Like politics, all overseeding is local

Editor’s note: We asked university professors from warm-season states for advice on more successful overseeding results. Here are the responses we received.

Here are the questions we asked our panel:
What criteria should be used to make a choice to overseed bermudagrass athletic fields? What turfgrass variety works well for overseeding in your region? Is there any good choice other than perennial ryegrass? What is the best timing to overseed in your region? Do you recommend using a plant growth regulator before overseeding bermudagrass? What other practices/strategies do you recommend for best overseeding results?

Dr. A.J. Powell, University of Kentucky
Since our bermuda growing season is only about 4–5 months, bermuda is always best if not overseeded at all. However, overseeding is a must for bermuda baseball/softball fields since almost the entire spring season would be played on dormant—ugly bermuda. Football and soccer fields that are mostly used in the summer and/or fall should not be overseeded because of several reasons: (1) Even with successful overseeding, the green extension period is only important for about the last one or two games after the bermuda would normally be dormant; (2) we can never get a uniform overseed cover unless you have a 2-3 week period in the fall where play can be excluded and the overseed can be forced to establish from seed. Overseeding in the fall while play resumes never gives the overseed a chance to establish in the high traffic areas, which are the most visible areas on the fields. (3) The overseed species is very competitive with the bermuda and always reduces the amount of verdure (organic cover) that can be established during the summer off-season establishment period. Even when a successful herbicide and management program is used to remove the overseed species in late spring or early summer, the bermuda is never as good as it would be if overseeding had not occurred. If you have a choice, don’t overseed!

Perennial ryegrass is the only species that we in Kentucky can get established fairly quickly and the only species in which the seedling
can take the heavy traffic normally imposed.

Mid-September to mid-October is our best seeding period, i.e. after the bermuda slows growth with cooler nights and shorter days, but before the soil temperature reduces to the point that rapid germination of the perennial ryegrass cannot be achieved.

I have never found growth regulators to be effective. Since we cannot slit seed for fear of increasing winter kill, the growth regulator used on the bermuda will likely increase the bermuda density, possibly making it more difficult to get good soil/seed contact and subsequent seedling growth. Using a PGR just before seeding has normally been inconsequential.

Annual ryegrass is fine for low budget situations and there are transitional mixes or blends that are promoted for easing spring transition.

What is the best timing to overseed in your region? Some common indicators for timing overseeding include: soil temperatures at a 4-inch depth approaching 75 degrees, night temperatures consistently in the 50’s, average midday temperature below 70 degrees, or 2 to 4 weeks before the average annual first killing frost date.

Do you recommend using a plant growth regulator before overseeding Bermuda grass? What other practices/strategies do you recommend for best overseeding results?

We would not recommend a growth regulator unless overseeding had to be done earlier than recommended and the bermudagrass was still aggressively growing. Success is dependent on a 365-day program but the bermudagrass canopy should be opened by scalping or sweeping to provide reasonable opening for the ryegrass. If they want strong ryegrass in the spring good seed to soil contact is important. If not then a less open canopy is fine. Water during emergence and establishment are important. Finally, chemical removal of ryegrass in spring significantly enhances earlier green-up of bermudagrass in the spring.

Dr. John Sorohan, University of Tennessee

What criteria should be used to make a choice to overseed bermudagrass athletic fields? First is cost/budget; this includes seed cost and additional labor costs for continued maintenance of growing turf. If you’re in the transition zone and you can overseed, do it.

Overseeding is the approach where the upcoming game is the most important game, and as bermudagrass goes dormant in the fall it is important to maintain a consistent playing surface, and overseeding does this. Also, you want to be able to remove overseeding in spring as soon as possible, because it will set back the bermudagrass otherwise.

Most improved perennial ryegrass varieties do well in Tennessee; you do get what you pay for regarding quality seed with high purity and high germination. Pretty much all of the major seed companies have excellent overseeding blends of perennial ryegrass. My experience comparing perennial ryegrass, intermediate ryegrass, annual ryegrass, and rough bluegrass for overseeding athletic fields is the perennial ryegrass, regardless of variety, is the superior choice. Intermediate ryegrass and annual ryegrass establish much quicker, but do not have the wear tolerance of perennial ryegrass, and they grow too fast increasing mowing frequencies. Thus, you again get what you pay for.

Perennial ryegrass is more expensive, but it wears better, looks better, grows slower, and doesn’t require reseeding as often, so in the long run will end up costing you less even when you pay more per pound of seed. Rough bluegrass takes too long to establish compared to perennial ryegrass.

What is the best timing to overseed in your region? Late summer early fall just as the bermudagrass begins to slowdown in growth. In Tennessee this is typically mid September to early or mid October.

Dr. Gil Landry, University of Georgia

Agronomically, your choice should be the frequency and type of use during the dormant season; certainly for sports like soccer and baseball where field surface may significantly impact the play of the ball. Overseeding provides the ability to recover from injury during bermudagrass dormancy. Finally, if appearance is important then it should be done. To evaluate the entire picture costs of seed, fertilizer, any herbicide changes from normal, water, mowing, equipment maintenance and personnel time is certainly increased to accomplish this task.
The playing schedule is also important. It is best to plan overseeding where you can limit the use as long as possible to allow the seed to germinate and begin to establish. You can overseed just before a game or practice to allow the athletes to push the seed in to promote necessary seed to soil contact, but you still want to limit use as much as possible after to promote germination and establishment.

I actually have a student working on PGRs and overseeding right now, and I will know a lot more after this season. So far from what we have seen it depends on the bermudagrass variety being grown and the timing of the PGR application. PGRs do help with wear on some bermudagrass varieties that we have tested.

Anything you can do to promote optimal seed to soil contact when overseeding, with the exception of scalping the bermudagrass, is great. Scalping the bermudagrass may stress it too much and limit its winter survival/recovery. Brushing in the seed, light sand topdressing after, and rolling are three keys to improving seed to soil contact.

**Dr. James McAfee, Texas A & M**

What criteria should be used to make a choice to overseed bermudagrass athletic fields? If the field is used extensively during the dormant season for bermudagrass, then the manager should consider overseeding the field for play. Basically overseeding is done primarily on baseball/softball and soccer fields in this area.

What turfgrass variety works well for overseeding in Texas? Is there any good choice other than perennial ryegrass? I still recommend the perennial ryegrass as the best choice. While annual ryegrass can be used, it does not work as good as the perennial ryegrasses. Also, when you look at the difference in seeding rates, annual is not all that much cheaper than perennial. Only advantage I can see to the annuals is a quicker spring transition.

What is the best timing to overseed in your region? For the Dallas/Fort Worth area of the state, mid-October to early November is the best time to plant the cool-season grasses such as perennial ryegrass.

Do you recommend using a plant growth regulator before overseeding bermudagrass? I do recommend using a growth regulator. However, I don’t think very many sports field managers in this area are using growth regulators in conjunction with overseeding.

What other practices/strategies do you recommend for best overseeding results? One of the keys to a successful overseeding is getting good seed to soil contact. Therefore, I normally recommend scalping the bermudagrass and a light vertical mowing of the bermudagrass. The next key is proper irrigation following application of seed. In my experience, most overseeding failures can be tied to improper irrigation of the newly planted ryegrass seed.