

# Slow Down . . . You're Going Too Fast

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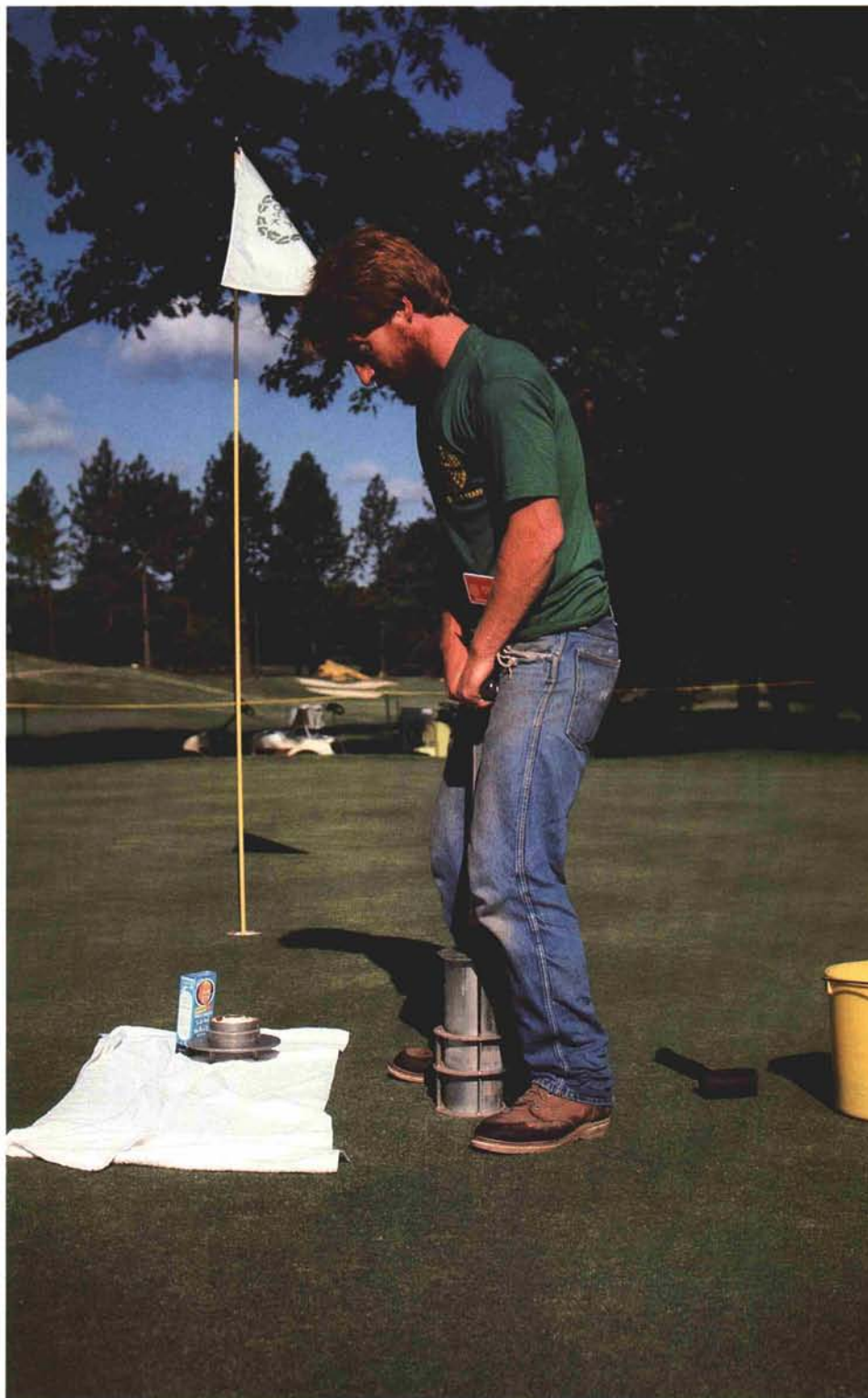
**A** DAY for the record books. It's only noon, yet the greens, tees, and fairways have been mowed, the sand bunkers have been raked, the cups have been changed, and even the rough mower is well along on its travels. The routine jobs have been done quickly. Now it's on to special projects.

The model of efficiency, you might say. Time is money, after all, and getting things done quickly is what it's all about on a busy golf course. Or is it?

While the cost savings of a couple of hours of labor may be easy to calculate at first glance, the actual figure would be much different if the cost of getting the job done *too* quickly were taken into account. The effects of high-speed maintenance on turf, on equipment wear, and on the appearance and playability of the golf course are often overlooked by golf course superintendents and workers, who sometimes feel that saving time represents a job well done. An understaffed crew and pressure from the green committee to work on special projects is sometimes at the root of the high-speed maintenance approach. Even under these circumstances, though, these tactics can extract a high price.

The damage from high-speed maintenance is often cumulative and subtle, showing up as visual symptoms only after days, weeks, or even months. Very often the visual symptoms are blamed on other factors, such as soil problems, disease and pest activity, excessive rainfall, irrigation system problems, mowing too closely, or just plain wilting from too much heat. These may indeed be contributing factors to the problem, but the basic cause may also be traced to speed.

Take, for example, the triplex ring problems around the perimeter of greens, where triplex greensmowers



*Changing cups requires patience and attention to detail.*



make their cleanup pass. While several elements are involved with the thin, weak turf on these areas, making the cleanup pass too quickly is one of the more important factors causing these symptoms. Sometimes, just slowing down the mower can reduce the severity of the damage.

**T**HE INJURY to turf by turning mowers and other maintenance equipment is, in fact, one of the primary consequences of high-speed maintenance. Consider a golf cart traveling across a wet fairway at a high rate of speed and suddenly making a sharp turn. As long as the cart is going in a straight line, little or no turf damage would be readily apparent. Making the turn, however, would probably cause the turf to be ripped up, and might even dig ruts. Turning any vehicle creates a lateral, downward pressure on the turf and soil, causing greater turf abrasion and soil compaction than a vehicle traveling in a relatively straight line. The sharper the turn, the larger the vehicle, and the faster it is traveling during the turn, the greater the turf injury and soil compaction.

In addition to the triplex ring symptoms on greens, several other areas on the course show the effects of excessive mower speed. The collars around greens, for instance, are often the victims of the sharp, fast turns of triplex and walk-behind greensmowers. During hot summer weather, turf on the collars can easily wilt in precisely the areas where the mowers make their fast turns. Other familiar problem spots include the ends of fairways where the larger mowers regularly turn, and the ends of narrow tees where mowers must turn quickly. In all of these areas, smaller mowers making wider turns and slowing the ground speed of the mower during the turn cause less damage. If circumstances allow, turning in adjacent rough areas, rather than on the collars, tees, and fairways, would be the best solution.

Maintenance utility vehicles and golf carts do their share of damage, too, when operated at fast speeds. Maintenance personnel should be advised of this and should be asked to take it easy when they travel from one part of the course to another and, whenever it's possible, to avoid crossing important play areas, such as fairways. When abuses occur consistently, throttle governors are sometimes used on utility vehicles and golf carts to help limit ground speed.

Though damage to turf areas due to fast mower speed is not quite so common in the roughs, there are nevertheless examples of the speed problem. Bark injury to young trees is common where rough mowers are used carelessly and at high speeds. Often, the injured trees eventually die and must be replaced. The mowing units themselves are sometimes the victims of clashes with trees, rocks or other obstacles. The greater the speed of the vehicle when the collision occurs, the worse the damage to the mowing unit.

**A**SIDE FROM direct damage to mowers or vehicles that results from a collision, the more subtle wear and tear on maintenance equipment can be aggravated when equipment is run at greater than recommended speeds. Increased engine temperatures and greater vibration effects can increase maintenance costs and reduce the useful life span of maintenance equipment.

In the realm of turf playability, the ground speed of the mower can have a direct effect on the quality of cut. Certain types of mowing units simply do not produce a smooth, even cut when they are pulled or run too fast. A poor-quality cut can also occur over uneven ground, with individual units skipping or bouncing, causing a ragged appearance. Many equipment manufacturers recommend that their mowers be run at certain RPM levels or ground speeds for best results. The owner's manual should be consulted and the recommendations followed.

Quality mowing suffers in other ways from excessive speeds. Trying to follow a precise line of demarcation with a mower when traveling at high speeds is a real challenge. As a result, scalping often occurs along the border between greens and collars, tees and roughs, and fairways and roughs. It is even more common for the worker using the mower to leave some extra space when cutting along these borders, resulting in the gradual encroachment of higher-cut turf on greens, tees, and fairways until these areas have been significantly reduced in size. In addition, interesting perimeter contours on greens and fairways are often lost by encroachment. Ultimately, lost playing areas must be reclaimed by scalping back adjacent turf and causing unsightly but temporary scars.

One of the more common examples of the use of excessive ground speed occurs with mechanical rakes in sand

bunkers. These machines are almost invariably run so fast that sand in the center of a bunker is gradually pushed closer and closer to the outer edges. This process continues until the sand is pushed over the edge, and the lip and bunker definition is lost. Even more common, sand is often pulled over the edge of the bunker where the rake exits. Major renovation work may eventually be required. The use of the mechanical rake at a fast speed can also leave long ridges in the sand, justifiably raising the ire of golfers unfortunate enough to land next to the ridges. All this for the sake of getting the job done quickly.

Cup changing is not immune from the race for efficiency, either. A fast job







*(Above) Sharp, fast turns with large mowers on wet soils can spell trouble.*

*(Left) Mower damage to tree bark is a major cause of disease, decay, and premature death of golf course trees.*





can result in poor cup location, a flagstick that is set a few degrees from vertical, or a series of replacement plugs on the greens that are set either too high or too low. Either way, depressed or scalped plugs detract from both the appearance and playability of the greens.

**A**FTER ALL the talk about the effects of high-speed maintenance on the turf and other areas, perhaps the best reason to take it easy is for the sake of worker safety. Racing around the golf course on utility vehicles is an open invitation for an accident. Workers on various types of mowers and careless golfers on golf carts have been known to slip into ponds, off banks, over edges and into trees. With high staff turnover and inexperienced help being the rule rather than the exception at many golf courses, the golf course superintendent has an important responsibility to help educate his crew as well as the golfers about the potential dangers of the vehicles and golf carts they use.

It is obvious from this discussion that high-speed maintenance and golf cart use can be a real problem in terms of the appearance, health and playability of golf course turf, and of sand bunker maintenance, equipment repair, and worker and golfer safety.

How fast is too fast? Common sense suggests that the appropriate speed for any golf course vehicle might vary significantly depending on local circumstances. The golf course superintendent can only look for the symptoms of high-speed maintenance and then make the necessary changes. However, a few simple common-sense tips can help save turf and provide better playing conditions.

- Avoid turning sharply.
- Slow down making turns.
- Make as many turns as possible in the roughs rather than on collar, tee, and fairway edges.
- If there is ever any doubt, take it slower . . . haste makes waste.
- **THINK SAFETY FIRST!**

Taking this approach to golf course maintenance may not produce too many days for the record books, but it will produce healthier turf, better playing conditions, and a safer golf course.

*Scalping back turf to reclaim lost teeing areas. Taking time to maintain the edge on a day-to-day basis would preclude having to take this measure.*