MINNESOTA TURF SEED COUNCIL
NEWSLETTER
August 6, 2013

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2013 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 calendar date. Thus far in 2013, we have accumulated 2,898 GDD as of August 4th (Table1). Last week, accumulated GDD were 207 (29.6/day). The new 7 day forecast predicts a continuation of the moderation in daily high temperatures that we have experienced the last two weeks. Based on this forecast, by August 11th we will have added an additional 192 GDD (27.4/day) which will bring the annual accumulated GDD to 3,090.

Table 1. Growing degree days (GDD) for March 2008 to July 2013 near Roseau MN.

Year	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**	**2013 vs. 12**
March	0	304	7	137	30	6	-304
April	80	370	278	476	247	202	-594
May	640	726	639	707	515	501	-86
June	975	979	898	911	860	870	-4
July	1088	1230	1162	1174	943	1034	-142
August 1-4	115						
Total	2,898	3,609	2,984	3,405	2,595	2,613	
August 5-11*	192*						
Total	3,090*						

* Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

Ryegrass

The majority of the spring seeded ryegrass fields have been swathed. Several ryegrass fields have been harvested this past week. After the rain showers of the last few days move out of the region the short term forecast suggests several days of dry weather. With this dry weather ryegrass harvest 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 this week with several ryegrass fields 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.

CROP MANAGEMENT

Late summer seeding of perennial ryegrass

Ryegrass seeding on prevented planted or fallow acres is a good option for late summer establishment of perennial ryegrass. 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. The July 30th newsletter has specific details or the U of MN Grass Seed Research Reports can be found on Turf Council Website:

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

PEST MANAGEMENT

Ryegrass stands seeded this spring with wheat look good. As spring wheat is harvested we most likely will see leaf rust in spring seeded 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

With a few damp, humid and rainy days after ryegrass swathing the moisture content of the seed may be higher than last year. Previous experience has indicated that 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 ryegrass seed, >11-12%, is put in the bin for long term storage due to potential heating of the seed. 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 to 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.

Next week's newsletter will be released on August 13, 2013.