

When you buy a piece of turf equipment from your Jacobsen distributor, he knows that the sale doesn't end with delivery.

In fact, it's just beginning. The rest of it depends upon his ability to give you fast service whenever it's needed. He knows that when your equipment is out for service, it's like having no equipment at all.

That's why your Jacobsen distributor goes out of his way to offer you the best service in the business. From normal maintenance to emergency repairs.

And he's been going out of his way for a long time. Our distributors have been with us for an average of 25 years. And their service managers have been with them for an average of 11 years. That's one heck of a lot of experience.

But Jacobsen distributors don't rest on laurels. Every year they send their service managers and key people to our Racine Product Training Center for comprehensive training sessions.

To stay up-to-date on new products and modifications.

To attend workshops on subjects such as the latest advances in hydraulics and transmissions. And to attend seminars on parts, service and management training.

Not only that, Jacobsen distributors hold field seminars and offer training to those customers who handle their own routine maintenance.

Fast service. Done by professionals who are thoroughly trained.

That's what you said you expect.

And that's why we feel that the sale is really completed in the service department.

Next time you get a chance, ask your Jacobsen distributor to tell you about his service philosophy.

The more you listen to what he has to say, the more you'll know he's been listening to you.

We hear you.

JACOBSEN
TEXTRON

Jacobsen Division of Textron Inc.

Write 105 on free information card

For 22 years, only one aerator has been built like Ryan's.

This is the Ryan Greensaire® II. The latest in a line that started back in 1958. Naturally, we've made quite a few improvements since then, but today's Greensaire II delivers the same, everyday dependability and reliable performance that made our first model so popular. Here's why.

(1) Its tines penetrate the turf in a straight, up-and-down motion. Holes are made cleanly and precisely;
 (2) There's a tough 8-hp engine that delivers self-propelled action, covering up to 8,000 sq. ft. per hour;
 (3) A 24" swath means fewer runs;
 (4) Four sizes of interchangeable tines let you achieve the exact amount of aeration your greens need. They penetrate as deep as 3" on two-inch centers, removing 36 cores from every square foot of turf;

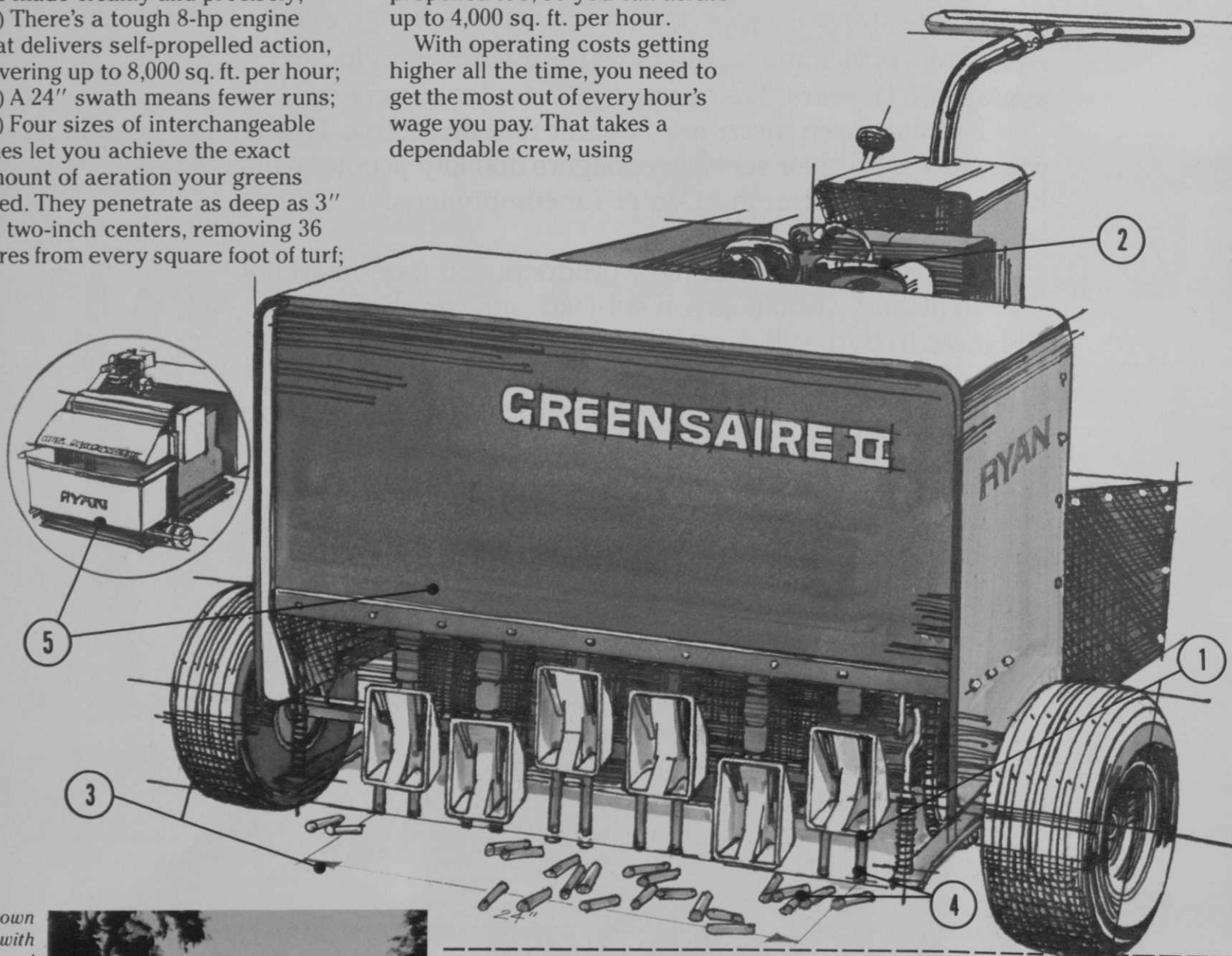
(5) An optional Core Processor attaches here. It separates thatch from soil, top dresses your greens and catches the waste in one operation.

If you don't need the high capacity of the Greensaire II, the smaller Ryan Greensaire 16 is a dependable alternative. It also offers the same choice in tine sizes. It's self-propelled too, so you can aerate up to 4,000 sq. ft. per hour.

With operating costs getting higher all the time, you need to get the most out of every hour's wage you pay. That takes a dependable crew, using

dependable equipment. Like the Ryan Greensaire II, the ultimate greens care machine. Or the Greensaire 16, the economical top performer.

Return this coupon today, and you'll get the chance to see for yourself just how we build a greens aerator. 80-CUR-1



Shown with optional windrow.



The Greensaire Aerators

RYAN
TURF-CARE
EQUIPMENT

*Day-In, Day-Out
Performance.*

- I want to see what your aerators are built like, Ryan.
- I'd like a demonstration of the Greensaire II.
 - With Core Processor attachment.
- I'd like a demonstration of the Greensaire 16.
- Send me your new 1980 catalog.

Write 110 on free information card

Name _____

Title _____

Address _____

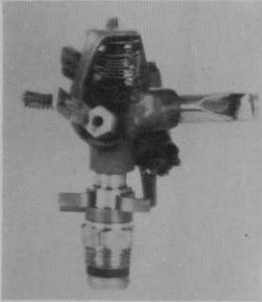
City _____ State _____ Zip _____

3006 Cushman
P.O. Box 82409
Lincoln, NE 68501

Products

IMPACT DRIVE SPRINKLER

Eliminates splash on either side



Royal Coach Sprinkler, Inc. announces assembly line production of an anti-back splash, impact drive sprinkler that eliminates water splash on either side of the

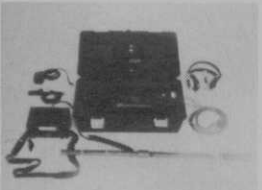
sprinklers. Available in full, part or full and part circle models, the impact drive 17000 series sprinklers can be installed above ground or below ground.

The all metal sprinkler has a 1/2" NPT standard pipe fitting. The pop-up model has a 3/4" NPT. The 17000 series operates on the 35-50 psi range with a coverage diameter of 84'.

Write 216 on free information card

WIRE LOCATOR

Locate "lost" solenoids quickly



Progressive Electronics Inc., Mesa, Arizona introduces its revolutionary TVL Model 520 - station wire and valve

solenoid locator. Now, locate lost or hidden solenoids as fast as you can walk to them, and at the same time; trace the path of the station control wires. Easy to use - easy to operate, the TVL is a real problem solver.

Write 218 on free information card

FLAIL MOWER

Features close wall cut



The 72 HD TURBOMOWER has been designed for long, trouble-free service cutting grass

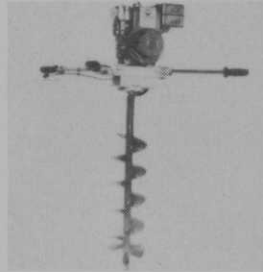
and scrub in rough conditions. Its floating link suspension allows it to follow the contours of undulating ground, reducing wear on linkage points; a facility for offsetting up to 20" to the left allows cutting close to walls and other barriers.

The machine's 5 1/2" diameter steel rotor has a 3/8" thick wall; it is dynamically balanced and fitted with spring steel cutters attached by spring steel shackles. It can be adjusted for height from 3/4" to 4 3/4". The heavy-duty, doublesealed and self-aligning rotor bearings have a diameter of 2 1/2". Drive is through a heavy-duty bevel gearbox and a cross shaft with double universal coupling to four final drive v-belts with self-adjusting tensioning.

Write 207 on free information card

EARTH DRILL

Offers more positive operator control



Groundhog announces a New Model D-5 Earth Drill featuring several improvements to provide more positive operator control. The chief difference is a new

manually controlled clutch which stops auger rotation the instant the clutch releases. This greatly reduces any possibility of run-away torque effects.

Two-inch through 12" interchangeable augers with changeable blades and fishtail pilots are available for use with the Groundhog Model D-5. As many as necessary of the four heavy duty handles may be removed for drilling close to buildings or transporting the drill in a car trunk.

Write 213 on free information card

HYDROPHOBIC COATING

Repels water, prevents icing



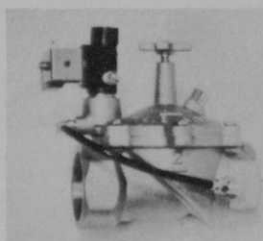
Clifford W. Estes Co. announces the availability of Vellox 140, their new hydrophobic coating system which imparts extreme water repellency to any

substrate to which it is applied. Surfaces coated with Vellox 140 refuse water to such an extent that a visible air layer, recognized as a silvery sheen, can be seen between the water and treated surface. Water in contact with these surfaces forms tiny droplets with no meniscus and literally roll across the surface in an almost frictionless manner. It is highly durable and applicable to almost any substrate.

Write 204 on free information card

PRESSURE REGULATOR

Features setable output pressure



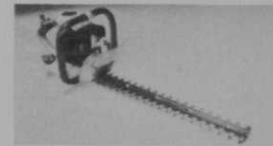
A new pressure regulator designed to provide a setable output pressure from a valve regardless of higher input pressures was recently introduced

by Rain Bird. The new regulator is available with a Schrader Valve and is designated Model "PRS". Designed for use on Rain Bird Model "E", "EA", "EF", "EFA", "EF-CP", "EFA-CP", and "EP" Series valves, the pressure regulator may be ordered assembled to the valve or as an individual unit used to convert any of the Rain Bird valves listed to pressure regulation.

Write 202 on free information card

HEDGE TRIMMER

Ten pound unit features 17-inch blade



A new gasoline hedge trimmer - the HC-140 - introduced by Echo, Inc.

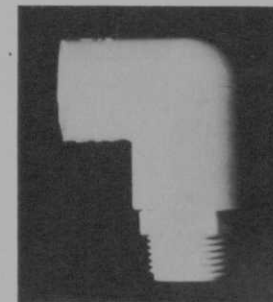
Echo's new HC-140 hedge trimmer, is powered by the quality Echo air-cooled, 14cc single-cycle gasoline engine and features lightweight, ten-pound construction with a 17-inch single blade cutting action on a two-sided blade.

The HC-140 trimmer is designed with an anti-vibration mounting for left handle and a right hand grip with a hand guard for safety.

Write 210 on free information card

SWING JOINT

Swivel ell will not seize or corrode



King Bros. Industries of Valencia, California is pleased to announce Swing-Ell™, a swivel fitting for swing joint assemblies available in 1/2", 3/4" and 1" sizes.

Swing-Ell provides permanent protective action for swing joint assemblies in sprinkler systems. It will not seize up or corrode and does not leak under static pressure testing.

The fitting is a 90 degree threaded street ell, which swivels freely where the male threaded end meets the body of the ell. The movement is sealed by a washer in the body.

Write 212 on free information card

REAR-MOUNT ROTARY

Bush Hog cutter features high speed



Bush Hog's new TM-5 rear-mount rotary cutter features a blade tip speed of 16,440 feet per minute. Three hardened alloy uplift blades

overlap 1 1/2 inches to mow and mulch a five-foot swath. A flexible mast, leveling chains, adjustable skid shoes and caster wheels enable the rotary cutter to float over uneven ground.

Cutting height adjusts from one to six inches. The enclosed 10-gauge steel deck features standard safety shields and discharges clippings to the rear. Bush Hog's new TM-5 fits 15 to 35 HP tractors with a category I three-point hitch and 540 rpm PTO. Weight is 350 pounds. The cutter is shipped to dealers preassembled except for A-frame, drive line, skids and wheels.

Write 217 on free information card

Toro waters 52 of America's top



in golf course irrigation.

That can mean a lot; whether you're replacing a few heads or specifying a fully-automated pushbutton system. You'll be dealing with the company that

TORO's been around the greens for 60 years. And we've grown to become the leading name

irrigates the majority of U.S. courses. And that includes over half of *Golf Digest's* top-100 list.

Put in TORO automatic sprinklers and at the crack of the day's first drive you know your course is ready. Greens have been watered in their own special way. Fairways, tees and rough got customized sprinkling. Frost or dew has been syringed off the greens. Yet nobody has been near the course all night long.

But the newest thing about TORO



100 golf courses. Let that soak in.

automatic sprinkler systems is that the cost is less than ever. For example, our new hydraulically-controlled MPC system brings automatic within reach of just about everybody. Because we don't have to dig up your turf, you don't have to dig down into your pocket to afford the conversion.

And the solid-state VT 3 system we've just introduced bucks the rising tide of inflation with more control for less money. It's pushbutton irrigation nobody

else can touch.

You don't have to be in Pebble Beach or Augusta to have a great golf course. Just call our Golf Course Marketing Manager John Skidgel today. His 24-hour number is 714-359-0701. It could be the biggest step you ever took toward *Golf Digest's* top 100 list. Did that soak in?

The TORO Company, Irrigation Division, P.O. Box 489, Riverside, CA 92502. International Telex: 676-490.

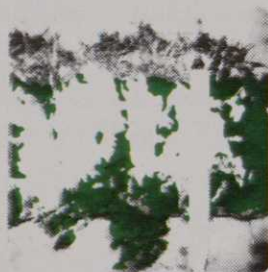
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IRRIGATION DIVISION

Specify **AQUA-GRO**[®]

FOR A LONGER, MORE PROFITABLE SEASON!



Shallow rooted turf, poor moisture distribution from area treated with Aqua-Gro amended water.



Deep rooted turf, good moisture distribution from area treated with Aqua-Gro amended water.

- Eliminates hard-to-wet spots with reduced hand watering and syringing.
- Standing water and localized dry spots disappear.
- Reduces compaction, erosion and washout areas.
- Excellent dew and frost control
- Thicker, heartier turf and better drainage in car areas
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AQUA-GRO is available in liquid concentrate or spreadable granular. For free illustrated brochure write to:



AQUATROLS CORPORATION OF AMERICA, INC.

1432 Union Ave., Pennsauken, New Jersey 08110 (609) 665-1130

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OTTERBINE Spray Sculpture Floating Fountains. Now you can clean up ponds and lakes naturally.

These self-contained water quality improvement systems help you keep unsightly algal growth and objectionable odors under control naturally, without costly chemicals.

And their sparkling spray displays may dramatically change the natural beauty of your ponds and lakes.

For the Otterbine dealer in your area contact:

OTTERBINE

576 North St., Emmaus, PA 18049 • 1-215-965-6990

Write 122 on free information card

Viewpoint



Conserving energy is something that everyone must now consider. The crunch is already creating cutbacks on many courses. Superintendents are starting to react and some very good methods of coping are coming forward. One idea that is gaining in popularity is how to make alcohol from grass clippings. So far, we haven't run into anyone who knows how or is actually doing it. So I ask you: If you are successfully making alcohol fuel from grass clippings or know someone who is, or know someone who knows someone who is, please let us know. We do know of one superintendent who is going to experiment and we will follow his efforts closely, reporting on his successes.

If you skipped over the news page (6), go back and look at the item on 2,4-D. I knew it was coming. Though it doesn't seem too serious, remember that 2,4,5-T was lost under circumstances that began in a very similar vein. Chemicals have a way of disappearing once EPA gets ahold of them.

Farrell Higbee, in his editorial in the February issue of *The World of Agricultural Aviation* seems convinced that those against 2,4,5-T now have the backing of pro marijuana groups, who were losing their crops to the chemical. He also says that most of the 17 critiques of the Alsea II study recognize that it is only one statistical woman "who is the sole basis by which EPA scientists give Alsea II any credit at all!" So you see, all they need is a will. They'll find a way.

The Idea File on the Clippings page (4) is starting to take off. I have a couple for future issues, but need more to keep it up. It's an excellent way to help other superintendents and to put your name forward as a thinking superintendent.

Lon Morris

Greens from page 18

holding capacity below that recommended. Pending the results of future research, provisional acceptance is being given to such sands with a preference for those slightly "dirty" sands coming closest to also meeting the specifications for infiltration rate and water holding capacity. By sampling widely those sands readily available, one or more can be selected to send on for the complete testing. Owning a set of sand sieves would provide superintendents valuable assistance in the selection process, as well as a means to conduct quick quality control checks on each on-site delivery.

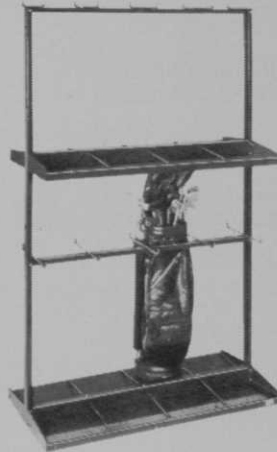
What about layering problems? Where the existing surface material is inadequate, and rebuilding has been rejected as a solution, layering cannot be avoided. Problems associated with layering can be held to a minimum, however, by being particularly careful with irrigation and by diligently carrying through on both the aerifications and the topdressings. The aerifications serve to puncture the barrier layer, the topdressings serve to continually add to the depth of the new rootzone being created.

How does the Stimpmeter fit into the picture? It is simply an instrument with which one aspect of putting green performance can be measured. The green speed and uniformity in speed from green to green may indeed be a factor to consider when determining whether or not to institute a topdressing program. Cutting height influences green speed, and it can often be lowered somewhat without incurring damaging effects but only after the topdressing program has begun and the first several applications made. It is easy to imagine, however, any number of agronomically unwise practices, such as dropping the cutting height too severely or at an inappropriate season, for which the Stimpmeter may be blamed. But it should be obvious that an instrument cannot make a decision, good or bad. It can only furnish some information for consideration in arriving at a decision.

It is here, somewhere in the middle of things, that this discussion should come to an end, so as to emphasize that this is no completely determined area of investigation. There are guidelines for us to follow in striving for putting green improvement, some of which continue to be ignored, but the field remains open for those who would seek to advance our understanding and progress.

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Topdressing Mixtures — The Green Section's Position. *USGA Green Section Record* 15(6): 5-8



INCREASE EARNINGS, SERVICE & SPACE

Remodel your present storage space, update with
NEW Stafford VERTICAL BAG RACKS

- Wear and tear of golf bags is completely eliminated
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- Faster, easier storage
- Provides a neat appearance
- Easy to install and add more as needed

Your members will like the extra convenience and care. Your pro shop profits from 40% more space these racks make available. Double unit shown holds 16 bags, size 2' x 4' x 6'-6" high, gives 12" x 12" space for bags. Single unit holds 8, size 1' x 4' x 6'-6" high. Sturdy steel. Bags set solid on tapered shelves. Send us your floor measurements, we will plan a layout and quote you — no obligation. U.S. and Canadian patents. Send for folder.

The A.G. STAFFORD Co.

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Throw away your shovel!

- HANDLE TOP DRESSING, PEA GRAVEL WITHOUT A SHOVEL — SAVES TIME, MANPOWER, MONEY.
- Augers 2 ½ yards of material in minutes into a topdresser, spreader, sand traps, drain lines.

For the dealer in your area contact:

BUNDY INDUSTRIES

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DEALERS WANTED

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Classified

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

Rates: All classifications 65¢ per word. Box numbers add \$1 for mailing. All classified ads must be received by the Publisher before the 10th of the month preceding publication and be accompanied by cash or money order covering full payment.

Mail ad copy to Dorothy Lowe, Golf Business, Box 6951, Cleveland, Ohio 44101.

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

WINCH RAMSEY PTO drive. 8,000 pound. 313 731-3469.

18 HOLE PAR 3 golf course, excellent condition with large club house, located in Lancaster County Pennsylvania. Entire course is lit for nite play. All equipment included. \$160,000.00. Terms flexible. Inquire Hauenstein Agency, Inc., 1433 West Main Street, Ephrata, Pa. 17522. 717 733-4158.

CHAMPIONSHIP 9 hole golf course and all equipment. Located in Vermont. Clubhouse with lounge, 8 room house, 3 tennis courts, swimming pool, \$390,000.00. Extra land available. Season May thru Oct. X-country skiing potential for winter. Don Warner, 802 875-2821.

97 ACRES, 13 greens computed, scenic resort area, clubhouse, owner financing with 25% down, \$1100 per acre. Write Whiskey Run CC, P.O. Box 11, Quaker City, Ohio 43773.

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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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GOLF COURSE SUPERINTENDENT or superintendent/manager. Over thirty five years experience in all phases of public fee golf course operation and golf course construction. Now available. Resume upon request. Box 212, Golf Business, Box 6951, Cleveland, Ohio 44101.

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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.D. or send payment to Rice Die Cutting Co., 8831-33 Ave., Kenosha, Wis. 53142.

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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
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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

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

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Northwestern manager

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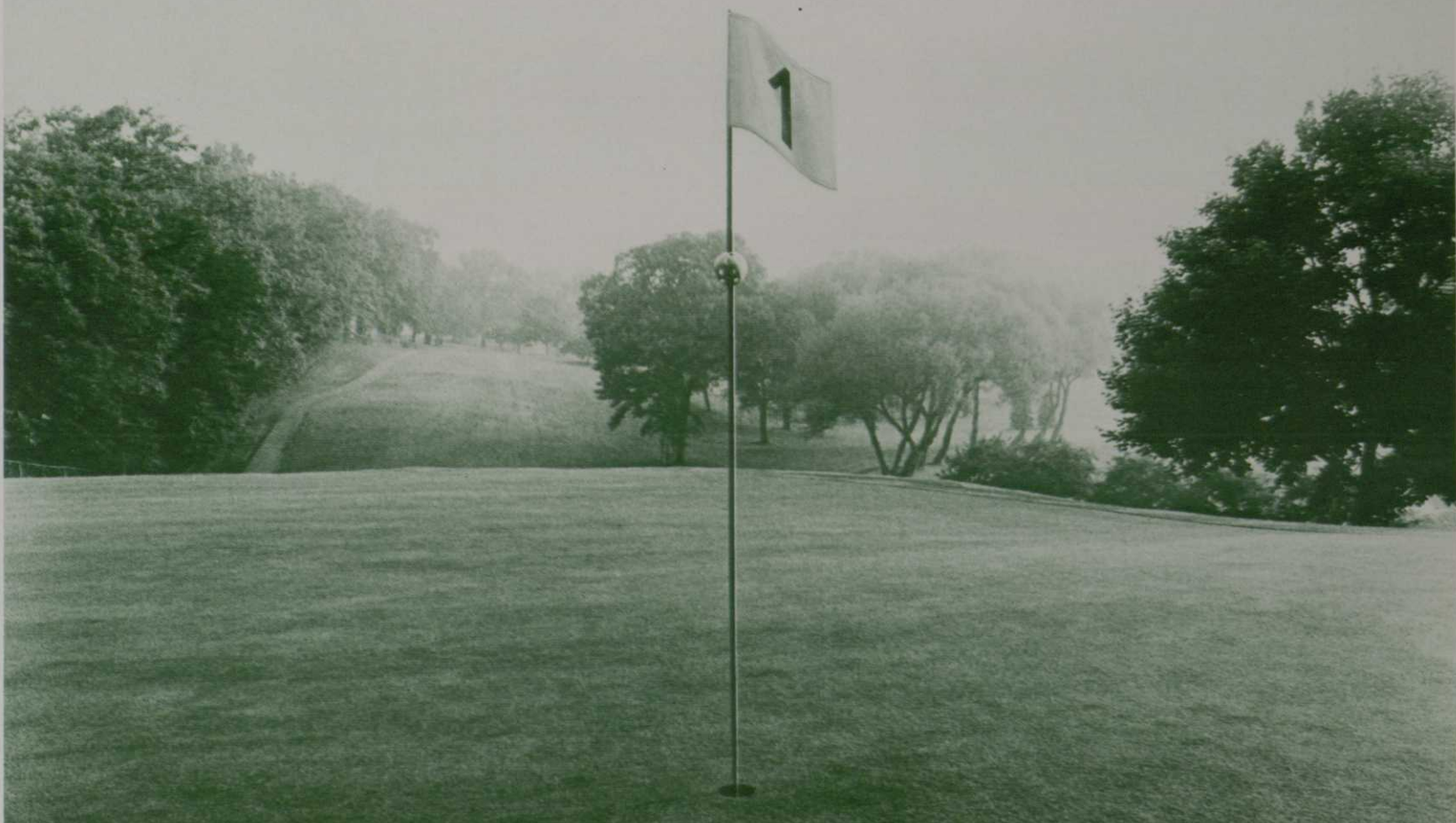


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STILL YOUR FIRST CHOICE FOR A TURF DISEASE CONTROL PROGRAM.



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Acti-dione has an established record of performance on greens and fairways. In continuous use for more than 20 years, Acti-dione has earned an untarnished reputation for reliability. Widely respected for its broad spectrum activity, Acti-dione is a leading choice as a pivotal fungicide in a total disease management program.

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Acti-dione is the most economical fairway fungicide program available today and equally accepted for use on tees and greens.

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Acti-dione, a contact fungicide, eradicates as well as prevents many turf diseases. Regular application protects greens and fairways year-round.



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Division of The Upjohn Company

NO DISEASE RESISTANCE BUILDUP

Acti-dione continues to work effectively, with no reported evidence of resistance buildup. It degrades quickly and is environmentally sound.

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Acti-dione ingredients do not interfere with beneficial bacteria necessary for thatch breakdown.

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Acti-dione is easy to mix and keep in suspension, gives uniform coverage, and is compatible with most commonly used fungicides and insecticides.

PROXOL® FROM TUCO CONTROLS GRUBS

Proxol 80 SP insecticide wipes out grub problems along with sod webworms, cutworms and armyworms.

Toro introduces trimmers to be called

You work hard for a living.

You need equipment built to do an honest day's work, too.

So Toro has come up with trimmers and blowers good enough to be called Professionals.[™]

They're specifically designed for parks, schools, golf courses, offices and other commercial users.

Ruggedly engineered to give you dependable service.

And reliably powered by the world famous Kioritz air cooled, two cycle, gasoline engine.

Our 21cc trimmer is ideal



for quick trimming jobs. Weighs only 11.9 lbs. and has an automatic head that feeds new line with just a tap on the ground.

Our 21cc deluxe trimmer is for longer stretches of work on



grass, weeds and brush. It's easily maneuverable with an adjustable U-handle control and wide strap harness for operator comfort.

Our 30cc trimmer/cutter is heftier and more powerful for



sustained chores on everything from grass to light brush. Its fixed head with heavy duty nylon line and 10" weed cutter are both standard.



**21cc
Deluxe Trimmer**



**40cc
Back Pack
Blower**



**21cc
Hand Held
Blower**