

**MINNESOTA TURF SEED COUNCIL
NEWSLETTER
June 11, 2019**

RYEGRASS GROWING DEGREE DAYS (GDD)

Ryegrass GDD will be tracked for the 2019 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 calendar year, after snow has melted from ryegrass fields, to the current calendar date.

- Year to date GDD = 1,046 (Table 1)
- Average GDD accumulation for first week of June = 177 (25.3/day)
- Actual GDD accumulation for first week of June in 2019 = 249 (35.6/day)
- Accumulated GDD in the first week of June 2019 was +10.3/day above the long-term average
- Average temperature for the second week of June; high temperature of 70.7 F and low of 46 F
- Average GDD accumulation for second week of June = 186 (26.6/day)
- Projected GDD for second week of June = 190 (27.1/day)
- Forecast for the second week of June projects an accumulation of GDD's close to the long term average

Table 1. Growing degree days (GDD), March - June 2013 to March - June 2019 near Roseau MN.

Year	2019	2018	2017	2016	2015	2014	2013	2019 vs. 18
March	0	0	90	38	119	0	0	0
April	211	184	458	263	367	159	80	+27
May	548	815	679	765	659	654	640	-267
June 1-9	287							
June		1,007	917	945	941	964	975	
Total	1,046	2,006	2,144	2,011	2,086	1,777	1,695	
*June 10-19	291							

* Forecasted GDD at Roseau for the next 10 days.

GENERAL CROP CONDITION

Last week two days with daily high temperatures of over 90F were recorded which is unusual for early June. This extreme temperature may have pushed ryegrass into the heading stage. Ryegrass plants are stretching over the top of wheat stubble with visible ryegrass heads are emerging from the boot. Ryegrass heading is variable within and between fields. Sources of this variability are many, but a few common factors include: time of seeding (spring vs fall), crown injury from environmental conditions (water ponding, winter injury), uneven straw distribution, and ryegrass variety. The current 10-day forecast projects a return to average temperatures for early June. This week is looking to be a busy one for applications of plant growth regulators in ryegrass.

SUMMER GRASS SEED AND HYBRID RYE FIELD TOUR - JUNE 25

In addition to the annual grass seed summer field day, a tour of small plot research and a production fields of hybrid rye will be included on this year's field day on June 25. The hybrid rye tour will begin at 3 pm at the U of MN Magnusson Research Farm with the annual grass seed field tour to follow at 5pm. 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 Hwy 16. More information on specific tour stops will follow in future newsletters.

PEST MANAGEMENT

Many grass seed crops require an isolation strips to be a certified grass seed crop. Kris Folland is the local Field Supervisor for the Minnesota Crop Improvement Association (MCIA). If you have questions or concerns please talk to your grass seed fieldman, seed conditioner or Kris with MCIA (218-791-2156). Bluegrass isolations, as they have been in the past, require a 15' strip for certified seed when bordering other varieties of bluegrass. For certified perennial ryegrass seed, tall fescue, Reed canary grass, Timothy or other cross-pollinated grasses, a 165' isolation strip is required when bordering other varieties of ryegrass. Flags can be placed as a method of isolation at harvest time.

CROP MANAGEMENT

What is the average amount of biomass produced by a ryegrass plant? This is a question being asked now that we are into the window of growth regulator (PGR) timing in ryegrass. This year many ryegrass fields have more of a “thin line” growth than “lush”, or rank growth. Over the last couple decades, ryegrass biomass production has ranged from less than a ton to over 4 tons/acre. Does it still pay to apply a PGR if ryegrass plants are exhibiting thin-line growth? Previous research would indicate that yes, a PGR is still be beneficial even in years with less than average biomass production. The question can PGR rates be reduced and still regulate ryegrass growth? Research with Palisade would suggest rate should be reduced in years with low biomass production and when environmental conditions are stressful to the ryegrass plant. In situations of environmental stress, Palisade can injure ryegrass. With Apogee, research has yet to document a yield reduction from this PGR. Check with your agronomist, or fieldman for local experience.

For more detailed information of grass seed research, annual reports can be found on the web. All the U of MN Grass Seed Research Reports from 1967 to the present are available at the address below.
http://www.mnturfseed.org/html/progress_reports.html

Next week's newsletter will be released on June 18th, 2019.