MINNESOTA TURF SEED COUNCIL
NEWSLETTER
June 25, 2013

SUMMER GRASS SEED FIELD TOUR

The annual Minnesota Turf Council field tour is scheduled for 5:00 pm on Wednesday, June 26th at the U of MN Magnusson Research Farm. Directions to the Magnusson Research Farm: from the intersection of Hwy 11 and 89 travel approximately 2 miles north on Hwy 310, turn left (west) off Hwy 310 onto Roseau County 16 and for approximately 3 miles. The farm is located on the north side of Roseau County highway #16. Bluegrass, ryegrass, and fescue variety trials will be included on the tour. In addition to grass seed variety trial research, various management trials in perennial ryegrass including; fertility rate and timing in ryegrass, growth regulators, fungicides, foliar nitrogen and other research will be included on this tour.

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2013 growing season with comparisons to the previous five years. A base temperature of 32 degrees F will be used for ryegrass (T-Base = 32 F)

Reported GDD are based on the total accumulation from the beginning of the calendar year to the current calendar date. Thus far in 2013, we have accumulated 1,422 GDD as of June 23rd (Table1). Last week, accumulated GDD were 254 (36.3/day). Based on the current 7 day forecast, by the weekend we will have added 271 GDD (38.7/day). If this forecast holds, by the end of June we will have accumulated approximately 1,693 GDD's for the current calendar year.

Table 1. Growing degree days (GDD) for March 2008 to June 2013 near Roseau MN.

Year	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**	**2013 vs. 12**
March	0	304	7	137	30	6	-304
April	80	370	278	476	247	202	-594
May	640	726	639	707	515	501	-86
June		979	898	911	860	870	
June 1-23	702						
Total	1,422	2,379	1,822	2,231	1,652	1,579	
June 24-30*	271*						
Total	1,693*						

* Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

Ryegrass fields seeded in the spring of 2012 are heading and just beginning to flower. Pollen shed will begin later this week and will continue for several weeks. Ryegrass typically sheds pollen in mid-morning and ryegrass pollen clouds look similar to the dust from vehicles when driving on gravel roads. Ryegrass sheds pollen generally after the dew lifts for the day and will continue for a couple of hours in the mid-morning.

CROP MANAGEMENT

Insects

The 2012 season was the year of the leafhopper. It's yet to be determined if we will have an insect outbreak in 2013. However, with the recent warm weather and the emergence of swarms of mosquitos is a good reminder that insect infestations can occur quickly and regular field scouting is required to identify the insect pest, determine insect infestation and economic threshold levels.

Army worms and grasshoppers are two insect pests that can cause damage to area ryegrass fields. As would be expected, the most likely areas to find armyworms are in lodged areas and grasshoppers in field edges of ryegrass fields.

Threshold levels

Grasshoppers can be a problem in grass seed crop. 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.

The economic threshold for armyworms has not been established for ryegrass. However, in wheat, the action level is 4 or more larvae/square foot. Armyworms feed at night and hide under vegetation or in loose soil during the day. Armyworms moths tend to lay eggs in lodged areas of the fields and these areas should be first place to check for armyworms.

Rust in ryegrass

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

In previous years, in northern Minnesota environments, crown rust has been observed after approximately 1,500 GDD and leaf and stem rust at 1,900 GDD. Thus far in the 2013 season we have accumulated 1,422 GDD. If we assume 35 GDD/day we have the potential to see crown rust in ryegrass this week and leaf and stem rust in two weeks. If we experience warmer than normal weather with southerly winds this timeline will shorten and if we are cooler than normal with northerly winds will lengthen this timeline.

The USDA-ARS tracks rust development and movement north from the Gulf of Mexico to the northern plain states. As of June 13th, trace levels of wheat leaf rust was detected as far north as SE Iowa. Rust has NOT been observed in Minnesota as of mid-June. Field scouting will continue to monitor and track the progress of rust as it moves northward. For additional information see the link below for The Cereal Rust Bulletin. The link to this site:

(*http://www.ars.usda.gov/mwa/cdl*)

Next week's newsletter will be released on July 2, 2013.