

ERS Peer Review Plan

Preliminary Title: Persistence of Cover Crop Use in Crop Production in the United States, 2012-2021

Type of Report (ERR, EIB, EB) EIB

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

Agency Contact: Kelly Maguire, kelly.b.maguire@usda.gov

Subject of Review: Adoption of and U.S. Department of Agriculture (USDA) funding for cover crops have risen substantially in the past two decades, with further increases funded by the Inflation Reduction Act (Wallander et al. 2021, USDA Press 2023). This report specifically examines the use and persistence of cover cropping within operations and fields over time, with a focus on the practical challenges of measurement in existing data sources. While the USDA Natural Resource Conservation Service (NRCS) provides a definition of cover cropping in its practice standards, there is a spectrum of what producers and observers may or may not consider to be cover cropping. Moreover, the benefits of cover cropping vary across this spectrum. From a practical perspective, this range of definitions and outcomes leads to measurement challenges. The existing literature on cover crop use predominantly measures cover crop use in aggregate trends and levels (see, for example: Wallander et al. 2021). However, the existing literature does not generally address whether a field or operation that uses cover crops in a given year continues to use cover crops in subsequent years. Understanding persistence is important for three reasons: many benefits of cover crops vary with the frequency of use (Thompson et al. 2021); aggregate trends may mask nuanced trends in adoption with implications for future aggregate trends; and estimates of environmental outcomes calculated for USDA programs must make assumptions about the extent of continued use after the assistance ends. Persistence patterns therefore determine the long-term benefits of assistance programs that incentivize initial adoption.

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: 4/08/2024 Completed: 1/14/2025

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: Agency Designated Outside Organization

Opportunities for Public Comment? Yes No

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

How:

When:

Peer Reviewers Provided with Public Comments? Yes No

Public Nominations Requested for Review Panel? Yes No