MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 7, 2015

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2015 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 date. As of July 5th, accumulated GDD for 2015 are 2,266 (adjusted GDD = 1,994), see Table 1. Projected forecast for the next week suggests a continuation of the above normal temperatures. The current ten day forecast projects an accumulation of 374 GDD or 37.4/day. Long term average GDD for the second week of July is 238 GDD or 34/day.

Table 1. Growing degree days (GDD) for March 2010 to June 2015 near Roseau MN.

Year	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2015 vs. 14**
March	119	0	0	304	7	137	+119
April	367	159	80	370	278	476	+208
May	659	654	640	726	639	707	+5
June	941	964	975	979	898	911	-23
July 1-5	180						
July		1,066	1,088	1,230	1,162	1,174	
Total	2,266^	2,843	2,783	3,609	2,984	3,405	
July 6-15*	374						

* Forecasted GDD at Roseau for the next 10 days.
^ Total GDD for 2015.
^Adjusted GDD (-272 GDD) due to extensive ryegrass leaf desiccation in April 2015 = **1,994**

GENERAL CROP CONDITION

Last weekend brought heavy rain and wind which caused lodging in many area wheat fields. One of the questions being asked? Will ryegrass seedlings be killed due to smothering of lodged wheat? In years past, unless the wheat is flat on the ground for several weeks, young ryegrass seedlings will survive. Generally, lodged wheat will not stay flat from one heavy rain event, weather conditions between now and harvest will determine the level of lodging.

PEST MANAGEMENT

Insects in ryegrass

Army worms and grasshoppers have been found in area ryegrass fields. At this time, insect infestations are not to threshold levels. Ryegrass field scouting will determine the level of insect pressure. Consult with your agronomist or fieldman for product/s that have been successfully used in ryegrass in your area.

Rust in ryegrass

Isolated low levels of rust has been observed in area ryegrass fields. Field scouting will determine the extent of rust in your area.

CROP MANAGEMENT

Winter wheat is beginning to turn color and with the early planting of spring wheat, some spring wheat may be harvested in July. An early harvest of spring wheat will provide an opportunity for late summer seeding of ryegrass into wheat stubble can be a successful method of perennial ryegrass stand establishment. 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. 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	**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 2.

- 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 and seed yields declines each week as seeding date is delayed in September
- 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

Straw Management

Wheat straw management is one of the critical steps for a successful ryegrass seed crop. It's 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 for both spring and fall seeded ryegrass. More on ryegrass stand establishment into wheat stubble in a future newsletter.

Next week's newsletter will be released on July 14, 2015.