Land-Based Learning Centers
A multi-generational educational approach to promoting on-farm sustainable agriculture

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INTRO
Michigan State University’s Upper Peninsula Research and Extension Center will develop land-based learning centers cooperatively with local farmers implementing sustainable agricultural practices.

METHODS
Teams consisting of secondary education teacher, farmer, and Extension educator facilitate student learning to offer a solution an on-farm sustainability issue.

PROGRESS
Project topics:
- Spotted Wing Drosophila and Native Pollinators in Highbush Blueberry Production
- Choosing a Farm-Scale Compost System
- Curbing Deer Depredation of Field Crops
- Designing 3-D Printed Slug Traps
- Hayfield Practices and Soil Health
- Direct-Market Potential of Deacon Calves
- Marketing CSA in Rural Areas

People:
- 7 teachers working with 7 farms
- 14 agriculture professionals
- 181 students developing projects

DISCUSSION
Teachers articulated the authenticity and problem-based nature of the learning experiences as assets for students. We are conducting research on student learning outcomes associated with the project.
- Knowledge of extension increased.
- Awareness of agriculture increased; specifically, awareness of the steps involved in growing food.
- Hands-on learning opportunities increased.
- Interest in agriculture careers has increased.

Healthy Soil Hayfield Project
Superior Central High School
Log Cabin Livestock
MSU Extension – Alger County

1. Identification: Teacher approaches farmer about integrating on-farm soil health initiatives with teaching soil science. Students from Tim Bliss’ classes worked with farmers Ben and Denise Bartlett to develop best practices for hay fields that are too remote from the farm to be grazed.

2. Understanding: Farmer visits classroom to offer introduction hay production in terms of inputs, cost, and profitability. Students visit farm to learn about soil food web. Conversations between farmer and students center on profitability of different approaches to growing hay and measurement of soil health in relation to yield.

3. Intervention: With help from Extension Educator Jim Isleib, students design replicated trials to test treatments in relation to yield, farm profitability, and soil health: urea, composted manure, cover crop, mulching with cut hay, and control plots. Plots are monitored over the summer by student interns.

4. Evaluation: 96% of students indicate that as a result of this project, they know more about sustainable agriculture, potential careers in agriculture, and the relationship between soil and plants.

https://www.msunorthfarm.org/land-based-learning-centers.html

#studentsUPonthefarm