

**July growth surge****July 3, 2018**

My lawn mower disagrees with the theory that cool-season turf species grow slower in the middle of the summer. It seems like I need to mow twice a week to keep up with the 1/3 rule; never remove more than one third of the leaf at mowing. In fact, we have been researching different mowing strategies over the past four years (weekly, 1/3 rule, scalping, etc; Fig. 1) and we find the grass is frequently growing fastest this time of year. We know that cool-season grasses don't produce sugar as efficiently when temperatures get hot (photorespiration), so what gives? Why is the grass growing so quickly in the summer?



Figure 1. Mowing strategy research at UNL.

The hot weather has rapidly pushed soils temperatures into the seventies Fahrenheit. Couple that with heavy rain across much of the region (majority of Nebraska has received over an inch of rain in the past week) and you have perfect conditions for rapid nitrogen mineralization. These warm and wet soils conditions have allow soil microbes to break down organic matter. Sometime you can see it as a fair ring (Fig. 2). Other times it is widespread across the grass. This mineralization releases nitrogen fertilizer that promotes leaf elongation/clipping production. That means a lot of mowing for turfgrass managers right now.

I usually start to hear from golf course superintendents and field managers that their PGRs stop working in July. Our research show the PGRs are likely working. However, the release of soil nitrogen is overpowering the growth suppression from the PGR. If there wasn't PGR present, the grass would be growing even faster. That is exactly what we see in our check plots each summer.

So what should we do about it? For highly maintained stands (greens, athletic field, etc.), reduce nitrogen rate in your spoon-feeding program and increase PGR application. Higher PGR application rates increase relative clipping yield suppression. Also try to dry the turf down. [Here's an article about controlling growth rate from this spring.](#) For lower maintenance turf stands (fairways, roughs, lawns), just keep up with mowing. Don't scalp because that can stimulate more regrowth. [Here's an article from last year about mowing strategies.](#) If an area isn't growing rapidly, the soils may be too wet and nitrogen is being lost to the atmosphere (denitrification) or the soils are low in organic matter.

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Figure 2. An impressive fairy ring expanding in the yard of a Backyard Farmer viewer.

**Photo: Backyard Farmer**