

Agrobiodiversity and Organic Agriculture

Jackson, L.1

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Abstract

Organic agriculture not only relies on biodiversity-based practices, but harbors greater diversity of wild species than conventional agriculture. Organic farms should benefit from the current scientific interest in biodiversity and ecosystem function, as there is significant research potential for increasing the productivity of organic agriculture through biodiversity management, and for understanding the adoption of such practices via socioeconomic incentives. The concept of ecosystem services is useful for crediting organic agriculture with multiple benefits, including food and fiber production, but also environmental quality and social well-being. The agroBIODIVERSITY network of DIVERSITAS has embarked on a scientific agenda to address these issues. This involves an ecosystem approach in which biophysical (e.g., ecology, soil science) and social sciences (e.g., economics, anthropology) are combined to understand how biodiversity can increase sustainability in different agricultural settings. In principle, organic management utilizes biodiversity and its services, but can be constrained by economics or the lack of viable alternatives to solve specific problems. Choices by organic growers to increase their reliance on biodiversity-based practices, or to conserve wild biodiversity on their farms need greater recognition by society as a whole for the social and environmental benefits that result.

¹ Dept. of Land, Air and Water Resources, University of California, Davis, One Shields Ave., Davis, CA 95616, USA, E-Mail lejackson@ucdavis.edu, Internet <http://groups.ucanr.org/jacksonlab/>