How Long Should I Wait?

by Dr. Dave Minner

Have questions? Send them to Dave at: ISU, Hort. Dept., Ames, IA 50011.

How soon after natural-turf installation is it safe to use a field for regular playoffs? In the most typical scenario, how often does a soccer field require repairs, and what are the most vulnerable areas?

—Stan Adanek
Toronto, Canada

Well Stan, I'll give you some numbers based on my experience building and renovating fields. But keep in mind that no standards have been set for grow-in time.

It has also been my experience that very few people wait for a field to fully mature. Instead, as soon as the soil is covered with green plants, and as long as the sod isn't flying under foot, many consider the field ready for play. In truth, young fields may look good, but they decline quickly when play starts and recovery is very slow.

Seeded fields

With a high seeding rate of perennial ryegrass and under optimum establishment, you can produce a field completely covered with green foliage in about two months. The field may look good, but it will have no mat or biomass cushion between the green blades and the soil. The top of the plant is easily worn away, and recovery from immature buds in the crown is limited.

In general, it takes a complete year for a cool-season grass to develop a reasonable stand that will tolerate and recover from moderate traffic. Extensive tillering occurs mainly in the fall. This is when the field thickens up, making a substantial gain in mat production.

The traffic tolerance of a seeded field more than doubles when it's allowed to mature for one year, compared to when play starts as soon as foliage covers the bare ground.

Sod

When buying sod, you benefit from a mature grass system that contains thatch mat, crowns, tillers, rhizomes, roots, and a small amount of soil. Sod that is cut with a conventional soil thickness of 0.25 to 0.5 inches usually takes 60 to 90 days to develop a four-inch deep root system. Sod will root faster and produce a stable playing surface sooner in a topsoil field than in a sand-based field. Even with sodding, some sand-based fields never completely stabilize until the second or third year after planting.

A specialized procedure which cuts large-roll sod with two inches of soil attached has been recently used to substantially reduce the time between laying sod and playing a game. In fact, with two-inch thick-cut sod, you can literally play a game as soon as the sod has been placed and rolled. Each roll of sod is 42 inches wide and 30 feet long and weighs nearly one ton, so they don’t move around.

Repair

Wear patterns on soccer fields typically show up in the goalie box, penalty kick area, and throughout the center of the field.

Each year, you should budget to replace 50 percent of the goalie box area with new sod. The small area can be replaced quickly and easily. The sodding operation brings in new soil and helps keep this area level. Repair by seeding alone is seldom successful, and it often results in dug-out depressions in the goal areas.

To make your field repair program more effective, I recommend you develop a field rotation program. For example, if you have four fields, use three fields and renovate the fourth field. Allow a full year for your seeded or sodded areas to recuperate. After a year, put the renovated field back into play and rotate out a different field for renovation.

David D. Minner, Ph.D., is an associate professor with the Department of Horticulture at Iowa State University. He serves on STMA's Certification Committee. Send your questions to Dave at: ISU, Hort. Dept., Ames, IA 50011; or call: (515) 294-2751, fax: (515) 294-0730, or e-mail: dminer@iastate.edu.