To 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?

Eric Fasbender, head groundskeeper, Schaumburg Flyers

Baseball field maintenance is unique in that only about 50 percent of a turf manager’s time is spent on the turf areas. The infield skin, the mounds and the plate area are what my crew and I concentrate on the most. For that reason, some of my most valued pieces have to do with the clay, but all of the machines that I have play a role.

We use a Toro 3100D Sidewinder to mow the outfield and foul territory. I love this piece because it has a single point adjustment for my reels. This makes adjustments quick and easy. It also covers a lot of ground and provides the high-quality cut that I am looking for.

The infield is mowed with a Toro 1600 walk-behind greens mower. This is a great machine because mowing takes half the time when compared with other mowers, and it has no problem cutting at a height of 1 inch. The finished cut that the walk-behind provides helps to maintain the playing surface that the players want.

Every other month we aerate with a John Deere 1500 aerator and in the spring and fall we topdress using a Dakota 400 topdresser. These pieces are borrowed from a local dealer, which has worked out well because normally I would not be able to afford these great machines.

Our infield skin and clay areas are the most important part of the playing surface here at Alexian Field. The maintenance of those areas starts with the Toro Infield Pro 3020. I can move material around, take down high spots, fill in low spots, nail drag and finish drag all with the same machine. It is versatile and durable, which saves time and money.

I use a Brouwer one-ton roller and a Craftsman hand roller to add stability to the infield skin and to firm up the players’ positions before games. Both pieces are also useful in the spring to roll the infield turf area. They work well in getting rid of those little imperfections that can create inconsistency.

No fleet is complete without a utility vehicle of some kind. The Toro Workman 2100 is just the thing that gets us through each day. There are times when I wish I had three of them, they are that useful and important. We use the Workman to haul sand, grass clippings and clay as well as garbage cans, hoses and tools. It is probably the most important piece of equipment in my fleet.

Finally, there are some pieces that may not fit into the fleet category, but that does not mean they are any less valuable or important to me. These items are a rake, a tamp, and a one-inch braided hose. The rakes and tampers are important for fixing the mounds and plate areas and the braided hose is used all over the field. We use hoses to hand-water the turf and they provide the moisture content that we are looking for in the clay. These are the tools my crew uses to make the finishing touches.
These pieces of equipment help me to provide a great playing surface that players love to play on and fans love to look at. While some pieces get more use than others do, they are all important to me and everyone else. Each one brings a different function and use to the trade, but if I had to do without any of them my field would suffer.

Tony Leonard, sports and landscape manager, Philadelphia Eagles

I feel every piece of equipment in our fleet is essential, or else we would not have it. We have had a great relationship with Textron over the years, so just about all of our equipment is Jacobsen and Cushman. However, outside of our mower, sprayer, and aerifier, there are a few pieces that help us really strengthen the plant to get us through the season.

Like Denver and Pittsburgh, we have the DD GrassMaster system at Lincoln Financial Field. This makes maintenance a little different than what we would typically do at our practice facility. Core aerifying the field is restricted, but other cultural practices can be used. One of the essential pieces in our fleet is a spring time harrow. This is a rake used to “scratch” the surface to break up any organic matter that would build up over time and to stand the GrassMaster fiber to a more upright position. Over the course of the season, many cleat marks drive the fiber into the ground, thus burying it below the playing surface. Our spring time harrow pulls these fibers up, allowing the fiber to protect the crown and aid in the stability of the field. In addition to using the rake to pull the fiber up at the stadium, it's a great tool for our Sprinturf field in our indoor practice facility. This will groom the field and keep the rubber from settling.

We also have a verticutting machine which is more aggressive than the rake. We have been using the verticutter more often at both facilities than in the past after seeing better results each year. We used the verticutter at our NovaCare Complex three times this year and twice at Lincoln Financial Field. This process stimulates new growth by dividing the plant into two. It also reduces any thatch build up that may result from the more aggressive bluegrass used on both sites.

Once we do the raking and verticutting, we always sweep with a Smithco Sweeper Vac. We purchased this sweeper about a year ago, and it has worked well for us. The Smithco does a clean job in one pass, which allows the plant to recover sooner, and aesthetically makes the field much more appealing after verticutting or raking.

Another piece we use often is a spiker. The spiker hooks onto our Cushman Truckster in about 2 minutes, and does a nice job on the fields. Each spike is about 5-6 inches long and spaced 6 inches apart. The point of doing this is to open up the soil a bit for air flow and water infiltration. It is also an easy way to promote new roots and shoots.
to form a much more stable playing surface in the upper 2 inches of the soil. And the beauty of the spiker is that no one can tell it was done.

Again, all of our equipment is essential, but the pieces of equipment listed above help us get over the hump in the latter part of the season. The agronomic value far outweighs the economic investment of these pieces of equipment.

Jeff Salmond, CSFM, Northwestern University

The John Deere 1500 Aercore is an important tool in our field maintenance program. With it we are able to hollow and solid tine aerify with 1/4-inch to 5/8-inch diameter tines. The 5/8-inch hollow tines allow us to pull soil/sand cores and remove a large amount of material, whereas the 1/4-inch solid tines permit us to poke needle-sized holes before an athletic event to help in the removal of excess water. The Aercore can be aggressive, which is why we also use the Renovator (Cushman/Ryan) for less destructive measures. A tractor pulls the Renovator, and its depth is determined by the amount of weight added to the machine. The Renovator can be equipped with coring tines or slicing knives. We particularly like to use it with the slicing knives. The slicing knives are useful not only for moderate aerification, but also to sever the rhizomes of our Kentucky bluegrasses in helping make the turf dense.

A roller (any kind above 5-ton, pull behind or smooth double drum) is good to have for just about any athletic field operation. We use a roller to smooth out irregularities in the turf and to roll the baseball infield skin and lips when needed. We may be apt to roll some of our soil-based fields before a heavy rain to aid in rapid water run-off. The roller also helps define our mowing/striping pattern on our football fields.

The Goosen Versa-Vac turf sweeper is valuable in cleaning up an athletic field after a game, especially football. We try and sweep up as much loose grass and pulled out divots as we can. We feel that picking up this extra material allows the underlying hearty grass to breathe and continue to grow, rather than be smothered out and deteriorate. The Versa-Vac is resourceful in that it is interchangeable with rotating rubber fingers, polyvinyl brush, or verticutter attachment. We use each attachment depending on a particular application. We use the Versa-Vac to pick up cores after aerification and to sweep up those pesky leaves in the fall.

We use a Toro verticutter/seeder to cut in new grass seed in multiple directions in our worn areas. When using it without the seeder box attachment, our main purpose is to slice grooves into the turf and soil in assisting Kentucky bluegrass to become more aggressive, to cut out any unwanted perennial ryegrass, and to add some additional aeration benefits. We may also use it to chop up soil cores if we do not wish to pick them up. When using the machine with the seeder box attachment, our goal is to use it in combination...
nation with the aerification equipment in establishing grass seed at different depths within the soil profile. After an athletic field has been aerified, the vertiseed will plant grass seed in the grooves produced by the machine; fall into aerification holes; and, with the remainder of the seed being on top of the soil, generally will be covered up by the soil that was cut out by the rotating blades.

Jeff Eckert, director of stadium and field operations, Joliet Jackhammers

When I came to the Jackhammers, I had the opportunity to acquire all of the necessary equipment and tools from my own wish list. We were a new baseball team in the Northern League in 2002, so I wanted to be sure I made the correct choices on everything that I purchased or did a trade agreement on.

The first and most important part in my arsenal is an aerator. In my opinion, this should be at the top of most equipment lists—yes, even ahead of a mower. You want to have a healthy, vigorously growing turf to maintain and, over time, without an aerator, you won’t have much to play on or turf to mow. Aeration helps relieve compaction, allows air, moisture and fertilizer to penetrate down to the root system, and also aids in drainage. When considering what type of aerator I needed to buy, I had to determine what my budget would allow. I chose a Millcreek core aerator with a three-point hitch that is pulled with a tractor. Compared to most aerators, this fit well within my budget and would do the job that I needed. However, although it has been a decent aerator for the past 2 years, I am leaning toward a walk-behind greens aerator simply to get the weight of the tractor off the field. Everything is trial and error.

Another important piece of equipment for me is having a utility cart. I have two John Deere Gators that help haul tools and packing materials, drag my infield and warning track, pull lawn sweepers and top-dressers, and remove debris. Both are equipped with electric bed lifts, which come in handy when dumping a heavy load. I cannot say enough about the importance that these carts have in assisting me with my job.

Other pieces of equipment I have that are just as important are a Deere 4600 tractor with a front loader, a Deere commercial walk behind, and a Deere Z-Track mower to maintain berms and other common areas on site.

Important tools essential for my job in maintaining a baseball field include rakes, brooms, hand tamps, shovels, measuring tape, water hoses, a power edger, string line, and loop “scuffle” hoes that undercut and remove unwanted grass and weeds in the skinned or warning track. I also use a Tru-Mark line painter to lay down foul lines and coaches boxes. I have a mound gauge that aids in keeping the pitching mound to the correct specifications. It is hard to single out which tool is the most important because all of these listed are used on a daily basis during the season. Without these tools, it would be impossible to maintain a professional field, or any field for that matter.