

Maximizing seedling survival on greens**June 5, 2014**

A recurring theme in our golf courses visits, emails, and phone calls is that creeping bentgrass on greens is either not germinating or not surviving. Repairing greens by overseeding small areas of damage is difficult in the early fall and can be almost impossible in the spring and summer. Assuming relatively fresh, high quality seed, there are a number ways to help enhance seedling survival:

- Maximize seed-soil contact through aerification prior to seeding. Not only does this encourage germination, it protects the seedling by positioning the crown and some leaf material slightly below the surface, below the wear and tear of mowing, traffic, and topdressing (Fig. 1). Vertical mowing (verticutting) does not insure seed-soil contact like aerification even if carbide tip blades are used, and it does not protect the seedling as well as aerification.
- Topdressing helps smooth the surface but can also severely damage new seedlings. If seedlings are present when topdressing, apply at light enough rates where it does not have to be drug in.
- Water lightly and often to keep the seedbed moist. Reduce irrigation frequency as root mass increases. Monitor root depth weekly and adjust irrigation frequency as necessary.
- Limit traffic on newly seeded areas (golfers, golf carts, athletes) and consider roping off areas if possible. However, mow the areas as soon as a few of the leaf blades reach the projected mowing height.
- Consider raising the mowing height to further encourage seedling survival. A good mowing height for bentgrass seedlings on putting greens is between 0.150 and 0.250”.
- Preventative pythium and damping off fungicides are important now that we are into the heat and humidity of summer (more information is at http://turf.unl.edu/pdfctarticles/May27_post_seeding_diseases.pdf)
- Avoid growth regulators (period). We need both established plants and seedlings to spread. More information is at <http://turf.unl.edu/pdfctarticles/PGRseedlings.pdf>.
- Starter fertilizer should be applied at seeding and about every four weeks after seeding. Apply 1.0 lb of P₂O₅ from the starter and look for products with at least 50% quick release (water soluble) nitrogen. If possible, supplement starter fertilizer with lower rates (0.25 lbs N/1000 ft²) of soluble fertilizer every week. Products such as feed-grade urea can easily be dissolved in a sprayer and applied to affected areas. Fertilizers containing nitrate are also preferred because nitrate is quickly taken up by the plant and stimulates seeds to germinate. Try to spot treat areas injured by winterkill with fertilizer and avoid large unaffected areas. Avoid slow release N sources since N is required now and not later in the summer in heat and stressful conditions.

Intensive care of seedlings will be required throughout the summer. If seedling survival has been poor thus far in any areas, consider patching with creeping bentgrass from an nursery or practice green if available. Though this is very labor intensive up front, long-term survival is better than with creeping bentgrass seeded in late May or June. **Zac Reicher, Professor of Turfgrass Science, zreicher2@unl.edu**



Figure 1. New creeping bentgrass seedlings are especially sensitive to traffic, and other stresses, and are best protected in aerification holes in greens height turf.

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