

## Food Animal Scholars Summer Internships 2021

<https://cals.ncsu.edu/animal-science/students/food-animal-scholars-program/>



### **Sarah Roach**

This summer I did a ten-week internship with Prestage farms. I was placed on a 2,400-head farrow to wean farm where I spent time in both breeding and farrowing. Most of my days started in the breeding department and finished the day helping farrowing. During my time spent in the breeding department, daily morning tasks would include dropping feed, walking the crate lines, looking at every individual animal to ensure it was healthy, heat checking, performing A.I. and second A.I. service. Other tasks that were completed included moving sows, determining body condition scoring, and checking for pregnancy.

Daily tasks in the farrowing house included checking rooms for feed and water. We would also look at litters for health checks. Tuesdays and Wednesdays we would load the rooms that had been weaned and washed Monday. Thursdays we would vaccinate the litters that would wean on Monday; we typically weaned two rooms per week. Afternoon tasks would include processing piglets.

The farm that I was on is a multiplier farm so biosecurity was even more of a priority. Things that were done to accommodate for this was our transfer station. When we weaned our pigs we would have our own trailer to load on the farm that transported pigs to and from the transfer station. Here the pigs would go from our trailer, into the barn, and then into another trailer. Typically one person is in the station moving pigs from one door to another and after they are finished and the pigs are taken to the nursery that person is not allowed back on the farm until the next day.

Overall, I enjoyed my experience with Prestage Farms. I furthered my knowledge of management practices and learned the importance of record keeping. I can't wait to see what the future holds for my career in the pork industry.



### **Brianna McAleese**

This summer, I completed a twelve-week internship working with Dr. Mark Knauer on a variety of swine research projects. I was first placed at the Tidewater Research Station in Plymouth, North Carolina where I assisted the team in general production tasks as well as specific data collection. Some of the general tasks included breeding, processing, castrating, vaccinating, and weaning. We would process piglets around 24 hours after birth. At five days old, male piglets were castrated, with the exception of chosen keeper boars. Piglets were then weaned and vaccinated at three weeks old, where weights were recorded and vaccines were administered. I also performed data collection on two main genetics projects. One project focused on decreasing

gilt age at puberty on a continuing eight-year old genetics line. I assisted in heat checking, weighing, ultra-sounding, collecting hair samples, obtaining flank measurements, and data input of these 350 gilts. I also helped on a project that focused on increasing the number of gilt/sow functional teats.

For the last two weeks of this internship, I was placed on a new research project taking place at another farm. This project focused on feeding three different diets in an effort to decrease farrowing duration and decrease the number of stillborns at farrowing. Data was collected on over 200 sows for two weeks through 24-hour observation. I worked twelve-hour shifts observing these sows and tracking when they began farrowing, the time elapsed between each piglet, and when farrowing concluded. Overall, I enjoyed every part of my summer internship where I was able to expand upon skills I already had, as well as learn new ones that will be useful during my future career.



### **Maddie Kuwada**

This summer I split my internship into two experiences in the Midwest. My first internship was at a rural mixed practice Veterinary Service in Kansas. My second internship was with Veterinary Embryo Transfer in Nebraska. During my internship in Kansas, I gained a tremendous amount of experience with cattle medicine in a mixed practice setting. I interned during the breeding season for cattle, and therefore was able to assist with 50+ Breeding Soundness Exams (BSEs). In the lab, I gained experience with making stained semen slides and grading semen under the microscope. I also gained experience and confidence in pregnancy checking cows. I rode along for emergency farm calls. I observed a cattle necropsy where the veterinarian took the time to explain the anatomy to me in great detail. Other cattle experiences I gained included working calves and cattle through chutes to

vaccinate and ear tag, castrated calves and bulls, and assisted with tattooing heifers that were being vaccinated for Brucellosis. I was truly immersed in learning about the Kansas beef industry as the veterinarians took me on tours of feedlots and livestock sale barns.

My second internship in Nebraska was located in the #1 Beef County in the USA. At this internship, I was exposed to the intensive reproductive management of the Piedmontese Cattle Industry. Piedmontese is a breed of cattle I knew nothing about prior to this internship, but they are a niche market of highly expensive cattle, which made reproductive services such as embryo transfer (ET), AI, and IVF profitable. I learned how to grade both oocytes and 7-day old embryos under the microscope. I assisted with conventional flush ETs. We serviced a large bull breeding farm where we would perform hundreds of BSEs a day. Almost every day we would work hundreds of cattle at a time, which was a huge difference to the mixed practices I have worked in before. I learned about breeding protocols. I was involved in herd health work, as we would walk hundreds of pens of bulls daily to monitor for any health issues. I assisted in import and export inspections.



### **Makayla Roberts**

This summer I had the opportunity to intern with a large animal veterinarian in my hometown. His practice covered many counties across western North Carolina.

Throughout the summer I was able to practice old skills and acquire new ones. As an intern I administered vaccines, sedation, and epidurals, along with drawing blood for diagnostic testing. The veterinarian helped me to extend my knowledge of cattle diseases and we performed necropsies that allowed me to visualize the cause and effects of particular diseases and infections. Through routine appointments I was able to exercise my abilities in lameness evaluations, eye exams, and body condition scoring. A particular interest of mine was beef cattle reproduction.

Through numerous pregnancy checks and ultrasounds I was able to learn how to age and sex fetuses. I was also able to assist in

embryo transfers as well as gain more experience with AI protocols. Throughout the summer we focused heavily on pasture management. I identified weeds and grasses continually and was able to observe them in all stages across the span of the summer. This not only allowed us to discuss their attributes, toxicity levels, and effective management tactics, but reinforced the importance of pasture management within beef cattle production. The veterinarian I worked with this summer thoroughly challenged me in my thought processes and helped me to become a more thoughtful, contemplative

and diligent learner. I feel vastly more prepared for the future because of the knowledge, understanding, and experiences I have gained in the past few months. I had an especially interesting and insightful summer, and it has made me even more so look forward to my coming years in the Food Animal Scholars Program.



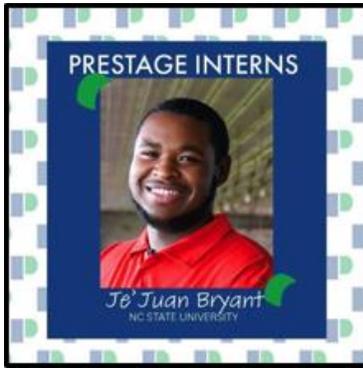
**Allyson Chiu**

This summer I spent my time in Asheboro, NC between a Mobile Large Animal Services and a goat dairy farm. I got to experience how management, nutrition, and veterinary medicine all coincide with production.

The goat dairy had around 100 goats. They have a mix of Alpines, Nubians, Saanens, and LaManchas. During my time this summer, we milked around 75 does. The farm provides their milk to cheesemakers. I had the opportunity to tour a facility and learn about the process

of making goat cheese. I also had the opportunity to meet with dairy cow farmers in the area to learn more about their specific operations. At the goat dairy, I performed tasks such as hoof trimming, administering injections, deworming by using FAMACHA, rapid testing such as the California Mastitis test, collecting blood for diagnostic testing, inserting CIDRs, and bottle feeding. I also assisted in management aspects such as operating the skid steer to move hay, straw, and grain. Although I completed those various tasks, everything revolved around milking at 5 am and 5 pm. I assisted with the evening milking shift. Milking 75 does takes about two hours total with proper sterilization and cleaning the parlor. While there, I learned about the American Dairy Goat Association linear appraisal and the importance of udder health as well as desirable udder characteristics. I also assisted in treating sick goats. Since I did not grow up on a farm and have never had any dairy experience, I learned a lot about the industry, daily management, and the milking process as a whole.

At the Mobile Large Animal Services, I had the opportunity to ride alongside three veterinarians. We primarily saw cattle and small ruminants assisting in herd health. We vaccinated cattle, ultrasound pregnancy checked, performed breeding soundness exams, administered fly tags, and artificially inseminated. We vaccinated small ruminants, dewormed by using FAMACHA, ultrasound pregnancy checked, and hoof trimmed. I also rode on emergency calls which consisted of taking radiographs on goats with various trauma cases such as broken legs, as well as anemic, blocked, ketotic, and acidotic goats. We also saw some goats and sheep with polio, listeria, mastitis, bottle jaw, and Caseous Lymphadenitis. Cow emergencies consisted of assisting with necropsies, down cows, dystocias, and lacerations. We also administered subcutaneous fluids and euthanasias when necessary. Through riding with this mobile service, I have learned the common health problems found within each species. It has helped me identify the diagnosis and the method of treatment, allowing me to become familiar with different brands and medications. These veterinarians are very passionate, skilled, and knowledgeable - characteristics I hope to embody in the future as a food animal veterinarian. I really enjoyed my time at both the Mobile Practice and at the goat dairy farm and am grateful for the experience.



### **Je' Juan Bryant**

During the summer, I had the opportunity to work as a turkey production intern for Prestage Farms. The goal of the internship was to get a holistic view of their operations spanning from the breeding side to commercial operations. Most of my time was spent on laying farms. My duties consisted of egg collection, mortality checks, and cleaning nest boxes, drinkers, and fan rooms. Eggs were collected at either 45-minute intervals or 1-hour intervals (pushes) depending on the time of the day. During each push, I walked the house to pick up floor eggs and ensure that the birds were doing well before picking up the eggs on the belt. As I collected eggs from the conveyor belt, I assessed them to

filter out any cull eggs that would not be hatching quality. The number of cull eggs and type of cull eggs were recorded during each push. I also worked at some of the replacement farms where I helped monitor birds and provide medication if needed prior to their movement to the laying farm.

I was fortunate enough to spend a week and a half at the hatchery. Having the chance to calculate chick yield, look at hatch breakouts, and test the functionality of hatchery equipment really connected the industry operations with the material that I had learned in my poultry classes. In addition to this, I spent time moving eggs, setting eggs, loading/unloading trucks, and learning about the lagoon system at the hatchery. One of my favorite parts of the internship was commercial service. I rode with two different servicemen, and I was able to interact with growers and learn about common problems to look for in turkey houses. This portion of the internship also involved blood collection, obtaining trachea swabs, and obtaining weights before processing. In relation to commercial service, I assisted in the loadout of little birds and heavy hens too.

Overall, I enjoyed my summer working with turkeys, and I am thankful that Prestage Farms allowed me to learn about their operations and gain experience with their company.