

MINNESOTA TURF SEED GROWERS NEWSLETTER
July 14, 2009

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2009 growing season with comparisons to the last three years. A base temp of 32 degrees F will be used for ryegrass (T-Base =32 F). The GDD information presented in the table below is year to date data through and including July 12 for 2006 to 2009.

Year	2009	2008	2007	2006	09 vs. 08
March	30	6	90	53	+24
April	247	202	322	529	+45
May	515	501	746	730	+14
June	860	870	990	943	-10
July 1-12	365	380	424	445	-15
Total	2,017	1,959	2,572	2,700	+58

The 2009 season is 58 GDD ahead of 2008, but -555 and -683 GDD behind the 2007 and 2006 seasons, respectively. The average GDD/day for the first twelve days of July was 31.7, 35.3 and 37.1 for 2008, 2007 and 2006, respectively. How does 2009 compare? The accumulated GDD/day in first twelve days of July in 2009 was 30.4/day.

GENERAL CROP CONDITION

Ryegrass

Fall seeded ryegrass ranges from early heading to pollen shed. Spring seeded ryegrass, for the most part, has shed pollen on the main stem and is now in the seed filling stage.

Bluegrass

Many of the 'Park' and 'Minnfine' bluegrass fields were cut over the weekend.

PEST MANAGEMENT

Ryegrass

Leaf and stem rust can be a serious disease in ryegrass. Leaf and stem rust has been detected in susceptible wheat varieties in Douglas County (Alexandria) in Minnesota and near Carrington, North Dakota. How long will it be until rust spores make it to northern Minnesota? Environmental conditions and southerly winds will determine the prevalence and severity of rust in ryegrass.

In the last three years, leaf and stem rust have been detected in ryegrass after the accumulation of approximately, 1,950 GDD. To date, in 2009, we have accumulated 2,017 GDD. Field scouting will determine the actual incidence of leaf and stem rust in ryegrass.

Several suspected cases of leaf rust have been reported in the area. Symptoms on these plants are not consistent with leaf and stem rust observed in previous years. Plant samples will be evaluated by a plant diagnostic lab to determination the cause for these symptoms in ryegrass.

Most ryegrass fields are heading and have the flag leaves fully emerged. 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 would be:

- 1) Spray a fungicide as soon as it can be scheduled or,
- 2) Scout ryegrass fields for rust every two- to- three days as 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.

Several fungicides are effective for rust control in ryegrass. Previous experience has indicated when field scouting has detected rust in ryegrass an application of Quilt provides effective control. Quilt rates from 8 to 10 oz/A have been successfully used in ryegrass. The higher rate will provide a few more days protection, and the 10 oz rate will protect the head and flag leaf for three to four weeks.

CROP MANAGEMENT

Grasshoppers are an insect pest that can be a problem in grass seed crop. Field scouting has indicated light to moderate infestations of grasshoppers. Action thresholds for grasshopper nymphs are 30-45/square yard (6 to 8 adults or 25% defoliation) if grass is vegetative and insect feeding is on the leaf tissue. Threshold levels will be lower if insect feeding is on the seed head. Field scouting will determine the infestation level and the type of feeding.

Armyworms are another insect pest that can damage grass seed crops. Armyworms moths tend to lay eggs in lodged areas of the fields and will be the first place to check for armyworms.

UNIVERSITY OF MINNESOTA RESEARCH

Herbicide tolerance study: In response to the concern that many of you have expressed over the herbicide resistant wild oat problem, Don Wyse from the University of Minnesota is initiating studies to better understand the issue. The first study is focused on fields where producers have observed little or no control of wild oat populations following herbicide treatments for two years or more. If you have a field where wild oat is not being controlled with current herbicide treatments please call Dave Grafstrom (218 463 1071) or email Dave.Grafstrom@northlandcollege.edu to set up a time for him to come out to your farm and collect wild oat seed samples from the field. The wild oat populations will then be evaluated for resistance to selected herbicides in St. Paul. Each producer will receive a summary of the results from the evaluation of their wild oat populations and the information will be kept confidential.

The next edition of this newsletter will be released on July 21, 2009.