### Suidae Health Production | Winter 2022 Newsletter



# Swine Health Improvement Plan

The US Swine Health Improvement Plan (US SHIP) is a collaborative project being coordinated by industry professionals to develop and implement a "ASF-CSF Monitored" certification program for US pork production operations. This plan is closely modeled after the National Poultry Improvement Plan's "H5/H7 Avian Influenza Monitored" certification; a certification held by more than 99% of US commercial poultry operations.

The purpose of this plan is to proactively establish industry, state, and federal partnerships that focus on ASF-CSF prevention and the development of a system to demonstrate freedom of disease to ensure business continuity. If ASF-CSF were to enter the US, it is assumed that all trade will stop immediately and nearly 1/3 of all pork produced in the US will need to find a new home. The US SHIP will play a huge role in facilitating proper movement of animals and returning to normal business and trade. If this project is successful, the USDA will have a stamp for certified operations. This USDA seal of approval will allow for operations to have access to interstate movements and international markets, even if ASF-CSF enters the US.

In August 2021, the inaugural US SHIP House of Delegates meeting was held to set the initial standards for this program. In all, 230 delegates from 28 pork producing states that represent over 99% of domestic swine production attended the meeting. The delegates included industry, state, and federal partners. The initial set of standards were established and in early 2022, producers and packers should be able to enroll in US SHIP. Participation is voluntary and each state will designate an Official State Agency to operate the program.





Although the focus is on ASF-CSF prevention, this type of program could be extrapolated to help prevent and control endemic diseases as well. The three focus areas for the US SHIP are biosecurity, traceability, and sampling with testing. As producers focus more effort into these areas, operations will have more confidence with their health status, regardless the disease. With that said, the real urgency is to center the attention on ASF-CSF prevention right now.

The future of the US pork industry has been top of mind in the creation of the US SHIP project. The partnership of industry, state, and federal partners in developing this national strategy is a great testament to our industry's ongoing efforts to ensure a sustainable future.

# Action items for producers while US SHIP is finalizing program details:

- Develop a Secure Pork Supply plan for your farms
- Stay current on recording animal movements
- Contact your state producer association to identify who will be your Official State Agency
- Further educate yourself on what US SHIP is and how you can participate
- For more information, please visit: usswinehealthimprovementplan.com
- Contact Suidae for assistance with developing site plans or if any help is needed to guide you through this process



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#### **Hours**

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#### Veterinarians

Dr. Matt Anderson

Dr. Todd Distad

Dr. Jason Kelly

Dr. Amber Stricker

**Dr. Trevor Schwartz** 

Dr. Brandi Burton

Dr. Chris Deegan

Dr. Matt Finch

### **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.

# Suidae Innovative Research

### **Introducing to you - Suidae Innovative Research!**

Suidae is now actively conducting research projects that span a wide variety of questions and needs our clients have. Dr. Burton, Suidae's research specialist, Beth Kittleson, and the help of all others in the company tackle these projects no matter how big or small they may seem. Some of the projects include vaccine comparisons, feed additives, water enhancement products and procedures, novel exposure methods, enhancing the microbiome, comparing genetic sire lines, and much, much more.

To our clients and allied industry partners - we are here to help answer questions you have that can positively impact your business and the industry. If you have any research needs, please contact Dr. Burton to find out more about our services!

To our clients - If you would like to know more or have ideas you would like to evaluate, let your Suidae veterinarian know!



# Employee Spotlight

### **Meet Brandi Burton**

Brandi was born and raised in the northwest suburbs of Chicago. She started riding horses at the age of 5 and actively participated in show-jumping competitions throughout high school. Brandi attended the University of Illinois as an undergraduate in Animal Sciences with the hopes of becoming an equine sports medicine veterinarian. On a whim, she joined the University's Meats Judging Team her freshman year of college and was introduced to the world of animal agriculture. From that experience forward, Brandi became more and more interested in livestock and the food animal industry.

During veterinary school, Brandi participated in the Swine Veterinary Internship Program through Iowa State University during her summers and gained more experience in the field. She also worked under Dr. Jim Lowe at the University of Illinois helping with various projects and managed the database for the Illinois Swine Health Network. These experiences solidified her interest in pursuing a career in swine medicine.

Brandi graduated veterinary school from the University of Illinois in 2019 and soon after joined the Suidae team in Algona, IA. Since practicing, she has developed an interest in Mycoplasma hyopneumoniae, biosecurity and research. When she's not providing veterinary services for clients, you will find her in barns weighing or bleeding pigs for the various research projects we have currently through Suidae Innovative Research.

Currently, Brandi lives in Humboldt, IA with her fiancé, Tommy and 7 year-old (future) step-daughter, Scarlett. Brandi and Tommy will be getting hitched at the end of August this year!



# **Swine Disease Conference Highlights**

The 2021 ISU James D. McKean Swine Disease Conference was held once again in Ames, Iowa this past November. This event occurs annually and provides an opportunity for swine practitioners to stay up to date with the everchanging swine industry. Part of the Suidae vet team was able to attend and learn from the event. There was a wide array of topics discussed and some of the take home messages from the meeting are shared below. Please reach out to your Suidae veterinarian for more details!

### PRRS:

The PRRS 144 L1C variant has raised a lot of eyebrows and brought up several questions since hitting the swine industry this past year. In response to these questions, recent research was completed to evaluate the pathogenicity of 144, vaccine efficacy to 144, and how 144 responds to typical biosecurity methods.

#### Findings:

- 144 was less pathogenic than the 174 strain it was compared against.
- Both Prevacent and Ingelvac PRRS MLV were shown to be effective at reducing clinical signs and symptoms associated with 144 infection and improved performance compared to unvaccinated groups.

- Biosecurity methods were effective at preventing transmission of 144.
- Disinfectants work. Ag forte pro and synergize both neutralized PRRS 144, but required 60 min of contact time.
- Contaminated feed and feed trucks can serve as a method of transmission, but feed mitigants are effective in prevention (Sal CURB, and Guardian).
- PRRS 144 survived in manure slurry for 14 days, but not 21 days.
- A shower with change of clothes and footwear prevented transmission.
- PRRS 144 was undetectable in air samples post filtration.

### **Growing Pig Biosecurity:**

Lateral transmission of pathogens, especially PRRS, can occur at a very high rate. Simple, but strict biosecurity measures in nurseries and wean-to-finish operations are paramount to reducing the transmission. Biosecurity assessment visits need to be a routine part of growing pig production, throughout the growth period.

## Sow Mortality

- A recent study involving 400,000 sows showed that the top reason for sow mortality is "unknown". More focus on individual sow care would help find reasons for the "unknown", or better yet, how to address those reasons in order to reduce mortality.
- Early identification and treatment of at-risk animals in breeding and gestation can help reduce sow
- mortality. A simple way to identify potentially sick animals is to observe all pigs immediately following feed drop. If she is not up eating, flag her and come back for further evaluation and decide if she needs treated or not.
- A 4,000 head sow farm that adopted this strategy significantly reduced mortality, which ultimately saved the farm money. On that farm, a 1% reduction in mortality equated to a \$2.80/sow savings.

### **Gilt Source Changes**

Changing gilt sources can lead to many health and production consequences for the resident herd in commercial sow farms, as well as downstream in growing pigs. Therefore, it is important to put a lot of forethought into making any source changes. Working closely with your veterinarian, genetic company, and farm personnel before, during, and after any change will be crucial for a successful introduction.

# 2021 BioPortal PRRS update

At Suidae, we use a program called BioPortal to track and analyze all PRRS sequencing information. Each case a Suidae veterinarian submits with a PRRS sequence will automatically get added to our database, and therefore, we can compare each case to the rest of the database. This aids in tracking strains within a system or region and can also guide treatment and protocols if a similar case has been seen by that vet or another vet within the practice. If you are ever curious about the details of your particular cases and how they compare to the rest of the database, ask your Suidae veterinarian!

Below are charts that help us analyze the trends of PRRS positive cases that were sequenced within the Suidae database over the past year.

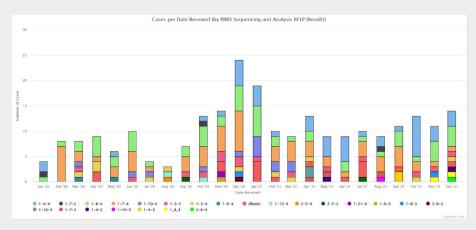


Figure 1

This chart depicts the number of PRRS cases with sequencing from January 2020 - December 2021 by month. Each color represents an RFLP. This chart shows that overall, there were more cases sequenced in 2021 vs 2020 by the increased number of cases seen in each month of 2021 compared to 2020. Once the spike of Dec 2020 hit, the number of these cases comes down but not by all that much. This could be a result of more cases being diagnosed positive that year or more cases were sequenced in order to better understand the nature of these viruses and where they are coming from. For reference, the light blue towards the top of the figure would be 1-4-4 cases, which would include the L1C variant the industry is experiencing.

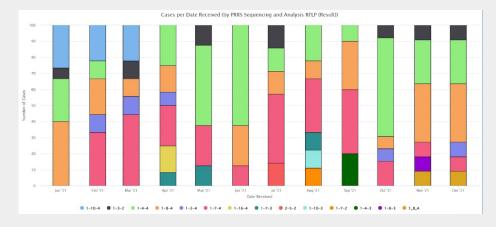


Figure 2

This chart only includes January – December 2021 and shows the proportion of each RFLP represented for the cases that month. You can appreciate the trends and differences between the RFLP or strains by month. In this chart, 1-4-4 is lime green, again including the "bad" L1C variant. The other prevalent color is orange representing 1-8-4 strains and bright pink, which is 1-7-4. These three RFLPs are by far the predominant ones but this also shows there can still be quite a bit of variation of PRRS strains within these herds.

# Pork Recipe: Gameday Pulled Pork

Pulled pork is the MVP of gameday foods and for good reason. It is a delicious, easy to make, feeds a crowd, and it can be cooked and served many ways. So head to your local grocery store or butcher shop and pick up a pork shoulder roast, known as the Boston Butt, and your guests won't be disappointed at your Super Bowl party.

Check out this recipe for an easy way to cook pulled pork in your oven:

#### **Ingredients:**

- 3 tbsp paprika
- 1 tbsp garlic powder
- 1 tbsp dry mustard
- 3 tbsp coarse salt OR, use your favorite BBQ rub
- 1 bottle of your favorite BBQ sauce
- 1 (5-7 pound) pork shoulder roast



#### **Cooking Directions:**

- Mix the spices together and rub the spice blend (or your favorite BBQ rub) all over the pork, cover, and let marinate in the fridge for as long as you have time for, as little as 1 hour or up to overnight.
- 2. Preheat oven to 300 degrees Fahrenheit
- Place the pork in a roasting pan and bake for around 6 hours or until the pork easily falls apart
- 4. Remove the pork from the oven and transfer to a large platter to rest for around 10 minutes
- 5. While still warm, use two forks to "pull" the meat into shredded bits and place in a bowl
- 6. Pour ½ bottle of BBQ sauce on top of the shredded pork and mix well
- 7. Spoon pork onto a bun for a delicious sandwich. Top with pickles and/or slaw.

For more pulled pork recipes, visit www.foodnetwork.com

#### **OFFICE NEWS:**

# **Christmas Get Together**

Suidae employees enjoyed a Christmas party with dinner and entertainment at the Algona Axe House this year.

It was a fun evening filled with good people, good laughs, good food, and some good and not so good axe throwing!

