


The Bean Report

Your source for soybean & pulse crop agronomy & research

 @MbPulseGrowers
manitobapulse.ca



October 7, 2013

This week....

- Good yields and harvest progress
- Residue management survey
- Edible bean harvest methods
- Harvest losses are high
- Combine adjustments that may save you money
- Soybean Grain Grading Guide

Crop Conditions

Harvest progress was delayed last week with some areas receiving 1-3" of rain. Soybean harvest is estimated to be 50% complete province wide with significantly more progress in the Central/Eastern region compared to Western Manitoba. Yields range from 30-50 bu/ac. Longer maturity varieties are out yielding early varieties. This year we were fortunate to have a late killing frost.

Dry bean harvest is estimated to be 80% complete province wide, with more progress near Altona/Winkler compared to Portage.

What is your fall residue management strategy following soybeans? [Take the survey here!](#)

The last Bean Report for the 2013 growing season will be Monday, October 21st. If there is anything you would like to see in this issue or to submit harvest tips, please contact me at kristen@manitobapulse.ca

Cut or Direct Harvest Navy Beans?

For the 3rd year, MPGA funded field scale harvest method trials for navy beans. A complete report with a summary of data from all site-years is expected in 2014 and will be included in an upcoming issue of [Pulse Beat](#).

A summary of similar trials in North Dakota is compiled [here](#) and presents similar results to those being found by Agri-Skills, the company conducting the trials in Manitoba.



Did you miss an issue of The Bean Report? [View previous issues here.](#)

Soybean harvest losses may be higher than you think

Previous issues of the Bean Report have encouraged growers to assess harvest losses. I decided to participate by taking a baseline survey of harvest losses in some Manitoba soybean fields. The table below describes harvest losses from 7 fields. More fields will be added as harvest continues.

Field	Header	Stubble Height inches	Pre-Harvest Losses	Shatter loss (loose seeds/pods)	Stubble loss (pods on stubble)	Stalk loss (pods on loose stalk)	TOTAL	Yield	% Loss
				(bu/ac)					%
1	Flex + air reel	4	-	2.4	0.6	0.1	3.1	42	7.4
2	Flex + air reel	4	-	3.3	2.6	0.6	6.5	45	14.4
3	Flex	3	0	1.8	1.0	0.3	3.1	45	6.9
4	Flex	2	0.3	3.1	0.0	0.1	3.2	-	-
5	Rigid	2	-	2.4	0.3	0.0	2.7	42	6.4
6	Flex	2	-	2.3	0.1	0.1	2.5	42	5.9
7	Flex	4	0.3	4.0	1.0	0.5	5.5	35	15.7
Average		3.1	0.2	2.8	0.8	0.2	3.8	42	9.4

⇒ **The average harvest loss is 3.8 bu/ac or ~ \$48/ac.** Harvest losses will never be zero. We can see from this survey that the lowest losses were around 6%.

⇒ The majority of losses are from *shatter* followed by stubble. Observations this year are that plant height and pod height are low compared to previous years, therefore harvest losses we are observing are also likely higher than normal.

⇒ Pre-Harvest losses were minimal but may increase as harvest is delayed.

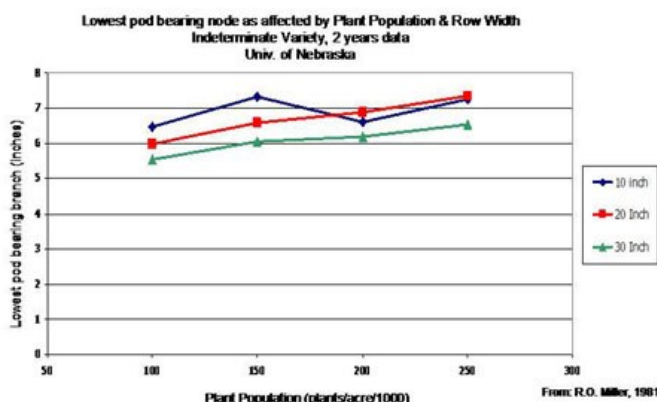
⇒ Harvest losses are different among flex headers.

⇒ Stubble loss increases as stubble height increases although this is also affected by variety.

Ex. field 1 and 2 were harvested with the same combine, same operator, on the same day but were two different varieties. Stubble losses were substantially different and was supported by the farmer's observations that pod height was higher in field 2.

⇒ There are several factors that affect pod height.

Planting date, row spacing, plant population, variety, maturity and environment can all affect the lowest pod height in soybeans. In general, delayed planting, wider row spacing and early varieties reduce pod height.



This figure shows that increasing plant population and decreasing row spacing tends to increase pod height

Grower Comments

Combine Adjustments

These simple adjustments helped these two farmers lower their cutting height, reduce losses and put \$\$ in their pockets. Do you have helpful tips? Submit them via email.



Soybean Grain Grading Guide

The table below lists the grading criteria for soybeans in Canada. *Green, frost damaged and shrivelled seed is considered damaged and the maximum allowed is 2% for grade 1 and 3% for grade 2.* Before the rains, some soybeans came off quite dry so cracked and split seed coats may be another important grading factor.

Another question is whether or not green seeds will ripen. First, investigate the inside of the seed and seed coat. If the greenness is limited to the seed coat, they may turn yellow in the bin and you may not be penalized. For more information on harvesting soybeans in late fall, including issues with variable maturity, [click here](#).

Soybeans, Canada Yellow, Green, Brown, Black or Mixed (CAN), continued

Grade name	Damage		Downy mildew %	Other colours or bicoloured other than for mixed soybeans %	Foreign material					Splits %
	Heat-damaged or moldy %	Total %			Ergot %	Excreta %	Stones %	Foreign material other than grain %	Total %	
No. 1 Canada	Nil	2.0	2	2	0.01	0.01	Nil	0.1	1.0	10
No. 2 Canada	0.2	3	10	3	<u>0.025</u>	0.01	0.03	0.3	2	15
No. 3 Canada	1.0	5	No limit	5	0.1	0.01	0.1	0.5	3	20
No. 4 Canada	3	8	No limit	10	<u>0.25</u>	0.01	0.1	2	5	30
No. 5 Canada	5	15	No limit	15	<u>0.25</u>	0.01	0.1	3	8	40
Grade, if No. 5 specs not met	Soybeans, Sample Canada (colour) Account Heated or Mouldy	Soybeans, Sample Canada (colour) Account Damaged		Appropriate mixed grade	Soybeans, Sample Canada (colour) Account Ergot	Soybeans, Sample Canada (colour) Account Excreta	2.5% or less—Soybeans, Rejected (grade) Account Stones, or Soybeans, Sample Canada (colour) Account Stones Over 2.5%—Soybeans, Sample Salvage	Soybeans, Sample Canada (colour) Account Admixture	Soybeans, Sample Canada (colour) Account Admixture	Soybeans, Sample Canada (colour) Account Splits

Note: The colour is added to the grade name.