

Managing Overseeded Grasses in Georgia

Clint Waltz, University of Georgia

Successful overseeding involves proper seed selection, overseeding timing and preparation, post planting maintenance, and spring transition. Successful overseeding also requires maintaining a healthy warm-season turf throughout the year. It is particularly important to maintain proper soil fertility, to relieve soil compaction, and to prevent excessive thatch development.

Overseeding selection involves selecting grasses that have characteristics suited to the particular needs. Annual ryegrass has been replaced by perennial ryegrasses, because of improved turf quality, stress and pest tolerance and manageability. The "intermediate" ryegrasses tend to perform as the name implies somewhere between annual and perennial ryegrass, unfortunately most are either much like annual ryegrass or perennial but not half way between the two. Roughstalk bluegrass, or what is referred to in the industry as "Poa triv" (short for the botanical name *Poa trivialis*), is also as an overseeding grass. It has better shade tolerance than the ryegrasses, but is slower to germinate and will die out earlier in the spring due to poor heat tolerance.

Overseeding rates generally range between 5 and 10 pounds per 1,000 ft² in lawns and 8 to 12 pounds per 1000 ft² for athletic fields and golf courses. Using high quality "Certified" (blue tag) ryegrass seed that is free of annual bluegrass (*Poa annua*) is important in maintaining weed free turf. It is also important to use seed treated with fungicides such as mefenoxam, particularly for early fall overseeding since seedling blight diseases can be a particular problem at this time.

The ten pound seeding rate generally provides rapid stand for fall use, while the five pound rate provides a thinner stand that does not provide much coverage until spring. Choice of seeding rate generally relates to appearance desired and when (fall or spring) and the amount of traffic. Higher trafficked areas need higher seeding rates. However, higher seeding rates also may mean more difficult spring transition.

Indicators for proper timing of overseeding include: soil temperatures at a 4" depth approaching 75° F, night temperatures consistently in the 50's, average midday temperature below 70° F, or 2 to 4 weeks before the average annual first killing frost date. Overseeding before environmental conditions are suitable can encourage warm-season species competition and reduce the overseeding stand.

The objective to insuring a successful overseeding is a good soil to seed contact. Seedbed preparations generally consist of close mowing or scalping, with some light vertical mowing, and sweeping, blowing, or vacuuming the loose plant debris from the soil surface.

Generally, the more the turf is opened, the better the establishment rate, but the more competitive the cool-season turf will be in the spring. Seed which germinate in thatch or above the soil surface are more likely to dry-out and die before becoming established.

After dragging the seed into the soil, begin lightly irrigating to maintain good surface moisture and get the seed to germinate. This generally means irrigating three to five times per day until the seedlings are well established, but the total amount of water applied during a day would seldom exceed 0.5". This irrigation practice should be done without causing puddling on the soil surface because free standing water encourages disease. After germination, gradually reduce the frequency and increase the time of irrigation until a normal irrigation program can be established.

Begin mowing when seedling height is 30% higher than desired. Use a mower with sharp blades and mow when the grass is dry to reduce seedling injury. Use a rotary-type mower for the first mowing to insure seedlings are cut and not ripped. Transitioning to a reel-type mower after the second or third mowing can provide a high quality appearance. Fertilize after seedling emergence (generally three weeks after seeding). Earlier fertilizing may encourage warm-season turf competition. One pound of N per 1,000 ft² per month is adequate with less commonly used. Use a soil test report to guide phosphorus needs.

Most turf managers are beginning to recognize the importance of a good year-round turf management program to a smooth spring transition. Proper fertilization, irrigation, mowing, thatch control, cultivation and pest management throughout the year affect transition. A good transition also requires knowing and making use of normal climatic conditions. Most warm-season turfgrasses resume growth when soil and night temperatures approach 65° F. Sometimes forcing soil temperature warming by aeration can lead to early spring growth and premature reduction of overseeding, particularly if cool spring temperatures follow.

Maintaining a mowing height that prevents the overseeding from shading out the bermudagrass is critical to a smooth transition. Lowering the mowing height when soil temperatures increase, stresses the cool-season turf and aids in soil warming. When temperatures are high enough an application of soluble N can encourage warm-season growth and encourage cool-season decline.

While a natural spring transitions is typically desirable, rapid removal of the cool-season grass without harming the warm-season species is possible by using some herbicides (see Postemergence Herbicides).