



THE PULSE AGRONOMY NETWORK
PARTNERSHIP WITH INDUSTRY

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Crop Residue... Is It Ready For Seeding?

Reduced Tillage LINKAGES Agronomists

The 2004 harvest was a huge challenge for many farmers. They are now in the final stages of preparation for planting the 2005 crop. In most cases, little fall work was done. **Without proper management, unruly residue can lead to trouble this spring.** The uncertainty about how to achieve the required field prep coupled with time constraints this spring may lead to compromises in agronomy. Understanding the issues and some management strategies may help when you are discussing cropping plans with growers.

Lets look at some probable scenarios faced by growers this spring...

Un-harvested crops:

- The challenge is to salvage the crop, prepare the seedbed AND seed in a timely manner.
- Growers may have to forfeit plans for growing wheat, malt barley, canola or peas on some fields.
- The key risk is a delayed spring seeding, resulting in late crop maturity.

Poorly distributed crop residue:

- This is not just unique to unfavourable harvest conditions. Direct seeders have seen the value of replacing “primary” tillage with “premium” combine straw choppers and chaff spreaders.
- Chaff won’t move very far once dropped on the ground, and, if concentrated can create poor seedbed conditions. Heavy, tough residue conditions require extra attention.

Novice or non-direct seeders:

- Direct seeders have coined the phrase “*residue management begins at harvest.*” The success of direct seeding depends on keeping crop residue “*friendly.*”
- The need for patience and perseverance is key for first-time no-tillers. In this case, they may be looking at one pass seeding to make up for lost time. Advise they proceed slowly.

Ruts:

- The amount and depth of ruts will influence what remedial action is required. Growers can seed straight into some rutted fields, as the seeding operation will do some levelling.

- Some tillage may be needed to smooth out the field. Keep tillage to a minimum and only in areas of the field that need it.

Tactical ABC's of being behind the crop “residue eight-ball.”

Heavy harrows:

- Useful for poorly chopped, lodged or matted straw. Not recommended for pea or flax stubble.
- **Straw must be dry and brittle to avoid bunching.**

Oscillating harrows:

- Sometimes referred to as “crazy” harrows, this implement wobbles through heavy residue while spreading it out and avoiding clumps.
- Slower than heavy harrows, it will handle wetter conditions and considerable amounts of windrowed straw, **with patience.**

Rotary harrows:

- Designed to mulch surface residue and soil without clumping. Some growers are able to manage matted, well anchored straw by fluffing and drying it out with timely rotary-tine harrowing.
- The shallow mixing action reduces soil drying and stimulates weed seed germination.

Baling or stacking:

- In some cases this may be better than harrowing to expedite a pre-seed burnoff or some other field operation requiring well-managed residue conditions.

Mowing or chopping:

- Some emergency procedures include flail and rotary mowers.
- Swathing or cutting & raking to windrow the residue for pickup by a forage harvester with the spout removed is another option.

Direct seeding:

- Remember that narrow openers and wide row spacing provide *peace of mind* when it comes to residue clearance.
- **A proven direct seeding principle is that the first time through is the easiest!** Understanding this makes standing stubble, well-distributed crop residue, and undisturbed soil all *essential* elements for successful direct seeding.

Other strategies to handle a rushed spring:

Plant a short season crop- feed barley or oats that can be seeded later are reasonable choices.

Annual forage crops - silage or green/yellow feed may be an option.

Chem fallow - balance this with production budgets and cash flow.

Fall seeded crops - direct seeding can really enhance the success of these crops.

Rotate to perennial forages - undisturbed, moist, weed free stubble without a “smother crop” or tillage makes a perfect seedbed for grass and legume crops (even into late June)

All the best as you enter the field this spring!

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