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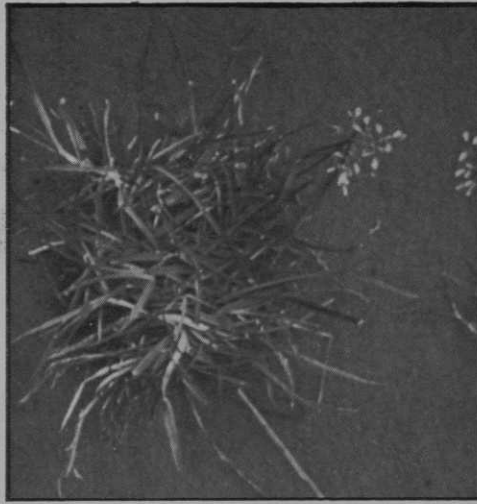
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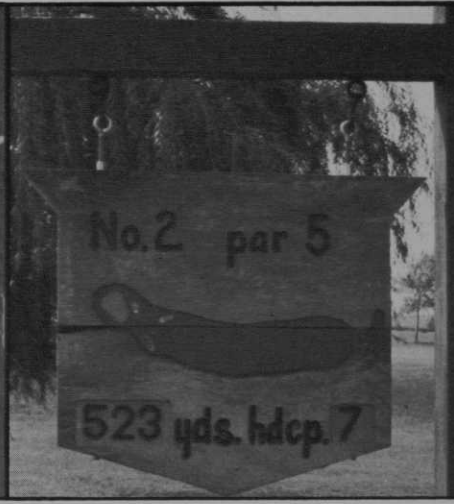
And their sparkling spray displays may dramatically enhance the natural beauty of your ponds and lakes.

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WORKING WITH NATURE



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Urban Hills/p. 21



New cars/p. 26

# golf business/november

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**FRONT COVER:**

The infamous *Poa annua* in living color. Photo courtesy William H. Daniel, Purdue University.

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**From farm to daily fee golf course**

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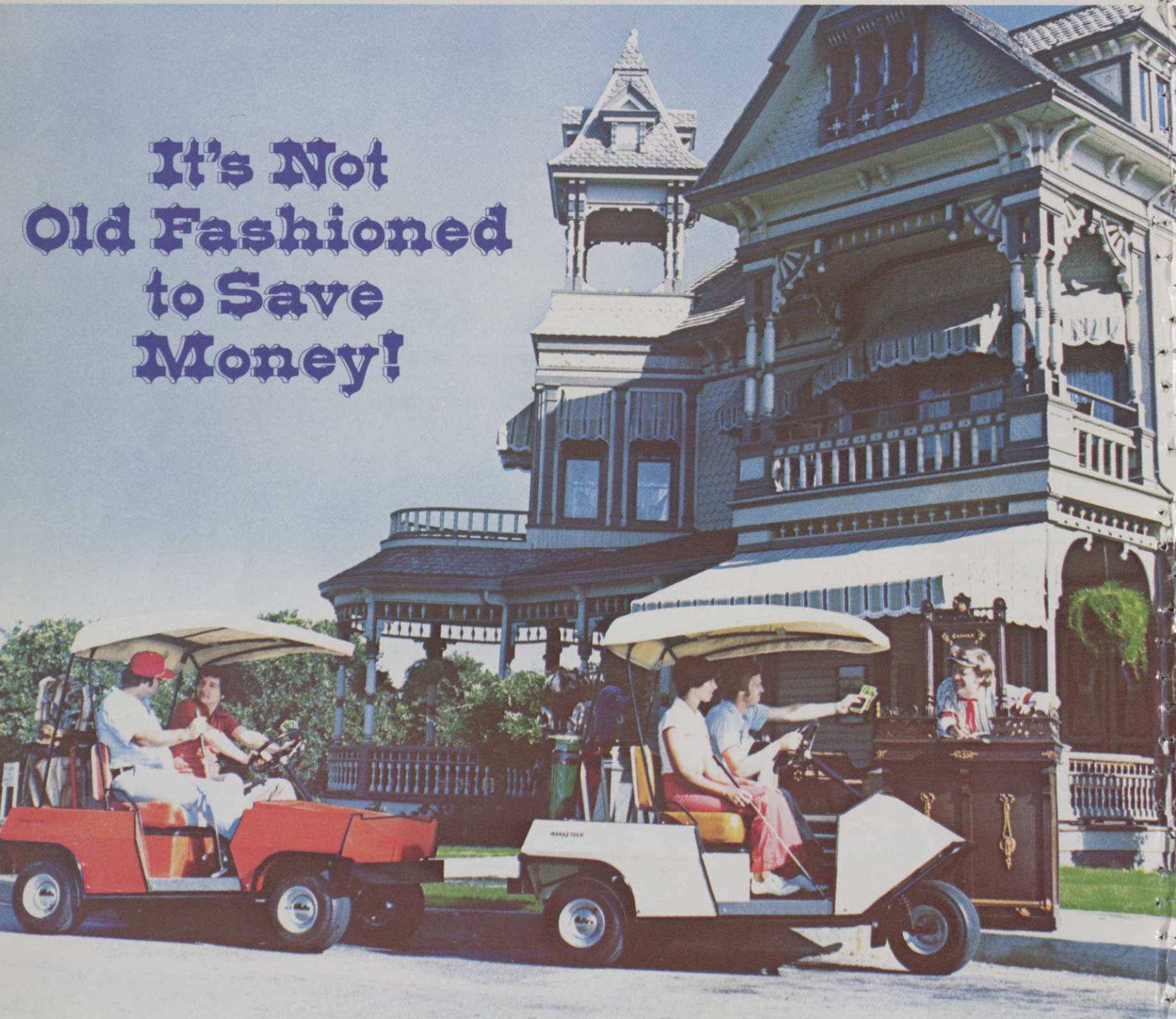


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# Some golf courses have more water hazards than they need.

You thought you were installing a sprinkler system. But now, you're the only course in town with a water hole on every fairway. Bordered by a swamp that's bordered by a bog.

So you reset all the controllers and hope for the best. Then you discover that *was* the best.

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Like the water bills you get, because your controllers can't tell time very well.

The solution, of course, is a total Rain Bird system. Reliable, precise Rain Bird® controllers that are the standard of the industry. Plus quality,

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# News

## PESTICIDES

### FIFRA bill becomes law

President Jimmy Carter signed the Federal Insecticide, Fungicide and Rodenticide Act on September 30; it had been passed by voice vote in the U.S. Senate on September 18 and in the House of Representatives on September 19.

FIFRA makes the states the primary enforcers of the law, rather than the federal EPA, in those 30 states having federally approved EPA plans. States without such plans would be subject to federal EPA inspections.

Although under FIFRA it would still be illegal to use a pesticide in a manner not permitted by labeling, exceptions to this would provide some freedom of choice. They include:

- using a pesticide at less than label concentration or dosage
- applying a pesticide against target pests not listed on the label, provide the application is to a labeled crop, animal, or site and the label does not specifically prohibit use against that target pest
- using a method of application not listed on the label
- and mixing the pesticide with fertilizer if not specifically prohibited by the label.

### DBCP ban does not include golf courses

A federal Environmental Protection Agency proposal to restrict the use of the pesticide DBCP (dibromochloropropane) would still allow golf courses to apply the chemical for nematodes — provided application is by trained workers wearing protective clothing and respirators. Also, unprotected people would not be allowed in treated areas for 24 hours after application of DBCP.

The proposed permanent restrictions are similar to temporary restrictions imposed last year (see GOLF BUSINESS, December 1977, p. 15) and would ban use of DBCP on most fruit and vegetable crops while allowing controlled, professional application to turf and ornamentals. The new restrictions

are subject to a hearing, which has been requested by a California pesticide distributor and the California Rural Legal Association. For now, the temporary restrictions will remain in force.

DBCP is said to cause cancer in laboratory animals and sterility in human males producing the product. The pesticide is no longer made in the United States, but is imported for limited use by Amvac Corp., Dow Chemical Co., a division of Occidental Petroleum Co., and Shell Oil Co.'s chemical unit. EPA gave these companies permission to sell DBCP because their labels carry proper warnings.

## FOUNDATIONS

### NGF membership reaches new high

A record 1,960 of the nation's golf facilities participated in the National Golf Foundation's associate membership program this year, according to NGF Executive Director Don A. Rossi.

Helen Kernander, NGF administrative assistant who operates the program, reports that 335 courses became members in 1978 for the first time. Total membership in 1977 was 1,745; in 1976, 1,612.

Initiated in 1966, the program provides member courses with numerous operational aids for an annual fee of \$60. Total cost of all items if purchased separately would be over \$100. Materials provided include 300 copies of the current volume of golf rules, the new 400-page looseleaf Golf Operations Handbook (with annual updates), and other pertinent publications.

For further information on associate memberships, write to NGF headquarters at 200 Castlewood Dr., North Palm Beach, FL 33408



Scenes from 1978 New Jersey field day (top to bottom): Paul Boizelle (in cap at left of truck), Fiddlers Elbow CC, and Dr. Henry Indyk (center) lead guided tour of outdoor exhibit area. Local suppliers such as Andrew Wilson Co. displayed wide variety of turf and irrigation equipment, also donated door prizes. Ken Kubik (in cap at left) is sales manager of this 75-year-old distributor in the New Jersey/metropolitan New York area. Demonstrations on the Rutgers golf course included power trap rakes, greensmowers, and aerators. Ken Indyk of Storr Tractor Co., Westfield, N.J., operates a Ryan Greensaire II.

## REGIONAL MEETINGS

### N.J. field day draws record crowd

A record 650 turf managers, mostly golf course personnel, attended the 14th annual Turfgrass Equipment, Irrigation, and Supplies Field Day put on last month by the Golf Course Superintendents Association of New Jersey.

According to Paul Boizelle,

past president of the New Jersey association, the event is unique in that each year it is sponsored by one of the state GCSA's eight districts and co-sponsored by the previous year's sponsoring district. The 1978 field day was sponsored by district 4 and co-sponsored by district 6.

The grounds at Rutgers University's stadium and golf course provided ample room for the 60 exhibits as well as a natural setting for the demonstration of turf

## NATIONAL GOLF FOUNDATION BOX SCORE

January-September 1978		REGULATION COURSES	EXECUTIVE COURSES	PAR 3 COURSES	TOTAL
OPENED FOR PLAY	New	33	9	3	81
	Additions	29	7	0	
STARTED CONSTRUCTION	New	34	3	2	69
	Additions	26	2	2	
PROSPECTIVE		68	8	4	80

# Why should your course be any less prestigious than the Olympic Club?

Why should your club be any less prestigious than the Olympic? The Homestead? The Princeville Golf & Country Club? Three of the finest, most distinctive golf courses in the world—and all have two things in common. They're tough, hilly courses. And they all feature Harley-Davidson® gas golf cars.

There are enough reasons that prestige alone can't be the full explanation for their popularity:

**Style.** Harley-Davidson gas golf cars look good when they're old, as well as new. Because they have fiberglass, no-rust bodies they can take punishment from the elements.

**Ride.** Luxurious. Smooth, quiet, easy handling. Meticulous care has been



taken with every feature. The engine is rubber mounted to the frame to minimize vibration. Front and rear coil springs supplemented by hydraulic dampeners ensure a soft ride. And both 3 and 4 wheel models are torsionally stabilized to smooth out the roughest terrain. Even the vinyl seat cushions and backs are one-piece so that when it rains, water can't work its way through seams and under the cushions.

**Power.** Harley-Davidson golf cars feature powerful, 250 cc engines that enable them to climb 50% inclines comfortably with 2 golfers and their gear aboard.

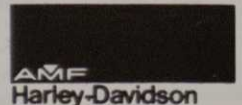
**Maintenance.** This is a golf car designed to stay out on the course. A tankful of gas stretches out to more than 16 rounds. The starter-generator, coil ignition, 12-volt battery, and one-piece aligned breaker points, are all a snap to maintain. Even filling it with gas is easier. You fill it just like an automobile. You don't have to lift the body.

**Dealer service.** Your Harley-Davidson dealer is knowledgeable in all facets of golf car fleet management. From fleet planning to profitability and financing.

And he'll be there to personally assist you with your service needs throughout the year, whether you have Harley-Davidson gas cars or electric.

**An offer you can refuse. But why?** Call your local Harley-Davidson dealer. Tell him you'd like to put one of our cars through its paces. On your course. Give it a good workout. See for yourself.

We anticipate that soon you'll feature the same prestigious cars as Olympic, The Homestead and Princeville.



maintenance and renovation equipment. Most of the major brands of golf course equipment, chemicals, and seed were displayed by manufacturers or by local dealers and distributors.

## OSHA

### Small businesses may get a break

Golf courses and other small businesses would no longer have to keep logs about occupational injuries or illnesses under an agreement reached in a congressional conference committee on the Small Business Authorization Bill.

Courses with 10 or fewer full-time employees would not have to keep the logs for the Occupational Safety and Health Administration unless the owner was part of a survey of small businesses.

Another provision of the amendment to the Small Business bill would prohibit OSHA from imposing civil penalties against a business with 10 or fewer employees on first-time OSHA inspections which found 10 or fewer nonserious violations.

The conference committee report has been approved by both houses, but must be signed by the president before becoming law.

Although the amendment would limit some of OSHA's regulations, some congressmen felt it did not go far enough. U.S. Sen. Dewey Bartlett (R-Okla.) proposed a tougher amendment which was defeated in the conference committee. One of the senator's aides said, "Because the amendment says '10 or fewer violations,' I think you'll see a lot of inspections where they find 11 violations."

## COMPANIES

### Employee group to buy Davey Tree

The board of directors of Davey Tree Expert Co., Kent, Ohio, has unanimously approved a plan under which the controlling interest in the company will be acquired by its employees, according to Chairman Alexander M. Smith.

Acquisition of control of the company by the group of about 150 employees is expected to be completed in January 1979. The sale to employees insures that the corporate offices and headquarters will remain in Kent.

Davey has about 2,500 employees, is licensed in 45 states, and expects to do about \$50 million business this year, according to Marketing Manager Henry D. Schmid.

The essential features of the plan involve an offer by Davey to repurchase outstanding common shares, the establishment of an employee stock ownership plan and trust, and the sale of common shares to the trust and to employees. The price for the shares of Davey Tree in these transactions is based on a value for the company of approximately \$9 million.

### Toro earnings up; stock split sought

The Toro Co. recently reported record sales of \$227 million (up 41 percent from last year) and record earnings of \$11 million (about double last year's) for its 1978 fiscal year which ended July 31. The next day, the Toro board of directors approved a recommendation to stockholders

calling for an increase to 15 million from 5 million in the number of common shares authorized.

David T. McLaughlin, Toro chairman and chief executive officer, said if stockholders vote to accept the recommendation at the annual meeting on November 9, "it is management's intention to ask the board to authorize a 2-for-1 stock split in the form of a 100 percent stock dividend."

Toro stock has been traded on the New York Stock Exchange since September 6; it was previously traded on the National Over-The-Counter Market. Thus far, about 2,650,000 common shares have been issued.

Of the company's growth in 1978, McLaughlin said, "Our snowthrowers are completely sold out at the manufacturing level. Our turf irrigation division entered the new year with a large back order position. And our walk-behind power mowers, rider mowers, and professional turf equipment continue to receive strong reception in the marketplace."

Product category gains for Toro in 1978 were 33 percent in professional turf equipment and 42 in turf irrigation equipment.

## FERTILIZER

### Sulfur-coating plant begins operation

The first commercial plant in the world to produce slow-release sulfur-coated fertilizers began operations under the direction of Ag Industries Mfg. Corp. (AIM) in Columbia, Ala., on October 5. A similar facility operated by another company in Canada coats urea only, but the AIM plant sulfur-coats a complete fertilizer consisting of urea, phosphorus, and potash.

AIM, an Alabama corporation wholly owned by Lakeshore Equipment & Supply Co. of Elyria, Ohio, is licensed by the Tennessee Valley Authority (TVA) to use methods developed by TVA at its National Fertilizer Development Center in Muscle Shoals, Ala., to produce the sulfur-coated fertilizers. Construction of the plant, located on the Chattahoochee River, took just less than a year.

It took the fertilizer development center over 15 years to develop a suitable coating for urea, a man-made derivative extracted from the atmosphere, according to Ronald A. Smith, AIM's project manager and chief operating officer.

Urea is an inexpensive water-soluble nitrogen fertilizer compound with a high nutrient content. The sulfur coating slows the dissolution of the fertilizer in the soil, making the fertilizer last longer, reducing the number of applications required, producing even plant growth, and reducing pollution problems on some soils.

Agronomic testing by TVA and universities has proven sulfur-coated urea to be an excellent fertilizer for turfgrasses.

## GOLF WORLDWIDE

### Few public courses outside of U.S.

During the Second International Conference on Golf Development held in Stockholm earlier this year, the National Golf Foundation learned that about 90 percent of the golf facilities outside of the United States are private.

Of the 15 nations with the largest number of golf courses, only the U.S. has more public courses than private. NGF Research Director Ed Wells provides these figures:

COUNTRY	TOTAL COURSES	PRIVATE COURSES	PUBLIC COURSES
1. United States	12,511	5,136	7,375
2. Great Britain	1,400	1,200	200
3. Australia	1,357	1,302	55
4. Canada	1,200	1,000	200
5. Japan	710	620	90
6. Scotland	450	375	75
7. South Africa	435	425	10
8. New Zealand	390	375	15
9. Ireland	241	240	1
10. Sweden	145	144	1
11. Germany	132	132	0
12. Argentina	119	110	9
13. Wales	105	105	0
14. France	104	102	2
15. India	80	80	0

### Poor Man's Golf Course Designer & Builder 18 Hole First Class Golf Course For Less Than \$200,000?

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# What can a hole in the ground do?

When your grounds become hard-packed from constant use and temperature changes, or if the ground is naturally hard, grass has a tough time growing.

The answer is aeration.

These holes allow air, water and fertilizer to penetrate to the root zone where they're needed. They relieve compaction, giving grass room to grow. New, more drought-resistant roots are stimulated. And the turf takes on a springy, soft feel.

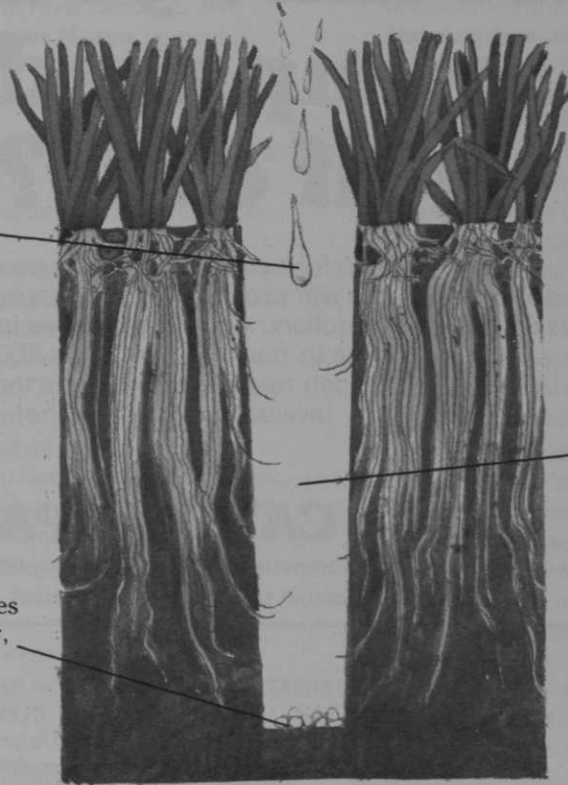
Ryan makes two pieces of equipment specifically for aeration of parks, athletic fields, playgrounds, golf course fairways, or any large turf area.

The Ryan Renovaire® is designed to contour aerate compacted turf on hilly as well as flat areas. Its 12 tine wheels are mounted in pairs, operating independently to give both high and low spots equal penetration.

Moisture penetrates deeper, encouraging strong roots.

Fertilizer reaches root zone faster, won't wash off.

Compaction is relieved, grass has room to spread out.



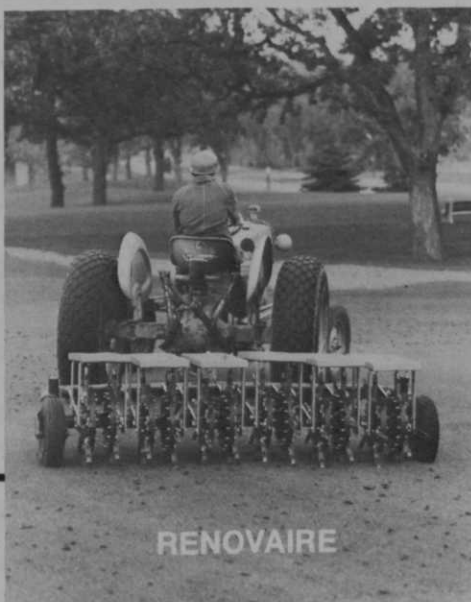
The Ryan Tracaire® is used to aerate large level areas, especially athletic fields. Mounted by a 3-point hitch, it gets the job done quickly, easily, efficiently.

Both the Renovaire and the Tracaire can be equipped with coring, slicing or open spoon tines for aerating all types of soil in all seasons. Both can be used with a 12-foot-wide dragmat to

break-up cores and groom the grass. And both are built to last, like all Ryan equipment.

Give your large turf areas room to breathe with the Ryan Renovaire and Tracaire aerators. You'll see the green, healthy difference a few simple holes can make.

Write for your free Ryan catalog today.



RENOVAIRE



TRACAIRE

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The distinct performance and maintenance advantages of Davis 500 cars *will* provide you with many thousands of *extra* profit dollars. And we can prove it. Just call or write to find out why Davis 500 is the best thing to happen to golf courses since the invention of the 19th hole.



## GOLF CAR COMPARISON CHART

Comparison based on data published in trade magazines; actual tests; and random survey of dealers and courses.

GOLF CAR (4 WHEEL)	WEIGHT including batteries or gas (pounds)	APPROXIMATE RETAIL PRICE 12/1/78	NUMBER OF HOLES PER 12 HOUR CHARGE ON MODERATELY HILLY COURSE (Approximate)	HILL CLIMBING (Approximate degrees)	* BODY AND FRAME DURABILITY	RANGE OF OPTIONS (Number)	BATTERY LIFE (Months)		** ESTIMATED RESALE VALUE AFTER 4 YEARS (% of original purchase price)
							North	South	
DAVIS 500	875	\$2077	67 - 70	30 - 35	Excellent	15	24/36	18/20	30 - 45
EZ-GO (x-444)	1035	2348	36 - 40	20 - 25	Fair	15	18/22	11/13	20 - 25
CLUB CAR	868	2370	67 - 70	30 - 35	Fair	10	24/36	18/20	25 - 35
HARLEY DAVIDSON ELECTRIC (DE-40)	900	1925	36 - 45	25 - 30	Fair	5	18/22	11/13	20 - 30
HARLEY DAVIDSON GAS (D-4)	821	2270	—	30 - 35	Fair	5	—	—	25 - 40
PARGO	1050	2395	54 - 60	20 - 25	Fair	5	20/24	12/13	15 - 25
TAYLOR DUNN (T-Bird)	1125	2200	36 - 40	20 - 25	Fair	12	20/24	11/13	20 - 30
MELEX (212)	1075	2245	36 - 40	20 - 25	Fair	3	20/24	11/13	25 - 30
BOGUE (BE-405)	940	1795	40 - 45	23 - 28	Fair	5	20/24	11/13	15 - 25
GO-FORE	1075	2050	36 - 40	20 - 25	Fair	8	20/24	11/13	15 - 25
NORDCO (Marketeer)	1100 (approx)	2395	36 - 40	20 - 25	Fair - Good	9	18/22	10/12	20 - 30
YAMAHA (Gas)	735 (approx)	2395	—	30 - 35	Good	3†	—	—	30 - 40

\*The DAVIS 500 is the only golf car made with a rigid, heavy duty, rubber clad steel external frame for 360° collision protection against body damage and misalignment of steering and drive train components.

\*\*Percentages reflect body condition; battery replacement; frame alignment; tire, motor and drive train wear; and a factor of rapidly growing importance — the car's efficiency in terms of electric utility costs required to operate.

†Also has many standard built-in options.



DAVIS 500 / DIVISION DAVIS MECHANICAL CONTRACTORS, INC.

Main Plant and General Offices: Pelham Road, Greenville, SC · Phone: 803/288-7430

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