

Poultry Science Connections

Fall 2021

UNIVERSITY OF GEORGIA COLLEGE OF AGRICULTURAL & ENVIRONMENTAL SCIENCES

A Note From the Department Head

Dr. Todd Applegate
Department Head and Professor

Dear Friends:

I hope this newsletter finds you well. Our Fall semester is nearly over, and we have truly been blessed with re-establishment of a sense of community in the department, and with you our friends, alumni, and stakeholders. We are so appreciative of being able to enjoy events such as our Fall welcome back for students in August, the club led career networking event and our alumni tailgate in October, and our building ground-breaking and recruitment open house events in November.

Our plans for the new building have progressed greatly since our last newsletter. We celebrated the groundbreaking (article in this newsletter) in November, and have stayed on course and on budget. In spite of logistical challenges in the world, plans are on track to begin construction in mid-March 2022 to move in Fall term of 2023. I have been truly thankful to an amazing team led by our UGA-Office of University Architects, FLAD Architects, and McCarthy Building Companies, Inc.

Stay tuned to social media as we hope to be pushing out video of the ceremony in the near term. A huge shout out to our Fall 2021 graduating Poultry Science student, Kylie Bruce, who shared her perspectives on how the industry has shifted over four generations of her family raising birds due in large part to contributions of the department. We are nearly 1/3rd of the way in commitments of the private portion of the campaign; and are extremely grateful to the support from numerous individuals. You are helping to solidify the future of the department and generations of poultry scientists. To keep up on progress, please see the latest: <https://poultrybuilding.caes.uga.edu/>.

At our research and education center, we are humbled as well by the outpouring of assistance with the Henry Massey BBQ pavilion.

During the early phases of the pandemic, a storm blew a tree onto the pavilion. As I know many of you have fond memories of times at the pavilion, you'll be happy to hear that our friends from Columbia Farms, Mar-Jac Poultry, Harrison Poultry, Wayne Farms, Zoetis, Zinpro Corporation, Aviagen, Fieldale Farms, and Cobb-Vantress, Inc. came together to aide in resurrecting the facility. We're ever so thankful to your aide, and fond memories you'll leave with our future students.

Besides growth in facilities, our faculty is poised for growth as well with our search for a new Extension / research faculty member is progressing, and we have plans to have that individual on board on or before the next fall term. Our other Extension faculty have been keeping busy with fall conferences – of which have remained online at the moment. We are hoping to still transition to in-person this spring when/if company travel policies ease.

To stay connected to the department, please do so through one of our social media channels (Facebook, Instagram, and LinkedIn – with links through our website), or better yet, reach out to Jessica Fife (jfife@uga.edu; 706-542-9153). To our alum and industry friends, please reach out if you'd like to connect with our students, as we always are looking for opportunities to have them engage on career opportunities and real-world perspectives.



Department of Poultry Science
College of Agricultural & Environmental Sciences
UNIVERSITY OF GEORGIA

UGA breaks ground on new Poultry Science Complex

By Maria M. Lameiras for CAES News

The University of Georgia broke ground Monday on the site of a new, technologically advanced Poultry Science Complex in Athens. The project will dramatically increase capacity for instruction, research and collaboration supporting Georgia's multibillion-dollar poultry industry, the largest sector of the state's No. 1 agriculture and agribusiness industry.

"This is an exciting day for the University of Georgia and the thousands of Georgians who work in our state's poultry industry," said UGA President Jere W. Morehead. "The construction of the new Poultry Science Complex embodies UGA's land-grant mission to support our state's economy through agricultural research, education and outreach. We are grateful to our state government leaders and the generous donors who are making this vital project possible."

Georgia Gov. Brian P. Kemp, College of Agricultural and Environmental Sciences (CAES) Dean and Director Nick T. Place and CAES undergraduate student Kylie Bruce also spoke to the crowd of about 150 people, which included members of the University System of Georgia Board of Regents, Georgia Agriculture Commissioner Gary Black, and dozens of other government and industry leaders.

Bruce, a senior poultry science major, said she is proud to see the advances that have been made in the poultry science industry since her great-grandparents L.C. and Ruby Nell Powers established a poultry farm with a single chicken house on family land in 1958.

Today we celebrate a new era in research and progress for our university and the poultry industry made possible by investment from our government officials and industry leaders. I stand here to thank you all for the millions of dollars and thousands of labor hours that will go into creating a state-of-the-art Poultry Science Complex," Bruce said. "As the fourth generation to live on my family's farm, I hope this new facility will bring developments that further strengthen Georgia's poultry industry so that my great-grandchildren will also get to be a part of feeding the world one day."

The estimated \$54.1 million project will increase the size of the CAES Department of Poultry Science's existing facilities to more than 70,000 square feet, modernizing instructional and lab space; providing centralized, student-focused facilities; and helping to attract and retain world-class researchers. Construction will begin in spring 2022, and completion is set for fall 2023.

"This facility is going to impact the way that poultry science is taught and researched not only here at UGA but also on the national and international stage," said Place. "As a leader in the global poultry industry, UGA is poised to reach even greater heights in training the next generation of poultry leaders and finding solutions to some of the most complex issues facing the industry today. We are proud to have reached this moment and are looking forward to the day when faculty, staff and students are able to walk through the doors of this building and into an even brighter future for the poultry industry."

State-of-the-art learning labs will bolster the traditional classroom experience with production courses, demonstrations and relevant field-learning exercises. The improvements will support the college's student recruitment efforts and contribute to the department's expanding youth programs, including FFA and 4-H.

"We are elated for this facility to be a driver for developing new leaders in the poultry sector and its supporting entities, as well as a place to foster collaboration and innovation across disciplines to address the evermore complex questions facing the poultry sector," said Todd Applegate, head of the CAES Department of Poultry Science. "We are thankful for the trust and investment by public and private partners in making Georgia the epicenter of poultry sciences for the world."

State funding of \$23.9 million has been provided for the design and construction of the project in the fiscal year 2021 and 2022 budgets.

Kemp, who has been vocal in his support of agriculture in Georgia, said the building is "the next step in securing another century of excellence in teaching, research and extension at the University of Georgia.

"To recruit, train and empower our future farmers, researchers, scientists and leaders in agribusiness, any good harvest we hope to reap in the Peach State depends on their ability to innovate, produce and lead in their respective fields," Kemp said. "This new poultry science building will help the university accomplish this for generations to come."

Robust support from industry, alumni and other donors has contributed to significant progress toward the goal of \$27 million in private funding for the project, said Mary Ann Parsons, senior director of development for CAES. Lead donors of \$1 million or more to date include the R. Harold and Patsy Harrison Foundation, Wayne Farms and the Luther & Susie Harrison Foundation.

Industry leaders such as AgGeorgia Farm Credit, the Franklin P. and Arthur W. Perdue Foundation, Aviagen, CBH International, Claxton Chicken, Crider Foods, Crystal Farms, the Georgia Poultry Federation, Columbia Farms of Georgia/House of Raeford, Merck Animal Health and Southeastern Minerals also have contributed to the project.

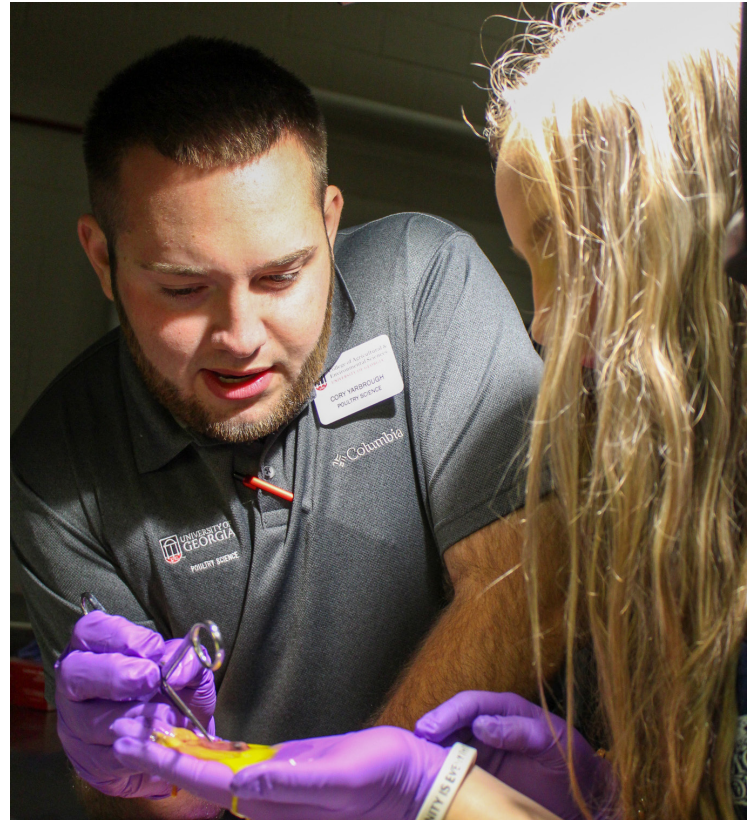
Abit Massey, chair of the steering committee for the new building and president emeritus of the Georgia Poultry Federation, was on hand to participate in the ceremonial event.

UGA Department of Poultry Science Hosts Open House

By Claire Marie Coleman

Department Communications Intern

On November 12, 2021, the University of Georgia Department of Poultry Science hosted 55 high school students at the UGA Poultry Science Research Complex for the annual Open House recruitment event. Participants had the opportunity to experience hands-on sessions with our world-renown faculty as they showcased their specialties, learned more about academics and admissions, and heard from department alumni through a Q&A panel. Students rotated through five stations by the department's Avian Ambassadors, some of whom attended this event as high school students themselves. Prospective students were able to experience all that our top-ranked Department of Poultry Science has to offer - from embryology to processing and more. To further their experience, students were able to interact with department alumni to learn about the department and the industry as a whole during a Q&A session. They also had the opportunity to hear from Devin Duggan, senior academic advisor for the Department of Poultry Science and College of Agricultural and Environmental Sciences, about how to prepare to apply to UGA and the opportunities available to them after they get there. The Department of Poultry Science is so pleased to be able to host this event and have students get to see what the department has to offer for their individual interests!



"As an FFA Advisor, I jumped at the chance to take my high school FFA students to the Poultry Science Open House at UGA. We were all very impressed with the facility but most importantly the faculty and staff we met. Everyone was exceptionally knowledgeable in their area of study and interacted with my students as if they were already CAES students. I have several FFA students that now want to either pursue a career in Poultry Science or other areas of Agriculture just from this visit alone." - Lauren McLendon, Piedmont Academy



UGA Department of Poultry Science Hosts 2021 Alumni + Friends Homecoming Tailgate

By Claire Marie Coleman

Department Communications Intern

On October 15, 2021, the University of Georgia Department of Poultry Science held their 2021 Alumni + Friends Homecoming Tailgate. Alumni, emeritus faculty, current faculty/staff, and industry friends of the department were invited to Southern Brewing Company for fellowship and fun. Food was served by the Winghouse Grill food truck and live music was played courtesy of Hibbs Family Band. Over 130 people were in attendance for the event, and the department's Avian Ambassador team was there to help out with the event and mingle with alumni. We are so thankful to have so many involved alumni members, and thank everyone who attended.



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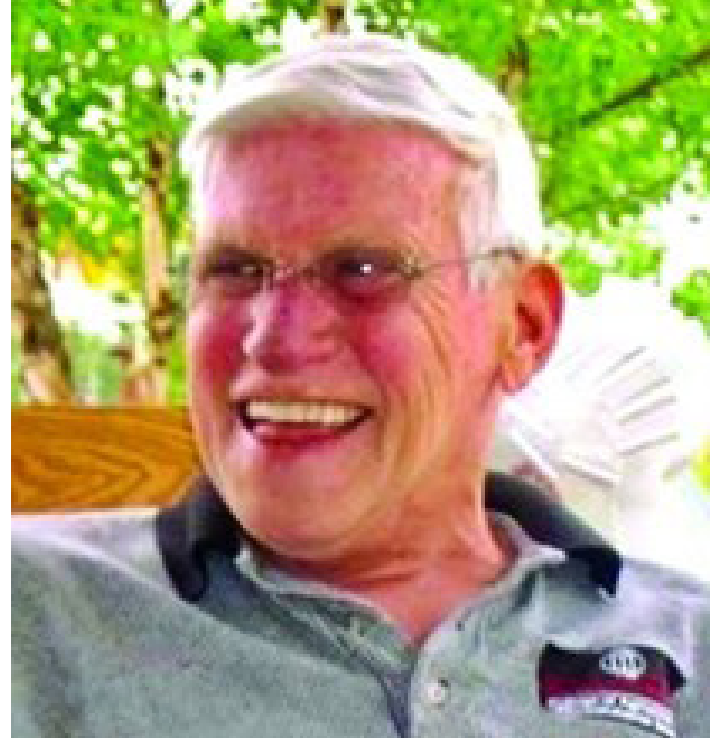
University of Georgia's Poultry Extension Hosts virtual 2021 Georgia Layer Conference

By Claire Marie Coleman

Department Communications Intern

University of Georgia's Poultry Extension faculty hosted the virtual 2021 Georgia Layer Conference on September 27th. Attendees heard a Georgia Poultry Federation update from Mike Giles, president of the Georgia Poultry Federation along with a UGA Poultry Science update by Todd Applegate, department head and professor of UGA's Department of Poultry Science. Next, attendees heard a UGA Poultry Extension update from Casey Ritz, Professor & Extension Coordinator for UGA Poultry Science, a U.S. Egg Production Update from Oscar Garrison, senior vice president of United Egg Producers, and a Poultry Diseases Update from Louise Dufour-Zavala, executive director of Georgia Poultry Laboratory Network. Afterward, there were several management sessions held by Deana Jones, research food technologist for USDA Agricultural Research Service, Jeff Spivey, director of industry operations at Georgia Poultry Laboratory, and Lingjuan Wang-Li, professor at North Carolina State University. To end the day, Woo Kim, associate professor at UGA Poultry Science and Prafulla Regmi, assistant professor at UGA Poultry Science spoke about bone and Coccidiosis in cage-free systems and cage-free flock animal behaviors and welfare. Thank you to all who attended!

University of Georgia's Poultry Extension faculty also hosted the virtual 2021 Broiler Management Update on September 29th. Attendees enjoyed a welcome from Todd Applegate, Department Head of the UGA Department of Poultry Science. Next, attendees heard from Karen Burns-Grogan, UGA Department of Population Health about Body Hepatitis in broilers and from Brian Jordon, UGA Department of Population Health and Poultry Science on the effects of air quality on poultry health. Next, attendees were given an update on sample quality and poultry health from Louise Zavala, Georgia Poultry Laboratory Network and a Georgia Poultry Federation update from Mike Giles, Georgia Poultry Federation. Finally, Attendees learned about the UGA Poultry Housing 411 App from Michael Czarick, UGA Department of Poultry Science. Thank you to all who attended!



In memory of Dr. Jerry Cherry

It is with a sad and heavy heart that we share the passing of Dr. Jerry Cherry. Dr. Cherry served as the Department Head of the Poultry Science Department and Associate Dean of the College of Agriculture here at The University of Georgia, Athens, Georgia (1986-2008). Dr. Cherry passed away on December 4th. We extend our sincere condolences to his family. In lieu of flowers, you may donate in Jerry's memory to St. Jude's Research Hospital in Memphis, Tennessee.

UGA researchers partner with Cairo University to address water scarcity in poultry production

By Claire Sanders for CAES News

With nearly 2.5 million employed in an industry that produces 1.1 billion broilers per year, Egypt's poultry industry is booming. Because of its dry climate, however, the country's production levels are heavily reliant on producers' ability to use resources efficiently without compromising output.

One of the most precious resources required for that production is water. For Egypt and other areas prone to drought and high heat, it is essential to find ways to optimize water use through high-tech infrastructure, sustainable agricultural practices, and ultimately, the chickens themselves.

Sammy Aggrey, a professor in the University of Georgia College of Agricultural and Environmental Sciences (CAES) Department of Poultry Science, says that all it took was one research visit to the region to spark his curiosity — how do we increase efficient water utilization in chickens? After 10 years researching feed utilization, a concurrent issue of optimizing poultry production, Aggrey is now shifting directions to answer that question.

"Water utilization is important because water is a finite commodity," says Aggrey. "Basically, we can run out of fresh water supply."

On top of that long-term concern, the world experienced more drought in the 21st century than any previous century on record, an issue that is particularly relevant in countries and regions like Egypt where water is already scarce. Aggrey, along with his research team, are hoping they can make a difference not only locally in Egypt, but ultimately on a global scale. To support efforts to isolate the genes responsible for water intake, Aggrey has been awarded a grant through the U.S.-Egypt Science and Technology Joint Fund to pursue a project titled "Improving the Efficiency of Water Intake Utilization in Poultry."

Research efforts in Athens will be joined with the work of Mohamed El Sabry of Cairo University in Egypt over the next three years. Joining this project is another CAES faculty member, Romdhane Rekaya, a professor in the Department of Animal and Dairy Science. Rekaya, who was raised in North Africa, understands the implications of a project like this one.

"For producers in drought-prone areas, even a small quantity of water can make the difference between profit and failure. Many producers in Egypt are small-scale operations which don't have access to running water or a well, so they use less-than-perfect means for water," Rekaya says.

This study could give producers the ability to respond in a crisis, such as a drastic heat wave, in order to save their flocks and their livelihoods. With margins as narrow as 100 gallons, producers in drought-prone areas are often operating on a knife's edge.

"The real question is this: how can we produce a bird that can withstand a longer period of time with limited access to water?" Rekaya says.

At UGA, Aggrey and Rekaya will oversee the development of infrastructure needed to collect individual water intake and other performance parameters in a pedigreed chicken population through the production cycle. Creating this infrastructure will allow researchers to study the genetic basis of water utilization and its relationship with other production parameters.

Animal welfare is a primary concern for both researchers and producers, so this project will first seek to understand how restriction might affect the bird.

Egyptian producers and researchers will measure overall bird health against water intake levels in order to identify the healthiest, most efficient birds in the flock. Researchers in Athens will then delineate the molecular mechanisms that determine water intake utilization in the kidney, liver and hypothalamus of those birds. This data will generate genetic markers necessary to make chickens more efficient at using water, allowing breeders to begin selecting for those preferred genetic markers.

In addition to an opportunity to improve poultry production in the world, projects like this one highlight the importance of international cooperation on research projects that have the potential to make an impact.

"To accomplish much in research, one has to collaborate," says Aggrey. "There are some issues that have global implications and for such issues, international collaboration allows us to have a broader perspective."

UGA has access to the kind of resources that produce meaningful results, and Rekaya sees this as a worthy investment that goes beyond the poultry industry itself.

"With projects like this, we are able to open the door for continued collaboration between the United States and countries around the world, which allows us to consider other projects in the future. More importantly, researchers have an obligation to the continued health and prosperity of the world — if we are able to make a meaningful difference in our field and the world, we should be trying to do that."

The U.S.-Egypt Science and Technology Joint Fund is a partnership between the Government of the United States of America and the Government of the Arab Republic of Egypt that exists to strengthen the scientific relationship between these two countries. Funding for this project is provided jointly by the United States Agency for International Development (USAID) and the Egyptian Science, Technology and Innovation Funding Authority (STDF).

Poultry Science
Connections

UNIVERSITY OF GEORGIA
 COLLEGE OF AGRICULTURAL &
 ENVIRONMENTAL SCIENCES

Fall 2021 Graduates

Undergraduates:

BSA Avian Biology:

Will Earley

BSA Poultry Science:

Sarah Bowden

Kylie Bruce

George Wurst

BSA Biological Science:

James Brown

Jessica Browne

Kristen Cohen

Shakeria Collins

Bailey Gibson

Khadija Bello

Taylor Kilgore

Callie Lambert

Mary Parson

Shiv Patel

Rodney Raiford

William Ringold

Michaela Rushing

Keona Stafford

Graduates:

MS Poultry Science:

Gregory Zock

Manuel Arango

PHD Poultry Science:

Ana Villegas

James Foutz

James Wilson

Sudhir Yadav



Save the Date:

January 18-21 International Poultry Short Course

March 23 Deep South Poultry Conference

March FFA Youth Poultry Evaluation Contests

April 4-H Youth Poultry Evaluation Contests

May 3 Precision Poultry Webinar

June 27-29 Avian Academy Teacher Education Program

September Georgia Layer Conference

September Georgia Broiler Conference

September National Egg Product School

