MINNESOTA TURF SEED COUNCIL NEWSLETTER May 28, 2013

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 566 GDD as of May 26th (Table 1). Last week total accumulated GDD was 153. The short term forecast indicates a warming trend as the projected GDD for next week at Roseau is 191 (27.3/day). Based on this forecast, by the first weekend in June we will have accumulated approximately 757 GDD's for the current calendar year.

Table 1. Growing degree days (GDD) for March 2008 to May 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 | | 726 | 639 | 707 | 515 | 501 | |
| May 1-26 | 486 | | | | | | |
| Total | 566 | 1,400 | 924 | 1,320 | 792 | 709 | |
| May 27- | *191 | | | | | | |
| June -2* | | | | | | | |
| Total | 757* | | | | | | |

^{*} Forecasted GDD at Roseau for the next 7 days.

GENERAL CROP CONDITION

Wild oats in tilled ground have emerged as have common lambsquarters, wild buckwheat and wild mustard. Perennial and winter annuals are growing, although slow due cool spring temperatures. If broadleaf herbicides were not applied last fall, now would be the time to scout ryegrass fields to determine the infestation level of winter annuals, perennial broadleaf weeds (dock, dandelion, clovers) and cool season broadleaf weeds (wild mustard, wild buckwheat, common lambsquarters, smartweeds).

CROP MANAGEMENT

Ryegrass

Dicamba and 2, 4-D are the workhorses for broadleaf weed control in ryegrass. Product rates range from 0.5 to 1 pint depending upon weed size and species. Ryegrass is very tolerant of these two products. Due to the cool spring, plant growth in general, has been slow and weeds have followed this trend. However, with the recent warm up, dandelions are in full flower and shepardspurse is bolting. Weeds grow fast, especially when temperatures raise into the high 60's to low 70's. Regular scouting is essential to determine the best weed control program for your situation.

The early seeded spring wheat has emerged and it won't be too long until herbicides will be applied in wheat. What are herbicide choices if ryegrass has been underseeded with wheat? The results in Table 2 are from U of MN research conducted at the Magnusson Research Farm in 2011.

Table 2. Seeding year ryegrass tolerance and percent stand as influenced by herbicides applied in

spring wheat, Magnusson Research Farm in 2011.

| Herbicide | Rate | Additive* | RG Tolerance | RG Stand % |
|----------------|----------------------|-----------|--------------|------------|
| Achieve L | 0.5 pt. | NIS + 28% | Good | 95 |
| Affinity+2,4-D | 0.6 oz+0.5pt LV6 | NIS | Fair | 75 |
| Assert | 1.2 pt. | NIS | Good | 95 |
| Avenge | 3 pt. | NIS | Good | 90 |
| Axial | 1 pt. | None | Poor | 15 |
| Callisto | 5 oz. | COC + 28% | Good | 95 |
| Everest 70WG | 0.6 oz. | NIS | Fair | 65 |
| Everest 2.0 | 0.9 oz. | NIS | Fair | 70 |
| Express+2,4-D | 0.3oz + 0.5 pt LV6 | NIS | Fair | 70 |
| Nortron | 2 pt. | None | Good | 90 |
| Tecoma | 10 oz. | None | Good | 90 |
| Wolverine | 1.7 pt. | NIS + 28% | Good | 90 |
| Untreated | 0 | None | Good | 100 |

*NIS - Nonionic surfactant (0.25% v/v), COC - Crop oil concentrate (1% v/v), 28% Nitrogen (2.5% v/v).

All herbicides were applied on June 24, 2011. Spring wheat variety 'Samson' was 6-8 inch tall and the perennial ryegrass variety 'Arctic Green' was 1.5 - 2 inches tall (2-3 leaf). Perennial ryegrass stand reductions were taken on October 21, 2011.

Tecoma is the same active ingredient and formulation as Puma.

Buctril at 1 pint/acre was applied to the entire area for broadleaf weed control.

The data in Table 2 indicates perennial ryegrass has good tolerance to several herbicides. However, perennial ryegrass has POOR tolerance to Axial and FAIR tolerance to affinity+2, 4-D, Everest and Express+2, 4-D.

Next week's newsletter will be released on June 4, 2013.