

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 16, 2017**

PERENNIAL RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2017 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 to the current date. Thus far in 2017, we have accumulated 656 GDD as of May 14th (Table1). Last week the accumulated GDD was 142 (20.3/day) which is above the long term average of 124 (17.7/day) for the second week of May. Forecast for the week ending May 21st suggests a return to normal temperatures as projected GDD accumulation of 148 (21.1/day) compared to the average of 151 (21.6/day).

Table 1. Growing degree days (GDD), March - May 2011 to March - May 2017 near Roseau MN.

Year	2017	2016	2015	2014	2013	2012	2011	2017 vs. 16
March	90	38	119	0	0	304	7	+52
April	285	263	367	159	80	370	278	+22
May		765	659	654	640	726	639	
May 1-14	281							
Total	656	1,066	1,145	813	720	1,400	924	
May 15-21*	148							

* Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

Dandelions often times, are called the “Mother’s Day” flower as this is the first flower that small children give their mom’s. Last weekend was Mother’s Day and on que, dandelions were in full flower! This is a good reminder to check ryegrass fields for weed infestation. Winter annuals are bolting and flowering. If broadleaf herbicides were not applied last fall, now would be the time to scout ryegrass fields to determine the infestation level of winter annuals, perennial broadleaf weeds (dock, dandelion, clovers) and cool season broadleaf weeds (wild mustard, wild buckwheat, common Lambsquarters and smartweeds).

UNMANNED AIRCRAFT FLIGHTS

Northland Community and Technical College (NCTC) will conduct Unmanned Aerial Systems (UAS) flights again in 2017. These UAS flights will be coordinated by Mr. Jon Beck and conducted by Jon and other authorized personnel from NCTC. One of the primary field sites for UAS operations will be the U of MN Magnusson Research Farm. This site will be flown on a regular intervals during the growing season and used for student training. Perennial ryegrass will be a primary target crop to be monitored by UAS. Additional information will follow in future newsletters.

CROP MANAGEMENT

One of the questions asked is how long can we wait to make an application of nitrogen fertilizer in ryegrass without a yield penalty? Previous U of MN research indicates if a base rate of 30 to 60 pounds of nitrogen is in the ryegrass root zone from either:

- nitrogen carryover of the previous year's crop
- soil mineralization
- nitrogen application last fall with the P & K

Nitrogen fertilizer in ryegrass can be applied up to the mid- jointing stage without a sacrifice in seed yield. Based on prior years GDD information, ryegrass plants will begin jointing at approximately 700 - 850 GDD. Year to date, accumulated GDD is 656. If we use an average of 850 GDD for the mid- jointing and average 21 GDD/day which is the long term average for the third week of May, we have approximately 10 days to apply nitrogen in ryegrass. Rainfall would be required to move this nitrogen into the root zone.

If ryegrass plants are not showing signs of nitrogen stress (stunting & yellowing) a soil test or tissue test will document current nitrogen levels in the soil and plant tissue. However, if ryegrass plants are showing stress from nitrogen (not water logging), a supplemental application of nitrogen should be a consideration. Previous U of MN research suggests ryegrass, up to heading, will tolerate 28% up to 20# of actual N (six gallons). These applications were applied with a small plot sprayer with flat fan nozzles delivering 12 GPA. Streamer bars would be an option for higher volumes of 28%.

SUMMER GRASS SEED FIELD TOUR -JUNE 28

Mark your calendar for the annual grass seed summer tour. The tour this summer is scheduled for 5:00 pm on Wednesday, June 28th at the U of MN Magnusson Research Farm. Directions to the Magnusson Research Farm; from the intersection of Hwy 11 and 89 travel approximately 2 miles north on Hwy 310, turn left (west) off Hwy 310 onto Roseau County 16 and for approximately 3 miles. The farm is located on the north side of Hwy 16. More information on specific tour stops will follow in future newsletters.

Next week's newsletter will be released on May 23rd, 2017.