

## Fall Overseeding Update:

# Gaining Control Over Transition

By Bruce Shank

Overseeding started out as a competitive technique used by southern golf course superintendents during the winter to make snowbirds feel at home. First, they overseeded greens, then tees, now most of them go wall-to-wall. The attraction of year-round green grass caught on, spreading to resorts, industrial parks and condominiums.

The National Football League started to utilize overseeding with ryegrass in the sixties. It first painted dormant fields green for televised playoff and championship games. The Super Bowl brought budgets up and enabled the NFL consultants, Dr. Jim Watson and George Toma, who have now been working together for nearly 30 years, to try a new approach to late season turf.

Watson was aware of research being performed by Dr. Howard Kaerwer, research director for Northrup King in Minneapolis, MN. Kaerwer believed perennial ryegrasses represented a tremendous market for seed companies and worked with southern superintendents to work out any kinks in overseeding. He selected one of the first improved perennial ryegrasses for overseeding, NK 100. Meanwhile, breeders like Dr. Bill Meyer with Turf Seed in Hubbard, OR, and Dr. Gerry Pepin with International Seed in Halsey, OR, worked on production problems such as rust. International released Derby and Ph.D. and Meyer improved Manhattan, Citation and others. Dr. Reed Funk at Rutgers University made some of the most striking jumps in ryegrass quality with his extensive breeding program. Palmer is a product of Funk's work.

Many improvements would be made in ryegrasses within a matter of a decade, perhaps too many. The finer, darker new perennials also had a tendency to hang on in the spring and disrupt orderly spring transition.



Seed drill is a convenient way of overseeding bermudagrass sports fields. Photo courtesy: Jacobsen.

Mississippi State University was one of the first universities to study overseeded ryegrasses in the '70s. Wayne Philly, research assistant at MSU, has rated overseeded perennial ryegrasses for 15 years. "Weather makes transition different every year, so it's hard to draw definite conclusions about particular varieties," states Philly. "In the past few years, ryegrasses have been getting more and more aggressive. They don't transition out as easily, so golf course superintendents are trying *Poa trivialis*. But, *Poa triv.* has an abrupt transition. One day it's there and two days later it's gone. That can be a problem if you're not expecting it."

The MSU tests are set up on a seed count basis. "Many people don't realize that depending on the variety and even the crop, the seed count for perennial ryegrass varies anywhere from 180,000 to 300,000 seeds per pound. We've been planting the plots at 55 pure live seeds per square inch, not by pounds per 1,000 square feet. This takes germination rates into consideration. We may begin to increase the rates to observe the effect of density on performance and transition."

The strengths of perennial ryegrass are its fast germination, ability to be cut short, attractive color, and relatively

modest price. Depending on the use of the turf, seeding rates normally range from 10 pounds per 1,000 square feet (for color) to more than 30 (for putting greens). That works out to be 800 to 2,500 pounds for a regulation football or soccer field. High rates might be needed in the center and other primary wear areas. Seed can be applied more than once during the season and will germinate if daytime temperatures reach the mid-50s F. Translucent covers can be used to increase soil temperatures. Seedling diseases from *Pythium* and *Rhizoctonia* can be solved with coated seed (including potassium) or fungicide applications (metalaxyl, chloroneb, ethazole, propamocarb). These diseases are caused by heavy thatch, poor drainage, excessive nitrogen and high humidity and can be spread by foot traffic or equipment.

Spring transition can be managed by favoring the bermudagrass. Bermudagrass is more drought tolerant, likes daytime temperatures in the 80s or above, and doesn't require much nitrogen in the spring. When temperatures rise in the spring, increase the irrigation interval, cut back on fertilizer, and open the turf canopy with light verticutting and aeration. Don't expose the dormant bermudagrass to very low temperatures and possible winterkill by starting transition measures too early in the spring.

### Rough Bluegrass

Continued problems with transition force some groundskeepers to overseed with rough bluegrass (*Poa trivialis*). It is lighter green, very fine bladed, more shade tolerant than ryegrass, spreads laterally, and has a higher seed count per pound. It does not germinate quite as rapidly. One option is to mix it with perennial ryegrass. "A mixture of 80 percent ryegrass and 20 percent *Poa trivialis* by weight has a seed count

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that's more like 50:50," says John Dimatteo of Lofts Seed in Bound Brook, NJ, marketer of Palmer. "The smaller seed works its way into the bermudagrass canopy better than ryegrass. If the *Poa* goes out, you are covered for a few more days by the ryegrass."

Melanie Fraser, manager of Turf Seed's East Coast research facility near Raleigh, NC, warns turf managers that *Poa trivialis* is considered a serious weed by sod growers and golf course superintendents with bentgrass greens. "It is stoloniferous and persists in clumps in other turf," she cautions. The rough bluegrass can linger in shaded or moist areas when you want the bermudagrass to kick back in. Some people object to its apple green color.

Breeders are currently selecting darker green varieties of *Poa trivialis*. Some turf managers might recall that the early perennial ryegrasses were light green, wider bladed, and shredded when mowed. Who can say where rough bluegrass will end up?

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In the meantime, the use of bermudagrass, especially improved seeded bermudagrass, is moving northward. Groundskeepers over an increasing part of the country can deliver both the best summer turf and the best winter turf for heavy sports use. By dedicating the resources to safe and quality turf, more schools, parks, and other sports facilities have the skilled personnel to manage overseeding.

The demand for overseeded turf in the winter is steadily increasing. Benefits of appearance, impact absorption, soil stabilization, temperature moderation, and

oxygen production continue to outweigh concerns over water, debris produced during overseeding, and maintenance chemicals. In the case of sports turf, overseeded turf is now the standard by which athletic directors and park superintendents are judged.

"Once you begin to overseed, it's difficult to stop," points out Pepin, who is now president of Pickseed in Tangent, OR. "Coaches, players and spectators are fairly insistent on overseeded turf once they are exposed to it. The turf manager has little choice but to comply." □

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