FOOTBALL MAINTENANCE FOR COOL-SEASON HIGH SCHOOL FIELDS

For as long as I can remember, I have spent most of my winters going to continuing education classes. I can recall many great talks about baseball field maintenance for all different levels of competition. There are many sources of information about the craft of maintaining baseball fields. However, when it comes to the sport of football, I don't recall many talks or articles about maintaining a high school field or any other type of football field.

» Our maintenance program doesn't begin and end with the football season but rather focuses on a yearlong approach. **The new season begins as the old one ends.**

I hope maintaining a cool-season natural grass football field is not becoming a dying art. It is an art, you know. Taking a beautiful turf canvas in pleasant September weather and keeping it safe and playable as the temperatures drop through Thanksgiving takes an artist's touch. A couple of years ago I spent some time talking with Tony Leonard of the Philadelphia Eagles about this subject on our way back from the STMA Conference in Daytona. Even at the highest level of completion, Tony is often asked "Why can't you grow grass on that field"?

During our discussion, I found out that there are many reasons why it is difficult. Sharing the stadium with Temple University, dealing with shade issues, hosting many non-football related events and maintaining turf in a very narrow set of hash marks are just a few of the

hurdles that Tony and his crew face . In addition, the pro game is played by the largest athletes in all of sport. The fact that they play the bulk of the game in a small area of the field causes a variety of maintenance problems. Tony has adjusted by changing his field over to bermuda grass during the warm weather months. This allows him to get through most of the season on a very durable surface. As the weather cools the bermuda is removed to the depth of 1.5 inches and thick cut bluegrass sod is installed to finish out the late season schedule with good turf cover. This process has been very successful for Tony and the Eagles.

While this may be a good answer on the professional level, what about those of us on the high school or park and rec level? Are there answers to the problems we deal with on our football fields or are we facing a future with plastic football fields as the solution? I don't claim to have all of the answers, but we have had a lot of success with the maintenance of our football fields at Overbrook. Our maintenance program doesn't begin and end with the football season but rather focuses on a yearlong approach. The new season begins as the old one ends.

ENJOY AN EARLY SPRING

Spring is a very important time for football fields. The fall season really wears out most fields and springtime is usually the time that significant recovery can take place. This process can be slowed by lacrosse but recovery must be taken into consideration regardless. March 1 in New Jersey is the first day you can apply fertilizer **legally** and we do; at least .5 lbs of N per 1000 sq. ft. are applied through an application of ammonium sulfate. This provides food for the new turf planted at the end of last season and promotes growth of established turf also.

In addition to an early application of N, there must be a concentrated effort made to begin mowing to remove dormant turf and promote new growth. It is tempting to allow football fields to lie dormant in early spring. There are a lot of other things going on and football is not one of them. Don't fall in to this trap. The quicker your turf is actively growing, the quicker it has the ability to establish and endure the stress of drought and pest pressures that are coming later in the spring and summer. Fertilizer is provided on an as needed basis during the spring with the intention of not applying more than .5 lbs N per 1000 sq ft. per month.

AERATION

Aeration is something that is very important but commonly overlooked. In our case, we have a core aerator but have no good way to clean up the messy cores. In addition to the mess, coring during the football season may not always provide the results you are looking for. Problems occur during the season if you open up a worn field by coring. Sometimes because of a busy schedule there is not enough time for the field to recover before the next game is played. This can cause a poorly rooted field to suffer damage even though that was not the intention.

At Overbrook we have found a nice window of opportunity right after Memorial Day. Early June is after our spring season and usually before the weather gets too hot. The fields seem to really respond well at this time of year. The turf is actively growing and our activities are limited. We try to make up for the few coring opportunities that are available by using our slicing aerator when we are seeing signs of compaction. This aerator provides us the ability to open things up without disturbing the playing surface. It is a very valuable tool that also aides us in our fall over seeding program by providing a nice seedbed. Another added benefit of slice aerating is the ability to find grub damage quickly during August and early September. It is much better for us to find grub damage and treat it, rather than an injury occurs due to field conditions. Ultimately, it is up to the turf manager to find the right time and aerator for your site.

SUMMER STRESS

Summertime is a time of rest for our football turf. We are lucky that there is very little activity during the summer months until football camp opens around August 15. Our cutting height is raised to 3 inches and mowing frequency is set at 3 to 4 times weekly. The thinking is that I don't want to put any extra stress on the turf. Higher cutting heights do cause other issues though. Suppressing dollar spot with nitrogen often causes brown patch to develop when the weather conditions are right.

In an attempt to break this cycle we tried an organic-based product. It is not a pure organic product but rather a bridge product that is easy to use and can be applied at workable rates. The results last year were very interesting. We had both diseases pop up last summer but in very small amounts and with no noticeable damage. I am going to use this product again this summer to see if we can obtain similar results. Fungicides are not part of our maintenance program so we are constantly making adjustments to see if we can suppress disease without their use. With that in mind, our irrigation routine is based on need not schedule. This sounds like common sense but it gets complicated with tricky summer weather. The fields are checked daily for soil moisture and then irrigated or not based on this information. I have found that it is ok to get a little dry over the summer. Proper water management is crucial for surviving summer heat and humidity. Please don't set your timer box and forget it.

THE SEASON BEGINS

Football season at Overbrook starts around the middle of the month but it actually begins for us around August 1. This is when the fields are laid out. Before the fields are painted we cut in a football pattern consisting of end zones cut in the same direction and every 5 yards cut in the opposite direction. This is done to burn the pattern in without having to waste paint before field use begins. The weather has been pretty unpredictable over the past couple of years. We have had wet weather that causes a lot of damage due to the repetitive nature of football practice. Our coaches do a great job of moving around but sometimes damage is inevitable.

After a wet practice we will sometimes use a light roller to push down damaged turf and broadcast perennial rye seed. This process

▲ **Carmelo Anguilla** running a mower.

is used in wet or dry conditions in order to keep up with field damage. Seed is the great equalizer in this equation. It allows us to keep some turf cover. Summer camp is different from our regular practices during the school year. Practices are longer and are held 6 days a week for around 3 weeks. In addition to seeding, managing moisture is probably the key to surviving this time of the season. During warm weather irrigation is run just after practice to help the turf recover and allow plenty of time to dry before the next practice. A wet field can be ruined in a single practice. Monitoring your field during this period is very important. Your practice field is going to be used all year long. If no maintenance is done, it will be a very long and bare season.

▲ **Bill Loftus** filling divots.

GAME ON

It always amazes me how much more energy and time we spend on our game fields. The team spends much more time on the practice field but the game field garners all of the attention. At Overbrook we have a very good situation when it comes to our stadium field. One of the reasons the field holds up as well as it does is the fact that it really is just a football field for games. Our coaching staff has even volunteered to move their Friday practices to the practice field in order to preserve conditions on the game field. The Overbrook marching band has their own practice area at the back of our school that allows them to practice whenever they want. They do however practice on the game field for longer periods of times than I would like during the competition portion of their season. It does force us to aerate more and keep an extra eye on the area of the field that they practice on over and over again. I guess the best advice is to have a good relationship with your coaches and administrators to make your life easier.

Cooperation is great but you need a good plan going in to the week of a football game. Start by looking at the weather forecast to set up a painting and mowing schedule. Typically we will cut Monday, Wednesday and Friday for a Saturday game with painting reserved for Thursday and Friday. Our cutting height is a little higher than most fields (2.5-3 inches). We counter that by using a light roller on game day to provide a smooth flat surface. In order to keep our sidelines straight, they are cut a quarter inch shorter that morning before rolling. As the season progresses we begin to broadcast perennial rye seed before our games. This allows the athletes to work the seed in with their cleats.

This year we have purchased a Woods seeder that we will use to renovate the center of the field throughout the season. The combination of all of these things is what allows us to provide the best surface possible on a tight budget. Post-game repairs and rest are what really holds the field together from week to week. In the beginning of the season when it is hot, we will irrigate the field as soon as everyone is off after a game. This helps the recuperation process begin. We may also lightly roll the field to push down any loose turf. This allows that turf to re-root if given enough moisture. In addition, we also remove all loose divots that are not still attached. The divots then are filled with a pre-made divot mix consisting of mushroom compost soil and seed. Sometimes this doesn't happen until Monday depending on manpower and time of the game. However, it is better to get as much repair work done as soon as possible to give the field maximum recovery time.

BEDTIME

As one season ends another begins. After our last home game of the year, we get ready for the following year. Seeding throughout the season definitely helps this process. Our goal at the end of the year is to fully repair the entire field and have as little bare soil as possible exposed. We start by topdressing all divots and low spots and then seed the entire field with tall fescue seed. Over the past few seasons we have been trying to incorporate more turf type tall fescue varieties in to all of our fields because they seem to do a better job resisting disease damage in the summer than perennial rye. The rye serves its purpose during the season by being durable and germinating under difficult circumstances but the addition of the tall fescue gives us more cover going into the season. After the field is topdressed and seeded, we roll one more time and put the final application of ammonium sulfate out. I recommend that you do whatever it takes to keep any type of play off of your field at this time because it is almost at the point of dormancy and any wear will be difficult to repair. A couple of pick-up games can cause a lot of unnecessary damage that will need to be repaired in the spring.

Football in New Jersey is a long season. It starts with heat and humidity and finishes with a mix of cold unpredictable weather. The best way to survive is to have a plan that you can communicate to coaches and administrators in order to provide the best possible playing surface for the athletes to use and enjoy. ■

Rich Watson is Grounds Supervisor for the Pine Hill (NJ) School District. He won an STMA Founders Award last January when he was named recipient of the 2013 Dick Ericson Award for his contributions to the industry.