### Suidae Health & Production | Spring 2022 Newsletter



### **AASV Annual Meeting**

The 53rd American Association of Swine Veterinarians (AASV) annual meeting was recently held in Indianapolis, IN. This event draws veterinarians from all over the country and the Suidae vet team looks forward to it every year. The slogan for this year's meeting was "Defining Our Future", and the opportunities and challenges presented gave our vet team a better understanding of how we can help shape the future of ourselves and our customers!

### **MEETING HIGHLIGHTS:**

Drs. Brandi Burton and Chris Deegan (pictured center and on the right) were awarded the Dr. Conrad and Judy Schmidt Family Student Debt Relief Endowment scholarship. This \$5000 scholarship is given to help relieve the student debt of recent veterinary graduates that are engaged in private swine practice and provide service to independent pork producers. Drs. Burton and Deegan are active members of the AASV and credit the AASV for their engagement and support.

### Congratulations Dr. Burton and Dr. Deegan!





www.suidaehp.com

### **Algona Office**

2111 100th Ave. | Algona, IA 50511

Office: 515-295-8777 Fax: 515-295-4954

### **Morris Office**

621 Pacific Ave | Morris, MN 56267

Office: 320-589-0111 Fax: 320-589-9096

### **Lake City Office**

1103 W. Main St. | Lake City, IA 51449

Office: 712-464-8911 Fax: 712-464-8016

#### **Hours**

Monday-Friday 8am-5pm

#### **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.

#### **MEETING HIGHLIGHTS CONTINUED:**



2021 Suidae intern Madison Durflinger was 1 of 15 veterinary students selected to give a prestigious oral presentation at the AASV annual meeting. Madison finished in the top 5 and was awarded \$2500 for her presentation, "Evaluating the efficacy of exposing feeder pigs to Mycoplasma hyopneumoniae via fogging using pooled intra-tracheal samples".

### Congratulations Madison!

P.S. To read more about her project, see the Suidae Innovative research section!



2021 Suidae intern Rachel Kanefsky (center, right) was selected to compete in the student poster competition at the AASV annual meeting. Rachel was awarded a \$200 scholarship for her poster, "Evaluating castration techniques and effects of scrotal hernia prevalence".

### Congratulations Rachel!

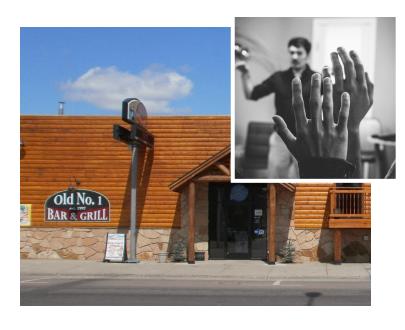
Dr. Brandi Burton gave two presentations during the Industrial Partners session that detailed some of her recent research: "Evaluation of pigs vaccinated with PRRSGard or Prevacent under a natural challenge model" and "Discovery of a key biomarker for inflammation and associated performance economics in growing pigs".

Well done, Dr. Burton!

# Nursery/grow-finish producer meeting held in Morris, MN:

Suidae recently hosted a meeting tailored to nursery and grow-finish producers at the Old Number One Bar and Grill in Morris, MN. Participants from near and far attended the meeting to interact and learn how they can improve their pig knowledge and their operations. The presentation topics ranged from common diseases in the pig industry and how to deal with them, bio-security, understanding closeouts, and how to troubleshoot environmental issues in your barn. The positive feedback on this event already has us planning a similar type of event in one of our other locations.

If you have interest or ideas for this type of event, please reach out to a Suidae veterinarian!



### **Pork Recipe: Ultimate Grilled Pork Chops**

How do you make a beautiful spring day even better? With some grilled pork, of course! Head to your local meat counter and pick up some thick-cut pork chops (also known as the lowa Chop!), fire up the grill, and enjoy some fantastic food and weather this spring and beyond!

### Follow this recipe for ultimate grilled pork chops:

#### **Ingredients:**

1/4 cup kosher salt

1/4 cup sugar

2 cups water

2 cups ice water

4 thick-cut pork chops (at least 1 inch thick)

2 tablespoons canola oil

### **Ultimate Grilled Pork Chops:** The Pork Rub **Ingredients:**

3 tablespoons paprika

1 teaspoon each garlic powder, onion powder, cumin, ground mustard, pepper

½ teaspoon ground chipotle pepper

OR substitute 4 tablespoons of your favorite pork rub

### **Cooking Directions:**

- Combine salt, sugar, and 2 cups water in large pan; cook and stir over medium heat until dissolved. Remove from heat and add 2 cups ice water to cool brine to room temperature.
- Add pork chops and cooled brine to a large sealable plastic bag. Remove as much air as possible and seal the bag. Ensure chops are surrounded and place in the refrigerator for 8-12 hours.
- 3. Remove the chops from the brine, rinse, and pat dry. Brush chops on each side with oil and sprinkle the pork rub on each side. Let stand at room temperature for 30 minutes.
- 4. Grill chops over medium heat for 4-6 minutes on each side or until a thermometer reads 145 degrees Fahrenheit. Oil grill grates for easier flipping.
- 5. Enjoy!!



For more great recipes, visit https://www.tasteofhome.com/collection/top-10-grilled-pork-recipes/





### Suidae Innovative Research:

Evaluating the efficacy of exposing feeder pigs to Mycoplasma hyopneumoniae via fogging using pooled intra-tracheal samples

Madison Durflinger<sup>1</sup>, BS: Brandi Burton<sup>2</sup>, DVM; Abigail Redalen<sup>3</sup>, DVM



### **Introduction:**

Mycoplasma hyopneumoniae (Mhp) has a huge economic impact due to the reduction in feed efficiency, average daily gain, and increased medication costs1. Producers will see an average reduction of \$5.53 due to an Mhp infection2. Many are researching and experimentally inoculating pigs to measure and find better ways to control Mhp. Herd closure techniques also incorporate mass Mhp exposure as a method of elimination. Today, the gold standard for inoculating pigs with Mhp involves the use of Mhp positive lung homogenate as the inoculum source. While proven by many to be an effective inoculum, animal welfare concerns are present and associated with the process of obtaining the inoculum source. Utilizing antemortem samples as an inoculum source would also reduce production loss. The objective of this study is to evaluate the efficacy in using Mhp positive pooled tracheal samples to expose feeder pigs using a fogger.

### **Methods & Materials:**

The study was performed in an 800 head feeder-to-finish site in north central lowa with pigs from a maternal line flow. The site is divided into two 400 head rooms separated by a center office/load out area. Site was filled with maternal line gilts and barrows prior to the start of the study.

Prior to fogging, tracheal samples were collected from a Mhp positive sow farm. The tracheal samples were pooled by 5 and 0.5mL from each pool was collected for testing. Samples were submitted to ISU-VDL for Mhp PCR and PRRSV PCR. Only samples negative for PRRSV were used in this study. The pools of tracheal samples were diluted 1:1 with Friis Media (Teknova, Hollister, CA) and then stored in a - 80° C ultra-low freezer.

The goal of this study was to expose pigs to Mhp with Hurricane Ultra II (110V) foggers using pooled tracheal samples collected at the sow farm mentioned previously.

### **Trial:**

To save time the day of fogging, 45 pigs were randomly selected, tagged and tracheal samples were collected for Mhp testing by PCR 1 week prior to the second replicate. These samples were pooled by 5 and tested negative.

The average Mhp Ct value of the pooled tracheal samples collected for the second trial was 24.1 and the final volume of the tracheal samples was 30 mL. After combining the pooled tracheal samples with 4,600 mL of treated Friis Media, the Mhp Ct value was 30.3. The inoculum was mixed together the afternoon before the planned exposure and incubated at 37° C overnight. The 4,600 mL inoculum was divided into three Hurricane Ultra II (110V) foggers and 40mL of the solution was saved and used for the positive control pigs.

Five of the pigs served as positive controls and were intra-tracheally inoculated with 8 mL the inoculum used in the fogger.

The foggers were set to a medium flow rate and ventilation was shut off during the fogging event. The three Hurricane Foggers were distributed throughout the room and placed on top of trash cans. Throughout the exposure period, pigs were circulated around the foggers. Three people walked pens to achieve this circulation wearing proper PPE (protective eye gear, N95 face masks, coveralls, gloves, and plastic boot covers). Ventilation was turned back on immediately following exposure. Tracheal samples were collected from the tagged pigs 21 days post-exposure, and the tracheal samples were tested for Mhp by PCR. All Mhp PCR's in this study were performed by ISU-VDL.

### **Results:**

21 days after exposure to Mhp with a fogger, 95% of the tagged pigs exposed to Mhp via fogging were positive for Mhp by PCR. 3 of the 5 intra-tracheally inoculated pigs tested positive as well. This suggests that pooled tracheal samples can be a viable inoculum source when exposing pigs to Mhp using a fogger.

### **Discussion:**

When exposing groups of pigs via fogging, it is important to evaluate technique and ensuring there is an adequate distribution of fogging fluid. Placing these foggers on an elevated surface may also be beneficial in maintaining the aerosolized inoculum in the environment for a time period long enough to allow for adequate exposure to Mhp.

Utilizing tracheal samples as an inoculum source could be revolutionary when going about herd Mhp exposure. The industry could avoid euthanizing future breeding stock and reduce production and economic losses associated with the collection of lung homogenate. Tracheal samples are a cleaner Mhp inoculum source, therefore reducing the immune response associated with the foreign lung tissue found in lung homogenate. Armed with knowledge on the effectiveness of this inoculum source, this method offers a safer, cleaner, and more economic friendly alternative when the industry thinks about herd Mhp exposure. More research identifying the ideal concentration of Mhp positive intratracheal samples would be a beneficial when implementing this exposure technique in a commercial setting.



#### SUIDAE INNOVATIVE RESEARCH

Evaluating the efficacy of exposing feeder pigs to Mycoplasma hyopneumoniae via fogging using pooled intra-tracheal samples

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## Employee Spotlight | Jessie Merrill

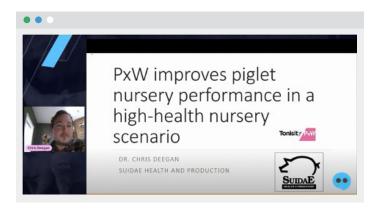
Jessie joined the Suidae team 20 years ago! Time flies when you're having fun!! Jessie is the production team leader here at Suidae. She handles everything from IT needs to marketing logistics, feed budgeting and ordering, barn inventories and closeouts, and she also oversees data entry for our managed farms and record management clients. Jessie and her husband Chris have three amazing daughters - Julia, Ashton & Olivia. Julia is an accounting major at BV and will graduate this fall. She was recently engaged, which means we will add a son in law to the family in October and we couldn't be more excited!! Ashton is a pre-med Biology major at Wartburg and manages to cheer, dance and play in the college band while keeping up with her studies. Olivia is a high school sophomore and keeps busy with track, volleyball and basketball. In Jessie's free time, she is all about spending it with family - "you can find me in the stands of my girls' activities, riding rollercoasters with them at our favorite amusement parks, or track side watching our girls in our favorite family activity - drag racing!!"



### Getting weaned pigs off to a great start:

### Swine Academy Swine It with Chris Deegan

Dr. Chris Deegan was recently a guest speaker on a web series called Swine Academy by Swine It. In this webinar, the main topic of discussion was the importance of hydration and getting weaned pigs off to a good start. Dr. Deegan focused his message on summarizing a trial that Suidae ran using Tonisity PxW, a water-soluble formula that is administer to pigs through a water medicator to provide nutritional support.



Dr. Deegan found that pigs who received Tonisity PxW in the nursery phase had:

- 1 Higher end-nursery weights
- Higher water intake on day one and over 5 days post-weaning
- Fewer fallback pigs
- Lower nursery mortality

To view this video, go to https://www.youtube.com/watch?v=iKa9wlPGuPM

# US Swine Health Improvement Plan (SHIP) Update

### Enrollment is now open for the US SHIP program!

What to know before you enroll:

- 1. Need a current and active veterinary-client-patient-relationship (VCPR)
- 2. Need a valid premise identification with premise level demographic information
- 3. No garbage or swill feeding is allowed on your operation
- 4. International visitors need at least 5 days of downtime before visiting your farm
- 5. Will need to complete a biosecurity survey upon enrollment
- 6. Need to have the ability to provide at least 30 days worth of animal and/or semen movement records in electronic format
- 7. Animals need to have proper identification in accordance with state and federal laws

To begin enrollment, contact your US SHIP Official State Agency (OSA) for each of your participating premises:

 A list of each state's contact person can be found at: <a href="https://usswinehealthimprovementplan.com/wp-content/uploads/US-SHIP-Official-State">https://usswinehealthimprovementplan.com/wp-content/uploads/US-SHIP-Official-State</a>
<a href="https://uswinehealthimprovementplan.com/wp-content/uploads/US-SHIP-Official-State">https://uswinehealthimprovementplan.com/wp-content/uploads/US-SHIP-Official-State</a>
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Further details about enrollment can be found at: https://usswinehealthimprovementplan.com/enrollment-requirements/

"Obtaining a critical mass of participation in US SHIP is a foundational element necessary towards being able to make tangible progress towards protecting, improving, and being able to represent the health status of pig production operations across supply chains, areas, states, and regions."

