

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
May 19, 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 821 (adjusted GDD = 549) as of May 17th (Table1). Projected forecast for the next ten days suggests a return to normal temperatures. The current ten day forecast projects an accumulation of 235 GDD or 23.5/day which is close to the long term average of 23 GDD/day for the third week of May.

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

<b>Year</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2015 vs. 14</b>
March	119	0	0	304	7	137	+119
April	367	159	80	370	278	476	+208
May		654	640	726	639	707	
May1-17	335						
Total	821 <sup>^</sup>	813	720	1,400	924	1,320	
May 18-27*	235						

\* Forecasted GDD at Roseau for the next 10 days.

<sup>^</sup> Total GDD for 2015.

<sup>^</sup>Adjusted GDD (-272 GDD) due to extensive ryegrass leaf desiccation in April 2015 = **549**

**GENERAL CROP CONDITION**

Flowering crabs, plums and other small fruit trees are flowering and the lilacs are getting close to blooming, look for this to happen later in the week. Wild oats in tilled ground have emerged as have common lambsquarters, wild buckwheat and wild mustard. Winter annuals are bolting and flowering. If broadleaf herbicides were not applied last fall, now would be the time to scout ryegrass fields to determine the infestation level of winter annuals, perennial broadleaf weeds (dock, dandelion, clovers) and cool season broadleaf weeds (wild mustard, wild buckwheat, common lambsquarters, smartweeds).

**CROP MANAGEMENT**

Northland Community and Technical College (NCTC) has a Certificate of Authorization (COA) from the Federal Aviation Administration (FAA) to conduct mini-Unmanned Aerial Vehicle (sUAV) flights in Roseau County. These sUAV flights will be conducted by authorized personnel from NCTC. Specific purpose of the COA is to collect information from agricultural crops raised in Roseau County. Landowner approval is one of the requirements needed for NCTC to fly sUAV's to collect agricultural information and crop data. Perennial ryegrass will be a primary target crop to be monitored by sUAV. Additional information will follow in future newsletters.

A ryegrass winter hardiness trial is conducted each year at Roseau and St. Paul which gives an indication of winter survivability of various ryegrass varieties. Ryegrass varieties are late summer seeded into tilled ground without a cover crop to put maximum environmental pressure on ryegrass.

The data for 2015 presented in Table 2. At Roseau, most varieties scored in the high 8's or 9 which is an indication of a severe winter, with little separation between ryegrass varieties. However, in St. Paul, only the annual ryegrass scored a 9 (complete kill) and several varieties scored a 5 or less. NK-200 (scored 3.8) generally is one of the more winter hardy ryegrass varieties and serves as a check.

Table 2. Perennial ryegrass winter hardiness scores in St. Paul and Roseau in 2015.

<b>2014 Perennial ryegrass winter hardiness Variety trial</b>					
<b>2015 Data--St.Paul and Roseau Minnesota</b>					
			Winter Injury*		
			St.Paul	St.Paul	Roseau
Source	Variety	MSP	4/24	5/6	5/13
Check	Linn	17	7.0	<b>7.5</b>	8.7
U of M	Pinnacle	40	6.3	<b>6.0</b>	9.0
Check	Fiesta IV	42	6.3	<b>6.3</b>	9.0
Check	Palmer V	88	6.3	<b>5.5</b>	8.7
U of M	Spreader III	3791	5.5	<b>5.5</b>	8.9
U of M	Ragnar	3909	5.5	<b>6.0</b>	9.0
check	NK-200	3917	3.5	<b>3.8</b>	8.7
U of M	Forageur	3942	3.5	<b>4.5</b>	8.6
U of M	Green Emperor(MSP)	3976	5.8	<b>5.3</b>	8.7
check	Brightstar SLT	3977	5.0	<b>5.8</b>	9.0
check	Gulf(annual)	3983	9.0	<b>9.0</b>	9.0
U of M	Arctic Green	3997	4.3	<b>4.5</b>	8.7
U of M	Royal Green	3998	4.3	<b>5.0</b>	9.0
U of M	MSPxA.Green/Ragnar	3999	4.8	<b>4.8</b>	8.9
U of M	Ragnar II	4010	5.8	<b>5.8</b>	9.0
<b>U of M</b>	<b>Spreader x A.Green</b>	<b>4011</b>	5.0	<b>5.5</b>	9.0
pickseed	08-20-Lp AB	4012	7.5	<b>7.8</b>	9.0
pickseed	PRWH2-12	4013	6.0	<b>6.3</b>	8.9
pickseed	PRWH4-12	4014	5.0	<b>5.0</b>	8.9
pickseed	PRWH11-3	4015	5.5	<b>4.8</b>	9.0
check-pic	Quebec	4016	6.5	<b>6.5</b>	8.9
<b>U of M</b>	<b>MSPxR.Green</b>	<b>4020</b>	5.0	<b>5.8</b>	8.9
	LSD @5% level		1.3	<b>1.8</b>	NS
	CV(%)		17	22	3
*winter injury-9=all dead; 1=no injury					
Seeding date- St.Paul= 9/9/2014					
	Roseau=8/28/2014	Mean=		<b>5.8</b>	

Next week's newsletter will be released on May 26, 2015.