Food Animal Scholars

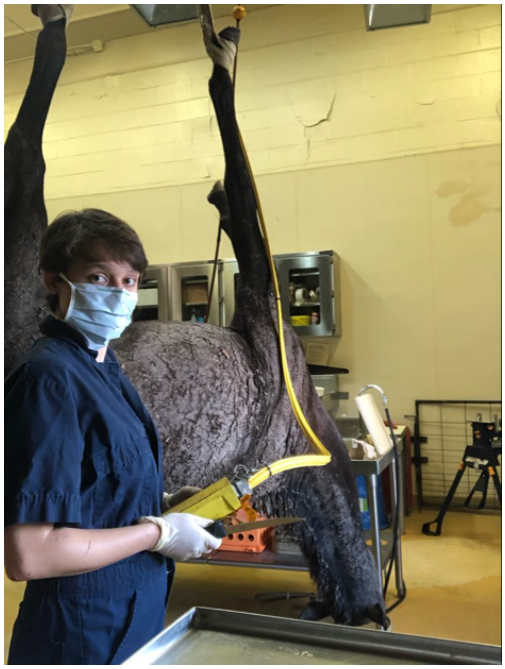
NC State University and NC A&T State University
2020 Summer Internships

Don Banks

This summer I did a six-week internship with Smithfield foods. I was placed on an 8,000-head farrow-to-wean sow farm. This was by far the biggest hog farm I have ever been on and had many more employees than I had worked with before. I spent the first 3 weeks in their farrowing department. Daily tasks would be to check the rooms first thing in the morning for feed, water, and air quality. We would also look for "fall behind" or sick piglets to help. After we checked rooms, a group would go vaccinate two rooms that were to be weaned the following week and another group would go and process the litters that were around 5 days of age. Processing includes giving a shot of iron, a shot of PRRS vaccine, castrating the male piglets and clipping the tails of all piglets and spraying with iodine. Every day this cycle rotated on which group or individual's role was for that day. This farm also weaned 3 times a week, so another group would help wean the pigs and load them onto the truck. Once that was completed they would then begin pressure washing and disinfecting the rooms. Once my 3 weeks in farrowing were completed, I was moved to breeding. In this department first thing every morning we would drop the feed lines and walk around all the pens to make sure the animals were healthy and in the best environment possible. A group would then heat check, perform a second A.I. service on the sows that were heat checked the day before, or move sows from gestation to the farrowing rooms. Since this farm weaned three times a week, that meant we loaded and unloaded rooms three times a week.

My first week in breeding was my last week at this farm. Due to a neighboring farm's employees getting sick due to Covid-19, my production director asked me to finish my internship at another farm. This farm was a 3600-sow farrow-to-wean farm that originally had 13 employees and a manager. When I arrived, the farm was short-handed because only 4 employees and the manager had tested negative for Covid-19 and were still able to work. Therefore, there was a lot of work to be done. We all knew the tasks at hand had to be completed for the well-being of the animals and to maintain steady production. This led to working longer hours and doing jobs individually that are normally simpler with two people. Because of the situation, I now worked in the farrowing department and processed piglets in the morning and after break I went to breeding and did the artificial insemination for the sows that had been heat checked. I actually enjoyed this farm better because I got to know the few people there very well and developed a lot of respect for them. It also felt great because I was a lot of help and they seemed so thankful for me being there.

Baxter Fernandez



This summer I split my time between working as a necropsy assistant at Rollins Disease Diagnostic Laboratory and working on a lymphoid leukosis research project under the guidance of Dr. Gimeno and Dr. Boone.

As a necropsy assistant, my duties included opening large animals for necropsy, weighing animals and organ samples, removing organs for sample collection, setting up and cleaning exam tables for necropsy, maintaining the necropsy lab, etc. I assisted the diagnosticians and pathologists with 62 food animal necropsy cases on top of small animal, equine, and wildlife necropsies. I learned about a large variety of diseases that affect food animals in North Carolina by reading the case histories prior to necropsy, identifying gross lesions during necropsy, and discussing with the veterinarians the diagnoses as well as prevention and treatment options that can be utilized to control the diseases. For each food animal necropsy that I assisted on, I followed up on the diagnosis and researched more about the disease and compiled information on the case and information on the disease that was diagnosed. I had the opportunity to see necropsies of birds with the diseases that I have learned about in the Poultry Science courses I have taken at NC State, including: infectious laryngotracheitis, histomoniasis, Marek's disease, and omphalitis.

For the lymphoid leukosis research project, using LIMS, I identified commercial broiler and broiler breeder tumor cases that have been submitted to North Carolina Veterinary Diagnostic Laboratories, including Rollins and the other branch labs around North Carolina, over the past 11 years. I collected data in Excel from 70 case reports on the necropsies and diagnostic tests performed. Now we are in the process of selecting confirmed lymphoid leukosis cases which will be followed up by virological assays to confirm the etiology. The final goal of this study is to put together an abstract for the next AAAP meeting, to be presented as a poster, and then publish it as a manuscript in Avian Pathology. By working on collecting data from case reports, not only was I able to make progress on the study, but I was also able to learn medical terminology, and when and how specific diagnostic tests are used to make a diagnosis in avian tumor cases.

Abigail Dupuis

This summer I had the opportunity to work at New England Ovis (NEO) as a farm attendant and veterinary assistant. NEO is a specific pathogen-free sheep farm with a total flock size of approximately 500 sheep (200 brood ewes) of various breeds but mostly Polypay. At NEO I was responsible for the care of these sheep, including feeding twice daily and monitoring them for signs of illness.

During my summer, we had two scheduled lambings with a total of 28 pregnant ewes. During the two, one-week lambings, I stayed overnight at the farm to monitor the ewes for signs of parturition. When the ewes went into labor, I was there to watch and make sure that the ewes continued through the stages of labor in a timely manner. If they did not make progress, I would go into the pen and check to make sure that there was not a dystocia. I learned the proper procedure for vaginal examination of ewes in labor. After the lambs were born, I evaluated each lamb for entropion and other congenital issues. I would then monitor their temperature and make sure that they got colostrum from their mother. As the lambs grew, I would administer vaccinations on a schedule and perform tasks such as ear tagging, docking and castration. I became adept at moving and restraining all sizes of sheep. I have become skilled at the use of a balling gun, drenching syringe, and an automatic injection syringe.

I also worked alongside the veterinarian to learn and perform simple procedures such as lumpectomies and dehorning. I conducted the blood collection of units of whole blood with animals under sedation. I collected blood samples for diagnostic testing and submitted serum for Q Fever ELISA screening, Biorpryn pregnancy diagnosis, and swabs for bacterial cultures. I learned how to suture simple wounds as well as treat injuries. I worked with the shearer to collect wool and keep the sheep short-fleeced for the summer months. I really enjoyed my time at NEO and was able to learn a lot about the industry and the daily care of sheep.

Alayna Beaty

This Summer I had the opportunity to serve as an intern with Prestage farms on a sow farm. During my time at Prestage farms, I got to see agriculture and veterinary medicine come together in so many ways. I learned about the various aspects of swine health and production from gestation and breeding to farrowing and weaning.

While working in breeding/gestation, I detected estrus in sows and gilts and bred them via PCAI. I also checked for pregnancy, determined their body condition score, and adjusted their feeders according to their requirements. During my time in the farrowing house, I had the opportunity to help raise thousands of pigs. I started my days by making sure that the sows had been eating and were able to stand up. This was crucial to identify and treat lameness in the sows and ensure that they did not go off feed as this would prevent them from producing colostrum for the baby pigs. I was able to treat sows for lameness through administering medications and recording the withdrawal dates. Furthermore, I monitored the sows that were farrowing and pulled sows that were having difficulty farrowing. Immediately after the babies were born, I dried them off and made sure that they were warming up on the heated mats or suckling colostrum. After the pigs were dry, my co-workers and I gave all the one-day-old pigs iron and penicillin to prevent iron deficiency anemia and infection. Once the pigs were old enough, we processed them by giving iron and penicillin again and vaccinating for PRRS. We also cauterized their tails and castrated the male pigs. One day prior to weaning we would vaccinate the pigs to ensure good health at the off-site nursery.

Furthermore, I gained an excellent understanding of management practices by working closely with the farm manager. She showed me the importance of maintaining proper ventilation, paying close attention to detail, and keeping thorough records of breeding, farrowing, illnesses, medications, and more. I gained a whole new appreciation for the people who work on these farms. They are so passionate about swine welfare and making sure that the animals are properly cared for. The knowledge I learned through them is some that I will take with me into my future career. This experience has made me all the more excited to continue down this career path and serve the pork community.

Maya Keefer

Over the course of the summer, I completed an internship at Willamette Valley Lamb (WVL). This is a 1300-ewe farm which supplies lamb to a large part of the Pacific Northwest, as well as supplying wool to companies such as Filson. WVL runs sheep in flocks of 200-400 on a completely pasture-based system, so I had the opportunity to gain a great deal of knowledge about the nutritional needs of sheep, and how each type of forage met them.

WVL also has a small number of cattle that are raised on a grass-fed diet and sold as whole- or half-cows. As an intern, I was tasked with the daily movement and maintenance of various irrigation systems (such as wheel line and K Line), movement of sheep as necessary throughout the paddocks of each location, and care of both the livestock guardian dogs and the border collies. I, the owner and one other intern also worked the sheep once monthly to complete a variety of tasks including deworming, footbathing, tagging, shearing, and vaccinating.

Though I had some experience with sheep before arriving, by the time my two months at WVL were over, my abilities had increased tenfold. I had never worked with collies before, but in the last weeks of my time at WVL, I was able to confidently move groups of 400 sheep with only the help of one or two border collies. My ability to notice sick lambs and provide them with the care needed to get them back out to pasture also increased dramatically. Finally, I was able to gain a basic understanding of meat processing, as customers often came out to watch the processing of the lamb that they would buy, and the interns were often called on to lend a hand. Overall, my time at WVL was the most action-packed two months of my life, and I could not be more grateful that I was able to experience it.

Imani Anderson and Matthew Johnson were unable to complete the internships they had secured due to the Covid-19 pandemic.