

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
August 5, 2014**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2014 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 year to the current calendar date. To date in 2014, we have accumulated 2,871 GDD as of August 3rd (Table1).

Table 1. Growing degree days (GDD) for March to June, near Roseau, MN in 2009-2014.

Year	2014	2013	2012	2011	2010	2009	2014 vs. 13
March	0	0	304	7	137	30	0
April	159 [^]	80	370	278	476	247	-2
May	654	640	726	639	707	515	+14
June	964	975	979	898	911	860	-11
July	1,066	1088	1230	1162	1174	943	-22
Aug 1-3	109						
Aug 4-10*	264						
Total**	3,135						
Total***	2,762	2,783	3,609	2,984	3,405	2,595	

[^] -78 GDD after majority of snow drifts melted

* - Forecasted GDD at Roseau for the next 7 days

** - Total GDD for 2014 including 7 day forecast to August 10th

*** - Annual accumulated GDD through July 31

GENERAL CROP CONDITION

This week will be a busy one for swathing spring seeded ryegrass. Several ryegrass fields were swathed last week. The short term forecast suggests several days of dry weather. With this dry weather, ryegrass maturity will proceed at a rapid pace. Fall planted ryegrass looks to be lagging 10 days to two weeks behind spring seeded ryegrass. Swathing of fall seeded ryegrass may begin late this week with the majority delayed into next week. To maximize ryegrass seed yield and quality, previous field experience suggest the seed moisture should be below 40% moisture before swathing. As always, environmental and specific field conditions will influence the actual swathing date for ryegrass.

PEST MANAGEMENT

Ryegrass seeded this spring with wheat, for the most part, looks good. Leaf rust is beginning to show up in seedling ryegrass. Previous research has NOT shown a benefit from a fungicide application at this time of the year. The fungicide applications are effective in rust control. However, no yield advantage or difference in rust infections have been observed in the summer following fall treated or untreated plots. To date, leaf and stem rust that infects ryegrass has not overwintered in northern Minnesota and spores that cause infections must blow up from the southern regions of the United States each season.

RYEGRASS SEED STORAGE MANAGEMENT

Ryegrass harvest will soon be in full swing. Previous experience has indicated ryegrass seed moisture must be less than 11-12% for good seed viability and long term storage. Problems with ryegrass seed quality have been reported if the moisture content of the ryegrass seed is greater than 11-12%.

Ryegrass seed may require supplemental heat, in addition to air, to dry ryegrass seed to a moisture level suitable for long term storage. Make sure to monitor moisture content of ryegrass seed in storage and be prepared to move seed quickly due to elevated seed moisture or hot spots in the bin.

Air bins can help reduce seed temperature and help maintain ryegrass seed quality during storage. Air flow resistance and fan pressure are usually expressed in inches of water in a column. This term comes from gauges called U-tube manometers that measure this pressure (static pressure). Air flow resistance of a crop and the fan pressure to overcome it depends upon how fast the air is moving and how long and narrow the paths for the air to move. For grains and oil seeds the main factors involved are:

- Seed size (size and shape of seed)
- Depth of crop in the bin (short large diameter bins generally have lower static pressure than tall narrow bins)
- Air flow rate

The expected static pressure charts are available for most grains and oil seeds. However, data is limited for ryegrass and this topic may require local investigation of ryegrass in storage using u-tube manometers to generate this information.

Grass Seed Research Reports

Research conducted at the U of MN Magnusson Research Farm indicates perennial ryegrass should be seeded by mid-to-late August to optimize perennial ryegrass seed yields. Several years of research reports are available on the web and can be viewed at the MN Turf Council Website:

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

This will be the last weekly MN Turf Seed Newsletter as we are into ryegrass harvest. The newsletter format will change to a monthly format for the late summer and fall.