MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 30, 2017

PERENNIAL RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2017 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 calendar year to the current date. Thus far in 2017, we have accumulated 990 GDD, as of May 29th (Table 1). Last week, the accumulated GDD was 166 (23.7/day) which is below the long term average of 175 (25.0/day) for the last week of May. Forecast for the week ending June 4th suggests slightly above normal temperatures as projected GDD accumulation of 180 (25.7/day) compared to the average of 177 (25.3/day).

Table 1. Growing degree days (GDD), March - May 2011 to March - May 2017 near Roseau MN.

Year	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2017 vs. 16**
March	90	38	119	0	0	304	7	+52
April	285	263	367	159	80	370	278	+22
May		765	659	654	640	726	639	
May 1-28	615							
Total	990	1,066	1,145	813	720	1,400	924	
May 29-June 4*	180							

* Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

Several ryegrass fields, and areas within fields, have ryegrass plants above the wheat stubble. This is an indication that ryegrass plants are moving from a vegetative stage into the jointing stage of growth. After jointing, heading is the next major growth stage in ryegrass. Ryegrass heading begins with the main stem (mother shoot) and transitions to the tillers (daughter shoots). Ryegrass heading typically is completed within a couple of weeks with a full ryegrass stand. This year, with the variability in ryegrass stands, tillering most likely, will be extend and due the open spaces between plants. This increased tillering potential may result in an extended ryegrass heading and pollen shed

SUMMER GRASS SEED FIELD TOUR -JUNE 28

Mark your calendar for the annual grass seed summer tour. The tour this summer is scheduled for 5:00 pm on Wednesday, June 28th at the U of MN Magnusson Research Farm. Directions to the Magnusson Research Farm; from the intersection of Hwy 11 and 89 travel approximately 2 miles north on Hwy 310, turn left (west) off Hwy 310 onto Roseau County 16 and for approximately 3 miles. The farm is located on the north side of Hwy 16. More information on specific tour stops will follow in future newsletters.

PEST MANAGEMENT

A typical timeline for weed control program in ryegrass would be to apply a broadleaf treatment a couple weeks before a grass control product. Research conducted by U of MN scientists has indicated when broadleaf and grass products are mixed together grass antagonism often times is the result. This antagonism is difficult to predict, but will occur more often than not, and will result in regrowth in many of the grassy weed species. One method to maximize the effectiveness of the grass control herbicides is to apply in a separate application and, if possible, apply in cool environmental conditions as grass herbicide performance is enhanced in cool compared to warm environmental conditions. If broadleaf herbicides have not been applied yet, consider an application of the grass products first, wait at least 24 hours before an application of a broadleaf herbicide. If broadleaf products are to be applied first, the recommended waiting time is 5 to 7 days, or until new growth is visible on grasses.

One of the challenges with weed control in perennial ryegrass is the delayed emergence of warm season broadleaf and grassy weed species. For example, many of the cool season weeds have emerged and are growing well. However, several of the warm season weeds (pigweed, barnyardgrass) have yet to emerge. One of the strategies for extended control of these warm season weeds is to include a pre-emergence herbicide with the broadleaf or grass herbicide. The data set below was from research conducted in 2015 with the cooperation of Rice Farms Inc. The results in Table 2 indicate that ryegrass has tolerance to several products when applied as as delayed pre-emergence application. Weed pressure was low at this site as post emergence herbicides did an excellent job in weed control.

Table 2. Preemergent Grass Herbicide Applications to Perennial Ryegrass, Rice Farms, 2015.

Herbicide*	Rate pt./acre	Application Date	Ryegrass Yield (#/A)
No Treatment	0	0	636
Prowl H20	3	6/11/15	801
Facet L	1.5	6/11/15	721
Prowl+Facet L	3+1.5	6/11/15	685
Outlook	1	6/11/15	743
Outlook	2	6/11/15	643
Prowl H20	6	6/11/15	650
Facet L	3	6/11/15	721
Facet L*	3	7/1/15	623
Prowl H20	3	7/1/15	574
LSD (0.05)			122

*Crop oil added at 2 pints/acre

CROP MANAGEMENT

For more detailed information of grass seed research, annual reports can be found on the web. All the U of MN Grass Seed Research Reports from 1967 to the present are available at the address below.
http://www.mnturfseed.org/html/progress_reports.html

Next week's newsletter will be released on June 6th, 2017.