

Peer Review Plan

Preliminary Title: Tillage Intensity and Conservation Cropping in the U.S.

Type of Report
(ERR, EIB, EB,
TB, SOR,) EIB

Agency: Economic Research Service [X] Influential Scientific Information
USDA [] Highly Influential Scientific Assessment

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Subject of Review: Tillage practices and soil cover practices are key soil management decisions. When conservation tillage, particularly no-till or strip-till, are used in conjunction with soil cover practices that increase soil cover (e.g., conservation crop rotations, cover crops) the combination of practices can enhance soil health, potentially improving agricultural productivity, drought resilience, and environmental outcomes. We use field-level data to estimate tillage practices based on soil disturbance as measured by absence of tillage operations (for no-till) and the Soil Tillage Intensity Rating (STIR; for mulch till). To gauge the intensity of tillage over time, we estimate the number of years no-till or strip-till are used over a four-year period. Adoption of soil cover practices including conservation crop rotations, cover crops, double cropping, fallowing, and residue harvest or grazing are also measured. Cross-tabulations between residue/cover practices and consistency of no-till/strip-till use illustrate interactions between tillage and cropping practice.

Purpose of Review: The purpose of the review is to ensure the high-quality of the economic analysis, transparent explanation of methods, objective interpretation of results, and effective communication to the intended audience.

Type of Review: [] Panel Review [X] Individual Reviewers

[] Alternative Process (Briefly Explain):

Timing of Review (Est.): Start: 6/5/2018 Completed: 7/27/18 Withdrawn: XX/XX/18

Number of Reviewers: [] 3 or fewer [x] 4 to 10 [] More than 10

Primary Disciplines/Types of Expertise Needed for Review: Economists

Reviewers selected by: [X] Agency [] Designated Outside Organization
Organization's Name:

Opportunities for Public Comment? [] Yes [X] No

If yes, briefly state how and when these opportunities will be provided:

How:

When:

Peer Reviewers Provided with Public Comments? [] Yes [X] No

Public Nominations Requested for Review Panel? [] Yes [X] No

