

**A MATTER OF BALANCE:**  
***Feeding our Crops, Protecting the Waters of the Great Lakes***  
**SPEAKER BIOGRAPHIES**

**Dr. Newell Kitchen, Soil Scientist**

USDA Agricultural Research Service  
Columbia, Missouri

Dr. Newell Kitchen is a Soil Scientist with USDA-ARS and Adjunct Associate Professor at the University of Missouri. He received his B.Sc. degree from Brigham Young University, M.Sc degree from University of Missouri, and his Ph.D. (1990) degree in Agronomy from Colorado State University. Dr. Kitchen is recognized for his research in integrated agricultural systems as related to precision agriculture systems, soil and water quality in agroecosystems, and nutrient management for improved fertilizer use efficiency. His research is documented in more than 270 technical publications (including 100+ peer-reviewed journal articles, 8 book chapters, and 38 invited papers).

Dr. Newell developed soil management and agronomic solutions to the issues associated with within-field soil-landscape variability and nutrient management for improved soil and water quality. Examples of research contribution include: 1) Initiating some of the earliest work relating spatially-measured soil and landscape data obtained by automated sensors to soil physical and chemical characteristics and crop productivity; 2) Producing new concepts, methodology, and tools for delineating within-field management zones; 3) Establishing relationships of cropping practices on ground and surface water quality for poorly-drained U.S. Midwest soils; 4) Developing new strategies and procedures for variable-rate N application in crop production; 5) Pioneering a plan and implementing at field-scale a precision agriculture system that encompasses carefully-prioritized grain crop production and environmental goals; and 6) Developing bioenergy management practices for degraded soil landscapes. His stature is foremost evidenced by his service in 2011 as President of the American Society of Agronomy (ASA), serving ~7,000 scientific and ~13,000 practicing agronomists.

**Dr. Ehsane Ghane**

Biosystems and Agricultural Engineering  
Michigan State University, East Lansing, Michigan

Dr. Ghane received his Ph.D. from Ohio State University where he worked on evaluating the impact of controlled drainage on crop yield and water quantity, and the design of wood chip bioreactors for removing nutrients and contaminants from drainage water.

He did additional post-doctoral work at the University of Minnesota on improving the performance of wood chip bioreactors in cold soil conditions. He also evaluated contaminant runoff from agricultural farmland and urban storm water runoff. He joined the Department of Biosystems and Agricultural Engineering MSU in January of this year. His main goal is to help farmers mitigate agricultural water quality and quantity problems related to non-point source pollution (i.e., excess nitrogen and phosphorous) and in developing innovative practices that reduce nutrient runoff to surface waters and conserve water for crop use.

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**Dr. Scott Sowa**, Director of Science  
The Nature Conservancy, Lansing, Michigan

Scott Sowa has worked for The Nature Conservancy (TNC) since 2008 and currently serves as the Director of Science for TNC in Michigan. Scott and his team provide support to a wide array of conservation efforts through collaborative research that fills critical data and knowledge gaps, informs conservation strategies, and leads to new restoration techniques and information technologies. Over the past 8 years he has spent much of his time conducting science to find balanced solutions for managing agricultural lands to improve soil health and quality throughout the Great Lakes.



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water

Scott previously served as the Assistant Director for the Missouri Resource Assessment Partnership; a conservation partnership of seventeen state and federal agencies and NGOs within the School of Natural Resources at the University of Missouri. Scott is a native Michigander, born and raised in Muskegon. He obtained a BS in Fisheries and Wildlife from Michigan State University and an MS and PhD in Fisheries and Wildlife from the University of Missouri.

**Mr. Bob Mantey**  
Tuscola County Farmer.

Bob Mantey was born and raised in Tuscola County, Michigan. He attended Michigan State University and received a Bachelor of Science degree in engineering, specializing in soil and water problems. He worked 4 years for the Michigan Department of Natural Resources, Water Management Division, as a Hydrologic Engineer before returning to the family seed corn farm in Tuscola County. He is also the Tuscola County Drain Commissioner. Bob and his brother Don raise conventional seed corn, soybeans and wheat on 400 acres of overhead irrigation. They also grow organic seed corn on dryland acreage.

**Mr. Wayne Whitman**, Right to Farm Program Manager  
Michigan Department of Agriculture and Rural Development

Wayne grew up on a beef cattle and crop farm in Michigan's Upper Peninsula. He received a Bachelor of Science degree from Michigan State University in Food Systems Economics and Management. He has worked as a Tillage Technician in the Michigan Energy Conservation Program in Schoolcraft, Luce, and West Mackinaw Conservation Districts. He also worked as a Project Manager for the Brooks Creek Watershed Project in the Newaygo Conservation District. Wayne has worked at the Michigan Department of Agriculture & Rural Development in the Right to Farm Program since 1992. He is currently the Environmental Manager of MDARD's Right to Farm Program.