

# No more wear and tear

*With more than 100,000 golf cars rolling on today's courses, the problem of preventing grass damage is mounting—but solutions are in sight.*

by Tom Mascaro

Since the advent of the golf car, turfgrass problems and, in turn, the problems of the superintendents have increased tremendously. Today, after many meetings, discussions, and clinics, we can begin to draw some conclusions from the experiences of many superintendents, and from the necessary supporting data from the experimental work done at Tifton, Georgia, by Dr. Glenn W. Burton, principal geneticist, Coastal Plain Experiment Station, and graduate assistant, Clarence Lance.

Here are the problems: soil compaction; turfgrass wear; routing of cars; golf car paths; bridges; closing the course to cars; car maintenance, service and storage; budget increases and budget funds for cars.

Now for some solutions.

Soil compaction is perhaps the most serious problem created by golf cars. The weight of the cars, the golfers, and their equipment, plus the pounding and thrust of wheels, tend to injure soil structure. The width, size, pressure, and design of the tires is only important to prevent formation of deep ruts. The degree of compaction remains severe no matter what size tire is used. When soils are wet, they puddle. (Puddling is compaction in its severest form.)

Puddling of soil means the almost complete breakdown of soil structure. And without good structure, soil cannot take in water, air or nutrients. Turfgrass cannot survive under these conditions.

A program of aerification must be initiated to keep up with compaction as it forms. If severe compaction exists, intensive aerification must be done. It must then be followed with an aerification management program that will stay ahead of car compaction. Additional fertilizer must also be used to stimulate aggressive growth.

## TURFGRASS WEAR

Turfgrass can take just so much wear. Cell reproduction must keep up or exceed cell destruction. Golf car wheels produce a thrust for propulsion or stopping. This force can be transposed to abrasive action. Thrust or abrasion causes the cell walls to rupture, resulting in the dying back of the blade.

Because of this, each golf hole must be analyzed from the standpoint of golf car traffic. Provisions must be made for convenient car use, but still disperse wear over as large an area as possible.

## ROUTING OF GOLF CARS

Generally speaking, it is best not to restrict cars in open areas, but only around tees and greens.

Many devices have, and are being tried to keep cars in their place including fences, rope barriers and painted stakes. However, such devices, although effective, often detract from the beauty of the natural surroundings. Other devices include signs and instructions on the car itself, score card instructions, and signs on the turf.

Anything that is effective—without marring the beauty of the course—should be used. Remember, continuing car-user education is really essential.

## CAR PATHS

Golf car paths can be a blessing or a curse. An over-all plan carefully executed should be drawn up before money is spent. (Emergency patches of car roads can ruin the appearance of the course.) Car paths should blend with the landscape. They should be used only where absolutely necessary.

Path building materials are many and varied, including concrete, asphalt, wood, fine stone or gravel, sand, tanbark and pine needles. Whatever is used, it should withstand traffic, and require little or no maintenance.

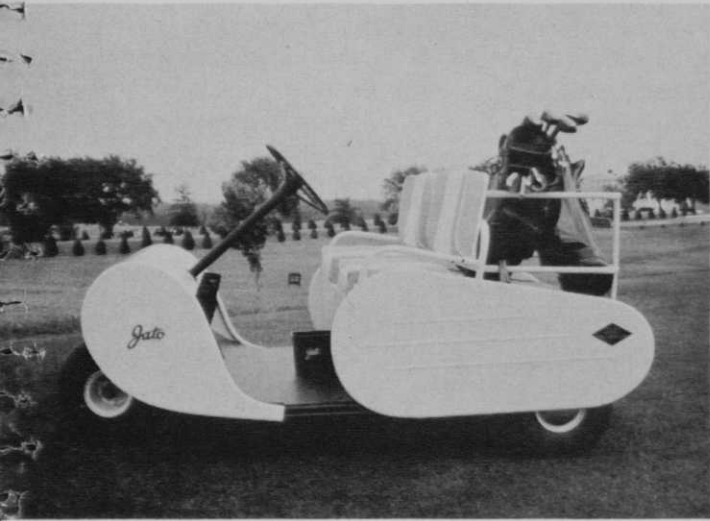
## BRIDGES

Golf cars need bridges. Here again the choice of materials ranges from concrete, to wood or steel. Pre-fab concrete slabs have been used very effectively—they are flat and heavy enough to stay put during floods.

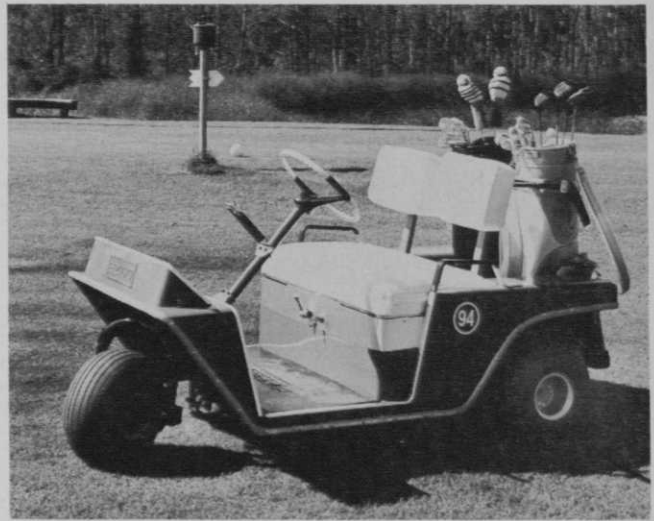
Whatever is used, bridges should be wide enough, strong enough and permanent enough, with real consideration given to safety and future maintenance.

## CLOSING THE COURSE TO GOLF CARS

Occasionally throughout the year, either because of a drainage problem or foul weather, the course



Above, new this year is the Jato Jr. Executive, in both gas and electric models with automotive steering. The other Jato model, Walker Executive, is available in gas and electric with tiller steering.



Above, E-Z-Go's model x-440 electric golf car, built with an all steel welded construction and all steel body with baked on automotive enamel. Model x-440 comes with tiller or wheel steering.

may have to be closed to golf cars. The decision to close the course should be vested with the superintendent. If the superintendent is overruled, then the club *should* be prepared to supply funds to repair the possible damages.

Planning is the key to success here, and making certain drainage is good is one of the best assurances the golfer can have that the course will be open to cars. Plans should include surface drainage of wet areas, interception of seepage water, and installation of a drainage system that will keep the course open at all times, if at all possible.

#### MAINTENANCE AND STORAGE

The day-to-day supervisory maintenance, service and storage of golf cars is an important factor in efficient fleet operation. With over 100,000 cars in use, it has become a major responsibility. This vital function should be assigned to someone continually on the job at the club.

If the superintendent is asked to assume this responsibility, the club should be prepared to provide him with funds to cover these additional costs. Equally important, the superintendent becomes worth more.

Throwing these costs into an already overtaxed budget can be

disasterous. The over-all golf course maintenance budget will suffer. Observations of the policies of many clubs show that there are trends in this direction, and every effort should be made to prevent it.

Funds must be provided for car storage, service, and qualified personnel to handle the job. Golf car servicing and storing are almost full time jobs and also somewhat specialized.

#### BUDGET INCREASES

Analyzing all these problems, it can readily be seen that each problem presented indicates an increase in costs.

Reviewing them in order, we find that:

1. Compaction means cost of aerifying equipment and manpower to operate it. It also means an increase in the fertilizer budget.
2. Wear means that some reconstruction must be done to disperse car traffic.
3. Routing of cars means that signs must be purchased, and printing must be done to educate the members.
4. Car paths are costly, and whether contracted for, or done by your own crew, expenditures of additional funds are involved.
5. Bridges, in their cheapest form,

are still expensive propositions.

6. Closing the course to minimize the problem of reconstruction for surface drainage, elevating areas, tile drains and sumps represent increased costs.

7. Car maintenance, servicing and storing mean increased costs in buildings, manpower and supervision.

#### BUDGET FUNDS FOR GOLF CARS

Golf cars definitely have proved a profitable source of added income to most of America's golf courses. Properly planned, budgeted and managed, golf car fleet operations are accounting for worthwhile and welcomed net profits after providing a realistic percentage for attendant car and course expenditures.

Each club should analyze its own conditions to establish an over-all plan for its golf car operations, and drawn up in such a way that new committee members could carry it out on a continuing basis.

In future years, we are bound to see the use of the cars increase. If this is true, we will probably see more and more golf course architects planning the original layout to overcome many of the problems which exist now on our present day golf courses. □