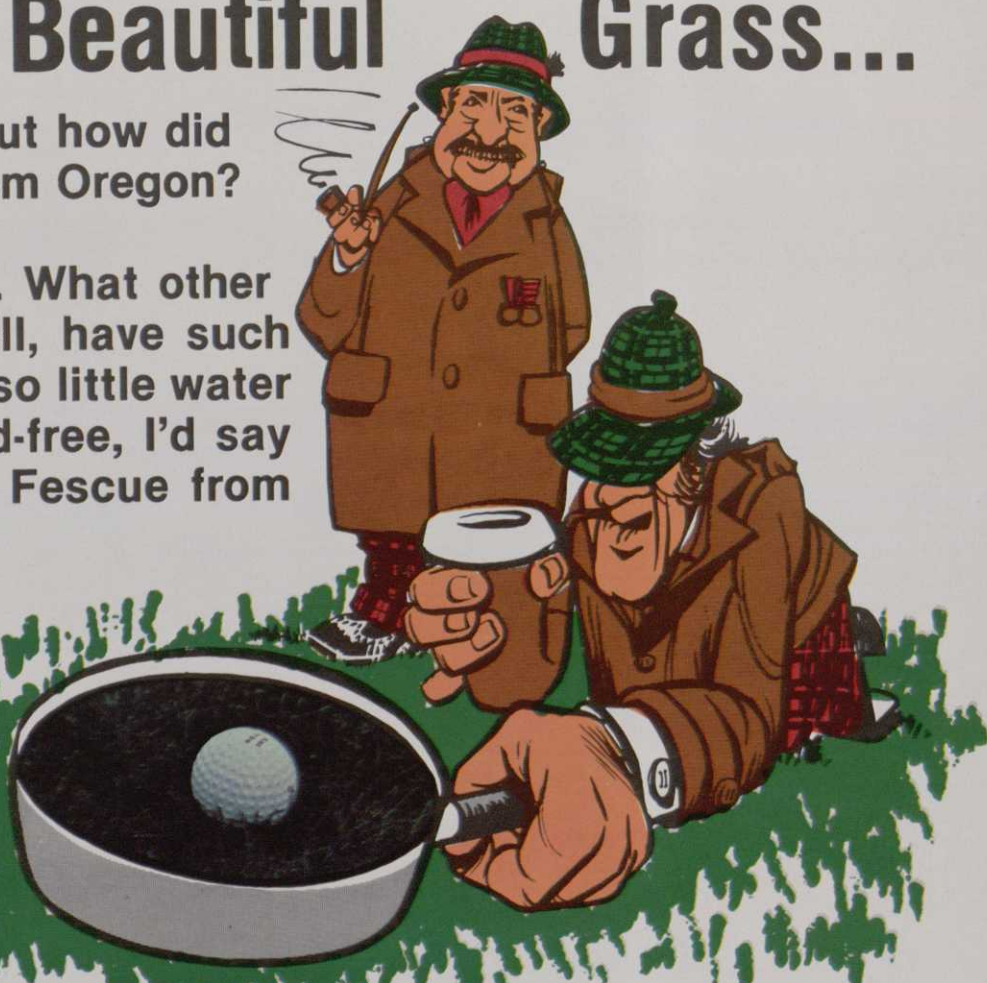
Write 305 on free information card

## The Case of the Beautiful Grass...

**WATSON:** Amazing, Holmes, but how did you know it was fine fescue from Oregon?

**HOLMES:** Elementary, Watson. What other grass can hold the ball so well, have such great shade tolerance, yet use so little water and fertilizer? And it's so weed-free, I'd say it's certified Chewings or Red Fescue from Oregon, all right!

**"The Basic Grass For Golf Courses and Parks"**



**Oregon Chewings and Creeping Red Fescue Comm.**  
1349 Capital Street NE, Salem, Oregon 97303 • (503) 363-1022

Circle 127 on free information card

**Methar 30**

Formulation: 30% DSMA hexahydrate

Weeds labeled for control: Crabgrass, dahlisgrass.

Apply preemergent at 5½ oz. per thousand.

Do not use on St. Augustinegrass or centipede grass.

Write 306 on free information card

**Super Methar**

Active ingredient: AMA

Formulation: Liquid

Weeds labeled for control: Crabgrass, dahlisgrass.

Apply preemergent at 6 oz per thousand.

Do not use on St. Augustinegrass or centipede grass.

Write 307 on free information card

**AMA + 2,4-D**

Weeds labeled for control: crabgrass, dahlisgrass, knotweed, dandelion, plaintain, among others.

Apply postemergent at 8 oz. per thousand.

Do not use on St. Augustinegrass or centipede grass.

Write 308 on free information card

**Diamond Shamrock Corp., 1100**

Superior Ave., Cleveland, OH 44114

**Dacthal W-75**

Active ingredient: DCPA

Formulation: 75% wettable powder

Weeds labeled for control: Crabgrass, annual bluegrass, among others.

Apply preemergent at 14 lb./A.

Not recommended for greens or bentgrasses mowed at green height. Do not use on dichondra.

Write 309 on free information card

**Daconate 6**

Active ingredient: MSMA

Formulation: Liquid

Apply postemergent at 2½ to 2¾ pt./A

Do not spray or drift on ornamentals.

Write 310 on free information card

**Dacamine 4D**

Active ingredient: 2,4-D (oil-soluble diamine).

Controls many broadleafed weeds.

Apply at 1-½ to 2 pts/A.

Write 311 on free information card

**E.I. Du Pont de Nemours**, Brandywine Bldg., Wilmington, DE 19898

**Tupersan Weed Killer**

Active ingredient: siduron

Formulation: 50% wettable powder

Weeds labeled for control: annual grasses except annual bluegrass.

Apply preemergent at 1-½ to 4-½ oz per thousand on new spring planting, or 6 to 9 oz. per thousand on established turf.

Use only on following bentgrasses: Pencross, Seaside, Highland, Astoria, Nemicillia, C-1, C-7, C-19.

# NEW LIFE FOR COMPACTED TURF

There is no turf conditioning method available that can invigorate compacted, rootbound turf more effectively than the Howard TURF-QUAKER.

In a single pass it slices down to the roots to shatter compaction, remove thatch, and allow oxygen and carbon dioxide back into the soil.

Water and nutrients can reach deep down to encourage healthy root development.

All is accomplished quickly and completely without surface damage.

The Howard TURF-QUAKER operates directly from the PTO of tractors in the 25 H.P. to 60 H.P. range and is sold and serviced by Howard ROTAVATOR dealers throughout the United States.



THE HOWARD ROTAVATOR COMPANY  
A Member of the Howard Group of Companies  
Harvard, IL 60033 Branches in Sacramento, CA and Savannah, GA



**HOWARD®**

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# "Marketing Radar"

Arthur C. Nielsen, Jr.

This is how the Chairman of the Board of one of the country's largest marketing research firms describes the value of the Census to the nation's business community.

If you own or manage a business, you are a marketer. But you can't market successfully unless you know to whom you are selling. You must understand your consumer. To do this, you need accurate information about the population, and lots of it.

## It's easy

You can get an enormous amount of this kind of valuable marketing research data from the Census Bureau. All it takes is a phone call or letter.

## Just answer the Census

All you have to do is create this information. Just answer it and encourage your employees to do the same. The more people who answer the Census, the more valid the information will be. So, it's in your best interest to participate.

**We're counting on you.  
Answer the Census.**

CENSUS '80



A Public Service of This Magazine & The Advertising Council

Do not use on other bents or bermuda. Use on greens not recommended.

Write 312 on free information card

**Elanco Product Co.**, Box 1750, Indianapolis, IN 46206  
Balan

Active ingredient: *benefin*

Formulation: *2.5 granular*

Controls annual grasses and many broadleaves.

Apply 60 to 120 lb./A.

Do not use on bentgrass.

Write 313 on free information card

**PBI Gordon**, 300 S. Third St., Kansas City, KS 66110

**Betamec-4**

Active ingredient: *bensulide*

Controls annual bluegrass, crabgrass, among other annual grasses.

Apply preemergent at 5 to 10 oz. per thousand.

Write 314 on free information card

**Mecomec**

Active ingredient: *mecoprop (MCP)*

Controls many broadleaves.

Apply postemergent at 4 to 6 pts./A.

Do not apply to bentgrass in hot weather.

Write 315 on free information card

**Trimec**

Active ingredient: *2,4-D, mecoprop, dicamba*

Apply at 3 to 4 pts./A

Avoid spraying around trees, ornamentals

Write 316 on free information card

**Pennwalt Corp.**, 1630 E. Shaw, Fresno, CA 93710

**Pennamine D7**

Active ingredient: *2,4-D amine*

Controls many broadleaves.

Apply at ¾ to 4 qts./A.

Toxic to fish.

Write 317 on free information card

**Endothall Turf Herbicide**

Active ingredient: *endothall*

Controls speed-well, knotweed, chickweed, annual bluegrass, among others.

Apply postemergent at ¾ to 1-½ oz. per thousand.

Do not use on greens or Red fescue. Toxic to wildlife.

Write 318 on free information card

**Rohm & Haas**, Independence Mall West., Philadelphia, PA 19105

**Kerb 50-W**

Active ingredient: *pronamide*

Formulation: *Wettable powder*

Controls annual bluegrass in bermudagrass.

Apply at 1-½ to 2 lb./a postemergent or 1 lb./a preemergent.

Do not use on dichondra, bluegrass, annual and perennial ryegrass, fescues or bentgrasses.

Write 319 on free information card

**Rhone-Poulenc**, P.O. Box 125, Monmouth Junction, NJ 08852

**Chipco Ronstar G**

Active ingredient: *Oxadiazon*

Formulation: *Granular*

Controls many annual grasses and broadleaves

Apply at ¾ to 4 lb. active ingredient/A.

Write 320 on free information card

**Chipco Turf**

Active ingredient: *mecoprop (MCP)*

Controls many broadleaves, including plain-tain, dandelion.

Apply postemergent at 2 to 3 lb./A.

Write 321 on free information card

**Chiptox**

Active ingredient: *MCPA*

Similar to 2,4-D

Write 322 on free information card

**Stauffer Chemical Co.**, Westport, CN 06880

**Betasan**

Active ingredient: *bensulide*

Formulations: *3.6 granular, 4 emulsifiable, 7 granular and 12.5 granular*

Controls crabgrass, annual bluegrass, goosegrass, among others

Toxic to fish

Write 323 on free information card

**TUCO, Div. of Upjohn**, 7171 Portage Rd., Kalamazoo, MI 49001

**Enide 50W or 90W**

Active ingredient: *diphenamid*

Controls annual bluegrass and other annual grasses in bermudagrass, dichondra and other ground covers.

Write 324 on free information card

**Velsicol**, 341 E. Ohio St., Chicago, IL 60611

**Banvel 4-S**

Active ingredient: *dicamba*

Controls knotweed, common chickweed, clover, red sorrel, among others.

Apply postemergent at ¼ to 1 lb./A.

Avoid application near trees and ornamentals.

Write 325 on free information card

**Banvel + 2,4-D**

Active ingredient: *dicamba + 2,4-D*

Controls many broadleaves.

Apply at 2 to 3 pts./A.

Do not apply within dripline of trees or ornamentals.

Write 326 on free information card

# Introducing the Front Line.<sup>TM</sup> The first mower built tough enough to be a Cushman.

There's a good reason why Cushman has been around for such a long time: We build equipment that lasts a long time.

And that's never been more obvious than with our new Front Line rotary mower.

## **Built for keeps.**

The Front Line's 72" mower deck is made of 12-gauge carbon steel, reinforced and arc welded. It has a multi-disc PTO clutch, direct drive to the deck gear box with a sealed and lubricated shaft drive. The hydrostatic transmission is driven by two continuously engaged "A" section belts with self-adjusting tension.

There's no need to worry about overloading the Front Line's engine. The combination of our high torque engine and specially designed mower deck allows you to mow tall weeds and fine grass.

## **Superior performance.**

The Front Line's cut in fine grass is so smooth, you won't believe it was made with three separate blades. That's because the blades overlap 1 1/2" to reach every inch of grass in the full 72" swath. Also, the cutting height is adjustable to eight positions, from 1" to 4 1/2" in half-inch increments.

Operating the Front Line couldn't be easier. With individual front wheel brakes, and wheel-type steering controlling a single rear wheel, you get tight maneuverability and better control on varying terrain.

The Front Line's mower deck makes your job easier, too.

It extends more than a foot to

one side, so you can trim right up to fences or trees. And it lifts hydraulically for transport over curbs. What's more, a large capacity fuel tank lets you work up to 6 hours between refills.

## **100% Cushman.**

Most rotary mowers use engines built by outside suppliers. Not the Front Line. Its 18-hp, air-cooled engine is all-Cushman. So is the differential. And the PTO drive. Which means all parts and service are provided by your Cushman dealer.

Send us this coupon today, and we'll tell you more about the new Front Line: The only mower built Cushman-tough.

80-CUT-5



YES, I want more information on the new Front Line<sup>TM</sup> rotary mower. Prove to me that it really is tough enough to be a Cushman.

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**CUSHMAN<sup>®</sup>**

2051 Cushman, P.O. Box 82409, Lincoln, NE 68501

**The Front Line.  
Tough enough to be a Cushman.**

# Designer's forum

By Dr. Michael J. Hurdzan



*Michael J. Hurdzan, Ph.D., is a partner in the golf course architectural firm of Kidwell & Hurdzan, Inc., Columbus, Ohio. Dr. Hurdzan received his Doctor of Philosophy in Environmental Plant Physiology and his*

*Master of Science in Turfgrass Physiology from the University of Vermont. Dr. Hurdzan is a member of the American Society of Golf Course Architects, and is on that association's Board of Governors. He is also a member of the Ohio Turfgrass Foundation, USGA, NGF and the Golf Collectors' Society. Dr. Hurdzan has authored many articles on golf course design and maintenance and is currently writing a book on the history of golf course architecture.*

## "So you want to be a Golf Course Architect . . ."

Yes, you and everyone else who can break 100". That was the sort of cynical but true response I got when I was just beginning my career. Now that I have been in the profession for over a decade, I have my own cynical but true response and that is: "This is a great profession, but your chances of becoming a Golf Course Architect are about the same as being struck by lightning". Such a cruel answer to honest inquiries deserves an explanation. The reasons for the extremely low probability of ever becoming a Golf Architect are a saturated market, the diversity of skills needed, and the experience requirement.

First let us look at the prospective market for Golf Course Designers. According to National Golf Foundation statistics, about 70 courses will open for play in the United States this year; and there are about 85 under construction to open next year. Now I personally know of about 120 Golf Course Designers; thus, there are more designers available than clients, so the competition to offer services is fierce. On top of that with the high cost of doing business these days, and the need to keep fees modest, one can not survive very well with only 1 client per year. With ever escalating construction costs, sky rocketing interest rates, and the economic uncertainty in this country, I would expect that even fewer courses will be built in the foreseeable future.

The second note of pessimism for

budding golf architects is their saleable skills. With the average cost of golf course construction approaching \$1 million, few clients will risk such large sums of money on inexperienced or unskilled designers. In my opinion the minimum credentials that I advise students to have before attempting to work in a design firm, is a degree in Landscape Architecture and also one in Turfgrass Management. Once you have that educational background, you should try to work for 4-5 years in a firm that has a history of creditable projects and is currently active. Today there are several designers with such academic credentials, who were active in the profession during a period when 350-400 golf courses would open each year, and they could afford to learn by making cheap mistakes when construction costs were low. Today there are no cheap mistakes and one does not dare risk being caught up in a legal hassle over negligence in design. Beware of those who purport to teach a program in Golf Course Design for there is no such curriculum that can hope to cover the multiplicity of factors that the competent Golf Architect must be knowledgeable about.

Experience is the third reason that makes becoming a Golf Architect difficult. It is my belief that Golf Course Design is a collage of acquired skills that must be imprinted on the designer's mind; so that although he acts in an intuitive way, his decisions are drawn from a great data base of observed sequences under various conditions. (Some designers today have such fantastic reputations that clients are willing to substitute a blank check for real skills and by trial and error learning on someone else's money, they achieve some success.) In my case, when Jack Kidwell consented to be my mentor, I had 9 summers of experience in golf course maintenance, a Ph.D. in Agronomic-Turf Studies, and some design and engineering skills. But it took 5 years of daily participation and immersion in preparing construction contracts and drawings, observing sequences of actual construction, concentrated study, and honest critique of decisions and judgements before I felt confident to call myself a Golf Course Architect. To study the products of past masters teaches you little compared to studying their process.

But if in spite of the above warnings you wish to pursue this constantly changing and evolving profession, then I would offer the following career track. To start, I would strongly suggest first getting a degree in Turf Management because a modern Golf Course Designer must understand how to specify and manipulate the physical factors of a golf course to maximize growth conditions, while accommodating equipment and procedures. To design a course that can only produce a moderate to weak turf cover or is too costly to maintain, will result in the early demise of a Designer in this era of tough competition. The young Designer must understand agronomic principals and limitations if he is to have much luck competing for jobs.

After getting this degree and picking up 3-4 summers worth of practical experience in golf course maintenance, you should seek a second bachelors degree in Landscape Architecture. This training will teach you basic design concepts, graphics, construction techniques, contracts, professional practice, and how to prepare formal drawings.

It is equally assumed that during the summers of this program that you would either work in a Golf Course Architect's office, if you can find one that hires summer help, but better still would be to work with a Golf Course Contractor. By working for a contractor, you would have the opportunity to see the actual sequences and techniques of construction, learn the limitations of the building equipment, and learn how to read, interpret, and evaluate the construction documents of several architects. You will experience the problems and frustrations of constructing a golf course, which will unquestionably prepare you to be a better designer. Remember the process is more important than studying the finished product.

Let me conclude by reiterating that anyone's chances of becoming a golf architect are about the same as being struck by lightning. But if you are willing to dedicate yourself to the 8-10 years necessary to prepare to compete in this economically stagnating profession, then you will be rewarded with a life's work that may be the most gratifying in the world.

DEALERS WANTED TO SELL THE NEW . . .

# Compact Tractors from **LONG**

Compact, Fuel efficient  
24 • 28 • 35 PTO  
Horsepower Diesels. Priced up to  
25% below competitive models.



**260-C:** This compact 24 PTO H.P., 2-cyl. diesel includes as standard equipment: Continuous PTO, 6-speed trans., 3-pt. hitch with draft and position control, and more. Hydrostatic steering optional. The perfect tractor for turf and horticultural work. Wt. 3,180 lbs. (approx.). Turf or general purpose farm tires. Price with 5.00 x 15/12.4 x 24 GPF Tires.

LIST PRICE\*\*: 2-WD — \$5,525.00



**310-C:** A 2-cyl. compact, 28 PTO H.P. tractor. Standard features include: Continuous PTO, 6-speed trans., 3-pt. hitch with draft and position control, and more. Hydrostatic steering optional. Excellent turf or small farm tractor. Turf or general purpose farm tires. Wt. 3,159 lbs. (approx.). Price with 5.00 x 15/12.4 x 24 GPF Tires.

LIST PRICE\*\*: 2-WD — \$5,930.00



**360-C:** A heavy-duty, compact 3-cyl., 35 PTO H.P. tractor engineered for outstanding performance and economy. Standard equipment includes: 6-speed trans., hydrostatic steering\*, continuous PTO, 3-pt. hitch with draft and position control, and more. The ideal tractor for heavier turf work or small farm chores. Turf or general purpose farm tires. Wt. 3,630 lbs. (approx.). Price with 5.00 x 15/12.4 x 24 GPF Tires.

LIST PRICE\*\*: 2-WD — \$7,204.00

**COMPARE PRICE AND  
PERFORMANCE,  
AND YOU'LL BUY **LONG****

\*Hydrostatic steering to be phased-in on the 360-C.

\*\*Prices based on Long Mfg. N.C. Inc.'s current suggested list price, for standard equipped tractors with tires as specified, F.O.B. point of manufacture; and are subject to change without notice.

## 8 Good Reasons to Sell LONG Compacts:

- Small in size — BIG in power.
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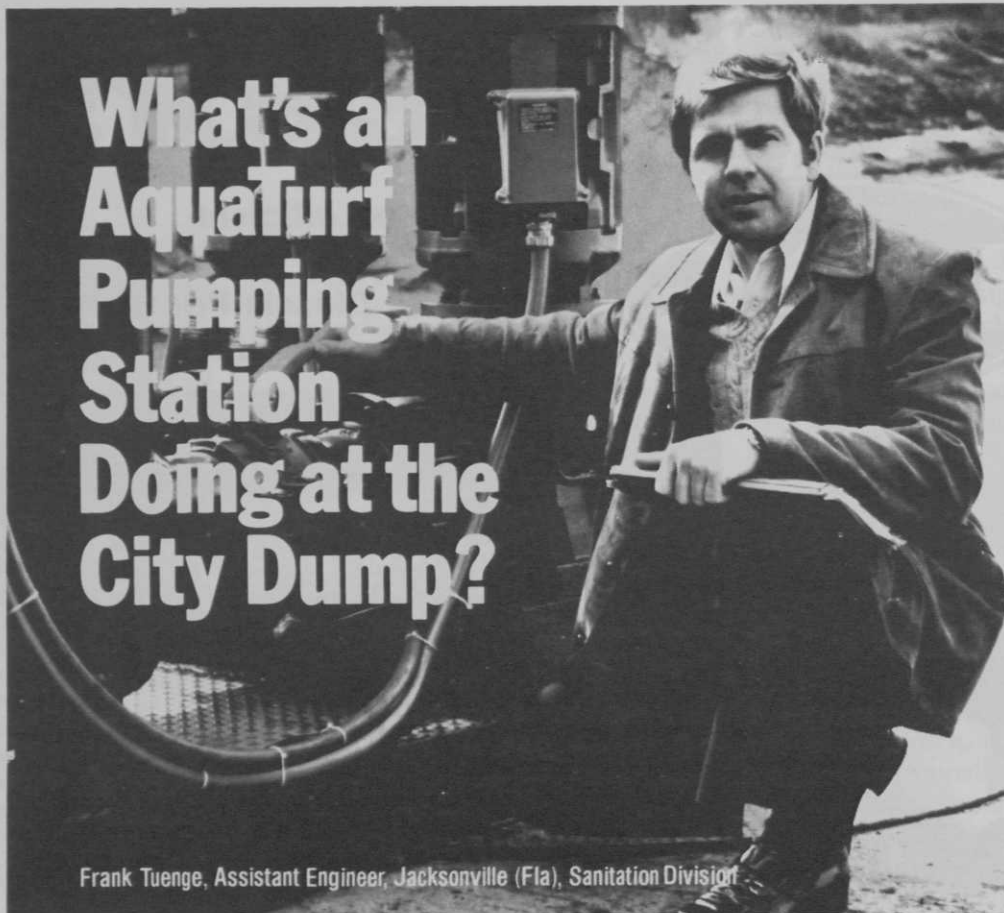
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#### FOR MORE INFORMATION CONTACT:

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906 Harney St., Vancouver, WA 98660 Tel. (206) 695-1259

# What's an AquaTurf Pumping Station Doing at the City Dump?



Frank Tuenge, Assistant Engineer, Jacksonville (Fla), Sanitation Division

In Jacksonville, Florida, it's providing a low cost, reliable method of lowering the ground water table at the city's East Sanitary Landfill.

"What we needed," explains Frank Tuenge, assistant engineer for the city's Sanitation Division, "was a pumping station that could operate around the clock without an attendant and could also handle the varying flow requirements of the landfill's drainage system."

The solution: An AquaTurf Atlantis 2000 pumping station. Automatically operated; electronically controlled; electrically powered. Two 25 HP pumps pre-programmed to "think for themselves," operating singly or in tandem depending on the need.

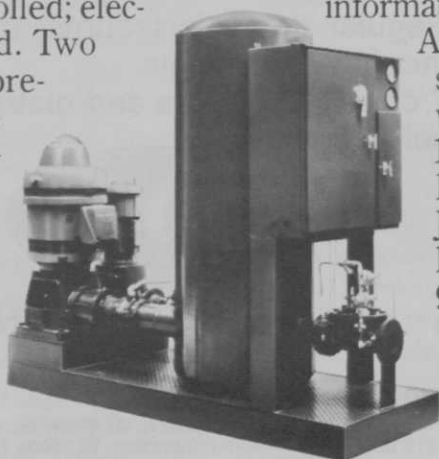
"The system is expected to

pay for itself in a little more than a year," Tuenge said. "We're also assured of keeping the ground water level within pollution control limits and the life of the landfill has been preserved for another nine years."

The anticipated savings to the city over that period of time: Nearly \$100,000.

What AquaTurf is doing in Jacksonville it can do wherever there's a dewatering problem—or a pumping problem of any kind. For the complete story on the Jacksonville installation and information about other

AquaTurf pumping systems, call or write AquaTurf, 11363 San Jose Boulevard, Jacksonville, Florida 32217. 904/268-6707.



## AquaTurf

AQUATURF, 11363 SAN JOSE BOULEVARD, JACKSONVILLE, FLORIDA 32217, 904/268-6707  
Circle 132 on free information card

# Products

## TINE HARROW

*Fuerst F-l-e-x-i-b-l-e does many jobs*

A Fuerst Tine Harrow will do a lot of jobs mechanically that now require doing by hand.

The Harrow will loosen thatch and stimulate growth of existing turf. It breaks up soil cores after aerification. It will prepare a seed bed while smoothing out rough uneven ground on newly constructed greens, bunkers and fairways, reducing hand raking to an absolute minimum. The Harrow will work in seed and fertilizer when overseeding and fertilizing. It can be used to rake roughs, wooded areas and traps. Many other uses have been developed by thinking superintendents.

Write 210 on free information card

## FRONT-MOUNTED DIESEL

*Bunton rotary features diesel engine*

A new 30 horsepower diesel engine, front-mounted rotary mower has been introduced by Bunton. According to Bunton, the diesel, with its longer engine life, lower maintenance and about half the fuel consumption, will increase the ruggedness and high performance of the Bunton tractor.

Other engine options include: 19.6 hp air-cooled, twin cylinder diesel. Bunton also offers a choice of front-mounted mulching or side discharge rotary mower attachments in 61 and 71-inch cutting widths. A rotary broom and snow plow attachment are available also.

Write 202 on free information card

## HF-15 HAS NEW DIESEL

*Jacobsen mower features high torque*

The 236 CID Perkins diesel engine available in the HF-15 generates 192 ft. lbs. of torque at only 1350 rpm, a gain of 20 percent over the previous diesel unit's 160 ft. lbs. of torque at 1600 rpm. Horsepower is also greater, rated at 78, compared to the original 65. Fuel consumption of the C.A.V.s fuel injected Perkins remains the same. Other new features of the HF-15 include a muffler and exhaust assembly that converts to either a vertical or horizontal position, a huskier gearbox drive with more rugged PTO shaft and U-joint, and a larger 12-inch diameter clutch.

Write 209 on free information card

## UHF 2-WAY RADIO

*Regency offers new hand-held series*

The Micro-Com MCP-U Series of hand held, UHF, 2-way radios operate in the 450 to 470 MHz range on up to four channels that



may be switched as needed. The unit measures 6 inches by 1.8 inches by 2.45 inches wide and weighs 16 ounces.

A separate speaker and microphone have been incorporated in the unit for better receive ransmit quality. Audio output is rated at 4 watts.

Write 213 on free information card

## MOTORLESS SPRAYER

*Unit has ground-driven pump*

The new WS-480 Grounds Wheelie manufacture is a liquid chemical spreader with a unique ground-driven pumping system. It can be used to apply liquid fertilizers, fungicides, herbicides and other chemicals. The twin wheel-pumps spray a fan of solution six feet wide at 1000 square feet per gallon. Coverage is relatively unchanged by the speed at which the sprayer is pumped. The faster it is pushed, the faster it pumps. The pumping system and the six-gallon container are made of corrosive resistant materials. The spray comes from two nozzles in the form of tiny droplets providing a steady uniform application which greatly reduces costly chemical drifting. The frame is fabricated of heavy gauge steel with shut-offs located on the handle grips.

Write 215 on free information card

## VACUUMS, SWEEPERS

*Parker offers complete line*

Parker offers as standard equipment on all of its VAC-35 models the exclusive Spin-Pak air guide deflector which holds packs 19 percent more bulk litter into an 11 cubic foot collector bag, an anti-wrap ring which guards against material collecting behind the impeller and wrapping around the engine shaft, a 12-gauge steel chassis, and a spark free 5-blade aluminum impeller, plus many others. Parker also offers a complete line of turf sweepers.

Write 218 on free information card

## HEAVY-DUTY TILT TRAILER

*A new line tilts mechanically for loading*

A new line of heavy-duty, low bed trailers that tilt to ground level for roll-aboard loading has been announced by Magline Inc. The Tiltster trailers are designed to reduce the cost of moving heavy, bulky equipment and other cargo by simplifying loading or unloading, and eliminating the need for special handling. A screwjack at the hitch end of the trailer mechanically lowers the rest of the trailer bed to loading position and then returns the trailer body to towing position when the load is aboard. Self-adjusting tailgate ramp provides a smooth, gradual incline for "roll-on" loading.

Four basic models are available, ranging in load capacity from 3,000 pounds to 7,000 pounds. Two bed sizes are offered: 70 inches wide by 10 feet long and 70 inches wide by 12 feet long.

Write 206 on free information card

## SPECIALTY TRACTORS

*Long Mfg. introduces a new series*

Shown at left is the 310-C, a compact 28 PTO horsepower, two cylinder diesel tractor, one of a series of three new specialty tractors recently introduced by Long Mfg., a North Carolina based company. Two other models available include the 260-C with 24 PTO horsepower and the 360-C with 35 PTO horsepower. All three models are designed for turf work.

Write 201 on free information card

## BOX SCRAPERS

*Bush Hog scrapers fit 15 to 70 hp tractors*

Designed to grade, level, and drag and backfill land and roadways, the new line of Bush Hog box scrapers feature a specially-designed curved moldboard that allows soil to roll within the box - preventing pile ups and rollovers for a smoother surface.

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*Continues on page 31*



NO SYNTHETICALLY PRODUCED FERTILIZER CAN COMPARE WITH MILORGANITE...AMERICA'S NO. 1 TURFGRASS FERTILIZER SINCE 1926



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 735 North Water Street  
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When answering ads where box number only is given, please address as follows: Box number, % Golf Business, Dorothy Lowe, Box 6951, Cleveland, Ohio 44101.

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## BUSINESS OPPORTUNITIES

WANT TO BUY OR SELL a golf course? Exclusively golf course transactions and appraisals. McKay Golf & Country Club Properties, 15553 N. East St., Lansing, Michigan 48906. Phone 517 484-7726.

## FOR SALE

GOLF RANGE EQUIPMENT. Ball washer, mats, 3-coin operated Wittek baseball machines, netting. Good condition. Write for complete list & price. Glenn Haugen, 7105 W. Mequon Rd., Mequon, Wisc. 53092.

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USED GOLF CARS FOR SALE. 3 and 4 wheel, gas or electric, any make or model. Best prices. Will deliver in quantities of 10 or 20 per load. Call us now for your immediate or future requirements. Mid-Atlantic Equipment Corp., 420 Penn Street, Spring City, PA 19475. 215 948-5205.

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dition. River Oaks G.C., 1 Park Avenue, Calumet City, Illinois 60409. 312 868-4090.

## POSITION WANTED

GOLF COURSE SUPERINTENDENT with twelve years experience. Available immediately. Degree in turf management. Member of the N.H.G.C.S.A. Single, willing to relocate. Will send resume upon request. Box 210, Golf Business, Box 6951, Cleveland, Ohio 44101.

## HELP WANTED

ASSISTANT TO GOLF COURSE superintendent. Degree in turf management helpful. Experience very important. To work with, as understudy to our superintendent. Excellent future at one of N. E. finest courses. Write complete details to: James Goslin, General Manager, Warwick Country Club, Warwick, RI.

GOLF PROFESSIONAL POSITION available. The University of Michigan seeks a golf professional for an 18 hole championship golf course. P.G.A. card or majority of credits towards earning one necessary. Applicant must be well qualified to instruct golf, set up and direct tournaments, run an auditable golf shop operation, hire and train personnel and possess the ability to diplomatically deal with the club membership. This is an April through October staff position. Salary commensurate with relevant education and experience. Send resume, salary requirement and references by March 31, 1980 to: The University of Michigan, Temporary Employment Office, 2545 Student Activities Building, Ann Arbor, Michigan 48109. A non-discriminatory, affirmative action employer.

## MISCELLANEOUS

BALL BARRIER NETTING: GF/2, made of olefin fibers. 25 feet high. Keeps balls from straying where you don't want them to. J.A. Cissel Company, Inc., P.O. Box 339, Farmingdale, New Jersey 07727. 800 631-2234.

GOLF CART FLOOR MATS. New nylon reinforced rubber mats for Harley 3 wheel carts. \$15.75 per set. C.O.C. or send payment to Rice Die Cutting Co., 8831-33 Ave., Kenosha, Wisconsin 53142.

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## WANTED TO LEASE

LOOKING FOR GOLF RANGE to lease for 1980 season. Reply Box 211, Golf Business, Box 6951, Cleveland, Ohio 44101.

# Directory

If your company is selling a service to the golf course market you can now get your company name and service in front of your total golf market potential for less than \$19.00 per month.

Send check or money order to Dorothy Lowe, Golf Business Directory Section, 9800 Detroit Ave., Cleveland, Ohio 44102.

One column inch ads monthly (12 issues) for one year, \$225.00; two inch ads monthly for one year, \$375.00.

## ASSOCIATIONS

**Michigan Association of Public Golf Courses**  
15553 N. East St.  
Lansing, MI 48906  
517/484-7726

*Promoting public golf through cooperative action. If you operate a public golf course in Michigan, call or write now for membership information.*

**Oregon Golf Course Owners Association**  
905 NW. Springhill Dr., Albany, OR 97321  
503/928-8338

*Promoting public golf and excellence in private-enterprise course operations. Any private owner in Oregon welcome to quarterly meetings. Call or write for details.*

## GOLF COURSE ARCHITECTS

**RONALD FREEM PARTNERSHIP**  
Golf Course Architecture  
Irrigation System Engineering  
P. O. Box 1823  
Santa Rosa, California 95402  
Melbourne Palm Springs Singapore

# golf business

## ADVERTISING SALES OFFICES

**ATLANTA:** 3091 Maple Dr., Ste. 312, Atlanta, GA 30305 (phone 404/233-1817)  
**JAMES R. BROOKS**  
National sales manager

**CHICAGO:** 333 North Michigan Ave., Room 808 Chicago, IL 60611 (phone 312/236-9425)  
**JOE GUARISE**  
Midwestern manager

**SEATTLE:** 1333 NW. Norcross Seattle, WA 98177 (phone 206/363-2864)  
**ROBERT A. MIEROW**  
Northwestern manager

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