

Michigan Chapter Soil & Water Conservation Society ANR Seminar

SUSTAINABLE INTENSIFICATION OF THE RURAL LANDSCAPE:

Protecting Soil Health, Water Quality and Farm Profitability

PRESENTATION ABSTRACTS (Available to date)

Title: Michigan Water! What is needed and known after years of nothing in Ottawa County, and what does Michigan need?

John A. Yellich, Director
Michigan Geological Survey

Michigan geology for the State has vast areas where very little is known below the soil horizon, which for many areas has more documentation than we know of the subsurface geology. Near surface geology has a signature at the surface, but for many areas the soil horizon is not continuous and regional geology controls soil saturation, groundwater recharge and plant production. We will briefly review what we know, don't know and need to know about the surficial geology and what that means to plants, animals and humans and where are their priority issues. The last formal statewide map was developed by Farrand and Bell in 1982 and the foundations is the Leverett and Taylor map from 1915, that map had basic major geologic information and this map was updated in 1955 by Helen Martin and had some additional clarification of terms and color change and is the 1982 map, with additional color changes, but limited new mapping data. MGS has determined that there are areas of Michigan that knowing the true subsurface can support, water resource, aggregates and groundwater protection all of which will support managed development, whether agriculture, industry or humans. MGS will present some benefits and changes seen when areas have been mapped, reviewing surface to depth to bedrock, mapping the geologic setting and discuss with you what would support your research or commitment to sustainability.

Title: Ruminants-contribution to a sustainable food production system; it is not as it seems

Dr. Jason Rowntree
Professor of Animal Science
Michigan State University
East Lansing, MI

In this talk, Dr. Rowntree will highlight the contributions of ruminant livestock production to food production systems. The presentation will include summaries of ten years of research from MSU Lake City AgBioResearch Center. He will also discuss a recently funded \$19 M project co-led by MSU.

Title: Intro to the Soil Health Matrix

Sarah Fronczak, Environmental Management Educator
Michigan State University Extension

In this session we will review the soil health matrix an on-line tool developed by the Soil Health Nexus for the purpose on helping farmers with making decisions about soil health practices.

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Title: A Message from SWCS International

Renee Bouldin, Chapter and Community Building
Soil and Water Conservation Society, Ames, Iowa

Learn what's new at the Soil and Water Conservation Society and how to get involved in our programs. Headquarters staff will present information on what we do and how you can make the most out of membership.

Title: Forests and Forest Products as a Natural Climate Solution for Michigan

Lauren Cooper, Director
MSU Forestry Forest Carbon and Climate Program

Michigan's natural working lands (NWL) and forests are a critical component of achieving the state's goal of net zero greenhouse gas emissions by midcentury. Wise management of working lands and forests can not only reduce emissions but remove carbon from the atmosphere. However, land use and land management decisions are complex, with the potential to incur trade-offs and create co-benefits. The workgroup developed guiding principles to guide collective development of recommendations for the Michigan Council on Climate Solutions. This talk will cover the role of forests and wood products in terms of science, policy, and action.

Title: SARE, what is it and how you can get a piece of the pie

Sara Fronczak, Environmental Management Educator
Michigan State University Extension

In this session we will discuss the SARE grants and how the program can help with conservation outreach in your county.

Title: Generational Farming in the Saginaw Valley: 7 generations, 160 years. Learning from old practices & adding new practices. A regenerative agriculture model.

Nate Rupprecht and Tom Hess
Tuscola Co. Farmers

Nate Rupprecht and Tom Hess both farm in the Vassar area of Tuscola County in the southeast part of the Saginaw Valley. Soils vary from heavy, fertile loams to rolling land with some sandy loams. Both farms use extensive no-till practices to slow erosion and preserve topsoil. Cover crops play an important role in building soil health on both farms. Nate has been planting green for a few years now and uses cover crop mixes that can be harvested as forage for the family dairy herd, which is owned and managed by his son and daughter-in-law, Drew and Beth Rupprecht. Tom Hess has used no-till longer than most and uses and sells cover crop seed. Tom purchased an inter-seeder last year which has been used on his and neighboring farms to seed cover crop mixes into standing row crops. These and other regenerative practices to build soil health and protect both soil and water quality will be the focus.