

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 31, 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 1,006 GDD, as of May 29th (Table 1). Last week averaged 221 GDD (31.6/day) compared to the long term average of 183 (26.1/day) for the fourth week of May. The short term forecast suggests a continuation of the warmer than average temperatures into the first week of June. Projected GDD for the next 10 days at Roseau are 313 (31.3/day) compared to the long term average for the first week of June of 190 (27.1/day).

Table 1. Growing degree days (GDD), March - May 2010 to March -May 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		659	654	640	726	639	707	
May 1-29	705							
Total	1006	1,145	813	720	1,400	924	1,320	
May 30- June 8 *	313							

* Forecasted GDD at Roseau for the next 10 days.

SUMMER GRASS SEED FIELD TOUR

The annual grass seed field tour has been scheduled for 5:00 pm, Wednesday, June 29th at the U of MN Magnusson Research Farm. Directions to the Magnusson Research Farm.

From the intersection of Hwy 11 and 89 travel 2 miles north on Hwy 310, turn left (west) off Hwy 310 onto Roseau County 16 and continue west for approximately 3 miles. The farm is located on the north side of Hwy 16. Grass seed varieties include: fescue, intermediate wheatgrass, perennial ryegrass and switchgrass. Management projects include: cover crop research, biomass and vegetation composition research, weed control research in ryegrass, fertility rate and timing in ryegrass, ryegrass date of planting trials, ryegrass growth regulators, fungicides and other trials will be included on this tour.

GENERAL CROP CONDITION

With the above average temperatures of the last few weeks, ryegrass will be soon be will soon be in the early heading stage of growth. Now is the time to scout fields and schedule an application of Apogee plant growth regulator. Ryegrass fields seeded in the late summer of 2015 exhibit more variable growth stage compared to spring seeded ryegrass. Regular field scouting will help to schedule management decisions based on ryegrass stage of growth.

PEST MANAGEMENT

Due to the warmer than average temperatures of the last few weeks, ryegrass and weeds are growing at rapid pace. One of the questions asked relates to the consequences of a tank mix application of Apogee and grass herbicides? Previous research has indicated that separate application of a grass herbicide and Apogee have provided more consistent results than if tank mixed. If the grass herbicide has not been applied yet, it's important this application be made as soon as possible! However, the application window for Apogee may be a bit early, especially if a fungicide is to be tank mixed for extended disease control in ryegrass. However, if time, labor and environmental constraints are such that a tank mix of a grass herbicide and Apogee is necessary, this tank mix can be applied in ryegrass. Research suggests potential yield reduction compared to separate applications.

CROP MANAGEMENT

The amount of biomass produced by a crop of ryegrass will vary from year to year. For example, ryegrass biomass production in 2012 & 2015 was less (thin line) than 2011, 2013 or 2014. In years of lush ryegrass growth (more biomass) it will take a higher rate of Apogee growth regulator than years of 'thin line' ryegrass growth. As a result, a lower rate of Apogee was required to regulate ryegrass growth, in years of thin line growth, compared to years when ryegrass exhibits lush growth (increased biomass production). Thus far, it appears ryegrass biomass production in 2016 will be similar to that of 2011, 2013 or 2014.

General guidelines for Apogee in perennial ryegrass:

- The onset of heading (10%) is a good benchmark to begin Apogee application in ryegrass
- Spring planted ryegrass with moderate to high fertility, good stands and deep green color should receive an Apogee rate of 6 to 8 oz./acre with the 8 oz. rate a good benchmark
- Apogee rate of 6 to 8 oz. /acre, if plant available nitrogen is over 120 pounds/acre
- Fall planted ryegrass generally exhibits less growth compared to spring seeded ryegrass and usually will require 2 to 3 oz./acre less Apogee than spring seeded ryegrass
- Always use a nonionic surfactant and nitrogen source with Apogee. No differences in Apogee performance have been observed with 28% or AMS
- The timing of grass herbicides and Apogee may not be ideal as the grass herbicides should be applied prior to ryegrass heading. Tank mixes of grass herbicides and Apogee have been successfully used in ryegrass however, separate applications have provides more consistent results
- U of MN research has not detected reduced performance when mixing fungicides with Apogee plant growth regulator.

Next week's newsletter will be released on June 7th, 2016.