

# Sodding Sports Fields



by Jim Puhalla

The sports field manager obviously has a variety of choices for establishing turfgrass. You can seed, plug, or sprig, but when the budget permits, sodding provides the most immediately playable surface. Seeded Kentucky bluegrass needs a full year to develop the root system required to support competition. Ryegrass and bermudagrass require about four months. But mature sod can be ready in weeks (or even days!) because it's already 12- to 18-months old.

Like anything else, there's a big difference between a good installation and a poorly planned installation. Let's look at the steps required for a good installation.

## Planting times

In the South, sodding can be done almost anytime, as long as temperatures won't dip much below freezing for the first few days after installation. In the North, sodding can be performed between mid-April and mid-November.

It's better to install turf during the growing season, but it's possible to achieve a successful installation using dormant sodding (sodding with plants that are in a dormant phase). With this second method, remember that dormant sod still needs water to root and establish. With no irrigation, the sod will desiccate.

## Soil preparation

Soil preparation is just as critical for sodding as for seeding. The first step is to conduct soil tests. Send in the soil sample at least two weeks before you plan to sod. Mark the package "TO BE PLANTED," so

the testing laboratory can provide the best recommendation for maximum deficiency correction.

Carefully apply the recommended lime or sulfur and mix it into the soil. If the soil needs potassium and potash, you can mix 10 pounds per 1,000 square feet of 0-20-20 agricultural-grade fertilizer into the top six inches of soil. Then spread another five pounds of 18-24-12 turf-grade, slow-release fertilizer on top of the soil, but underneath the sod.



**Sample of a heavy thatch layer used at the former Cleveland Stadium, where native-clay soil could easily cause the field to turn to mud during rainy conditions.** Courtesy: Jim Puhalla

Sod establishes better if you loosen the soil to at least six inches so the roots can develop. If you choose to till, go over the area only once or twice. Excessive tilling destroys soil structure, and the soil tends to resettle in a denser, harder form. You'll get better results with an agricultural cultivator (a.k.a. scarifier or earthcavator).

After loosening the soil, keep construction equipment off the field, especially when it's wet or damp. Heavy equipment causes enough compaction to inhibit root growth. This causes water to run off

instead of reaching the roots, and it cuts off the flow of oxygen to the roots. Ultimately, over-compaction can promote disease and force you to do a lot of corrective aerating.

Usually, the tracks of the bulldozer that grades the field will give you all the compaction needed for a healthy field.

## Selecting sod

Select sod that was grown on soil that's similar to that of the installation field. That's especially important if the new field is a modified, sand-based facility.

Sod grown on clay or organic soils and installed on a sand-based growing medium won't root properly, and will be a constant maintenance headache. The layering effect of the dissimilar soils reduces water infiltration and percolation rates.

For a sand field, specify sod that has been grown in a similar sand-based material. Some suppliers will also wash the sod to remove any existing soil before installation.

You may have a choice between big rolls and sod supplied in slabs or small rolls. Big-roll sod is nearly always installed by outside contractors because of the equipment needed to handle it. However, some contractors can supply the sod and install it cheaper than you could with your own crew.

Thick-cut sod is another option, and it's ready for play immediately. But most thick-cut sod is supplied in big rolls only. Normal sod comes with 1/4 to 1/2 inch of soil, but thick-cut sod can be specified with one to 1-1/2 inches of soil.



**A machine maneuvers heavy big-roll sod pieces into position.** *Courtesy: Don Uber*

If you have a choice, get the oldest sod available. Young sod with netting can be a problem on sports turf, especially for football fields since cleats can snag in the net. Mature sod has a more developed

thatch layer, which means a more playable turf right away.

#### **Advantages of thatch**

Excessive thatch can be a problem, but for some sports, a thin,

uniform thatch layer can improve turf performance. A limited thatch layer can add resiliency, wear tolerance, and impact absorption to turf.

Vince Paterozzi specified Kentucky bluegrass sod with an unusually thick layer of thatch for the football field at Cleveland's old Municipal Stadium. The center of the field was periodically replaced with sod that had at least one inch of thatch. At the 1996 Olympics in Atlanta, thatched zoysiagrass sod provided cushioning and enhanced wear resistance for the throwing events in track and field competition.

It may be hard to find sod with the desired thatch thickness. Bluegrass takes about two years to develop 1/2 inch of thatch, and bermudagrass takes 1-1/2 years. If you regularly re-sod your high-traffic areas, you can give your sod farm plenty of advance notice so they'll have it available when you need it.

If you install sod with a good thatch layer, pay close attention to watering and mowing, and keep an eye out for pest problems. Thatch layers enhance field playability during bad weather, but they also make management more complicated.

#### **Installation**

Square-cut and small-roll sod are installed manually. Big-roll sod comes in rolls 24 or more inches wide and up to 40 feet long. This is why it must be installed using special equipment.

The tightness of the seams is a critical installation factor in installing sod. Keep the seams tight, but don't make the mistake of pulling on the sod to position it. This stretches the sod, and it eventually shrinks back to its original size, leaving troublesome gaps.

Water liberally for the first two weeks after installing your sod. Letting the sod dry out too much contributes to shrinkage and inhibits rooting.

After a week or so, inspect the job for gaps. Even with a good installation, there are usually a few. Fill gaps with matching soil, and hand-seed or plug with matching turfgrass.

#### **Establishment**

New sod needs to be kept wet for two weeks to allow the roots to

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**Strip sodding on a field in north-east Ohio.** *Courtesy: Jim Puhalla*

catch. Then it can be watered like typical established turfgrass.

You can start mowing when the field supports mower weight without rutting. With moderate irrigation and/or rainfall, the field can be considered fully established and ready for use in six to eight weeks. One pound of nitrogen a month for the rest of the growing season gets the sod solidly established (As mentioned, thick-cut sod can be used right away).

### Strip sodding

One option is to sod only the high-traffic areas. For instance, sodding a 25-foot wide band down the middle of a field will usually give you one to three seasons of very playable conditions, depending on the number of events held on the field. Remember to get a mature sod if you can, one with a thatch layer. In my experience, this practice gives you better field performance than slit-seeding fields. These fields often revert to mud bowls by the end of the season.

In strip sodding trials, the thatch layer was still intact and keeping players up and out of the mud after more than 100 events (practices and games). However, with that many events, the sod can be expected to last only one season before soil becomes mixed into the thatch layer and muddy conditions re-appear. Although strip-sodding requires an investment, it's much cheaper than sodding the whole field, and it can provide a playing surface that's just as good as a completely re-sodded one.

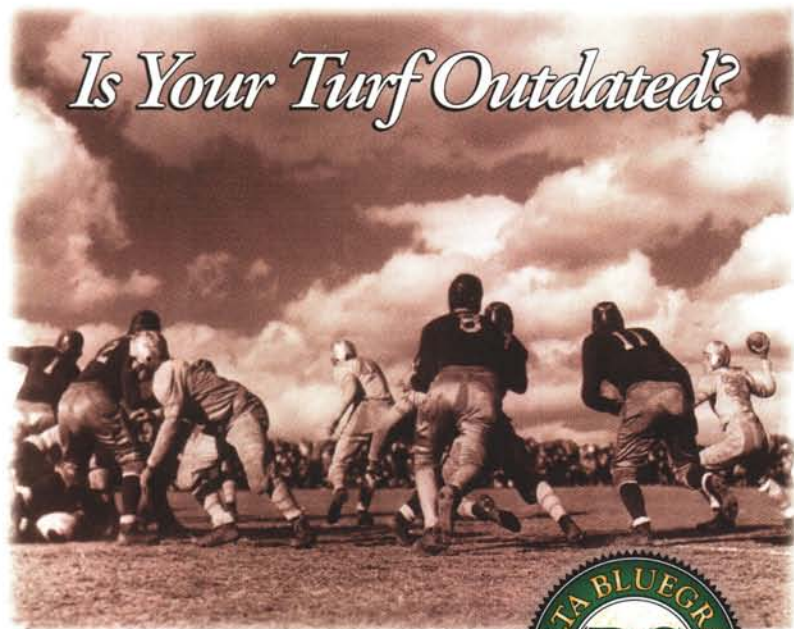
The secrets to good sodding are really not secrets at all: thoughtful soil preparation and sod selection, careful installation with no

stretching of the sod, and diligent follow-up to make sure the sod is adequately watered until it's established. If you patiently work your way through all these details, you'll end up with a highly playable field that stands up well to weather and competitive stresses.



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