

**Residue Management, No-till, Strip-till...the** management of the amount, orientation, and distribution of crop and other plant residues on the soil surface year-round. Crops are grown in narrow slots or tilled or residue-free strips in soil previously untilled by full-width inversion implements.



Residue remaining on a corn field, photo courtesy USDA – Natural Resources Conservation Service

## **Purposes**

This practice can achieve the following purposes:

- To reduce sheet and rill erosion**
- To reduce wind erosion**
- To maintain or improve soil organic matter content**
- To conserve soil moisture**
- To manage snow cover to reduce blowing and drifting**
- To provide food and escape cover for wildlife**

## Benefits

No-till and/or strip-till systems can provide numerous soil and water quality benefits. Due to the protective residue left on the surface of cropland, less water runoff is experienced during rainfall events, and soil erosion and sedimentation of nearby waterways are reduced. Soil tilth, organic matter, and soil organisms increase, ultimately resulting in increased soil productivity.

## Applications

This practice applies to all cropland and other land where crops are grown.

## Design and Installation

No-till and strip till are similar systems that manage crop residue. In a no-till system, the residue is left undisturbed from harvest through planting except for narrow strips that cause minimal soil disturbance. No-till is also referred to as zero-till, slot-till, or direct seeding.

In a strip-till system, the residue is often left undisturbed from harvest through planting except for strips up to a third of the row width. These strips are cleared of residue or tilled for warming and drying purposes, either before or during the planting operation. This practice is also referred to as row-till, zone-till, or strip-till.

When planning a no-till or strip-till system, consider the soil type and crop rotation of the cropland to be managed. In addition, nutrient

and pest management practices may need to be adapted as higher levels of residue are maintained. Different equipment may also be required depending on the type of crop residue management planned.

## Maintenance

Since this is an annual practice, no maintenance considerations are available.

## Relative Cost

**Installation**      low ● ○ ○ ○ ○ high

**Maintenance**      n / a

## For Additional Information...

Visit the Indiana NRCS office online at <http://www.in.nrcs.usda.gov/>, see the Indiana Job Sheet or the Field Office Technical Guide (FOTG) standard for (329A) Residue Management, No-till, Strip-till, or contact your local USDA-NRCS office

*Local USDA-NRCS contact information*