**MINNESOTA TURF SEED COUNCIL**
**NEWSLETTER**
**June 23, 2015**

## RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2015 growing season with comparisons to the previous five 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. As of June 21st, accumulated GDD for 2015 are 1,775 (adjusted GDD = 1,503), see Table 1. Projected forecast for the next week suggests above normal temperatures. The current seven day forecast projects an accumulation of 249 GDD or 35.6/day. Long term average GDD for the last week of June is 217 GDD or 31/day.

Table 1. Growing degree days (GDD) for March 2010 to June 2015 near Roseau MN.

| Year | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2015 vs. 14 |
|---|---|---|---|---|---|---|---|
| March | 119 | 0 | 0 | 304 | 7 | 137 | +119 |
| April | 367 | 159 | 80 | 370 | 278 | 476 | +208 |
| May | 659 | 654 | 640 | 726 | 639 | 707 | +5 |
| June 1-21 | 630 | | | | | | |
| June | | 964 | 975 | 979 | 898 | 911 | |
| Total | 1,775^ | 1,777 | 1,695 | 2,379 | 1,822 | 2,231 | |
| | | | | | | | |
| June 22-July 1* | 359 | | | | | | |

* Forecasted GDD at Roseau for the next 10 days.
^ Total GDD for 2015.
^Adjusted GDD (-272 GDD) due to extensive ryegrass leaf desiccation in April 2015 = **1503**

## SUMMER GRASS SEED FIELD TOUR

The annual Grass Seed Field tour sponsored by the U of MN and MN Turf Council has been scheduled for 5:00 pm on Wednesday, June 24th at the U of MN Magnusson Research Farm. Directions to the U of MN Magnusson Research Farm: from the intersection of Hwy 11 and 89 travel 2 miles north on Hwy 310, turn left off Hwy 310 onto Roseau County 16 and proceed west for approximately 3 miles. The farm is located on the north side of Roseau County Highway #16. Bluegrass, ryegrass, and fescue variety trials will be included on the tour. In addition to grass seed variety trial research, various management trials in perennial ryegrass including; fertility rate and timing, growth regulators, fungicides, and other research will be included on this tour. New to the tour this year, an unmanned aircraft demonstration. Weather permitting, personnel from the Aerospace Campus at Northland College in TRF, will conduct flight operations at the U of MN Magnusson Research Farm.

## GENERAL CROP CONDITION

Ryegrass

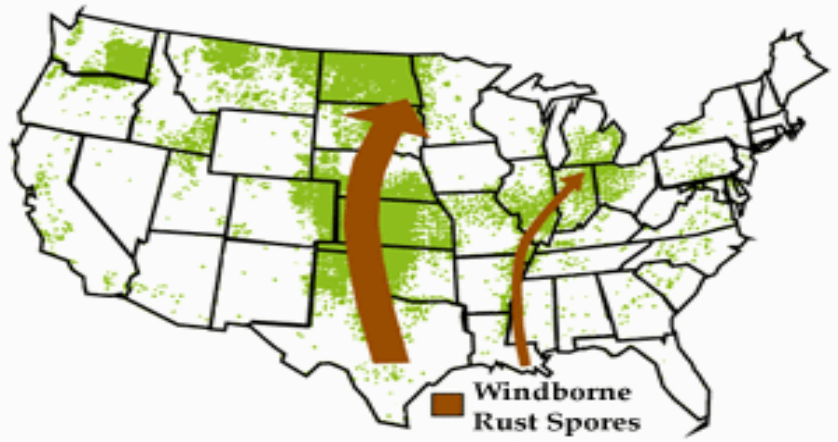
Area ryegrass fields are in the heading stage. Pollen shed should begin this week on the most mature ryegrass plants and will continue for several weeks. Ryegrass typically sheds pollen in mid-morning and ryegrass pollen clouds look similar to the dust from vehicles when driving on gravel roads. Ryegrass sheds pollen generally after the dew lifts for the day and will continue for a couple of hours in the mid-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 illustrated the movement of rust from south to north in the United States. This movement of rust has been termed the Puccinia Pathway. On June 10, trace levels of wheat leaf rust was detected in southern MN. 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 will soon be shedding pollen. The GDD model indicates we are soon into the time frame when leaf and stem rust historically has been observed in 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 first fungicide is about to "run out". The number of days the fungicide will provide disease protection will depend upon the fungicide used and product rate.
3) Spray a fungicide after the accumulation of 1900 GDD. Historically, we have first observed leaf and stem rust 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 2800 GDD).

## University Research

University of MN grass seed research reports from 1967 to the present are available at the web address below.

http://www.mnturfseed.org/html/progress_reports.html

Next week's newsletter will be released on June 30, 2015.