

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
June 8, 2021**

PERENNIAL RYEGRASS GROWING DEGREE DAYS (GDD)

Perennial ryegrass GDD's will be tracked in the 2021 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 = 1,243 (Table 1)
- Last week (May 31-June 6) accumulated GDD = 256
- Average GDD for the first week of June = 177
- Projected GDD for the next 10 days = 410, or 41/day (Table 1)
- Average GDD for mid-June = 197, or 28.1/day
- The new 10 day forecast suggest very warm temperatures for early June as the projected GDD accumulation is 41/day compared to the long term average of 28.1/day.

Table 1. Growing Degree Days (GDD), March - June 2015 to March - June 2021 near Roseau MN.

Year	2021	2020	2019	2018	2017	2016	2015	2021 vs. 2020
March	131	30	0	0	90	38	119	+101
April	236	183	211	184	458	263	367	+53
May	640	600	548	815	679	765	659	+40
June1-6	236							
June		995	919	1,007	917	945	941	
Total	1,243	1,808	1,678	2,006	2,144	2,011	2,086	
*June 7-16	410							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

The new 10 day forecast indicates a significant warming trend with the projected GDD accumulation of 41/day which is well above the long term average of 28.1 for mid-June. Perennial ryegrass fields in light textured soils are beginning to show signs of moisture stress due to the extended warm weather and lack of measurable precipitation. Last week several days recorded daily high temperatures in the upper 90's which is very unusual for early June. Perennial ryegrass fields, for the most part, are in the heading stage and will soon be in the pollination stage.

SUMMER GRASS SEED FIELD TOUR - JULY 1

The annual grass seed summer tour is scheduled for July 1st 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.

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).

CROP MANAGEMENT

Leaf and stem rust has the potential to cause significant yield losses in perennial ryegrass. Crown rust is another disease that will infect ryegrass, but the yield losses are not as dramatic as from leaf and stem rust. Historically, crown rust leaf can be detected after the accumulation of 1,400 GDD and leaf and stem rust after 1,800 GDD. If the current ten day forecast holds we will be in the window for crown rust by the weekend and leaf and stem rust will soon follow. More information of rust will be included in next week's newsletter.

The spores of leaf and stem rust that infects perennial ryegrass fields in northern MN are blown into the area from southern states on low level jet stream winds. This movement of rust spores is called the Puccinia pathway and is illustrated in the graphic below.



The USDA-ARS tracks rust development and movement from the Gulf of Mexico to the northern plain states. In the last week of May of 2021, leaf rust was found as far north as Kansas. Field scouting will monitor and track the progress of rust as it moves northward. For additional information see the link below for the Cereal Rust Bulletin. The link to this site: (<http://www.ars.usda.gov/mwa/cdl>).

PEST MANAGEMENT

Grasshopper nymphs have been observed in ryegrass fields. The recent warm weather seems to be ideal for grasshopper growth and development. Grasshoppers tend to move into fields from field edges. Field scouting will determine if grasshopper nymphs are in perennial ryegrass fields in your area.

Next week's newsletter will be released on June 15th.