

Early spring turf care

March 7, 2016

Air and soil temperatures have been well above average, and the turfgrass is starting to break dormancy and grow. Look closely at the crowns of tall fescue, Kentucky bluegrass, or perennial ryegrass and you'll likely see a new green leaf emerging from the whorl. We are even seeing some green-up of buffalograss and zoysiagrass at the East Campus Turf Plots. Soil temperatures have a big impact on spring regrowth because the crown is located in or just above the soil. The dry conditions over the past month have caused the soil to dry down. This accelerates spring soil warming because it takes a lot of energy to change the temperature of water compared to air. The long-term weather and climate forecasts suggest the weather conditions are going to stick around and jump-start the 2016 growing season. Here are some early spring turf-care tips:

- Avoid traffic on wet soils. The winter freeze-thaw cycles help to alleviate soil compaction. Early spring traffic on saturated soils quickly leads to compaction that would be fixed until the following winter or longer.
- Remove debris that may have collected over winter once soils have dried out.
- Avoid the temptation to start mowing. Many will mow to remove dead tissue killed during winter. This will help to accelerate spring regrowth. This could be problematic if temperatures drop well below freezing in the future. It still is early March in Nebraska, anything could happen.
- Be careful with glyphosate (Roundup) on warm-season species. A great way to reduce weed pressure in warm-season turf stands like buffalograss, zoysiagrass, or blue grama is to apply glyphosate or other non-selective herbicide in late-winter (before the turf resumes growth). Unfortunately that window is rapidly closing across much of Nebraska.
- Winter-annual weeds have started to germinate. In most situations there isn't an immediate need to control these weeds with herbicides. The warm summer weather will lead to their demise. Treatment may be warranted if you plan to seed that area this spring.
- It's too early for pre-emergence herbicide applications for summer annual weeds like crabgrass. Those species will start to germinate when average soil temperatures at four inch depth reach 50-55°F.
- Service your mowers to be ready for the spring growth surge. The freeze-thaw cycles also helps release plant available soil nitrogen (mineralization). Add in some late-fall fertilization (not recommended) and the turf is primed to grow vigorously once moisture return from rain/snow/irrigation.



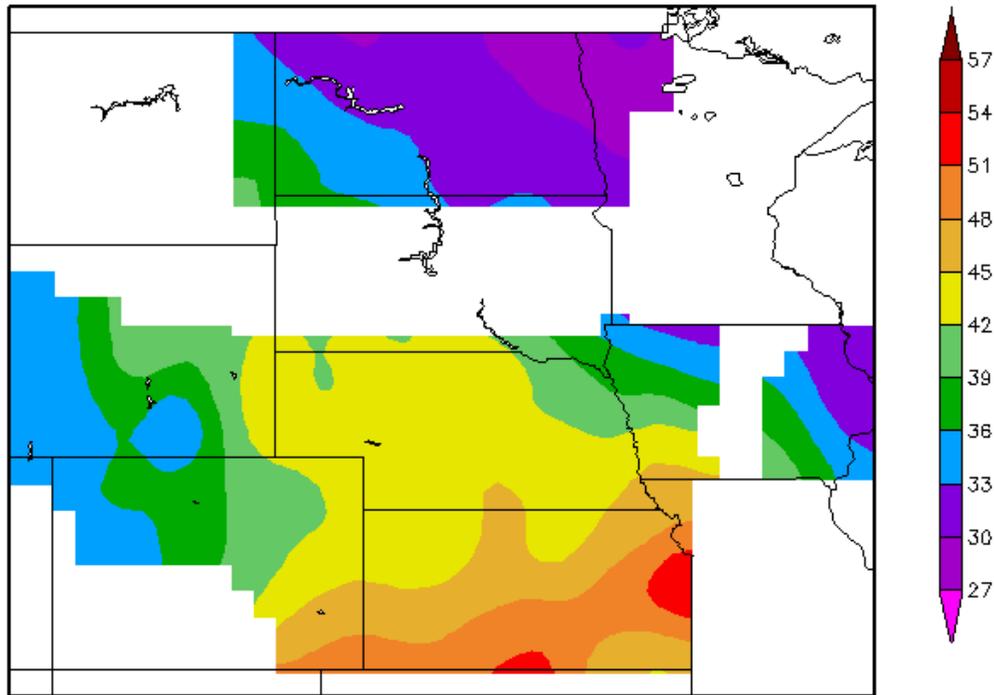
Figure 1. The above-average air temperatures have jump started the season. A new tall fescue leaf is beginning to unroll from the whorl.

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Soil Temperature (F at 4 inches) 3/5/2016 – 3/5/2016



High Plains Regional Climate Center
Generated 3/6/2016 using AWDN data.

Figure 2. Warm and dry conditions are causing the soil temperatures to rise quickly. It's still too early for pre-emergence herbicide applications to control summer annual grassy weeds.