

Going Around with Big Wheels

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LAZINESS HAS probably been responsible for more shortcuts, not to mention valuable innovations, than we are ready to admit. Most of us are always looking, at least subconsciously, for easier ways to perform laborious or routine tasks.

An example of imagination spurred on by outright lethargy is contained in the story of an old mountaineer and his wife who were sitting in front of the fireplace one evening just whiling away the time. After a long silence the wife said, "Jed, I think it's raining. Get up and go outside and see."

The old mountaineer continued to gaze into the fire for a second, sighed, then said, "Aw, Ma, why don't we just call in the dog and see if he's wet."

Although this story illustrates laziness at its extreme, we will all agree that at times everyone feels this way. When ideas evolve that will speed maintenance operations and do less damage to the turf, they can become very valuable inventions for the golf course super-

intendent, his staff, and the playing membership.

One such idea originated in 1958 with Earl Morgan, owner of Similk Beach Public Golf Course, in Anacortes, Washington. Morgan, who also owns an oyster farm, needed a machine that would provide traction over the oyster beds but cause little harm during the harvest of the oysters. Using the same idea in 1960, he used the big tire tractor on his golf course for mowing fairways and roughs under the moist conditions of northwestern Washington.

Milt Bauman, retired superintendent at the Seattle Golf Club, in Seattle, Washington, borrowed the idea and applied it to the rolling hills of Seattle Golf Club (*Figure 1*). He was not only pleased with the mowing results, but he also began using the big tire for many other operations that previously had been done by heavier and slower pieces of equipment.

Before the specific jobs are outlined, some pertinent data about price, avail-

ability, wheel sizes, etc., should be discussed. These tires and wheels may be available at outlets across the country. In this case, however, an Oregon firm manufactured the wheels in their machine shop for the specific tire size. They must first know the make, model, and year of the tractor. Next, they go to a local dealer and get the stud bolt size for the wheels, mount the tires, and ship them to your door. Tires and wheels can be made for most conventional tractors, such as John Deere, International, Ford, Massey Ferguson, etc.

The size of the tires varies according to personal wishes. The front tires are 31 x 15.50 x 13. They cost \$400 per wheel and \$250 per tire, or \$1,300 to equip the front of the tractor. The rear wheels are 48 x 31 x 20, or 44 x 41 x 20. (Although the tractor pictured here has an overall width of 11 feet, recent modifications allow the width to be reduced to 9 feet 6 inches.) For the 31-inch wide wheel, the cost is \$450. The tire cost is \$2,000 each, or \$4,900 to equip the rear of the tractor.

Figure 2. Fairway mower in operation.





Figure 1. (Left) Milt Bauman, CGCS (retired), left, and fairway mowerman George Howen stand next to the "shaved" rear wheels.

Figure 3. (Below, left) Overseeding of greens is one of the many operations possible with the high flotation tires.

Figure 4. (Above) Overseeded bentgrass results three weeks after using the large slicer/seeder on No. 5 green, Seattle Golf Club.



The total cost in 1984 to equip a tractor with big tires would be approximately \$6,200.

At this point, it is very easy to dismiss these tires and wheels as being too costly. However, let us go over a list of functions these tires perform and then come to a decision. As for Seattle Golf Club and Bauman's experience, he states, "The best thing about big tires is that, if you can walk on the golf course, you can work the tractor. If it is too wet to work, the tractor will spin out, but it causes little damage to the turf. I maintain we cannot afford to be without these tires."

JUST WHAT MAKES big tires such a good investment? First, the tires are 10-ply and, at this time, the tires at Seattle Golf Club are 12 years old and still going strong. This fact alone, however, does not show where the time savings lie. What makes the large tire

cost effective is the reduction in compaction and versatility in its operation.

With the advent of the large 7-gang hydraulic lift mowers, the need for a standard turf or farm-type tractor might seem to be on the decline. However, how versatile are the large hydraulic units? Once they have mowed the fairways or roughs, their use ends. This seems a costly piece of equipment (over \$30,000) to sit in the maintenance facility with no alternate use.

On the other hand, the big tire tractor performs many tasks:

1. Mows fairways and roughs. The tires come equipped with large tread for traction. However, for golf course management operations, this tread must be removed (*Figure 2*). By making a slick tire and leaving just enough tread for traction, the tractor can mow effectively until the course becomes too wet to work. One good aspect of this tire is that when it spins, the turf is not damaged and it will not tear out chunks of sod, as most tractors do. As William C. Campbell, former President of the USGA, commented after the 1981 USGA Senior Amateur Championship, "With the use of the high flotation tires, Seattle Golf

Club provided some of the smoothest, tightest fairways to be found anywhere."

2. Fertilizes the entire golf course. When ammonium sulfate is applied to fairways, tees, greens, and rough at Seattle, it takes the operator five hours to complete the task (*Figure 3*). To fertilize greens alone, only 30 minutes is required for 18 greens. After a green or tee is fertilized, it is difficult to determine where the tractor actually drove, because there are no wheel marks and no compaction. This one task saved countless dollars in labor costs and, according to Bauman, nearly paid for the tires.

3. Light topdressing of the greens. Whether using a Lely or Meter-R-Matic II topdresser, the big tire provided little compaction when applying small amounts of sand. It also greatly speeded the operation.

4. Allows the use of a large fairway slicer/seedler on greens. As shown in *Figures 4 and 5*, the tractor gave excellent results with little disruption when using this equipment on greens. The bentgrass seeding operation takes approximately 45 minutes to one hour per green. Light topdressing immediately followed the

slicer/seedling and was repeated in one week. After two weeks, the greens were back to normal and bentgrass populations were increased.

5. Overseeding fairways or seeding new areas. The big tire equipped with the fairway slicer/seedler does a very good job of overseeding existing fairways. With the wide width of the tires, the overlap of the tires provides a rolling action to permit better soil/seed contact. After new areas have been seeded, the large tires are perfect for rolling.

6. Brush removal. In the Pacific Northwest and elsewhere, severe wind storms can cause considerable damage to trees. Many times, these winds are followed by excessive moisture, and conventional tires mar the turf or are unable to get onto the golf course. The high flotation tires are able to go anywhere a good operator wants to go and will not rut the turf. This tractor, combined with trailers (also with large tires), is an efficient labor-saving vehicle in inclement weather (*Figure 6*). Furthermore, when the course is too wet to haul material with small dump trucks, the big tire tractors and trailers offer good alternatives.

7. Aerification or slicing fairways. Under wet conditions, the use of the high flotation tractor will cause little or no damage during the aerification or slicing of fairways. It also does a good job of smoothing the surface during the operation because of the tire overlap.

8. Allows fairways and roughs to be swept under wet conditions. Many times the golf course superintendent and his staff are frustrated by the inability to clean up the golf course during wet conditions. Although the sweeper may cause some rutting, the tractor will work well under these conditions.

9. Allows closer access to greens or tees for spraying operations. The big tire, combined with large tires on the spray rig, allows an operator to move closer to the green and not rut or compact the area around a green or tee. Again, this speeds the operation and reduces employee fatigue.

These are some of the many jobs this versatile piece of equipment can perform. Whether the large tires would effectively fit into your operation will be determined by the climate, topography, type of soil, etc., with which you must deal.

They have worked well at Seattle Golf Club and others report similar success. They should work well for you. After all, maybe you can teach old, wet dogs new tricks!

Figure 5. (Below) Fertilization and light topdressing provide little compaction and increased efficiency in the operation.

Figure 6. (Bottom) The "big tire" combined with a large-tire trailer is excellent for brush cleanup or soil movement under wet conditions.

