Why is it a 4-Wheeler?

A leading insurance authority predicts an early end to 3-wheel golf cars. The 4-wheel CAROCHE outperforms 3-wheelers with greater safety and stability.

Much lighter than all 3-wheelers, CAROCHE draws only half the amperage from batteries and its sturdy aluminum frame and fiberglass body will never rust, corrode or need painting.



Why is it electric?

Congress set 1976 as the deadline for eliminating harmful exhaust from cars. The electric CAROCHE will go 54 holes on the hilliest course without the pollution,

smoke, noise, odor or fire hazard of gas cars. Electric vehicles cost considerably less to operate and maintain than those powered by gasoline engines. 80% of 300,000 golf cars in service are electric.

CAROCHE will flatten a mountainous golf course.

CAROCHE will go twice as far as competitive cars on a single battery charge with batteries that will last twice as long. CAROCHE will save its owners \$762.08 per car over four years on replacement batteries and electricity alone. Golf car manufacturers depend on their parts business for up to 25% of gross sales. We can't, because during

record CAROCHE sales last year, we had a 37% decrease in the sale of replacement parts. We can name courses operating CAROCHE fleets up to 16 months without the first repair or replacement of a single part.



Why don't you at least ask for a demonstration?



CAROCHE is our best salesman and the finest advertisement we could write, but it must be demonstrated to be appreciated and believed. Don't take our word for it. Ask for a free demonstration of the golf car of the future; wring it out and sell yourself.



INCORPORA

P.O. Box 1625 Augusta, Ga. 30903 (404) 798-8687

We'd like a CAROCHE demonstration.

NAME																								•	
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For more information circle number 194 on card

1/74 GOLFDOM MAGAZINE

Golf Car of 1976

The Best DRIVE You'll Ever Make The Best MAKE You'll Ever Drive

Our progress in the golf car field enabled us to build America's first electric automobile-the VANGUARD-obtaining up to 53 miles per battery charge at a speed of 28 mph.

GRAFFIS from page 10

happy at the excellent choices of men holding these posts. Among the latest to be named is Les Frisinger at Quail Ridge, a large resort community north of Golf, Fla. Les is president of the Florida Section PGA. He began as a caddie at Defiance, Ohio, and was pro at Cocoa-Rockledge (Fla.) CC, then at Jacaranda CC in Ft. Lauderdale. Superintendent at Quail Ridge is another star, Fred Dickson. Joe Lee designed the course.

If you think caddying is rapidly vanishing because of the prevalence of the golf car you will be corrected by learning that applications for caddie scholarships are rising in number. The Western GA alone with its Evans Caddie scholarships has 868 young men in 29 universities nationwide. The Par Club, composed of golfers contributing \$100 or more a year toward the scholarships, has 6,089 members. There are many thousands of golf club and fee course golfers who contribute \$5 a year or more.

Alex Radko of the United States Golf Assn. Green Section and Fred V. Grau, who once was the working head of that most useful organization, smile at references to The Forgotten Man in course maintenance.

They figure it's about time something is said about The Forgotten Woman in golf maintenance history.

That lady is Fanny Fern Davis, who worked on the development of 2-4-D in 1943 and 1944. She was with the Green Section and, I believe, with the Department of Agriculture. Other researchers patented the material, and it was marketed first in 1945. It revolutionized golf course and lawn maintenance by its control of broadleafed weeds.

Pro shop sales made a great recovery in 1973 despite bad weather in many areas of the country the first half of the year.

Talk about graphite shafted clubs is credited with helping boost club sales by getting many golfers to realize how old their clubs are. Graphite shaft prices, though, make steel-shafted top line clubs look like bargains.

Professionals didn't hold onto apparel, which wasn't selling. They converted their stock into cash with some profit made by cutting prices. Inventories were so well cleared that Ernie Sabayrac at his company's annual sales meeting reported that booking of 1974 business on August 31 was 10 times what it had been the same day the previous year. Increase was partially accounted for by salesmen starting two weeks earlier than in 1972.

In the new year on new jobs: "Dutch" Hood as professional, Amelia Island Plantation (Fla.) Links from Greenville (S.C.) CC Sam Adams to pro job at Huntington Hills CC, Spartanburg, S.C., from CC of Spartanburg . . . Johnny Bulla, professional at Pagosa Springs (Colo.) GC new nine.

Joseph P. Tonetti, retires as manager of Somerset Club, Boston, to be food manager consultant. He will make his headquarters at Torrington, Conn. He is a successful veteran manager, having been at Mohawk GC, Schenectady, N.Y., New Haven CC at Hamden, Conn., Cavalier Beach Club, Virginia Beach CC among others.

Bob Erickson is now professional at Royal Palm Yacht CC, Boca Raton, Fla., from pro-superintendent post at CC of Orangeburg, S.C.

What you seed is what you get. baron kentucky Bluegrass US. Plant Patent # 3186, Dwarf Variety

The best your money can buy for fine lawns and golf courses, hardy sports fields and parks. A new and distinct variety resulting from years of research and

testing in the U.S., Canada and Europe. Proved to be highly disease-resistant. Available as seed and sod throughout the United States and Canada.

The Seed: Quick sprouting. Germination as high as 95%. Established cover in 14 days. Low growing, less mowing. The Sod: Rhizomatous root system.Densely plush, broad-bladed grass. Dark blue-green color.



For further information contact: Exclusive North American Grower and Distributor: Lofts Pedigreed Seed, Inc. Bound Brook, N.J. 08805 / (201) 356-8700 For more information circle number 168 on card

Now, the Dawn-to-Dusk Battery comes with its own caddy.

You can stop worrying about bending posts or dropping batteries.

Exide-Willard announces the first golf car battery to come with its own caddy.

Our powerful, Dawn-to-Dusk EV-106 and EV-88 batteries now have sturdy polypropylene carrying straps that fit securely across the top of each battery.

Carrying, lifting and lowering are easy, fast and safe.

And the strap can be removed with a simple "flick of the wrist" when not needed. Snap it back on again when you want to move the battery.

Exide' Willard

ESB Brands, Inc. a subsidiary of ESB Incorporated. P.O. Box 6949, Cleveland, Ohio 44101. awn-to-Dusk Not only do we make the most convenient and safe electric vehicle batteries. we make the most powerful.

Our EV-106 runs for 106 uninterrupted minutes on an overnight charge.

That's 41% longer than the standard battery. Even our EV-88 runs 17% longer than standard."

The new sturdy battery caddy makes ours the easyto-carry battery line.

The EV-106 and EV-88 golf car batteries. First with more power, now with added convenience and safety.

From Exide and Willard.

American Golf Car Association and Battery Council International rates the standard golf car battery at 75 minutes continuous running power.

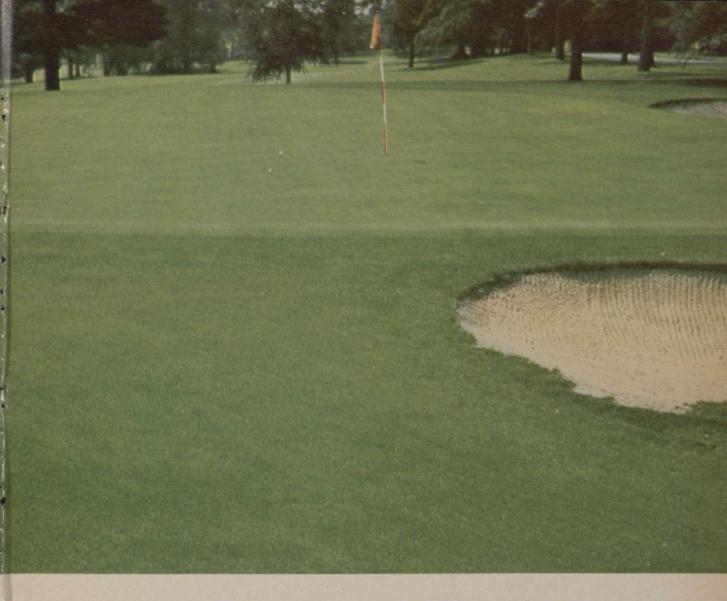
The

Battery.



"I've played this course for a year and I haven't seen a bad patch of turf yet."

"Funny, I was thinking the same thing!"



Compliments on the quality of your turf management are always nice to hear. They make all those long hours of challenging work seem even more rewarding.

Speaking of compliments, we have a way that can help you earn more of them: the Du Pont TERSAN® 1-2-3 Disease Control Program.

Kudos from the greens committee.

With TERSAN LSR applied in the spring, TERSAN 1991 in the summer and TERSAN SP in the fall, you control all major turf diseases on all common turf grasses all season long. Helps keep your turf lush, green and resilient from the day the course opens till the day it closes.



Applause from the finance committee.

Read the label on each bag of TERSAN and you'll be surprised at how little you have to use and how long the protection lasts. Take TERSAN 1991, for example: a systemic, curative (eradicant) and protective fungicide. Just 1 ounce per 1000 sq. ft. applied every 10 to 14 days controls dollar spot on tees.

The TERSAN 1-2-3 Program is also designed to stop costly disease problems before they have a chance to cause trouble. So you get fewer tie-ups of men and equipment, more budget dollars saved.

Praise from your toughest critic.

As a turf professional, the standards you set for yourself are the most demanding of all. With the TERSAN 1-2-3 Program, you can come closer to meeting these standards and win praise from your toughest critic—yourself.

For complete information on this program and a supply of TERSAN turf fungicides, contact your golf course supplie With any chemical, follow labeling instructions and warnings carefully.



TERSAN 1-2-3 DISEASE CONTROL PROGRAM For more information circle number 147 on card



Photographed at Diamondhead Corporation's Pinehurst C.C., Pinehurst, N.C.

Harley-Davidson. Club champions again this year.

This season, as usual, more Harley-Davidson golf cars will be driving on more golf courses than any other make in the world. For example, Diamondhead Corporation is the owner and operator of the largest fleet of Harley-Davidson golf cars in the world. Why Harley-Davidson?

Because they're so good-looking? And so dependable? And so quiet?

Of course. But there's more. Our 4-wheel cars, for example, have independent front wheel suspension, mounted on trailing arms. And coil spring shocks. The rear wheels? Coil springs, hydraulic dampers, torsional stabilizer.

Both our four-wheel and threewheel models deliver sharp, effortless steering. With tiller bar or steering wheel. And all Harley-Davidson golf cars are protected by rugged, chrome-plated bumpers, front and rear. Plus side moldings to guard against nicks and scrapes.

Did we say quiet? Our gasoline cars are quieter than a voice in normal conversation. Another nice thing. Our electric cars will run longer between charges. (Because they use less power at low speeds.)

Four-wheel, three-wheel. Gas or electric. Harley-Davidson golf cars are the champions. By popular vote. Naturally, we'd be happy to meet you at the nineteenth hole. And show you our scorecard. AMF Harley-Davidson Milwaukee, Wisconsin 53201





TENNESSEE TURFGRASS ASSN. ANNUAL CONFERENCE, Roger Miller's King of the Road Motor Inn, Nashville, Tenn., January 7-8.

MICHIGAN TURFGRASS CONFERENCE, Kellogg Center, Michigan State University, East Lansing, Mich., January 15-16.

NEW HAMPSHIRE TURF SEMINAR, Sheraton-Wayfarer, Bedford, N.H., January 17-18.

UNIVERSITY OF TENNESSEE WINTER SHORT COURSE IN TURF MANAGEMENT, University of Tennessee Plant Sciences Building, Knoxville, Tenn., January 21-25.

CLUB MANAGERS ASSN. OF AMERICA ANNUAL CONFERENCE, Marriott Hotel, New Orleans, La., January 22-25.

12TH ANNUAL NEBRASKA TURFGRASS CONFERENCE, Nebraska Center for Continuing Education, University of Nebraska, Lincoln, Neb., January 23-25.

ROCKY MOUNTAIN REGIONAL TURF-GRASS CONFERENCE, Colorado State University, Fort Collins, Colo., January 24-25.

PROFESSIONAL GOLFERS' ASSN. MER-CHANDISE SHOW, Port St. Lucie G & CC Resort, Port St. Lucie, Fla., January 26-29.

PENNSYLVANIA STATE TURFGRASS CON-FERENCE, Keller Conference Center, University Park, Pa., January 28-February 1.

RUTGERS UNIVERSITY THREE-DAY TURF COURSES. Lawn and Utility Turf Management, January 30. Golf and Fine Turf, January 30-February 1. College of Agriculture and Environmental Science, New Brunswick, N.J.

VIRGINIA TURFGRASS CONFERENCE, Sheraton Motor Inn, Fredericksburg, Va., January 29-30.

GOLF COURSE SUPERINTENDENTS ASSN. OF AMERICA TURFGRASS CON-FERENCE & SHOW, Anaheim Convention Center, Anaheim, Calif., February 10-15.

MING Available...

Mallo Willoward a

Warren's SOD

from the World's Largest Grower of Fine Sod!

Warren's A-20 KENTUCKY BLUEGRASS

Rated first in disease resistance resulting in less maintenance cost!

A-20 is "Performance Proven" to be the finest turf for tees, fairways, approaches and collars. It is rated first in disease resistance by leading turf organizations and universities. Easier to maintain . . . less cost!

A-20 thrives when mowed down to $\frac{1}{2}$ inch and grows upright with a more pronounced stiffness. A-20 is rugged. It grows back faster when injured and keeps its brilliant green color longer enhancing the beauty of your course.

Warren's A-34 KENTUCKY BLUEGRASS

The SUN and SHADE bluegrass that thrives in a wide range of soil and climatic conditions!

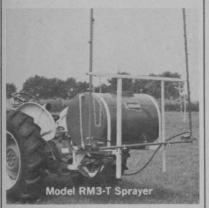
A-34 is the only bluegrass that grows vigorously in SUN and SHADE and is "performance proven" from coast to coast to be the best all-round turf for most all conditions. It recovers fast when injured.

A-34 is highly rated in disease resistance making it easy and economical to care for. A-34 will tolerate up to 65% shade when maintained at a 2 inch mowing height. In the sun and slightly shaded areas it can be mowed down to ½ inch.

ASK ABOUT BENTGRASS SOD OR STOLONS! We look forward to seeing you in BOOTH D-16 at the GCSAA Conference in Anaheim, California, February 10-15. Warren's TURF NURSERY 8400 West 111th Street, Palos Park, III. 60464 Phone 312/974-3000 WARREN'S TURF NURSERY 8400 West 111th St., Palos Park, III. 60464 Please send me more information on: Warren's A-20 Warren's A-34 Please send me the locations of Warren's A-20 and A-34 now in play on courses throughout the country. Please send me the name of the closest Warren Nursery or Associate Grower. NAME GOLF COURSE ADDRESS CITY STATE ZIP



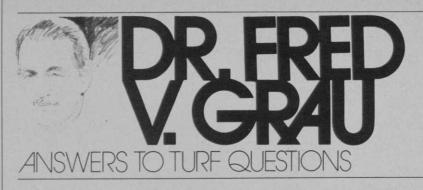
This tractor mounted 3-point hitch unit spreads milorganite, fertilizer or seed faster—uniformly! For greener turf from tee to putting green, the swing is to the LARSON LINE. First choice of knowledgeable golf course superintendents and other professional turf men on many of the country's finest golf courses.



Here's a sprayer that handles herbicides, fungicides, insecticides or fertilizer in a fast, labor-saving way to keep everything under control on greens, fairways, roughs and even around the clubhouse. This 3-point hitch sprayer can cut your golf course maintenance costs! Spray hand-guns and other accessories are also available.



For more information circle number 169 on card



WASTED RESOURCES

Maybe it's because I was brought up on a small farm in eastern Nebraska where we had to ''make do'' with what was at hand. We couldn't afford to buy coal; and there weren't enough trees to give us wood to burn in the cook stove, so we burned corn cobs.

Some of the cobs were nice and clean; those we got from the end of the corn sheller. Others we picked up in the hog lot where we had thrown the ears on the ground, letting the hogs do the shelling. The fragrance of the hog lot cobs burning in the kitchen stove didn't remind one of roses exactly, but they gave off enough heat to cook our meals. We got used to the smell after a while.

What I'm getting at now is this: It burns me up to see great, big, beautiful trees being pushed over by bulldozers that are clearing land for fairways on new golf courses. It wouldn't be so bad if these trees (beech, maple, oak, cedar, cherry, tulip poplar, pine, hickory) were sawed up and sold for firewood. Many people could burn the logs in their fireplaces. Then they wouldn't have to burn so much oil or gas to keep warm.

I know, because I have a fireplace. I love to sit in front of it and watch the flames licking and curling. Keeps me warm, too. I can turn the thermostat way down. But at \$40 or \$50 a cord, I can't really afford to keep the fireplace going all the time. Maybe I could at \$20 to \$25 a cord.

It makes me sick to be a witness to the burial of great trees merely because some people want "to get rid of them." It takes a long time for a tree to reach majestic size. Lots of time and sun. There is a lot of energy tied up in that wood—too much to just bury and let rot. I have to ask, Why?

Are we in too big a hurry to get the golf course built that we can't take the time to cut up those logs for firewood? Why, we even have chippers that will turn the wood into a coarse kind of sawdust, which can be worked into the soil for expensive humus. The sawdust and chips will rot and grow good grass when mixed with soil and lime and fertilizer. Selling logs for firewood could bring in some extra revenue, too.

It is a terrible, unforgivable waste of our natural resources. If any contractor or builder reading this editorial will write to me and tell me that he makes good use of the trees that obstruct the building of a fairway, or a tee or a green, I'll put his name up for an award of some kind. Fact is, I'll write an article about him. Fair enough?

We dare not go on wasting our trees any more than we dare waste our precious water or our topsoil or anything else that is our natural heritage.

Conservation is upon us in a big way. Let's practice it everyday, every way.

Q—Concerning your design to "save" logs from trees that have to be cleared in building a golf course, can you relate one of your experiences?

(New Jersey) A—The word "economics" governs the disposition of trees. In one case where there were 80 acres of trees to be cleared, the bid price for "burn and bury" was \$800 an acre. The alternative proposal was to "chip and carry continued on page 20



Lush, green tees. Thick, beautiful fairways. Carpet-smooth, emerald greens. Great turf gives touring pros or week-end duffers the feeling of confidence that makes their game more fun. These Chemagro turf pesticides make it easier to have that great turf on your course.

®DYRENE

turf fungicide

Dollar spot is only one disease problem you have to cope with. DYRENE controls dollar spot, plus all *Helminthosporium* strains melting out, leaf blight, leaf spot. Also controls copper spot, stem rust, brown patch and snow mold.

Small fungicide cost offsets big cost repairing after diseases get started.

BEXON

fungicide

Stops Pythium. Non-mercurial

fungicide is also extremely effective in preventative programs to control cottony blight. Compatible with other turf pesticides.

BASANIT nematicide

Broadcast DASANIT 15% Granular for season-long control of microscopic "eel-worm" nematodes that destroy turf root systems; cause grass seedlings to wither and die. Requires no injection that makes turf unplayable for weeks during spring and summer. Easily applied with any conventional granular insecticide applicator. Thorough watering leaches insecticide into root zone for maximum control.

®DYLOX

insecticide

Fast-acting selective insecticide gives quick clean-up of sod

webworms. Dissolves readily in water for application with any type spray equipment.

BAYGON

insecticide

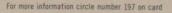
Carbamate insecticide controls turf insects, including species resistant to chlorinated hydrocarbons and organophosphate insecticides. Safe to Bermuda, zoysia, rye, clover, colonial bentgrass and other common varieties when used as directed.

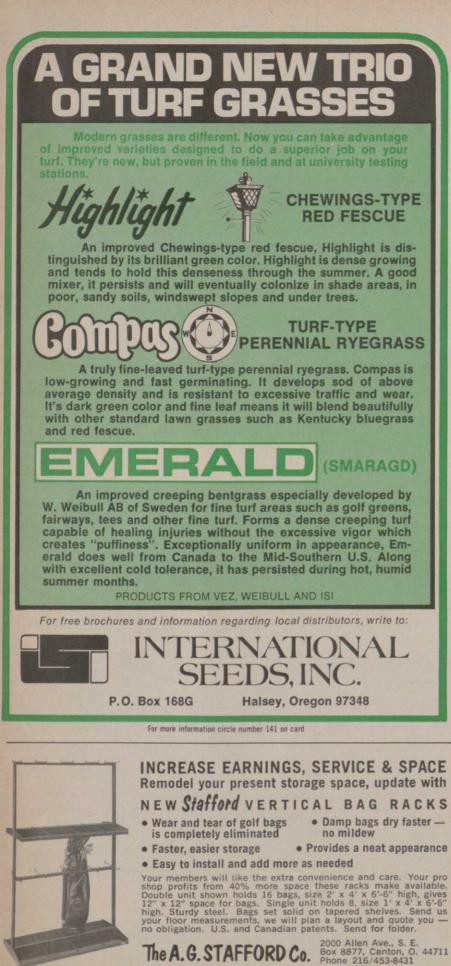
For great turf that gives your golfers great shooting, order these Chemagro turf pesticides from your chemical distributor.

Chemagro Division of Baychem Corporation, Box 4913, Kansas City, Missouri 64120. 7459



RESPONSEability to you and nature





For more information circle number 158 on card

GRAU from page 18

away." The bid price per acre was \$2,200. The difference in favor of "burn and bury" was \$112,000. Ecological considerations prohibit "bury pits" where the rotting wood might contaminate adjacent streams or ground water supplies. In one area where fireplace wood sells at \$50 a cord, the contractor could not find anyone to help him cut and stack the wood. The four-letter word, "work," was responsible for the lack of helpers.

Q—Would you contribute more information on the salvaging of trees?

(Ohio) A—Unless a fireplace is especially designed to produce heat, it may waste more than it generates. At night when the fire is cooling down, the open damper (essential) will allow warm air from the house to be drawn up the chimney at a prodigious rate. A heatresistant glass shield in front of the

Q—We are salvaging wood from trees that must be felled to clear land for a new nine hole course. Some of it will be cut for firewood and our question is, ''what kinds of wood are best for fireplace use?'' (Maryland)

fireplace will greatly reduce loss of

warm air.

A—My personal preferences will heavily weight my answer, because we used to cook our meals over the fireplace during the War. My choices, pretty much in the order in which I've listed them, are: 1) beech: slow burning, fragrant, hot fire, no sparks from popping; 2) apple: hot, slow, fragrant; 3) cherry: same reasons, but a different fragrance; 4) oak: just a very good, hot fire; 5) cedar, when you can get it: wonderful aroma, and 6) hickory: good, hot fire.

Woods that I'm not too fond of are: 1) locust: hard to ignite, not a good fragrance; 2) chestnut: "pops" too much (I burned up a favorite armchair once because the sparks popped halfway across the room); 3) pine: hot, but burns too fast; 4) maple: okay, if it's rock or hard (sugar); soft maple burns too fast; 5) tulip poplar and poplar are soft and fast burning.

Obviously, I've not named all of our native woods. These are the leading favorites and not so favorites. I'll welcome comments from readers.