More golf courses have discovered that sodding is economical, efficient, reliable and smart

BY DOUG FENDER

Sod Story

With a Happy Ending

Once considered a costly alternative to establishing turfgrass, sodding is increasingly winning favor as a viable method on new and existing courses.

Some course owners embrace sodding because it takes less time to establish, allowing them to open the course sooner and almost immediately recoup their sizable investments. Many superintendents like that sod generally requires less irrigation than seeding and hydro-sprigging, has potentially fewer erosion and runoff concerns, and requires less-intensive nurturing.

Sod's newfound popularity is reflected in increasing sales to golf courses, which have climbed steadily to nearly $500 million in recent years. Sod purchases by golf courses now account for about 8.1 percent of

total annual sod sales, up from 4.7 percent in 1988, according to a recent survey by Turfgrass Producers International.

To be sure, no single method of establishing golf turf is right for every course. A small, money-strapped municipality may prefer the lower up-front costs of seeding or sprigging, while a national resort developer may opt to sod a course so it will be ready for eager guests or to streamline the environmental permitting process.

Superintendents, architects and developers are finding it sometimes pays to look beyond initial costs when weighing options to seed, sod or hydro-sprig. Along with cash-flow considerations, other factors must be mulled, including climate, soil, water costs, surrounding environment, long-term maintenance and equipment considerations, and the course's intended use.

Defining the choices

Seeding, long the predominant method of establishing turfgrass, has won over many turfgrass managers because of its low initial costs compared to sodding. But, after closer analysis, what is becoming apparent to many turfgrass managers is that additional expenses for labor, water, fertilizers, herbicides and equipment wear that are required to establish seeds and sprigs over the first few years may sometimes put sod on a nearly level economic playing field.

When seeding, there are other considerations as well. Along with preparing the soil, mechanically dropping the seeds, watering and fertilizing, superintendents must hope the seeds take root and heavy rain or wind doesn't wash or blow them away.

Hydro-sprigging/seeding can be a bit more complicated and slightly more expensive. Live sprigs are planted, and careful nurturing is required. Results can be more dependable than seeding, but the method also takes lots of water, fertilizer — and patience.

In fact, for seeds to sprout or for hydro-sprigs to take root, sometimes twice as much water is needed compared to sod. All that water is expensive in some parts of the country, and it sometimes causes erosion. To counter washouts and erosion and achieve uniform grass coverage, more grow-in manpower is often needed, along with additional time and money to prepare soil and carefully monitor growth.

Besides saving water, some turf managers like the fact that sodding has other potential environmental benefits. It protects the soil with a dense pre-established grass covering, which helps to prevent erosion. That's particularly true on steep inclines. With sod, irrigation strengthens the root system that has already started to take hold instead of washing away soil. Sodding also practically guarantees uniformity.

When environmental permitting problems hampered efforts to seed and hydro-sprig Blackstone GC in Frisco, Texas, owners opted to install turfgrass sod, which streamlined the permitting process and allowed the 18-hole championship course to open on schedule.

Costs, timing, delays

No one can deny that a pallet of sod costs considerably more than trays of turfgrass plugs, a bag of seed or a bushel of sprigs. Depending on the region of the world, a course may budget up to three times as much to lay down sod instead of seed.

Turf Types

Selecting turfgrasses can be a complicated process. The decision must strike an appropriate balance between adaptability, durability and playability. In other words, turfgrasses must be able to survive the climate, handle more than 100 rounds a day, and golfers need to like the way the ball bounces. Here are a few guidelines:

Cooler regions:

Greens – Creeping bentgrass for new construction because it provides good putting surfaces. But performance is superior only in certain regions.
Tees – For larger tees (100 square feet) that receive little or no shade and can experience intensive management, consider creeping bentgrass. For relatively small tees that receive significant shade and cannot be maintained intensively, opt for a perennial ryegrass or a combination of ryegrass and Kentucky bluegrass. In more arid areas, Kentucky bluegrass can be used alone.
Fairways – The preferred grass is creeping bentgrass, but it requires more intensive management and generally a larger budget than some alternatives. For lower-budget and lower-management courses, Kentucky bluegrass.
Roughs – Consider 60-30-10 mixture, by weight, of Kentucky bluegrass, fine fescues and perennial ryegrass.

Moderate regions:

Greens – Despite occasional problems with midsummer performance, consider creeping bentgrass. Bentgrass cultivars that exhibit heat stress tolerance and good midsummer rooting should be selected.
Tees – Primarily perennial ryegrass and creeping bentgrass, although zoysiagrass and bermudagrass are good choices. In more arid, higher-elevation areas, consider a Kentucky bluegrass/perennial ryegrass combination.
Fairways – There is probably no grass ideally suited to the area. Turfgrass specialists can help decide between creeping bentgrass, perennial ryegrass, zoysiagrass and bermudagrass.
Roughs – An equal mixture, by weight, of Kentucky bluegrass, fine fescues and perennial ryegrass.

Warmer regions:

Greens – Creeping bentgrass provides superior putting surfaces.
Tees – Often bermudagrass, zoysiagrass (particularly semishade) and hybrid bermudagrass.
Fairways – Bermudagrass dominates.
Roughs – St. Augustinegrass, the most shade-tolerant of warm season grasses, and hybrid bermudagrass dominate, with tall fescue used for shady areas.

But other real and overlooked costs must be considered when examining overall expenses to establish turf. When sodding, courses can be playable within two months, allowing thousands of rounds to be completed before the first golfer steps up to a tee on a seeded course.

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Another factor to consider when selecting a grassing method is the time of year for installation and limited grow-in window. Seeding and hydro-sprigging generally is not recommended for winter or summer. It's possible to seed for cool grasses in spring, but fall is the best time to install these methods in most areas. Sprigging should only take place between May and August.

Sodding, on the other hand, can be installed virtually year-round. Even dormant warm-season species such as zoysiagrass can be sodded in winter when moisture and drainage concerns are taken into consideration. But agronomists note that it's important to inspect the root system of winter-cut sod to ensure it is properly harvested.

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At Blackstone GC, establishing seeds or hydro-spriggs in November would have been extremely unlikely. But cooler temperatures and lower water requirements made sodding the natural choice.

Also, even with a six-month lead time, it will take at least one complete overseeding or many more sprigs or plugs to approach the density of mature turfgrass sod. And repairing washouts and areas where the seed didn't take costs additional time and money. That can sometimes push back the opening date.

Caring for the turf

Aftercare and ongoing maintenance of seeding and hydro-sprigging often costs more than sod. During the first year, seeded or sprigged courses generally need more water and fertilizer than sodded courses. Seeding often requires multiple applications of herbicides as well, another added cost for labor, materials and equipment wear.

Oftentimes, these added costs continue well into the second year of maintenance. Tacking on the cost of extra water, fertilizer, herbicides and labor involved over two years to a golf course seeding estimate can suddenly make sodding a more attractive alternative. Not to mention the cost of waiting for a seeded or sprigged course to become playable amid pressures to pay bills and earn profits.

Yet, it's the intangible or immeasurable considerations that can often tip the balance when considering sod vs. seed or sprigs. Sod can be established on time, with predictable results. Golf course managers and especially the players and fans often applaud the finished look and playable surface almost immediately. And they like the fact that sod covers many rocks that they might otherwise hit with their clubs. ■

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Next month: You've decided to sow seed to establish turfgrass. Good decision — seeding is a reliable and affordable method. But keep in mind that selecting the correct grass seed for your course is not as simple as it appears and can make or break a project.