

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 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 2,507 GDD, as of July 16th (Table 1). Last week, the accumulated GDD was 223 (31.9/day) which is below the average GDD accumulation of 243 (34.7/day) for the second week of July. For the week ending July 23rd the forecast predicts an accumulation of 258 GDD (36.9/day) which above the average of 239 GDD (34.1/day) for the third week of July.

Table 1. Growing degree days (GDD), March - July 2011 to March - July 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	679	765	659	654	640	726	639	-86
June	917	945	941	964	975	979	898	-28
July		1,123	1,147	1,066	1,088	1,230	1,162	
July10-16	223							
Total	2,507	3,134	3,030	2,843	2,783	3,609	2,984	
July 17-23*	258							

* Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

The forecast for the first couple days of the week of July 17th suggest cloudy to partly cloudy weather. However, the forecast through the end of July suggests mostly sunny days with high temps in the low to mid 80's and lows in the high 50's to low 60's. If this forecast holds true, area ryegrass fields will mature at a faster pace than normal. Long term GDD in this time period is 35 GDD compared to projected 39 GDD/day.

Ryegrass maturity will hasten with environmental conditions of dry, sunny and windy weather. Further, rain showers during the final few weeks of ryegrass maturity seems to accelerate the ripening process. With the recent rain showers and projected environmental conditions in the next couple weeks, ryegrass swathing will be upon us before we know it! As the ryegrass plant matures, fields can mature quickly! To maximize ryegrass seed yield and quality, previous field experience suggest the seed moisture should be below 40% moisture before swathing. Specific field conditions coupled with environmental factors will influence the actual swathing date for ryegrass. Consult with your field agronomist to help determine the appropriate time for swathing ryegrass as environmental and specific field conditions will influence the actual swathing date for ryegrass.

PEST MANAGEMENT

Late season leaf diseases

Leaf & stem and crown rust have been observed in area ryegrass fields. Late season rust expression is common in perennial ryegrass and other grasses. A common question asked this time of the year; does late season rust impact ryegrass seed yield and quality? The answer, it depends. If the ryegrass field is still green and ryegrass plants are in the seed filling stage, the answer will be yes. However, if the ryegrass plants are beginning the dry down phase and the field is projected to be swathed within the next couple of weeks, a fungicide treatment may not be warranted. Consult with your agronomist or fieldman for local experience.

CROP MANAGEMENT

When to swath ryegrass? That seems like an easy question, when it is ready! However, in reality, the timing of when to swath ryegrass has several challenges associated with this management decision. It seems our eyes are drawn to the most mature areas of the field. If cut too early, ryegrass seed samples will be light. If wait too long, a consequence will be increased seed shatter. When making decisions on when to cut ryegrass, make sure a **representative sample is taken from the entire field not just areas that are most mature.** One method to get a representative field sample is to take samples from areas that look mature, from areas that are intermediate and from areas of the field that look green. Note the percentage of the field in each of these categories. This will give you a good overall field estimate of maturity. Once these samples are collected seed moisture can be determined using a microwave oven. If possible, delay swathing until moisture content of the seed is 35 to 40%. Seed moisture content is determined rubbing the seed from the spike and using the microwave oven to remove the seed moisture.

Caution: In addition to the seed sample, place a small amount of water in a microwave safe container. This will prevent the seed from exploding in the oven. Start with a predetermined seed weight (10 grams) and set the microwave oven for 1 to 1.5 minutes. Continue this procedure until the seed weight is constant. For example, if the initial weight was 10 grams and the final weight was 6 grams the seed moisture is 40%.

Next week's newsletter will be released on July 25th, 2017.