The Bean Report

Your source for soybean and pulse crop agronomy and research.

June 17, 2014

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Rainfall amounts

From June 13-15 ranged from 7-10 mm in SW Manitoba, to 45-90 mm in Eastern/Interlake regions. Rainfall amounts, updated hourly are available from MAFRD's RainWatch site. Many regions are experiencing saturated/flooded soil conditions and crop damage may occur depending on crop species and stage, duration of flooding, and temperatures. Details on crop damage related to flooding.

Soybeans

Soybean emergence progressed well but has slowed down with cool, wet conditions. Soybeans planted in mid-late May are at 1st-2nd trifoliate. Those planted in June are at unifoliate. Many fields were rolled post-emergence at 1st-2nd trifoliate. Some areas of western Manitoba remain unseeded.

Soybeans are more tolerant to saturated soil conditions than most broadleaf annual crops and can generally survive submerged conditions for 48-96 hours. However, waterlogged conditions during vegetative stages can reduce yields by 17-43% (Oosterhuis et al. 1990). Soybean death is more likely to occur if soils were already saturated, and if conditions are warm and sunny during flooding (source: University of Wisconsin).

The critical weed free period for soybeans has been shown to last up until V-4 (Van Acker et al. 1993). This means that herbicide application timing should ensure that the soybean crop is weed-free from emergence to the fourth trifoliate stage to prevent yield loss from weeds. Timing may be especially important this year as weed growth may advance faster than soybeans with the cooler temperatures. Important weeds to scout for in soybean are kochia (glyphosate resistant kochia is confirmed in southern Manitoba) and volunteer canola.

Cutworms have been a problem in broadleaf crops in some regions. For soybeans, there is no well defined threshold for cutworm damage due to their ability to compensate for stand loss. If cutworms are feeding on soybeans, monitor cutworm size and measure your plant stand. If cutworms are >1 inch long, they will pupate soon and cease feeding. The optimum soybean plant stand is 140-160,000 plants/ac.

You may consider spraying for cutworm if your plant population is below 120,000 plants/ac AND cutworms are <1 inch long. However, we are reaching mid-end of June and their feeding stage will be ending soon.

Dingy cutworm—John Gavloski, MAFRD

In the latest episode of **Soybean School West,** we discuss assessing plant population in soybeans using the new MPGA Bean App.

Reports of brown leaf spot and bacterial blight appearing on unifoliate leaves has been observed. Bacterial blight is favored by cool, wet conditions and therefore may spread as the crop advances. Keep in mind this pathogen is cause by a bacteria and cannot be managed with a fungicide.

Optimum plant populations for soybeans and pulses

	plants/ac	plants/ft^2
Soybeans	140-160,000	3.2-3.7
Pintos - *row*	60-70,000	1.4-1.5
Pintos - *solid*	90-100,000	2.1-2.3
Navy/blacks - *row*	90-100,000	2.1-2.2
Navy/blacks - *solid*	130-140,000	3.0-3.2
Kidney/Great Northern	70-80,000	1.5-1.8
Peas	300-350,000	7-8

Dry beans

Dry bean seeding wrapped up last week and crops were emerging well. However, heavy rainfall may have result in crop damage. Dry beans are very susceptible to flooding and saturated soil conditions. Plant death, stunting, reduced yield potential and delayed maturity may occur if under saturated soil conditions for 24 hours. Wet soil conditions may also increase iron chlorosis and disease incidence (bacterial blight, root rot).

Herbicide spraying will get underway as fields dry and beans reach the 1st-2nd trifoliate. Herbicide choice should depend on weed species present and market class. Environmental conditions are also important as crop damage and/or reduced efficacy can occur under both cool and hot conditions. Talk to your local retailer about product choice and performance. Weeds of concern in dry bean are commonly wild buckwheat, kochia, redroot pigweed, lambsquarter, annual nightshades, biennial wormwood and volunteer canola.

General tips for cool weather spraying (by Nasir Shaikh, MAFRD weeds specialist)

NEW! Soybean Insect and Disease Scouting Calendar—page 3

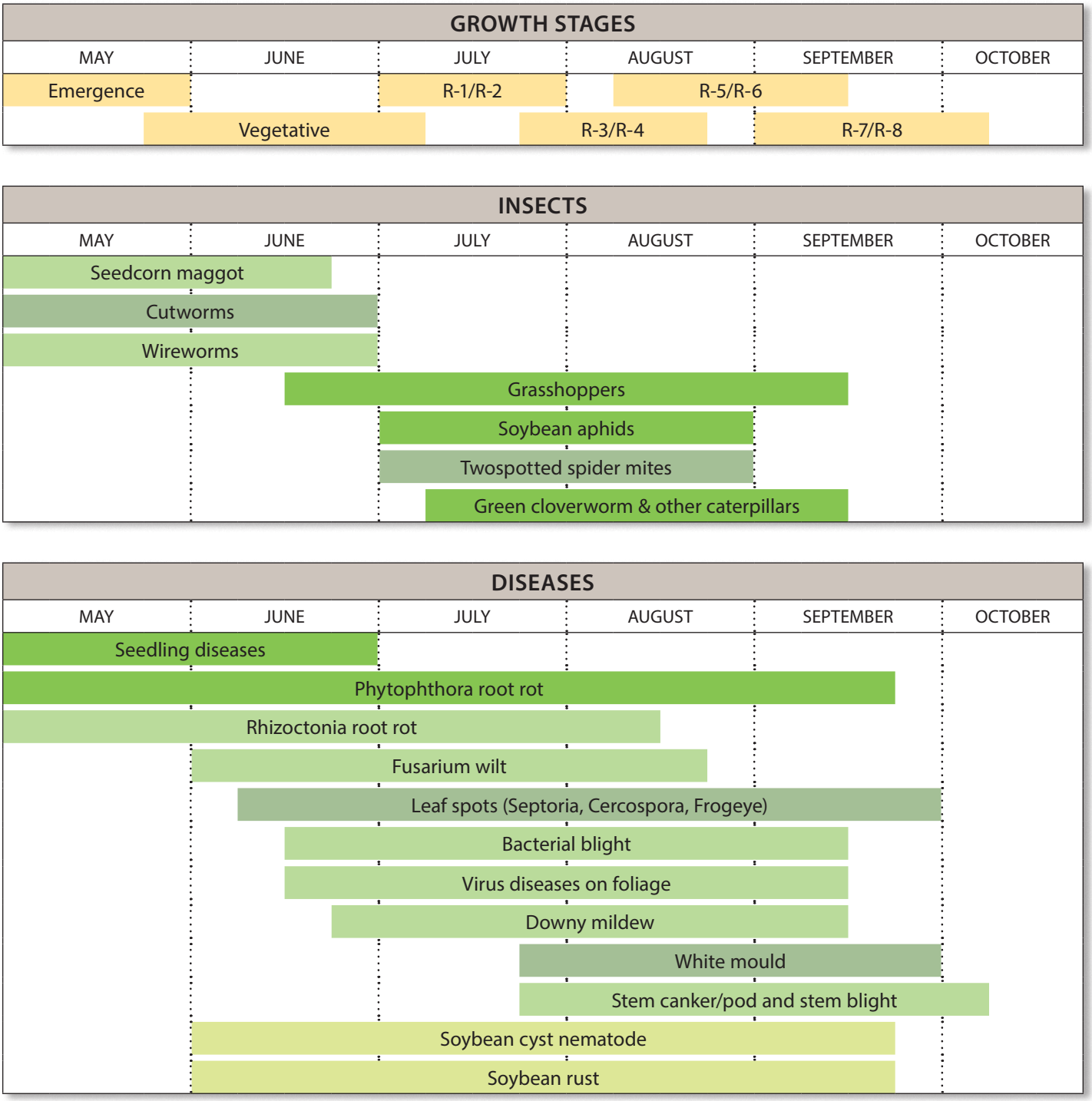
Print this calendar and keep it in your truck to guide your soybean scouting throughout the growing season!

Manitoba Pulse Growers Association Inc.

Soybeans • Dry Beans • Peas

2014

Soybean Insect and Disease Scouting Calendar



Potential Impact on Soybean Production and Quality in Manitoba

High | Medium | Low | Not in MB yet