

Cultivating Change in School Gardens

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ABSTRACT

Many grand challenges have been a long-time concern for school gardens in Greene County, Ohio. The county is situated near a metropolitan area; yet maintains a strong balance between urban and rural interests. For many years there has been interest in collaboration among schools and agencies to create a school garden with an educational component that would allow students to earn high school credit as a class. In the first few attempts at implementing the project, there were many failures and missed opportunities. Some of these failures and missed opportunities included: inclusion of students in the planning process, multiple transitions in county agriculture and natural resources educators, and lack of gardening educational curriculum.

To overcome these challenges and educate the school staff and students, first a successful partnership had to be developed. Program Assistants found that relationships are built on trust, commitment, and communication. The Fairborn Digital Academy Garden project's success depended collaboration and fundamental educational components to achieve a school garden program that would be accredited for its students. This program could not have been accomplished without the incorporation of Master Gardener Volunteers in aiding with online curriculum development and weekly in class educational sessions.

Over the last two years, curriculum has been established, a school garden built, Master Gardener Volunteers engaged in educational programs and more. This is not to mention the countless success stories of the thus far more than 25 students that have completed the program. The results of this project have been two-fold for OSU Extension by opening doors to collaborations such as this with other agencies across the county.



Concrete raised beds on upper level



Concrete Block Raised Beds on Schools Upper level

Wooden Raised Beds on Lower level



BACKGROUND

Fairborn Digital Academy is an alternative high school chartered by Fairborn City Schools. All courses are computer-based. However, the school does require students to be on campus at specified times throughout the week. The school supports a diverse audience with many coming from low-income families.

Over the last four years, OSU Extension Greene County has collaborated with the school and community partners to develop a school garden and gardening education program. In early attempts, OSU Extension Master Gardener Volunteers and the SNAP-Ed program worked together to bring an extracurricular program that emphasized healthy eating and basic gardening skills. However, interest from students suffered and many stressed their desire for a structured program they could take for high school credit.

To educate this audience, the Agriculture and Natural Resources Educator and Horticulture Program Assistant developed a curriculum that utilized both online and hands-on learning. OSUE Master Gardener Volunteers and other Extension Professionals assisted in facilitating each module's material. The curriculum was developed to provide students with a basic understanding of gardening, nutrition, and leadership. The program also allows students to explore agriculture and natural resources to gain a better awareness of the opportunities and impact of those industries.

SCHOOL GARDEN GOALS

1. Address the need for educational programming for the "two faces" of Greene County (urban/rural interface)
2. Develop hands-on teaching gardens
3. Inform students and their families of the services offered through Ohio State University Extension
4. Develop educational materials and online-based gardening curriculum
5. Engage youth in agriculture, natural resources, and horticulture career opportunities and awareness in the community

Module (recorded video link)	Hands-On
Introduction Video --	
What is gardening? -- <ul style="list-style-type: none"> • Placement of garden beds -- • Importance of Soil Sampling -- • Managing a garden, tools, and critter control -- 	laying out beds & soil sampling
Building a raised bed -- <ul style="list-style-type: none"> • Constructing Raised bed gardens -- • Plant selection for my garden -- • Botany of Plants -- • Nutrient management and Water -- 	seed selection and nutrient management of a garden
Types of soil -- <ul style="list-style-type: none"> • What is in soil? • How is soil made? • How do I plant a garden? 	planting and care of the garden
Crop Relations -- <ul style="list-style-type: none"> • Companion planting • Plant Families/ Keeping Records • Extending the growing season 	Rotating crops annually in the garden
Composting -- <ul style="list-style-type: none"> • Benefits of composting • How do I compost? • Structures to compost in 	steps to a successful compost
Types of insects -- <ul style="list-style-type: none"> • Identifying insects • Role of beneficial insects • Troubleshooting for insect damage and disease 	insect identification and management
Careers & Leadership in Agriculture -- <ul style="list-style-type: none"> • What is Agriculture? • What careers are available in Agriculture? • Building your leadership skills 	Careers & Leadership Activity
SNAP-Ed --	Cooking with fresh food
Agribusiness -- <ul style="list-style-type: none"> • What is agribusiness? • How does Agriculture affect me? • What do you want to do when you grow up? 	Applying Agribusiness to daily life, Career Exploration



Students learning the importance of taking a soil sample.

Gardening students assessing crops for disease and pests



Crop yield from School garden.

RESULTS

The results included more than twenty-five students in a two-year period engaged in the online and hands-on curricula.

The results of the school garden program were twofold:

1. Educate the students on growing their own produce
2. Opening doors for future collaboration with other partner agencies across the county

Impact data shows an increase in gardening knowledge by the students of over fifty percent. Additionally, youth are more engaged in their communities now that have learned more about agriculture and how to grow their own fresh food. Testimonials have shown how engaged students and families became in respect to food insecurity and availability of fresh food.



Extension Educator instructs in starting crops from seed.