Crop Residue Management
No Till/Strip Till

Residue management, no till/strip till, is managing the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops in narrow slots (or tilled or residue free strips) in soil previously untilled by full-width inversion implements.

Crop residue management typically is a year-round system beginning with the selection of crops that produce sufficient quantities of residue and may include the use of cover crops after low residue producing crops. Crops planted and produced with crop residues left on the surface offer the most benefit to natural resources and can provide significant benefits to production.

The Benefits of No Till/Strip Till

- Reduces soil erosion
- Improves surface water quality
- Improves soil quality
- Sustains and improves long-term productivity
- Reduces release of carbon containing gases into the atmosphere
- Saves fuel
- Reduces machine wear
- Saves time
- Requires less labor
- Improves air quality
- Protects seedlings from soil blowing
- Conserves soil moisture
- Improves water infiltration
- Reduces air pollution
- Suppresses weed seed germination
- Enhances wildlife habitat
- Increases soil organic matter
- Increases cation exchange capacity
- Saves nutrients that could be lost through runoff and erosion.

South Carolina Crop Residue Management – No Till/Strip Till Conservation Practice Job Sheet

Natural Resources Conservation Service
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Tips on Managing for Success With No Till/Strip Till

- Soil test and apply lime to adjust pH and phosphorus, as needed, prior to beginning the no till/strip till practice.
- Cut small grains high to leave residue standing and reduce the amount of residue on the ground.
- Use a straw chopper and spreader on the combine to minimize windrowing.
- Mow cotton stalks with a flail type mower, leaving stalks about six inches high.
- Plant at an angle to the row pattern of the previous crop.
- Attach a residue manager to the planter to clean crop residues from the row.
- Sharpen coulters, as needed, to facilitate cutting of residues.
- Select coulter types that will cut through residues (notched, smooth coulters are typically the best suited for cutting residues).
- Increase the pressure on the coulter to cut residues – tighten tension springs and add weight to the planter.
- Mow or bale straw from windrows.
- Wait to plant until the dew has dried from crop residues.
- Plant cover crops as needed to provide adequate residue.
- Assess soil compaction and use deep, non-inversion tillage to shatter compacted layers.
- Apply a contact herbicide to kill competing vegetation approximately two weeks prior to planting.

No Till/Strip Till Specifications

- **No crop residue shall be burned.**
- **Seedbed preparation, planting, and fertilizer placement shall not disturb more than 1/3 of the row width.**
- **Full width tillage operations are not permitted with the exception of non-inversion, deep tillage implements to break subsurface compacted layers.**
- **The percentage of the surface covered with plant residue immediately after planting shall be at least 30%. For some resource concern benefits and/or conservation programs, additional residue cover is required (see "Specific Residue Cover Requirement" table).**

Tract	Field(s)	Acres	Crop to Be Planted	Crop Residue/Cover Crop

Management of Crop Residues/Cover Crops to Facilitate Planting

Type of Crop Residue/Cover Crop	Management

Specific Residue Cover Requirement

Tract	Field(s)	Conservation Program	Primary Resource Concern	% Cover Required	% Cover at Certification

Operation and Maintenance

- Scout fields and keep records of pest populations to facilitate timely pest management activities and planning for pest management on subsequent crops.
- Plan for next year's residue cover at harvest time.
- If anticipated residue cover is not adequate for objectives, plant a cover crop to produce additional vegetative matter.
- Test soil regularly to determine nutrient needs.