

Repair or Replace?

An Economical Guide to Mower Life Expectancy

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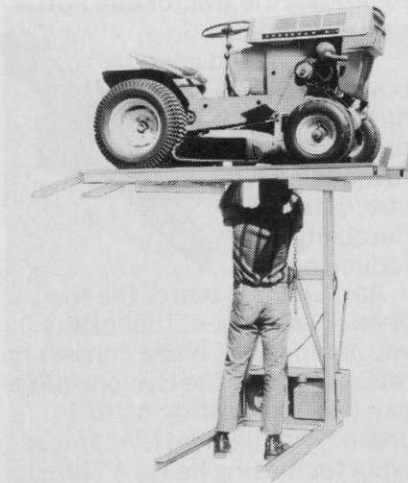
IN ORDER to obtain maximum efficiency from the equipment used to maintain and groom any turfgrass facility, the turfgrass manager must first have access to some very pertinent data. He needs to know; What are the tasks that must be accomplished? What does he have available to do those jobs, in terms of budget, manpower and current equipment? What degree of maintenance does his equipment get? And at what point, should that equipment be replaced rather than repaired?

It isn't sufficient to know his current labor force and what their pay scales are now. He also must be able to project what these are apt to be one or two or three years hence. Are there any prospects that his facility may be expanded or redesigned? Such information will, of course, have a profound effect upon labor and equipment needs. Finally, the turfgrass manager should be aware of what new equipment is on the market, what it will and — even more importantly — what it won't do, what its life span is, and a host of other considerations.

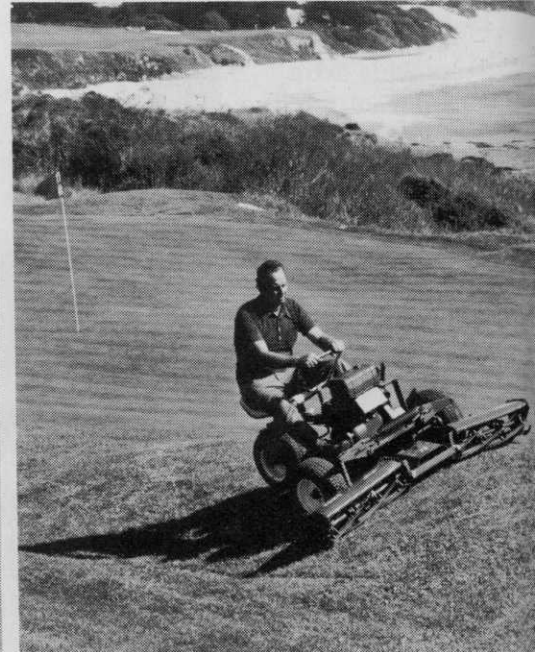
In other words, he must have a plan of operations based on accurate records. One cannot emphasize enough the overriding importance of clear, concise operating records. They are the measuring stick of what is being done and a guide to future decisions. They are truly the key to good management.

Toro has developed a simple record form for registering, by machine and operator, such items as: hours operated, gas and oil consumption, down hours, service required, replacement parts and labor costs. At the end of the cutting season, these records will show the number of hours the equipment has been operated, plus the cost of

(continued on page 30)



A common rule for determining replacement time is when the total costs of repair reach 50 percent of the original purchase price. This process can be hastened, manufacturers say, by using the machine for the wrong job. When choosing equipment: (A) Consider the terrain to be cut. (B) Consider the size of the area and buy the largest machine practical. (C) Look for simplicity of design. (D) Check for construction and durability. Other considerations may also improve efficiency.



MOWER (from page 12)

maintenance. This information is invaluable for determining the proper type of unit to use in a given area, the most economical brand of equipment, the good as well as the undesirable equipment operators, and methods for improving maintenance practices. Also, records are almost a necessity as a basis for projecting the life expectancy of a

unit and for determining the most economical time to trade in old equipment.

A good rule of thumb for deciding that the time has come to replace equipment is when the total costs of repairs (parts and labor) have reached approximately 50 percent of the original purchase price. Manufacturers have worked up an expected average lifetime for each piece of equipment they produce,

but it must be remembered that this information can only serve as a guide. Engineering is only one determining factor. Other important considerations are the type of quality of the turf to be cut and the conditions under which the machine is operated. Sandy conditions, thin or dusty turf, nearness to the seashore, a good or bad operator, quality of maintenance, storage, all have an effect; and Zoysia grass, for example, will dull equipment more quickly than bentgrass or Kentucky bluegrass.

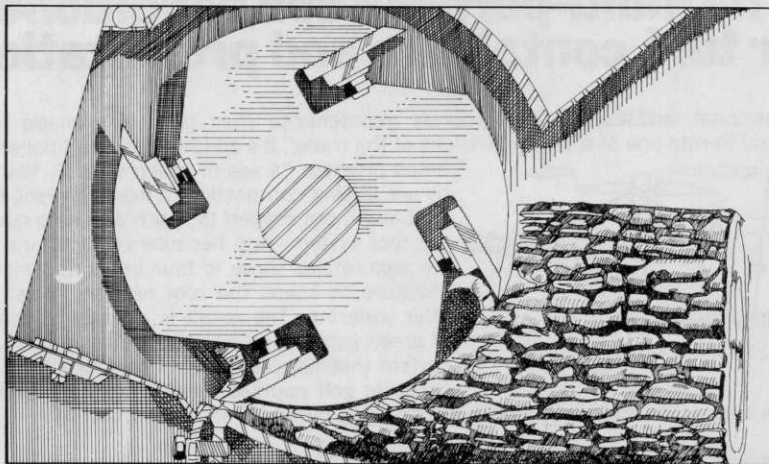
A common reason for shortened life span and high maintenance costs is the use of a machine for the wrong job. When choosing equipment:

1. Consider the terrain to be cut. Is it wooded, rough cutting, hilly or more formal? Decide if a reel or rotary type machine is to be purchased, based on course conditions.
2. Consider the size of the area and buy the largest machine that is practical. If the machine is to be used for trimming purposes and demands on the mower are not too heavy, a small, light-duty machine can be used, but higher maintenance costs on this type of equipment are inevitable.
3. Look for simplicity of design. A complicated machine has many moving parts and may have a high maintenance cost. Also, it may be difficult to adjust and a trained expert may have to be used for repair.
4. Check for construction and durability. The machine should be substantially built, well-braced, with good bearings. The sideframes, handles or drawbars should be heavy enough to do the job. The bed bars, reels, blades should be rigidly constructed.

Other considerations when selecting new equipment to improve efficiency would include (1) consultation with the manufacturer or his representative regarding the type of equipment needed. Information on new equipment and improved features, as well as the suitability of their equipment for the job

(continued)

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at hand, is readily available from the reliable manufacturer. (2) The availability of parts and service facilities. This is of prime importance when selecting equipment. If repair parts are not available when needed and a machine is inoperable for extended periods, it is of questionable value and certainly will contribute little to efficient operation. (3) Develop or estimate a reasonable or probable life and, based on current replacement costs, allow for the proper amount of depreciation per year. Then, request or provide a yearly sinking fund for the orderly replacement of the equipment when it becomes economically feasible or when a superior piece of equipment comes on the market.

To keep machinery operating costs at their lowest and to derive the full potential of the equipment's projected life span;

- ... buy quality equipment from a reputable manufacturer.
- ... buy the right machine for the right job.
- ... operate it properly, and start by reading the owner's manual.
- ... maintain it properly, by establishing a daily routine maintenance schedule supplemented by a periodic review with the factory ser-

vice representative. Where such training is available, send your people to the manufacturer's service training school.

... and keep proper records.

The results will be increased efficiency and important savings. □

FIRESTONE *(from page 26)*

Obviously, tractors that we are talking about are the turf type tractors with what they call an LCG (low center of gravity construction) with wider than normal tires. In fact, the tires on our present tractors were developed by the Firestone Tire & Rubber Co. in conjunction with research at the Firestone Country Club.

We have switched to diesel in the last couple of years because of economy of operation, and also because according to our maintenance records, we are incurring considerably less in maintenance costs.

When machines are used as many hours as ours, we find that down-time is an important consideration. Speaking of down-time, the tractor has proved again to be one of the most dependable machines that we have in our maintenance operation.

We have very few hours of down-time on our tractors in a golfing season. The problems that we might have with them are very minor, nothing that we cannot repair in a relatively short time. It has been a long time since we have had to send a tractor in for major repairs during the summer.

Of course, a part of this is, I am sure, a continuing maintenance program, and the fact that every winter we do go through the tractors thoroughly to prepare them for long summer use.

We try as best we can to change the oil and filters regularly, and grease them regularly, but other than that, they need little maintenance through the summer months.

For you Southern readers, the summer months for us would be May 1 to October 1, which is essentially our golf season.

One tractor that I have failed to mention is the tractor-loader-backhoe. This machine, although expen-

sive, has proved to be one of the more valuable pieces of equipment we have. It has probably paid for itself over and over again, as we do a very large amount of work on construction projects.

All I have to do is look out the window now to see that within the last few days, we have helped a contractor put in two 1,000-gallon gasoline tanks. I realize how valuable and how convenient it is to own a tractor-loader-backhoe. Without this, it would be costing the company a considerable amount of money, both for rental and for lost convenience on our part.

We also have topsoil storage facilities, and buy our topsoil from a local contractor. The loader is used to load this topsoil into our dump truck. When you consider that we use 500 tons of this material a year, it becomes very evident how valuable the loader is.

We have one tractor with lug type tires on it and a dirt blade on the front. We call this our blade tractor. It is one we use for rough grading, roto-tilling, back blading, and it is a larger h.p. tractor than the others. The remaining six tractors are the turf tractor type. As you can see, we have a fairly large operation, and a considerable amount of out-lying area.

We would like to believe, too, that we have a well set up maintenance operation, with enough equipment to do the job that we are called on to do.

Hosting the number of tournaments we do within a season, and keeping up with maintenance on two golf courses, which are kept in championship condition throughout the season, and are used by our 800 family members and many company-sponsored guests, our equipment inventory is reasonably large.

Our philosophy here is to get on the golf course, get the job done, and get off as soon as possible with a minimum amount of golfer interference. The golfer does not appreciate us around, and whenever the golfer is around, our efficiency drops considerably.

Really, what we are talking about is efficiency. Efficiency is money. This goes right back to the opening comment in the article that a tractor is probably the most im-



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