CFAES SOUTH CENTERS

FALL 2019

CONNECTIONS

A concept illustration, provided by the Ohio

Department of Transportation,

shows how the proposed changes to the State Route

A CHANGE IN

Direction

Major changes are coming to South Centers' highway access as ODOT seeks safer SR 32-Shyville intersection

Bradford Sherman South Centers/CFAES

Highway access for The Ohio State University South Centers will see significant changes come next year, following the completion of a radically new (at least for Ohio) highway safety project planned by the Ohio Department of Transportation (ODOT).

Known as an RCUT (an acronym for restricted crossing U-turn), this new type of intersection, with its combination of u-turns and right turns, aims to fix a dangerous intersection of State Route 32 and Shyville Road that has seen more than 39 crashes since 2008 including numerous injuries and fatalities.

See ODOT Page 2

32-Shyville Road intersection U-turn lane will stop Shyville traffic from making left hand turns onto the highway, or crossing it in a straight line. (Illustration courtesy of ODOT)

IN THIS ISSUE:

Staff ProfilePages 4-5

Aquaculture.....Pages 5-6

SWBR..... Pages 7-8

MEP.....Page 9

Direct Marketing......Page 10

Cooperatives..... Pages 12-13



ODOT from Front

The main difference will be how drivers on Shyville Road will interact with the intersection. Drivers wishing to turn left, or continue straight across, instead will be forced to turn right and then will have an opportunity to use a newly constructed U-turn lane. Following completion of the U-turn, the motorist either will be facing in his or her intended direction on the highway, or can simply make a right hand turn to access the other side of Shyville.

Because of these changes, the traffic signal will also be removed. Of the 39 crashes reported there between 2008 and 2018, 12 of those were a result of a vehicle running a red light.

ODOT and project design firm Stantec held a public meeting Tuesday, October 22 at the Pike County Career Technology Center. The meeting gave members of the public an opportunity to review the plans, ask questions, and submit written comments/concerns. There was also a driver simulation set up, so that attendees could preview the changes and practice the turns.

Project Manager Corey Cottrell says that educating the community, through public meetings such as these, is an important step in the process.



Pictured is one of the driver simulation stations that were available to attendees of a public meeting held Tuesday, October 22 at the Pike County Career Technology Center. These stations allowed people to preview and changes and practice the new maneuvers. (Photo: Bradford Sherman/CFAES)

"This is not a common thing here in Ohio," said Cottrell, who confirmed that this RCUT intersection in Piketon will be among the first in the state. "We feel like the more information we can make available to the public, than the more successful this project will be."

Paul Durham, a transportation engineer at Stantec, said he knew of around three such intersections in Butler County, but none others in Ohio. Nationwide, however, this relatively new intersection design is gaining popularity and statistics show that it is a safer alternative to traditional four-lane intersections.

Minnesota, with eight RCUT intersections, for example has seen total injury crashes in those locations cut in half, and a 100 percent reduction in fatal and serious injury right-angel crashes. North Carolina leads the nation with 93 RCUTs; these have yielded a 71 percent reduction in fatal and injury crashes, and a 59 percent decrease in total crashes.

For the State Route 32-Shyville Road intersection, in particular, the number of conflict points will be reduced from 32 to 14. A conflict point is defined as the point at which a highway user crossing, merging with, or diverging from a road or driveway conflicts with another highway user using the same road or driveway.

The summarized project elements include the following:

- Existing traffic signal will be removed
- All traffic approaching State Route 32 from Shyville Road will be forced to go right
- Median U-turn lanes will be provided to allow traffic to go in the opposite direction on State Route 32 or return to Shyville Road to continue in its original direction.
- New lighting will be installed at the median U-turns and additional lighting will be provided at the main intersection.

The bottom line is: not much will change for staff or visitors when coming to South Centers; those leaving the campus to get back on the highway, if planning to turn left or continue straight, will experience those more significant changes detailed above.

Work on the estimated \$1 million project is slated to commence in the summer of 2020 with an estimated fall 2020 completion. No detours or temporary roads will need to be used by motorists traveling in the area.



Project Information Sheet PIK-32-17.15; PID 108734



Project Purpose and Need

The purpose of the intersection improvement is to eliminate or reduce serious crashes that have been observed at this location. Over the past 10 years (2008-2018) there have been 39 crashes at the SR 32/CR 58 Shyville Road intersection. Of those, 64% have resulted in injuries or fatalities and twelve of the crashes were the result of a vehicle running a red light.

Project Elements

Overall, the project consists of replacing the existing signalized intersection with an RCUT intersection. Specifically, this means the following improvements will be made:

- · Existing traffic signal will be removed.
- All traffic approaching SR 32 from Shyville Road will be forced to go right.
- Median U-Turn lanes will be provided to allow traffic to go in the opposite direction on SR 32 or to return to Shyville Road to continue in its original direction.
- New lighting will be installed at the median U-Turns and additional lighting will be provided at the main intersection.

What is a RCUT?

The Restricted Crossing U-Turn, or RCUT, is a relatively new intersection design which has been proven to enhance safety at intersections along busy, multi-lane divided highways. In a RCUT, side street (minor cross street) traffic is prohibited from turning left or traveling straight through the main intersection. Instead, all motorists on the side street are forced to turn right. Once all side street motorists have turned right, they are immediately given an opportunity to make a U-turn, effectively replacing the original left turn and through movements some motorists were intending to make. There is no change for motorists on the main street in a RCUT intersection. Motorists on the main street continue through the intersection, turn right, or turn left, as they would at a conventional intersection.

Project Schedule

The tentative schedule for key project milestones is as follows:

Hold Public Meeting	October 2019
Collect and Review Comments	November 2019
Environmental Approvals	December 2019
Design Complete	Winter 2020
Begin Construction	Summer 2020
Construction Complete	Fall 2020

At least one lane of the State Route 32 will remain open in each direction throughout the duration of the construction. By the time work on the center of the intersection begins to construct a concrete median island, which would obviously affect Shyville Road travelers, the two U-turn lanes will already be complete and open for use.

You can find out more by visiting transportation.ohio.gov and heading over to the District 9 section of the site. ODOT has also furnished The Ohio State University South Centers with an educational video on the intersection changes, and you can view that video on the Fall 2019 newsletter section at southcenters.osu.edu.



DUNN from Page 4

"It is the different people we get to serve here," Dunn said, when asked about what she enjoys most about her job. "You get to meet someone new from the area, or traveling from afar. We have individuals who come from all over the United States and internationally."

"You have the same core set of responsibilities including customer service, coordinating meetings, and taking care of logistics, but it is like a different job every day, in that there is always a different face."

Dunn certainly carries a reputation for being professional, meticulous and for her top-notch organization — all while juggling many various responsibilities. So, what is her secret? It is all in the planning and being ready for anything.

"You have to have a Plan B if Plan A fails," she explained. "When you deal with unpredictable things on a daily basis, you had better have a backup plan. If the electricity goes out, or if the first network for Wi-Fi goes down, you need a backup ready for those things."

When Dunn, a self-admitted tomboy, is not taking care of clientele at work, she is probably busy at home taking care of her beloved goats, Chet, Cherry, and Peaches on her little home farm, or one of her many cats or dogs. She also enjoys cars, gardening/canning, and attending flea markets in search of one of her favorite collectables, Fiesta dinnerware.

However, her favorite and most unusual hobby also deals with collecting; she owns over 100 pieces of Pepsi memorabilia. The collection includes bottles, advertisements, matchbook covers, bills of sale, and more.

To collect that much Pepsi, she must really love the drink, right? Not necessarily.

"My husband and I like to travel, and one day we purchased a Pepsi sign at an antique store – that is how it got started," explained Dunn, who rarely drinks sodas at all. "But If I do drink a soda, it is going to be Pepsi."

She earned a degree in business management and merchandising from Antonelli College (formerly Antonelli Institute) and prior to joining OSU, she worked primarily in retail, but also sold advertising and built visual displays in specialty stores.

Born and raised in Adams County, Dunn currently resides in Peebles with her husband, Denver, and youngest son, Cade. She has two other sons, David and Zane, who are already grown and out on their own.

AQUACULTURE

Aquaculture team publishes two papers in high impact journals

Dr. Hanping Wang

Aquaculture Program Leader

Aquaculture team members recently published two papers in high impact journals with Frontier, the fifth most-cited publisher among the 20 largest publishers in 2019. The first paper is about development of a Genomic Resource and Identification of Nucleotide Diversity of Yellow Perch by RAD (Restriction site Associated DNA) Sequencing, published by Frontier in Genetics in October 2019.

In this study, we combined the advantage of longer sequence length in the MiSeq platform and higher throughput of the HiSeq platform to assemble the RAD-Seq contigs. We applied the RAD-Seq for development of polymorphic Microsatellite and single nucleotide polymorphism (SNP) markers. The genetic markers we developed will benefit the yellow perch conservation, aquaculture genomics research, and breeding programs.

The second paper is titled "Diet Supplemented With Synthetic Carotenoids: Effects on Growth Performance and Biochemical and Immunological Parameters of Yellow Perch," published by Frontier in Physiology in August 2019.

In this study, we found that growth and feed utilization are not affected by dietary supplementation of canthaxanthin. However, lycopene-supplemented diets revealed a positive effect on digestive enzymes activity and growth of yellow perch. Both carotenoids have a protective effect by its antioxidant activity, and enhance yellow perch immunity through upregulation of the immune-related gene. The findings are important for reducing stress in the yellow perch aquaculture industry.



From PhD to Postdoc at OSU South Centers



Hiam Elabd's AQUACULTURE PASSION

Dr. Hanping Wang

Aquaculture Program Leader

Dr. Hiam Elabd, a lecturer in the Department of Aquatic Animal Diseases and Management of the Benha University (BU) in Egypt, is back at the Ohio Center for Aquaculture Research and Development (OCARD) for her post-doc research, sponsored by the U.S.- Egypt Joint Board on Scientific and Technological Cooperation.

Advised by Drs. Hanping Wang (OSU) and Shaheen (BU), Hiam completed her entire dissertation research at OCARD from 2013 to 2015 under a joint PhD training program, then passed defense and received her PhD in 2017 through the joint program. Through the program and partnership, The Ohio State University and Benha University signed a MOU in research collaboration in 2017, and then she was nominated for the Coordinator of International Relationships for Faculty of Veterinary Medicine by her university.



Advised by Drs. Hanping Wang (OSU) and Shaheen (BU), Hiam completed her entire dissertation research in OCARD during 2013-2015 under a joint PhD training program and, passed defense and received her PhD in 2017 through the joint program.

Through her dissertation research at OSU South Centers, she has published three papers titled: "Feeding Glycyrrhiza glabra and Astragalus membranaceus alters innate immune and physiological responses in yellow perch" (Fish & Shellfish Immunology, 2016); "Astragalus membranaceus enhances growth performance and antioxidant stress profiles in bluegill sunfish" (Fish Physiol Biochem, 2016); and "Anti-oxidative effects of some dietary supplements on Yellow perch exposed to different physical stressors" (Aquaculture Reports, 2017). In accordance with the progressive results and papers we previously published, and the OSU-BU signed MOU, her current research work is focused on further reducing stress and disease in aquaculture using an innovative approach.

OSU EXTENSION	
AG-NEWS	Features different aspects of the commercial beef industry
CULTURE CAST	OSU agriculture students visit international countries through the 4-H Program
FORAGE FOCUS	OSU Extension Agriculture and Natural Resources programming
HAPPENINGS NOW	Upcoming educational programs at the OSU South Centers
FOOD, NUTRITION, AND WELLNESS	Focuses on how to manage living with pre and post diabetes
HEALTHY LIVING RESOURCES	Features helpful tips on healthy living and finances
MARKETING MATTERS	Features topics related to farmers' markets and agritourism
OHIO FARM BUREAU LIVE	Depicts program benefits and agricultural events in the community
PIKE COUNTY EXTENSION NEWS UPDATE	Pike County Extension Programming
SOUTH CENTERS CHAT	Program information at the South Centers and in the State of Ohio through the College of Food, Agricultural and Environmental Sciences
HORTICULTURE SPECIALS	Features information about various crops
TREE-TALK	Features educational topics on woodland and forest management

South Centers video team delivering programming with diverse topics, lengths

Duane Rigsby, Sarah Swanson, and Patrick Dengel have been concentrating on producing many different South Centers, Extension, and Ohio Agriculture video programs. Not only are they undertaking 28-minute telecast that are shown on PEG TV stations, but are also doing 2-3 minute, 5-6 minute, and 10-12 minutes telecasts. These shows are are housed on the South Centers YouTube channel. You can watch all of these agriculture programs, as well as business and community telecasts, by typing in go.osu. edu/sclive and go.osu.edu/friendsofsouthcenters.

Kazak researcher receives short-term training on sustainable agriculture

Dr. Rafiq Islam *SWBR Program Leader*

Nurlan Kuldybayev, a PhD candidate from the Plant Protection Department of the Kazak National Agrarian University (Almaty, Kazakhstan), recently visited the United States as a short-term visiting scholar with the Soil, Water, and Bioenergy Resources program at The Ohio State University South Centers.

His 8-week advanced training program ran from August 1 through September 30, 2019 for his professional development on soil health, soilborne disease and biocontrol, conservation tillage, cropping diversity with multifunctional cover crops, data management/visualization, and manuscript writing.

Nurlan was actively involved in lab and field research, and learned new techniques to collect, process, and

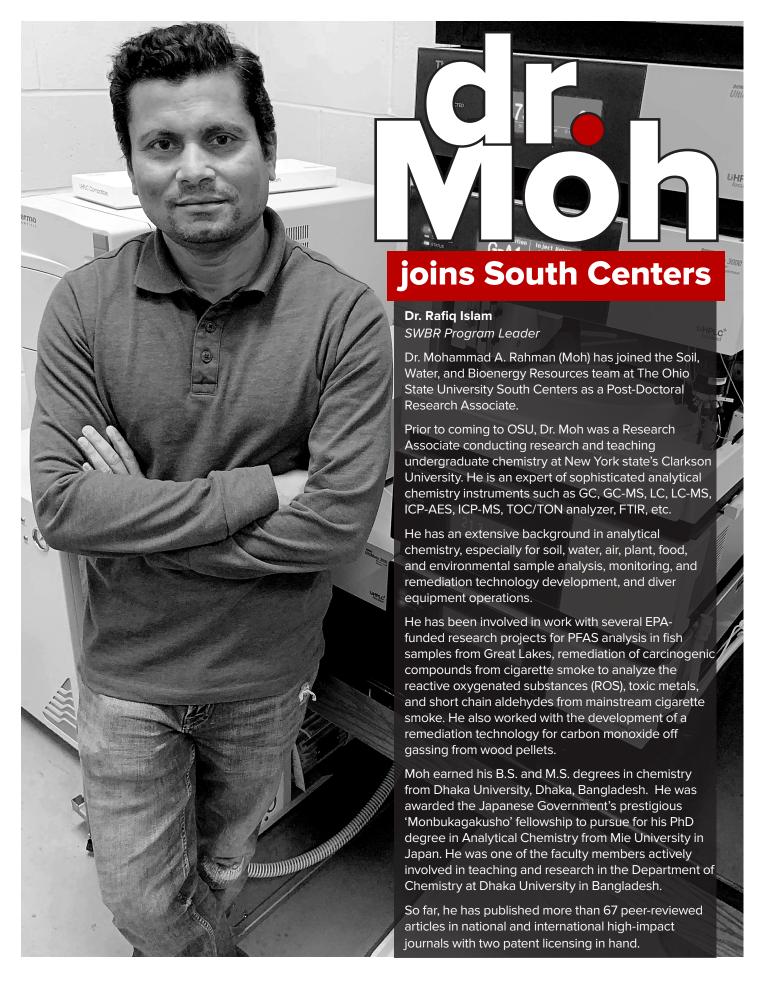


analyze soil, water, air, and plants associated with enhanced ecosystem services. He attended several professional meetings, workshops, and field days.

His short-term training was supported by the American Councils for International Education (ACIE) under a grant project entitled "Strengthening U.S. and Kazakh Scientific Capacity Through Joint-Institutional Agricultural Teaching, Research, and Outreach Development."

Rafiq Islam was the principal investigator of the project along with team members Professor Renukaradhya Gourapura from Food Animal Health Research Program, Ohio Agricultural Research and Development Center, and Beau Ingle, Program Manager, Office of International Programs, College of Food, Agricultural, and Environmental Sciences at The Ohio State University.

The Kazakh investigators in the project were Dr. Yerlan Dutbayev, a professor in the Department of Plant Protection; Dr. Saule Yessengaziyeva, head of the Department of Management and Organization of Agribusiness' and Dr. Tulemisova Zhanar, head of the Department and Professor of Biological Safety, Kazakh National Agrarian University, Almaty, Kazakhstan.





Hosted by Dr. Gary Gao and Ryan Slaughter Featuring Todd Steiner, Dr. Maria Smith, and Patrick Pierquet

Come join us for an informative workshop to learn proven wine grape growing techniques, acquire basic tools to successfully manage a vineyard, and come away with a better understanding of winery sanitation procedures and essential practices for sound wine production. Experts from The Ohio State University South Centers and Department of Horticulture Crop Science will be on hand for presentations and to answer your questions.

Topics to be discussed include:

- 2019 Vintage Overview
- Back to the Basics: A Focus on Red and White Grape and Wine Production
- Vine Establishment and Training
- Grape Cultivars Trialed at OSU South Centers
- Sensory Evaluation of OSU Enology Trials
- Vineyard Maintenance And More

LOCATION: OSU SOUTH CENTERS

1864 SHYVILLE ROAD

PIKETON, OHIO, 45661

go.osu.edu/winegrapes

COST: \$25 per person

Lunch will be provided

REGISTER: Contact Bradford Sherman

sherman.1473@osu.edu 740-289-2071 x 115

DEADLINE TO REGISTER:

Monday, December 2, 2019

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER

OHIO STATE UNIVERSITY EXTENSION

THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, visit cfaesdiversity.osu.edu. For an accessible format of this publication, visit cfaes.osu.edu/accessibility.

MEP team adds three

Bradford Sherman

South Centers/CFAES

Over the past five months, the Manufacturing Extension Partnership team at OSU South Centers has more than doubled in size with the addition of a new Program Manager and two additional staff members.

Dorinda Byers took the leadership reigns of the program in June when she was hired as the Program Manager. Supporting her in helping to move the program forward are fellow new hires Dawn Coleman, Program Assistant, and Kara Willis, the newest Growth Advisor.

Included on this page are short bios of each of the new MEP team members:

KARA WILLIS

Kara Willis, Growth
Advisor, holds a B.A.
degree in International
Relations from Shawnee
State University. Over
the past 17 years,
Kara has developed
skills in economic and
community development,
business development,



fundraising, leadership, and strategic planning.

Prior to joining OSU South Center's MEP, Kara served as Executive Director of Institutional Advancement at the University of Rio Grande. Mrs. Willis is eager to put her knowledge of development and higher education to work for our manufacturing businesses in southern Ohio.

Contact Kara by email at willis.662@osu.edu or by phone at (740) 289-2071 x 240.

DORINDA BYERS

With more than 15 years of experience, Dorinda possesses a proven track record of increasing organizational effectiveness, shaping cultures, strengthening teams, and positioning businesses for sustainability.



Early in her journey,

Dorinda found a niche in working with institutions and organizations to grow their business consulting practices. She has worked at Zane State College, EZG Manufacturing, TechSolve, and APEG and is currently at Ohio State University.

She has a passion for serving manufacturers, she loves to spoil her nieces, and nephews, to cook, travel, and read.

Contact Dorinda by email at byers.18@osu.edu, or by phone by calling (740) 680-0612.

DAWN COLEMAN

Dawn Coleman is a
Program Assistant with the
Manufacturing Extension
Partnership program at
The Ohio State University
South Centers. As a Program
Assistant, she assists with
the day-to-day operations
of the program including the
areas of communications,
record-keeping, finances,
and more.



Coleman joined the university in 2018 as an Office Associate in Jackson County, before joining the MEP program in August, 2019.

Contact Dawn by email at coleman.1002@osu.edu or by phone at (740) 289-2071 x 242.



Direct Marketing Program Selected to Receive Sustainable Agriculture Grant from NCR-SARE

Christie Welch, Direct Food and Agricultural Marketing Program Manager at The Ohio State University South Centers in Piketon, Ohio, has been selected to receive a \$81,316 grant from the North Central Region Sustainable Agriculture Research and Education Program (NCR-SARE) for the project, "Professional Development for Ohio Farmers Market Managers and OSU Extension Educators on Creating a Culture of Data Collection for Sustainability Planning for Markets and Farmers."

"This project will provide training for farmers market stakeholders on meaningful data collection and use for markets and vendors to use in developing sustainability plans," said Welch. The Farmers Market Coalition and the Ohio Farmers Market Network will collaborate on the project. "We are pleased that NCR-SARE recognizes the need to continue to support a thriving farmers market sector. Markets are great incubators for farmers and a critical part of sustaining them. They also allow access by consumers to locally produced foods, and help create community."

The Farmers Market Coalition has a history of assisting markets throughout the United State with data collection and utilization. The collaboration on this project will bring a wealth of experience to Ohio's farmers market stakeholders. The Ohio Farmers Market Network will also collaborate on the project and assist in getting its member

markets the training and resources needed for meaningful data collection and use.

For information or questions about the Ohio project, contact Christie Welch, Direct Food and Agricultural Marketing Program Manager at welch.183@osu.edu.

This grant was awarded as part of NCR-SARE's Professional Development Program, which emphasizes training agricultural educators in Extension, the Natural Resources Conservation Service, private, and not-for-profit sectors, using farmers as educators and addressing emerging issues in the farm community. NCR-SARE administers each of its grant programs, each with specific priorities, audiences, and timelines. The focus for each of the NCR-SARE grant programs is on research and education.

Funding considerations are made based on how well the applicant articulates the nature of the research and education components of their sustainable agriculture grant proposals.

NCR-SARE's Administrative Council (AC) members decide which projects will receive SARE funds. A collection of farm and non-farm citizens, the AC includes a diverse mix of agricultural stakeholders in the region. Council members hail from regional farms and ranches, the Cooperative Extension Service, universities, federal agencies, and nonprofit organizations.

Leadership Experience



Whitney Hill

Ohio Valley CTC FFA Reporter

The students in the Agriculture Business Management program at the Ohio Valley Career and Technical Center have been learning about agricultural cooperatives with Joy Bauman and Hannah Scott from the Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES) Center for Cooperatives.

On October 7 and 8, 16 students participated in the Youth Cooperative Leadership Experience conducted by the Center for Cooperatives.

On this two-day trip, the students experienced several learning opportunities at the College of Food, Agricultural, and Environmental Sciences on The Ohio State University main campus. The students had the chance to tour the university with CFAES student

ambassadors and learn about college life from current students. They participated in classroom-style learning activities with Meat Science Professor Dr. Lydia Garcia; Agricultural Communication Professor Emily Buck;

learned that the OSU Department of Food, Agricultural, and Biological Engineering has a great relationship with Case IH and enjoyed checking out the Case IH 580 articulated tractor.

> and Marketing and Communications Manager for the Department of Agricultural Communication, Education, and Leadership, Emily Wickham.

> The students were joined in a cooperative leader panel discussion about careers in cooperatives by Adam Specht,

> > the Director of Youth Programs for Ohio's Electric Cooperatives; Josh Zehentbauer, a field representative for Dairy Farmers of America: Deborah Rausch from USDA Rural Development **Business and Cooperative** Programs; and Tom Worley, who is the Director of OSU South Centers, CFAES Center for Cooperatives, and an Agricultural Cooperatives Course Instructor.

On the second day of the trip, the students heard from Dan

Durheim, the Vice President of Sponsor Relations for Nationwide Insurance. Andy Lynd hosted the group at Lynd Fruit Farm near Pataskala. Ohio.

See COOPS Page 13

"Our hope is that an experience like this can help students realize that they, too, can

become successful in the

agriculture industry."

Joy Bauman

Cooperative Program Specialist

COOPS from Page 12

Andy's grandfather was a founding member of the Ohio Apple Growers Marketing Association. The students were especially interested in learning about the apple marketing cooperative, because it is the supplier of the apples sold through the Ohio FFA Fruit Sales. Lynd discussed marketing strategies and the development of apple varieties that occurs on the farm as part of the Midwest Apple Improvement Association.

Next, the students had the opportunity to tour COBA/Select Sires at Hilliard, Ohio. Administrative Director Julie Ziegler hosted the group and reviewed the 70+ year history of the successful farmer-owned cooperative focused on genetic progress in the dairy and beef cattle industries. She also explained the cooperative's structure, with COBA being a member of the federated cooperative, Select Sires.

OSU Cooperative Development Specialist Joy Bauman said the immersive program was designed to help youth learn about the cooperative business model, education opportunities, and careers in cooperative business. "The students learned of many opportunities for internships and employment with Ohio's cooperatives," Bauman said, "while also learning about what next steps in education or training are necessary." With students coming from a small school in an Appalachian area, Bauman said it was good for them to hear about the similar backgrounds shared by several of the guest speakers.

"Our hope is that an experience like this can help students realize that they, too, can become successful in the agriculture industry. And that regardless of what their interests in agriculture may be, there are opportunities in the agriculture industry, especially with agricultural cooperatives," she said.



ABOVE: After the students had an opportunity to sit in for part of an actual class session, meat science professor, Dr. Lyda Garcia invited the group back to her classroom later in the day to learn more about meat science and the opportunities for them in that field. She told her own story about growing up in south Texas and encouraged them to pursue their educational goals, even if that means starting at a community college like she did.

BELOW: At COBA/Select Sires, Administrative Director Julie Ziegler took the group into the semen storage room where they had the opportunity to peer into the numerous liquid nitrogen filled semen storage tanks.



This trip was funded by The Ohio State University through a North Central Region Sustainable Agriculture Research and Education (NCR-SARE) Youth Educator Grant Program. The focus of the NCR-SARE grant program is on research and education. The program is part of USDA's National Institute of Food and Agriculture, funding projects and conducting outreach designed to improve agricultural systems.

The Ohio State University South Centers 1864 Shyville Road

Piketon, OH 45661 Phone: 740-289-2071 Toll Free: 800-297-2072 Fax: 740-289-4591

southcenters.osu.edu



CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, visit cfaesdiversity.osu.edu. For an accessible format of this publication, visit cfaes.osu.edu/accessibility.

