

# Complete fleet

Part one in a  
two-part series

**T**o determine what type of equipment should be in any sports turf manager's equipment fleet SPORTSTURF magazine asked several industry experts the following two-part question about what constitutes a complete fleet:

What pieces (and brands) of equipment and tools do you feel are essential to your job, and why is each piece important?

**Abby McNeal, CSFM, assistant turfgrass manager, INVECSO Field @ Mile High, Denver Broncos**

Today's sports turf manager has so many pieces of equipment that are essential to his or her work. Although I may have omitted a piece or two, the following equipment are the pieces that I feel are important to have and are what we use to make INVECSO Field @ Mile High a safe and aesthetically pleasing venue. These pieces are in no particular order of importance because collectively they are all important to us:

**Lely Thatcher/Scratcher** - This scratcher unit has spring-loaded tines that help lift up the thatch and increase air and water penetration to the soil profile. It also helps the field by "lifting" our Grassmaster fibers from the soil.

**TurfSpecialist Dethatcher-Thatch Master** - This thatching unit slices through the soil surface creating air-channels and helps to remove the turf "snot" layer that accumulates across the soil surface. The Thatch Master has variable depth control and variable tine widths that allow us to control the openings that it creates. The Lely Scratcher and the Dethatcher are our two primary pieces of equipment used to renovate the field after a game has been played.

**Toro Reelmaster 3100-D Sidewinder Mower** - The sidewinder mower provides us with the ability to change our wheel marks each time we mow the field, helping to reduce compaction and wear from the equipment. In addition, these mowers allow us to get the proper height of cut for our field and allow us to collect the clippings as we mow.

**Toro Workman 3200** - Workman utility vehicles are used to haul and transport the materials that we use on a daily basis. These utility vehicles are durable and dependable.

**Toro Pro Core 660 Aerifier** - This unit gives us the ability to aerify using a variety of hollow and solid tine. Aerification helps to relieve the compaction that can be found on an athletic field. The variable depth that the Pro Core has allows us to use it to prepare a

seed bed for worn areas of the field.

**Toro Topdresser 2500** - A top dresser allows us to apply a light topdressing of materials to increase the traction of our field. The extra traction is beneficial to the players and increases user satisfaction with the field.

**Graco Line Lazer II 3900** - A good painter is essential to our operation. To make the grass area a football or soccer field we need a high quality painter. The Graco units are reliable in all the conditions that we have to paint in.

**Pro Gator with Broyhill Stadium 80 Sprayer** - The Pro Gator gives us the necessary turning radius, without tearing the turf, that we need while we are spraying our liquid fertility products. The Broyhill Stadium 80 is a small but very effective sprayer that is well suited to the volume of our spray applications.

**Goosen Versa Vac** - A vacuum aids us in debris removal from the field. This vacuum has adjustable rubber tines that allow us to adjust the depth into the turf that they go to remove debris. The unit has a large hopper that allows us to remove debris from about 1/3 of the field at a time, depending on how aggressively we have renovated.

Although I feel that the above equipment is essential, the most important piece of equipment is a good hardworking staff. You can have all the equipment that you can afford, but without a hardworking, educated crew, to help plan out the renovation and daily operations and operate the equipment, the equipment will be of little use to you and the field.

**Dan Douglas, director of stadium grounds, Reading Phillies**

I have a whole storage area of equipment I can't do without. I'm quick to think that the larger pieces of equipment are the most important, however, in most cases, they just make my life a little easier. The \$200 liner is as important as the \$20,000 mower.

I spend some part of every day driving around on my 20-year-old Cushman. A utility vehicle is the backbone of most operations. Utility vehicles are so versatile today that they can be customized to perform just about any function. Before I acquired my Cushman with its hydraulic dump, I had to use a small tractor pulling a cart. I spent as much time and energy unloading materials as I did loading them. The hydraulic dump saves time and my back. During the season we have a trade deal with a local John Deere dealer. We



# Sportsturf Machines

receive two Gators in exchange for advertising. These units are on the field in the lime-light during pre-game while the old, ugly workhorse, the Cushman, stays behind the scenes.

None of the equipment I use is very new. I mow with a Toro 216 that is 8 years old. The reels are belt-driven which I like because there are less hydraulic lines to leak. The engine gave out this summer but that can be expected since it had more than 2,800 hours on it. I have my friends at a local golf course maintain the reels to ensure I get a quality cut all the time.

I have a pull-behind spray rig which is a true "rig." The only original part is the trailer. Over the years I have upgraded the pump, engine, tank and boom. The 15-foot-wide boom lines up perfectly with the mower stripping so I rarely have overlaps or misses. I spend a lot of time maintaining the sprayer since one misapplication can turn into a nightmare.

One final essential piece of equipment is one we do not even own - a tractor. We again have a trade deal with a local company. Whenever we are undertaking a project, the company will deliver a tractor with whatever attachment we may need, such as a bucket, tiller, aerator or overseeder. A mid-size tractor is vital to all sports turf operations.

## Steve Wightman, stadium turf manager, Qualcomm Stadium, San Diego

The success of any business is based, in part, on having the right tools and equipment for the job. The business of sports field management is no different. Proper tools and equipment are essential in consistently achieving the best possible playing conditions for each and every event faced by the sports field manager.

Various types and quantities of tools and equipment necessary for efficient and effective field management depend on many factors including geographic location, type of sport or sports played, level of field expectations, labor resources and, of course, budget.

At the professional level of sports field management field expectations are extremely high and in most cases, so are labor resources and budgets. This usually means that the

field managers of Major League Baseball, the National Football League, Major League Soccer and other professional sports have more at their disposal in terms of tools and equipment.

Essential to any field maintenance operation is a reliable and versatile utility cart. The cart should be equipped with wide floatation tires to minimize compaction on turf areas. It can have either three or four wheels depending on the type selected, but a three wheel is preferred if there are a lot of tight areas that need to be negotiated. It should be capable of hauling and dumping materials and supplies, and the power and versatility to pull various attachments and other non-propelled pieces of equipment. It should also have the ability to transport at least two people in and around the facility.

Another important piece of equipment is a quality mower. Because we mow the baseball field every day the team is playing at home we need a reliable mower that provides a high quality cut each and every day. Because we're mowing overseeded hybrid bermuda at less than an inch we use a reel-type mower where height adjustments can be made easily and quickly. We use triplex riding mowers because the area we mow (2.5 acres for both baseball and football) is small enough to require tight turns yet large enough for the wider cutting width.

Due to the numerous types of events held on the playing surface at Qualcomm Stadium, an aerator is another essential piece of equipment. Compaction is one of the biggest problems we face each year, and aeration is a major part of our management program. We use a cam-driven core aerator with open tines that enter and exit the surface at near vertical. This minimizes the disturbance of the surface allowing for quick recovery from the aeration process while providing an effective penetration that allows for compaction relief and enhanced water movement. Almost any aeration process will be effective in reducing compaction and enhance water movement but due to a very busy field schedule this type of aerifier works well for us.

An important tool that will forever be in my toolbox is a quality rubber 1-inch hose with a versatile nozzle. Of course, the water capacity supplied to the field should be capable of accommodating the volume and pressure necessary to properly operate a 1-inch diameter hose (80 to 100 psi). The length of the hose should be long enough to conveniently reach all areas of the infield from the quick-coupler locations yet short enough for one person to handle. Typically, a 1-inch hose that is 85 to 100 feet long will meet the above requirements if the quick-coupler valves are properly spaced.

The nozzle should be capable of allowing the water to be shut off, opened slightly for small amounts of water to flow, adjusted to provide a high-velocity stream for sweeping/cleaning, a rose-type spray for gentle watering and a greater volume flow for heavier watering.

## Kevin Bevenour, grounds supervisor, Gettysburg College

The main thing is a quality mower that fits the job one is asking it to do. We use a Jacobsen 5111 for most of our playing surfaces. It gives us what we're asking for, a good, quick, neat cut. This unit easily changes cutting height when needed. We use a Hustler Super Z for fields that have borders or smaller off-field areas to turn in. Coaches and players are constantly asking for fields to be cut more regularly and at lower heights. These two mowers give us the advantage of a quick cut without excessive wear from the equipment.

The second piece would be a sprayer. This is used to apply wetting agents, biostimulants, herbicides and fertilizers. Foliar applications are readily absorbed by the plant, which in turn produces a better quality stand of turf. We use a Hardy boom sprayer. To go along with that is a spreader. We have found the Vicor to work the best and it gives a nice even coverage.

Another thing to have is an aerator. We use the Soil Reliever, which is a deep aerating machine that can either pull cores or just simply poke holes. This is used to aid in moisture penetration into the root zone and to alleviate compaction. Grass roots grow in air, not in soil or water.

Lastly, you need to put seed into the ground. We use a Land Pride seeder for that. Our seeder is equipped with curved cutting blades at a 2-inch spacing. Getting the seed in the ground provides cover and allows new seedling to mature.

We use a John Deere 1070 tractor to power all of the equipment except for the mower. Its wide gear range helps us to easily obtain a consistent ground speed while operating at the desired rpm.

There are all kinds of equipment out there, but basically we are asked to manage the lifecycle of the turf. You have to cut it, feed it, nurse it back to health, and provide reinforcements when it dies. These five things, a mower, aerator, seeder, sprayer, and spreader help you do what needs to be done to ensure a quality turf.

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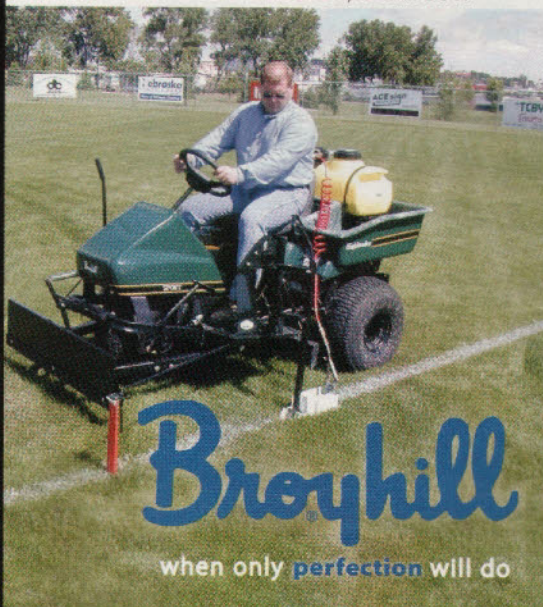
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