

**NORTHERN MINNESOTA GRASS SEED GROWERS
NEWSLETTER
May 9, 2011**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2011 growing season with comparisons to the last four years. A base temp of 32 degrees F will be used for ryegrass (T-Base =32 F).

Table 1. Growing degree days (GDD) for March, April and May 2006 - 2011 near Roseau MN.

Year	2011	2010	2009	2008	2007	2011 vs. 10
March	7	137	30	6	90	-130
April	278	476	247	202	322	-198
May		707	515	501	746	
May 1-8	127					
Total		1,320	792	709	1,158	

GENERAL CROP CONDITION

Ryegrass

Spring wheat is the primary cover crop used to establish perennial ryegrass. Ryegrass can be successfully established in the spring with wheat or in the late summer after wheat harvest. With the cool spring conditions and the delayed crop planting in 2011, strong consideration should be given to establish ryegrass with spring wheat seeded in May for the 2012 perennial ryegrass crop.

In 2010, the U of MN spring wheat variety trials in Roseau were seeded on April, 22 and harvested the week of August 23rd which is 120 days from seeding to harvest. If wheat is seeded by May 15, 120 days will put wheat harvest in September. An application of Roundup pre-harvest may gain an additional week to 10 days. Even with an additional week, this most likely will result in wheat harvest in September. The data in Table 2, suggest ryegrass must be seeded in late August or early September for ryegrass seed yields over 1,200 pounds. The bottom line, it appears the spring weather conditions in 2011 suggest ryegrass for 2012 harvest should be seeded with wheat this spring as late summer seeding may be delayed past the optimum window for ryegrass seeding.

Table 2: Arctic Green perennial ryegrass seeded at various dates in tilled and no-till ground in 2008 and a two year average (2008 & 2009) at the Magnusson Research Farm near Roseau, MN.

	-----2009-----				-----2008 & 2009^ -----	
	Tilled Ground*		Wheat Stubble**		Average of Tilled & No-till	
Seeding Date	Yield (#/acre)	Dry Matter (tons/acre)	Yield (#/acre)	Dry Matter (tons/acre)	Yield (#/acre)	Dry Matter (tons/acre)
8/25/08	736	1.81	1405	2.96	1314	2.70
9/1/08	599	1.61	1135	2.71	1281	2.76
9/9/08	545	1.07	714	2.05	953	2.00
9/17/08	173	0.71	466	1.27	665	1.43
9/22/08	67	0.92	377	1.08	365	0.95
LSD @5%	444	1.10	444	1.10	320	0.78

^ Averages of tilled and no-till seeding of perennial ryegrass seeded in 2007 and 2008 (harvested in 2008 and 2009). The seeding dates for 2007 are similar to those of 2008 (harvested in 2009).

PEST MANAGEMENT

Ryegrass

Winter annuals (dandelion, shepardspurse, and cockle) are growing well and will soon bolt. 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.

Canada thistle has yet to emerge. This presents a dilemma for weed control in ryegrass. If we wait too long, the winter annuals will be in full flower and produce seed, but if we spray too soon the thistle and other warm weed species will not be controlled as they have yet to emerge. It may be advantageous to consider two applications for broadleaf weed control. The first timing will control winter annuals and cool season broadleaf weeds and the second timing for Canada thistle and warm season broadleaf weeds.

Dicamba and 2, 4-D are the workhorses for broadleaf weed control in ryegrass. Product rates range from 0.5 to 1 pint depending upon weed size and species. Ryegrass is very tolerant of these two products. Weeds grow fast and regular scouting is essential to determine the best weed control program in your ryegrass fields.

Bluegrass

If Beacon is to be used for weed control in bluegrass, it should be applied prior to jointing. The Beacon use rate is 0.38 oz/A, and should be used with a non-ionic surfactant. Previous research with Beacon in bluegrass indicates bluegrass injury may occur if applications are made during the jointing stage in bluegrass. The jointing stage in bluegrass corresponds to the time when the variety 'Park' gets the uneven (ragged) look.

CROP MANAGEMENT

Ryegrass

How long can we wait to make a spring application of nitrogen fertilizer in ryegrass? Ideally, a top dress application of Urea applied to ryegrass should have a 0.25 to 0.5 inch of rainfall to move this fertilizer into the root zone. Previous research indicates if a base rate (30 to 60 pounds of nitrogen) was applied last fall, spring fertilizer can be applied up to the jointing stage in ryegrass without a sacrifice in seed yield. Based on prior years GDD information, ryegrass plants will be in the 2 to 3 node stage after the accumulation of approximately 1,000 GDD. Year to date, we have accumulated 412 GDD. If we average 25 GDD/day, we have approximately 23 days to apply nitrogen in ryegrass.

Bluegrass

In the last three years, mildew infestations have corresponded to the accumulation of approximately 650 GDD. Thus far in 2010, we have accumulated 412 GDD. When will we begin to see mildew in bluegrass? Field scouting will determine the actual incidence of pest outbreaks. However, if the GDD model acts like previous years, we should begin to see mildew after the accumulation of an additional 250 GDD (If we assume, 20 GDD/day this will take approximately 12 days).

The next Grass Seed Newsletter will be released on May 16, 2011.