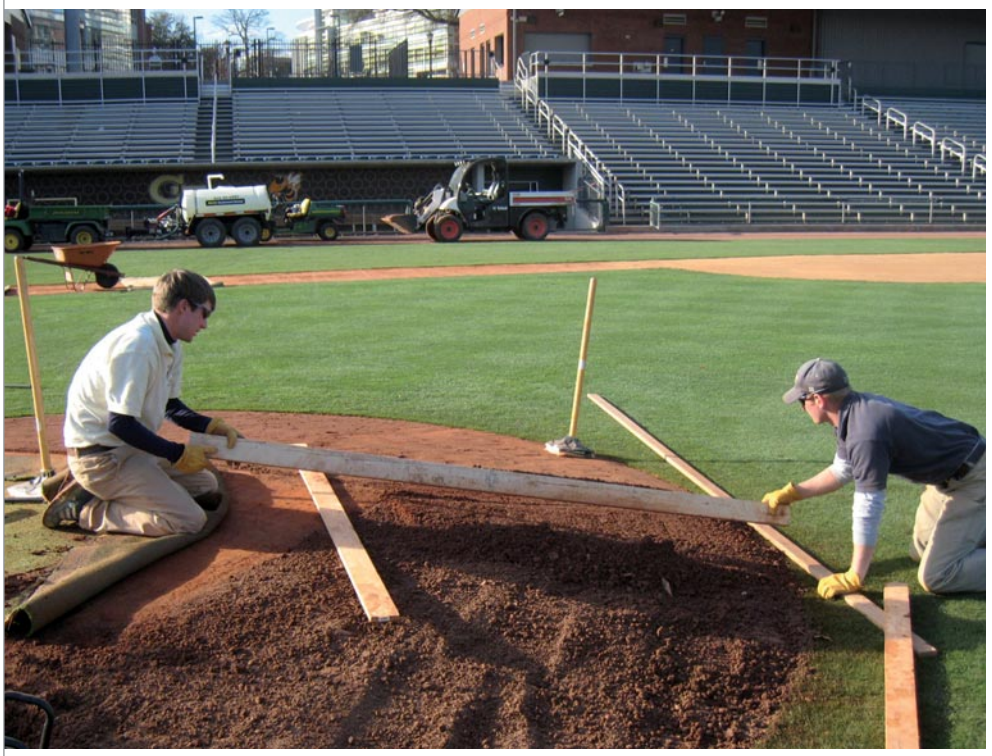
Maintaining turf year-round: voices from the South



Editor's note: We asked some prominent sports turf managers from south of the Mason-Dixon Line for comments on maintaining turf 12 months a year. Our panel includes: Joe Collins, CSFM, Samford University, Birmingham, AL; Clark Cox, CSFM, University of South Carolina, Columbia; Jon DeWitt, CSFM, Georgia Tech, Atlanta; and Jeff Salmond, CSFM, University of Oklahoma, Norman.

Is there down time during the year regarding regular maintenance?

Salmond: First is to classify "down time." During each in-season sport, down time may be one day or a couple of weeks between events. Out-of season-sports, we may have one week or one month depending on camp/clinic and event schedules. But there really isn't an out-of-season. Whatever down time that is allowed, the regular maintenance scheduled will depend on its ability to be performed and recovered from within its respective time period. For example, aerification—short down time (1 day), solid tine aerify with less than ½-inch diameter tine. Longer down time (2 weeks or more), hollow tine aerify with the diameter determined by rate of grass growth and weather.

Collins: We have down time in the winter after football season and before baseball/softball season. Equipment maintenance is done throughout the year when the odometer calls for it. On reel mowers I try to schedule grinding and that type of thing for the down time in the winter.

Cox: Not really. Things slow down in June and July but we still have to work around camps and special events.

DeWitt: Probably the quietest time is early summer. Everyone has just had it from the school year, has likely been run through a regional(s) gauntlet and so forth. People just scatter. After that camp season fires up which means bodies everywhere, and doing anything can be complicated. Then there is a slight break in August before school and fall football. After that it's just hold on tight. We have gone to a bowl game every year I have worked here so football practice just keeps rolling along late in the season. December and January are not at a rushed pace, but things must be done to prepare for baseball that gets rolling in late January. At least we don't have to move snow!

How do you keep equipment maintained, irrigation systems, etc., if there's year-round play?

Collins: We just have to schedule time for equipment maintenance no matter what. We can't afford for a piece of equipment to go down in one of those critical times such as a game day. We've been good at getting fluids changed, blades sharpened, and filters replaced in the midst of regular maintenance.

DeWitt: Luckily, our fields were built very well and this includes the irrigation systems. Consequently, we rarely have major issues. We will outsource something if it's a major problem or we have multiple events and we simply cannot get to it. Planned upgrades (head replacement, leveling and the like) we will schedule for our quietest times, and preferably during good turf recovery weather. This generally means June. We will dedicate one of our utility vehicles to irrigation service over the summer so we can work most efficiently without having to load and unload tools and parts, etc.

We are also lucky in that we lease most of our most important equipment, which generally means fewer break-downs and loss of productivity; furthermore, we have warranty coverage throughout our lease period. I typically check mowers for daily quality of cut. The crew and I can fix most issues that arise; however, we also have weekly support from Jerry Pate Turf and Irrigation's mobile service guys who can fix anything that has come up that we are not able to fix either because or time or complexity of the problem.

Cox: We do our best to perform maintenance around practice schedules and games. Communication between our staff and the coaches is critical to eliminating conflicts.

Salmond: We are fortunate to have multiple reel and rotary mowers, practically one mower per athletic complex. Therefore, if a mower is down for scheduled maintenance or is in need of repair and adjustment, we are able to compensate by sharing mowers. Our irrigation systems are charged year round. Laterals and main lines are at least 2 feet deep in the ground. Irrigation repairs are handled immediately and are resolved in 24 hours or less. Each of our athletic complexes is maintained by one or two staff members that are able to keep things going during illness or vacation time.

What are the biggest challenges to maintaining both cool and warm season turfgrasses simultaneously?

DeWitt: Transition back to Bermuda in the spring is without a doubt the biggest challenge. The severity is greatly affected by how long we must hang on to the Rye. For example, if we have a baseball regional we have to hang on to the Rye through the first of June. The competition from the Rye while the Bermuda is trying to break from dormancy is very detrimental to the Bermuda.

Some golf courses around Atlanta have either eliminated or greatly reduced their overseeding due to this problem. Some sports turf managers have also begun to remove the Rye from their stadium fields after the last home game. This can be conditional on whether or not administration is comfortable with having a dormant field for recruiting, conditions of field for the spring game and general appearance. However, the cost associated with "pushing" Bermuda with fertilizers to grow back in and the risk of having to resod in these economic times can be a fairly convincing argument for early Rye removal.

Salmond: Traffic and over-use, especially during both periods of transition. Many of our sport surfaces are used into early winter and again in late winter/early spring. Typically our spring sport surfaces must stay in the overseeded ryegrass until June. The three week "down time" around the end of December/early January makes it difficult for recovery before the start of the next season. We do not possess growth blankets for our large surface sports such as football and soccer to aid in elevating soil temperature to maintain growth or aid in a quicker spring green-up. We will be looking to purchase growth blankets soon. We do have a

growth blanket that we use for the baseball infield grass surface.

Cox: The biggest challenge is the transition from Perennial Ryegrass back to Bermudagrass. With increased play in early summer the Bermudagrass has a hard time overcoming both the competition from the Ryegrass and wear.

Collins: One of my biggest challenges is working in overseeding in the fall during competitive seasons. Merging the playing schedule with the weather conditions has been a concern every year. Timing has to be just right for establishment of winter turf and sustaining high playing standards. I expect a little down time in the spring for transition back to warm season but the off season is more forgiving. I wait until spring seasons are complete before taking out ryegrass.

> "Transition back to bermudagrass in the spring is without a doubt the biggest challenge."

Briefly describe your overseeding program (if you overseed).

Salmond: We try to target 15-25 lbs/1000 sq ft of perennial ryegrass for our overseeding rates on our sports fields, dependent upon the type of aggressive sport and the impact of the surface that is used particularly in the spring. If the sport does not require the ryegrass to be the actual playing surface, we target the lower end of the seeding rate range to provide spring color and help with an easier transition. We have found when overseeding that our best stands of ryegrass on bermudagrass have occurred when all the seed goes out all at once, rather in smaller rate applications to the desired overall total.

Cox: We usually overseed our fields with Perennial Ryegrass in early to mid October or as our schedule allows us. Typically we will apply seed at a rate of 10 to 20 pounds/1000 sq ft. We apply the seed with a drop seeder that has spikers on it to help with seed to soil contact. We topdress with sand following seeding. We remove the ryegrass chemically in early April on all fields except baseball and softball. The ryegrass on those two fields is killed immediately following the last home game usually early June. Last season we chemically removed the ryegrass from the football field in December which made for a much smoother transition in the spring.

DeWitt: I have found October 1 to be a great target date for the Atlanta area. However, we could go 2+ weeks earlier or later depending on weather and/or schedule. I like to get 15lbs/K out on the first application and touch up as needed; this varies greatly from field to field.

I usually go with a standard starter like 18-24-12 at or near the time of initial seeding. I also like to spray BannerMaxx at "greencast" of Rye emergence for both its fungicidal protection and PGR affect. We use a lot of sprayable fertilizers on the Rye to get it up and going. We will apply fungicides preventively and/or as needed based on disease pressure, which this year has been outrageous with all the rain.

Do you use chemical products and for what purposes?

Cox: We do use chemicals to remove the ryegrass from all our fields. Fungicides are also used to prevent disease in the spring. Herbicides are used both for pre-emergent and post-emergent weed control.

Collins: Yes we use chemicals for many reasons, assuming this refers to transitional ryegrass control. I have sprayed out my ryegrass the past 7 or 8 years because the length of time it takes for temperatures to get high enough to kill ryegrass. Usually, by the time it is hot enough we are a mere 6 to 7 weeks before the start of fall practice for soccer and football and that's just too close for comfort.

DeWitt: This might be too broad to realistically answer. We use wetting agents to control water in the soil profile. We use pesticides as needed for weed, insect, and fungus control. We spray a lot of fertilizers.

Salmond: Yes, we do use a few chemical products, mainly for targeted herbicide, fungicide and insecticide applications only. Our fungicide program is subtle. The University of Oklahoma Athletic Department has developed green initiatives that our field management department has become an integral part of and plays a big role in. We implement more organic and microbial type liquid chemical products either through spraying or irrigation injection. We hope to install injection systems at each of our athletic complexes in the future.

How do you deal with any heat issues on your synthetic surfaces?

DeWitt: Unfortunately, we do not have any kind of irrigation on our one synthetic field (football). My understanding of the research on watering synthetics for cooling is that it is not all that helpful anyway. Furthermore, it can create a cloud of humidity over the field that can actually make conditions worse for the field users.

Our solution to an extremely hot synthetic field is to not use it during the hottest part of the day. This is mostly just an issue in the summer during camp season. So, if we run three sessions the morning and evening sessions will be on the synthetic and the afternoon will be on grass.

Collins: We have a water cannon set up for our synthetic surface, but the positive effects are debatable. By the time the system runs completely through the initial area is dry again and temps are high. We are getting only short periods of relief from watering. There is also the choice of coaches of having conditions wet and hot or dry and hot, I think most of them prefer hot and dry as opposed to suffocating humidity along with 130 degree ground temperatures.

Salmond: Our athletes prefer playing on our natural grass surfaces.

Cox: We do not manage any synthetic fields.

How do keep "fresh" personally, that is, avoid burning out?

DeWitt: A good sense of humor with a heavy dose of sarcasm. Retreat to Highlands, NC with family when able.

Collins: I sometimes travel along with our teams when they venture out of town. It is refreshing for me to be at an event where I don't have to do the preparation. I also enjoy the fellowship with some of the coaches. It's also good to be home with my family. We try to take some vacation around the winter holidays.

Cox: I have a great staff that I trust to take care of things when I am not here. This allows me to get away and enjoy my family without worrying about things at work. I have learned that surrounding yourself with good, dependable people helps alleviate stress.

Salmond: Someone once told me that if you enjoy what you do, you will not have to work a day in your life. I believe I was wired that way. Going home to my family each day keeps everything in perspective and lines up my daily priorities.

What's the best aspect of your job?

Salmond: Providing quality athletic surfaces for championship student-athletes.

DeWitt: Getting paid to do something I absolutely love (growing grass).

Collins: The best part of this job is setting up a program, completing the program, and seeing a successful and safe event. It is very rewarding to see the facility peak at game time. The people I get to work with here make it enjoyable also.

Cox: Best aspect of the job is being able to see the tangible results of hard work and planning.

What's the worst aspect?

Collins: The worst part of this is the amount of time I spend away from the family during peak season. They understand and I knew about this before entering this career but it doesn't make it any easier, it's just one of those things.

Cox: The worst aspect is dealing with the increased amount of play on our fields while the expectations of field quality remain the same.

DeWitt: Camps. Having your work destroyed on a regular basis, and the endless battle to keep things to the level you desire despite the constant grind of cleats.

Salmond: Scheduling a planned family vacation. ■