Seeding, sprigging or sodding?

Proper material selection and care are key to successful turfgrass establishment regardless of the method used.

Sodding greens, once considered a poor choice, is now more popular.
Establishing a new turfgrass stand, whether on a new golf course or during a renovation project, is one of the most important areas of concern for a golf course superintendent. No matter what type of establishment technique is used (seeding, sprigging or sodding), many procedures are similar and produce first-class results. Achieving maximum turfgrass establishment makes a project successful from the beginning.

Planting window
The first principle to consider during the germination and initial growth phase, by seeding or sprigging of any turfgrass species, is the planting window — the time when soil and air temperatures are at their optimal level for germination and initial growth. This period encompasses the time from initial seeding and sprigging to the time of the first mowing. It can be four to eight weeks long.

When establishing by sodding, this planting window isn't such an important factor. Whether dealing with cool- or warm-season species, the planting window varies throughout the country. It's important to establish the dates of the planting window, and then design the project to hit the time frames as close as possible. However, in the real world of construction and renovation, many superintendents realize it's difficult to accomplish. Even the best plans encounter poor weather conditions, material problems and design changes, which add up to delays and trying to establish turfgrass outside the planting window.

Maturation window
The second principle of establishing a turfgrass stand — after germination and the initial growth stage — is the maturation window, which is when turfgrass becomes established enough to support traffic and be a playable surface for golf. Many refer to this as the grow-in stage, which isn't accurate. Nonagronomists believe the grow-in stage is finished when there's complete turfgrass cover. This isn't the case. A more mature plant is needed to support golf traffic. The maturation window is much longer than the germination and initial growth period. Depending on the method, maturation can be as short as three or four weeks for sodding and as long as six months for seeding.

Seed establishment
The most popular choice for turfgrass establishment is seeding. However, not all grasses (especially warm-season ones) produce seed and must be established vegetatively. Seeding is the fastest and easiest method of planting a turfgrass stand, yet it has its share of disadvantages.

A big concern is the initial care. Watering is critical with all methods but is most critical during the longest period of time with seeded turf. Initial watering is needed for the seed to imbibe water, swell, crack open and have root radicle emergence. This time varies among different species, from as little as seven days to as long as 28 days. The faster the seed is able to accomplish this, the quicker a seedling plant will emerge. At the time of radicle emergence, the seedling plant is in its most delicate form. Watering at this time can't be underestimated. A tiny root is responsible for the water uptake and survival of the new seedling plant. Just an hour or two of hot and windy conditions can be disastrous. Many times this is when seeding failure occurs.

Another result of erosion problems is the contamination of different species. For example, if a fairway is seeded with creeping bentgrass, and the seed washes/floats into the rough area, which is Kentucky Bluegrass, it becomes contaminated. This becomes a playability problem with almost no control options. This doesn't occur with sod and rarely occurs with sprigging.

Also, some seeded species take a long time to mature. For example, Kentucky Bluegrass, a popular species for rough areas, has a slow establishment rate. Even with optimal germination, it can take 14 to 21 days, and maturation can take as long as six months. Although often overlooked, wind also can cause problems with seeded areas. Depending on location, consistent high winds can make it almost impossible to keep the upper surface moist. As the surface dries, wind can carry seed easily.

Another benefit of seeding is cost — it's the cheapest method of establishing turfgrass. However, those cost savings can disappear if a few problems occur. The cost of repairing an area once or twice from a major washout can nullify the initial savings. This also can be a problem from an environmental standpoint, creating siltation issues with water sources.

Sod establishment
An establishment method gaining popularity is sodding. Years ago, sod was hardly considered, and sodding an entire golf course was out of the question. However,
turfgrass establishment

Sprigging is the common method of establishing warm-season grasses, but sodding (inset left) continues to gain popularity with golf course construction. The advent of big roll sod (inset right) has made sodding much faster and easier.

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Sprigging

Successful establishment

Regardless of the method used for establishing turfgrass, they all can be successful with the proper material selection and care. An important factor for success is to obtain quality/certified seed, sprigs or sod. The second is water management, which will determine the success of turfgrass establishment. GCN

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