Overseeding bermudagrass with ryegrass

What is the best way to overseed bermudagrass athletic fields? Should I mow low, verticut, aerify and then seed? Are there better ways? We have about 12 consecutive days we can stay off the game field, but the practice fields are constantly used.

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Overseeding is still viewed by field managers as the "best thing" or "worst thing" that they do to their fields each year. I have seen overseeding take a poor-looking field and make it look like a million-dollar surface. If done well and the weather cooperates, it can really hide field blemishes. But the process does not always guarantee positive results. And there are the added requirements of in-season management and the concerns associated with transition back to bermudagrass the following year. These open up a whole new set of issues.

For now, let's just concentrate on the overseeding process. It is important that an overseeding date be chosen several months in advance. This is important because there are several timing related practices that can have direct consequences on the success or appearance of the overseed. The first one is preemergence herbicides. With overseeding, you are more limited on preemergence herbicides for annual bluegrass control. If you decide to use a preemergence herbicide the last summer application will need to be timed so as to not interfere with overseeding. Check the pesticide label for a reseeding interval. Winter annual weed control may also be more complex with overseeded fields, so prepare in advance.

The second significant timing issue is core cultivation. If the field is core cultivated and then overseeded, the seed will come up in the core aerification holes much more vigorously than in between holes. This can give the field a very splotchy appearance—it looks like a leopard print. For this reason, it is best to aerify fields about a month before seeding to allow the holes to fill. Apply an appropriate (based on soil test) complete fertilizer at this time to help the bermudagrass recover. The P and K components will be beneficial for the early seedling growth of the ryegrass.

To prepare for overseeding, it is typical to drop the mowing height by about half an inch and then vertical mow the area in two directions to help remove thatch. Vertical mowing opens the canopy to ensure good seed-to-soil contact. After vertical mowing use a mower, blower, or sweeper to remove debris. It is also advisable to irrigate the bermudagrass to prevent excessive drying of the cut plants.

Most field managers broadcast seed, but there is nothing to prevent you from drill seeding. Some of the newer drill seeders are designed to cut through the thatch layer and place the seed in a clean seed slit. This may reduce the need for aggressive vertical mowing.

Those are the common preparatory and planting practices. Other practices I would generally classify as optional. Some field managers have started using plant growth regulators in fall to slow the bermudagrass growth to reduce competition between bermudagrass and the overseeded grass. While this is generally not needed, it could provide a jump start to the overseed if the grass needs to be seeded early. Some field managers also topdress the field with sand after seeding to improve the soil to seed contact. This is a beneficial practice, but some find it to be cost prohibitive for the limited increase in establishment rate and seedling density.

If you can stay off the game field for 12 days in the fall and use an irrigation system, then you should be able to get a good stand of ryegrass. I would still hold out about 10% of my seed to re-seed any weak areas. For the practice field, you may have to put out seed and let the players cleat it into the bermudagrass. Your mortality rate will be much higher compared to the game field, so you will likely have to add more seed during the season. Typical seeding rates are from 6 to 15 pounds of seed per 1,000 square feet (or 260 to 650 pounds per acre). The lower the rate, generally the better the spring transition, so consider adjusting your seeding rates to meet your situation. For instance, use 6 to 8 pounds perennial ryegrass seed per 1000 square feet on football fields (season almost over when bermudagrass goes dormant) versus about 12 to 15 pounds per 1000 square feet on baseball fields (entire season played during time when bermudagrass is 50 to 100 percent dormant and has poor color).

After planting, lightly irrigate the field 2 to 4 times a day if you want to promote seed germination. After seedlings emerge, reduce watering to once daily for about a week and slowly reduce applications until you are watering as needed (usually once to twice a week if no rainfall).

If possible, wait a couple of weeks before mowing. Make sure your blades are sharp to prevent pulling seedlings out of the ground. I suggest mowing without catch baskets for the first few mowing so that any un-germinated seeds are redistributed rather than removed. Mowing heights are normally at 1 to 2 inches. Some managers target a mowing height that is 50% greater than the height they used on bermudagrass. Mowing frequency is normally once to twice a week depending on growth rate.

These steps should provide a good overseeding surface. Of course once the grass is up and growing, good cultural practices will be necessary to keep it healthy. Ryegrass is extremely forgiving in terms of establishment, so do not be afraid of doing something differently. There is no one correct seeding process. The biggest sources of establishment failure I have seen have generally been due to Mother Nature, not the human kind. ■