

ERS Peer Review Plan

Preliminary Title: Innovations in Agricultural Production

Type of Report (ERR, EIB, EB) EIB

Influential Scientific Information

Agency: Economic Research Service Highly Influential Scientific Assessment
USDA

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Subject of Review: The creation and growth of alternative food/feed production systems has attracted increased attention and investment. Examples of these innovations include controlled environment agriculture, vertical agriculture, urban agriculture, expanded greenhouse production, hydroponics, aquaponics, aeroponics, and agrivoltaics (co-locating solar generation with agricultural production). The motivations for these alternative production systems include access to local foods, price premiums, year-round food access, nutritional goals, environmental objectives, food security, climate change mitigation strategies, and integrating food production and renewable energy systems, among others. In this report we discuss current innovations in these systems using USDA data primarily from the Censuses of Agriculture and Horticultural Specialties, private or industry sources of data, extensive literature reviews, and media reports. To the extent that these innovative production systems gain commercial success and/or generate positive externalities, their growth could have important market implications for certain high value agricultural products such as specialty crops and may advance some of the objectives noted above. There are growing investments, both for commercial and for research purposes, in these systems, but the opportunities for growth also come with a few economic, technical, and other challenges.

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 Individual Reviewers

Alternative Process (Briefly Explain):

Timing of Review (Est.): Start: 10/12/2022 Completed: 05/25/2023

Number of Reviewers: 3 or fewer 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