

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
May 5, 2015**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2015 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 calendar year to the current date. Thus far in 2015, accumulated GDD are 595 as of May 3rd (Table1). Projected forecast for the next ten days suggests a continuation of the trend for above average temperatures. The current forecast suggests an accumulation of 233 GDD or 23.3/day compared to an average of 17GDD/day.

Table 1. Growing degree days (GDD) for March 2010 to May 2015 near Roseau MN.

Year	2015	2014	2013	2012	2011	2010	2015 vs. 14
March	119	0	0	304	7	137	+119
April	367	159	80	370	278	476	+208
May		654	640	726	639	707	
May1-3	109						
Total	595 [^]	813	720	1,400	924	1,320	
May 4-13*	233						

* Forecasted GDD at Roseau for the next 10 days.

[^] Total GDD for 2015. Adjusted GDD due to extensive ryegrass leaf desiccation = 323

GENERAL CROP CONDITION

Assessment of winter survival the 2015 ryegrass crop continues to be a challenge. Spring fertilizer was applied to spring seeded ryegrass fields last week and will continue this week. Decisions will have to be made soon on fall seeded ryegrass fields. If fields are to be in ryegrass production for 2015, weeds are growing fast and must be controlled soon! (see discussion below).

PEST MANAGEMENT

Field pennycress, shepardspurse and other winter annuals are bolting and flowering. If these weeds have yet to be sprayed NOW is the time to spray to prevent seed production.

Ryegrass Cool Season Weeds

As the soil temperature warms from the low 40's into the 50's F, look for accelerated weed emergence, especially the cool season broadleaves and grasses (common lambsquarters, smartweed spp., wild mustard, wild buckwheat and wild oat). Now is the time to schedule fields to be scouted for broadleaf weeds. Winter annuals (dandelion, shepardspurse, and cockle) are in the rosette stage and will soon bolt. Dandelions next to buildings were blooming over the weekend! Annual weeds (volunteer canola, mustard, wild buckwheat and smartweed) are first to emerge in the spring. A tank mix of dicamba and 2, 4-D (0.5-1pt of each) is an effective broad-spectrum broadleaf control option for weed control in ryegrass. If the broadleaf weed control program includes a fall and spring application timing, the spring application timing can be extended compared to a spring only program. A spring only program for broadleaf weed control will have to be made soon (minimum of 0.75pt dicamba & 2.4-D) order to control winter annual weeds that will soon be bolting and flowering!

CROP MANAGEMENT

Early seeded spring wheat has emerged and it won't be too long until herbicides will be applied in wheat. What are herbicide choices if ryegrass has been underseeded with wheat? The results in Table 2 are from a herbicide screen conducted at the U of MN, Magnusson Research Farm in 2011.

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

<u>Herbicide</u>	<u>Rate</u>	<u>Additive*</u>	<u>RG Tolerance</u>	<u>RG Stand %</u>
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
Callisto	5 oz	COC + 28%	Good	95
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
Nortron	2 pt.	None	Good	90
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.

Tecoma is the same active ingredient and formulation as Puma.

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.

The 2015 season may be a good year for wild oats as wheat fields have been planted early and wild oat has been observed emerging with the wheat. Avenge was included in the above trial to evaluate the ryegrass response. Avenge is a potential choice for wild oat control if the field has a history of resistant wild oats.

SUMMER GRASS SEED FIELD TOUR

Mark your calendar for Wednesday, June 24th for the annual grass seed summer tour to be held at the U of MN Magnusson Research Farm, six miles northwest of Roseau, MN.

Next week's newsletter will be released on May 12, 2015.