

**MINNESOTA TURF SEED COUNCIL  
NEWSLETTER  
May 6, 2014**

**INTRODUCTION**

Welcome to the first edition of the Northern Minnesota Grass Seed Growers Newsletter for 2014. The primary objective of this newsletter is to report on growing conditions, crop development and progress of perennial ryegrass and other turf seed crops grown in northwest MN. The newsletter is scheduled for weekly distribution from the beginning of ryegrass green-up through swathing. Special alerts will be sent as pest infestations dictate or production problems arise.

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**RYEGRASS GROWING DEGREE DAYS (GDD)**

Ryegrass GDD will be tracked for the 2014 growing season with comparisons to the last 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 2014, we have accumulated 159 GDD as of April 30th (Table1). The winter of 2014 was one of the coldest in recorded history. In fact, weather records from the National Oceanic and Atmospheric Association (NOAA) lists the MN winter of 2013-2014 as the 6<sup>th</sup> coldest on record. Fortunately, snow cover is a positive for ryegrass winter survivability and the spring of 2013 was one of the latest snow melts in recorded history with the rapid snow melt occurring the third week of April. Short term forecast indicates an improvement in temperatures. The projected GDD for next ten days at Roseau is 166 (16.6/day). If the current forecast holds, we will accumulate more GDD's in the next ten days than the entire year to date!

Table 1. Growing degree days (GDD) for March 2009 to May 2013 near Roseau MN.

<b>Year</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2014 vs. 13</b>
March	0	0	304	7	137	30	0
April	159	80	370	278	476	247	+79
May		640	726	639	707	515	
May 5-14*	166						
Total		720	1,400	924	1,320	792	

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

Due to the extended snow cover and cold spring, perennial ryegrass is just beginning to break dormancy. Perennial ryegrass breaks winter dormancy in more of a gradual than rapid process (e.g. flipping a switch). Perennial ryegrass variety, time of seeding (spring vs. fall), size of the crown going into winter, residue on the soil surface and soil moisture are all factors that influence the speed in which ryegrass breaks dormancy.

## **GENERAL CROP CONDITION**

### **Ryegrass**

Perennial ryegrass is just beginning to break out of winter dormancy. Frost depths in fields near the Magnusson Research Farm near Roseau ranged from 12-18 inches in bluegrass sod to 20-28 inches deep in tilled ground. Soil temperatures averaged 38F in sod and 44 F in tilled ground. The projected elevated temperatures this week should bring the frost out of the ground and will allow a better assessment of ryegrass winter survivability.

## **PEST MANAGEMENT**

### **Ryegrass**

With an accelerated accumulation of GDD's, weed emergence and growth will proceed at a rapid pace. As average daily temperatures increase, herbicide applications for broadleaf weeds will be right around the corner. Winter annuals (dandelion, shepardspurse, and cockle) are beginning to grow. Annual weeds (volunteer canola, mustard, and smartweed) are first to emerge in the spring. Weeds grow fast and regular scouting is essential to determine the best weed control program for your situation.

## **CROP MANAGEMENT**

### **Ryegrass**

As the temperatures warm up and the frost comes out of the ground, ryegrass fertility applications will be here before we know it. Now would be a good time to talk to your grass seed fieldman and agronomists to determine a timeline for plant food applications in ryegrass. Research has indicated nitrogen must be in the ryegrass root zone prior to the rapid uptake phase (late tillering to heading). If all nitrogen is to be applied in the spring, fertilizer application should be earlier (250-450 GDD) than if the nitrogen is applied in a split application program (fall and spring) program (up to 800 GDD). If a portion of the nitrogen is a coated product, fertilizer applications could be made earlier than stated in the guidelines above.

### **Spring vs. fall seeding of ryegrass**

Perennial ryegrass can be successfully established in the spring or fall (late summer). However, U of MN research indicates spring seeded ryegrass provides more consistent stands with higher yield potential compared to fall seeded ryegrass. Mid-May planting of spring wheat will, more than likely, result in late August wheat harvest. This timeline will create a very narrow window for fall seeding of perennial ryegrass as late summer seeding of perennial ryegrass should be completed by Labor Day. If ryegrass is a rotational crop for 2015, strong consideration should be given to spring seeding of ryegrass due to the late spring planting conditions of 2014 and projected ryegrass planting constraints in the fall of 2014.

A discussion of fertility programs in ryegrass will be included in next week's newsletter which will be released on May 13, 2014.