MINNESOTA TURF SEED COUNCIL
NEWSLETTER
July 10, 2016

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2016 growing season with comparisons to the previous six 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 year to the current calendar date. Thus far in 2016, we have accumulated 2,359 GDD, as of July 10th (Table 1). Last week averaged 252 GDD (36/day). Projected GDD for the next week at Roseau are 236 (33.7/day) compared to the long term average of 35/day for the second week of July.

Table 1. Growing degree days (GDD), March - July 2010 to March - June 2016 near Roseau MN.

Year	2016	2015	2014	2013	2012	2011	2010	2016 vs. 15
March	38	119	0	0	304	7	137	-81
April	263	367	159	80	370	278	476	-104
May	765	659	654	640	726	639	707	+106
June	945	941	964	975	979	898	911	+4
July 1-10	348							
July		1,147	1,066	1,088	1,230	1,162	1,174	
Total	2,359	3,030	2,843	2,783	3,609	2,984	3,405	
July 11-20 *	356							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

Isolated perennial ryegrass fields are beginning turning color which signals the 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, soil compaction, light 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, windy days of summer. 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 seems like an easy question, when it is ready! However, in reality, the timing of when to swath ryegrass has several challenges associated with this management decision. It seems our eyes are drawn to the most mature areas of the field. If cut too early, ryegrass seed samples will be light. If wait too long, a consequence will be increased seed shatter. 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%.

CROP MANAGEMENT

Ryegrass seeded this spring with wheat, (2017 harvest) for the most part, looks good. Wheat straw management is a critical step in ryegrass stand uniformity (in spring seeded ryegrass) and for stand establishment of late summer seeding of ryegrass. More on these two topics in next week's newsletter.

Next week's newsletter will be released on July 19th, 2016.