



CENTRAL
STATE UNIVERSITY

1890 Land-Grant Institution

November/December 2023

CENTRAL STATE UNIVERSITY

**REVOLUTIONIZING
COMPUTER SCIENCE
EDUCATION AND ADVANCING
ARTIFICIAL INTELLIGENCE**

The Intersection of Ingenuity and Innovation

**CENTRAL STATE UNIVERSITY
LAND-GRANT PROGRAM SEEKING
CORPORATE AND PRIVATE SUPPORT TO
EXPAND CAPABILITIES OF UPCOMING
RESEARCH AND DEMONSTRATION AREA**



PLUS

**Assistance for
Minority Farmers**





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FROM THE DIRECTOR



Welcome to the final edition of the Central State University 1890 Land-Grant News Magazine for 2023. We end this year with a call for you to join CSU's dedicated professionals —Land-Grant Researchers, Extension Educators, University faculty, staff, and students leading the effort to provide safe and nutritious through a judicious use of natural resources.

By partnering with us, you can be part of an amazing future that includes saving the honeybees, improving health outcomes, protecting our waterways, and helping farmers improve crop yields!

Morakinyo A.O. Kuti, Ph.D.
Vice President, Research and Economic Development,
Director 1890 Land-Grant Programs

The November/December 2023 edition highlights selected accomplishments towards our mission of being a beacon of innovation and progress in agricultural research and extension services, including Dr. Deng Cao's work in advancing artificial intelligence with precision robotics, and Dr. Pratibha Gupta's revolutionary work in the field of nutrigenomics.

We spotlight student researchers who's school year started before they stepped foot back on campus in August and highlight our work educating future global leaders by providing experiential learning and internship through various camps and outreach.

In 2024 CSU will celebrate its 10th Anniversary as a 1890 Land-Grant Institution with an Open House on April 26, 2024 as the final event of week-long celebration.

As always, please explore the great and exciting opportunities within Central State University's 1890 Land-Grant programs and look for ways to partner with CSU to engage and transform communities through academics, research, and extension.



REVOLUTIONIZING COMPUTER SCIENCE EDUCATION AND ADVANCING ARTIFICIAL INTELLIGENCE

BY CRYSTAL DUCKETT



Dr. Cao shows off a weed control prototype using Directed Energy and Deep Learning

Deng Cao, Ph.D., professor of computer science in the Department of Mathematics and Computer Science, has made remarkable contributions to the fields of next-gen neuromorphic computing, agricultural robotics, and generative artificial intelligence.

Throughout his career, Dr. Cao has collaborated with many renowned institutions and agencies, securing over \$3,000,000 in external funds and awards. Notable among these are grants from the National Institute of Food and Agriculture, the National Science Foundation, the US Air Force Research Laboratory, Google, Intel, and the Ohio Department of Higher Education.

Drawing on his expertise and passion for computational logic and mathematics, Dr. Cao has empowered his students to actively engage with modern computer science topics.

By incorporating artificial intelligence, machine learning, computer vision, and app development into the classroom, Dr. Cao has nurtured a generation of students who have not only developed their own apps, but who have also presented their work at national events and served as co-authors of international conference proceedings.

WITH CONTINUED PRACTICE AND PERSEVERANCE, DR. CAO BELIEVES THAT UNDERGRADUATE STUDENTS CAN MAKE SIGNIFICANT CONTRIBUTIONS TO RESEARCH.

Looking ahead, Dr. Cao is committed to exploring and integrating modern computer science topics into the learning environment. One paramount area of interest is Explainable AI (XAI), a critical field focused on making AI systems more transparent and understandable. Dr. Cao recognizes the pivotal role XAI plays in building trust, ensuring accountability, and addressing ethical concerns in AI applications.

Research awards, grants, and fellowships include Advanced Unmanned Aerial Vehicle Education and Research for Agriculture and Forestry, securing \$300,000 in funding from 2023 to 2025, serving as Co-PI for the Intel Semiconductor Education Program at Central State University (ISEP-CSU), which was granted \$1,390,000 from 2022 to 2024, recipient of Google's 2022 TensorFlow college award. Notable works include his research on an Organic Weed Control Prototype using Directed Energy and Deep Learning, submitted to the science journal PLoS One, and his review on Optical Weed Control in Weed Research.

With his unwavering commitment to innovation and education, Dr. Deng Cao is revolutionizing the field of computer science and advancing the frontiers of artificial intelligence.

2023 Year in Review

2023 brought a lot of exciting changes to Central State University Land-Grant. From enhancing existing programs to new research, and new scholarships, the CSU Land-Grant faculty, staff, and researchers have been hard at work making a positive impact in communities and on the world at large. Click on the photo below to look back on an amazing year or visit us online at centralstate.edu



CENTRAL STATE UNIVERSITY PROFESSOR DR. BRANDY PHIPPS WINS NATIONAL EXCELLENCE IN AGRICULTURAL TEACHING AWARD



(R-L) Dr. Brandy Phipps with Dr. Manjit K. Misra, Director, USDA NIFA

Teaching is one of the world’s noblest professions and Central State University (CSU) Associate Professor Brandy Phipps, Ph.D., takes her job very seriously, selflessly pouring into the students at CSU every day. She was recently awarded a National Excellence in Teaching Award affirming this steadfastness.

On Sunday, Nov. 13, 2023, Dr. Phipps was among eight public university faculty from around the country honored by the Association of Public and Land-Grant Universities (APLU) and the U.S. Department of Agriculture’s National Institute for Food and Agriculture (USDA-NIFA) for their work educating students.

The nominees are evaluated based on their ability as classroom teachers, use of innovative teaching methodology, service to students and their profession, and scholarship.

Dr. Phipps, who was awarded Best Early-Career Teacher, became a tenured associate professor in the CSU Department of Agricultural and Life Sciences in 2023. Since her arrival at CSU in 2019, she has led or co-led \$11 million in research grant funding to Central State, all of which include experiential learning opportunities for students through their participation in research and community engagement activities.

[Learn more about Dr. Phipps and the National Excellence in Teaching Award](http://centralstate.edu/news) at centralstate.edu/news.

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1890 Land-Grant Institution

YOU ARE INVITED

WILBERFORCE, OH

Central State University
Land-Grant

10th-Anniversary
Celebration & Open House

APRIL 26
2024

Questions: email landgrantcommunications@centralstate.edu





Raymond Rolle, Central State student, at work in the CSU Nutrigenomics lab under the guidance of Dr. Pratibha Gupta.

CENTRAL STATE UNIVERSITY LAND-GRANT PROGRAM SEEKING CORPORATE AND PRIVATE SUPPORT TO EXPAND CAPABILITIES OF UPCOMING RESEARCH AND DEMONSTRATION AREA

Lena Fields-Arnold

Exciting developments are unfolding in the heart of Ohio. Central State University (CSU), a prestigious 1890 Land-Grant institution, is making significant strides in agricultural research and extension services.

CSU is more than just a teaching institution; it is a hub of innovation and progress, paving the way for advancements in food and agriculture. Our pioneering research is not only influencing the local community but also making a substantial impact nationwide and even globally.

From the rich farmlands of Ohio to the vibrant global markets, CSU's work is shaping the future of agriculture. CSU's Extension services are reaching out to a diverse range of stakeholders, sharing knowledge, promoting, and building more vibrant communities across the state.



Visitors to the CSU Seed to Bloom Botanical Garden in July take time to appreciate the flowers and vegetables.

Central State University proudly achieved its 1890 Land-Grant University status in 2014. For nearly a decade, Central State has been involved in research projects that have positively impacted the world. From investigating corn that could aid diabetics to exploring ways to save bees — our PLANET SUPERHEROES, a unique distinction among our researchers — are diligently working to build a healthier, more sustainable planet.

“But we can do even more,” said Dr. Morakinyo Kuti, Ph.D., vice president of Research and Economic Development and director of CSU 1890 Land-Grant Programs. “In 2024, we will commemorate our 10th anniversary as an 1890 Land-Grant Institution, and part of that celebration involves showcasing our impact locally, statewide, and globally, and seeking private backing to help us extend the reach of our mission.”

The mission of Central State University’s Land-Grant Programs is to engage communities and transform lives. This is accomplished through teaching, research, and extension. The newly created Research and Economic Development Division, in collaboration with CSU’s Land-Grant Program, seeks to accomplish its mission by establishing a Research and Demonstration Complex with two new buildings scheduled for completion by 2025.

Beginning with a farm storage facility (2024) and a state-of-the-art, 40,000-square-foot facility (2025), Central State University is ready to expand research capabilities and address critical issues that require scientific innovation. The \$40 million research building will house several labs, including precision agriculture, food and safety, molecular biology and tissue culture, and soil and water research testing labs.

“Extending beyond the borders of Ohio to make long-term positive impacts on the world has always been the goal of our research at Central State,” Kuti added.

“Collaborating with stakeholders has always been a crucial part of that plan. The Research and Demonstration Complex will provide new opportunities for public and private entities to join us in advancing the mission, enhancing research, and expanding teaching and extension opportunities, improving our communities and our world.”

According to the Interim Central State University President Alex Johnson corporations, businesses, and individuals can join CSU and also become Planet Superheroes. Central State University offers several avenues for corporations, public entities, foundations, businesses, and individuals to support its innovative programs, including:

- Unrestricted financial contributions
- Grants
- Naming opportunities
- Strategic partnerships
- Scholarships and internships

“There are many ways to support Central State,” added Dr. Johnson. “Companies can choose to partner in more than one way. We welcome the chance to sit down and strategize together.”

To schedule your meeting to learn more about how to support research at Central State University, contact Tiffney Gray, vice president of Institutional Advancement, at 937-376-6080 or via email trgray@centralstate.edu.



Planet Superhero and Research Assistant Professor/Extension Specialist Dr. Robert Korir explains his research as part of a video highlighting the Research and Demonstration Complex scheduled for completion in 2025.

[View the Video](#), or visit centralstate.edu to learn more.



CENTRAL STATE UNIVERSITY

RESEARCH AND DEMONSTRATION COMPLEX

Where the PAST, PRESENT, and FUTURE converge at
the intersection of PROGRESS and INNOVATION!



The summer of research

For several John W. Garland College of Engineering, Science, Technology, and Agriculture students, the summer flew by quickly while they were conducting research, exploring new opportunities in their education, learning life lessons, and gaining valuable leadership skills.

WRITTEN BY
CYRIL IBE

Students featured in this article responded to a list of shared questions about how they spent their summer at CSU. The following pages highlight some of their many accomplishments. Summer may have long passed, but these students will never forget the lessons learned or skills gained.



KEIANA BRISCOE, JUNIOR
MAJOR: BIOLOGY
SUMMER INTERNSHIP POSITION:
STUDENT RESEARCH ASSISTANT

Describe what you did during the summer break.

Over the summer I worked with Dr. Hongmei Li-Byarlay, research associate professor of entomology at CSU. Dr. Li-Byarlay oversees the CSU Bee Lab. I have worked in her lab since November of 2022 and used the summer as an opportunity to finish my research project. Highlights include:

- Attended the 2023 International Conference on Pollinator Biology, Health, and Policy at Penn State University (June 3-June 6).
- Received the Alate Award, an Entomological Society Association student researcher award.
- Performed experiments concerning oxidative stress and its effects.
- Interviewed with Dayton Daily News and the local FOX News channel on bee research at Central State University.

What are your takeaways from this summer internship?

Having a communicative, supportive, and cohesive lab group is important to your own success and motivation. It is also important to take breaks when you need them to prevent burnout. I gained invaluable insights into what a future in research could look like.



JAHIEM WILSON, JUNIOR
MAJOR: COMPUTER SCIENCE
SUMMER INTERNSHIP POSITION:
STUDENT RESEARCH ASSISTANT

Describe what you did during the summer break.

I undertook two impactful projects. The first involved creating an automated hydroponics system, where I skillfully programmed multiple sensors to detect crucial system properties. Additionally, I immersed myself in the study of various genotypes of sweet potatoes, mastering the art of nurturing, transplanting, and pruning the plants.

My role extended to capturing images, expertly cropping, and labeling them for an AI object detection database. I also took on essential greenhouse management tasks, diligently caring for the plants and embracing the joys of operating high-powered farming tools. I look forward to making meaningful contributions to the advancement of sustainable farming practices.

What are your takeaways from this summer internship?

My key takeaway from this experience is the realization that computer science can be seamlessly integrated into sustainable agriculture, offering a myriad of transformative possibilities. Witnessing the profound impact of computer science on this field has inspired me, as it presents endless opportunities for evolution and expansion, ushering in a new era of innovation and progress.



**JOEL BARHORST, JUNIOR
MAJOR: SUSTAINABLE
AGRICULTURE
SUMMER INTERNSHIP POSITION:
STUDENT RESEARCH ASSISTANT**

Describe what you did during the summer break.

I worked on a project growing pumpkins and researching which ones customers preferred, what price they were willing to pay for each pumpkin variety, and what the market prefers when it comes to pumpkins.

I assisted Dr. Marcus Nagle with his sweet potato research as he explored which sweet potato crops grow best in this region. This research is critical to helping solve the world's hunger problems.

What are your takeaways from this summer internship?

Be persistent and always keep going!

**JAIRUS BURROWS, JUNIOR
MAJOR: BIOLOGY
SUMMER INTERNSHIP POSITION:
STUDENT RESEARCH ASSISTANT**

Describe what you did during the summer break.

During the Summer, I worked on semi-independent lab projects under the direction of Dr. Hongmei Li-Byarlay.

In the first research project, we investigated the viral presence in honeybees from conventional, organic, and roadside landscapes using PCR assays and 1% Agarose Gel Electrophoresis.

In the second project, we collected Ceratina bee nests (pollen, larvae and adult Ceratina bees) for future investigation of pesticide residue.

What are your takeaways from this summer internship?

I learned that a failed experiment is still a good experiment because you can use what you have learned through failing as a step to reach success.

CENTRAL STATE UNIVERSITY AND THE OHIO INTELLECTUAL PROPERTY (IP) PROMISE





(Standing) Dr. Ibrahim Katampe pictured with a student mentee.

by Lena Fields-Arnold

Central State University (CSU), Ohio's only 1890 Land-Grant Historically Black College and University (HBCU), in collaboration with Ohio's other public universities, joined Lt. Gov. Jon Husted in implementing the Ohio IP Promise.

In May 2019, Husted challenged the Inter-University Council of Ohio (IUC) to establish a best-in-class process for cultivating the licensing of intellectual property (IP). The resulting Ohio IP Promise opens up new opportunities for universities to engage business partners in research projects by facilitating efficient and effective commercialization of intellectual property.

As a result, the state's research universities, which includes Central State University, aligned on the following guiding principles that serve as a foundation for the Ohio IP Promise.

Flexible: provide industry choices for accessing intellectual property developed through sponsored research.

Transparent: publish template sponsored research and license agreements.

Simple: deliver fair and streamlined guidelines for faculty creator startups.

Clear: communicate licensing processes on university websites in a clear, prominent way.

Easy: provide well-defined university entry points for industry, investors, and entrepreneurs.

Fast: reduce impediments that hinder the pace of transactions and enable CSU to achieve 1890 Land-Grant institution research and extension mission.

Through the Ohio IP Promise, research universities like Central State, are able to contribute in significant ways to Ohio's economy by attracting innovative researchers and serving as a magnet for investors and entrepreneurs.

"THE IP PROMISE ALSO MAKES IT EASIER FOR FACULTY AND RESEARCHERS TO COMMERCIALIZE THEIR INTELLECTUAL PROPERTY; THUS ENHANCING OHIO'S ECONOMY, EXPANDING OPPORTUNITIES FOR STRATEGIC PARTNERSHIPS, AND STRENGTHENING CSU'S LONG-TERM RESEARCH CAPACITY."
DR. IBRAHIM KATAMPE

For example, CSU was the first university in the state to plant seeds for hemp research. Hemp, grown for fiber, grain, and cannabidiol (CBD), can be used in more than 25,000 products. Local businesses, looking to create new products from hemp can partner with Central State on research projects and/or capitalize on innovations developed through sponsored research.

Further, according to Ibrahim Katampe Ph.D., professor of chemistry and associate director of innovation and technology transfer in the John W. Garland College of Engineering, Science, Technology, and Agriculture; the IP Promise also makes it easier for faculty and researchers to commercialize their intellectual property—thus enhancing Ohio's economy and improving its residents' lives with new products and service. It will also offer opportunities for students that can have positive long-term residual impact.

To learn more about Central State University and the IP Promise, visit centralstate.edu or email ikatampe@centralstate.edu.

Generation NEXT



EDUCATING THE NEXT GENERATION OF AG-STEM LEADERS

CRYSTAL DUCKETT

Sixty middle-school 4-H members attended the **Seed to Bloom 4-H Ag Stem Camp** and received hands-on experience with drones and robotics. The interactive lessons presented the students with problems that they solved using technology. The camps were held in the last two weeks in June and included hands-on farming, marketing, and sales opportunities as the students planted and cared for a vegetable plot, made salsa from the crops grown, and sold the processed products. Students were able to keep all the proceeds from the sale of the salsa.

The **Apple Creative Community Camp**, a program tailored for high school tech enthusiasts was attended by 11 students from North College Hill School District who embraced this enriching journey, making it a summer to remember. The Apple camp was coordinated by CSU Extension 4-H program assistant, Rochelle Williams, CED educator Amber Twitty, and Independent Contractor Richard Smith.

During the camp, held in July, the young innovators immersed themselves in the world of coding and Apple applications. Sessions were led by staff from the Beavercreek, Ohio, Apple store, where the camp was held. The free program, which included a complimentary lunch, took place each day, from 10 a.m. to 3 p.m. Students were passionately engrossed in hands-on sessions that included Apple software such as iMovie, Camera, Garage Band, and two days of Pages.

THIS SUMMER, CENTRAL STATE UNIVERSITY EXTENSION PROVIDED HIGH-TECH OPPORTUNITIES FOR STUDENTS THROUGH SEVERAL CAMPS AND INTERNSHIPS. TOGETHER, THESE CAMPS PROVIDED GROUNDBREAKING INITIATIVES TO TRAIN THE NEXT GENERATION OF AG-STEM LEADERS

The CSU-led **Intel Summer Internship** program for Women and Underrepresented Minorities concluded on July 28. This eight-week intensive course began June 5. During this time, students received training in electronic hardware design, fabrication, and security.

Twenty interns from various colleges and high schools were selected for the internship from a pool of more than 80 applicants.

Students who attended the **Department of Defense (DoD) STEM Education Consortium (DESC) Camp** were provided with education on career pathways. In partnership with Sinclair College, Central State University (CSU) established this Science, Technology, Engineering, and Mathematics (STEM) education and career pathway for underrepresented and military-connected students in the Dayton area with funds from a \$250,000 grant from DoD STEM, administered by the Defense STEM Education Consortium (DSEC).

This two-week-long, residential camp for students transitioning to Central State included professional and leadership skills development; Research Experiential Apprenticeship Program (REAP), and tours to relevant pathway businesses and industries.

Continued on next page.



DESC DoD STEM Camp students participate in lecture during the summer Ag-Stem camp. Photo credit: Ibrahim Katampe

The five-week **Climate Smart Summer Bridge Program** hosted five incoming first-year students this summer from June 4-July 7. Participating students were engaged in courses such as Biology, Biology Lab, and First Year Student Seminar.

In addition to receiving college credit, participants were also eligible to receive up to \$14,000 in scholarship awards to complete their degree at Central State and were additionally afforded opportunities to engage in research while attending CSU.

This program was made possible through a partnership with Central State University (CSU) and The United States Department of Agriculture Natural Resources Conservation Service (NRCS) who are working together to build capacity through the establishment of a Climate Smart Agriculture Center (CSA) at Central State University.

LAND-GRANT NEWS



Renita Porter is the new CSU Extension Family and Consumer Sciences (FCS) Program Leader effective Dec. 1, 2023. Her duties and responsibilities will include FCS program implementation throughout Ohio, plus managing a team of FCS and EFNEP

(Expanded Food and Nutrition Education Program) educators and nutrition coordinators. Renita has been with CSU Extension since 2017 and has held the following positions: FCS Educator and Interim [FCS Program](#) Leader.



Arunasalam Rahunathan, PhD, Interim Dean and Professor of Mathematics, John W. Garland College of Engineering, Science, Technology, and Agriculture (JWGCESTA) has jointly published a paper in the Elsevier Journal of Computational Physics. The title of the paper is "Multiscale Sampling for the Inverse Modeling of Partial Differential Equations." Dr. Rahunathan's co-authors are Alsadig Ali, Abdullah Al-Mamun, and Felipe Pereira. Research for the article was supported by USDA/NIFA through Central State University's Evans-Allen Research Program. [Read Journal Article.](#)



On Nov. 9, 2023, **students** from the John W. Garland College of Engineering, Science, Technology, and Agriculture (JWGCESTA) **AGR 2150 class**, visited the **STgenetics™** Heifer Center in South Charleston, Ohio with their professor Dr. Susan Speight. Students toured the facility and had a chance to interact with industry professionals. Pictured, from left to right are students, Andre Wallace, Aaron Whiteside, Jordan Hall, Derrick Martin, Jordan McMahan, Breosha Worthy, Tre'Mia Hutcheson, Micah Lowe, and Chantinae Gray.

Rajveer Dhillon, Ph.D., assistant research professor of precision agriculture and precision engineering, and Qianna Moncur, a CSU senior industrial technology major, have jointly published a review article in the journal *Sustainability*.



The article is titled, "Small-Scale Farming: A review of challenges and potential opportunities offered by technological advancements." [Read Journal Article.](#)



Photo by Crystal Duckett

The 2nd Annual Winter Illumination event at the Seed to Bloom Botanical and Community Garden was held on Tuesday, Nov. 28, 2023, from 5 to 6 p.m. The evening kicked off with remarks from CSU Interim President Alex Johnson, featured music from CSU students, and ended with sparkling lights that showcase the beauty of our CSU Botanical Garden. For more information on Garden programs, call 937-376-6627.



Water Resources Management (WRM) Professor of Environmental Studies, **Dr. DeBonne Wishart** served on a panel at the 42nd Annual Conference of the National Association of Black Geologists (NABG) in Sept. 27–30, 2023, in Washington, D.C.

Dr. Wishart, the only faculty engaged in geothermal research at a Historically Black College and University (HBCU), has been engaged in geothermal research since 2011. She participated in a panel discussion on a "Carbon Neutral Future" to discuss how society can achieve net-zero emissions by 2035 through carbon capture from geothermal, wind, solar, and nuclear renewable energy sources.

“GEOTHERMAL ENERGY IS RELIABLE TWENTY-FOUR HOURS A DAY, SEVEN DAYS A WEEK; THEREFORE, GEOTHERMAL PLANTS CAN PROVIDE A CONSTANT STREAM OF POWER, WHICH IS CRUCIAL TO BALANCING THE GRID. “DEBONNE WISHART, PHD

Moderated by Illinois State Geological Survey (ISGS) Research Geologist, Dr. Sherilyn Williams-Stroud (University of Illinois Urbana Champaign), the four-person “Carbon Neutral Future” panel was comprised of Dr. Wishart (Central State University), Dr. Jerry Carr Jr. (Department of Energy), Dr. Chven Mitchell (*Sandia Labs*), and Dr. Jeanette Sherman Randall (Eden Geothermal.)

Discussion topics included: (1) the energy transition from oil and gas to geothermal development; (2) enhanced geothermal systems (EGS); (3) sequestration of carbon from geothermal and nuclear resources; (4) in-situ hydrogen generation; (5) the increasing need for exploration and development of low-temperature and low-enthalpy geothermal resources in sedimentary basins; (6) environmental justice and transitioning to a low-carbon future; (7) commitment by higher education institutions to net-zero carbon emissions; and (8) initiatives taken for sustainable energy infrastructure on college campuses and energy workforce development.

The panel responded to questions raised on the roles in attaining net-zero emissions by 2035 and agreed that for now the world will not be able to wean entirely off fossil fuels, but advancing technologies, hybridization of electrical grids with renewable energy resources, incentives, and trade-offs will help ensure that carbon-neutral future goals can be accomplished. For more information on geothermal energy email dwishart@centralstate.edu.



Dr. Gupta speaks to New Lexington High School students visiting the CSU Nutrigenomics Lab during Homecoming 2023

The Wright State University College of Graduate Programs & Honors Studies, in conjunction with the Graduate Faculty Membership Committee recently approved Central State University Researcher **Dr. Pratibha Gupta's** nomination for associate membership in the Wright State University graduate faculty for a seven-year term ending Aug. 31, 2030.

The privileges associated with this associate membership include serving as a member of a doctoral dissertation committee, and as a mentor to students as they begin independent scholarly inquiry and new professional responsibilities.



The winning mocktail, Very Berry Sour, is made with blueberries, lemon juice, mint leaves, sugar and water.

Winning Mocktail featured at CSU Rise to the Challenge Summit

The annual **Mocktail Challenge**, held on Nov.9, 2023, showcased CSU students' commitment to sobriety by inviting individuals and student groups to compete to create non-alcoholic drinks.

The Mocktail Challenge was hosted by the Extension Family and Consumer Science Program in partnership with CSU Marauder Leadership and Engagement and Greene County Public Health.

The winning student organization team named *Lights Camera Action* (pictured bottom left) included: Anareean, Covington, Lyric Louis, Destin Pratt, Janiya Promise, and Taya Jamerson.

Participants also learned about mental health awareness, vaping prevention, and healthy living.

The winning mocktail from the event was also selected as a signature beverage at the Central State University Power Networking Reception held on Jan. 31, 2024.



NEWS EVENTS

Community Health Workers Certificate Program Graduation

Congratulations to the first Central State University-Dayton Workforce Development **Community Health Workers (CHW)/Patient Navigators Community Health Worker** class. Eleven participants received certificates of completion acknowledging their hard work over the course of 12 weeks.

The CHW/Patient Navigators training program is a partnership between Central State University (CSU)-Dayton, CSU Extension, and the CSU Division of Research and Economic Development.

Patient Navigators provide coordination and advocacy services to patients, helping them coordinate accessing appropriate health care.

The initial pilot program was free and supported by a grant from CareSource.



Participant Omowunmi Bilbilari shows off her certificate of completion at the ceremony held on Dec. 19.

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Stay Informed



Central State University sparks interest in farming through grant

Central State University is partnering with four other institutions to help recruit, train and educate the next generation in the agricultural work force.



Three Columbus companies involved in new research facilities going up at Central State University

Construction is underway on a new \$40 million facility at a growing Dayton-area university.

▶ Columbus Business First / Oct 16, 2023



Central State breaks ground on new research buildings

Central State is breaking ground on two buildings meant to be used for research on U.S 42.

▶ Dayton Daily News / Nov 30, 2023

Did you know?

During the Civil War, Congress voted to provide free land for civilian colleges that agreed to offer military instruction to their students. In 1916, this "land-grant" system of military training was transformed into the present-day Reserve Officer Training Corps.



Each year our CSU Marauder Battalion's, Ranger Challenge Team competes in the Brigade Bold Warrior Ranger Challenge Competition. This year's competition was held Oct. 27-29 at Fort Knox, Ky. The CSU Battalion placed 3rd out of 38 teams.



[Learn more about the ROTC Land-Grant Connection at the Harvard Crimson online.](#)



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climate

Can \$3 billion persuade Black farmers to trust the Department of Agriculture?

listen 5:00

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Can \$3 billion persuade Black farmers to trust the Department of Agriculture?

The Biden administration hopes changes to farming can help achieve its climate agenda. The Department of Agriculture has an



Can \$3 billion persuade Black farmers to trust the USDA?

The Biden administration's \$3.1 billion Partnership for Climate-Smart Commodities grant program hopes to convince farmers and ranchers to adopt practices that will reduce their greenhouse gas...

Food and Environment Reporting Network / Jan 8



A Central State professor is helping create more Black and Native American agricultural producers

WYSO's Adriana Martinez-Smiley spoke with Central State University professor, Brandy Phipps, about the work that led to her receiving a National Award for Excellence in Agricultural Teaching this past...

WYSO / Jan 8

EVENTS

Central State University Extension Hosts Free Farmer Discrimination Financial Assistance Workshop Series

Farmers or ranchers who experienced discrimination by the USDA farm programs received technical assistance to learn how to file a complaint with the USDA.

Farmers who experienced discrimination through USDA farm programs or loans could attend one of three Discrimination Financial Assistance Program (DFAP) workshops, hosted by Central State University Extension.

The workshops, held at three locations throughout Ohio, were for farmers or ranchers who experienced discrimination by the USDA farm programs prior to January 2021. The farmers and ranchers learned about the program and how they could receive technical assistance filing their complaints.

The DFAP program is part of Section 22007 of the Inflation Reduction Act (IRA) and provides \$2.2 billion for financial assistance for farmers and ranchers who experienced discrimination from the USDA around race, color, ethnicity, national origin, religion, sexual orientation, age, gender, retaliation in civil rights movement, and in other ways. The workshops are free to attend and will include dinner.

The first workshop was held on the campus of Central State University located in Wilberforce, Ohio, on Dec. 15, 2023, the second at Cleveland State in Cleveland, Ohio, and the third at the Maumee Bay Lodge and Conference Center in Oregon, Ohio near Toledo.

Participants were treated to dinner and the program was presented by Windsor Group, LLC, an authorized small business vendor contracted by the USDA to implement the DFAP.

The workshops were hosted by Central State University Extension and funded by the 22007 Outreach Support Program through the Extension Foundation in whole or in part with funds from the USDA.

To learn more about Central State University Extension programs, visit CentralState.edu.

 [VISIT US ON YOU TUBE TO VIEW THE EVENT VIDEO](#)

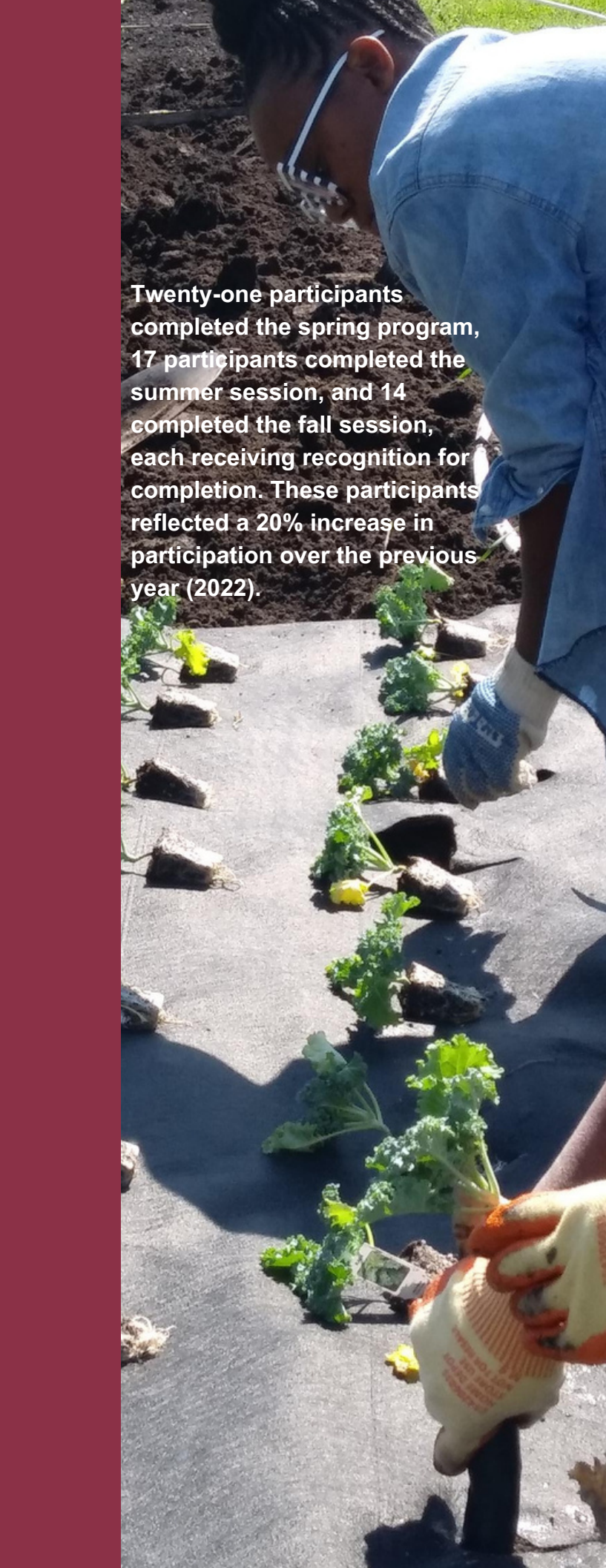


Crops, Communities, and Commitment: Toledo's Fast Track Farmer Program

Crystal Duckett



Participants of the Fast Track Beginning Farmer Program gained valuable knowledge and learned skills to help them grow crops in small scale settings as well as on larger plots.



Twenty-one participants completed the spring program, 17 participants completed the summer session, and 14 completed the fall session, each receiving recognition for completion. These participants reflected a 20% increase in participation over the previous year (2022).

In the heart of Toledo, Ohio, a transformative initiative—the Fast Track Beginning Farmer Program blossomed early in the year. The program's introduction to the community took place at the Toledo Grows Annual Seed Swap, an event that sees an influx of over 700 gardening aficionados every year, all under the auspices of the Toledo Grows, a collaboration of several organizations, including Central State University Extension.

On a bright February day, amidst the bustling corridors of Scott High School, Eric Smith and Michelle Wallace set up a dedicated booth to introduce the opportunities presented by the Fast Track Farmer Program. With the school being just around the corner from their collaborative partner, the Grace Community Center, their presence held even more significance. By the day's end, they had managed to garner the interest of 42 individuals eager to learn about urban farming.

Fast Track Beginning Farmer Program participants attended six intensive sessions, blending theoretical knowledge with hands-on workshops. Participants were also required to apprentice under an experienced farm mentor. Unique to the Toledo initiative, an additional session introduced participants to the Toledo Land Bank Vacant Lot program, providing them with avenues to rent or even acquire vacant city spaces to kickstart their farming aspirations.

The program took place at the Grace Community Center Farm, which rests on a quarter of an acre, boasts a productive expanse of about 5200 sq ft (about twice the area of a tennis court), and is on a former brownfield.

Given the contaminated nature of the soil, the farm adopts an innovative approach by growing crops in raised beds, elevated about 10 inches from the ground. Fresh soil and compost serve as the nurturing foundation for these beds.

The Grace Community Center has cherished and cultivated this land for seven prosperous years. Remarkably, 90% of the farm's yield supports the center's senior food pantry patrons, ensuring the produce reaches those who need it most, while the remaining 10% is sold or donated to charitable organizations.

The Fast Track Beginning Farmer Program in Toledo is more than just an agricultural venture; it symbolizes community bonding, individual growth, and societal transformation. It is not just about sowing seeds; it is about nurturing dreams and ambitions.

To learn more about the Fast Track Beginning Farmer Program, email mamante@centralstate.edu.

The Fast Track Farming Program is funded by a Capacity Building Grant from USDA-NIFA. To learn more email afolck@CentralState.edu.



CENTRAL STATE UNIVERSITY

EXTENSION REFLECTS ON NEW INITIATIVES

1890 Land-Grant

Top: The CSU Extension Mobile Demonstration Kitchen provided space to teach food safety for filleting fish from aquaponic systems.

Insert: Renita Porter, CSU Extension Program Leader for Family and Consumer Science, demonstrates healthy fruit snacks at the Mobile Demonstration Kitchen.

In 2014 Central State University (CSU) became the nation's newest 1890 Land-Grant and remains the only 1890 located in the northern half of the United States. This distinction means that CSU Extension's efforts to "Engage Communities and Transform Lives," must be impactful and meaningful.

In 2024, as we celebrate 10 years as an 1890 Land-Grant Institution, we look back with pride at two of our most impactful new initiatives, both focused on ensuring that people can grow and prepare healthy food.

CSU Extension has two mobile kitchen demonstration trailers that are used for health and nutrition education. These units have been used across Ohio and provide opportunities to conduct cooking demonstrations in areas with limited resources.

The Health Education Mobile Unit was introduced in 2023 and is used to bring health education to remote and limited resource areas. "The large unit has an examination room and learning center and is used for health screenings in communities," says Renita Porter, program leader for Family and Consumer Science (FCS). "The mobile unit provides a place for individuals to discuss health and allows us to provide education and resources." FCS partners with local physicians and health care providers who provide free assessments and help link the community with health care providers.

Another initiative is incubator farms for beginning farmer classes. Participants engage in a 12-week program where they are educated in the basics of growing food and running a small farm operation. The beginning farmers maintain plots at the farm which allows them to translate the information learned in the classroom into hands-on experience.

"The beginning farmer classes also have a business component to help farmers create their business and in turn help build a local food system," says Marc Amante who runs the program. "We are excited to report that many of our participants have started their own businesses, including Ms. Sharifa Tomlinson, who was recently featured in National Public Radio (NPR) and Food and Environment Reporting Network (FERN) news articles."

These are just a few of the new initiatives CSU Extension embarked upon in 2023. Extension staff are busy planning even more new initiatives in 2024. Stay tuned!



A view into the Central State University Seed to Bloom Botanical and Community Garden on a late December evening. The garden is open to visitors year round from dawn to dusk.



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