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# Grow-ins: FAST...FASTER...FASTEST

*Jonathon Scott, an agronomist with Nicklaus Design, outlines a superintendent's options for getting a golf course ready for play sooner than usual.*

by RON HALL / Senior Editor

**Y**ou walk a tightrope while a new golf course is growing in. Everyone wants grass now. Everyone wants the course to open as soon as possible. Members are eager to play. Owners and financial backers want to start getting a return on their investment.

But you realize that the new turfgrass is vulnerable. It must be given time to develop enough density to withstand wear and environmental stresses.

"How fast can it be done?" is the question a superintendent is usually asked rather than "how long will it take?"

You can't answer either question with certainty. Weather is the wild card. The grow-in time may vary from six months for a sprigged course in the South, to a year or more for a seeded cool-season course.

In the real world, this sometimes isn't fast enough, and you may be called upon to accelerate the process.

Jonathon L. Scott with the Golfturf Division of Nicklaus Design says you have five options when trying to establish turfgrass fast.

"Each option has its associated advantages and disadvantages over conventional

grassing methods," says Scott, a superintendent for 16 years before joining Nicklaus seven years ago.

To compress the grow-in period, you may choose to use one, or any combination of these procedures. They can be used instead of—but more often in conjunction with—conventional grassing, says Scott.

The options are:

- 1) Increasing the seeding or sprigging rate.
- 2) Hydroseeding or hydrosprigging.
- 3) Strip or row planting live sprigs or sod.
- 4) Sodding.
- 5) Increasing the fertilizer rate and frequency.

Regardless of option, all grassing procedures start the same, with proper soil preparation. This includes:

- ▶ cleaning up any rocky debris,
- ▶ discing and raking to loosen up the top four to six inches of soil, and
- ▶ testing and amending with any necessary minerals or organic materials.

#### **Not that easy**

The simplest way to establish turfgrass faster is to increase the seeding or, for warm-season grasses, sprigging rate, says Scott. But it's not as easy, nor as effective, as it might seem on the surface.

### Boost the rates

Research has shown that, although a greater planting rate results in a proportionally greater number of seedlings and an initially denser stand, six months later, the turf is generally no denser than it would have been if it had been seeded at "normal" rates. Moreover, higher rates predispose some turfs to more disease.

In the case of sprigging, the problem of getting more plants into the soil is mechanical. Most machines are designed to plant between 300 and 400 bushels per acre for fairway-type bermudagrass, says Scott.

To maintain good soil-to-sprig contact with an increased sprigging rate, contractors generally make two passes with the sprigging machine. If a third pass is called for, they may use a slicing machine to push exposed sprigs into the soil.

Scott believes the best time to use a higher rate is when the planting time has passed the time of optimal turf development.

For cool-season grass zones, this is after the soil temperature has dropped below 60°F., usually by the end of September.

He says a 50 percent increase in the seeding rate offers several benefits. It gives better protection against erosion over winter, and it compensates for the expected mortality of young seedlings due to cold, desiccation and disease.

For sprigging, increasing the rate pays more dividends after the soil temperature falls below 75°F., usually by the end of August. Scott recommends gradually increasing the sprigging rate as dormancy nears, finishing at, perhaps, triple the normal rate.

"Mulching plays an important role in the success of late-season grasses by insulating the soil surface and protecting the young plants against freezing and drying," he adds. Mulch should be thin enough to let air and light to reach the soil surface, but thick enough to stay in place.

### The easy way

In hydroseeding, seeds are sprayed onto the soil in a slurry of water, mulch and fer-

tilizer. The process is called hydrosprigging when sprigs are used.

This procedure saves weeks, perhaps even a month, in establishing a course, says Scott. It results in less disruption to soil during planting; it discourages soil erosion, and it makes it easier to seed or sprig slopes. Also, using green-colored mulch

gives the course a more pleasing appearance before grass actually starts growing.

But there are risks. The procedure makes it more difficult to keep grass contours sharp where different varieties of grass are used to provide contrasts, say between fairways and roughs.

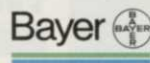
Also, areas must be irrigated immedi-

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ately after they're hydroseeded. The lack of direct soil contact in the upper layers of the mulch means that grass plants must grow downward to get moisture, says Scott.

#### Row planting

Machines plow narrow furrows, introduce sprigs of a warm-season grass like a hybrid bermuda, then close the furrows in row planting. Generally about 400 to 500 bushels of sprigs per acre are planted this way.

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Its major advantage is convenience, particularly in renovation because it causes minimal disruption of the target area.

In new construction, sprigs have a stronger survival rate, particularly where irrigation isn't as frequent. The sprigs, being in the soil, draw on soil moisture. Row planting's major disadvantage is cost, says Scott.

#### Check sod for purity

Sodding provides almost instant results. It limits erosion, and play can begin in as little as one month after installation, meaning that a cool-season course may be able to generate a full season of revenue.

But these benefits have to be weighed against the cost and availability of the desired types of sod. A cool-season course with bentgrass fairways costs about \$2.8 million to sod, a course with zoysia fairways about \$2 million, and one with bermudagrass about \$1.5 million, says Scott.

Other risks associated with sodding include possible sod/layer interface problems, purity, and pest infestations.

Scott recommends that superintendents check all maintenance records of the sod they're considering buying. They should also visit the sod fields and get samples to send to reliable laboratories.

Although a sodded course looks like it's ready to play almost immediately, it's not.

"Sod requires the same amount of initial care as seed or sprigs," says Scott. "Wait at least four weeks before subjecting it to traffic and play. During that time treat it like the new turf that it is."

#### Fertilizer can help

You can accelerate the grow-in process with fertilizer, but only to the ability of turfgrass plants to take and use the nutrients.

"A sensible fertilization program for either warm- or cool-season courses uses moderate rates and frequencies determined by growth, color and density," says Scott.

Greens and tees planted with cool-season grasses establish well with ½ lb. N/1,000 sq. ft./week. Fairways and roughs get ¾ lb. N every two weeks until full density, says Scott. Bermudagrass, growing under optimum growing conditions, can receive 1-1 ½ lbs. N/week.

Balance phosphorus and potassium with nitrogen, on either sand or soil, until the initial turf coverage is established. Then, adjust phosphorus levels according to soil test recommendations.

Scott says superintendents should reduce fertilization rates if they notice turfgrass disease.

"The key to being successful is understanding all the options, and selecting the methods that best match your situation," says Scott.

"Make sure the risks and benefits are clearly understood by all parties, and know that the limitations of nature will always be your constant companion." **LM**

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