The Bean Report

Your source for soybean and pulse crop agronomy and research.

September 19, 2014

www.manitobapulse.ca

Almost ready for harvest. At R-8 (Full Maturity), 95% of pods are brown and seed moisture is <30%.

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Crop Update

The first reported soybean harvest began September 13, a few days behind 2013. Approx. 50% of soybeans are at R-7 (physiological maturity) and about 2 weeks from harvest. Over 30% are at R-8 (full maturity) and will be harvested in the next 10 days. It's important to monitor your soybeans to identify when they reach R-8 (95% brown pod, 30% moisture), since it will only take 5-10 days to dry down to 14% moisture and timely harvest will minimize losses. Soybeans can be stored at 14% moisture but should be near 12% for safe long-term storage. About 20% of soybeans are still at R-6.5 (full seed) stage and need 2-3 weeks of good weather. These fields are mainly in the western and Interlake regions.

Dry bean harvest is estimated to be 30% complete. Harvest is progressing well in the Morden/Winkler/Carman area, and is starting in the Portage area. Dry bean harvest is late compared to previous years. This is a result of a few factors: late planting and cooler temperatures, but also an increase in acres planted to longer varieties.

Field pea harvest is nearly complete. Below average yields have been reported and harvested acres will be markedly lower than planted acres, mainly due to severe root rot.

Impact of Frost on Soybeans

We narrowly escaped a killing frost September 12-15, giving some much needed time for some soybean crops. A light frost affected a fair amount of the soybean crop, killing leaves in the top canopy but overall the effect of last weekend's frosts are minimal for the soybean crop. Damage does not appear to have penetrated the pods, but time will tell if seeds in the upper pods mature normally. The key message is that **soybean crops will be harvestable as long as they had reached R-6 (full seed)** before any frost events. There may be some penalties to yield (reduced seed number and size) and quality (green seed and frost-damaged seed), the extent of which will be determined in the coming weeks. Information on assessing seed damage will be available in the coming weeks from MPGA. A few reports of severe damage have been received from south-central Manitoba.
For information on frost risk to soybeans and management considerations, refer to the Sept 10 frost bulletin or watch the latest Soybean School West video.

Harvest Samples Required to Measure Quality of Manitoba Soybeans

Soybeans are traded globally based on protein, oil and carbohydrate levels. The better quality, the more value. Feed and food markets look for high protein while crushers look for oil content. It is very important that Manitoba soybean quality is quantified and marketed accordingly. Help us determine the quality of the 2014 crop by submitting a harvest sample. The Canadian Grain Commission (CGC) offers free delivery, post-age and an official grade with their Harvest Sample program (sign up now before harvest). In the past, the CGC has not received enough samples to develop a true representation of Manitoba soybean quality.

Soybean Desiccation Considerations

Current weed problems in soybeans include lambsquarter, redroot pigweed, biennial wormwood and late flushes of volunteer canola. Soybeans are not generally desiccated in Manitoba (mother nature does this for us), but some growers are considering it this year due to weed pressure, crops nearing harvest and no killing frost as of yet. Growers may choose to manage these weeds if they pose a problem for harvest (green material) and want to reduce viability of the seed produced.

- What is your goal—dry down or weed control? Systemic herbicides will control weeds better by moving through the plant and inhibiting seed viability but these are slow acting. Contact herbicides will dry down plant material fast but may not kill the entire plant.
- Are the weeds confined to low areas? In some cases, the weed pressure is high only in low areas that recovered late—so the soybeans are still green compared to the rest of the field. You may consider harvesting these areas at separate times, since timing for desiccation will be different. And desiccating soybeans too early will reduce yield.
- What are the weeds and how big are they? Some weeds are very difficult to control at large growth stages (i.e. biennial wormwood) therefore complete control should not be expected. Swathing a couple days before harvest may also be an option.

All upper pods should be yellow with no white membrane

Timing for soybean desiccation should be when all pods have lost their green color and at least 65% have reached brown pod. The best way to determine this is to collect pods from the top 4 nodes of plants throughout the field—open the pods and make sure that there is no white membrane around the seed in any of the pods. Desiccating too early will reduce yield.

Always refer to product labels for application rates, adjuvants etc.

Registered products for use as a harvest-aid or desiccant in soybeans in Manitoba

Product (chemical)	**Group**	**Notes**	**Pre-Harvest Interval** (days)
Aim (carfentrazone-ethyl)	14	Contact for desiccation, rapid plant dry down. Not for use on crops intended for seed.	3
Glyphosate	9	Systemic for perennial weed control. Not for use on crops intended for seed.	Min. 3-4 recommended
Cleanstart (glyphosate + carfentrazone)	9 + 14	Contact + Systemic. Not for use on crops intended for seed.	3
Reglone (diquat)	22	Contact for desiccation, rapid plant dry down	
Heat (saflufenacil)	14	Contact and systemic activity	3

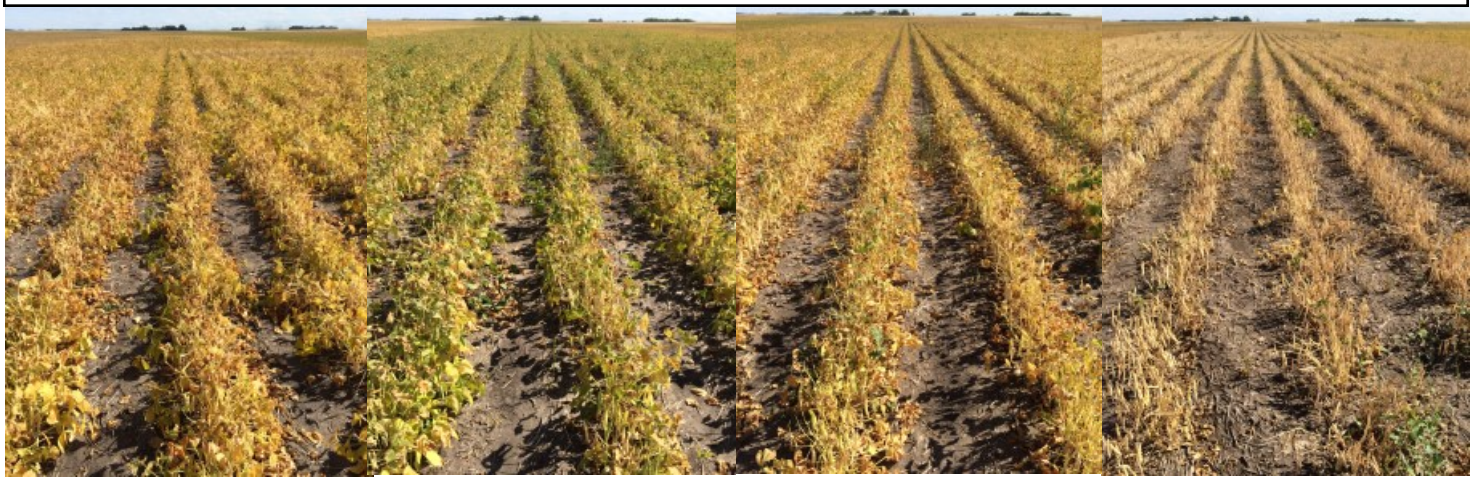
Comparing Navy and Pinto Bean Varieties for Direct Harvest vs. Undercut

There is increased interest in direct harvesting dry beans but growers are limited by suitable varieties. Dry bean varieties need several characteristics to work well in our production systems: 1. high yielding, 2. contain quality characteristics desired by consumers and buyers, 3. disease resistance and now we are looking for plant architecture that will facilitate direct harvest. Overall, dry beans are short plants that pod low to the ground—however there are some varieties available that are more upright and may facilitate direct harvest. The objective of this experiment is to compare traditional varieties to new upright varieties in both an undercutting and direct harvest system (flex draper).

September 12, 2014—The photos below illustrate clear differences in maturity and plant architecture (height, bushy vs. upright, pod height). The pinto bean trial is comparing Windbreaker, Maverick and La Paz.

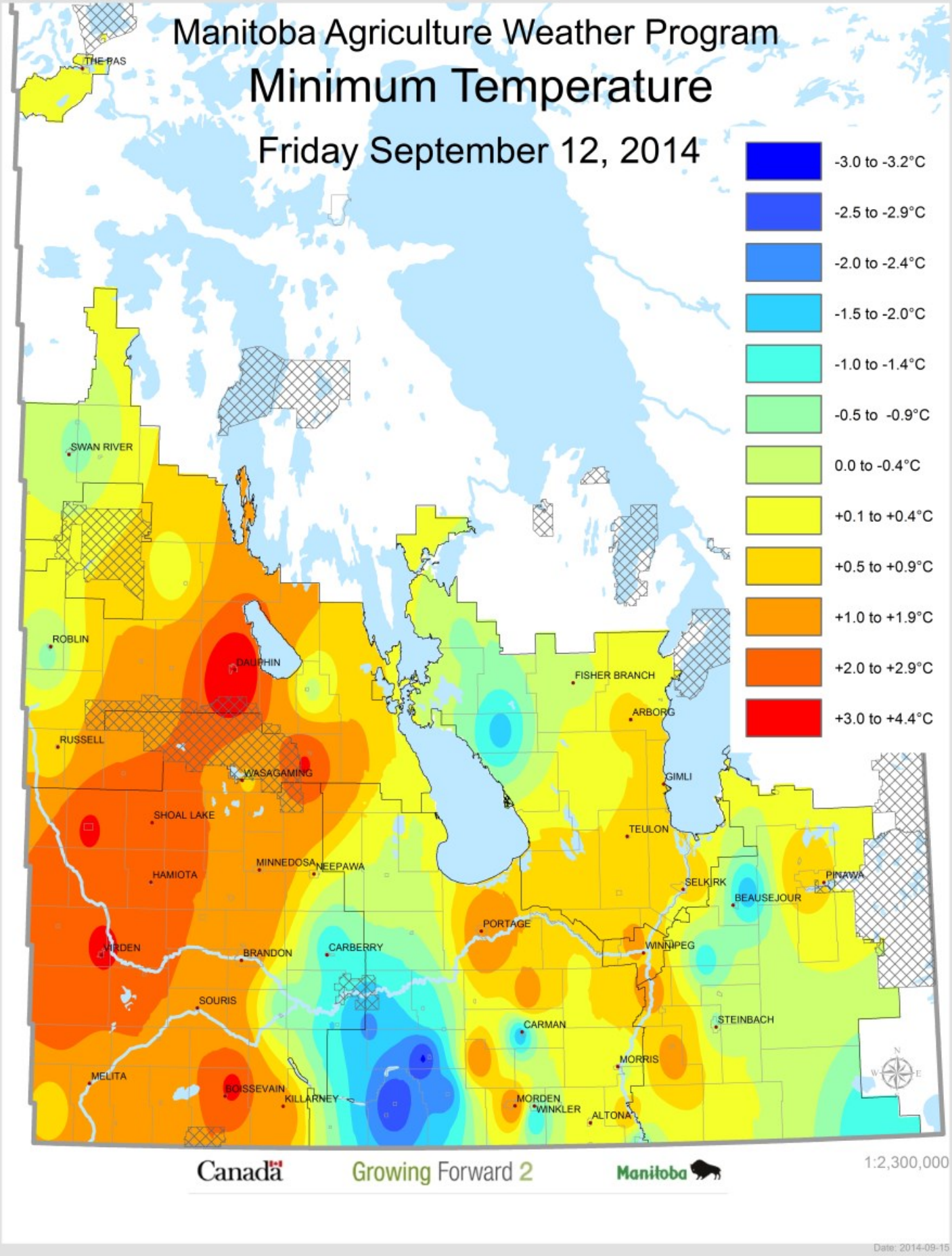
- T9905 is a medium-early maturing upright short vine-type with higher pod clearance.
- Lightning is a late maturing indeterminate upright bush-type with high pod clearance.
- Vigilant is a medium-early maturing upright short vine-type higher pod clearance.
- Envoy is the traditional early-maturing determinate bush-type with low pod clearance.

T9905	Lightning	Vigilant	Envoy



Current Dry Bean Research

For more information on current dry bean research, click here.


Manitoba Agriculture Weather Program
Minimum Temperature
Friday September 12, 2014
-3.0 to -3.2°C
-2.5 to -2.9°C
-2.0 to -2.4°C
-1.5 to -2.0°C
-1.0 to -1.4°C
-0.5 to -0.9°C
0.0 to -0.4°C
+0.1 to +0.4°C
+0.5 to +0.9°C
+1.0 to +1.9°C
+2.0 to +2.9°C
+3.0 to +4.4°C
THE PAS
SWAN RIVER
ROBLIN
DAUPHIN
RUSSELL
WASAGAMING
SHOAL LAKE
HAMIOTA
MINNEDOSA
NEEPAWA
VIRDEN
BRANDON
CARBERRY
SOURIS
MELITA
BOISSEVAIN
KILLARNEY
FISHER BRANCH
ARBORG
GIMLI
TEULON
SELKIRK
PINAWA
BEAUSEJOUR
PORTAGE
WINNIPEG
CARMAN
STEINBACH
MORRIS
MORDEN
WINKLER
ALTONA
Canada
Growing Forward 2
Manitoba
1:2,300,000
Date: 2014-09-15