

Michigan Chapter of the Soil & Water Conservation Society

ANR SEMINAR

SUSTAINABLE INTENSIFICATION OF THE RURAL LANDSCAPE:

Protecting Soil Health, Water Quality and Farm Profitability

March 7, 2025, Seminar

PRESENTATION ABSTRACTS

Title: Digital Technologies to Enhance Agricultural Resilience in a Changing Climate and Society

Dr. Bruno Basso, John A. Hannah Distinguished Professor
Michigan State University

The balance between producing more nutritious food for a growing global population, protecting the environment on which lives and livelihoods depend, and providing economic opportunities in rural communities is becoming increasingly precarious. Agriculture faces a new array of challenges in the coming decades related to complex tradeoffs among food production, energy generation, and resource use against a background of more variable weather and changing global markets. Digital agriculture can revolutionize farming by fundamentally changing how individual producers make choices and collectively act to manage natural resources.

The talk presents a novel geospatial system approach that integrates different digital technologies to design and scale sustainable agricultural systems. This approach can be used to guide the precision management of fields, nutrients and water that could result in simultaneous improvement of the environmental and economic performance of agricultural production systems.

Title: Urban Agriculture

Naim Edwards, Director
Detroit Partnership for Food, Learning, and Innovation
Michigan State University

Urban Agriculture is integral in building localized food systems in cities. This presentation will cover the ways urban agriculture has evolved over the decades, challenges the sector faces, and opportunities that it presents. The speaker will also highlight urban agriculture in Detroit and share about Michigan State University's urban agriculture center in the city.

Title: A Journey Toward Great Lakes Resilience

Jane Elder, Author, *Wilderness, Water and Rust*
Retired Director of the Wisconsin Academy of Sciences, Arts and Letters
Former National Director of Ecoregion Programs for the Sierra Club.

What do we value about life in the Great Lakes region, and how can we move beyond the rust-belt legacy to imagine bold new strategies through which ecosystems and communities can thrive? In her memoir and policy critique *Wilderness, Water & Rust: A Journey Toward Great Lakes Resilience*, Jane Elder weaves together memories from her life in the upper Midwest, including nearly fifty years of environmental policy advocacy work. She celebrates the natural gifts of Great Lakes country, and provides an insider's perspective into the quest to protect the Great Lakes and surrounding public lands, from past battles to protect Michigan wilderness and the national lakeshores to present fights against toxic pollution and climate change. She argues that stymied policy frameworks and siloed regulatory approaches—from the Clean Water Act to American farm policy—threaten our capacity for ecological resilience and vital human communities. In her talk, she will provide highlights from the book, challenges that lie ahead and explore ways we can imagine new, whole futures in the freshwater heartland.

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Title: A Journey in Regenerative Agriculture

Aron Buechler, Owner, Buechler Farms and Total Solutions Consulting

Bryan Schwab, Schwab Farms, Bay County

Jason Deshano, Deshano Farms, Bay County

Starting with an introduction of Buechler Farms, LLC, and the farming practices this farm used before this regenerative journey began, Aron will then explain the farming practices he uses today, how he got there and where he plans to go in the future. Bryan Schwab and Jason Deshano will discuss what practices they use on their respective farms and how it has impacted their operations, as well as, discuss future plans.

Title: Climate and Agriculture: Navigating Policy, Programs, and the Private Sector

Tess Van Gorder, Conservation & Regulatory Relations Specialist

Michigan Farm Bureau

This presentation will explore the ever evolving space where agriculture, public policy, and the private sector interact. Attendees will gain insights on carbon and ecosystem services programs, relevant state and federal policies, and how the private sector is driving the climate-smart agriculture conversation.

Title: Agroforestry in Michigan- Trees on Farms for Conservation and Profit

Nathan Ayers, Project Lead

Michigan Agroforestry Partnership

Agroforestry is the integration of trees and shrubs with crop and animal production systems. These systems focus primarily on soil health, water quality and the diversification of food production systems. With all 5 agroforestry systems now approved for CRP funding from the Michigan DNR, presenter Nathan Ayers will share information and case studies on agroforestry systems as well as their conservation benefits and economic market data.