Suidae Health and Production | Fall 2022 Newsletter



Veterinary Education Abroad!

Drs. Amber Stricker and Chris Deegan both recently traveled abroad to learn about what is happening in the Pork Industry in different areas of the world!



Stricker on Puerto Rico trip:

In August I was invited to travel with a group of U.S. swine veterinarians to Puerto Rico (PR) as part of the National Pork Producers Council (NPPC) Swine Veterinarian Public Policy Advocacy Program to get a first-hand look at what is being done on the island to keep the U.S. safe from African Swine Fever (ASF). Thankfully, ASF has not been detected in Puerto Rico but is present in the Dominican Republic and Haiti on the nearby island of Hispaniola. The US has taken interest in the situation because of the proximity of these Caribbean islands to the mainland U.S. and also because PR is a U.S. territory and there may be trade implications should ASF be detected.

Since having declared PR part of the US protection zone in August of 2021, USDA Veterinary Services has held a key role in collaborating with the Puerto Rico Department of Agriculture to develop a robust surveillance program with the domestic and feral swine populations on the island. This effort has resulted in an increased number of surveillance visits to all swine premises on the island, including an increased number of samples being tested for ASF. Veterinary Services also works with licensed garbage feeders (a common practice in PR) to make sure protocols are being followed to reduce the risk of introducing ASF through improperly cooked garbage.

Another significant risk to disease management on the island includes the population of feral pigs. After Hurricane Maria in 2017 the island saw a dramatic increase in feral swine in urban areas forcing the Puerto Rico Department of Health to declare a state of emergency. Since this time the USDA Wildlife Services has been able to significantly reduce the population through a combination of public outreach and coordinated trapping and hunting efforts. Unlike the US Virgin Islands, the sale of pigs in PR is not regulated and thus the goal of this effort is to reduce the population to a manageable level in the event of a foreign animal disease outbreak.

To further protect the mainland U.S., Plant Protection and Quarantine (PPQ) focuses on domestic travel occurring between PR and the mainland. One such focus is to ensure all travelers heading for the mainland U.S. have their luggage prescreened for the presence of agricultural products such as pork. Prohibited items are then confiscated and destroyed.





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Dr. Jason Kelly

Dr. Amber Stricker

Dr. Trevor Schwartz

Dr. Brandi Burton-Setterdahl

Dr. Chris Deegan

Dr. Matt Finch

Dr. Amanda Anderson Reever

Our Philosophy

To provide our clients with the highest professional service. To achieve this we invest in our employees and instill in each of them a strong sense of customer service and commitment. We believe this personal relationship allows us to work with our clients to the best of our abilities, and is the foundation of Suidae Health and Production.

While PPQ focuses on domestic travel, Customs and Border Protection (CBP) focuses on international travelers. To help with this undertaking CBP uses beagles trained in Georgia to detect the scent of agriculture products including pork. These beagles belong to an elite class of canines fondly referred to as the 'Beagle Brigade'. CBP also works to educate travelers on risk of meat products carrying ASF and other foreign disease.

Despite all of these efforts, in the event ASF is detected in PR it is hard to speculate what trade implications may be. The purpose of the protection zone is to mitigate the impacts to trade by showing trade partners all the things being done to minimize the risk of ASF traveling from PR to the mainland US. It was evident the people involved in these efforts approach their job with a sense of purpose and pride themselves on doing their part to protect agriculture. Their hard work and dedication deserve our appreciation!

What can US pork producers do? In times of peace, prepare for war. Stay informed and take advantage of opportunities to prepare for a foreign animal disease outbreak. Programs offered to US pork producers include Secure Pork Supply, US Swine Health Inspection Plan, AgView accounts and the Certified Swine Sample Collector program. Please reach out to our clinic or other industry leaders if you have not yet begun to prepare your operations.

Lastly, remember that ASF is not a public health or food safety concern however an outbreak in the US would have far reaching economic implications among the protein sector and other allied industries. Messaging should continue to focus on early detection and reporting of suspected foreign animal diseases and education on preventing its introduction.

Picture to the right is of a urban pig trap that contained several feral pigs. These pigs were taken to a disposal facility where the adults were sampled for ASF prior to euthanasia.





Confiscated pork products identified in luggage on pre-screening of passengers going from PR to the mainland.



Deegan on Denmark trip:

In August 2022, Dr. Deegan, a member of our veterinary team, went on a trip to Denmark with Pharmacosmos to learn about Danish swine production and about research Pharmacosmos (uniferon) has been doing focused on anemia and iron deficiency in pigs.

During the first days of the trip, they took a tour of a sow farm in Denmark. While production in Denmark is very similar to production in the U.S. in many ways, there were some different and unique production practices not commonly seen in the U.S. that are widely used over there. Some of these differences include liquid diets for sows in lactation all the way through breeding, many more and much larger farrowing crates per sow on the farm (1 crate per 3.9 sows in Denmark) and partial slated, group housed gestation barns with straw bedding. The country itself is PEDv and ASFv free at this point and they are also in the preliminary stages of a nationwide PRRSv elimination.

Pharmacosmos has been doing an excellent job looking into iron deficiency anemia in pigs and starting to dive into anemia in sows and its effects on female production and efficiency as well. Some research they are focusing on is prevalence of anemia in pigs and the decreased production parameters found from pigs who are iron deficient. They are also looking at performance of pigs in disease challenges who were anemic at weaning versus had sufficient hemoglobin at weaning. On the other hand, they are also focusing research on decreasing the prevalence of anemia in piglets and increasing production efficiency in pigs provided with extra iron. Some of the key take aways from this trip are that routine testing of your iron syringes and iron injection techniques to ensure each pig is getting at least 200 mg of iron is very important and if you have unexplained increased levels of prewean mortality or low wean weights, checking for anemia and iron deficiency should be something you talk with your veterinarian about.

To learn more about this trip or information learned from it, please reach out to Dr. Deegan or one of our veterinarians to discuss further details.



The future of wean pig sampling: why not rope knot?!



Carly Bates, BS; Amanda Reever, MS, DVM; Brandi Burton, DVM; Matt Finch, DVM

Introduction

Swine herds are tested for porcine reproductive and respiratory syndrome virus (PRRSV) for surveillance and to monitor elimination success. The gold standard for due-to-wean surveillance is serum testing 30-60 pigs in the population. This is time consuming, requires training, and is not a population sample. This study explores a sampling method that is more efficient and less stressful for piglets. The objective of the study was to compare rope knot (RK) oral fluid sampling to established methods.

Methods & Materials:

Three sampling methods were conducted on 15 due-to-wean litters. Method 1 was RK sampling. A 15" nonbleached rope was tied three times to create a rope that was 6" in length with a 3/4" thick knot in the middle. The RK was placed under the heat lamp in each crate and checked every half hour until the majority of the RKs had noticeable saturation (1.5 hours total). RKs were collected and placed in individual bags. One mL of fluid was poured from each bag. If this was not possible, 10mL of phosphate buffered saline (PBS) was added to the bag and agitated before pouring. The remaining contents were then combined for a pooled sample. The pooled fluid was poured off and sent for testing with the 15 individual samples. Udder wipes (UW) were collected for sample method 2. Gauze pads (4x4") were soaked in 8mL of PBS. The gauze was wiped along the underline of each sow for 15 seconds and collected in individual bags. They were thoroughly agitated and 1mL of fluid was poured out. The remaining contents were then combined for a pooled sample. Method 3 was serum sampling (SS) of five pigs per litter. Serum was pooled by litter for testing. Blood collection was completed last to avoid cross-contamination and prevent stress in piglets prior to RK sampling.

Results & Discussion:

RKs and SS agreed on all 15 samples, whereas UW and SS agreed on 13 of 15 samples. Using PBS to saturate RKs still resulted in positive/negative results that matched the SS. Pooled RK fluid had a lower Ct value compared to the average individual samples, making pooling an option for detection in this case. SS had an average lower Ct value than UW and RK, which should be considered when determining testing methods. RKs were the most efficient sampling method and reported similar to the gold standard method. UW and RK had higher Ct values which should be considered when determining whether to pool samples or test individually. Some RKs were reached by the sow, therefore capturing family oral fluids. The effect of this may need to be further explored. Ultimately RK sampling was easily executed, leads to minimal cratetocrate contamination, is more welfare-friendly and a promising testing method for due-towean pigs. The next step is to repeat this trial in a low prevalence herd to determine if the method is sensitive enough to pick up low numbers of positive samples in a population.

Animal ID	Oral Fluid	Udder Wipes	Serum	Animal ID	Oral Fluid	Udder Wipes	Serum
1	Negative	Negative	Negative	1	Negative	Negative	Negative
2	Positive	Positive	Positive	2	Positive	Positive	Positive
3	Negative	Negative	Negative	3	Negative	Negative	Negative
4	Positive	Positive	Positive	4	Positive	Positive	Positive
5	Negative	Negative	Negative	5	Negative	Negative	Negative
6	Positive	Positive	Positive	6	Positive	Positive	Positive
7	Positive	Positive	Positive	7	Positive	Positive	Positive
8	Negative	Negative	Negative	8	Negative	Negative	Negative
9	Negative	Negative	Negative	9	Negative	Negative	Negative
10	Positive	Negative	Positive	10	Positive	Negative	Positive
11	Positive	Positive	Positive	11	Positive	Positive	Positive
12	Positive	Negative	Positive	12	Positive	Negative	Positive
13	Positive	Positive	Positive	13	Positive	Positive	Positive
14	Positive	Positive	Positive	14	Positive	Positive	Positive
15	Positive	Positive	Positive	15	Positive	Positive	Positive

This study has not been published but has been submitted to be presented at Leman Conference in the Student Innovator Award Session 2022.

Disease Outbreak Investigation Service

Dealing with a recent disease outbreak and want to prevent future losses? We can help!

Suidae's newest service takes keeping your pigs healthy to the next level. We are now offering outbreak investigations for PRRS and PED! One of our own, Dr. Amanda Anderson Reever, completed numerous outbreak investigations through her previous position at lowa State University and is now offering this service to Suidae clients. Through these investigations, we use real-life disease detective work to identify your biggest biosecurity risks. Many other pig producers have already utilized this tool to improve their biosecurity, and we want you to have the same opportunity to mitigate future losses. Nothing puts a damper on your business success like a disease outbreak.



Contact your Suidae veterinarian or Dr. Reever directly (amanda_reever@suidaehp.com) to learn more about protecting your herd.

Iowa VCPR Rule Change

The Iowa Board of Veterinary medicine recently updated Iowa's Rule regarding veterinarian/client/patient relationships (VCPR). The updated rule has two clarifications on previous rules:

- It is required to have a valid VCPR before a veterinarian may provide medical care or prescribe medications to a patient, and;
- It is required for a veterinarian to perform a physical examination of the patient or visit the premises within the past 12 months to establish a VCPR



This change went into effect in June 2022, so a visit to all sites within the 12-month period will need to be completed by June 2023. If you have not already discussed these changes with your Suidae veterinarian, please reach out to organize a plan. Ensuring every site has had a visit within the last year will allow us to provide the best care and maintain access to important prescription veterinary products. VCPR rules do vary State by State, so please contact your Suidae veterinarian for any further clarification.

Dr. Trevor Schwartz EVP graduation

Congratulations to Suidae's Dr. Trevor Schwartz for completing the Executive Veterinary Program! Dr. Schwartz graduated from the Swine Executive Veterinary Program at the University of Illinois earlier this Fall. This program is an award-winning program series that has been recognized as world class. EVP was developed in 1991 to address the essential skills for excellence in swine health management. The objective is to enhance the diagnostic, management, leadership, strategic thinking, and problem-solving skills of leaders in the pork industry. Since 1991, 225 of the top swine industry veterinarians from throughout the world have benefited from the program.



Congratulations again to Dr. Schwartz for joining this exclusive group. Suidae is proud of this great achievement!

Employee Spotlight

Meet Michelle Corey-Sperr

Hello - My name is Michelle Corey-Sperr, I have been one of the product procurement team members at Suidae Health and Production for the past 11 years. I am based out of the Suidae office in Morris, MN.

I was born and raised in Herman, MN where I grew up on the family farm where we raised crops, cattle, and horses. I received a degree in Veterinary Technology from the University of Minnesota, Waseca a "few" years back, and have been a Certified Veterinary Technician since graduating. Following graduation, I was employed by the Swine Health Center of Morris, MN.

During that time I was honored to have been named the MN Veterinary Technician of the Year by my peers. I thoroughly enjoy the daily interactions with clients helping them with all their swine health and production needs.



My husband, Bruce and I run a cow/calf operation, background feeder cattle, raise crops, quarter horses, and miniature horses, as well as helping with the day-to-day operations of my family's Belgian horse business. When not at work or helping on the farm, I'm kept busy with various community activities, serving as our county fairboard secretary, church council member, and co-chair of our local farmer's market. In my spare time I enjoy spending time with family and friends, attending horse & cattle shows, outdoor activities, and sporting events.

Ground Pork Chili

There is no doubt that the Fall season is upon us. Autumn leaf colors paint the trees, harvest is in the downward swing, and temperatures are dipping. As the season changes, kitchen recipes often follow suit. Warm up this Fall with a bowl of chili using this yummy Ground Pork Chili recipe:

Ingredients:

- 2 pounds ground pork
- 1 large yellow onion, chopped
- 4 cloves garlic, minced
- 2 tablespoons chili powder
- 2 teaspoons salt

- 2 teaspoons dried oregano
- 1 (28-ounce) can stewed tomatoes
- 2 cans mild Ro-Tel diced tomatoes with green chiles
- 1 (15-ounce) can tomato sauce
- 1 (15-ounce) can kidney beans with liquid
- 1 (15-ounce) can pinto beans, drained and rinsed

Cooking Directions:

- 1. Combine ground pork, onion, and garlic in large stockpot. Cook and stir over medium heat until pork is brown. Drain excess grease.
- 2. Stir in chili powder, salt, oregano, tomatoes, and tomato sauce; break up tomatoes while stirring. Heat to boiling, reduce heat to simmer, and cover. Cook, stirring occasionally, for 1 hour.
- 3. Stir in beans. Simmer, uncovered, for 20 minutes; stir occasionally.
- 4. Top with cheese and serve with homemade bread, cornbread, or a Midwest classic, cinnamon rolls!

