



Profile from the Field

Contact: Marie Flanagan, NCR SARE Communications Specialist
120 BAE, Univ. of Minnesota | 1390 Eckles Ave. | St. Paul, MN 55108
ph. 612.625.7027 | f. 612.626.3132 | mart1817@umn.edu

Advancing Food Literacy in Michigan's Upper Peninsula

Project Title: Advancing Food Literacy in Michigan's Upper Peninsula
Coordinator: Matt Raven
Location: Michigan, Upper Peninsula
SARE Grants: \$151,408
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With rocky soil, 200 inches snowfall in any given year, and 84% of its land covered in forests, Michigan's Upper Peninsula (U.P.) can be a tough place to farm. But Michigan native Dr. Matt Raven, who grew up working summers on his family farm in Michigan says career opportunities in agriculture and food systems are more important than ever in the U.P. For several years of his professional life, Raven traveled around the U.S. working on issues of regenerative agriculture, but his interest in education and community food systems brought him back to the U.P., where he now serves as a faculty coordinator of Michigan State University's Upper Peninsula Research and Extension Center (MSU's UPREC) located in Chatham, Michigan. In this role, Raven offers opportunities for youth to experience farming and food systems in the U.P., where there are just a handful of state recognized school-based Agriculture, Food and Natural Resource Education programs.

"As public awareness of agriculture and food systems grows in the U.P., so does interest in establishing educational programs to prepare students for career opportunities in



Michigan high schooler Wyatt Gerner uses a GPS device to record the location of a spotted wing drosophila trap on a blueberry farm. The sticky red trap is laced with a species specific pheromone.

these fields," said Raven. "Next-generation concerns exist in our farming communities. When we applied for this grant, only one FFA program and one career and technical education (CTE) program with an agriculture focus existed in an area that comprises one-third of Michigan's landmass."

With support from a \$151,408 NCR-SARE

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Research and Education grant, Raven and MSU UPREC Extension Educator Abbey Palmer coordinated with 17 farmers and 15 educators to provide learning opportunities for 7 school districts over the course of 2 summers to generate interest in careers associated with food and farming systems. They used a model known as land-based learning, where students and their teachers collaborated with farmers or ranchers and MSU Extension educators to help implement sustainable, land-based farm solutions. Producers brought their on-farm challenges to the table, and worked with the Extension specialists, educators, and students to develop a supervised, Sustainable Agricultural Experience (SAE) project on the farm.

One of the seven farms involved was Ben and Denise Bartlett's farm, Log Cabin Livestock in Traunik, Michigan, where they had some soil health concerns.

"We are on the school board and really value hands-on learning opportunities for our kids, especially agricultural type projects," said Ben Bartlett. "We really were interested in seeing if there are ways to improve soil health in hay fields we couldn't graze."

Students from Superior Central School's Agriculture and Forestry class helped develop treatments for some of the Bartlett's hay fields that were too far from the farm for grazing.

"The problem our students have been researching and seeking solutions to is a common one that many farmers face and that is the depleting quality of the soil in fields that have hay harvested year after year," explained Superior Central science teacher Tim Bliss. "In many cases, and for various reasons, some farmers are unable to sufficiently put nutrients back into the soil through fertilizers, manure, grazing, etc. Our students worked with the coordinating team to design four possible treatments to alleviate this issue."

Students conducted soil health tests and implemented strategies that emphasized biological activity with assistance from MSU Extension Educator Jim Isleib. They had the opportunity to present their work at the Alger County Farmer Potluck.

John and Lynn Gierke's blueberry farm in Chassell, Michigan is not certified organic, but they do not use pesticide sprays. The pest spotted wing drosophila (SWD) lays eggs on over-ripe or rotting fruit, and the Gierkes wanted to monitor their fields for the presence of the pest. As part of the project, Wyatt Gerner, an area high school student, helped set up SWD monitoring stations in the Gierke's fields using sticky traps and GPS technology with assistance from Michigan Tech University. Because of Gerner's interest in the research, he was able to lead a student farm visit at the Gierke's farm, and was even selected as Youth Citizen of the Year in Chassell in connection with the project.

Ultimately, Raven wants more youth to be interested in agricultural-based careers. Some, like Gerner, are interested in learning more, while others decided it wasn't a good fit. After surveying the students at the end of the project, Raven noticed a decrease in students' career aspirations in agriculture, and investigated it.

"Students experienced first-hand the hard, physical nature of producing food and fiber so it is not surprising that perhaps the romantic view that some students might have about farming faded as a result of their participation," said Raven. "It's a good outcome in some ways because they're not making the investment before they learn that working in the hot sun might not be as fun as they thought it was."

Raven was pleased with the food systems literacy that students gained by being involved in the project, saying, "Any time you can increase food literacy, it's a positive experience."