

## Starting a turf management program “from the ground up”

By George Trivett, CSFM

What could be more exciting for a turf manager than to have the opportunity to start a program from the very beginning, to literally build one from the ground up? In August 2006, I was blessed with that opportunity by the city of Lenoir in North Carolina.

The city had a very basic program in place, devoted only to occasional mowing and infrequent fertilization. As I began to assess their needs, it became obvious that I was going to have to design and implement a turf management strategy that would necessarily impact every phase of the operation.

In some ways, building a program this way—from seeding, fertilization and cultivation up to

cutting patterns and paint—is less problematic than coming into a program that requires a manager to focus on fixing or on healing a field that has been mired in a very basic turf management program.

Here, I had the opportunity to make some of the most important, most fundamental decisions that a turf manager makes. It was exciting to realize that I was going to be in a position to prevent many of the most recurrent, most costly and time-consuming problems that already mature fields face over a lifetime of use.

I knew I was going to have to begin implementing my turf strategy for Lenoir where the real work begins: in the sheds and tool bins. A quick inventory revealed that equipment would have to be purchased, and that we were going to have to acquire more specialized tools.

The turf manager’s most important piece of equipment is the tractor. A versatile 20-hp tractor is sufficient for performing many of the routine tasks necessary for developing and maintaining healthy turf. A loader is needed for moving dirt, sand and topdressing material. A core aerator is another imperative. The tow-behind models are adequate, but I prefer the three-point hitch variety because they offer some added maneuverability.

The aerator is one of those items that should be near the very top of the list of must-have equipment. A fertilizer spreader, with 300-400-pound capacity, is also a necessity, and the type that attaches to the three-point hitch on the tractor is, in my experience, the best option.

For spreading chemicals and other liquids, a durable sprayer is an indispensable piece of equipment. There are tow-behinds that have their own motor, but my preference is for one that attaches to the three-point hitch and gets its power from the tractor’s PTO.

### And of course, the mower

One of the most important pieces of equipment is the mower. We decided on two Toro 3505D rotary mowers because that model has outstanding cutting and striping abilities. Some

turf managers prefer reel mowers. While it is true that they give a finer cut, we thought it prudent in our situation to anticipate and avoid the high costs associated with maintaining them. If a turf manager does not have a full-time mechanic on staff or at least easy access to one, then I would strongly recommend using the newer rotary class mowers.

We have approximately 24 acres to keep mowed. Because there are only two of us, it is a given that we will often be mowing wet turf. After considering all the variables involved, we knew the rotary mowers would work very well there. With all the equipment delineated here in your inventory, you can expect to have what you will need to do an excellent job of managing your turf.

To manage the infields and dirt areas of your fields, there are other specialized pieces of equipment that you can expect to need. An infield machine for smoothing and scarifying is perhaps the most important piece of equipment you will use on dirt. If one cannot be appropriated, then the tractor can be used to pull smoothing drags and nail drags. The loader on the tractor is useful for moving dirt and sand, but it is also a sound implement for rough grading dirt areas.

A number of hand tools will have to be included in your inventory. Infield rakes are very important. I prefer one that can be purchased by catalog or online from Gempler’s. Their 24-inch rake is the best I have ever used. Leaf or spring-tine rakes are a necessity, and they should be purchased with durability and soundness in mind. You want rakes that will endure over time. Shovels, flat edge and round point, are obviously a must, and I like to keep a large snow shovel on hand for scooping rocks and loose material.

To manage the areas of the field where the grass and dirt meet, certain other specialized tools are needed. A gas-powered spin edger is essential to maintaining clean, crisp edges. I am a big fan of the Turfco Edge Rite, a machine that does an excellent job of not only cutting the grass but also of cutting underneath the grass, so you won’t have to use a shovel to loosen it. If you are managing bermudagrass or other creeping variety, the Edge Rite works perfectly.

To measure and layout fields, you will need at least three large tape measures. I use two 300-foot tapes and one 400 to layout soccer fields. You may have to special order the 400-foot tape because that size is not commonly



# Tools & Equipment

available, but it is well worth having around. I ordered one from a local building supply store. Of course, it is always helpful to have a sound spring-loaded tape measure in your box because, as you know, one cannot expect to have someone around to hold the other end.

## Other necessities

It is extremely important to have a wide range of wrenches, socket sets, both standard and metric, screwdrivers, drive attachments, drill bits, and other small hand tools available for performing maintenance on your other tools and equipment. An air compressor, in my opinion, is an absolute must. They are perfect for clearing debris from all your primary pieces of equipment and their attachments. An air compressor will help to ensure that your equipment's tires are inflated properly so they will always provide safe operation and not wear prematurely. It is also needed to power your other air tools. I cannot overemphasize the importance of having a strong, reliable air compressor in your inventory. It was one of the first pieces of equipment I purchased.

You will certainly need to purchase painting or spraying equipment for putting down lines and logos. You will choose from aerosol or bulk paint. With aerosol, you can anticipate having very little cleanup. The bulk paint will require extensive cleanup time, but it is best for large logos and for preparing a number of fields quickly. We use aerosol for painting foul/fair lines and for lining all the soccer fields.

## Human factor

Before a single tool is sharpened or piece of equipment fired, turf managers have to consider the human factor. I cannot stress enough how important it is to have the commitment and support of your supervisors in order to devise and implement a successful turf management program. Whether you are building a municipal program or developing one for schools, it is absolutely essential for you to have the support and commitment of the individuals and boards who provide the leadership and the funding. The best way to gain their support is by showing them how the fields have improved in safety and playability. I recommend always taking before-and-after pictures. You will find video useful, too, because pictures and tape provide sound evidence of progress. In these necessarily strict days of accountability, pictures become invaluable resources for explaining, defending, or supporting your capital needs for decision makers. Pictures and video will help pro-

vide support for your strategies, your decisions, and for your needs to budget writers.

Archiving pictures and video also provides documentary evidence of the seasonal, practical, or experimental initiatives that you have implemented in the past. They provide sound anecdotal evidence of what worked or what did not work in a certain area. They will be invaluable to your successors, and they will be informative, over time, to you as your program and your fields mature.

You can show the people who use and/or fund the fields how much they have improved after being subjected to the rigors of a dedicated program. If the leadership, and the users, are confident that you are able to produce a safe, sustainable, cost-effective product, then you have already made great strides towards success.

The way you manage your fields depends, of course, on two things: the types of grasses you want and the geographical region of your fields. The two things that all turf managers must have in common are: 1) a devotion to the fields and the fields' users and, 2) a work ethic that puts the growing and maintenance schedules before personal schedules.

The dedication and selflessness of good turf managers are what guarantees our clients the safest, most durable, resilient, attractive, and well managed fields possible. Maintaining fields, in some ways, is like raising children. Each one is a favorite, and, though some are more unruly than others, each individual field has its own unique challenges that must be discovered and tended to with the same zeal, optimism, conviction, and hope that a parent brings every day to their job of raising children.

I hope that you will all take pride in everything you do. At the end of the day, when the sweat, dirt, and sand are still stinging your eyes, when you are exhausted and sometimes frustrated, it is my hope that you can look out over your fields and know that your efforts are laying the groundwork, literally, for excellence and the promise of a long, healthy lifetime of use. Know, despite their present condition, that you have given them your very best that day. If you can lock those gates knowing you have done that, then I am confident that you are on your way to having the safest, most attractive fields in your region. ■

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## Keeping mower reels sharp without grinding

While there is no real substitute for grinding mower reels, there are a couple of fairly simple options for turf managers to consider, ensuring that they get the most out of their reels between each grind. Jacobsen mowers are typically set so there is a 1/2000th-of-an-inch gap between the reel and bedknife during operation.

Checking mowers regularly to maintain this setup will not only produce the best quality-of-cut for most sports turf applications, but will keep both bedknives and reels from dulling too quickly. A gap any larger than this will allow grit, dirt and other small objects to pass through, wearing on the blades, while a gap any smaller risks contact between the reel and bedknife, causing each edge to dull.

Checking mowers daily or at least weekly to make sure the bedknife-to-reel set up is exactly where it needs to be is a simple practice that helps each mower and each reel perform at the highest level.

Another practice that Jacobsen recommends is backlapping reels every couple of weeks. All Jacobsen reel mowers are designed to allow for on-board backlapping, which is another simple process to hone the reels between grindings. For most sports turf facilities, Jacobsen recommends using an 80-grit lapping compound. Apply the compound and run the reel in reverse at a reduced speed to maintain a good edge on each blade.

These two simple processes will go a long way toward keeping reels sharp, but grinding reels at least once every year is the only way to keep them up to factory specs. ■

Photo courtesy of Jacobsen