



Don't underestimate overseeding details

Overseeding success depends on seed selection, timing, seed bed preparation and hands-on management

By MIKE PERRAULT/
Associate Editor

In the narrow Coachella Valley (1.5 to 3 mile wide by 30 mile long) in Southern California, superintendents take overseeding seriously. Very seriously.

In fact, for most superintendents at the more than 100 Palm Springs-area golf courses packed into the narrow desert valley, it's the single most important project they undertake every year.

"Your whole report card is based on the outcome," says Sam Zeigler Jr., superintendent at The Lakes Country Club in Palm Desert, CA.

Most courses close down anywhere from a week to a month every fall to overseed, with upscale courses spending more than \$100,000 and other courses investing 10 to 15% of their annual budgets. The stakes are high, and success can ultimately determine career paths.

Evolving strategies

Overseeding success is equally important to superintendents elsewhere across the country as they overseed fairways, roughs and even go wall-to-wall in many instances. Once reserved for resorts and professional tour stops, winter overseeding is a growing trend at private and daily fee courses from the deep South through the transition zone and northward.

Superintendents say they must stay competitive with neighboring courses and meet expectations of members or winter visitors.

Yet overseeding is no panacea. As superintendents work to establish a cool-season turf cover atop the dormant bermudagrass or other warm-season turfgrass, there are ever-spiraling costs, inevitable problems with spring transition and unpredictable weather and occasional cries from the irate, inconvenienced golfer.

Overseeding trends are regional. For example, while some areas report more overseeding of fairways, the practice has died down somewhat in the USGA Green Section's Mid-Continent region because populations of creeping bentgrass have increased over the last decade, says Mid-Continent region director Paul Vermeulen. And greens are being overseeded after aeration with new varieties of creeping bentgrass.

When USGA Green Section Southeast Region director Patrick O'Brien speaks at golf association meetings, he says no topic "stirs up the pot" more than overseeding dormant bermudagrass fairways for winter play.

It's a hot topic among golf course superintendents, too, whether it's discussed over coffee or during an increasing number of local and regional overseeding forums and roundtable sessions. The only sure thing about overseeding is that it's a constantly changing agronomic undertaking. Just consider the fact that in the 16 years that superintendent Cary Lee has overseeded Heritage Palms CC in Indio, CA, he has never done it the same way two years in a row.

Popular *Poa trivialis*

For years, perennial ryegrass was the preferred overseeding grass on many golf courses, primarily because it germinates fast (typically five to seven days), has fine leaf texture, dark green color, seedling vigor and better disease and traffic resistance than annual ryegrass.

But fine fescues, creeping bentgrass, intermediate ryegrass and annual ryegrass are sometimes viable options, and *Poa trivialis* (Roughstalk bluegrass) is gaining fast in popularity. This year such options may be even more seriously considered by superintendents in 20 mid-Atlantic states, who are looking for ways to cope with the serious outbreak of that perennial ryegrass-zapping gray leaf spot disease.

Superintendent Mark S. Kubic now uses 100% *Poa trivialis* to overseed greens at Fiddlesticks CC in Fort Meyers, FL, in part because he can mow it shorter than ryegrass, giving his golfers what they like: fast greens. Superintendents say they can set mowing

heights at 5/32 of an inch even as *Poa trivialis* establishes itself.

Because *Poa trivialis* has 2 to 3 million seeds per pound vs. 270,000 seeds per pound for perennial ryegrass, it requires less preparation in order to germinate, superintendents add, meaning less disruption to golfers.

Poa trivialis and ryegrass mixes are also popular, especially for courses that must keep costs down. That's because *Poa trivialis* production pales in comparison to perennial ryegrass production. In 1997, for example, the turfgrass seed industry produced and shipped approximately 185 million pounds of ryegrass, compared to 3 million pounds of *Pro trivialis* seed.

Poa trivialis does have its weak points, however. It is susceptible to diseases, such as dollar spot, and has poor wear tolerance and a natural yellow-green color. Hot spots, or dry areas, may develop and require daily hand syringing, and it tends to die out earlier in the spring because of low heat tolerance.

Overseeding overview

For many operations, overseeding is a semi-annual ordeal: overseeding with cool-season grasses in the fall and trying to battle with those same grasses to get the bermudagrass up and running in the spring.

- Overseeding golf courses is part-and-parcel with maintaining a year-round facility.
- Overseeding sportsfields is essential to maintain turf density under high traffic situations and minimize the potential for injuries.
- Overseeding commercial properties is deemed important for sales and identification by the clients with the high-end appearance of the property.
- Overseeding residential property demands vary, based on the location, the expectations of the client and comparisons with other residential properties.

You could probably wake up most people involved in overseeding in the middle of the night, shine a bright light into their eyes and they could rhyme off the steps and timing required for a successful fall overseeding operation. According to North Carolina State University (www.cals.ncsu.edu/course/cs055/overseed.html), rules of thumb to follow include:

- For tees and greens, basic procedures prior to fall overseeding include: reduce or discontinue nitrogen fertilization, core and aerify turf, verticut in several directions, topdress turf and reduce mowing height.
- For lawns, fairways and athletic fields, basic procedures prior to fall overseeding are much less intense with close mowing being the primary requirement, although coring and/or vertical mowing should be considered if thatch is heavy.
- For seed application for greens and tees: seed in at least two directions; light vertical mowing followed by topdressing; drag or brush topdressing and seed into turf canopy.
- For seed application for lawns and athletic fields: seed in two directions; brush or drag seed into turf surface; topdressing helpful but may be impractical.

—Nancy Stairs

A timing tightrope

Superintendent Richard Sall at Tamarisk CC in Rancho Mirage, CA, lobbied his board of directors recently to delay overseeding by a week, until Oct. 12. That may not seem like a big concession, but to him it made all the difference in the world. Cooler temperatures and other favorable conditions increased the odds of success.

Other Palm Springs superintendents have had to adhere to early or mid-September overseeding schedules despite 115°F daytime temperatures, making establishment of overseeded ryegrass in competing bermudagrass difficult, if not impossible.

In other parts of the country, timing is equally critical. Superintendents say seeding too early can result in excessive bermudagrass or zoysiagrass competition and the increased likelihood of diseases such as Pythium blight. Seeding too late in the fall may result in weak, delayed or reduced seed germination because of low temperatures.

Optimum overseeding time is when late summer/early fall night temperatures are consistently within the 50°F range. Or when soil temperatures at a 4-inch depth are in the mid-70s, or the average midday air temperatures remain in the low 70s. Cool-season grass seed germination is favored by temperatures between 50 and 70°F. Time overseeding at least 20 to 30 days before the first expected killing frost.

Other important considerations

- Plant growth regulators such as Primo and Embark are being used to smooth transitions by stifling the growth of overseeded ryegrass without retarding the bermudagrass green-up. In the Carolinas, for example, they use it in the fall to give overseeding grasses an advantage. In the spring, it allows the bermudagrass to emerge a little sooner.

- To better shock the bermudagrass, some superintendents say it's better to raise the height of cut on fairways to loosen the canopy. Then scalping or shocking will have more of an impact.

- In Palm Springs, more superintendents are watering light and frequently on overseeded turf to discourage deep root systems. They're also going to lighter renovations to prevent seed from moving and having the

Most common causes of failure on a golf course

- poor seedbed preparation
- planting too early or too late
- seedling diseases
- herbicide injury (pre- and post-emergence)
- over- or under-watering
- fertilizer burn
- mowing with dull mowers

RICHARD L. DUBLE, TURFGRASS SPECIALIST,
TEXAS AGRICULTURAL EXTENSION

same bare spots show up every spring. Many are using flail mowers.

- Three to four weeks prior to overseeding, superintendents say it's important to reduce or stop fertilization to minimize competitive bermudagrass growth and avoid predisposing the grass to winter injury. Four to six weeks prior to overseeding, they say it helps to cultivate the soil by coring and then allow the cores to dry.

OVERSEEDING'S HIDDEN COSTS

It takes more than seed to overseed.

In fact, many superintendents underestimate overseeding costs by not considering all related items — water, labor, extra equipment, fertilizers, herbicides and growth regulators. Here are items to consider when budgeting for your next overseeding project. Certified Superintendent Bill Anderson at Carmel CC in Charlotte, NC, compiled a line-item cost analysis for 18 holes (or 30 acres), showing he spent \$137,050.

- Seed — At 400 pounds per acre, figuring \$1.10 per pound, Anderson spends \$13,200 for 12,000 pounds of seed.
- Fertilizers — Estimate 30 pounds at \$50 per acre for a total of \$1,500.
- Herbicides — Estimate 30 pounds at \$60 per acre for a total of \$1,800.
- Growth regulators — Estimate 30 pounds at \$215 per acre for a total of \$6,450.
- Water — It obviously depends what you're paying, but Anderson spends about \$4,500 in additional costs to irrigate 30 overseeded acres.
- Labor — Anderson figures \$2,500 in additional labor costs for a total of \$45,000.
- Equipment — Drop spreader, \$2,000; verticut reels, \$8,700; vacuum, \$23,500; fairway mower, \$30,400.