No-Till vs Conventional Till & Soil Health

No-Till: a different system – a different soil

What things change when you stop tilling the soil?
- Soil pores remain continuous
- Soil aggregates form and are not destroyed
- Soil Food Web increases and diversifies
- Weed seeds are not planted
- Water is captured and stored
- Bulk density increases slightly; then stabilizes
- Soil fungi and earthworms increase
- Micro arthropods increase (>20% of nutrient cycle)

Agricultural soils do not have a water erosion/runoff problem; they have a water infiltration problem.

Beyond the Beginning

The Zero Till Evolution
3rd in a series

Manitoba - North Dakota Zero Tillage Farmers Association 2011

No-Till – Residue left on the surface

The key isn’t how much rain falls, but what happens after it falls.

Living Plants and Crop Residues are needed to protect the soil ecosystem from water and wind erosion.

Ray the Soil Guy

Impact of disturbed Aggregates

Physical Disturbance: Tillage induces the native bacteria to consume soil carbon; byproduct is CO₂.

PHYSICAL DISTURBANCE: Tillage destroys soil habitat and reduces soils capacity to function