

MINNESOTA TURF SEED GROWERS NEWSLETTER
July 6, 2010

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2010 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). The GDD information presented in Table 1 is March to July in 2006 - 2009 and March, April, May, June and July 1 - 4 in 2010.

Table 1. Growing degree days (GDD) for March - July in 2006 - 2009 and March, April, May, June and July 1-4 in 2010 at Roseau MN.

Year	2010	2009	2008	2007	2006	2010 vs. 09
March	137	30	6	90	53	+107
April	476	247	202	322	529	+229
May	707	515	501	746	730	+192
June	911	860	870	990	943	+51
July			1,029	1,149	1,245	
July 1-4	176					
Total	2,407	1,652	1,579	2,148	2,255	

The short term forecast indicates temperatures will moderate for a few days followed by summer time temps in the 80's. One of the signs of summer is the emergence of fish flies. The 2010 season gave us an early start to the year. However, temperatures have moderated in June which should be a positive for cool season grasses. Last week we accumulated an average of 35 GDD/day.

GENERAL CROP CONDITION

Ryegrass

Ryegrass fields continue to shed pollen.

Bluegrass

Many of the 'Park' and 'Minnefine' bluegrass fields were cut over the weekend and swathers will continue this week.

PEST MANAGEMENT

Ryegrass

Rust has been observed in isolated areas in the ryegrass growing region. A couple fields in Lake of the Woods County have moderate to severe levels of leaf and stem rust in ryegrass. Leaf and stem rust has also been observed at low levels in Roseau County.

Most ryegrass fields are heading and are shedding pollen. The GDD model indicates we are into the time frame which rust can cause a problem in ryegrass. Two main strategies for rust control in ryegrass at this time are:

- 1) Spray a fungicide as soon as it can be scheduled or,

- 2) Scout ryegrass fields for rust every two- to- three days. In favorable environmental conditions rust can increase rapidly and this fungal pathogen can “explode” in just a few days

Leaf and stem rust that infects ryegrass is carried into our area on southerly winds. Rust infection and spread is most likely with daily high temperatures in the mid-70’s and lows in the 60’s. Rust also requires free water on the leaf surface. We usually have dew on the grass until mid-morning in the summer and many days have temperatures that fit into the ideal range for rust development.

CROP MANAGEMENT

Ryegrass

The fall of 2009 and the spring of 2010 was relatively mild. This was good news as the survivability of ryegrass was excellent. However, a challenge was what to do with volunteer wheat, which also survived the winter. A herbicide screen was conducted at the Magnusson farms north west of Roseau to screen various herbicides for the control of volunteer wheat in ryegrass. Products evaluated included Nortron, Callisto, 2,4-D ester and Sharpen. Preliminary data indicates that Callisto may have potential for volunteer wheat control if 28% and MSO are used as spray additives.

Table 2. Herbicides for the control of volunteer wheat in Roseau County (Magnusson Farms) in 2010.

Treatment	Rate (oz/A)	Additive*	Wheat control#	Ryegrass Injury
Callisto	3	MSO	27	0
Callisto	3	MSO +28%	85	2
Callisto	5	MSO	60	0
Callisto	5	MSO + 28%	90	7

* MSO rate was 1.0% v/v and 28% nitrogen at 2.5% v/v of the spray solution.

Wheat averaged 7 inches tall at treatment.

Preliminary observations from this trial:

- 28% is an important additive for volunteer wheat control with Callisto
- Nortron and Sharpen provided limited volunteer wheat control
- Callisto has activity on several broadleaf weeds
- Seed yields will determine if visual injury results in a reduction in ryegrass seed yield

Rouging off type weeds

Some ryegrass fields have rouged for off type plants. It is important to control weeds in the field and not run these plants through the combine. Roundup through a wand (spot spraying), or through a rope wick have been successfully used to control off type plants in ryegrass.

The next edition of this newsletter will be released on July 13, 2010.