

Connections

In memory of **Duane Rigsby**

By **BRADFORD SHERMAN**
CFAES/South Centers

The Ohio State University South Centers, the College, and The Ohio State University lost a beloved friend and colleague in April with the passing of Duane Rigsby. Duane was one of the first staff members hired at CFAES South Centers when it first opened in 1991. Duane was nearing his 31st anniversary of service with the university as a most loyal and faithful Buckeye.

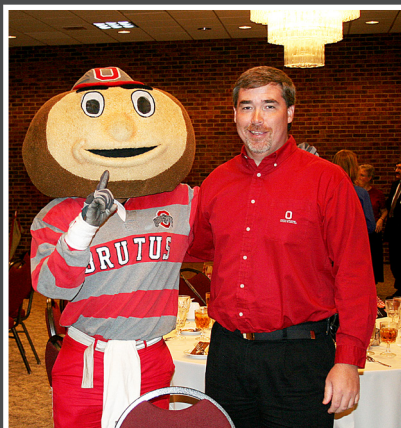
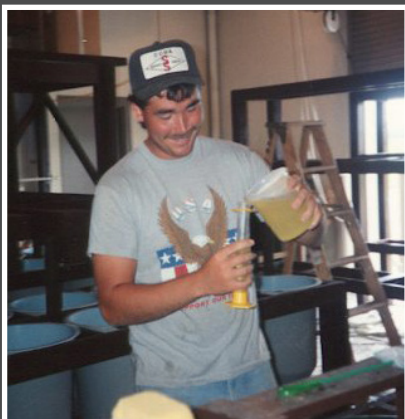


MENTOR, HISTORIAN, FRIEND

His importance to South Centers cannot be overstated. It seemed he was ever-present and always the first person anyone thought to call whenever there was a problem. Duane kept all the computer and phone systems working, took lots of pictures and recorded videos, kept the water flowing, and made sure everyone felt safe and comfortable with his knowledge of security and HVAC systems.

He was a historian of our center with a deep knowledge and appreciation of the history of South Centers, especially keeping up with former staff members. He had collected a treasure trove of photos and memories over his 30-plus years in Piketon and loved to impart his knowledge and experiences to newer generations of employees.

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Duane Rigsby was recognized for winning the Distinguished Staff Award in 2010 at Ohio Stadium when the Buckeyes hosted Purdue. Rigsby is shown above appearing on the giant video scoreboard.

DUANE from Front

He was always there to help anyone, no matter what the need. Perhaps Duane's co-workers will most remember him for his willingness to help anyone with anything, and always with a smile and patience. He once jokingly said, "not many IT guys wear work boots," which perfectly encapsulated his "not afraid to get his hands dirty" attitude. He would happily plow snow, unclog a toilet, or dig a ditch, just the same as if he were fixing a printer. If it needed doing, he was always there to get it done.

VIDEO STUDIO FOUNDER

Duane, along with Patrick Dengel and Sarah Swanson, was also a founding member of the South Centers Telecast/Video team. The videos have skyrocketed in popularity and importance in recent years.

"Duane was a true believer in providing educational material to not only our subscribers, but to individuals throughout the region and in Ohio," said Dengel.

The studio has grown to surpass 1,500 subscribers on YouTube and South Centers educational programming can be seen on several television stations throughout Ohio.

OBITUARY

Duane Lee Rigsby, 52, of Portsmouth, passed away on April 27, 2022, at Hospice of Central Ohio at Ohio State University Medical Center after a long battle with Non-Hodgkin's Lymphoma. He was a member of St. Mary's Catholic Church. Duane was born to LeRoy and Mary Jones Rigsby. He was a graduate of Eastern High School in the class of 1988. He graduated with his Associate Degree in Forestry Management from Hocking Technical College in 1990 along with his best friend since the 5th grade, Dean Rapp. They started their careers with The Ohio State University South Centers in Piketon, Ohio after graduation. He worked in the

agricultural field before rewriting his own job description after teaching himself to work on computers. He worked his way up at OSU South Centers to become their IT Support and later Systems Specialist. He taught formal classes, and many individuals, the basics of using computer technology. He was also instrumental in running the OSU South Centers Studio with dear friends Patrick Dengel and Sarah Swanson. Duane was awarded the OSU Distinguished Staff award in 2010 and the OSU South Centers Outstanding Staff Award. He was a long-time member of the Lone Eagle Archery Club for many years with his good friends Darrell, Dwayne, and Wayne Risner, among many others.

He married the love of his life, Linda L. Kielmar Gray, on February 21, 1997. He was an amazing step-father to Rebecca Gray and later to his beloved daughter Katelyn Rigsby. Duane was preceded in death by his father, LeRoy Rigsby, his grandparents, Lundy & Mirta Rigsby and Cinnet & Maxine Jones, his father and mother-in-law, Richard & Sandra Kielmar, several aunts and uncles, as well as a very special uncle, Dave Jones, whom he loved and admired.

Survived by his loving wife of 25 years, Linda, daughters Rebecca Gray and Katie Rigsby, his dear mother, Mary Rigsby, and his honorary second mother-in-law, Mary Gray, and one granddaughter Saffron Cecilia Cassidy, brother & sister-in-law's David & Teri Kielmar, Randy & Kathy Nelson, Tim & Carolyn Paul, Richard & Kelly Kielmar, Jim & Katrina Kielmar, and by many aunts, uncles, cousins, nieces, nephews, and his dear friend, Dean (Stephanie) Rapp, his special Aunt Kay, and cousin David Aaron (Heather) Jones, as well as his beloved dog, Buddha.

Calling hours for friends and family were held at the Melcher-Hammer Funeral Home in Portsmouth, Ohio on May 3, 2022. A Mass of Christian Burial took place on May 4, 2022 at St. Mary of the Annunciation Catholic Church, with burial following at Greenlawn Cemetery.

Sad farewells and happy hellos

Our staff at South Centers is a tight-knit group where respect and feelings among us run deep. This closeness has been especially evident in recent months with the untimely passing of Duane Rigsby. We all mourn the loss of our friend and colleague. Duane was hired upon his graduation from Hocking College in 1991 and was one of the original hires when the Piketon Research and Extension Center was opened in 1991. Duane served everyone at our center with technical expertise for more than 30 years. More so, he befriended everyone and always helped in getting things done, especially when events were planned and held. Duane took lots of pictures, made sure the audio/video connections were solid, and was always a great host to our varied clientele.

As we reflected on Duane and the relative quickness of his departure, another Staff member, Jerry Driggs, came to mind. Jerry led the early success of the Endeavor Center business incubator from its opening in 2005. Like Duane, Jerry departed much too quickly at an early age. He literally left us overnight in 2013 from a sudden health event, although he was a picture of health at work the very day of his passing. These memories make all of us aware of our mortality and the uncertainty of our future.

SOUTH CENTERS CHAT

with **Dr. Tom Worley**

South Centers Director



On a brighter note, but yet unexpected, was the retirement of Marsha Amlin in January and Brad Bergefurd at the end of May. Marsha was one of the original employees hired here at South Centers, while Brad's career spanned over 30 years in Extension and left all of us with a sense of loss as he moved into private industry. We were able to congratulate both on their careers with nice receptions attended by many of their family members and several Extension colleagues.

As we adjust to not having our long-time colleagues with us, we are very excited to welcome new colleagues Sam Black and Melissa Whitt. Both are new Center for Cooperatives staff members that we are pleased to welcome. Reid Pope and Melanie Sherman are new staff members of our Business Development team. We're delighted to have these talented and experienced people join us and look forward to building strong connections with them as we continue to serve our clientele and fulfill our mission at South Centers.

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Bergefurd leaves an indelible mark

Longtime OSU Extension educator Brad Bergefurd made a name for himself by taking a chance on new opportunities. After giving The Ohio State University everything he had for over three decades, he is at it again, taking a chance on a new opportunity.

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How a field trip helped transform the Pike Outreach Food Pantry.

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There is a new buzz going around South Centers this summer. Read about how a new research project necessitated the return of bees to the South Centers campus.

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After all these years... **Bergefurd still pursuing new opportunities**

By Bradford Sherman
CFAES/South Centers

Pursue new opportunities. Do not be afraid to try something new and fail.

Not only is this the parting message that retiring Extension educator Brad Bergefurd wishes to share with new generations of Buckeyes, but it is also the philosophy that defined his outstanding 30-plus year career with The Ohio State University.

"If you aren't doing anything, then you won't make mistakes or fail, but then you will not accomplish anything either," Bergefurd said.

Some of the new opportunities pursued by Bergefurd over the years have included the introduction of Ohio produce auctions, research and development of the plasticulture strawberry industry in Ohio and the Midwest, and the reintroduction and continued development of the Ohio hop-growing industry. There are many more examples of new crops, production methods, and markets that Bergefurd and his team have researched and proved to work in Ohio and have been adopted by farmers over the years.

"I am especially thankful to Brad for his willingness to take on new projects, new challenges, and always do it with a smile on his face," said Ag and Natural Resources Assistant Director, and Bergefurd's direct supervisor, Sam Custer. "Brad has a way of working with people from all walks of life, they tend to gather round to listen to what he has to say and share."

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ABOVE: Thom Harker, left, and Brad Bergefurd together at the Alternative Agriculture Enterprise Center in Hillsboro.



RIGHT: Bergefurd meeting then-OSU President Gordon Gee.

BERGEFURD from 4

Bergefurd has been affiliated with Ohio State since the age of 16. He started working at the OARDC Vegetable Research Station in Fremont as a teen, attended classes at the university as a Horticulture Science major beginning in 1985, then began his professional career as a Research Assistant in 1990. He became an Extension Educator in 1992, and the rest is history.

"It will be hard to imagine you being anywhere but Ohio State," Extension Director Dr. Jackie Wilkins said in a pre-recorded message that was played at a farewell party for Bergefurd held at South Centers in May. "We cannot be upset that you are going, we have benefitted from your expertise and your friendship for three decades and must not be selfish and hold you back now."

"You have been a resource, colleague, and friend to growers, marketers, researchers, and industry organizations, as well as all of us here in your Extension family," Wilkins continued. "Whichever role you have been in over the years, your willingness to help, when and where you were needed; your trusted and approachable teaching style; and your ability to connect with and aid all clientele, most notably your success with Amish farmers, has been the linchpin of your legacy and an inspiration to us all."

Bergefurd has now moved on to the next phase of his professional career as a Technical Agronomist with Brandt Agriculture. He will be conducting a research program focused on agronomic and specialty crops and teaching and consulting farmers in Ohio, Tennessee, Kentucky, Indiana, and Michigan.

Bergefurd admits that the most difficult part of leaving The Ohio



Brad Bergefurd's ability to connect with diverse groups of people, including (counterclockwise from above) residents from the West African country of Senegal, Navajo Native Americans, Amish and Mennonite communities, and local farmers was a linchpin of his legacy with The Ohio State University.



State University will be saying farewell to the "great people and network of folks at OSU, and especially the hard working and dedicated co-workers at South Centers."

One of those is Thom Harker, who has worked side-by-side with Bergefurd for over half his life.

The duo started working together 26 years ago at The Alternative Agriculture Enterprise Center in Hillsboro. It was eventually merged with the Piketon Research and Extension Center in Piketon to form the South Centers we know today.

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Bergefurd receiving gifts at his farewell party at South Centers in May.

BERGEFURD from 5

“He took me under his wing and mentored me, teaching and guiding over the years. I have learned so much, from crop production to research, under Brad’s guidance,” said Harker, who was a fresh-faced college graduate when Bergefurd hired him. “I have been given numerous opportunities because of Brad and his support. I have been asked about Brad’s retirement and how it will affect me, my answer is simple – no worries, because everything Brad has done for me set me up for future success.”

Another longtime co-worker who feels that Bergefurd set her up for the success she is having now is Charissa Gardner. She served as Bergefurd’s Program Coordinator for eight of her total 11 years so far at South Centers. She believes his management style gave her the experience needed to advance her career, as she is now a Program Specialist with the Manufacturing Extension Partnership. “When I came here (to South Centers), he was very good



about letting me learn things, take the reins myself. He allowed me grow,” Gardner recalled.

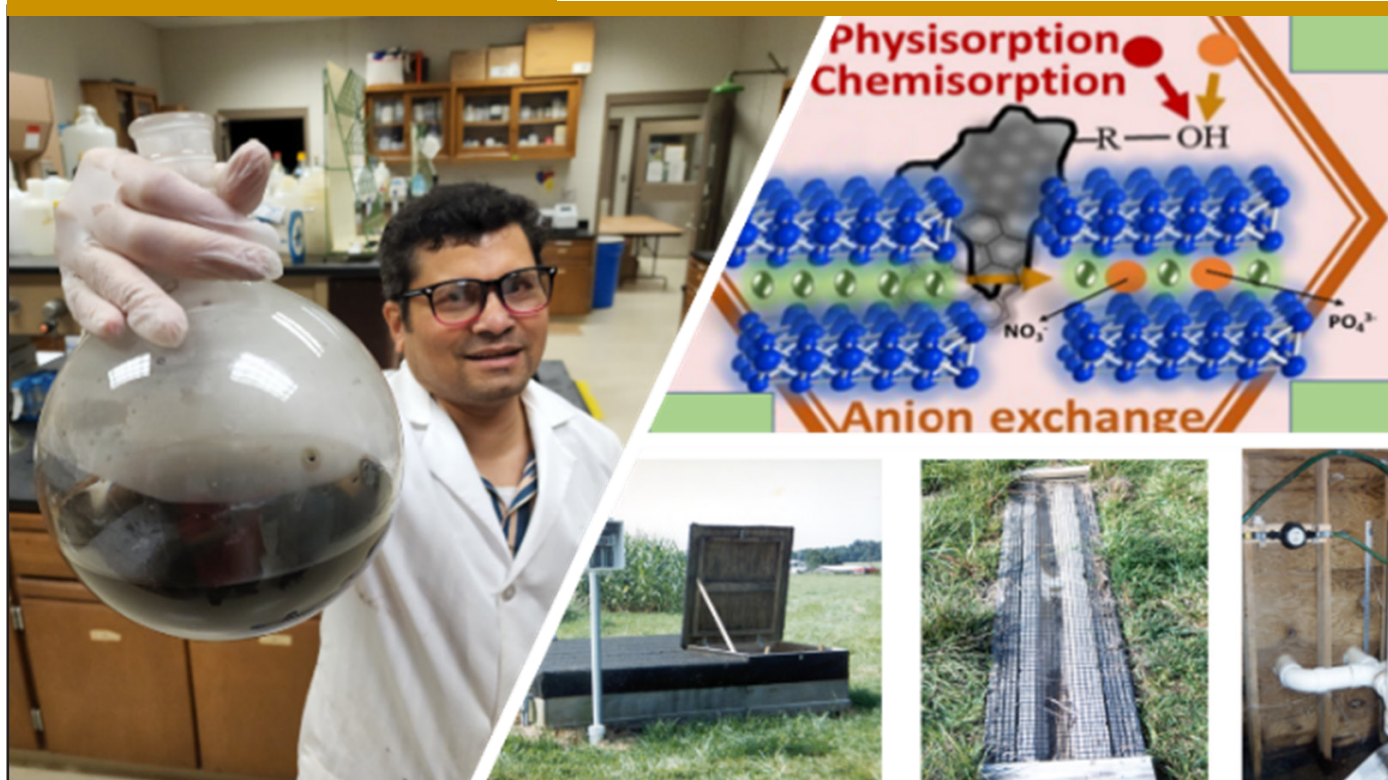
“He always trusted in me that I would get the job done, even if it was something I had never done before. I learned so much from him, and because of him. He was always supportive of my professional development by encouraging me to attend trainings and take classes.”

Bergefurd hopes this new career path will be less of a “farewell” and more of a “see you later.” He explained that he is hopeful his new role and responsibilities will allow him to stay in touch with the friends and colleagues he has made over the years.

“In my new role it is encouraged to work closely with universities and Extension, so I hope our paths will continue to cross in the future,” he stated.

And so, just like he did time and time again as a Buckeye, Bergefurd is at it again – taking a chance, not being afraid to fail, pursuing a new opportunity.





SWBR receives research funding

Pair of projects will address algal blooms, water quality problems

By Arif Rahman
SWBR Scientist

The Soil, Water, and Bioenergy Resources program at OSU South Centers, along with Dr. John Lenhart, a Professor of Civil and Environmental Engineering with The Ohio State University, have been funded to work on the development of Al-Fe/LDH intercalated activated carbon composite to control edge-of-field phosphorous and nitrogen loss.

The project, funded through the CFAES Internal Grants Program (IGP), will focus on the development of a “Buckeye Composite” material, and evaluate its field performance in controlling the offsite movement of soluble reactive P (SRP), nitrate, and ammonium. This study will provide researchers with baseline and real-time data to understand the SRP and N adsorption mechanisms. In addition, it will aid the team in writing



large-scale grants on the mitigation of the edge-of-field P and N loss responsible for algal blooms and water quality problems of Lake Erie.

In addition, the Soil, Water, and Bioenergy team, along with Central

State University, was awarded a \$598,010 USDA capacity-building grant for a period of three years. The grant research will focus on the development of a holistic photocatalytic approach for controlling agriculturally-induced algal blooms and associated cyanotoxins in lakes and reservoirs. This project is aimed at the development of solar photocatalysts, based on charcoal composite and titanium, that are capable of reducing algal blooms and removing cyanotoxins from freshwater systems. Moreover, the team will mentor Central State University’s (CSU) institutional capacity building and advance the professional portfolios of faculty, staff, and students with research expertise to develop an economically viable and environmentally compatible water treatment system based on photocatalytic technology.



Islam participates in USDA FAS Borlaug Mentor Workshop

By Rafiq Islam
SWBR Program Leader

Rafiq Islam, Program Leader of the Soil, Water, and Bioenergy Resources program at The Ohio State University South Centers recently attended the USDA-Foreign Agriculture Service (FAS) Borlaug Mentor Focus Group Event at North Carolina State's Centennial Campus on June 14 and 15.

Twenty-five past and new Borlaug mentors from different universities in the United States, along with USDA-FAS administration, attended the two-day workshop event. Islam, who has mentored five USDA-FAS Borlaug fellows from Africa, India, and Ukraine over the years, delivered a PowerPoint presentation to share his learning, successes, and insight to improve the fellowship program for achieving sustainable and long-term partnerships for future mentors. The event was sponsored by the U.S. State Department.

Kazak scholar visiting South Centers

By Rafiq Islam
SWBR Program Leader

Professor Yelikbayev Bakhytzhan, Department of Chemical Processes and Industrial Ecology, Satpayev University, Almaty, Kazakhstan, has joined the Soil, Water and Bioenergy Resources program at The Ohio State University South Centers as a visiting scholar.

Satbayev University is the oldest, and one of the most prestigious, technical universities in Kazakhstan.

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Yelikbayev Bakhytzhan

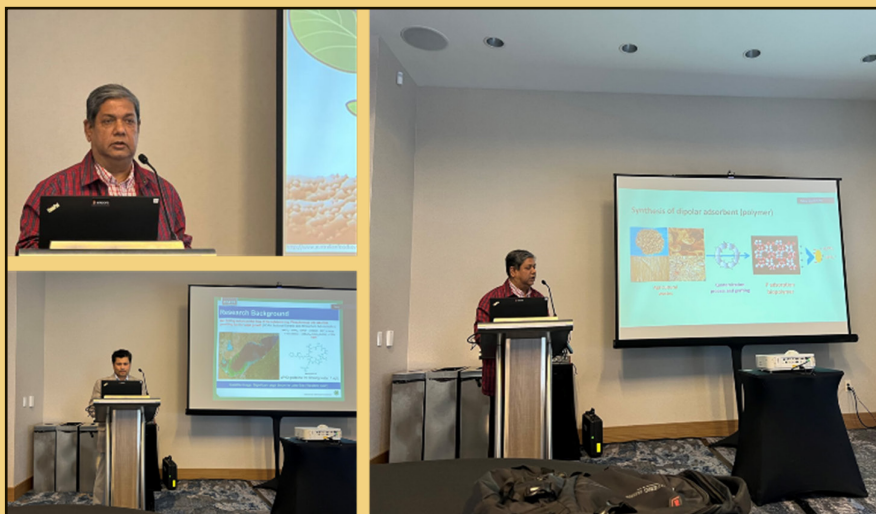
SCHOLAR from 7

For more than 80 years, the university has been synonymous with technological progress and leadership in Kazakhstan. As part of its transformation related to higher education in Kazakhstan, K.I. Satbayev University was assigned the “National Research University” category in 2014 that resulted in collaboration with outstanding scientists of the world.

The university cooperates with 174 leading higher educational institutions from 25 countries of the world including the United States, England, Germany, Italy, France, China, Korea, and Poland.

Professor Bakhytzhan is a recipient of the Bolashaq fellowship from the Kazakhstan government. His academic teaching and research interest is focused on land reclamation and remediation, environment and soil quality, soil analysis, and soil and environment monitoring.

During his stay at The Ohio State University, he will focus on field analytical tools and lab equipment and analysis, especially sampling, processing, and advanced analytical methods of soil, water, and plant samples from long-term, no-till experiments from farmers’ fields. Moreover, he is interested in the OSU soil quality field test kit, carbon sequestration modeling, and soil health computations using different approaches. It is his strong desire to participate at The Ohio State University Annual Research Conference, field days, and other related workshops for his professional development and develop collaborative academic and research programs with The Ohio State University.



Drs. Rafiq Islam and Arif Rahman were speakers at the International Association for Great Lakes Research Conference held in March in Cleveland.

SWBR researchers present for International Association for Great Lakes Research

Annual conference held March 16-17 in Cleveland

By Arif Rahman
SWBR Scientist

The Soil, Water, and Bioenergy Research program team organized a technical session and participated in the State of Lake Erie Conference. Drs. Rafiq Islam and Arif Rahman moderated a session titled “Agricultural practice and water quality” as chair and co-chair, respectively. It was held March 16-17, 2022 in Cleveland and was sponsored by the International Association for Great Lakes Research.

The session focused on lake-specific research such as the management of algal blooms, and promoted education and research interactions among researchers and stakeholders. The main focal point was Cyanotoxin-producing algal blooms due to edge-of-field loss of reactive phosphorous (nitrogen), which is one of the critical water problems in Ohio and the entire the Midwest.

Islam delivered a research presentation titled “Performance of bio-based dipolar adsorbent to control edge-of-field phosphorus loss.” Rahman delivered a presentation on soil accumulation and edge-of-field loss of phosphorous to surface water under diverse agricultural management practices in Ohio. Participants from various U.S. states and from Canada attended the session.



‘MARKET’ RESEARCH

How a field trip helped transform
the Pike Outreach Food Pantry

By Bradford Sherman
CFAES/South Centers

When Extension educator and Pike County Local Foods Group (PCLFG) organizer Tammy Jones visited the Reeb Avenue Center in Columbus as part of a series of field trips to learn about how other counties provide local foods to residents, she was left with one overwhelming conclusion...

“I can’t believe this is a food pantry,” she thought, “this is a market.”



Six years, one Voices for Food grant, and a lot of project planning and hard work later, the vision she saw that day has finally made its way to southeastern Ohio in the form of a revamped Pike Outreach Food Pantry. It was formally unveiled to the public April 5.

Residents of Pike County, historically one of the unhealthiest areas in all of Ohio, are now benefitting from a healthier and more helpful and dignified experience at their local food pantry. It truly does look and feel like a market since moving to its new location on Bridge Street in Waverly, and thanks to a facelift made possible through USDA grant dollars.

“The whole idea that it looks like a market now,” explained Jones. “For example, they did not have coolers that you could see what was inside, it was a refrigerator. Now these new coolers have the nice glass fronts.”

The public shopping space is around three times larger than the old 2nd Street location. The entirety of the new facility, the former Heritage Nazarene Church, is around 10 times the size when factoring in storage space, receiving area, and other spaces.

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“There is also a nutrition component now that wasn’t there before,” Jones continued. She explained that new signage and educational materials now adorn the brand-new shelves and coolers, and pantry staff have received training so they can function as shopping assistants who promote nutrition as they are helping people.

“These trainings that Dan (Remley) and I did with them will allow them to assist clients in making healthier choices and understanding that they need to be eating from different food groups,” she added.

The pantry had also been operating as non-choice, meaning visitors had to make do with what items they were given, for the past few years during the COVID-19 pandemic. Thanks to this project, visitors to the pantry can once again select their own food.

Not only does a choice system cut down on food waste, as with non-choice systems people would often be given items they do not like or cannot eat, but it also benefits those living with chronic conditions that require certain dietary needs, pointed out Dr. Dan Remley.

“Research shows that around a third of people who use food pantries have someone in their household with diabetes, and around two thirds have someone in their household with some other kind of chronic disease like hypertension or heart disease,” said Remley, a nutrition and wellness specialist who acts as a “coach” for the PCLFG membership.

“It is important that they have access to healthier choices and a variety of food to select from that will meet their needs. They can choose – that is one of the advantages of this system, it is promoting healthy choices and distributing useful foods.”



Tammy Jones, above, and Dr. Dan Remley, left, provided training to Pike Outreach Food Pantry staff so they could serve as shopping assistants who assist pantry visitors with making healthier decisions about the food they choose.

The Pike Outreach Food Pantry is available to residents who meet certain economic guidelines. They can visit the pantry once every seven days and the amount of food distributed is based on household size.

Jones revealed additional plans that Pike County Extension has in conjunction with the pantry. Plans have been discussed for an “Extension Day at the Pantry,” perhaps once a month, where she and other members of the office will provide food demonstrations, educational sessions, etc.

Originally awarded in 2019, but delayed because of the pandemic, six counties in Ohio received funding from this Voices for Food grant; Pike was the only county south of Columbus to be selected. The grant dollars totaling around \$14,000 paid for education and training, shelving, and other supplies. The new building was secured using separate funds.

The Pike Council Outreach Council of Churches has operated a food pantry to assist needy Pike County residents since 1968. Anyone interested in becoming involved as a volunteer or donating to their community work, can call the Pike County Outreach Council at (740) 947-7151.



Food pantry workers like Erin Riffle were trained to serve as shopping assistants as part of the Voices for Food grant.

Welch named to Farmers Market Coalition Board

By Bradford Sherman
CFAES/South Centers

Christie Welch, Direct Food and Agricultural Marketing Team Leader with OSU Extension, has been elected to a three-year term on the Farmers Market Coalition board of directors. The board is tasked with representing the farmer, consumer, and community interests served by farmers markets.

Joining Welch as new members on the board are Christie Balch, Senior Evaluation Associate, Sharp Insight LLC; and Robbi Mixon, Executive Director, Alaska Food Policy Council/ Alaska Farmers Market Association. Anupama Joshi and Gary Matteson were re-appointed during the most recent board elections held in early spring.

As part of her role with OSU Extension, Welch leads a team to provide research-based information and education on all aspects of marketing to Ohio's farmers and producers. Her most popular programs include MarketReady, DeviceReady, Meet the Buyers, and best marketing practices.



Welch has worked with the Business Development Network at the Ohio State University South Centers since 2004 and has more than a decade of experience assisting Ohio's farmers and food producers in business and marketing for the increased sustainability of their farms. She has worked extensively with Ohio's farmers' markets, farm markets, micro-farms, and other stakeholders to improve the economic condition of Ohio's farmers and agritourism enterprises.

She offers training and education in business planning and development, direct marketing, and collaborative problem solving. Ms. Welch has a strong interest in the economic development of rural Ohio and is especially interested in family farms and agribusinesses within this region.

The national Farmers Market Coalition is a 501(c)(3) nonprofit dedicated to working with farmers market operators to strengthen farmers markets across the United States so that they can serve as community assets while providing real income opportunities for farmers.

The mission of the national Farmers Market Coalition is "to strengthen farmers markets for the benefit of farmers, consumers, and communities." FMC's primary role is supporting those individuals and entities that operate farmers markets.

NATIONAL FARMERS MARKET WEEK 2022

August 7-13, 2022

Support local farmers during National Farmers Market Week

By Christie Welch
Direct Food and Agricultural
Marketing Team Leader

Summer is here and one of the best benefits of an Ohio summer is the availability of fresh local produce. Who can resist fresh berries, tomatoes, sweet corn, and more? One way to feed your craving for these summer treats is to visit your local farmers market. There is no better time to visit than during National Farmers Market Week, August 7-13, 2022. Ohio is home to an estimated 300 farmers markets from which to choose your fresh, local foods. While the fresh food alone is great, farmers markets are much more than a place to purchase local foods.

We are all aware of the disruptions to supply chains because of the COVID-19 pandemic. Local food producers have been able to adapt quickly to help Ohioans continue to access the fresh, healthy, local foods they have come to expect. However, many more benefits are brought to communities by having thriving farmers markets.

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Farmers markets offer a safe place where community members can come together to build relationships, increase access to fresh and healthy produce for those who are food insecure, provide information and education on healthy eating, and create a space where local businesses and organizations can support each other. More than 100 farmers markets in Ohio accept food assistance benefits, and many offer matching incentives to individuals and families. You can find Ohio farmers markets that accept food assistance benefits in ODJFS's 2022 OHIO FARMERS' MARKET EBT DIRECTORY. According to the Farmers Market Coalition, since 2017, farmers market and direct marketing farmer redemptions of SNAP have increased by 162 percent. FMC also reports that in 2021, over \$100 million in federal nutrition benefits were redeemed at farmers markets and with direct marketing farmers (\$59m from SNAP, \$29.8m from WIC FMNP, \$23.7m from Senior FMNP, and \$9m from the Gus Schumacher Nutrition Incentive Program).

Farmers markets also serve as business incubators. Individuals interested in starting and/or growing a food-based business can enter the industry by participating in farmers markets. This offers access to consumers that are more likely to be interested in their products, allows for direct feedback from consumers on products, and can be entered with low capital requirements. As these new businesses receive feedback, create relationships, and grow their businesses, they become a key component of the community. There are numerous businesses that have started at farmers markets and gone on to occupy brick and mortar facilities throughout Ohio. These businesses also create jobs.



Why Farmers Markets?



Stimulate Local Economies

\$1.7 billion

of direct to consumer sales reported by the USDA in 2020 were due to farmers markets and on-farm stores.



Growers selling locally create **13 full time farm operator jobs in their communities** per \$1 million in revenue earned.



According to the 2020 USDA/NASS Market Manager Survey, **84.7% of markets** had locally grown labeling.

National Farmers Market Week, Aug 7-13, 2022

#LoveMyMarket | farmersmarketcoalition.org | @FMCorg



In an effort to assist Ohio farmers market managers and vendors increase their sustainability and ability to serve Ohio consumers, The OSU South Centers Direct Food and Agricultural Marketing Team has partnered with the Farmers Market Coalition, Ohio Farmers Market Network, and USDA Sustainable Agriculture Research and Education to provide education and information on data collection and use by farmers markets.

The OSU South Centers Direct Food and Agricultural Marketing Team is here to assist you in exploring being a farmers market vendor, explore starting or growing a farmers market in your community, and learning more about what farmers market managers and vendors need to help Ohio farmers market thrive. If you would like assistance or information, email Christie Welch at welch.183@osu.edu.

Innovative raspberry system being tested

South Centers researchers look to long-cane raspberry production system for acreage expansion, farm diversification, risk mitigation, season extension

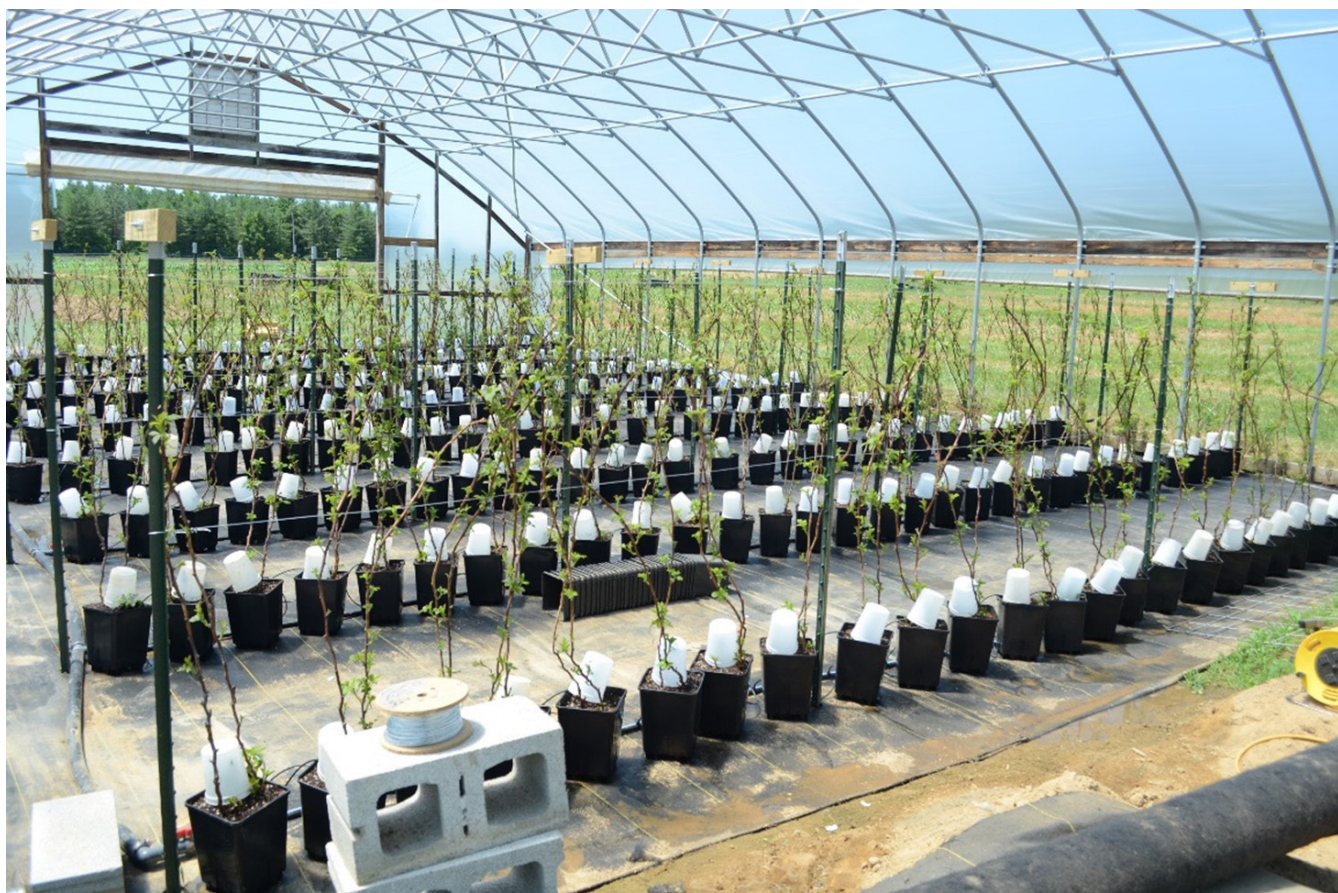
By Gary Gao, Professor and Extension Specialist
Ryan Slaughter, Research Assistant
Paul O'Bryant, Research Assistant

The Specialty Crops Small Fruits team is in the midst of a two-year long-cane raspberry project funded by Ohio Department of Agriculture through a Specialty Crop Block Grant. Our project officially started late last year.

What is long cane raspberry production?

Long cane raspberry production is a relatively new raspberry production method where raspberry bushes with long floricanes (5 feet and 10 inches) are produced in greenhouses, stored in coolers in autumn and winter, and then shipped to growers in spring for planting and fruiting in summer.

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Long cane raspberry trial plot at OSU South Centers near Piketon. Photo by Gary Gao, The Ohio State University.

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Growers can plant these “ready made” plants with fruiting canes in a soilless media and a protected environment like a high tunnel or an unheated greenhouse, or even under solar panels for fruit production in summer. This new and innovative system could help growers solve problems such as poor soil drainage that limits new cane growth and fluctuating spring temperatures that damage floricanes. The long cane production has been very popular in Europe and Canada. This approach has not been viable in the United States since there was not a nursery that grows and sells long cane raspberries.

Background information

There is a major shortage of Ohio-grown raspberries due to a strong demand for raspberries and limited raspberry acreage and low yields. Based on the 2017 USDA Agricultural Census, Ohio had 487 raspberry farms with a total acreage of 343. Poor soil drainage, polar vortices, fluctuating temperatures, labor shortage, and more recently the COVID-19 pandemic, have greatly limited the expansion of raspberry production in Ohio. Numerous improvements to the raspberry production systems have been tried with some success. However, a totally different production system may need to be developed for raspberry growers in Ohio.

Only about 5% of the berries consumed by Ohioans are produced in Ohio. Flavor, healthfulness, convenience, and year-round availability have contributed to increasing consumer demand for strawberries, blueberries, raspberries, and other berries, with per capita loss-adjusted availability growing from an average of 4.5 pounds per person per year during 1994-98 to 6.6 pounds during 2007-08 and to 9.9 pounds in 2014



Tiny flower buds are visible on the fruiting laterals of the long cane raspberry bushes just 12 days after being placed outside. *Photo by Gary Gao, The Ohio State University.*



Ryan Slaughter, right, and Paul O'Bryant, left, both research assistants, are shown here installing T-posts in a high tunnel. *Photo by Gary Gao, The Ohio State University.*

(USDA Economic Research Service, 2017). Hence, there is an excellent potential for Ohio growers to get a much bigger “slice of the pie,” if more effective raspberry production systems are developed for Ohio growers. The long-cane raspberry production system may be the innovation that Ohio growers needed.

The “bottleneck” of long-cane raspberry production has always been the lack of available raspberry with long canes from nurseries. A March 2021 news release entitled “Strawberry Tray Plants & Long Cane Bramble Plants” by Nourse Farms (Whatley, MA) caught the attention of the Small Fruits Team since raspberry bushes come with long fruiting canes for growing in soilless media.

Project details

In addition to a trial plot in a high tunnel, the team also set a separate trial outside in the container production yards. Researchers will compare the yield, fruit quality, and growth rate to see if open field production method is a viable approach.

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Three separate grower trials have been set up as well. Containers, media, and plant materials are identical. Fertilization program and watering intervals are different since each site is different. The study will summarize the information from all the trials and the end of the season to determine which approaches will be good for growing conditions in southern and northern parts of the state.

“It was exciting to see flower buds on June 28 on the raspberry bushes that were put out on June 16,” said Professor and Small Fruits Specialist Dr. Gary Gao. “As expected, the flower buds came with the lone canes and are ready to turn into tasty raspberries. We will need both honeybees and other pollinators to help with pollination.”

At the 2022 Farm Science Review (FSR), Ryan Slaughter, Paul O'Bryant and Gao will present a talk on long-cane raspberry production at the small farm tent on September 20.



Student Assistants Taylor Wagner and Issac Knipp are pictured taking a break from helping construct the new system. Behind the camera was fellow student assistant Katie Rigsby.



Wesley and Suzie Ebenhack of Ebenhack Brothers LLC are growing long cane raspberry bushes in Circleville. Wesley is pictured on the left, with a photo of their production system on the right. *Photos by Suzie Ebenhack.*



The Bees are Back in Town



Guess who just got back today? Them honey bees that'd been away. It has been a few years since South Centers has been home to managed hives of honey bees, but with the acquisition of the long-cane raspberry production grant from the Ohio Department of Agricultural Specialty Crop Block Grant Program by Dr. Gary Gao and Ryan Slaughter (see article by Dr. Gao for details), the necessity for supplemental pollination by honey bees is required again at our research facility. Research Assistants Paul O'Bryant and Ryan Slaughter picked up the bees from a local supplier and successfully installed them on June 7. With a little supplemental food to get them going, they appear to have taken nicely to their new home here at South Centers.





OHIO PAWPAW CONFERENCE

MAY 21, 2022 • PIKETON, OHIO

South Centers hosted the 2022 Ohio Pawpaw Conference on Saturday, May 21. Around 100 individuals from all over the United States attended the conference. Attendees gained invaluable growing and production industry intelligence needed to make informed business and production decisions. Pawpaw experts and industry leaders delivered the most current science-based knowledge on pawpaw industry trends.



Center for Cooperatives welcomes new staff



Two new faces have joined the CFAES Center for Cooperatives team in recent months. Joining Program Director Hannah Scott are new Program Coordinator Samantha (Sam) Black and most recently new Program Specialist Melissa Whitt.

Melissa Whitt

Melissa Whitt is excited to join the OSU South Centers team and is a southern Ohio native. She brings over 15 years of leadership experience in communications, marketing, community engagement, and business development to the Center for Cooperatives.

She earned a B.A. in Organizational Communications and an A.A.S. in Electronic Media, with a concentration in video production,

from Ohio University Southern Campus, as well as a Marketing Program Certificate from OUS.

Melissa has a talent for building successful relationships with diverse organizations to facilitate cooperation and help bridge gaps in communication and program development in the Appalachian region. Her previous leadership roles include business development, strategic planning, and human resources for a plastics recycling startup, where she helped develop the operations team, develop and manage onsite business operations for the entire manufacturing facility, coordinate, develop and manage company and community events, engagements and dinners;

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New quick advice legal clinic program aiming to help close gap for rural entrepreneurs

By Hannah Scott

*CFAES Center for Cooperatives
Program Director*

Imagine you are an entrepreneur starting a business or even growing an emerging business. In addition to thinking about important questions like where you will locate, how you will hire the staff you need, and how you will connect with customers, among many other considerations, you will also encounter various questions with legal implications. And you will be making decisions that can have major impacts for yourself, your business, and potentially, those around you like family members. What if you want to raise money from your family and friends to help with the costs of start-up? What if your business is a lifelong dream for you and your

best friend and you plan to work together? What if you have created a strong, recognizable brand and want to ramp up your online marketing and sales?

Event Details

August 17, 2022, 6 p.m. – 8 p.m.

LOCATION:

South Centers Endeavor Center
1862 Shyville Road, Piketon, OH

COST: No cost to attend, but registration is required.

Register by visiting:

go.osu.edu/legalclinic

Questions? Reach out to Hannah Scott at scott.1220@osu.edu or call 614-247-9705.

If you are an entrepreneur in a rural area, getting answers to these questions from a licensed attorney can be especially challenging. As of the mid-2010's, about 14% of Americans lived in rural areas while only about 2% of lawyers practiced in rural communities and as rural populations age, so are the populations of rural attorneys. In a 2018 article in *Ohio Lawyer*, Dianna Howie shared the challenges accessing legal services in rural Ohio and the work of organizations like Southeastern Ohio Legal Services to combat these issues – while there are about 11,000 registered attorneys in Columbus, rural communities have far fewer -- in Vinton County, there were about 10 at the time.

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As business development specialists with the OSU South Centers programs, including the CFAES Center for Cooperatives, Small Business Development Center, and Manufacturing Extension Partnership, assist clients and provide community education, they have seen how often legal questions come up. “As a small business counselor, I work with many entrepreneurs in starting their own business. Many of them come to our program for assistance because they have encountered a roadblock in the start-up process. It is not uncommon for this to be a legal question that prohibits them from making a decisive decision on the direction they need to take moving forward in starting the business,” shared Brad Bapst, director of the Small Business Development Center housed at the OSU South Centers.

So the team started planning to organize a program that will help the region’s entrepreneurs get access to legal advice and education. Hannah Scott, Program Director with the CFAES Center for Cooperatives housed at the OSU South Centers had seen the model at work in other locations. Scott shared, “One of the most impactful parts of law school for me was participating in UC Law’s Entrepreneurship & Community Development Clinic where students assist current and future business owners, and the program hosts a quick advice clinic for the community.” Scott earned her Juris Doctor from University of Cincinnati College of Law in 2020. Scott, Bapst, and other team members started brainstorming how they could host a similar clinic at the Endeavor Center business incubator at the OSU South Centers. They reached out to Paige Wilson, Director of the

Entrepreneurial Business Law Clinic at Ohio State’s Moritz College of Law, and the OSU colleagues began collaborating on the new program.

“Building Legally Resilient Small Businesses: Quick Advice Legal Clinic for Entrepreneurs,” will be co-hosted by the Entrepreneurial Business Law Clinic at Ohio State’s Moritz College of Law, which provides transactional legal assistance to startups, nonprofits, and small businesses, and partner business development programs at the OSU South Centers.

During the evening program on Wednesday, August 17, 2022, entrepreneurs can participate in free public education sessions on common legal issues for small businesses. Attorneys will teach sessions on “Legal Structures for Small Business,” “Working with Independent Contractors,” and “Legal Basics of Branding and Marketing: What to know in a digital world.”

Entrepreneurs can also sign up for no-cost, one-on-one consultations with volunteer attorneys to explore their legal questions and receive guidance in areas like business structures, employment, contracts, marketing and advertising, venture capital, worker and other cooperatives, commercial real estate, and more. Sessions will last up to 30 minutes and participants can register for up to two sessions.

There is no cost to participate in the program, but registration is required. Entrepreneurs interested in a one-on-one appointment will be asked to submit basic information about their legal question so staff members can try to match participants with a volunteer attorney whose practice area most closely matches their legal question. Please note, space is limited.

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community relations and development for a regional FQHC behavioral health center, where she worked on public relations and marketing projects, including chairing major fundraisers for youth outreach and prevention programs and setting record breaking numbers for awareness, net profits and engagement. Melissa also successfully managed a University of Kentucky Research Lab pilot project, focusing on tobacco cessation for teens in Appalachia.

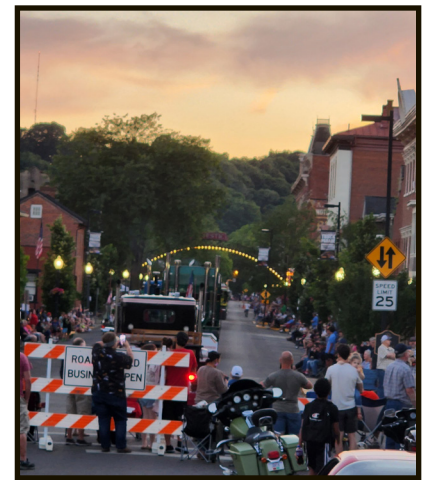
She resides in Wheelersburg with her husband Jason, and their two children.

Samantha (Sam) Black

Samantha Black is the new program coordinator for the CFAES Center for Cooperatives.

She is a graduate of Lindsey Wilson College with her B.A. in Human Services and Counseling. Sam has over 14 years of experience working with state and county agencies, and assisting farmers, businesses, and individuals in acquiring grants, program assistance, and scholarships. Previous roles have included overseeing employee management, chief financial officer, office manager, conducting annual audits, creating and implementing policy and procedures, and communications. She enjoys working with the different entities to help accomplish their mission and assisting individuals in meeting their goals.

Samantha lives in southern Ohio with her husband and helps manage her family’s generational farm, which raises row crops and livestock. When not working, she enjoys working outside on the farm, reading, and cooking.



South Centers MEP among the sponsors for first-ever Kenworth truck parade

The Ohio State University South Centers Manufacturing Extension Partnership program sponsored Kenworth's first-ever truck parade. There were over 50 semi-trucks that maneuvered the downtown streets of Chillicothe in Ross County which is one of the 19 counties MEP proudly serves. One of the trucks that held a special place in our OSU hearts had a semi-truck cab with a regular Ford pickup bed and donned the iconic block "O" with scarlet and grey colors. Most of the downtown businesses held special events, food, and entertainment to commemorate the event. *Photos by Dawn Coleman, MEP Growth Advisor.*



Aquaculture team publish two papers in prestigious journals

Dr. Hanping Wang

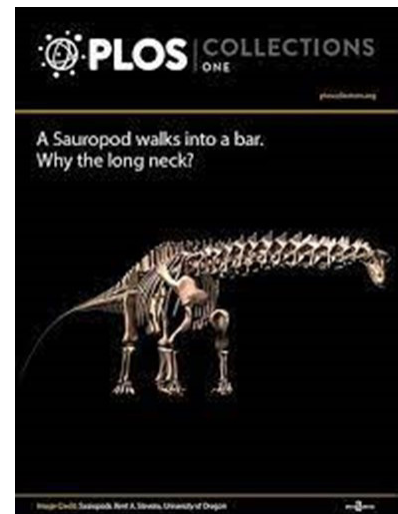
Aquaculture Program Leader

Aquaculture team members recently published two papers related to production of monosex fish and sex control in aquaculture in prestigious aquatic and biological journals. The first paper is about the effect of density on sex differentiation, sexual dimorphism, stress, and related gene expression in yellow perch. It was published by PLOS ONE, which is a prestigious journal published by the Public Library of Science.

In this paper, researchers state that the stocking density does not have an effect on the sexual determination of yellow perch. However, it was concluded that high density is a chronic stress that has adverse effects on fish wellbeing, sexual size dimorphism, growth, survival, expression of stress-related genes, and mobilization of liver reserve.

A stocking density of 1 fish/L or 1,000 fish/m³ is recommended for indoor aquaculture systems to reduce stress, increase survival, and provide a better state of wellbeing and growth performance for rearing management of juvenile yellow perch and, particularly, create a greater advantage for females. The information is important for aquaculture management and practice.

For more information, please visit: doi.org/10.1371/journal.pone.0267904

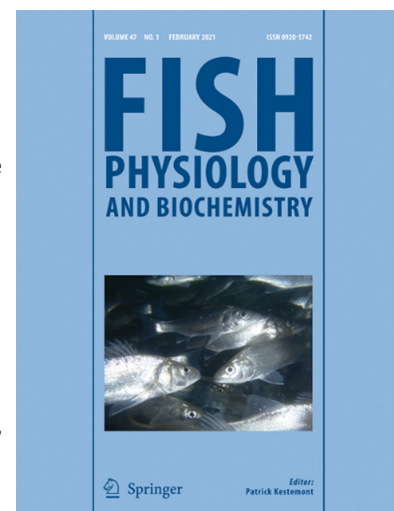


The second paper, which explores the effect of methyltestosterone (MT) on sex differentiation and growth in juvenile yellow perch, was published by Fish Physiology and Biochemistry – one of the top-ranked aquaculture/ fish journals.

In this study, researchers found that the dosage and time of MT-supplemented feed initiation influence the percentage of sex-reversed males and promote growth. Where using higher dosage MT at 50 mg/kg feed could effectively broaden the efficacy of sex-reversal up to 46 days post-hatching in yellow perch, the higher concentrations of MT have evidenced a negative effect on the gonadal development of fish. Hence, the initiation of low dosage 20 mg/kg feed of MT-supplemented feed at 38 dph for 60 days is suggested to produce all-male fish stocks of yellow perch for sex control purposes, as it had effectively produced 100% sex-reversed males, promoted growth, and reduced the total amount of MT used.

The identification of the labile period of sex determination that is manipulated by MT dosage and age of treatment is a valuable progression toward optimizing commercially viable regimes for producing all-female yellow perch, which grow significantly faster and larger than males.

For more information, please visit: doi.org/10.1007/s10695-021-01038-0



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