# Eight Steps to an Easy Field Facelift Jeffrey T. Fowler, Penn State Cooperative Extension

Over the last 10 years I have been called to countless athletic fields to lend some advice to the athletic field manager, school custodian or the school board member who wanted a "better" field for the young athletes in their district. After a few stops with similar answers, I realized that many people were forgetting the basic steps that we need to keep in the forefront when maintaining athletic fields. Each of these eight steps has been or could be written in its own book form, but this article serves as a friendly reminder of the basics.

## 1. Soil Testing

Soil testing is the first step in any field facelift. Without a soil test we have no idea what the soil needs and thus what the turf plant needs to thrive. I like to compare soil testing to a human blood pressure. Medical professionals can tell a lot about our health by taking our blood pressure. Turf professionals can tell a lot about our soil's health by conducting a simple soil test. This test will give you the soil pH and nutrient levels present in the sample.

A soil test is conducted by taking 20 - 32 core samples on the field, mixing them together and allowing them to dry. Taking a representative sample and sending it to a certified laboratory. Check with your provincial agricultural ministry for a list of laboratories that can perform this test. In Ontario they are listed at www.omafra.gov. on.ca/english/crops/resource/soillabs.htm. The cost of this inexpensive test will pay for itself many times over in the amount you save on lime and fertilizer expenses.

## 2. Lime and Fertilizer

Dollar for dollar fertilization does more to improve poor quality turfgrass than any other single management practice. Proper fertilization practices will produce a dense, medium to dark green turf that resists pests and environmental stresses. However, careless application techniques and/or applying excessive amounts of fertilizer at the wrong time of the year can result in serious turf damage and contamination of water resources. Successful turf maintenance fertilization requires an assessment of the nutritional requirements of your turf, an understanding of fertilizers, how much and when fertilizers should be applied, as well as proper application techniques.<sup>1</sup>

## 3. Mowing

Whether we are mowing with a reel type or rotary type mower we need to make sure that we are always using a sharp blade. Mowing frequency depends upon the rate of growth. We should never remove more that onethird of the green growth in one mowing. If we want to maintain a height of 5 cm, we should mow when the plant reaches 7.5 cm. Clippings do not need to be removed as long as we maintain a regular mowing schedule.

#### 4. Aeration

Aeration is the process of disturbing the soil to relieve compaction. Compacted soil does not allow proper air, water, and nutrient penetration and makes it difficult for proper plant root growth. Core removal should be performed at least two times a year when the plants are actively growing. There are many different aeration methods that can be used during the playing season that will not disrupt play.

#### 5. Topdressing

Topdressing is the addition of sand or soil to the surface of the turf. Topdressing gives the sports turf manager a chance to improve the soil quality, improve the seedbed for new plants and rooting of both new and existing





plants. Topdressing also gives an opportunity to level the surface of a playing field. The material used during topdressing should be chemically and physically very similar to the existing soil unless the intent is to modify the soil texture.

## 6. Overseeding

Overseeding into thin turf or small patches of bare soil can be done in late winter, spring or early fall. When overseeding, it is especially important that the seed comes in contact with the soil and has space to germinate. Perennial ryegrass overseeded at the rate of 4 - 6 kg/100 m<sup>2</sup> serves very well. Perennial rye is a quick germinating variety that can tolerate enough wear to be effective on an athletic field.

# 7. Playing Surface

I have been asked many times at different athletic field maintenance seminars if I would do a quick demonstration on "puddle repair." My answer has always been the same, "NO." We cannot fix puddles; we fix low spots in our playing surface by constantly working the skinned portion of a softball or baseball field. Working with our favorite leveling drag we need to constantly be working the skin in all directions to maintain a playing surface that will not form low spots.

# 8. Transition Areas

The appearance of the transition areas can make your field look like a million bucks or a million ducks, depending on the care. These areas, where the grass and skin areas on a baseball or softball field meet, where players run on and off of the field, or athletes always walk to and from the practice field, can really make or break the appearance, safety and playability of a field. We need to continually work to keep these areas from forming lips, dips and safety hazards on our playing fields.

# 9. Communications

Wait, the title of this article is "Eight Steps to an Easy Field Facelift" not nine steps. Well, like Garth Brooks sings in his song "Friends in Low Places", I was going home one night and thought to myself, Jeff, is that really the way that article should end? No, so I wrote another step, just as Garth wrote another verse.

Even if we know everything there is to know about the first eight steps of a field facelift, no one will understand them if we do not follow step nine. We have to let people around us, our bosses, supervisors, coaches, players, volunteer parents and school administrators know what we know. Not only what we need for a safer and more playable field, but also why we need it. Our job as sports turf managers is to maintain fields; their job is to do something else. We need to communicate our needs and our reasons for our needs so that they better understand the importance of the first eight steps.

If we adopt these nine steps, and formulate a game plan for our fields, these steps will have spectators saying, "How did they do that?" •

<sup>&</sup>lt;sup>1</sup> Turfgrass Fertilization; A Basic Guide for Professional Turfgrass Managers, Peter Landschoot, Assoc. Professor of Turfgrass Science, the Pennsylvania State University, 2003.



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