

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
June 7, 2022**

**PERENNIAL RYEGRASS GROWING DEGREE DAYS (GDD)**

Perennial ryegrass GDD's (from snow melt to swathing) will be tracked in the 2022 growing season with comparisons to the previous six years. A base temperature, T-Base = 32 degrees F, will be used for perennial ryegrass.

- Year to date GDD = 850 (Table 1)
- Last week (May 30 – June 5) accumulated GDD = 158; the long term average = 177
- Projected GDD for the next 10 days = 324, or 32.4/day (Table 1)
- Average GDD for the first week of June = 186, or 26.6/day
- The 10 day forecast suggest warmer than average temperatures first week of June as the projected GDD 32.4/ day vs the long term average of 26.6/day.

Table 1. Growing Degree Days (GDD), March - June 2016 to March - June 2022 near Roseau MN.

<b>Year</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2022 vs. 2021</b>
March	0	131	30	0	0	90	38	-131
April	95	236	183	211	184	458	263	-141
May	649	640	600	548	815	679	765	+9
June 1-5	106							
June		1,007	995	919	1,007	917	945	
Total		2,014	1,808	1,678	2,006	2,144	2,011	
*June 6-15	255							

\* Forecasted GDD at Roseau for the next 10 days.

**GENERAL CROP CONDITION**

The ten day forecast suggests a warming trend. If fertilizer is in the root zone ryegrass plants should be a deep green color. In perennial ryegrass fields with healthy crowns this spring look for these plants to begin to “stretch” over the wheat stubble and heading will soon follow.

**ISOLATION STRIPS IN GRASS SEED CROPS**

Many grass seed fields require an isolation strip in the certification process. Kris Folland is the local Field Supervisor with the Minnesota Crop Improvement Association (MCIA). If you have questions or concerns please contact your grass seed agronomist, seed conditioner or Kris with MCIA (218-791-2156).

**SUMMER GRASS SEED FIELD TOUR – JUNE 29**

The annual grass seed summer tour is scheduled for June 29<sup>th</sup> with the field tour to begin at 5pm at the U of MN Magnusson Research Farm. Directions to the U of MN Magnusson Research Farm. At the intersection of MN Hwy 11 and 310, proceed north on MN 310 for approximately 2 miles, turn left (west) on Roseau County 16 and proceed west for approximately 3 miles. The U of MN Research Farm is located in the north side of Roseau County 16. Information on specific field tour stops will follow in future newsletters.

## **CROP MANAGEMENT**

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, some of the applied nitrogen may have been lost, or a sulfur deficiency. 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

The U of MN has over 20 years of fertility data in perennial ryegrass. This information can be found at the web address below:

<https://turf.umn.edu/seed-production-research-progress-reports>

## **PEST MANAGEMENT**

With the projected warmer temperatures in the next 10 days, weeds will enter a period of rapid growth. Now is the time to scout ryegrass fields to determine the infestation levels of grass weeds and determine if additional broadleaf weeds have emerged since the most recent application of a broadleaf herbicide. If ryegrass fields had healthy crowns this spring, now would be a good time to apply grass control in ryegrass fields. Summer seeded fields and volunteer ryegrass fields tend to be a couple weeks behind and if a broadleaf herbicide has not yet been applied, this week would be the time to schedule that application.

Low level jet streams that occurred on May 28-30 brought with it a flush of army worm moths. A total of 49 moths were captured in four pheromone traps in ryegrass fields of northern MN. Research data is limited on the correlation of moths captured in a trap and the infestation levels of armyworm larvae that feed on the crop. However, it takes about 8-10 days for the eggs to hatch (eggs tolerant to insecticides) and about 3 to 4 weeks for the armyworm caterpillar to pass through 6 instar stages. Field scouting in mid-June will determine the level of armyworm caterpillars in perennial ryegrass fields.

The most recent Cereal Rust Bulletin (5/27/22) indicated low levels of two diseases that can infect perennial ryegrass were detected in alternate hosts in SE MN. Barberry is an alternate host for leaf and stem rust and barberry is an alternate host for crown rust. More on perennial ryegrass leaf diseases in future newsletters.

Next week's newsletter will be released on June, 14<sup>th</sup>.