

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
June 21, 2016**

**RYEGRASS GROWING DEGREE DAYS (GDD)**

Ryegrass GDD will be tracked for the 2016 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 year to the current calendar date. Thus far in 2016, we have accumulated 1,665 GDD, as of June 19<sup>th</sup> (Table 1). Last week averaged 239 GDD (34.1/day). The short term forecast suggests a continuation of the above average temperatures into the end of June. Projected GDD for the next 10 days at Roseau are 331 (33.1/day) compared to the long term average of 32.3/day) for the fourth week of June.

Table 1. Growing degree days (GDD), March - May 2010 to March -May 2016 near Roseau MN.

<b>Year</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2016 vs. 15</b>
March	38	119	0	0	304	7	137	-81
April	263	367	159	80	370	278	476	-104
May	765	659	654	640	726	639	707	+106
June		941	964	975	979	898	911	
June 1-19	599							
Total	1,665	2,086	1,777	1,695	2,379	1,822	2,231	
June 20-29 *	331							

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

**SUMMER GRASS SEED FIELD TOUR**

The annual grass seed field tour has been scheduled for 5:00 pm, Wednesday, June 29<sup>th</sup> at the U of MN Magnusson Research Farm. Directions to the Magnusson Research Farm.

From the intersection of Hwy 11 and 89 travel 2 miles north on Hwy 310, turn left (west) off Hwy 310 onto Roseau County 16 and continue west for approximately 3 miles. The farm is located on the north side of Hwy 16. Grass seed varieties include: fescue, intermediate wheatgrass, perennial ryegrass and switchgrass. Management projects include: cover crop research, biomass and vegetation composition research, weed control research in ryegrass, fertility rate and timing in ryegrass, ryegrass date of planting trials, ryegrass growth regulators, fungicides and other trials will be included on the tour.

**GENERAL CROP CONDITION**

Area ryegrass fields are heading and have begun to shed pollen. Pollen shed will begin on the most mature ryegrass plants, followed by the tillers. Pollen shed should be in 'full swing' this week and will continue for a couple weeks. Ryegrass typically sheds pollen in mid-morning. Ryegrass pollen clouds look similar to the dust from vehicles when driving on gravel roads. Ryegrass sheds pollen generally after the dew lifts for the day and will continue for a couple of hours in the morning.

## PEST MANAGEMENT

### Rust in ryegrass

The USDA-ARS tracks rust development and movement north from the Gulf of Mexico to the northern plain states. The graphic below is from the USDA web site and illustrates the movement of rust from south to north in the United States. This movement of rust has been termed the Puccinia Pathway. On June 8th, trace levels of wheat leaf rust was detected in a winter wheat plot near Fargo, ND. Field scouting will continue to 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>)



### Rust in ryegrass

Spring seeded ryegrass fields in the region are heading and shedding pollen. The GDD model indicates we are soon into the time frame when leaf and stem rust historically has been observed in area ryegrass fields (1,900 GDD). By the end of the new 10 day forecast, we will be in the window for potential expression of leaf and stem rust in perennial ryegrass (Table 1).

Strategies for rust control in ryegrass post heading are:

- 1) Scout ryegrass fields for rust every two- to- three days. In favorable environmental conditions rust can increase rapidly and this fungal pathogen can “explode” in just a few days.
- 2) If a fungicide has been applied with a previous trip across the field, apply a fungicide when the last applied fungicide is about to “run out”. The number of days of disease protection will depend upon the fungicide used and product rate.
- 3) Spray a fungicide after the accumulation of 1,900 GDD. Historically, leaf and stem rust is observed at approximately 1,900 GDD. A full rate of a fungicide will provide rust protection for 21 to 28 days. A fungicide applied at 1,900 GDD should provide disease protection until ryegrass swathing (approximately 2,800 GDD).

Next week’s newsletter will be released on June 28<sup>st</sup>, 2016.