



THE PULSE AGRONOMY NETWORK
PARTNERSHIP WITH INDUSTRY

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Submitted by
Ron Heller, RTL
Vermilion, AB
ph: 780-853-8262

Speed *kills* much of what is to be gained with one-pass low disturbance direct seeding (LDS). Even small incremental adjustments beyond ½ mph can cause significant operational deficiencies while direct seeding.

- 1. In general, operators should target ground speeds below 5 miles per hour to reduce the risk of compromising the precision-placement of seed and fertilizer in a LDS system.**
 - In a double shoot system, excessive speed may result in uneven seeding depth and mixing of fertilizer with the seed.
 - Increasing speed risks seed damage, inaccurate seed-drop within the furrow and along the row length creating spaces and inadequate plant counts.
 - Shaking of wing-ends, nosing-back of shanks, opener and implement skewing or skidding, component damage or excessive wear and uncontrolled soil displacement are all results of too much speed while direct seeding. Increased field roughness may also result.
 - Plugging the air drill may occur with high volume rates (i.e.: peas @ 3 bushels/acre) or seed bounce with tiny seeds (i.e.: canola @ 5#/acre). The wider the seeding tool and lower the SBU (i.e.: wide row spacing with narrow opener width), the more certain problems will arise with more speed.
 - Damp crop residue and surface-wetting from showers and heavy dew usually means you have to slow down to reduce clumping and dragging. Field finish and sufficient seed-to-soil contact are greatly affected by soil moisture and speed, mainly to do with controlling soil disturbance in the seeding zone (soil-throw and residue flow around the openers, furrow firming and closure, etc.).

- Wider spacing between seeding assemblies (shanks), narrower openers, double-shoot (perhaps with the option of a larger tank) and wider implements will contribute to *efficiency* without going faster.
- 2. Growers should be *outstanding* in their field.**
- Carefully observing and stopping to check the interaction of residue clearance and soil disturbance beneath and behind a direct seeding implement is an educational opportunity, not a time-waster.
 - Four miles per hour may seem slow (switch it to 6.5 kph if it helps), but that is my recommended average seeding speed to calculate how long it could take to seed the crop.
 - Patience and confidence must prevail. If there is (seemingly) not enough time to do the job right the first time, will there be time to do it again?
- 3. More to “speed” than acres per day.**
- Flexible cropping is an essential step. When every acre doesn’t have to be in the ground within 10 days, the spring rush can take on a calmer, slower pace. Harvest workload may also be improved. For example, peas in rotation usually respond well to early seeding and will compliment an extended harvest with earlier maturity than wheat or canola.
 - It’s better to know the crop was fertilized and planted to the best of your ability, rather than just to be “done seeding”.
 - Several homepage references have recently been posted on RTL’s website, www.reducedtillage.ca, to assist growers in their preparation for direct seeding this spring.

PAN 500

- I'm pleased to announce that we now over 500 members online with the Pulse Agronomy Network. If there is anyone in your organization who would like to receive the PAN directly, have them email me with their contact information... simple as that.
- Remember - if you see an agronomic threat in the field, please let us know!

Take care and have a good spring...

Earl Greenhough
PAN Editor / Extension Director
Alberta Pulse Growers
780-980-4360

We encourage you to share the PAN information with others. In return, we ask that you list the source as the Pulse Agronomy Network.

If you no longer wish to receive the PAN Bulletins and Pest Reports, please reply to the sender with "Unsubscribe PAN" in the subject line.