AGRONOMY SEMINAR SERIES
FALL 2024

Attend virtually via Zoom
Seminar links will be posted at: purdue.ag/agryseminars

Monday, November 4th
2:30 p.m.   LILY 2-425

Banking and Understanding Sustainable, Healthy, and Enduring Landscapes: A Systems-based Approach to Evaluate Landscape Processes and Indicators

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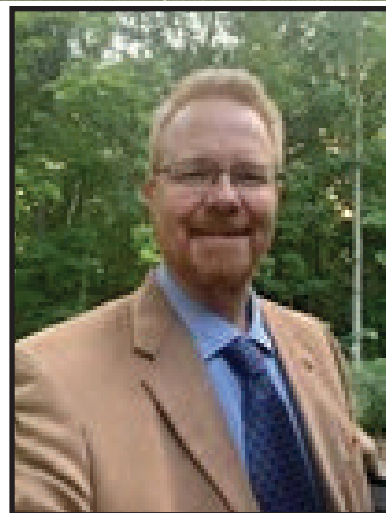
Climate variability and hydrological extremes affect water availability, water quality, and soil loss across agricultural landscapes. These larger, landscape-based hydrological challenges impact the management of cropland, rangeland, and integrated agroecosystems. What will be the future availability and storage of water, nutrients, carbon, and other components in surface water, subsurface water, and groundwater, as well as other freshwater-related ecosystem services? This question applies across scales, from eco-physiographic regions, basins, aquifers, and watersheds to nurseries and greenhouses within those watersheds.

The seminar will highlight ongoing and new interdisciplinary research initiatives led by NSERL researchers. Updates on research within the Long-term Agroecosystem Research (LTAR) Network and the Conservation Effects Assessment Project (CEAP) will be presented in the context of two new initiatives inviting researchers, practitioners, and decision-makers to reimagine best management practices across scales.**BUSHELs @ Meigs**focuses on the field and farm scale, through**Banking and Understanding Sustainable, Healthy, and Enduring Landscapes (BUSHELs)**on a field at Purdue's Meigs Farm. This initiative aims to bank land and additional resources to maximize production, improve soil health, and enhance landscape resiliency by minimizing losses.

The speaker will also introduce the upcoming 21st**International Soil Conservation Organization (ISCO-21) Conference**, to be held in West Lafayette from May 18-22, 2026. This conference will offer a platform to present and discuss the latest advancements in soil and water conservation, focusing on projects at field, farm, local, and regional scales for a national and international audience. For more information and updates, visit
https://topsoil.nserl.purdue.edu/isco/index.html.

After more than two decades as a professor with research, teaching, and outreach activities in five continents, Renschler joined the USDA ARS NSERL (West Lafayette, IN) as Research Leader and Soil Scientist in 2022. He is an Adjunct Full Professor in Agronomy at Purdue, a Fulbright Scholar, and internationally recognized as an expert and scholar in soil and water conservation, integrated watershed, natural resources, and hazards management using GIS and Remote Sensing. He is currently the President of the International Soil Conservation Organization (ISCO.org). His major accomplishments include the development, validation, and application of integrated hydrology and sediment modeling tools developed collaboratively by scientists, engineers, and practitioners to support effective decision-making under global climate and land use/land cover change. He has B.Sc. and M.Sc. in Geoecology (Technical University of Braunschweig), and a Ph.D. in Natural Sciences (University of Bonn).

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