

# Manitoba Pulse Growers Association On-Farm Network

## SOYBEAN RESIDUE MANAGEMENT Replicated Strip Trial Protocol

**Objective:**

The purpose of this project is to quantify the agronomic impacts of fall soybean residue management practices on a subsequent corn crop in replicated strips across the field.

**Brief Summary:**

- Growers will apply four randomized replications comparing four different fall soybean residue management practices: i) Current tillage (Disc/Cultivator), ii) Vertical till (high residue), iii) Vertical till (low residue), and iv) No-till. An example is shown on the right.
- The **width** of a strip must be at least as wide as the planter and combine pass. **Length** should be not less than 200m, with a target of 400m.
- Planting and spraying will occur in same direction as tillage treatments. Example is shown on the right.
- Harvesting must ensure at least one “pure” combine pass from each treatment (not mixing yields from two different treatments).

Rep 1	1	Vertical till - high residue
	2	Disc
	3	Vertical till - low residue
	4	No-till
Rep 2	5	Vertical till - low residue
	6	No-till
	7	Vertical till - high residue
	8	Disc
Rep 3	9	No-till
	10	Vertical till - high residue
	11	Vertical till - low residue
	12	Disc
Rep 4	13	Vertical till - low residue
	14	No-till
	15	Disc
	16	Vertical till - high residue



**Grower Requirements:**

- Plant corn on 30-inch rows in same direction as tillage treatments.
- Areas containing waterways and headlands should be avoided. All other factors in the trial area must be managed the same (planting date, variety, crop protection, etc.).
- **If possible**, accurately record where all treatments were applied using GPS mapping equipment.
- All treatments must be harvested on the same day in the same direction as tillage treatments (with rows).
- If available, harvest with a calibrated yield monitor equipped with GPS.
- Allow MPGA and University of Manitoba to use submitted and collected data for research, educational and informational purposes.

**University of Manitoba Agrees to:**

- Be available when applying fall tillage treatments, planting and harvesting.
- Provide tillage equipment that farmer does not have access to.
- Take various soil and crop phenology measurements starting in the fall and continuing until harvest.
- Provide a report analyzing the treatment differences.
- Keep data in a confidential manner that can't be linked back to the individual producer by other parties.
- Make this **minimum work for farmers**.

**Benefits to the Farmer:**

- Access to latest research which can be adapted to their farm.
- Creating a crop production database for your local area.
- Learn what works and what doesn't, what is profitable and what isn't.



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Greg Bartley  
204-750-1643  
umbartle@myumanitoba.ca