

Regenerative Biofuel Feedstock Rule:

Tillage



Overview

USDA's Regenerative Biofuel Feedstock Rule establishes a framework to connect regenerative agriculture practices to new markets within the biofuel supply chain for corn, soybeans, sorghum, and spring canola. These standards include:

- ◆ Covered biofuel feedstock crops and participating entities throughout the supply chain;
- ◆ Field-level quantification of crop-specific carbon intensity;
- ◆ Mass balance chain-of-custody standards, including traceability and record keeping;
- ◆ Auditing and verification requirements; and
- ◆ Regenerative agriculture practice standards for covered feedstock crops.

Reduced Till

The practice of reduced till manages the amount, orientation, and distribution of crop and other plant residue on the soil surface year-round while reducing the frequency and intensity of soil disturbing activities used to grow and harvest crops in systems where the field surface is tilled prior to planting.

No-till

The practice of no-till is a practice that limits soil disturbance to manage the amount, orientation, and distribution of crop and plant residue on the soil surface year-round.

Tillage Disturbance Index for Soil Carbon

[The Tillage Disturbance Index for Soil Carbon \(T-DISC\) tool](#) generates a metric of soil disturbance that allows consistent determination of the intensity of tillage operations as an input for USDA's [Feedstock Carbon Intensity Calculator](#).

The T-DISC rating may be obtained by using USDA's T-DISC calculator or a similar tool using USDA's T-DISC methodology and underlying parameters which produces results equivalent to those produced by USDA's T-DISC calculator.

About the Practice

- ◆ Tillage practices are reduced till or no-till and are optional.
- ◆ Tillage intensity is used to determine if a field qualifies for reduced till or no-till. The tillage intensity must be determined using the T-DISC tool accessible at usda.gov/t-disc.
- ◆ To calculate tillage intensity for a field, use T-DISC to enter all the tillage field passes and equipment used in each tillage window.
 - Field preparation (1 day after harvest of prior cash crop to 56 days before planting)
 - Before Planting (55-7 days before planting)
 - Planting (6-0 days before planting)
 - After Planting (1 day after planting through 1 day before harvest)
 - Harvest (day or days of harvest window)

More Information

To learn more about USDA's technical guidelines for the production of regenerative agricultural biofuel feedstocks, visit usda.gov/technical-guidelines-regenerative-biofuel-feedstocks.

USDA's Feedstock Carbon Intensity Calculator is available at usda.gov/usda-fdcic.



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**For Reduced Till:**

- ♦ The T-DISC value must be no greater than 0.252.
- ♦ Primary inversion tillage implements are not allowed.
- ♦ Residue may not be burned or harvested, but removing residue from the crop planting row area prior to or as part of the cash crop or cover crop planting or seeding operation is allowed.
- ♦ Tillage methods where the entire soil surface is disturbed by tillage operations such as chisel plowing, field cultivating, tandem disking, vertical tillage, or ridge tillage are permitted, as long as the T-DISC value is no greater than 0.252.

For No-till:

- ♦ The T-DISC value must be no greater than 0.075.
- ♦ Full-width soil disturbance must not be performed. Strip tillage and fertilizer injection are permitted.
- ♦ Residue may not be burned or harvested, but removing residue from the crop planting row area prior to or as part of the cash crop or cover crop planting or seeding operation is allowed, as long as the T-DISC value is no greater than 0.075.

Record Keeping

Records must be kept for 5 years and must demonstrate:

- ♦ The field or management units where tillage is implemented
- ♦ All field operations that may cause surface disturbance
- ♦ Type of field operation including depth and width of disturbance and average speed of operation
- ♦ Equipment used
- ♦ Dates of each operation
- ♦ Total bushels harvested from each field

Records may be of varying types and origins including, but not limited to:

- ♦ Physical documentation (for example, paper forms, invoices, receipts, seed tags)
- ♦ Digital files (including from farm management software)
- ♦ Data generated by farm equipment (for example, precision agriculture equipment)
- ♦ Remotely sensed data
- ♦ Georeferenced and timestamped photographs
- ♦ Data and records used for participation in USDA programs

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