Guide Sheet – Implementing Adaptive Management

Conservation Practice Standard Code 329 – Residue and Tillage Management, No 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 329, Residue and Tillage Management, No Till. An NRCS payment schedule scenario was developed within the CPS Code 329, Residue and Tillage Management, No Till, to provide financial assistance to support adaptive management.

Guidelines for Adaptive Management Application for No 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 329, Residue and Tillage Management, No Till, for at least one of the purposes. Example trials/evaluations may include:
    a. Compare no till vs convention till or mulch till.
    b. Compare no till in a cover crop to no till without a cover crop.
    c. Compare different no till or mulch till planter types or configurations (e.g., cross slot planter vs a hoe drill).
    d. Evaluate different coulter or residue clearing devices.
    e. Evaluate strip till vs no till.
4. The evaluation should include the services of a consultant with knowledge of no till 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.