

# Innovations in **ORGANIC FOOD SYSTEMS** for Sustainable Production and Enhanced Ecosystem Services

International Conference, 1-2 November 2014, Hyatt Regency Long Beach Hotel  
Long Beach, California

Join Speakers from 12 OECD countries in discussions on current knowledge and potential of organic food systems to enhance ecosystem services!

The conference will bring leaders in research on organic food systems from around the world together to assess the current state of knowledge about innovations that enhance both sustainable food production and ecosystem services.



Photo: Colourbox

## Conference objectives

Organic farming is rapidly growing but not widely understood in terms of its potential for contributing to food security, economic development and environmental health. Some people see organic farming systems as a way of living - a philosophy. Some see organic agriculture as a way of making a living. Others see the organic sector as a laboratory for development of environmental friendly agricultural practices that may or may not apply to conventional agriculture. Others again turn their attention to organic principles of agriculture because for food production at a global level there are strong indications that 'business as usual' is not sustainable and that it is necessary to investigate all potential pathways for developing a productive and at the same time sustainable food production.

The organizers of this conference are funders, coordinator and implementers of research in organic food

systems who would like to take this opportunity to highlight new knowledge, innovations, potentials and research needs that will strengthen the link between organic food systems, sustainable production and enhanced ecosystem services.

## Ecosystem Services

'Natural capital - our ecosystems, biodiversity, and natural resources - underpins economies, societies and individual well-being'. This is emphasized in various ways in reports from the 'The economics of ecosystems and biodiversity (TEEB)' - an initiative of the G8+5 countries launched in 2007.

The provision of goods and services by many ecosystems is still poorly understood. In addition the eco-system services are often not valued or they are taken for granted. There is growing evidence that many ecosystems have been degraded to such an extent that they are nearing critical thresholds, beyond which their capacity to provide useful services may be drastically reduced. Unsustainable agricultural practices have been pointed to as the chief causes of land degradation. Seventeen percent of the world's soil has been 'strongly degraded' and areas of degradation are growing. Biodiversity is under pressure also as a result of human activities. The loss of biodiversity at a global level has been estimated to have exceeded by far what has been referred to as the planetary boundary for safe 'operating space.



The 2-day conference is held as a special symposium of the annual conference of the three societies American Society of Agronomy (ASA), Crop Science Society of America (CSSA) and Soil Science Society of America (SSA).



Photo: Jørgen Eriksen, AU

The conference is organized by US Department of Agriculture (USDA), the International Centre for Research in Organic Food Systems, and the Organic Management Systems Group of ASA (ASA-OMS)

## Sustainable Intensification

Organic agriculture as defined by IFOAM relies on ecological processes, biodiversity and cycles adapted to local conditions based on agro-ecological approaches holds the potential for a substantial contribution to sustainable global food production. Intensification in organic agriculture means intensifying the beneficial effects of ecosystem functions, including soil fertility and biodiversity, and using the biological elements of the eco-systems in a structured, organized and more efficient way, so-called eco-functional intensification.

Organic agriculture is one of the best developed multi-functional production strategies in agriculture, however, most often with a lower productivity than high input conventional agriculture. Therefore, eco-functional intensification with improved nutrient cycling techniques and agro-ecological methods for enhancing diversity and health of soils, crops and live-stock is a priority for organic research.

## The Conference Program

New knowledge and innovative ways of applying existing knowledge on the biology of the agricultural system for meeting ecosystem services challenges with organic farming will be presented. Global perspectives of organic food systems, the role of livestock, pastures and trees in sustainable production and ecosystem services as well as the question of synergy or compromise between eco-functional intensification and food security will be discussed. We will also take a more forward looking approach and discuss challenges of agro-ecosystem research, how to increase yields, innovation trends and needs, farmer involvement and learning systems.



The conference is sponsored by The Co-operative Research Programme on Biological Resource Management for Sustainable Agricultural Systems under the Organisation for Economic Co-operation and Development, (OECD)



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture



### International Federation of Organic Agriculture Movements (IFOAM):

“Organic Agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.”