

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 24, 2016**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2016 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 year to the current calendar date. Thus far in 2016, we have accumulated 2,878 GDD, as of July 24th (Table 1). Last week averaged 278 GDD (39.7/day). Projected GDD for next week at Roseau are 263 (37.6/day) compared to the long term average of 35/day for the last week in July.

Table 1. Growing degree days (GDD), March - July 2010 to March - June 2016 near Roseau MN.

Year	2016	2015	2014	2013	2012	2011	2010	2016 vs. 15
March	38	119	0	0	304	7	137	-81
April	263	367	159	80	370	278	476	-104
May	765	659	654	640	726	639	707	+106
June	945	941	964	975	979	898	911	+4
July 1-24	867							
July		1,147	1,066	1,088	1,230	1,162	1,174	
Total	2,878	3,030	2,843	2,783	3,609	2,984	3,405	
July 25- Aug 3 *	377							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

Several area ryegrass fields were swathed last week. This week looks to be a busy one for swathing spring seeded ryegrass. The short term forecast suggests several days of dry weather. To maximize ryegrass seed yield and quality, previous field experience suggest the seed moisture should be below 40% moisture before swathing. With this dry weather, ryegrass maturity will proceed at a rapid pace. As ryegrass seed moisture gets close to the to the 40% mark, seed dry down can proceed at a rapid pace, over 2 points/day! As always, environmental and specific field conditions will influence the actual swathing date for ryegrass.

Fall planted ryegrass looks to be lagging 10 days to two weeks behind spring seeded ryegrass. Swathing of fall seeded ryegrass may begin late this week with the majority delayed into next week.

PEST MANAGEMENT

As mentioned last week, rust in ryegrass is showing up on seedling ryegrass under wheat (2017 harvest). Both leaf and stem and crown rust has been observed. Previous research has NOT shown a benefit from a fungicide application for rust control, on seedling ryegrass, in late summer or early fall.

Light infestations of armyworms have been observed in isolated ryegrass fields. Lodged areas are the most likely place to see this insect pest. After ryegrass swathing, army worms tend concentrate under ryegrass swaths. Keep an eye open for this insect pests as ryegrass is being swathed.

CROP MANAGEMENT

Ryegrass Seed Storage

Ryegrass seed moistures, at harvest can range from dry, <10%; to wet, >16%. Ryegrass seed quality can be influenced by seed moisture, especially if the moisture content of the seed going into storage is greater than 11-12%. Ryegrass seed moisture greater than 12% may require supplemental heat, in addition to air, to dry the seed to a moisture level suitable for long term storage. Make sure to monitor moisture content of ryegrass seed in storage and be prepared add supplemental air, or move seed, in order to reduce hot spots or lower seed moisture content of ryegrass seed in storage. With variable moisture levels of ryegrass seed, it's CRITICAL to monitor the seed moisture content of ryegrass seed in the bin.

Air bins can help reduce seed temperature and help 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 air is moving and how long and narrow the paths for air movement. 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

If hot spots develop in ryegrass seed in storage, air alone may not remove the heat and seed moisture fast enough. If hot spots are detected, be prepared to move seed from the bin as soon as possible as past experience suggests ryegrass seed moisture in the 11-12% range is required for long term seed viability and storage.

Next week's newsletter will be released on August 2nd, 2016.