

**NCR SARE Grant Administration and Review Proposal - [Print](#)****Project Title** SCIOTO RIVER VALLEY SUSTAINABLE AGRICULTURE YOUTH DAY**Proposal Number** YED14-026**SARE Request** \$2,000

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**How many young people will be involved in your project?:** 125**What is the age range of the young people you will work with in your project?** 10 to 11 years old**How many farmers/ranchers will be involved in your project?** 2**Project Abstract**

The Ohio State University Extension Office in Scioto County plans to educate youth by taking them to a local farm and allow them to participate in the growing and harvest on a small farm. This project will provide students an opportunity to examine the way geography, weather and history have shaped the way they eat. This will form the basis for the students' search into the community's sustainable farming systems and practices. The project will incorporate lessons with OSU Extension, Soil and Water staff and farmers. Focus will be put on the importance of pollinators, production, soil and water.

**Detailed Project Plan and Timeline**

For humans and animals alike fall represents a time of bounty and cultivation. What we eat, how we obtain our food and how food is produced using sustainable growing practices is the focal point of this project. This project will provide students an opportunity to examine the way geography, weather and history have shaped the way they eat. This will form the basis for the students' search into the community's sustainable farming systems and practices. After examining how local farms and food production are an important focus, the project will provide an opportunity for students to look at how local farms and food relates to their nutrition, diet, and physical activity. Students will harvest pumpkins grown by a local farmer directly from the field. While in the field, educators including farmers will teach in-depth lessons on the importance of natural pollinators to the production of not only a pumpkin crop but all of the food crops that require insect pollination. The science behind pollination will be outlined. The biology of the honeybee will be taught, as well as how bad weather such as rains, cloudy days, and wind can affect pollination. They will also learn that the amount of food produced relates directly to the farmers' profits. Additionally, students will be taught to be good stewards of the environment and how to protect our natural pollinators. With

students being able to harvest crops in the field, they will gain a deep appreciation for food, where it is obtained, how it is produced and what factors (i.e. weather, management, natural pollinators, beneficial insects, etc.) affect their daily diets. Curriculum: How was the Scioto River Valley formed? • How have the Scioto River Valley agricultural communities evolved over time? • What do we eat and where do we obtain our food? • What geological evidence can be found in the Scioto River Valley? • How did our ancestors farm in the Scioto River Valley in relation to present day agricultural practices? • How do the soils affect plant growth and development in the Scioto River Valley? Lessons from “Nourishing the Planet in the 21st Century” Assessment: • Assessment of students’ existing knowledge related to geologic changes over time and the local food system (pre-assessment) • Inquiry into what students hope to learn (and eventually take ownership of for future presentations) • Presentation of assessment criteria students will be presented • Students’ science journals Connecting Program to Classroom: • Have an eco-system scavenger hunt. Students gather a soil sample from each of the three eco-systems: forest, creek, and agriculture, and compare and contrast the texture, color, moisture, and particle size. • Collect different types of soil at the farm and at school. Set up a percolation demonstration and have a water race. Students feel the difference between sand, silt, and clay and discuss soil particle size. Students will try to predict which soil the water will flow through the fastest and the slowest. • Students ask the farmers how/where water flows on the farm. Using this information, they make a map showing the farm and its water flow when it rains and when it is dry. • Erosion is discussed as a soil-forming factor and students write about where the soil started and where it ended. • Students collect weather data at school in preparation for field trip noting the time. Collect more data on the farm and compare. Have the farmer describe the climate on the farm – how does geography affect the weather and climate on their farm? • Discuss how variables such as nutrients, light, and water will affect the growth of the seeds. • Students participate in a pollination game in which they kinesthetically learn how and why bees pollinate flowers • A beekeeper/farmer talks with students about their work and the importance of pollinators. • Students observe and examine animals that live on the farm and in the garden (worms, birds, turtles, etc.) and describe how their lives are influenced by other animals, plants, weather, and climate. Timeline: 1) August & September 2014- student permission slips distributed, signed and returned to school officials 2) September 2014- field lesson plans prepared, in field props assembled. 3) October 2014- School field trip is conducted October 16 with a rain date of October 24th. 4) All students’ in-class reports are prepared and turned in to teachers by October 31. 5) Report of project observations and impacts assembled, written. 6) Final report submitted to SARE December 1st 2014.

## Resources Used

Lessons would be developed by the Extension agriculture, 4-H and family and consumer science staff. They would work with a local farm family and Scioto County Soil and Water Conservation District’s educational staff. The Agriculture and Natural Resources Educator will create and teach lessons related to pollination. And the Soil and Water Education Specialist will help do soil tests and teach about erosion and water quality. Additional lessons from the Smithsonian Institution’s “Nourishing the Planet in the 21st Century” middle school science curricula would be incorporated into the project. The curriculum was written to address the need for feeding the world in a sustainable manner, while addressing the issue of so many people taking their food for granted because they are generations removed from the farm. The 4-H Educator and Program Coordinator will teach lessons out of the “Nourishing the Planet ...” series.

## Outreach

The impacts and information learned from this program will be shared at state and national conferences for 4-H and Agriculture, Extension and Soil and Water. The professionals involved will submit proposals to present posters to share tips for replication and impacts from the program. The Extension staff will also present a session to the other program area educators in their Ohio Valley Extension Education and Research Area in the Winter of 2014/Spring of 2015. Youth participants will use iPads to make videos of the project, which will then be posted to social media sites and web pages for all the organizations involved. The youth videos will also be submitted for state and regional award recognition. The production of the videos will add a technology and marketing component to the program that can be utilized to help the youth understand the importance both play in promoting agriculture. Additionally, the local media will be contacted to cover the program in the Education Section of the newspaper.

## Student and Community Impact

Impact will be made by showing youth that not only is it important to understand where food comes from and what it is comprised of, but that they must also make healthy and wise personal decisions regarding their food intake. Impacts will be measured utilizing pre- and post-test surveys with the youth participants, as well as through observation from the educators, staff, teachers and farmers involved with the project. Teachers will also be given a survey at the end of the project to allow them to report any changes in knowledge and/or behavior they have witnessed. Impacts will be reported in Scioto County highlights, as well as sharing them during outreach efforts with peers. Additionally, a QR Code will be attached to all outreach materials produced from the program so that numbers of "hits" to the information on the Web can be measured and reported following presentations at the regional, state and national level.

## Budget

<b>Personnel</b>	None	\$0
<b>Materials and Supplies</b>	Pumpkins and gourds for lesson	\$400
<b>Materials and Supplies</b>	Apples for hands on lesson	\$400
<b>Travel</b>	Bus transportation of students from school to the farm and return	\$300
<b>Other Direct Costs</b>	Photocopies of worksheets, fact sheets	\$300
<b>Other Direct Costs</b>	Host farmers (2) speaker fees	\$500
<b>Other Direct Costs</b>	125 Pens for students to fill out worksheets	\$30
<b>Other Direct Costs</b>	Instructor Lesson Plans	\$70
<b>Total Request</b>		<b>\$2,000</b>

## Budget narrative and justification

Materials and Supplies Pumpkins and gourds for lesson 125 students @ 5 pumpkins and gourds@ .64 = \$400 Apples for hands on lesson 125 students @ ½ peck apples@ \$3.20= \$400 125 students pens- \$30 Instructor Lesson Plans - \$100 Travel (use \$.565/mile for travel reimbursement) Bus transportation \$300 Other Direct Costs (use for communications, photocopying, consultants, services conferences-meetings-workshops, speaker/trainer fees, honoraria/stipends, equipment rental, land-use charges, fabrication of equipment.) Photocopies of worksheets, fact sheets- 125 students@ 24 handouts@ .10= \$300 Host farm speaker fees- 2 farmer speakers @ \$250= \$500