

**NORTHERN MINNESOTA GRASS SEED GROWERS
NEWSLETTER
April 9, 2012**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2012 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).

The month of March in 2012 has broken many temperature records in Minnesota and throughout the upper mid-west. We now have official word from the National Oceanic Atmospheric Administration (NOAA) that March 2012 was the warmest March on record for the lower 48 states. Further, the first quarter (January-March) of 2012 was the warmest first quarter on record and these weather records date back to 1895!

The 10 days forecast predicts daily high temps in the low 50's and average low temperatures in the mid-30's. If the forecast holds, we should accumulate an average of 12 GDD/day.

Table 1. Growing degree days (GDD) for March and April from 2007 - 2012 near Roseau MN.

Year	2012	2011	2010	2009	2008	2007	2012 vs. 11
March	304	7	137	30	6	90	+297
April		278	476	247	202	322	
April 1-8	114						
Total	418	285	613	277	208	412	

In the beginning of April in 2012, soil temperatures in tilled ground averaged 50 degrees F and were in the high 30's in turf conditions. Soil temperatures have moderated this week with the cooler temperatures. As of April 8th, soil temperatures at Roseau averaged 43 and 37 degrees F in tilled and turf conditions, respectively. With the return to more seasonal temperatures, expect soil temperatures to slowly increase this week, especially with the forecast lows temperatures in the low 20's or high teens on several evenings.

PEST MANAGEMENT

Bluegrass

In the last four years, mildew infestations have corresponded to the accumulation of approximately 650 GDD. Thus far in 2012, we have accumulated 418 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 in bluegrass after the accumulation of an additional 232 GDD, (19 days with an average of 12 GDD/day).

Ryegrass

Herbicide applications for broadleaf weeds are right around the corner. Now is the time to scout fields for broadleaf weeds. Winter annuals (dandelion, shepardspurse, and cockle) are in the rosette stage 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.

CROP MANAGEMENT

Ryegrass

How long can we wait to make an application of nitrogen fertilizer in ryegrass? The early dry spring has many producers asking this question. If nitrogen is left on the soil surface without rain, recent research from Montana indicates nitrogen losses in two weeks can be > 25%. 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 that if a base rate (30 to 60 pounds of nitrogen) was applied last fall and this fertilizer was moved into the root zone, 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 begin to joint at approximately 800 GDD. Year to date we have accumulated 418 GDD. If we average 15 GDD/day, we have approximately a 25 day window to apply nitrogen in ryegrass.

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.

University Research

Last week a fertility trial was applied in perennial ryegrass to evaluate with various sources of nitrogen fertilizer. Fertilizer treatments were applied with a Gandy drop spreader with three replications of each treatment.

Nitrogen treatments applied were:

- Urea alone
- Urea with Agrotain
- A 50/50 blend of Urea and coated urea (ESN)
- Super U

The next Grass Seed Newsletter will be released on April 16, 2012.