MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 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 785 GDD, as of May 22nd (Table 1). Last week averaged 189 (27/day) GDD compared to the long term average of 148 (21.1/day) for the third full week of May. The short term forecast suggests a continuation of the warmer than average temperatures through Memorial Day weekend. Projected GDD for fourth week in May are 235 (33.6/day) compared to the long term average of 166 (23.7/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 1-22	484							
Total	785	1,145	813	720	1,400	924	1,320	
May 23- June 1 *	347							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

Ryegrass fields seeded in the spring of 2015 are in the late tillering to the early jointing stage. With the elevated temperatures the ryegrass plants will soon extend over the top of the wheat stubble. Ryegrass fields seeded in the late summer of 2015 exhibit more variable growth stage and plant height compared to spring seeded ryegrass.

The ten day forecast has daily high temperatures in the upper 70's to low 80's with projected low temps in the mid-50's. Based on this forecast, accumulated GDD for the year will be over 1,100 by the end of May. The most recent forecast suggests temperatures that are 10 GDD above the long term average for the end of May! If this forecast holds true, ryegrass plants will enter a rapid growth phase and growth regulator timing will be right around the corner! More on growth regulator application in ryegrass next week.

PEST MANAGEMENT

Barnyardgrass is a grassy weed that appears to be increasing in prevalence in many perennial ryegrass fields, especially in low areas of fields. Field observations suggest this weed has an extended germination period that seems to be tied to rainfall events in the spring and summer. Field scouting will determine the level of barnyardgrass.

CROP MANAGEMENT

Spring seeded wheat has emerged and growing well. What are herbicide choices if ryegrass has been underseeded with wheat? The results in Table 2 are from U of MN research conducted at the Magnusson Research Farm in 2011.

Table 2. Seeding year ryegrass tolerance and percent stand as influenced by herbicides applied in spring wheat, Magnusson Research Farm in 2011.

Herbicide	Rate	Additive*	RG Tolerance	RG Stand %
Achieve L	0.5 pt.	NIS + 28%	Good	95
Affinity+2,4-D	0.6 oz+0.5pt LV6	NIS	Fair	75
Assert	1.2 pt.	NIS	Good	95
Avenge	3 pt.	NIS	Good	90
Axial	1 pt.	None	Poor	15
Everest 70WG	0.6 oz.	NIS	Fair	65
Everest 2.0	0.9 oz.	NIS	Fair	70
Express+2,4-D	0.3oz + 0.5pt LV6	NIS	Fair	70
Tecoma	10 oz.	None	Good	90
Wolverine	1.7 pt.	NIS + 28%	Good	90
Untreated	0	None	Good	100

*NIS - Nonionic surfactant (0.25% v/v), COC - Crop oil concentrate (1% v/v), 28% Nitrogen (2.5% v/v).

All herbicides were applied on June 24, 2011. Spring wheat variety 'Samson' was 6-8 inch tall and the perennial ryegrass variety 'Arctic Green' was 1.5 - 2 inches tall (2-3 leaf). Perennial ryegrass stand reductions were taken on October 21, 2011.

Buctril at 1 pint/acre was applied to the entire area for broadleaf weed control.

The data in Table 2 indicates perennial ryegrass has good tolerance to several herbicides. However, perennial ryegrass has POOR tolerance to Axial and FAIR tolerance to affinity+2, 4-D, Everest and Express+2, 4-D.

Next week's newsletter will be released on May 31st, 2016.