



Mid-Season Sodding:



Big-roll sod is preferred over slabs and small rolls because there are fewer pieces involved and fewer edges. Photo courtesy: West Coast Turf.

Planning for the Pitfalls

By Steve and Suz Trusty

Sports turf managers strive for athletic field turf that withstands the rigors of play throughout the season, whatever the sport. But sometimes circumstances combine to weaken turf to the point that mid-season replacement is necessary. In northern regions, it's frequently the wear of constant soccer play and the turf-tearing combat of football that are hardest on the cool-season grasses entering, or already into, the dormant condition.

Mid-season sodding can be a quick solution to damaged turf, but the weather extremes that stress turf most — summer heat and winter cold — also make sod installation and establishment more difficult.

Dr. Henry Indyk of Turfcon in Somerset, NJ, offers these basics on sod installation. "Any sod being used on athletic fields should have compatibility of the soil on which the sod is grown and where the sod will be placed. For a high-sand-profile field, high-sand content or processed or washed sod should be used and time built in to allow rooting before play.

"Rooting time varies according to site, sod and weather conditions and the site preparation, installation practices and follow-up maintenance," Indyk continues. "Normally, thin-cut

sod can be adequately rooted within a month and capable of supporting play. Hot summer or cold winter weather naturally will slow the rooting process."

No matter what sod form is used, or when the sodding is done, proper site preparation is essential. Sodding success rates are lowered by attempting to sod directly over an area where seeding has failed by merely scalping the existing turf. A certain amount of tillage is necessary to get rid of compaction and the hard surface, making it easier for the turf to root. Those who think they can minimize costs and labor by skimping on preparation will end up paying later.

"Before sodding, consider what's in the soil," Indyk advises. "Test for pH and nutrient levels and make any necessary adjustments prior to installing the sod."

Making the Grade

Indyk also urges sports turf managers to make sure the soil grade is established correctly, leveled and firm, with no hard or soft spots. "Today's soft spots become tomorrow's depressions," he explains. "Using post-installation corrective measures — rolling to lower high spots, or topdressing to raise low spots — aren't as successful as doing it right in the first place."

When replacing only portions of the field turf, make sure the sod conforms exactly to the level of the remaining portion of the field. Fit sod sections precisely, with tight seams. Avoid any voids between pieces. Stipulate the 'shelf life' of sod according to weather conditions. For example, with temperatures in the 80-degree range, a six-hour window from harvest to delivery, combined with a six-hour window from delivery to installation, can curtail the heating process that is detrimental to sod quality. With more moderate temperatures, or vacuum-cooled sod, these windows can be extended.



At Camden Yards, the sod nursery offers mid-season insurance. Photo courtesy: Trusty & Associates.

Indyk continues, "Water availability is a critical factor in all sodding situations. The irrigation source and supply should be adequate to supply water as needed, when needed." Immediately following installation, keep the sod pad wet and adequate moisture in the two to three inches below the sod pad. Deep watering is of no value to the sod until the roots extend deeply enough to use it. Monitor root growth and adjust irrigation as needed to adapt to that growth. Irrigation may be needed two or more times each day to keep the sod from drying out. Also, irrigation needs may vary in different sections of the field depending on the soil profile, sun, shade, temperature and winds, so watering must be adjusted accordingly.

"The first mowing of sod should be determined by the height and growth rate of the grass," Indyk says. "Sod top growth will continue whether the roots have knit into the underlying soil or not. If mowing is done properly and carefully, and with appropriate equipment, there is no need to wait for the sod to knit."

**Mid-Season Sodding:
The Specifics**

Dr. Tim Bowyer, general manager of the sports turf division of Southern Turf Nurseries in Omega, GA, (a subsidiary of the Warren Group of Crystal Lake, IL,) offers this advice on mid-season sodding: "When sodding at any time, you must consider the physical site location and field specifications. For example, for fall and winter sports, resodding in the south typically requires a bermudagrass sod overseeded with perennial ryegrass. If a bermudagrass field had not been overseeded, a dormant bermudagrass sod would be used."

Replacement may be required because field damage is extensive, with holes, gouging and divoting conditions of such severity that player safety could be jeopardized. Or, field owners could decide the aesthetics of the field are inadequate for a highly attended or televised game. "Under these circumstances, there may be only a three to six-day window to make the repairs," Bowyer explains.

"Generally, only the severely damaged turf section will be replaced. Thick-cut sod, in the 1-1/2-inch to two-inch range, offers greater stability in these resodding situations. Big-roll sod is preferred over slabs and small rolls because there are fewer pieces involved and fewer edges. The size of the roll must be adjusted to compensate for the extra weight and bulk of the thick-cut sod. The weight and handling combine to limit how long a strip can be cut."

If a heavy-soil, thick-cut sod is placed over a sand-profile field, it will be necessary to aerify and topdress with a sand as soon as possible to increase drainage and infiltration. Following use, the sod and heavy soil can be cut out with a sod cutter or chopped out. The area can then be refilled with the proper soil mix, leveled, watered and allowed to settle in before the washed sod, or thinner sod with an appropriate matching soil are installed.

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Mid-Season Sodding

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Consider Long-Term Solutions

John Huber, president of Huber Ranch Sod Nursery Inc. in Schneider, IN, adds this advice, "Mid-season replacement for repair of severely damaged sections of football and, maybe, soccer fields is the only time when the use of thick-cut sod

is logical. There are several disadvantages to thick-cut sod. It doesn't root significantly below the imported soil because, with the 1-1/2-inch to two-inch cut, roots have growing space and aren't forced to go deeper. It doesn't drain as well as thin cut or washed sod. In wet situations, it tends to turn to mud. But it does have an advantage — increased stability."

If thick-cut sod is grown on the soil profile that matches the soil profile of the

field with a grass-seed blend matching that of the field, it could be a long-term solution, rather than a stop-gap measure. Big roll sod is the sensible form for athletic field applications because it's faster to install, gives greater stability and has fewer pieces and fewer seams. But even thick-cut, big roll sod will shift somewhat during the action of play and ideally would have a period to knit in before use.

Dr. Indyk adds, "With most football fields, mid-season sodding is used to repair the center of the field, between the hashmarks. Generally, such replacement runs from goal post to goal post. Big-roll sod is the sensible solution."

Huber, Bowyer and Indyk agree on the importance of proper preparation and installation procedures. Huber adds, "For player safety and better visual appeal, the edges of each sod section should be 'manicured' so there are no visible seams. It may be necessary to make an application of iron following the installation to develop a more uniform green. This masks the variations in color between the sod and existing turf. The sports turf manager will need to allow a day or two after application for the color change to occur."

Following installation of thick-cut sod, the sports turf manager will need to alter maintenance practices, especially water management, to compensate for the differing soil conditions. All three experts agree on the advisability of removing sod grown on a soil differing from the field's soil profile, preferably immediately following use. They also know that doesn't always happen. Huber cautions, "There will be long-term, detrimental consequences if the non-compatible sod and soil are not removed. The sports turf manager should be prepared to compensate. It will be necessary to aerify intensively and attempt to reintroduce desirable soil into the aerification holes to recover somewhat from the introduction of the other soil type."

Small Spot Repair

Certain sections of athletic fields are notorious problems. All three experts put soccer goal mouths in this category:

Indyk says, "With so much pressure for constant use of soccer fields, seeding repair of the damaged goal mouth areas seems to be wasted effort. If there's a choice, use sod instead."

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Bowyer says, "An option for specific sections of damaged turf, such as soccer goal mouths, where there are demands for immediate field use, are the Netlon-amended, sand-based soil, turf squares. These are three to six-inch deep, larger sections of turf grown with edges around them so that they can set into place and put into play immediately. Most other sods need some time before they reach playability."

Choosing the right turf type is an important factor in your success. Bowyer says, "Bermudagrass is the best quality turf for sport fields because of its basic growth characteristics. In northern regions, bluegrass/ryegrass blends do have some rhizome forming abilities, but are not as vigorous and don't produce as much lateral strength as bermudagrass. The further north we can push bermudagrass, the better to have a base that can withstand the stress of play."

Winter-hardy bermudagrass can be used in some sections of the north on baseball fields that can be covered during

the winter months to temper the temperature variations and reduce desiccation. "Zoysiagrass is an option for the base turf of northern fields. It has the aggressive tendencies to dominate and form the needed densely-knit cover," Bowyer continues. "I'd hope there would be some serious research on its use as turf for athletic fields. It could be overseeded or dyed green just as bermudagrass is in the south."

While mid-season sodding can offer a "quick fix," it's not the ultimate solution. Bowyer says, "Some field problems go back to selecting the wrong blend of turf in the first place, or to such poor maintenance practices such as applying too much nitrogen late in the season, thus forcing lush growth and shallow rooting. But the general problem is with intensive field use, which is probably the hardest thing for the sports turf manager to overcome. Pre-planning and maintenance practices can compensate somewhat, but a better solution is wise field-use management. Mid-season sodding is a tem-

porary band-aid solution, not an answer to the turf problem."

Huber agrees, adding, "To avoid the need for mid-season sodding, sports turf managers must focus on building the turf root system throughout the year so that it can withstand the extreme stress during the playing season. It also would help if fields were made more wear tolerant during construction, perhaps through the use of some of the newer construction materials now available.

Bowyer says, "Back-up sources of sod, even if grown in the sports turf manager's own on-site nursery, do offer some mid-season insurance."

Indyk and Huber agree with Bowyer. "If sports turf managers were able to have better control of field use, they would have better control of the need for mid-season turf replacement." □

Steve and Suz Trusty are partners in Trusty & Associates, a consulting firm located in Council Bluffs, IA. Steve is assistant-chair of the public relations committee of the national Sports Turf Managers Association.

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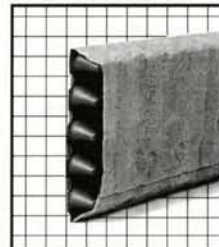
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