

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 22, 2014**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2014 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 year to the current calendar date. To date in 2014, we have accumulated 2,376 GDD as of July 20th (Table1).

The ten day forecast near Roseau, projects above average temperatures for the first couple days this week with a return to normal-to-slightly below normal temperatures for the rest of the week. The projected 10 day forecast is for average high and low temperatures of 78 and 56 F, respectively. By July 30th, accumulated GDD for the year will be 2,728 based on the most recent 10 day forecast.

Table 1. Growing degree days (GDD) for March to June, near Roseau, MN in 2009-2014.

Year	2014	2013	2012	2011	2010	2009	2014 vs. 13
March	0	0	304	7	137	30	0
April	159 [^]	80	370	278	476	247	-2
May	654	640	726	639	707	515	+14
June	964	975	979	898	911	860	-11
July 1-20	680						
July 21-27*	250						
July**	1,116	1088	1230	1162	1174	943	
Total***	2,812	2,783	3,609	2,984	3,405	2,595	

[^] -78 GDD after majority of snow drifts melted

* - Forecasted GDD at Roseau for the next 7 days

** - Projected GDD for July based on an average of 36 GDD/day

*** - Total for 2014 includes projected GDD for July

GENERAL CROP CONDITION

Selected ryegrass fields are turning color which is a sign that ryegrass seed within the seed head has reached physiological maturity. In these selected fields, ryegrass plants are now in the dry down phase. Low soil fertility, lighter soil conditions, leaf diseases, other plant stressor, or the plant has reached full maturity are some of the factors that can trigger ryegrass plants to begin the dry down process. To maximize ryegrass seed yield and quality, previous field experience suggests 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

Late season leaf diseases

Leaf & stem and crown rust have been observed in area ryegrass fields. Late season rust expression is common in perennial ryegrass and other grasses. A common question asked this time of the year; does late season rust impact ryegrass seed yield and quality? The answer, it depends. If the ryegrass field is still green and ryegrass plants are in the seed filling stage, the answer will be yes. However, if the ryegrass plants are beginning the dry down phase and the field is projected to be swathed in the next couple of weeks, a fungicide treatment may not be warranted. Consult with your agronomist or fieldman for local experience.

Late summer seeding of perennial ryegrass

Ryegrass seeding on prevented planted or fallow acres is a good option for late summer establishment of perennial ryegrass. Data in Table 2, is a two year summary of perennial ryegrass establishment into fallow ground. This research was conducted at the U of MN Magnusson Research Farm near Roseau. The data from this two year trial suggests perennial ryegrass should be seeded by mid-to-late August to optimize perennial ryegrass seed yields.

Table 2. Perennial ryegrass ‘Arctic Green’ seed yields, established in fallow ground, as influenced by planting date at the U of MN Magnusson Research Farm in 2010 and 2011.

Seeding Date	Ryegrass Seeding Rate	Wheat Seeding Rate	Seed Yield*
	(pounds/acre)	(pounds/acre)	(% 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

Several conclusions gleaned from the data in Table 2.

- Late summer establishment of perennial ryegrass has a wide seeding window
- The optimum timing for late summer seeding is from mid-August to the first week in September
- Wheat seeded, as a cover crop, in late July into the first week of August will joint and produce a seed head which has a tendency to lodge and can smother ryegrass seedlings
- Ryegrass seeded after mid-September generally doesn’t establish a crown until spring (3 to 4 tillers) which results in an increased probability of winter kill and thin stands in the spring

Perennial ryegrass can successfully be established after wheat harvest. A data review will be included in next week’s newsletter.

The next newsletter will be released July 29, 2014.