MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 21, 2015

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2015 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 date. As of July 19th, accumulated GDD for 2015 are 2,770 (adjusted GDD = 2,498), see Table 1. After a couple of cool days early in the week, the projected ten day forecast suggests a continuation of the above normal temperatures. The current forecast projects 6 of the next 10 days will accumulate 40 or more GDD/day!! The long term average GDD for the third week of July is 238 GDD or 34/day.

Table 1. Growing degree days (GDD) for March 2010 to June 2015 near Roseau MN.

Year	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2015 vs. 14**
March	119	0	0	304	7	137	+119
April	367	159	80	370	278	476	+208
May	659	654	640	726	639	707	+5
June	941	964	975	979	898	911	-23
July 1-19	684						
July		1,066	1,088	1,230	1,162	1,174	
Total	2,770^	2,843	2,783	3,609	2,984	3,405	
July 20-30*	392						

* Forecasted GDD at Roseau for the next 10 days.
^ Total GDD for 2015.
^Adjusted GDD (-272 GDD) due to extensive ryegrass leaf desiccation in April 2015 = **2,498**

GENERAL CROP CONDITION

Selected ryegrass fields are turning color which is a sign that ryegrass seed within the seed head has reached physiogical maturity. In these fields, ryegrass plants are now in the dry down phase. Low soil fertility, lighter soil conditions, leaf diseases, other plant stressor, or the plant has reached full maturity are some of the factors that can trigger ryegrass plants to begin the dry down process. To maximize ryegrass seed yield and quality, previous field experience suggests seed moisture should be below 40% moisture before swathing. As the ryegrass plant matures, fields can mature quickly, especially with warm days of late July into August. When ryegrass is close to the 40% moisture level, seed moisture can drop 2% points or more per day! Consult with your field agronomist to help determine the appropriate time for swathing ryegrass as environmental and specific field conditions will influence the actual swathing date for ryegrass.

PEST MANAGEMENT

Grasshoppers and armyworms have been observed in isolated ryegrass fields. Check with your local agronomist or crop scout for insect population levels in your area.

Late season leaf diseases

Leaf & stem and crown rust have been observed in area ryegrass fields. Late season rust expression is common in perennial ryegrass and other grasses. A common question asked this time of the year; does late season rust impact ryegrass seed yield and quality? The answer, it depends. If the ryegrass field is still green and ryegrass plants are in the seed filling stage, the answer will be yes. However, if the ryegrass plants are beginning the dry down phase and the field is projected to be swathed in the next couple of weeks, a fungicide treatment may not be warranted. Consult with your agronomist or fieldman for local experience.

CROP MANAGEMENT

When to swath ryegrass? That is a question often asked by growers. It seems our eyes are drawn to the most mature areas of the field. When making decisions on when to cut ryegrass, make sure a **representative sample is taken from the entire field not just areas that are most mature.** One method to get a representative field sample is to take samples from areas that look mature, from areas that are intermediate and from areas of the field that look green. Note the percentage of the field in each of these categories. This will give you a good overall field estimate of maturity. Once these samples are collected seed moisture can be determined using a microwave oven. If possible, delay swathing until moisture content of the seed is 35 to 40%. Seed moisture content is determined rubbing the seed from the spike and using the microwave oven to remove the seed moisture.

Caution: In addition to the seed sample, place a small amount of water in a microwave safe container. This will prevent the seed from exploding in the oven. Start with a predetermined seed weight (10 grams) and set the microwave oven for 1 to 1.5 minutes. Continue this procedure until the seed weight is constant. For example, if the initial weight was 10 grams and the final weight was 6 grams the seed moisture is 40%.

Next week's newsletter will be released on July 28, 2015.