



BY DR. GRADY MILLER

Professor, North Carolina State University

Questions?

Send them to
Grady Miller at

North Carolina State University,
Box 7620, Raleigh, NC 27695-
7620, or email
grady_miller@ncsu.edu

Or, send your
question to

David Minner at
Iowa State University, 106 Horti-
culture Hall, Ames, IA 50011
or email
dminner@iastate.edu.

I'm a teacher, coach, and part-time field manager at our high school. I've never had any formal training in turfgrass management but I read magazines on the subject to learn more and pick up tips whenever I can. I know there are no magic potions out there to make our field look like your University's fields. But I was wondering how the practices and products we use compare to those used by a University or even a pro-level facility. Attached is my general program that I have been using the past several years. How far off are we?

Curious Coach

Coach, I think this is a great question. I would like to start by saying that I respect the job that you all are doing. I realize that taking care of fields is probably not your first passion; that you would rather be spending your time teaching students or coaching a sport that you love, not fussing over turfgrass conditions. But that fussing makes a difference as there is no doubt that a field manager's attention to detail influences how the field looks and plays.

Regardless of how good you want your field to look, I think the first concern should be to deliver a safe playing surface for the student athletes. My good friend Floyd Perry has always said that sports turf managers should follow three rules for field safety. First, apply the best techniques given the facilities budget and equipment. Second, do it regularly and on schedule. Third, document that you are doing so. I believe these are good pieces of advice for anyone managing a sports field.

Let me begin the comparison between fields with the construction differences. Natural grass fields such as the ones here at North Carolina State were built using pre-determined soil specifications to

maximize water infiltration and minimize soil compaction while balancing agronomic qualities for turfgrass growth. The soil mix reduces the chance for rained out games as well as making the stadium fields more resilient for hosting more events. While most native soil fields such as yours can usually get by with less irrigation and fertilizer, they require more aggressive aeration to maintain a softer surface and reasonable infiltration rates. They also need a taller center crown to promote more surface flow of water rather than relying on subsurface drainage.

A second, related comparison is field use. The University has several [football] fields that are used for practices. This allows concentrated wear to take place on these fields rather than the game field. We also have separate practice and game soccer fields for those sports. Unfortunately, you do not have that situation; therefore your primary field gets wear and compaction from the combined events of two sports. I know your athletes are not quite as big or as fast as college athletes, but the time spent on the field by all the athletes adds up just the same.

When comparing cultural practices, the first one that really jumped out was the differences in summer management. Your plan indicated minimum summer management with irregular mowing schedules, limited fertilization, and minimum weed control. This program may not maximize the field's conditions in preparation for late August use. In our case, summer is the period of time we most intensively manage the field since it provides the ideal temperatures for growing bermudagrass. So the intensive cultural practices in summer allow us to start the fall season with our turf in the best condition and health possible.

Our summer program generally includes twice monthly fertilizer applications at appropriate rates and a 3-4 times per week mowing frequency to ensure a dense, strong turf stand in the fall. We do not need to apply herbicides to our stadium field, but the practice fields (subject to wind-blown seed) are on a pre-emergence herbicide program to minimize any unsightly weeds and reduce unnecessary plant competition for light, fertility, and water. Herbicide selection and application timing is critical because we do not want to interfere with fall overseeding of perennial ryegrass. Most of the fertilizer and pesticide products you are using would be similar in our program.

One product difference I noted was the paint you use. Rather than use aerosols, we use a bulk paint that is designed to be painted on turf. While we occasionally use aerosol paint around the field for set-up marks, we primarily rely on bulk paint applied through airless sprayers for lines and logos. With this paint, not only is there less chance to damaging the turf, over the long term it is significantly cheaper.

So you are correct in that there are no magic potions. Our trained turfgrass managers use many of the same products you use. The greatest difference is that maintaining turfgrass is their primary job so they have time to more intensively manage the fields. In addition, their training and experience allows them to make timely decisions. These decisions may be needed to respond to a pest problem, irrigation issue, fertility need, or a wear pattern. Responding in a timely manner with the appropriate product application or management practice usually results in safe and attractive fields. Never stop learning. It can only improve your fields. ■