

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
June 2, 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 = 813 (Table 1)
- Last week (May 24-31) accumulated GDD = 242 (25.6/day)
- Average GDD for the end of May = 175 (25/day)
- Average GDD for the first week of June = 177 (25.3/day)
- Projected GDD for first week of June 2020 = 242 (34.6/day)
- Average temperatures for first June = High 70.6F and low 43.6F
- Projected temperatures for first week of June 2020 = High 78.8F and low 56.1F
- The new ten day forecast suggests warmer than average temperatures with a projected accumulated GDD of 35.7/day compared to the average of 25.9/day

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

<b>Year</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2019 vs. 2020</b>
March	30	0	0	90	38	119	0	+30
April	183	211	184	458	263	367	159	-28
May	600	548	815	679	765	659	654	+52
June		919	1,007	917	945	941	964	
Total	813	1,678	2,006	2,244	2,001	2,086	1,777	
*May June 1-10	357							

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

**GENERAL CROP CONDITION**

Last week the accumulated GDD was close to average at 25.6/day. However, the new ten day forecast suggests a warming trend with the projected GDD accumulation of 9.8/day higher than the long term average. This warming trend will accelerate ryegrass growth and development. Ryegrass plants with healthy crowns this spring are jointing and will soon have a few heads emerge from the most mature plants. Ryegrass fields that had damage to the crown from winterkill, late summer seeding, or spring burned are delayed in growth and development by at least a week compared to spring seeded ryegrass that have healthy crowns this spring.

## **CROP MANAGEMENT**

Spray additive choice is important when making an application of Assure II in tolerant ryegrass. Research has shown that a nonionic surfactant is the best spray additive to use with Assure II. Perennial ryegrass injury can occur if crop oil or, a nitrogen source is added to the spray tank with Assure II. Again with Assure II a nonionic surfactant at 0.25% v/v is recommended spray additive in herbicide tolerant perennial ryegrass.

Questions are being asked about the control of volunteer wheat in perennial ryegrass. If a height differential exists between the volunteer wheat and ryegrass a rope wick with Roundup has been an effective treatment. The other choice would be Callisto at 3 oz/acre. Research has indicated a double additive (MSO and nitrogen source) should be added with Callisto to optimize volunteer wheat control. Some ryegrass varieties will exhibit yellowing after an application of Callisto.

With ryegrass jointing in early ryegrass fields, growth regulator timing is right around the corner. Apogee and Palisade are growth regulators that are labeled for use in perennial ryegrass. Research has indicated that a surfactant and nitrogen source with Apogee has given increased seed yields compared to the standard additives. With Palisade a single additive is recommended as the double additive can cause ryegrass injury, especially at the high rate of Palisade. More on growth regulators in next week's newsletter.

## **PEST MANAGEMENT**

Barnyardgrass and foxtail (green and yellow) seeds can be an issue in the conditioning and seed cleaning of perennial ryegrass. Both of these species are warm season grasses and can have extended germination depending upon rainfall patterns. One strategy for enhanced control would be to delay the application of a grass herbicide to allow more barnyardgrass and foxtails plants to emerge. Another option would be to apply a preemergence herbicide for extended control. If the ryegrass stand is variable with bare areas (gaps) a preemergence herbicide can offer extended control. Perennial ryegrass is tolerant to Prowl at 2-3 pints when mixed with post emergence herbicides in perennial ryegrass. A delayed preemergence herbicide may offer extended weed control of small seeded grasses and broadleaf weeds. Ideally, a rainfall event after application will help with the activation of the preemergence herbicide.

Next week's newsletter will be released on June 9<sup>th</sup>