

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 26, 2020**

PERENNIAL RYEGRASS GROWING DEGREE DAYS (GDD)

Perennial ryegrass GDD's will be tracked for the 2020 growing season with comparisons to the previous six years. The accumulation of GDD's will begin after the snow has melted from the perennial ryegrass fields and continue through swathing. A base temperature of 32 degrees F will be used for perennial ryegrass (T-Base = 32 F).

- Year to date GDD = 634 (Table 1)
- Last week (May 18-24) accumulated GDD = 223 (31.9/day)
- Average GDD for the third week of May = 151 (21.6/day)
- Average GDD for the fourth week of May = 175 (25/day)
- Projected GDD for fourth week of May 2020 = 196 (28/day)
- Average temperatures for fourth week of May = High 70.3F and low 43.4F
- Projected temperatures for fourth week of May 2020 = High 77F and low 56F
- The new ten day forecast suggests warmer than average temperatures with a projected accumulated GDD of 32/day compared to the average of 25.3/day

Table 1. Growing Degree Days (GDD), March - May 2014 to March - May 2020 near Roseau MN.

Year	2020	2019	2018	2017	2016	2015	2014	2019 vs. 2020
March	30	0	0	90	38	119	0	+30
April	183	211	184	458	263	367	159	-28
May		548	815	679	765	659	654	
May 1-24	421							
Total	634	759	999	1,227	1,261	1,145	813	
*May 25- June 3	320							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

Last week the accumulated GDD was 10.3/day above the long term average for the third week of May. The new ten day forecast suggests a continuation of this trend for above average temperatures into the first week of June. Ryegrass fields that have nitrogen in the root zone are a deep green color, tillering well and will soon move into the jointing stage. This week look for ryegrass plants to “stretch out” and begin emerge over the top of wheat straw in ryegrass fields that had healthy crowns this spring. In ryegrass fields that were spring burned, or had a crowns damaged by the winter will have jointing delayed by a week to 10 days.

MNHD hard fescue started heading over the weekend as did established stands of Kentucky bluegrass in mineral ground.

CROP MANAGEMENT

If nitrogen has been applied and is in the root zone, ryegrass plants are a deep green color with vigorous growth. Perennial ryegrass plants that are not tillering, or showing a pale green color could indicate nutrient stress. If spring fertilizer has yet to be applied now is the time to get that scheduled and applied. If spring nitrogen has been applied, but plants remain yellow with non-vigorous growth, plant applied nitrogen may not be in the root zone, or some of the applied nitrogen may have been lost. Previous research at the U of MN Magnusson Research Farm suggests that perennial ryegrass is tolerant to foliar applications of liquid nitrogen. The result in Table 2 was a trial conducted on ryegrass that had no applied spring nitrogen until mid-June which would be considered a 'worse case' scenario. Results indicate that ryegrass responded to liquid nitrogen.

Table 2. Perennial Ryegrass Liquid Fertilizer Demonstration at the U of MN Magnusson Research Farm in 2016 - 2017.

Fertility	Seed Yield (#/acre)	Plant Height (inches)	Harvest Lodging
*None	485	18	1
**60#N/acre	601	19	1.5
**90#N/acre	872	21	2

*None was background only with 30# N applied in fall

** 28% UAN applied at 20 GPA for 60 #N rate and 30 GPA for 90#N rate with flat fan nozzles delivering 13.5 gpa/acre

PEST MANAGEMENT

Many winter annual weeds are bolting, clovers are growing well and dandelions are in full flower. Cool season annual weeds are just emerging including: wild buckwheat, wild mustard, wild oats, smartweeds and common lambsquarters. Warm season weeds have yet to emerge (barnyardgrass, pigweeds, green and yellow foxtail), which creates a dilemma for full-season weed control in perennial ryegrass. If broadleaf control was not applied last fall, now would be a good time to scout fields to determine the type of weeds present and growth stage of these weeds. If field scouting indicates winter annuals are present, now would be a time to get these fields sprayed before bolting and flowering is complete in these winter annual weeds. A second application for broadleaf weed control may be necessary depending upon the level of infestation of warm season broadleaf weeds. In recent years, barnyardgrass and foxtail species (green and yellow foxtail) seeds are more common in seed condition plants. More on this topic in next week's newsletter.

Next week's newsletter will be released on June 2nd.