

**Michigan State University
W.K. Kellogg Biological Station
Kellogg Farm**

Overview of Facilities and Other Resources

The Kellogg Farm, embedded within the W.K. Kellogg Biological Station (KBS) in Southwest Michigan, is comprised of 526ha (1300 acres) of managed agricultural lands for cropping system and dairy research / extension. The agricultural lands include 100 ha of fenced pasture and 100 ha of small crop fields divided by mowed grass alleys. Buried irrigation lines with strategically located risers serve much of the pasture and small crop fields. The Pasture Dairy Center utilizes rotational grazing and milks up to 155 cows using Lely A3 Automated Milking Systems. The KBS Long Term Ecological Research Program studies the ecology of row crop, perennial crop and unmanaged ecosystems. The Great Lakes Bioenergy Research Center (GLBRC) aims to understand the ecosystem services provided by alternative biofuel cropping systems

Office, classroom (120 m²), and meeting space are available at the Kellogg Farm office building, while the KBS Academic and Stack buildings provide much additional office and classroom space. The KBS Conference Center is a full service conference facility, providing lodging, meals and meeting space. Multiple field laboratories are available for use, including those dedicated to pasture, farming systems and agroecology. Two heated shops are available to work on equipment. Specific field equipment is available and details can be provided upon request.

2017 Research Projects

New Projects

- Assessing the prevalence of Bovine Leukosis in the MI White Tail Deer Population (Paul Bartlett, MSU College of Veterinary Medicine)
- The Effects of Biotic and Abiotic Heterogeneity on Plant Herbivore Interactions (Will Wetzel, MSU Department of Entomology)
- Evaluation of Variable Rate Seeding in Soybean Production (Maninder Singh, MSU Department of Plant, Soil and Microbial Sciences)
- Resolving Drivers of Variation in Grassland Community Assembly and Restoration (Lars Brudvig, MSU Department of Plant Biology)
- Effects of Habitat, Host Plant Position, and Shading on Monarch Butterfly Breeding Ecology in Corn Growing Landscapes (Andrew Myers, MSU Department of Entomology)
- Cover Crop Demonstration Plots (Dean Baas, Michigan State University Extension)
- Whitey Tightly Test: Comparing Soil Health Across Management Systems (Dean Baas, Michigan State University Extension)
- Early Inter-Seeding of Cover Crops in Corn Silage (Brook Wilke, Kellogg Biological Station)

Continued Projects

- Long Term Ecological Research and associated projects (Funding from US NSF)
- Great Lakes Bioenergy Research Center and associated projects (Funding from US DOE)

(Continued on Next Page)

Continued Projects

- Pasture Dairy Center and associated projects (Santiago Utsumi, MSU Department of Animal Science)
- Stachyus Byzantina (Lamb's Ear) Test Plot (Calvin Ernst, Ernst Conservation Seeds)
- Intermediate Wheatgrass as a Dual Purpose Grain and Forage Crop (Sieglinde Snapp, MSU Department of Plant, Soil and Microbial Sciences)
- Lab to Farm: Integrating Organic Cucurbit Science and Production in the Midwest (Dan Brainard / Szofia Szendrei, MSU Department of Horticulture/Entomology)
- Exploring Winter Malting Barley Production in Michigan (Dean Baas / Ashley McFarland, Michigan State University Extension)
- Oilseed Radish Cultivar Investigation (Dean Baas / Jeff Conner, Michigan State University Extension / MSU Department of Plant Biology)
- Environmental Pathway of Antimicrobial Resistance in Agricultural Lands (Jade Mitchell, MSU College of Engineering)
- Consequences of Changing Rainfall Patterns on Nitrous Oxide Fluxes in Agricultural Landscapes (Kate Glanville, MSU Department of Plant, Soil and Microbial Sciences)
- Topographically Diverse Landscape Influences on Cover Crop Establishment and Ecosystem Services in Corn and Wheat Cropping Systems (Sasha Kravchenko, MSU Department of Plant, Soil and Microbial Sciences)
- Early Interseeding of Cover Crops in Corn: Crop Productivity and Soil Health (Karen Renner, MSU Department of Plant, Soil and Microbial Sciences)
- Eastern Spring Barley Nursery (Ashley McFarland, MSU Upper Peninsula Research and Extension Center)
- Soybean Nitrogen Fixation Across a Diverse Topographical Landscape (Kate Glanville, MSU Department of Plant, Soil and Microbial Sciences)
- Comparing Small Grains as Winter Cereal Forage Crops (Brook Wilke, Kellogg Biological Station)
- Building Pollinator-Supportive Landscapes for Michigan's Diverse Agriculture (Lars Brudvig, MSU Department of Plant Biology)
- Organic Soybean Variety Trials (Dean Baas, Michigan State University Extension)
- Continued Evaluation of Oilseed Radish Added to Wheat to Increase Wheat Yields in Michigan (Dean Baas, Michigan State University Extension)
- Biogeography of TM7 and Deinococcus – Thrums on Apple Flowers (Ashley Shade, MSU Department of Microbiology and Molecular Genetics)
- The Genetic Basis of Adaptation Across a Latitudinal Gradient in Switchgrass (David Lowry, MSU Department of Plant Biology)
- Assessing the Importance of Local and distant Sources of Aster Yellows Phytoplasma to Improve Control Strategies in Michigan Agriculture (Carolyn Malmstrom, MSU Department of Plant Biology)
- BLV "Super Shedder" Intervention Study (Paul Bartlett, MSU College of Veterinary Medicine)