# Guide Sheet – Implementing Adaptive Management

Conservation Practice Standard Code 345 – Residue and Tillage Management, Reduced Till

## Introduction and Purpose

Adaptive management is a systematic process to collect, monitor, analyze, and learn from results of evaluations of practices conducted on growers' fields. The goal of the adaptive management approach is to test and evaluate how a practice can best be applied on a given farming operation or site condition.

The purpose of this guide sheet is to provide guidance to plan and implement adaptive management of the NRCS Conservation Practice Standard (CPS) Code 345, Residue and Tillage Management, Reduced Till. An NRCS payment schedule scenario was developed within the CPS Code 345, Residue and Tillage Management, Reduced Till, to provide financial assistance to support adaptive management.

## Guidelines for Adaptive Management Application for Reduced Till:

1. Follow the guidance in the Agronomy Technical Note 190-AGR-10, Adaptive Management for Conservation Practices.
2. The evaluation should be carried out for at least 3 years and preferably on the same area each year. There may be cases where this is not practical.
3. The application and hypothesis of at least one variable must address and meet the criteria and specifications of the CPS Code 345, Residue and Tillage Management, Reduced Till, for at least one of the purposes. Example trials/evaluations may include:
    a. Compare no till vs reduced till.
    b. Compare reduced till with a cover crop to mulch till without a cover crop.
    c. Compare different mulch tillage tools or configurations to compare yield and surface residue management.
    d. Evaluate different high disturbance drills or configurations of the drills.
    e. Evaluate different chisel points or rolling baskets.
    f. Evaluate reduced till vs conventional till.
4. The evaluation should include the services of a consultant with knowledge of reduced till (residue management) farming to help plan the evaluation, layout the plots, monitor the plots during the season, assist in gathering the required data (yield, soil tests, residue counts, soil health measurements, etc.), and analyze the data that will support the purpose of the evaluation.
5. The evaluation can focus on one or more results, e.g., may collect data to not only address yield but also changes in soil health parameters (aggregate stability, infiltration, organic matter, etc.).
6. Analyze the data each year and at the end of the trial period, usually 3 years.
7. The annual and final results and analysis should be jointly reviewed with NRCS, the grower, and consultant involved.