



This field, which was seeded in the spring, will be ready for competition the following year. Photo courtesy: Jim Puhalla.

Seeding Versus Sodding

By Jim Puhalla

Should we seed or sod our sports field? The accepted wisdom is that there are only two real factors in the decision: cost and how soon you need the field. But, like so much of the accepted wisdom, those two considerations only scratch the surface of the matter.

Let's take a look at some of the other considerations that lead to a wise decision about whether to seed or sod a field. And, while we're at it, let's review some of the installation steps that should be performed whichever establishment process you choose, and consider a couple of experimental options for dealing with

high-stress sports turf, as you would find on football practice fields.

Advantages and Disadvantages

Seeding. First, let's consider the advantages and disadvantages of seeding. The most obvious advantage is cost — the average cost of seeding an acre of turf with a good quality turfgrass is only about 25 percent to 35 percent of the cost of sod.

But there are also important advantages in terms of the varieties available to you. When you seed, you have the choice of selecting a low-maintenance turfgrass variety that will thrive on less fertilizer, less water and less-frequent mowing. In most areas, sod is just not widely grown in all the varieties you might want to consider.

The disadvantage, of course, is the longer time it takes to establish turfgrass by seeding. Ryegrass and fescues typically take four months before they're firmly enough established to withstand the mechanical stresses of sports competition. Common types of bermudagrass can be ready in four to six weeks when conditions are right, but bluegrass needs a full year to get in shape for competition.

Sodding. Now, for the advantages and disadvantages of sodding. The most obvious advantage of sod is that you can play on it two or three weeks after it's installed. Another advantage is that in warmer climates, the sod farms cultivate hybrid bermudagrass that you



The sodding project in the early spring will allow use of the field about two weeks later. Photo courtesy: Jim Puhalla.



Using big-roll sod, the turf manager can make mid-season repairs that would be impossible any other way. Photo courtesy: Thomas Bros. Grass.

can't grow yourself from seed. Generally speaking, sod is very high quality turfgrass that performs well in use. What's more, you can make mid-season repairs using big-roll sod that would be impossible any other way.

The disadvantages of sodding start with the cost — as we said, about three to four times that of seeding. And because sod farms use very high quality varieties, sod usually takes more maintenance than seeded turf.

Turfgrass Selection

Seeding. For seeding baseball and softball fields in cooler climates, a 50/50 bluegrass/ryegrass mixture produces a good quality turf. And since ryegrass is not a heavy thatch producer, thatch management work is minimized. Choosing a less aggressive bluegrass variety will also help control thatch buildup.

On the other hand, football fields perform best with a higher percentage of a more aggressive bluegrass, which creates a heavier thatch layer. That thicker thatch layer protects the turf from the stresses of play, and cushions falls better than other varieties. And when it rains, the thicker thatch keeps players up out of the mud.

This is a central principle used by Vince Patterozzi and his staff in maintaining the turfgrass for the Baltimore Ravens NFL franchise. The thick thatch layer was one important reason that the team's fields in their former home, Cleveland, were able to support play in the most hostile weather conditions.

An additional advantage of bluegrass is that it gives the turf more recuperative power.

For lower maintenance fields, it's worth considering a 50/50 ryegrass/fescue mixture (especially with hard and chewing fescue). It's a fairly durable turf, but on a football field it needs frequent reseeding because it has less recuperative ability than bluegrass mixtures.

If you're seeding in transitional zones, tall fescue is a good choice, but it needs to be reseeded often, too, because it's not strong in the recuperation category.

As far as many turf managers are concerned, the best available sports turf is bermudagrass. Unfortunately for us northerners, it's a warm season grass. However, there are some cold tolerant varieties that will thrive as far north as Kentucky. Seeded varieties are considered "low maintenance" because they can be cut as high as 1.5 to two inches,



As an experiment, sod was installed in a 25-foot strip down the middle of this field. After a season of practices, despite the wear, the thatch layer was intact. Photo courtesy: Jim Puhalla.

which means less mowing, irrigation, fertilization and pest control.

Sodding. For cool season baseball fields, the old standby 50/50 ryegrass/bluegrass is hard to beat — for all the reasons listed above. For football fields, 100 percent bluegrass gives you a thick, dense thatch layer to protect the turf and the players from each other.

In warmer climates, turf managers have access to the highest quality hybrid bermudagrass sod — and cold-tolerant sod varieties can be used up into the transitional zone, as well. These turfgrasses perform beautifully, but take lots of maintenance work — so keep your mower blades sharpened and your fertilizer handy.

Installation

Seeding. Cool season seed can be planted just about anytime the soil can be worked, but the best time of year seems to be late summer, from mid-August to mid-September. Warm season planting has a shorter window of opportunity, from late spring until early summer, or when the soil temperature reaches 65 degrees. For best results, rake the seed into the soil with a leaf rake, then lightly roll it for good seed/soil contact. Mulching will allow faster germination.

Sodding. Sod installation can be performed anytime the soil is workable. In the north, that usually means anytime from mid-April to mid-November. In warmer zones, it could take place whenever the temperatures aren't expected to dip much below freezing for a few days.

In laying sod, take care to keep the seams tight. One common mistake is

to pull the sod into place in such a way that stretching takes place. Stretched sod will eventually shrink back to its original size, leaving troublesome gaps. A few days after laying sod, inspect the job for any gaps that appear (there will usually be a few, even with well installed sod) and fill the gaps with matching soil. Take pains to water new sod liberally for the first two weeks, because letting the sod dry out too much will also contribute to shrinkage.

Establishment

Seeding. Newly seeded turfgrass needs to be watered lightly and frequently to keep the top quarter-inch of the soil moist until the seed germinates. Once germination takes place, gradually reduce the frequency and increase the volume of water applied each time. Start mowing when you can observe the one-third rule, cutting off the top third of the plants.

In cool season areas, ryegrass and fescues take about four months to become firmly established, and it helps to apply one pound of nitrogen per month for the first four months. Bluegrass isn't firmly established for a full year, and it also needs monthly fertilization with one pound of nitrogen.

Warm season fields planted with bermudagrass can be used four to six weeks after seeding, as long as the turf is liberally irrigated. One-half pound of nitrogen per week makes a big difference if you want to use the field quickly.

Particularly for football, which places such extreme demands on the turf,

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waiting a full year before using the field allows the formation of a thick thatch layer. This holds true for both warm season and cool season grasses.

Sodding. A newly sodded field needs to be kept on the wet side for two weeks to allow the roots to catch, then taper off. You can start mowing as soon as the field will support tractor weight without rutting. With adequate irrigation and no more than moderate rainfall, you should be able to use the field in two to three weeks. One pound of nitrogen a month for four months helps get the sod solidly established.

Another Option

We have recently experimented with a combination of seeding and sodding on the football practice field at Ursuline High School in Youngstown, Ohio. We installed bluegrass sod on a 25-foot section down the middle of the field, where mechanical stress had worn through to the soil. The bare areas had



A heavy thatch layer usually means trouble for a turfgrass manager. But on a football field it can be an advantage, keeping players up out of the mud. Photo courtesy: Jim Puhalla.

been slit-seeded annually for years, and had always reverted to their "mud-bowl" character by season's end. So we installed bluegrass sod in the high-stress middle of the field.

At season's end, after more than 100 practices on the field, we found the thatch layer intact and keeping the

players up out of the mud. This spring, we found that the bluegrass was starting to come back from the sod, so we slit-seeded 100 percent bluegrass to support the existing turf.

It will take another year before we know whether this experiment was completely successful, but, so far, it looks like a good alternative for the middle of a practice field, or even a game field.

Taking account of the relative advantages and disadvantages of seeding and sodding will give you an opportunity to make an informed decision about the kind of competition you'll hold on your turfgrass and the amount of maintenance attention you'll be able to provide. With that kind of thoughtful decision, and careful adherence to sound cultural practices, you'll end up with a field that's a great competitive advantage to your teams. □

Jim Puhalla is president of Sportscape International Inc. in Boardman, OH. He gratefully acknowledges the information on warm season turfgrass contributed by Dr. Michael Goatley, Jr., of Mississippi State University.

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