

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
July 30, 2019**

**RYEGRASS GROWING DEGREE DAYS (GDD)**

Ryegrass GDD will be tracked for the 2019 growing season with comparisons to the previous six years. A base temperature of 32 degrees F will be used for ryegrass (T-Base = 32 F). Reported GDD are based on the total accumulation from the beginning of the calendar year, after snow has melted from ryegrass fields, to the current calendar date.

- Year to date GDD = 2,686 (Table1)
- Average GDD accumulation for fourth week of July = 234 (33.4/day)
- Actual GDD accumulation for fourth week of July in 2019 = 250 (35.7/day)
- Accumulated GDD in the fourth week of July 2019 was +2.3/day above the long-term average
- Average temperature for the first week of August; high temperature of 77 F and low of 51 F
- Average GDD accumulation for first week of August = 230 (32.9/day)
- Projected GDD for first week of August = 262 (37.4/day)
- Forecast for the first week of August 2019, +4.5 GDD/day higher than the long-term average

Table 1. Growing degree days (GDD), March - July 2013 to March - July 2019 near Roseau MN.

| <b>Year</b>     | <b>2019</b> | <b>2018</b> | <b>2017</b> | <b>2016</b> | <b>2015</b> | <b>2014</b> | <b>2013</b> | <b>2019 vs. 18</b> |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|
| March           | 0           | 0           | 90          | 38          | 119         | 0           | 0           | 0                  |
| April           | 211         | 184         | 458         | 263         | 367         | 159         | 80          | +27                |
| May             | 548         | 815         | 679         | 765         | 659         | 654         | 640         | -267               |
| June            | 919         | 1,007       | 917         | 945         | 941         | 964         | 975         | -88                |
| July 1-28       | 1,008       |             |             |             |             |             |             |                    |
| July            |             | 1,100       | 1,095       | 1,123       | 1,147       | 1,066       | 1,088       |                    |
| Total           | 2,686       | 3,106       | 3,239       | 3,134       | 3,233       | 2,843       | 2,783       |                    |
|                 |             |             |             |             |             |             |             |                    |
| *July 29- Aug 7 | 356         |             |             |             |             |             |             |                    |

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

**GENERAL CROP CONDITION**

Several ryegrass fields have been swathed with more fields to be swathed this week. In general, spring seeded ryegrass fields are the first to mature, followed by late summer ryegrass seeded in stubble with late summer seeded ryegrass in fallow. Ryegrass fields that were burned this spring tend to be later to mature than fields that were not burned. As always, closely monitor ryegrass fields when they are close to swathing as seed moisture levels can drop 1 to 3% points/day as seed moisture levels fall from the low 40's to mid-30% moisture. See the July 16<sup>th</sup> newsletter for a discussion on ryegrass seed moisture and swathing.

## **CROP MANAGEMENT**

Due to the cool May of 2019, GDD accumulations in ryegrass were trending well below normal. However, in the last 7 weeks, GDD accumulations have ranged from +1.8 to +5/day above normal. This extended warming period has resulted in ryegrass swathing beginning close to the long term average of approximately 2,700 - 2,800 GDD.

| <b><u>Week Ending</u></b> | <b><u>GDD/Day Departure from Normal</u></b> |
|---------------------------|---|
| 6/18                      | +1.8  |
| 6/25                      | +1.8  |
| 7/2                       | +2.0  |
| 7/9                       | +3.9  |
| 7/16                      | +4.3  |
| 7/23                      | +5.0  |
| 8/1                       | +4.5  |

## **PEST MANAGEMENT**

During the swathing operation it would be a good time to make a mental note, or better yet make a weed map of problem weeds in ryegrass fields. In the last few weeks, pigweeds, wild oats, volunteer wheat, foxtail barley and other weeds are visible over the top of the ryegrass canopy. Foxtail barley is a difficult weed to control in ryegrass. One product that shows promise is Nortron. A research trial was conducted at the U of MN Magnusson Research to evaluate the performance of Nortron in Ryegrass seed production (Table 2). This data indicates that Nortron can be an effective product for foxtail barley control.

Table 2. Nortron Applications to 'Arctic Green' Perennial Ryegrass Conducted at the U of MN Magnusson Research Farm in 2008-09.

| Treatment     | Timing   | Seed Yield<br>(#/acre) | Foxtail Barley<br>-----(% Control)----- | Sloughgrass |
|---------------|----------|------------------------|---|-------------|
| Nortron 1 pt. | 9/5/08   | 1,219                  | 50                                      | 30          |
| Nortron 2 pt. | 9/5/08   | 1,288                  | 87                                      | 73          |
| Nortron 4 pt. | 9/5/08   | 1,356                  | 100                                     | 100         |
| Nortron 1 pt. | 10/17/08 | 1,002                  | 27                                      | 17          |
| Nortron 2 pt. | 10/17/08 | 1,047                  | 67                                      | 73          |
| Nortron 4 pt. | 10/17/08 | 960                    | 100                                     | 73          |
| Nortron 1pt.  | 5/20/09  | 1,073                  | 0                                       | 10          |
| Nortron 2 pt. | 5/20/09  | 1,050                  | 67                                      | 57          |
| Nortron 4pt.  | 5/20/09  | 1,145                  | 97                                      | 77          |
| Untreated     |          | 847                    | 0                                       | 0           |
| LSD (0.05)    |          | 310                    | 24                                      | 34          |

Next week's newsletter will be released on August 6<sup>th</sup>, 2019.