Michigan Chapter Soil & Water Conservation Society ANR Webinar

A Systems Approach for the Future of Soil Health and Water Quality PRESENTATION ABSTRACTS

Tuesday, March 2

Title: Drainage for the long-haul: Impacts on crop yields and soil health

Dr. Eileen Kladivko, Professor of Agronomy College of Agriculture, Purdue University West Lafayette, IN

Drainage benefits crop production in many ways, including improved timeliness and trafficability for field operations, improved crop growth and yield, and soil health improvements over time. This presentation will highlight key findings from a 35-yr drainage study in Indiana.

Title: The Macatawa Watershed: Past, Present and Future

Kelly Goward, Environmental Program Manager

Macatawa Area Coordinating Council

Holland, MI

Rob Vink, Crop Consultant

Nutrien Ag Solutions

The Macatawa Watershed Project started in 1996 after years of water quality monitoring determined that Lake Macatawa water quality was impaired due to excess sediment and phosphorus. The then Michigan Department of Environmental Quality looked to the Macatawa Area Coordinating Council, the metropolitan planning organization for the Holland-Zeeland urbanized area, to assist with the development and implementation of a phosphorus reduction strategy. That initial plan was approved along with a phosphorus Total Maximum Daily Load for Lake Macatawa in 1999. The MACC has been working with local partners ever since to implement the plan and reduce phosphorus inputs into Lake Macatawa. Their efforts were renewed with an updated watershed management plan in 2012 and a private fundraising initiative that started in 2013. Since 2012, water quality has improved in Lake Macatawa, but the lake is still not meeting the TMDL goal. Much of the progress can be attributed to great success working with the agricultural community to install best management practices. The MACC and local partners have also been open to considering innovative and new technologies to achieve nutrient reductions. During this presentation, we will look at the history of the Macatawa Watershed, discuss the current successes in water quality improvements and look ahead to what's next.

Title: Strategies for Building Collaborative Relationships to Advance Soil and

Water Quality Outcomes

Tim Boring, President

Michigan Agriculture Advancement

Stockbridge, MI

Solutions to address water quality objectives continue to be needed and increasing, managing production systems for improved soil health is seen as a viable approach. In addition to reducing environmental impacts, soil health approaches can provide significant economic advantages for producers. Adoption of these practices requires management flexibility and a high level of technical capability, while often increasing short-term economic risk. Collaborative relationships that build human capital, through the knowledge, skills, and self-confidence to thoughtfully manage complex adaptive farm practices, are needed to achieve desired soil and water quality outcomes.

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A Systems Approach for the Future of Soil Health and Water Quality PRESENTATION ABSTRACTS

Wednesday, March 3

Title: Soil health tests for monitoring Midwest soils: Uses and limitations

Dr. Eileen Kladivko, Professor of Agronomy College of Agriculture, Purdue University West Lafayette, IN

Commercial soil health tests are of interest to producers and conservation agencies to monitor changes in soil health with changes in management practices. Although there are tests that include biological, chemical, and physical parameters of the soil, the test results' interpretations are often not straightforward. They don't always lead to specific recommendations for the producer. This presentation discusses the results and limitations of using commercial soil health tests, as learned in a state-wide project of on-farm soil health demonstration plots conducted by the Indiana Conservation Cropping Systems Initiative (CCSI). Recommendations for how to best use these tests are given.

Title: West Michigan Farming: A discussion on Farmland Preservation and Conservation Practices

Timothy Kruithoff, Professional Agricultural Producer

Kruithoff Farm's Beef & Pork

Kent City, MI

The Kruithoff Family Farm recently enrolled 147 acres of their property into the Ottawa County Purchase of Development Rights Program; a guarantee that the Kruithoff grandchildren and great grandchildren will have the same farming opportunities in their futures. Tim worked with the Kent Conservation District to enroll his operation into the Lower Grand River Watershed Habitat Restoration - Farmland Conservation Project, a Regional Conservation Partnership Project (RCPP) led by the Grand Valley Metro Council. This presentation will focus on the process of enrolling acreage into farmland preservation from a farmer's perspective, and the success of adopting conservation practices.

Title: Using my farm for shifting from conventional operations to more soil health and a regenerative Ag model

Tim Boring, President Michigan Agriculture Advancement Stockbridge, MI

Farms in Michigan today need more profitable means to grow crops, broader markets to extend rotations, and resilient soils to withstand increasingly extreme weather. The existing agricultural model of prioritizing production efficiencies above all else has led to declining economic opportunities for farms and rural communities, consolidation of farms and agribusinesses, and degraded production systems. A confluence of factors, including trailblazing producers implementing regenerative agriculture practices and a consumer base increasingly willing to value how and where their food is grown, are supporting the creation of new viable production models.