



THE PULSE AGRONOMY NETWORK
PARTNERSHIP WITH INDUSTRY

PAN ALL PULSE BULLETIN #21 – JULY 29, 2005

What's in the PAN –

Harvesting Top Quality Pulse Crops

Harvesting Top Quality Pulse Crops by Ray McVicar, SAF.

The following are excerpts from Ray's article in June 2005 issue of Pulse Point.

The complete story can be found by clicking the following link to the SPG web site.

http://www.saskpulse.com/ppoint/jun05/harvesting_top_quality_pulse_crops.pdf

The weather at harvest time can really take quality control out of the hands of growers, but following some tried-and-true procedures and carefully monitoring the crop throughout the growing season can greatly improve seed yield, colour and quality.

1. Land rolling compresses soil ridges and reduces the risk of "earth-tag" on the seed. In years where the weather conditions put the crop on the ground, having a smooth surface to work with can really pay off. More growers are using a land roller for more than just pulses...
2. Plant diseases such as ascochyta blight can often cause discoloured seed. In-season monitoring of crops is the best way to watch for these problems and to know whether or not to take action to prevent the spread of the disease onto the pods. Protecting the crop from diseases is a great way to reduce the risk of yield and grade loss.
3. Pick-up reels and/or lifter guards are standard issue on pulse harvesting equipment.
4. Narrow-row dry bean is typically swathed when about 50-60 percent of the leaves have dropped and 50-60 percent of the pods have turned colour from green to the buckskin stage. Swathing at this stage overcomes variable maturity caused by sprayer wheel tracks and uneven, rolling topography, and has greatly reduced harvest losses in narrow-row bean production.
5. Research at the Agriculture and Agri-Food Research Station at Swift Current is looking into the best way to manage slow-to-mature chickpea crops.
6. Desiccants do not mature the crop but provide quicker dry-down which can be especially important with pulses where a quick removal from the field is needed to reduce the risk of seed discolouration.
7. Glyphosate products are registered for pre-harvest weed control in dry bean, lentil and pea. Glyphosate does not desiccate the crop. Application of glyphosate for pre-harvest weed control on unregistered crops such as chickpea should not be done.

8. 8. Flex-headers and air reels can be added to combines to reduce losses and increase the speed of straight-cutting pulse crops.
9. 9. Peeled and chipped seeds quickly cause the loss of a grade, but can be reduced by fine-tuning the combine. New rub bars and concaves should be “worn in” on other crops before tackling pulses.
10. 10. The clean grain, return and unloading augers should be properly adjusted to reduce sharp edges. Augers should be operated full and at low speeds.
11. 11. Always remember to thoroughly clean your grain auger and bins before harvest time to eliminate the risk of contamination with treated seed. The same is true for the black and discoloured seeds around the bin door or blending this year’s crop with the crop from a previous year.
12. 12. Most pulse crops are graded on colour, so keep off-colour seeds separate.
13. 13. Pulse growers using long-term storage to help their pulse marketing plan can also make good use of a belt conveyor. Pulse crops often need to be given a rotation in the bin to prevent spoilage, and the use of a conveyor can accomplish this with very little seed damage. If you are in the need of a new auger, investigate the idea of moving to a belt system. Damage from augers can be reduced if the moisture content is higher than 14 percent. That’s why pulse crops are often combined at 18 percent moisture and then placed in aeration.
14. 14. The red lentil splitting industry prefers product that has a moisture content below 13 percent to improve the efficiency of their split-ting plant, so check with your red lentil buyer to find out if they have any seed moisture content instructions.

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