

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
August 8, 2018**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2018 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.

- Year to date, GDD = 3,260 (Table 1)
- Average temperatures for the second week of August, high of 78 F and low 51 F
- Average GDD accumulation for first week of August = 230 (32.8/day)
- Current 10 day forecast projects daily highs in the mid 80's and lows in the low 60's
- Projected 10 day GDD = 400 (40/day)
- Current 10 day forecast projects warmer than average temperatures (+7.2 GDD/day)

Table 1. Growing degree days (GDD), March - July 2012 to March - July 2018 near Roseau MN.

Year	2018	2017	2016	2015	2014	2013	2012	2018 vs. 17
March	0	90	38	119	0	0	304	-90
April	184	258	263	367	159	80	370	-74
May	815	679	765	659	654	640	726	+136
June	1,007	917	945	941	964	975	979	+90
July	1,100	1,095	1,123	1,147	1,066	1,088	1,230	+5
Aug 1-5	154							
Total	3,260	3,066	3,134	3,030	2,843	2,783	3,609	
*Aug 6 -15	400							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

The ten day forecast suggests a continuation of warmer than average temperatures. Last week was a busy one for ryegrass swathing and harvesting. Ryegrass swathing should be completed this week and will be a busy one for ryegrass harvest.

CROP MANAGEMENT

Ryegrass

Wheat harvest is just beginning in the area. This is a reminder that ryegrass can successfully be established, in the late summer, after wheat harvest. If ryegrass is to be seeded into wheat stubble, it is important to get a **uniform spread of the wheat straw and chaff**. Chaff spreaders will spread hulls and other “fines”. A uniform spread of the wheat straw is the first step in successful ryegrass stand establishment.

Late summer seeding of ryegrass into wheat stubble is one method to establish perennial ryegrass. With spring wheat harvest right around the corner, the 2018 season should provide an opportunity for seeding ryegrass into wheat stubble after harvest. When should ryegrass be seeded in the late summer? The data in Table 2 are results from research conducted at the Magnusson Research Farm near Roseau, MN.

If pre harvest Roundup was not used prior to wheat harvest an application of Roundup is a good management practice prior to seeding ryegrass into wheat stubble. This is especially important for perennial grass (e.g. Quackgrass) and perennial broadleaf weeds.

Table 2: Arctic Green perennial ryegrass seeded at various dates in tilled and no-till ground in 2008 and a two year average (2008 & 2009) at the Magnusson Research Farm near Roseau, MN.

Seeding Date	-----2009-----				-----2008 & 2009^ -----	
	Tilled Ground*		Wheat Stubble**		Average of Tilled & No-till	
	Yield	Dry Matter	Yield	Dry Matter	Yield	Dry Matter
	(#/acre)	(tons/acre)	(#/acre)	(tons/acre)	(#/acre)	(tons/acre)
8/25/08	736	1.81	1405	2.96	1314	2.70
9/1/08	599	1.61	1135	2.71	1281	2.76
9/9/08	545	1.07	714	2.05	953	2.00
9/17/08	173	0.71	466	1.27	665	1.43
9/22/08	67	0.92	377	1.08	365	0.95
LSD @5%	444	1.10	444	1.10	320	0.78

^ Averages of tilled and no-till seeding of perennial ryegrass seeded in 2007 and 2008 (harvested in 2008 and 2009). The seeding dates for 2007 are similar to those of 2008 (harvested in 2009).

* Perennial ryegrass seeded into bare ground without a cover

** Perennial ryegrass seeded into wheat stubble

Several conclusions can be gleaned from the data in Table 2.

- In 2009, ryegrass dry matter and seed yields were better if seeded into stubble than bare ground
 - Research in the last 12 years indicate that ryegrass seeded in bare ground did NOT survive 42%, had a full stand 33% with moderate to severe winter kill 25% of the time. Individual year's data can be found at the MN Turf Seed Website.
 - http://www.mnturfseed.org/html/progress_reports.html
- For ryegrass seed yields over 1,000 pounds, ryegrass should be seeded in late August or the first week of September
- Dry matter yields had a similar decline as seed yield as seeding date were delayed
- Data would suggest if ryegrass seeding is delayed until mid-September a the seed yield potential is 50% of late August seeding

Next week's newsletter will be released on August 15th, 2018.