

## **RESIDUE AND TILLAGE MANAGEMENT, NO TILL/STRIP TILL/ DIRECT SEED SPECIFICATIONS**

### **NATURAL RESOURCES CONSERVATION SERVICE**

#### **General Criteria Applicable to All Purposes**

All residues (minimum 30%) shall be uniformly distributed over the entire field.

No full-width tillage shall be performed regardless of depth of the tillage operation.

Planters and drills shall be equipped to plant directly through untilled residue or in a tilled seedbed prepared in a narrow strip along each row by planter attachments such as rotary tillers, sweeps, multiple coulters, in-row chisels, or row cleaning devices.

Field Conditions applicable to no till/strip till/direct seed systems include:

- Undisturbed or shredded residue of previous crops.
- Stubble or residue from small grains or other annuals.
- Established cover crops (cool season or warm season). Cover crops shall be planted without soil disturbance (top-seeded or drilled).
- Permanent sod killed with approved herbicides.

No till systems are not applicable to sugarcane production systems.

Residues shall not be burned.

Seedbed preparation, planting, and fertilizer application shall not exceed the maximum Soil Tillage Intensity Rating (STIR) value and shall produce a positive Soil Condition Index value (SCI). Maximum annual STIR values for no till systems shall not exceed 20.0 and shall be documented in the conservation plan using the RUSLE 2 Worksheet.

#### **Specifications**

1. A minimum of one pre-plant herbicide (burndown) application shall be applied. Burndown applications should be made 4-6 weeks prior to planting, if possible, to kill volunteer vegetation, cover crops, or sod. A second burndown application shall be applied if necessary. Burndown herbicide applications shall consist of one or more approved pre-plant herbicides (plus a residual if recommended) and shall be applied at rates sufficient to control the target species. Approved pre-plant herbicides are those herbicides labeled for pre-plant use in Louisiana and recommended by the LSU Agricultural Center's weed control specialists.
2. Seedbed preparation and planting shall be performed in one operation.

3. A specially equipped or modified planter or drill shall be used. No till planting shall be completed in a narrow slot 1-3 inches wide. Strip till shall be completed in a strip no more than one-third the width of the row. Maximum row width shall not exceed 42 inches.
4. Planting shall be accomplished within dates recommended by the LSU Agricultural Center for specific crops and crop varieties.
5. Weed control shall be accomplished with approved herbicides. Mechanical cultivation may be used for emergency weed control as noted under **OPERATIONS AND MAINTENANCE**.
6. Deep tillage necessary for shattering restrictive layers or surface tillage necessary for leveling ruts may be performed as noted under **OPERATIONS AND MAINTENANCE**.