

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
July 30, 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 2,691 GDD as of July 28th (Table1). Last week, accumulated GDD were 196 (28/day). The 7 day forecast predicts a continuation of the moderation in daily high temperatures. Based on this forecast, by August 4th we will have added an additional 220 GDD (31.4/day) which will bring the annual accumulated GDD to 2,911.

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

<b>Year</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2013 vs. 12</b>
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 1-28	996						
July		1230	1162	1174	943	1034	
Total	2,691	3,609	2,984	3,405	2,595	2,613	
July 29-Aug 4*	220*						
Total	2,911*						

\* Forecasted GDD at Roseau for the next 7 days.

**GENERAL CROP CONDITION**

**Ryegrass**

Spring seeded ryegrass fields are turning color and swathing will progress at a rapid pace this week. To maximize ryegrass seed yield and quality, previous field experience suggest the seed moisture should be below 40% moisture before swathing. As the ryegrass plant matures, fields can mature quickly, especially with warm days of late July into August. When ryegrass is close to the 40% moisture level, seed moisture can drop 2% points or more per day! Consult with your field agronomist to help determine the appropriate time for swathing ryegrass as environmental and specific field conditions will influence the actual swathing date for ryegrass.

**CROP MANAGEMENT**

**Ryegrass**

Winter wheat is beginning to turn and spring wheat will not be too far behind. Late summer seeding of ryegrass into fallow ground or wheat stubble can be a successful method of perennial ryegrass stand establishment. An application of Roundup to control weed growth 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. 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.

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.

	-----2009-----				-----2008 & 2009^-----	
	Tilled Ground*		Wheat Stubble**		Average of Tilled & No-till	
Seeding Date	Yield (#/acre)	Dry Matter (tons/acre)	Yield (#/acre)	Dry Matter (tons/acre)	Yield (#/acre)	Dry Matter (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 1.

- In 2009, ryegrass dry matter and seed yields were better if seeded into stubble than bare ground
- 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 was later in the fall
- Data would suggest if ryegrass seeding is delayed until mid-September a yield penalty of over potential is 50% can be expected compared to late August seeding

Ryegrass seeding on prevented planted or fallow acres is another 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 (Table 3).

Table 3. Seed yields of Arctic Green perennial ryegrass seeded into fallow ground as influenced by planting date at the U of MN Magnusson Research Farm in 2010 and 2011.

Seeding Date	Ryegrass Seeding Rate (pounds/acre)	Wheat Seeding Rate (pounds/acre)	Seed Yield* (% of mean)
July 21	5	20	104
August 4	5	20	102
August 17	5	20	113
August 26	5	20	116
September 1	5	20	113
September 15	5	20	102
September 22	5	20	67

\*mean perennial ryegrass seed yield = 1199 pounds/acre

Next week's newsletter will be released on August 6, 2013.