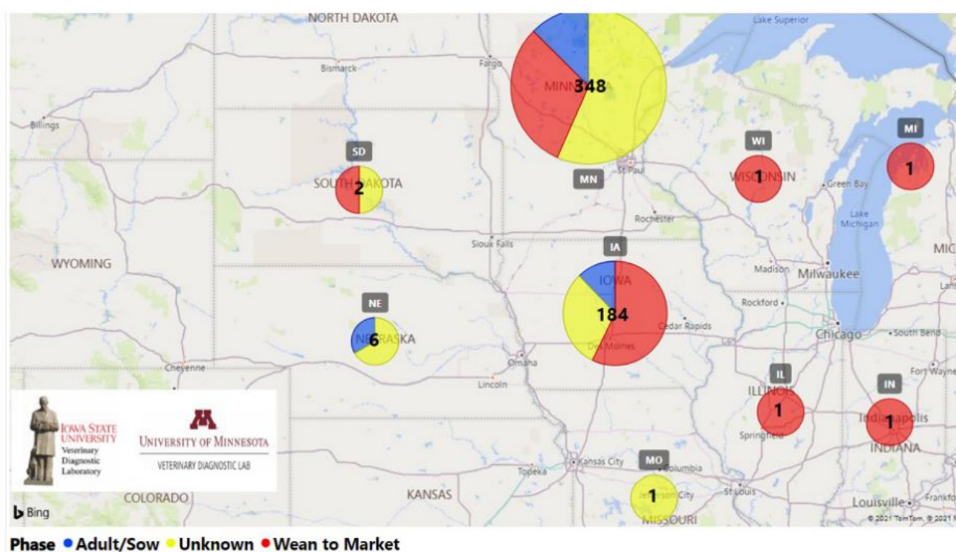


Update on PRRS 1-4-4 Linage 1 C:

If you are an active member of the US swine industry you have likely been directly or indirectly affected by the dreaded, highly pathogenic form of the PRRS 1-4-4 L1C strain. The L1C variant is currently the most frequently detected PRRS strain in the wean-to-market category in MN and IA.



Up through June 30th, 2021, using distinct premise ID for sequences classified as Lineage 1C variant there were 29 owners, 11 breeding herds, 36 nursery sites, 63 finishing sites and 35 other sites without identification. There were 49 PRRS ORF5 sequences without a premise ID and were not considered in this analysis.

NPPC and the Swine Health Information Center (SHIC) held a veterinary meeting at the World Pork Expo in June to discuss prevalence of the 1-4-4 L1C variant strain and its' clinical significance. Dr. Giovanni Trevisan with the Iowa State University Veterinary Diagnostic Lab described a high PRRS detection rate for 2021 with the 1st wave of the L1C variant being detected in September of 2020 and the 2nd wave beginning in April of 2021. One attendee reported 80K sows and 300K growing pigs infected while another shared a survey in which participants reported a total of 107K sows breaking with the variant strain between weeks 17 and 22 of 2021. Affected farms included genetic multiplication farms and filtered farms that had previously had a very low break rate. The group consensus was that this strain of virus is spreading at an unusually fast pace despite implementation of traditionally strong biosecurity practices. Reports of severe impacts on production were common with Ct values on PCR tests in the low teens to single digits. The lower the Ct value of a sample, the more virus it contains and this is positively correlated with a virus' ability to spread from host to host. In addition, it has not been unusual to hear reports of zero pigs weaned for 5+ weeks and nursery mortalities at 25-30%.

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Algona, IA 50511

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Fax: 515-295-4954

Morris Office

621 Pacific Ave
Morris, MN 56267

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88155 Hwy. 57
Hartington, NE 68739

Office: 402-254-2444
Fax: 402-254-2445

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

Several theories exist as to why the spread of this virus seems to be occurring at such an unusual time of year and affecting so many farms. One year ago, during the height of the Covid market disruption, pigs were being housed in every nook and cranny from coast to coast. Additionally, economics forced some producers to cut costs on trucking biosecurity and things like diagnostic and veterinary support. Therefore, it is reasonable to believe that these practices may have led to the higher prevalence of PRRS positive sow farms last fall which in turn led to a higher number of PRRS positive finishing pigs being placed throughout the winter and spring. The higher the prevalence of PRRS in grow-finish sites, the higher the risk to sow farms. When you happen to have a very high prevalence of a PRRS strain that induces a very high rate of viral shedding it has the ability to do real damage.

If you would like more information on how to lower your farm's risk to disease outbreak please contact your veterinarian and they will be glad to assist!

INTERN SPOTLIGHT

Madison



Hello all! My name is Madison Durflinger, I am currently a third year veterinary student at Iowa State. I grew up on a small cow-calf farm where I was exposed to agriculture and herd medicine sparking my interest in veterinary medicine. My exposure to swine medicine began during undergrad at ISU and has continued to flourish.

This summer as a Merck sponsored intern, my research project with Suidae is focused on studying the efficacy of exposing feeder pigs to Mycoplasma hyopneumoniae via pooled tracheal samples using a fogger.

INTERN SPOTLIGHT

Rachel



Hey yall! My name is Rachel and I am a second year veterinary student at Tufts Cummings School of Veterinary Medicine in Massachusetts. I went to undergrad at Virginia Tech where I majored in Dairy Science, and I consider northern VA home. I never had any experience with livestock before college, but I fell in love when I took my first livestock handling class. I have had the opportunity to travel abroad working for 4-H and really love seeing the difference agriculture can make in the lives of kids. As a vet, I want to work in herd health abroad and community engagement to help get more people involved in their food system.

This summer with Suidae, I will be exploring the impact of different castration techniques on the incidence of scrotal ruptures. I will also be assisting Dr. Burton and Pharmgate in investigating the PRRSgard vaccine efficacy.

Andouille Burger

COURTESY OF

Dr./Chef Deegan

Ingredients:

2 lbs of pork andouille sausage
1 bell pepper finally chopped
Provolone Cheese
Dijon mustard
Hamburger buns

1. Mix pepper and sausage together and form into patties
2. Cook on a grill or pan
3. Place one slice of provolone cheese on burger with 2-3 minutes left of cooking
4. Toast hamburger bun and place Dijon mustard on one side
5. Place burger patty in buns and enjoy!



Pizza Burger

Ingredients:

2 lbs of pork Italian sausage
½ of a bell pepper finely chopped
½ of an onion finely chopped
Provolone cheese
Marinara sauce
Pepperoni
Hamburger buns

Instructions:

1. Mix onion, pepper and sausage together and form into patties
2. Cook on a grill or pan
3. Place one slice of provolone cheese on burger with 2-3 minutes left of cooking
4. Toast hamburger buns and spread marinara sauce on buns
5. Place patty in the buns and top with a couple slices of pepperoni and enjoy!

Jalapeno Popper Burger

Ingredients:

2 lbs of ground pork
1 jalapeno finely diced
Pepper jack cheese
Cream cheese
1 package of bacon
Hamburger buns

Instructions:

1. Mix jalapeno and meat together and form into patties
2. Cook on a grill or pan
3. While burger cooks, fry up a package of bacon
4. Place one slice of pepper jack cheese on patty with 2-3 minutes left of cooking
5. Toast buns, and spread cream cheese on buns
6. Place patties on the buns and top with slice of bacon and enjoy!

Industry Leaders Request Funding to Combat Fake Meat Initiatives

“Our mission is to completely replace animals in the food system by 2035. You laugh, but we are absolutely serious about it and it is doable.”

- Pat Brown, Impossible Foods CEO

Three Billion Dollars. That’s the amount, in a year as challenging as 2020, that was invested in the fake meat industry. Combined with the nearly one billion raised in 2019, this is the level of investment in cell-cultured meat. While the initial fake meat products from brands like Impossible Foods and Beyond largely focused on mimicking ground beef, companies today are putting an increased emphasis on pork, creating pressure both in the domestic market and for exports for pork producers and those businesses who rely on the larger pork industry.

In addition to the investment in fake meat, plant-based pork received millions in earned media this past year. Stories included Burger King’s and Starbucks plant based sausage breakfast sandwich, Mission Barns hybrid bacon, Hooray Foods “new frontier” in plant based foods, and market research firm Future Market Insights predicting that “plant-based pork will be a ten billion dollar industry by 2030.

While plant-based pork offerings continue to make headlines in the media, their advocates are also making advancements in US politics. The United States Federal Government awarded a \$3.5 million grant to research lab-grown fake meat. The USDA transition team for the Biden Administration included an executive with the Good Food Institute, an association run by animal activists that promotes meat alternatives. Currently, groups like the Humane Society of the United States continue to lobby the Biden Administration and Congress for more federal funding of fake meat.

Regardless of the political efforts from activists, plant-based pork is following the same trajectory as plant-based beef. Major retail and restaurant brands are testing the waters, and investment money is flowing to both plant-based and cell-cultured pork companies. Consumers have been led to believe that plant-based meat is healthier for them. The Center for Consumer Freedom (CCF) has conducted polling which indicates this is the main driving factor behind consumption. Reflected in the polling, issues related to the environment or the slaughter of animals are insignificant factors for purchase.

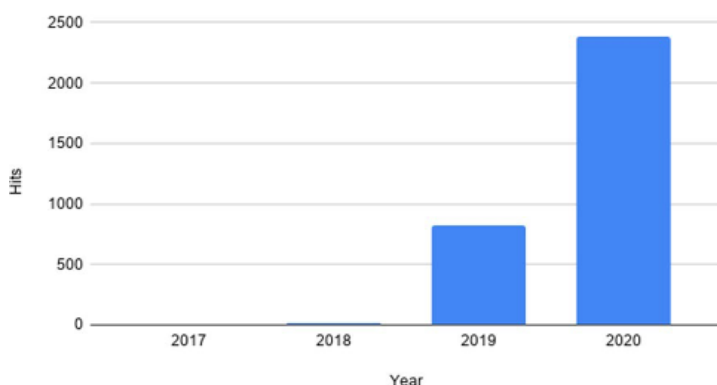
Considering this market research, it’s known proper messaging can be incredibly effective. Polling demonstrates the consumer doesn’t know the composition of meat alternatives--and are turned off when they learn of all the additives and other unnatural ingredients. CCF launched CleanFoodFacts.com last year to provide clarity against the fake meat narrative. CleanFoodFacts.com messaging posts the ingredients of different fake meat products, from the Impossible Burger to MorningStar Farms’ “pulled- pork.” Studies continue to demonstrate that “ultra-processed” foods, which include plant-based meat alternatives, are linked to several health issues including heart disease and obesity. It’s important to ensure that the consumer is educated and exposed to these prominent issues.

The Center for Consumer Freedom has operated with a limited budget for targeting consumer education messaging to key demographics. Rick Berman and his group have demonstrated their effectiveness and that the needle can be moved by creative, targeted educational messaging on synthetic meats.

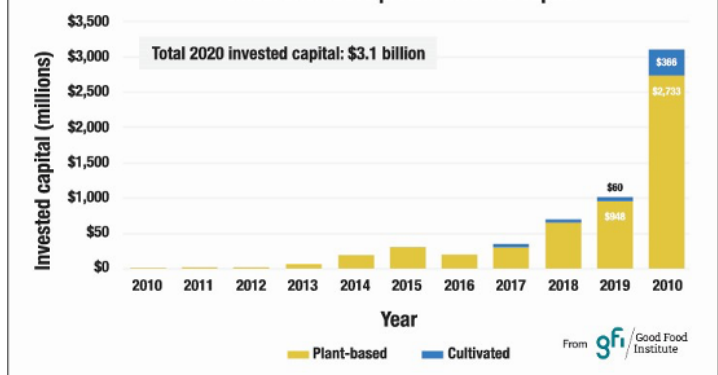
With your help, we can continue to support this public education campaign. Please contact one of the individuals below with any questions. Please complete the enclosed Pledge Form and return it as instructed.

Steve Weiss | 641.420.1002 Mark Greenwood | 507.381.0968
 Matt Berger | 507.354.3111 Bob Hansen | 712.899.8387
 Mike Blaser | 515.242.2480 Gary Koch | 612.419.9635

Plant-Based Pork Media Trends



Annual alternative protein invested capital



Pledge Form:

_____ No, I am not interested in supporting the Fake Meat Effort

_____ Yes, I am interested in supporting the Fake Meat Effort: Check One:

_____ At \$1/sow, and I have _____sows

_____ At \$.20/pig, and I sell _____pigs per year

_____ As an Allied Industry Member, at \$_____
(guideline 2% of gross profit, minimum of \$5,000)

One of the two law firms will invoice you (check one if you have a preference):

_____ Brown Winick law firm

_____ Gislason law firm

Please mail this completed page to: Mike Blaser

Brown Winick 2000 Ruan Center
666 Grand Avenue Des Moines, IA 50309

National Pork Industry Council (NPIC)

Meeting July 5, 2021

Several Suidae team members were able to travel to the Wisconsin Dells for the NPIC meeting earlier this month. The event was well attended and everyone was grateful for the chance to be able to visit face-to-face again after having come through a very stressful 2020. The following members of our team contributed as follows:

Dr. Jason Kelly presented on the current health status of the US swine industry on Monday afternoon. The main topic of discussion was 1-4-4 lineage 1C PRRS virus and the US Swine Health Improvement Plan (US SHIP). Audience members participated in interactive polling to gauge behaviors surrounding biosecurity before, during and after the Covid-19 induced market collapse last summer and shared what diseases have been frustrating them the most outside of PRRS.

Dr. Amber Stricker participated in a PRRS panel sponsored by Elanco. Audience members had one hour to ask questions of the panel regarding PRRS vaccination, biosecurity and the current status of the 1-4-4 L1C strain.

Dr. Brandi Burton presented her research on the effect of PRRS on serum vitamin A at the NutriQuest post-conference seminar. Her research suggests that serum vitamin A could be a performance indicating biomarker and that there is a strong correlation between serum vitamin A and body weight in PRRS-positive pigs.



Fun at the Fair: Tips for Minimizing Disease Risk

Written by Dr. Amber Stricker

As kid, county fair week was always the highlight of my summer. For me it represented the culmination of months of hard work preparing a variety of projects from visual arts and photography entries to beef and swine. It was a time to re-connect with friends, eat malts from the Dairy Trailer and enjoy the grandstand entertainment. Mom would 'help' us count down the days by regularly reminding us of the looming deadline ahead when all projects must be ready to go. In the background was the routine of daily life caring for our small farrow-to-finish herd, baling hay and spraying crops. After all, this was what provided the income for our family and afforded us the opportunities we had. Back then we did not give as much thought to how a week at the fair could have affected our family's livelihood if we would have drug a disease back from the hog barn. Today it is on the forefront of my mind whenever I visit a fair or livestock show and I want to share some steps you can take to keep your herd healthy and still enjoy a great time at the fair.

1. Establish a clean/dirty line at the entry to each of your barns.
 - a. This line serves as the separation between street shoes and clothes ('dirty') and barn designated boots and clothes ('clean'). Certain barns that were designed with this in mind will likely have an obvious spot for this line (i.e. Danish entry bench, shower, etc.) and others may require more creativity. Ask your vet or service, person if in doubt as they likely have seen many different ways that this can be accomplished.
2. Change into designated barn boots and clothing and wash your hands upon entry to your barn.

- a. Research has shown that taking these three steps virtually eliminates the risk of people transferring disease from one site to another.
3. Wash and disinfect all supplies and equipment used at the fair prior to bringing the items back home.
 4. Ensure the trailer you are using to haul your livestock to the fair has been washed, disinfected and dried prior to backing up to your barn. Wash, dry and disinfect it again after returning home.
 5. If animals must return home after the fair make sure to isolate them for a minimum of two weeks and consider testing them for common diseases like PRRS and PEDv before releasing them from isolation.
 6. For visitors (working with pigs) and exhibitors alike, wear a pair of shoes that you do not normally wear around your farm. Upon returning home, wash your shoes and clothing and take a shower prior to returning to your barn. *****If applicable, check with your supervisor or veterinarian before visiting a fair or livestock show to ask what biosecurity and downtime requirements are so you can return to work safely.*****

Remember, even if you do not visit the swine barn on your trip to the fair, if there are pigs on the premises the risk still exists!

Now that you are prepared to safely visit the fair, go have fun and make memories... that purple ribbon just might have your name written on it!