

**NORTHERN MINNESOTA GRASS SEED GROWERS
NEWSLETTER
March 22, 2012**

INTRODUCTION

Welcome to the first edition of the Grass Seed Growers Newsletter for 2012. The primary objective of this newsletter is to report on growing conditions, crop development and progress of perennial ryegrass and bluegrass crops. The newsletter will be sent weekly, with alerts sent as pests infestations dictate or production problems arise.

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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).

GDD are charted from the beginning of the year, not when the ryegrass plant breaks dormancy. It's difficult to pin point the exact day ryegrass breaks dormancy. Several factors determine when ryegrass breaks winter dormancy (see discussion below). However, over the last five years perennial ryegrass breaks dormancy after approximately, 60 -100 GDD.

Thus far in 2012, we have accumulated 199 GDD as of March 21st (Table1). March of 2012 is the warmest March, by far, over the last five years and we still have 10 days left in the month! The short term forecast indicates a moderation in the record temperatures of the last two weeks. What does that mean for ryegrass? Looking forward, if we maintain average temperatures and receive average precipitation during the growing season that would be a recipe for a better than average ryegrass seed crop, especially if the ryegrass seed filling period can escape the hot temperatures of summer.

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

Year	2012	2011	2010	2009	2008	2007	2012 vs. 11
March 1-21	199						+192
March		7	137	30	6	90	

The 2012 growing season is off to very warm start. The calendar says March, but nature is showing signs that would indicate mid-April.

- The Rainy river is open to Lake of the Woods
- Robins are back in the area
- Frogs are croaking
- Pussy willows blooming

Perennial ryegrass comes out of winter dormancy in more of a gradual process than a rapid one (e.g. flipping a switch). It appears 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.

One of the risks of an early start to the growing season will be an extended cold snap in April. In the last decade or so, we have had two years (2002 and 2007) in which we experienced an extended cold period after the ryegrass broke dormancy. In 2002, this was a 10 day period in late April and in 2007 was a 6 day stretch in early April.

Soil temperature generally is a good indicator of the “earliness or lateness” of the growing season (Table 2). In 2012, we reached 40 F in tilled soil on March 12th. This is the 18 days earlier than the next warmest which was March 30, of 2010. We have yet to reach 40 F in sod conditions, but as of March 21st soil temperatures were in the high 30’s. With the current weather pattern expect the 40 degree mark in sod ground by the weekend. If we get a cold snap in April the elevated soil temperatures will help to moderate the influence of cold temperatures on the young perennial ryegrass plants.

Table 2. Calendar date when soil temperatures reach 40 F, in tilled and sod conditions near Roseau in 2005 to 2012.

	2012	2011	2010	2009	2008	2007	2006	2005
Tilled	3-12	4-8	3-30	4-14	4-15	4-14	4-11	4-6
Turf	NA	4-23	4-13	4-29	4-18	4-19	4-11	4-16
Difference		15	14	15	3	5	0	10

GENERAL CROP CONDITION

Ryegrass

Perennial ryegrass is breaking out of dormancy and appears to be in good shape. The lack of snow cover and the open winter was a concern for ryegrass overwintering. However, it appears most perennial ryegrass plants are breaking dormancy and a better assessment of winter survivability to be made in a couple weeks.

PEST MANAGEMENT

Ryegrass

If above average temperature patterns continue, herbicide applications for broadleaf weeds are 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

With the warm weather of the last few weeks 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 that nitrogen must be in the 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.

A discussion of herbicide choices for broadleaf control in ryegrass and fertility programs in ryegrass will be included in next week’s edition which will be released on March 29, 2012.