Aquaponics showcases vegetable and fish production for beginning, small, or commercial growers

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Ohio farmers are getting older. According to the Ohio Ecological Food and Farm Association (OEFFA), the average age of Ohio farmers rose from 54.6 in 2012 to 55.8 in 2017. As more and more farmers retire due to age, many are realizing that their family members are not taking over their farming operations. This is creating a vital need for Extension to train the next generation of farmers.

The CESTA/1890 Land-Grant Extension Service at Central State University is committed to increasing the number of successful beginning farmers in Ohio. We focus on developing small and limited-resource farms, urban farms, and specialty crop growers. Programs are funded by three external grants and USDA formula funds. The external grants include a USDA 1890 Capacity Building Grant, a USDA NIFA Beginning Farmer and Rancher Development Program Grant, and an USDA Office of Partnership and Public Engagement (OPPE) 2501 grant. USDA formula funds support Extension demonstrations related to aquaponics, edible mushroom culture, agribusiness training, and value-added food manufacturing programs.

The beginning farmer training that we offer is very hands-on and is based on cooperation with multiple external partners. Often, we train people with almost no prior experience in growing crops. Our trainee farmers work closely with our Agriculture and Natural Resource educators and use time-honored “get your hands in the soil” methods to learn how to grow crops. Programs are held at several incubator farms scattered across Ohio. Program participants in our Beginning Farm Programs also receive marketing training through—attendance at annual conferences on direct marketing, direct sales on social media, and regional food distribution with our partner Agraria at Yellow Springs, Ohio. In addition, we also collaborate with external partners to train farmers in farm risk management, farm safety, and USDA programs. These programs assist beginning farmers succeed through low-interest loans and cost share opportunities.

The USDA OPPE 2501 grant focuses on helping historically disadvantaged and underrepresented and military veteran farmers, who have been farming for at least three years, improve their farming plans, improve land access, understand how to farm using heir’s properties, and increase diversification of crops and markets. In addition, we will engage high school age students in agricultural production and marketing training in Cincinnati and Toledo through the 2501 program.

Please contact our Regional Extension Associates for more information about our beginning farmer programs: Kelly Beers for Northeast Ohio at kbeers@centralstate.edu, Crystal Duckett for Southern Ohio at cduckett@centralstate.edu, Leslie Horner for Southeast Ohio at lhorner@centralstate.edu, Lindsey Ferguson for Northwest Ohio at lferguson@centralstate.edu, and Seth Swallow for Southwest Ohio at sswallow@centralstate.edu.
Area residents learned how to safely fillet fish during an interactive demonstration that took place at the Central State University Extension Aquaponics Workshop held recently at the CSU-Extension Aquaponics Demonstration Facility.

The demonstration facility is located next to the CSU Water Tower on US 42 E, Wilberforce on the CSU Agriculture Research and Demonstration Farm.

Speakers included Dr. Robert Korir, assistant professor, Food Science, Central State University, and Don Jones, Kingdom Fish, Rushsylvania, as well as CSU-Extension Agriculture/Natural Resources Program Leader Dr. Cindy Folck and CSU-Extension Agriculture/Natural Resources Educator Marc Amante.

Participants were able to take freshly-harvested tilapia raised in the CSU Aquaponics Demonstration Facility home for their own use.

The CSU Aquaponics Demonstration Facility offers several demonstrations throughout the year of different growing systems and produces both tilapia as well as a wide variety of greens, herbs and small vegetables during the growing season.

“Aquaponics is a closed loop system that combines conventional aquaculture (the raising of aquatic animals such as snails, fish, crayfish or prawns in tanks) with hydroponics in a mutually symbiotic environment. The aquaponics system utilizes the waste of one element for the benefit of another other. In this case, the waste produced by the fish benefits the growing plants,” says Dr. Folck.

The field day was free to all participants and funded by a USDA/NIFA grant.

For more information about aquaponics, contact Dr. Folck at afolck@CentralState.edu or call Dr. Folck at (937) 376-6101.

Participants---such as CSU employee Broderick Tolbert, right, ---were able to take home freshly harvested tilapia for their own consumption.

Left: Don Jones of Kingdom Fish in Rushsylvania shared about his commercial operation as well as demonstrated how to safely fillet tilapia.

Above: The CSU Extension Mobile Kitchen made its public debut.
Working throughout the State of Ohio
CSU-Extension offers programming throughout Ohio

Northeast Ohio Agriculture and Natural Resources Educator Logan Walter works with the Green Movement to demonstrate irrigation methods.

Northeast Ohio Family and Consumer Science Educator Stacey Stangel, far right, shares the best methods to grow and cook with garlic.

Northwest Ohio Community and Economic Development Educator Eric Smith, far right, partners with Alan Mitchell, Housing and Community Development Manager, North End Community Improvement Collaborative, Mansfield. Also shown are Xavier Huckleston of Hidden Gems Pageant, and Debra Weaver of Woven Opportunities, LLC.

Southwest Ohio Community and Economic Development Educator Amber Twitty shares program information with residents within her community.

Youth in northeast Ohio had the opportunity to participate in classroom gardening activities.

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Northwest Ohio Agriculture/Natural Resources Educator Michelle Wallace, below, leads programs throughout her region.

A high-tunnel workshop was held in the South Region of CSU Extension and hosted by Agriculture/Natural Resources Educators.

CSU Extension Program Site Coordinator Janet Corney enjoys the Incubator Harvest Celebration in Trotwood.

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Southeast Ohio Agriculture and Natural Resources Educators Denise Natoli Brooks and Phil Hollingshead, left to right, hosted a program featuring hayfield management in southeast Ohio.

Southeast Ohio CSU Extension Family and Consumer Science Educator Melody McCheese leads a program at the MEGA Sports Camp at Violet Baptist Church.

HYPE Hamilton featured Regional Extension Educator James Keys leads CSU Extension programs.
Area residents learned how to grow their own mushrooms at the recent Central State University Extension “Hands-On Backyard Mushrooms Workshop,” at the CSU Seed to Bloom Botanical and Community Garden, Wilberforce.

In this free workshop, CSU-Extension Agriculture and Natural Resources Educator Marc Amante (far right) demonstrated how to create mulched beds to grow wine cap mushrooms, how to build totem stacks of larger logs for oyster mushroom production, and how to inoculate small logs with shiitake and oyster mushrooms.

All participants were able to take home one or two logs for their personal use. Information was provided on creating a commercial outdoor growing operation — how and where to set up a laying yard, growing to ensure consistent harvests, managing pest control and more.

For more information on agriculture or natural resource programs hosted by Central State University Extension, visit www.CentralState.edu/csuextension or contact CSUE Agriculture and Natural Resources Program Leader Dr. Alcinda Folek at afolek@CentralState.edu.
Highlighting Central State University Extension, Central State University agricultural research and CSU agricultural academics, the university’s display at the 2021 Farm Science Review (FSR) was held within its own independent facility for the first time. Educational displays as well as presentations were held throughout the premier agricultural trade show. Central State University Extension professionals were also featured during the FSR’s schedule of agricultural experts on a variety of topics. For more information about extension programs, agricultural research or agricultural academics, visit www.CentralState.edu.

Shown, left to right, are CSU Associate Director of Research Subramania Sritharan, Ph.D.; CSUE Regional Program Assistant Danielle Soroczak; CSUE ANR Educator Marc Amante; CSUE FCS Educator Stacey Stangel; and CSUE ANR Program Leader Alcinda Folck, Ph.D.

Taking it on the road:
Central State University Extension/Research/Academics host educational display at 2021 Farm Science Review

Business owners and community development leaders can benefit from CSU-Extension's Signature program CED Office Hour Live!, a live, virtual, open discussion with Central State University Extension's Community & Economic Development (CED) team. Participants learn key information on how to grow and improve their businesses, community organizations, and small farm operations.

The CED Office Hour Live program broadcast, live, every Thursday from 2 p.m. to 3 p.m., via TEAMS.

Past topics for the roundtable have included the role of CED in Ohio’s progress; who are CED professionals; what signature programs CSU Extension provides; and how CED programs can support your success. Participants can drop in to ask questions, share comments, and join in on informative discussions with CED staff and topical experts from around Ohio. To learn more or to register, visit www.CentralState.edu/academic/cse/agriculture/office-hour.php.

Shown, left to right are, CSU-Extension Community/Economic Development Educators Ambrose Moses III; Amber Twitty; and Eric Smith.

Join CSU-Extension’s Community and Economic Development Program “CED Office Hour Live”
The Ohio Ecological Food and Farm Association (OEFFA) 43rd annual conference, Rooted, and Rising, included one virtual day and in-person programs for two days at the Dayton Convention Center.

The event hosted more than 50 workshops, an exhibit hall, and more. CSU-Extension attended with its booth in the trade show with educators and other professionals from throughout the state attending to share the expanding programs now being offered in the areas of agriculture/natural resources, community/economic development, family/consumer science and 4-H/youth development.

CSU College of Engineering, Science, Technology and Agriculture (CESTA) Dean Michelle Corley, Ph.D., was a featured speaker at the event.

Shown above, left to right, are CSU Research Administrative Assistant Caressa Brown, CSU-Extension Agriculture/Natural Resources (ANR) Educator Phil Hollingshead, CSU-Extension ANR Educator Denise Natoli Brown, CSU-Extension ANR Associate Clare Thorn and CSU-Extension Family and Consumer Educator Donna Kuykendall.
Fastrack Farming
New program designed for those wanting to begin their own growing operation

Designed for those who want to begin farming, the Central State University Extension Fastrack Farming Program, will educate participants about the multiple aspects of managing a successful growing operation.

“Our Fastrack Farming program is well aligned with our priorities here in CSU-Extension,” says College of Engineering, Science, Technology and Agriculture (CESTA), Dean Michelle Corley, Ph.D. “It is a part of our Value Added 21st Century Farming Technologies we are aiming to provide to our underserved farmers in Ohio.”

“Prospective farmers should consider their participation as an investment in their future,” Dr. Dasgupta says. “The program is free, and participants will need to attend at least 12 months of training to receive a certificate of completion. Those who receive the certificate can have proof they have knowledge of how to begin their own farming operation.

Class topics include, but are not limited to: accessing land, making key farming decisions, soil management, beekeeping, hydroponics and aquaponics, vegetable and small fruit farming, integrated pest management, harvesting and sales.

As part of their training, student farmers will also attend workshops, training conferences, network with other farmers and USDA officials, and be provided with opportunities to access land and capital.

Conferences will include the Rid-All Green Partnership, Agraria Conference, and New Farmer University Conference. Farm apprenticeships are available and student farmers will receive continued access to free educational programs through CSU Extension.

“The Agriculture and Natural Resources Extension Program at Central State University provides outreach, education and awareness to all Ohioans while enhancing sustainability of Ohio’s most valuable resources,” adds Dr. Dasgupta. “We provide a premier community-based outreach and educational program leader, Our mission is to provide a holistic approach to improve the lives of families in both rural and urban communities.”

For more information, contact Dr. Dasgupta at sdasgupta@CentralState.edu.
The CSU Seed to Bloom Botanical and Community Garden is free and open to the public seven days per week, dawn to dusk.

Exact hours may vary based on the season. The CSU Seed to Bloom Botanical and Community Garden provides an inviting space to interact with its natural beauty.

Providing a unique stage for horticultural education in a collegiate atmosphere, the garden offers learning opportunities for CSU students, local schools, and the greater community.

The garden area includes an Agricultural Learning Area; Forest Amphitheatre; Woodland Trail; Stone Paths; Raised Beds; Native Plants/Pollinator Gardens; Picnic Areas; and much more.

The CSU Seed to Bloom Botanical Garden offers parking off Wilberforce-Switch Road.

To learn more about gardening programs, visit www.CentralState.edu/academics/cse/agriculture/index.php?num=43
Designed for those who have started their own farm but want additional training to increase its success or grow the operation, the Central State University Extension Building Small Farm Viability Program will educate participants about the multiple aspects of managing a successful growing operation.

“The Building Small Farm Viability program is for people who have already started their own farm within the last three to 10 years and provides more advanced education about production, marketing, and business planning,” says CSU-Extension Agriculture and Natural Resources Program Leader for Ohio and Project Co-Director Dr. Alcinda (Cindy) Folck. The program is free and made possible by a USDA 2501 grant.

The USDA Office of Partnership and Public Engagement funds the program and supports farmers to connect with USDA programs. Both adult and youth farmers benefit from programs focusing on how to access loans, financing, cost-sharing, crop risk, crop failure support and more.

Program experiences include but are not limited to how to obtain farmland; manage heirs’ property; farm vegetables, mushrooms, beekeeping, hydroponics, aquaponics; sell in retail/wholesale markets, grocery stores, produce auctions and more; manage a farm business; and opportunities to attend farm conferences in Ohio and beyond.

Conferences include the Rid-All Green Partnership, Agraria Conference, and New Farmer University Conference.

Adult program sites include Central State University, Wilberforce; Edgemont Solar Gardens, Dayton; Trotwood Incubator Farm, Trotwood; Springfield Ohio Urban Plant-Folk, Springfield; Trumbull Neighborhood Partnership, Warren; Coit Road Farmers’ Market, Cleveland; Green Movement (Glenville), Cleveland; Grace Community Center, Toledo; as well as remote learning with a smart app provided at no cost.

Specialized youth experiences offer training in: growing and selling vegetables; leadership skills, public speaking and job interviews.

Youth program sites include Grace Community Center, Toledo, and Cincinnati 4-H Initiative, Cincinnati.

For more information about the Building Small Farm Viability program, contact Dr. Dasgupta at sdasgupta@Central State.
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For more information:
www.CentralState.edu/csuextension

CESTA/1890 Land-Grant Programs at CSU