

MINNESOTA TURF SEED GROWERS NEWSLETTER
August 3, 2010

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2010 growing season with comparisons to the last four years. A base temp of 32 degrees F will be used for ryegrass (T-Base = 32 F). The GDD information presented in Table 1 is March to July in 2006 - 2009 and March, April, May, June, July and August 1 in 2010.

Table 1. Growing degree days (GDD) for March - July in 2006 - 2009 and March, April, May, June, July and August 1 in 2010 at Roseau MN.

Year	2010	2009	2008	2007	2006	2010 vs. 09
March	137	30	6	90	53	+107
April	476	247	202	322	529	+229
May	707	515	501	746	730	+192
June	911	860	870	990	943	+51
July	1174	943	1,034	1,156	1,206	+231
Aug 1	39					
Total	3,444	2,595	2,613	3,304	3,461	

Last week we accumulated an average of 37.6 GDD/day. With most of the ryegrass swathed next week will be the last GDD report for the 2010 season.

GENERAL CROP CONDITION

Ryegrass

Ryegrass harvest will continue this week and if the weather holds the majority of the ryegrass acres will be combined by the weekend.

Bluegrass

Bluegrass fields that have been burned are “greening up” well with the recent rains.

CROP MANAGEMENT

Ryegrass

Late summer seeding of ryegrass into wheat stubble has been a successful method used to establish ryegrass. With spring wheat harvest right around the corner the 2010 season would provide an opportunity for seeding ryegrass into wheat stubble after harvest. When should ryegrass be seeded in the late summer? The data in Table 1 are results from research conducted at the Magnusson Research Farm near Roseau, MN.

If seeding ryegrass into wheat stubble it is important to get a uniform spread of wheat chaff and fines. Many of the new combines have chaff spreaders that do a great job in the uniform distribution of wheat residue after harvest.

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.

Table 1: 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	Yield	Dry Matter	Yield	Dry Matter	Yield	Dry Matter
Date	(#/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 1.

- Ryegrass dry matter and seed yields in 2009 was 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 not seeding ryegrass if seeding is delayed until mid-September as yield potential is 50% of late August seeding

RYEGRASS SEED STORAGE MANAGEMENT

With the recent rain and high humidity ryegrass seed may have to be dried for long term storage. Previous experience has indicated that if ryegrass seed moisture is less than 11% going into the bin results in good seed viability and storage. Problems have been reported if seed is put in the bin at over 11% moisture and natural air to remove moisture from the ryegrass seed.

Air flow resistance and fan pressure are usually expressed in inches of water in a column. This term comes from gages 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.

The next edition of this newsletter will be released on August 10, 2010.