Central State University Extension is expanding its operations to cover more than half of the state of Ohio. Our Director of Land-Grant Programs has worked hard to bring our services to the four corners of our state and we are glad to announce that we will have a presence in the northwest, northeast, southeast, southwest, and central Ohio.

While we are expanding, we are still fairly small in size. Both historical and current events remind us of how a small, well-motivated team is able to accomplish much just because they have clear goals and they work together like the proverbial “well-oiled machine.”

The purpose of CSU’s Land-Grant Extension is to educate, inform, and provide technical assistance to both rural and urban areas, with a special focus on serving those populations with limited resources or who may be facing other challenges.

Our programs will help farmers succeed, make families stronger, individuals healthier, and bring knowledge of opportunities and success to both adults and the youth.

Our vision is developing targeted programs for farmers, encouraging Ohioans to conserve and enjoy their natural resources, expanding public knowledge in developing business, fostering employment in struggling communities, encouraging nutritious food consumption on a budget, fighting chronic illnesses and fostering mental health through both knowledge and activities, and providing pathways for success, accomplishment, and self-esteem for children, youth, and families.

Indeed one might say, it is through service that we will seek greatness.

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Once all our regional offices are secured, we will promote them to the general public. We will welcome everyone to visit us and get to know our terrific staff members. Of great importance will be public forums from which we will receive inspiration for educational topics. So, come visit us, and bring your opinions along as to how we can serve you.
Aquaponics: Not just another fish story with Central State University Extension

In just six to nine months, two hundred tilapia fingerlings at the Central State University Extension (CSUE) demonstration green house will grow into more than 200 pounds of fresh, locally produced protein utilizing an aquaponics system.

“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 (cultivating plants in water) 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 CSUE Program Leader for Agricultural and Natural Resources Dr. Cindy Folck. “Aquaponics helps to grow plants faster and more efficiently than more traditional methods with the added bonus of breeding fish for consumption.”

Three tanks, housed within the 30-by-90-foot green house, will be used for the demonstration project, says CSUE Vegetable and Small Fruit Technician Marc Amante. The tilapia will be raised within a 1,000-gallon tank with lettuce, basil and other small greens grown in two 700-gallon tanks.

“A Dutch Double Bucket aquaponics system will produce tomatoes, peppers and other small vegetables,” he adds. This aquaponics system utilizes buckets connected to the fish tank via a central line. The water is pumped through this and into each bucket; it is then allowed to drain back into the fish tank to be cycled through again.

“Central State has two aquaponics systems, one for research and one for community engagement and workshops,” says Dr. Krishna Kumar Nedunuri, Professor of Environmental Engineering, and Director of the International Center for Water Resources Management at CSU.

The Double Dutch Bucket aquaponics project is made possible through funding from a United States Department of Agriculture (USDA)/ National Institute of Food and Agriculture (NIFA) Capacity Building Grant Program. The project is a collaboration between CSU research and CSU extension, as well as OSU extension at Piketon. For more information about the aquaponics program, contact Dr. Folck at afolck@CentralState.edu or Dr. Nedunuri at knedunuri@centralstate.edu.

First CSUE aquaponics harvest of the season yields locally grown lettuce, greens

Three varieties of lettuce were part of the first harvest of 2020 at the Central State University Extension Aquaponics Greenhouse. In only five weeks, the lettuce was ready to be harvested.

Future harvested and other produce grown in the system will be donated to local food pantries in the Xenia, Dayton, and Springfield area once Covid-19 restrictions are lifted.

Shown is CSUE Small Vegetable and Fruit Technician Marc Amante as he weighs and logs research data from the first 2020 harvest.
The CSU Seed to Bloom Botanical Garden is the vision of Central State University President Emeritus Dr. Cynthia Jackson-Hammond, who envisioned an inviting space where members of the community could relax and people of all ages could learn. 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:
--- Agricultural Learning Area. Horticultural/agricultural education will begin at the learning shelter complete with an interactive, covered space for visitors and students.
--- Forest Amphitheatre. The garden boasts a natural setting for learning as students sit on stone-walled seats with space for 30 people while facing the forested corner.
--- Forested Grove. Visitors and garden learners can “breathe in” nature with a curved trail through the naturally forested corner of the garden.
--- Stone Paths. The garden is designed with gently curving pathways to encourage visitors and learners to wander and look for pollinators and other visitors to the garden.
--- Raised Beds. Demonstration sites and community gardens will be used to encourage visitors and learners to create their own gardens as well as incorporate food and agricultural production into their landscapes.

Hours for visitors after the opening will be daily from 8 a.m. to dusk (one hour before sunset.)

For more information, contact Central State University Ag and Natural Resources Program Leader, Dr. Cindy Folck, at afolck@CentralState.edu.

CSUE is excited to launch “The Synergy Show” designed to further its mission of Engaging Communities and Transforming Lives. The show is produced by CSUE’s Community & Economic Development Program, that is taking an innovative approach to program delivery to ensure premier community-based outreach and educational programs are meeting the needs of families in rural, urban, and Appalachian communities. The program airs every third Wednesday at 8 p.m. on WCSU-FM, Jazzy 88.9.

The Synergy Show is a public affairs program whose purpose is to educate the community on important issues that impact economics, business, education, and development.

The program, which is being produced through a partnership with public radio station WCSU-FM, will feature impactful interviews with impactors from around the state, as well as local community influencers, and knowledgeable business professionals. Episodes can also be heard on the Extension web page, via podcast, You Tube, and the Central State University Extension Facebook page.

According to Anthony Barwick, the program seeks to expand the ability of the CSU Extension Office to empower communities in achieving their goals through education and technical assistance with a particular focus on economics in urban and rural communities. Mr. Barwick is Program Leader of Community and Economic Development, and producer of The Synergy Show.

Future topics include: Starting a Business; Business Structure; Record Expungement & Certificate of Qualification for Employment (CQE); and Building Community Partnerships.

Contact Anthony Barwick at abarwick@centralstate.edu to learn more about the Synergy show, to be a guest, or to suggest topics.
Bee webinars hosted by CSUE to share latest apiculture research

Have you ever wanted to know what you can do to help save the declining bee population? If so, Central State University, Ohio’s only 1890 Land-Grant Institution hosted the “Beekeeping Happy Hour Webinar Series,” earlier this year.

The Beekeeping Summer Webinar Series was hosted by Central State University Research Assistant Professor of Entomology Hongmei Li-Byarlay, Ph.D.

The series of one-hour webinars focused on bee management and research with several nationally known bee experts. Dr. Li-Byarlay, an expert in bee genetics, social behavior, and physiology, is committed to helping save bees through dynamic and innovative research and community presentations. Her research at CSU centers around honeybee genetics, behavior, breeding, and physiology.

“Beekeeping is where science meets agriculture, and there is an art to raising bees,” said Dr. Li-Byarlay. “We need bees for our agriculture and environment because they are important pollinators for fruits, vegetables, and crops. One third of our food are pollinated by bees. Honeybee colonies provide lots of products for humans including honey, beeswax, propolis, pollen (bee bread), royal jelly and bee venom,” she added. “So learning how to keep bees in a sustainable way is important for our environment. We have to protect them. These seminars helped participants learn about sustainable beekeeping, new information about bee pathogens, parasites, and bee hives.”

Cindy Folck, Ph.D., and CSU Extension Program Leader of Agriculture and Natural Resources, and co-seminar presenter added, “With so much of the ecosystem relying on the hard work of bees it’s hard to find a reason not to attend this workshop. Natural beehives face a lot of challenges. Through beekeeping, humans can play a role in preserving populations, and in doing so, help sustain the environment.”

For more information, contact Dr. Cindy Folck at afolck@CentralState.edu.

CSUE EFNEP professionals create series of healthy living videos

Central State University Extension (CSUE) professionals from the Expanded Food and Nutrition Education Program (EFNEP) recently created a series of videos focusing on creating healthy, budget-friendly and easy-to-prepare meals as well as tips on staying physically active. Topics include grocery shopping on a budget, creating healthy alternative meals and building exercise into a day’s routine.

The team plans on producing more educational programs to reach consumers throughout the State of Ohio and beyond to share the benefit of healthy eating and physical activity.

The series of videos was created to provide education and training to clients and others during the COVID-19 pandemic that prohibited the face-to-face programs offered by the team. Clients could complete their series of training that had started before the pandemic restrictions on face-to-face programming.

CSUE EFNEP Program Assistants Sha’Chanda Webster-Davis, Donna Kuykendall, and Stacey Stangel, with direction from EFNEP Coordinator Dr. Mary Kershaw, presented the programs that were shared on CSEU’s Facebook and YouTube channel.

For more information on scheduling a program, contact Dr. Mary Kershaw at mkershaw@CentralState.edu.
Preserving vital natural resources while creating economic opportunities within an underserved area of Ohio, Central State University Extension (CSUE) Forest Outreach Coordinator Jamie Dahl was recently congratulated for creating and delivering outstanding results in the Renewable Resources Extension Act (RREA) funded by the US Department of Agriculture (USDA), National Institute of Food and Agriculture (NIFA).

Dahl’s programming focuses on the underserved southeastern part of the state. CSU’s participation in the Ohio Interagency Forestry Team provides additional monetary leverage of RREA dollars as the team collectively contributes about $10.2 million annually to promote and implement conservation of oak ecosystems, through management, research, and outreach. In addition, CSUE helped to found a Women Owning Woodlands (WOW) group in southeast Ohio in May 2019. WOW is part of a national movement to bring topical, accessible, and current forestry and natural resources information to women landowners and forest practitioners. Female professionals, landowners, and enthusiasts learn from one another through programs and direct contacts. Dahl has helped to establish core partnerships to lead this effort with support from the Interagency Forestry Team. Key partners for SE Ohio WOW include: Hocking Soil and Water Conservation District (HSWCD), the Ohio Department of Natural Resources’ Division of Forestry, Rural Action, OSUE, and the USDA Forest Service.

She and her family recently relocated to Colorado to continue her education. **For more information on CSU’s Land-Grant forestry initiatives, contact Dr. Cindy Folck at afolck@CentralState.edu.**

**Real Roots Radio and In Ohio Country feature CSUE programs**

New programs, emerging research and special events hosted by Central State University Extension (CSUE) will be featured on a new radio show, **Extension Central**, which began in July, Friday(s), at 12:05 p.m. on all Real Roots Radio station outlets. The weekly ten-minute segments can be heard on WBZI (FM 100.3/AM 1500); WKFI (FM 106.7/AM 1090) and WEDI (FM 105.5/AM 1130) to an audience throughout southwest Ohio. The program is hosted by CSUE Outreach and Communications Associate Gretchen Rives.

**Extension Central** will feature a weekly discussion with a member of the Extension Program at Central State, an 1890 Land-Grant University. Topics will offer information highlighting 4-H Youth Development; Agricultural and Natural Resources; Community and Economic Development; and Consumer Sciences.

Programs are also being featured on **In Ohio Country** with guests including both CSUE extension and research professionals. Award-winning veteran broadcaster Dan Wilson is both the co-host and producer of this nationally recognized television show. The program airs on numerous stations and broadcasts weekly throughout Ohio and parts of Indiana, Michigan, Kentucky, West Virginia and Pennsylvania and seen nationally via social media, website, YouTube Channel and Farm & Ranch T.V.

**4-H offers youth programming throughout State of Ohio**

4-H professionals from Central State University Extension (CSUE) offer a wide variety of programs on campus, within communities, as well as in the classroom and to youth organizations.

Although camps were not held this summer due to COVID-19 safety precautions, 4-H staff have been creating several other innovative methods to provide programming through drop-off kits focused on keeping youth learning, healthy and growing during the pandemic.

CSUE 4-H programs are currently offered in several southwestern Ohio counties and can be designed to meet the needs of the organization, school, church group or youth association. **For more information on participating in any 4-H program offered by CSUE, contact Jodi Black at sbblack@CentralState.edu or Kevin McGhee at kmghee@CentralState.edu.**
Updates and Upcoming Programs

Extension Work in Progress

We have the following new projects and partnerships in development to better serve Ohioans and to fulfill the CSUE mission:

- Trotwood Community-Based Programming/East Cleveland Community-Based Programming and Agreement
- Xenia Community-Based Programming and Agreement
- Aquaculture/Aquaponics Production
- Seed to Bloom Botanical Gardens

Upcoming Programs

We are continuing to program across our four impact areas throughout the state of Ohio. Look for these upcoming programs near you!

**Agriculture and Natural Resources**
- CSUE/Rid-All Aquaponics Workshops (Butler, Franklin, Hamilton, Lucas, and Montgomery)
- Aquaponics Education Workshops (Montgomery)
- Extending Your Growing Season (Cuyahoga, Franklin)
- CSUE/FoodBank Urban Gardening Series (Montgomery)
- CSUE/OEFFA Farm Tours (Statewide)
- County Fairs (Butler, Cuyahoga, Franklin, Greene, Hamilton, Lucas, and Montgomery)
- State Fair (Franklin)

**Community and Economic Development**
- Ready, Set, Grow! (Cuyahoga)
- Crowdfunding for Entrepreneurs (Cuyahoga)
- CSUE/Rid-All Agribusiness Workshops (Butler, Franklin, Hamilton, Lucas, and Montgomery)
- Inside the Courtroom – Questions & Answers (Montgomery)
- Sealing of Criminal Records Clinic (Greene)

**Family and Consumer Sciences**
- Men Take a Stand For Your Health – Men’s Health Fair (Montgomery)
- Understanding Diabetes Prevention and Management (Franklin)
- Diabetes Empowerment Education Program (Butler, Franklin, Hamilton, and Lucas)
- The Art of Food Preservation Series (Hamilton)
- Budgeting 101: Keeping it Real (Franklin)
- EFNEP: Eating Smart, Being Active (Montgomery)
- EFNEP: Eat for the Health of It (Montgomery)

**4-H Youth Development**
- CSUE/Rid-All 4-H Youth Development Workshops (Butler, Franklin, Lucas, and Montgomery)
- 4-H School In-School & Afterschool Enrichment Programs (Franklin, Greene, Hamilton, and Montgomery)
- Seed to Bloom Ag-STEM Institute (Greene)
- Seed to Bloom Research and Extension Apprentice Program (Greene)
- Seed to Bloom Discovery Day Camp (Greene)

For more information about the programs being offered, visit our website: www.CentralState.edu/csuextension

Interested in CSUE conducting a program with your organization?
Reach out to us to inquire!