



PIPESTONE JOURNAL

Fall 2021

Responsible Antibiotic Use



RECORD | REVIEW | RESPOND





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Editor's Note

Welcome to the *PIPESTONE Journal*, the premier pork journal featuring and serving farmers just like you. The challenges and speed of business that independent farmers face today are different than the generations before them. By utilizing PIPESTONE's world-renowned resources and expertise, we can work together to create the farms of tomorrow.

At PIPESTONE, we are committed to providing you top-notch, timely information and research in the areas of Health, Management, Nutrition, Marketing, Research, and Business. Please feel free to communicate with us, your input is appreciated.

Editorial Comments



Welcome to the one-year anniversary edition of the PIPESTONE Journal, featuring responsible antibiotic use. The first PIPESTONE Journal was released in October of 2020 in an effort to provide farmers, just like you, with the timely tools and information needed to be successful in today's competitive market.

I am pleased to share this timely topic of responsible antibiotic use with you, on behalf of the PIPESTONE team. Throughout the Journal, you will find tips and tricks to practice responsible antibiotic use on farm, statistics and data research from the Pipestone Antibiotic Resistance Tracker (PART) and the IMAGINE project, a producer story highlighting their journey of practicing responsible antibiotic use on farm, and more!

As a farmer and PIPESTONE customer, we want to hear from you and continue to improve the PIPESTONE Journal. Feel free to give me a call or send me an email with ideas or comments. On behalf of the PIPESTONE team, thank you for trusting PIPESTONE with your pig business needs.

- Abby Hopp

Fall 2021

 **PIPESTONE
JOURNAL**

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On the cover: Sturtevent Feedlot of Shannon, IL is recognized as a leader in practicing responsible antibiotic use on farm. To read the full story, read pages 24-26.

Chief Veterinary Officer Comments

Why Practice Responsible Antibiotic Use?



By: Dr. Joel Nerem
Chief Veterinary Officer
Pipestone Veterinary Services

Practicing responsible antibiotic use has been a popular topic of conversation amongst the pork industry over the past several years. Preserving the effectiveness of antibiotics to treat both animal and human infections is our social responsibility. In my mind, responsible antibiotic use in pig farming is using antibiotics only when needed to treat susceptible infections and protect pig welfare.

Why is antibiotic stewardship important?

We need to preserve the effectiveness of the antibiotics we currently have as there really are not any new antibiotics for pigs being developed. It's also important because consumers care about responsible antibiotic use. They are also concerned about life-threatening antibiotic resistant bacteria, so pig farmers and veterinarians need to demonstrate our commitment to antibiotic stewardship by tracking both antibiotics use and antibiotic resistance.

What have we learned by measuring antibiotic use?

PIPESTONE's antibiotic stewardship program (PART) has been in formal existence for 5 years. This program, Pipestone Antibiotic Resistance Tracker (PART), focuses on two main areas:

1. Tracking antibiotic use on pig farms (learn more on page xxx)
2. Tracking antibiotic resistance on pig farms through IMAGINE (learn more on page xxx)

Tracking antibiotic use is very well-received by the public. We foresee this as becoming more and more of an expectation in the future. As measuring something usually results in improvement, measuring the use of antibiotic usage on farm has resulted in one or more of the following for most participating farmers over the last 5 years:

1. Less overall antibiotic use
2. Less use of antibiotics considered critically important to human health
3. Lower medication costs
4. Improved pig health

We have also learned that some farms can regularly raise pigs with virtually no antibiotic use.

Good farm design (production system design) + excellent health = minimal to no antibiotic use

Today, we have many customers now following this recipe and essentially achieving NAE results with outstanding health and performance. What are we learning about antibiotic resistance?

Through tracking of PIPESTONE clinical case submissions over the last 2 decades, we have learned,

1. Some baseline resistance is normal, and we use this sensitivity data to make effective treatment decisions
2. In general, resistance trends have been very flat for bacterial pig diseases over the last 15+ years

Proactive on farm AMR sampling can be done in non-disease situations. We are doing this now through our IMAGINE project. So far, we have learned:

1. This kind of routine surveillance is possible to execute across many farms in a wide geography
2. This surveillance is very well received by the public
3. We are analyzing the first year's AMR data and will release our findings soon. We will have good data.

PIPESTONE is committed to antibiotic stewardship. We encourage all our customers to work closely with their veterinarian in making disease diagnosis and treatment decisions. If you have any questions or are interested in participating in our PART program, please contact your veterinarian.



Problem?... Solution!

The Importance of Responsible Antibiotic Use



By: Dr. Spencer Wayne
Veterinarian
Pipestone Veterinary Services

I am now old enough to have seen a significant arc of attitude regarding antibiotic use. Our attitude. Public attitude. Government attitude. At one time, antibiotic use would have been a very quick decision for me or my clients. Problem? Solution! But the landscape is different today, and for several valid reasons. If we are to maintain our trajectory for becoming the farms of tomorrow, our attitudes and actions must be ready to navigate this new terrain.

Antibiotic resistance existed long before the discovery of penicillin in 1928. In the constant and eternal microscopic tug-of-war, genes for antibiotic resistance have been around as long as bacteria have been around. As this balancing act plays out, the more pressure you put on bacteria, and the more they deploy defensive measures. So, what is the right way to apply this “pressure” to achieve good results and maintain our tools’ usefulness, as well as satisfying our customers’ concerns?

Differences in Antibiotic Use

From a 1,000 foot viewpoint, it is apparent that some producers use more antibiotics than others. What accounts for this difference? Firstly, and most significantly, some pigs are sicker than others and antibiotic use is vital to improving those animals’ health and well-being. Additionally, our habits can be hard to break. There are many times when we reach for an antibiotic solution when none is needed, because that is what we’ve always done. This is just human nature and requires self-awareness to overcome. But focusing on the first reason, we should consider why some pigs are sicker than others.

Some pigs may have had a rough start or carry disease baggage with them at weaning. If the sow unit is chronically affected by PRRS, SIV, Mycoplasma, A. suis, Strep suis, GPS (formerly H parasuis), E. coli, Salmonella, or other pathogens, then your pigs will inherit these. Others have also spoken more extensively on the importance of having a “clean” pig source. Suffice it to say that along with an older wean age (24 days vs. 20 days), can make all the difference in the world. I would consider weaned pig health to be the single most important determinant of performance and antibiotic use. If you have a viral endemic pig source, you need to determine how to get out.

Even a good pig can go bad if the care and environment are not adequate or they encounter new pathogens as they grow. Dangerous neighborhoods, with lots of other pigs, and poor biosecurity generally mean a growing pig will stumble through life spending a fair bit of energy recovering from illness. And farmers usually increase their antibiotic use as a result.

Besides rough origins, disease pressure, and poor environment, immunity (or lack thereof) can play a significant role in antibiotic use. There is a bit of a trade-off here. Ileitis vaccination should result in less antibiotic to treat diarrhea. Mycoplasma vaccine should reduce the need for antibiotics to treat pneumonia. It’s not a perfect inverse relationship, but it definitely factors into antibiotic use. In those cases, we should be focused on prevention (vaccine) instead of treatment (antibiotics)

Importance of Managing Antibiotic Use

These factors explain the “why” of antibiotic use but tell us nothing about making better decisions in our treatment plans. PIPESTONE recognized the growing importance of managing antibiotic use several years ago and developed PART, the Pipestone Antibiotic Resistance Tracker. PART is explained more on Page 10. This information can be useful to farmers (and veterinarians) in a few ways.



For the first time in your farms history... you will actually KNOW what your antibiotic use is. If the idiom is true that “You cannot improve what you cannot measure”, then simply measuring use is foundational to making better decisions going forward.

Are the antibiotics used well-suited to the problems identified? Some bacteria require specific antibiotics as treatment. If a farm is using “gut-oriented” antibiotics when the presumed issues center around respiratory disease, then either you have mis-diagnosed the problem or there is a more appropriate treatment choice to be found.



The cost of a drug shouldn't factor into its “appropriateness”, but if two antibiotic options would both be effective, then knowing the relative costs of treatment should be considered. PART reporting lays this information in front of the farmer and veterinarian to be analyzed and used.

The public is concerned about your antibiotic use. By extension, the packer will be concerned about your antibiotic use. Several packers have begun to ask farmers to share their antibiotic use statistics. At this time, no packer is prescribing or prohibiting antibiotic use regimens, with the exception of ABF (antibiotic-free) programs. Your packer will want to know more about your farm's antibiotic use going forward. PART data gives hog farmers the calculated stats that packers are looking for to build higher confidence in the meat they sell.



FDA Antibiotic Categories

All antibiotics are not the same, and they aren't classified as “the same” either. The FDA's published list categorizes antibiotics as Critically Important, Highly Important, or Not Important and some antibiotics are not even on their list. Learn more about FDA Antibiotic Categories on page xx. These categories are based on the importance of these antibiotics to treating human illnesses. The guidance has been, and continues to be, that farmers and their veterinarians should use drugs with a lower classification as first option, to protect the effectiveness for humans. For example, when treating Strep suis, both Excede and Pen-G would generally be effective. However, Excede is classified as “Critically Important” while Pen-G is classified as “Highly Important”. All other things being equal... use Pen-G. If you're treating Ileitis, there are many effective options. Currently, Tylan is classified as “Critically Important” while Denagard is “Not Important”. Both work well for Ileitis. Following the algorithm, you'd go with Denagard. Factoring in at the edges, is clinical experience. Sometimes, drugs that should work just don't. In those cases, your veterinarian should be giving you guidance on effective alternative treatment options.

As referred to earlier, packers are increasingly interested in your antibiotic use. This includes the classifications of antibiotics you use. Beyond simply reporting grams per pig, PART reports out the grams of each antibiotic as well as each FDA category.

Times have changed. We're used to being incentivized for lower backfat. You hear the ask for Duroc-sired pigs and group-housed sows. And soon, pigs from farms where antibiotic use is planned, reviewed, appropriate, and well-documented. A new health paradigm is emerging, where we're looking for the pig that does more with less (including less antibiotics). To succeed, we will all need to be better students, better planners, and better critical-thinkers. Even a stubborn old guy like me realizes this journey will make us better.

The Evolution of PART



By: Shawnie Velduizen
Swine Specialist
Pipestone Veterinary Services

The Pipestone Antibiotic Resistance Tracker (PART) celebrates its fifth birthday this month. Like most things, a lot has changed in that time, and we wanted to share a bit about the background, learning, and forward vision of this important tool.

In the summer of 2016, we welcomed a national fast-food chain to PIPESTONE to showcase all the actions veterinarians and caretakers employ to care for the pigs we raise. Welfare and antibiotic stewardship were particularly highlighted. One major criticism we received was the inability to easily show use of antibiotics over time in our efforts to actually demonstrate the stewardship we were promoting. Those comments hit HARD, and that month, we got to work developing what would later become PART.



Where we were:

Officially launched in January 2017, PART provided the ability to track antibiotic use in real time. It also allowed producers to breakdown route of treatment (water, feed, injection) and classification of antibiotic, according to the FDA, and anonymously benchmark their use and cost compared to other participants. Best of all, it required almost no continuous input or data entry time from the farmer because, lets be honest, no one is looking for another data entry task!

Like all things new, we had our initial challenges and technological hiccups. We were slow to roll out to a larger group or share our concept with too many societal groups as we validated, validated, and REVALIDATED the numbers! With enough reps, time, and validation from third-party leaders, our confidence grew, and has allowed us to use PART as a platform to defend use of antibiotics, albeit more responsibly.



Where we are:

Today, 163 producers representing 7.5M market hogs and 10M weaned pigs utilize PART to responsibly track their antibiotic use. Additionally, PIPESTONE has elevated efforts to track antibiotic resistance, and through Dr. Scott Dee and Dr. Taylor Spronk's work, are looking at correlation of resistance vs use in an effort to better understand root cause and be able to make changes if livestock use is in fact, impacting human health. Learn more about the IMAGINE project on page 32.



Where are we going:

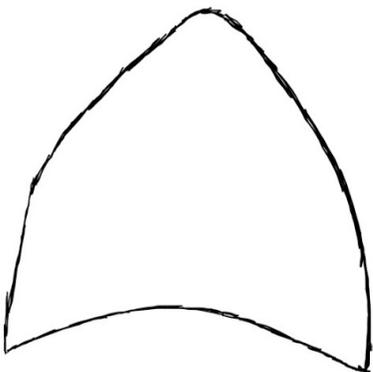
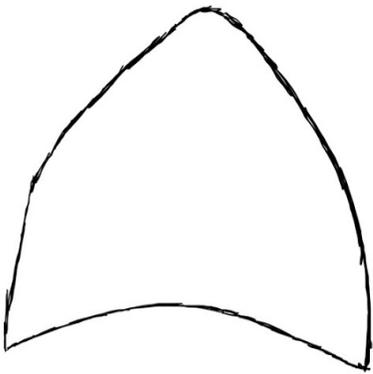
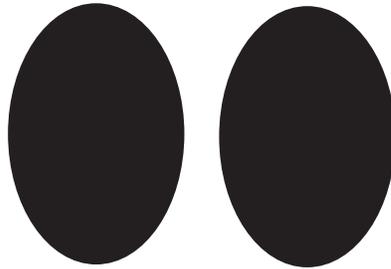
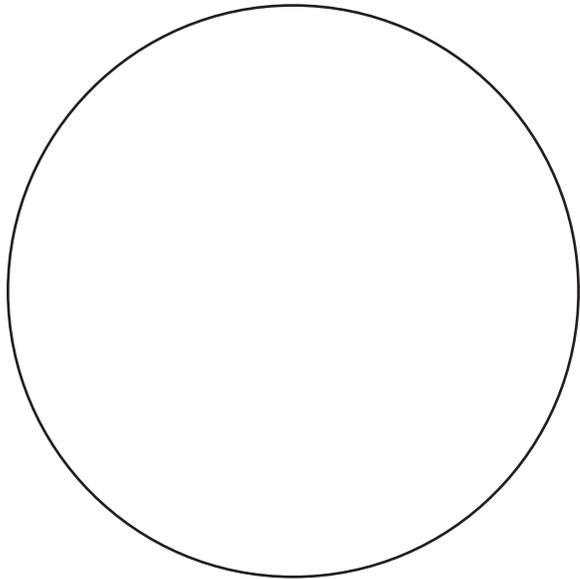
Although five years into the process, we are just getting started. Areas of continued focus:

- 1.) Growing the number of producers and pigs responsibly tracking use.
- 2.) Doubled down efforts on resistance tracking.
- 3.) Telling our story. Now that we have the data, we are increasing our efforts to communicate nationally and internationally to influence policy and perception with a goal of keeping antibiotics as a tool in our toolbox to protect and save animal lives long term.
- 4.) Packers continue to be more interested in antibiotic use. Our hope is that PART provides an easy opportunity to capture additional value or preference for farmers when negotiating packer contracts.

Five years ago, it would have been hard to predict that a piece of well-placed criticism would shape our forward views, protocols, and strategic directives as much as it has. As proven many times over in the history of pork production, we can't change the direction of the societal wind, but we can adjust our sails to reach our destination..... and in this case, faster, and better, while creating more value for the farmers we serve and proving responsibility to the world.

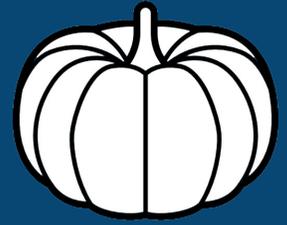
Pig-o-Lattern

1. Find a pumpkin (Real or Fake)
2. Paint the pumpkin pink
3. Wait for it to dry
4. Cut out the items on the page and trace them onto felt or cardboard
5. Cut out the traced items and glue them onto your pumpkin.
6. Enjoy!



Bacon Bit

SUPPLIES:



Pumpkin



* Scissors



Paint



Felt or Cardboard



* Glue

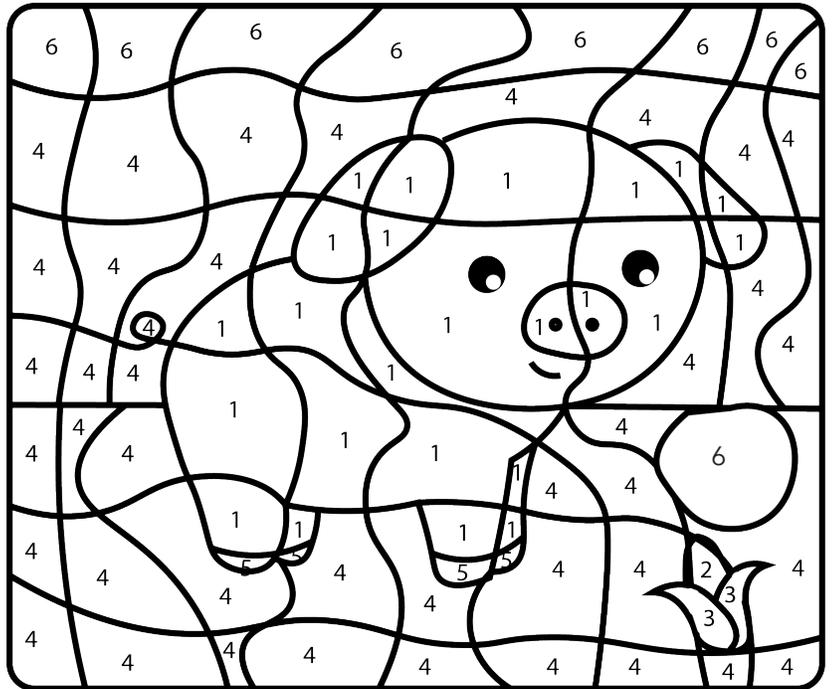
*Ask adult for help

KIDS ACTIVITIES



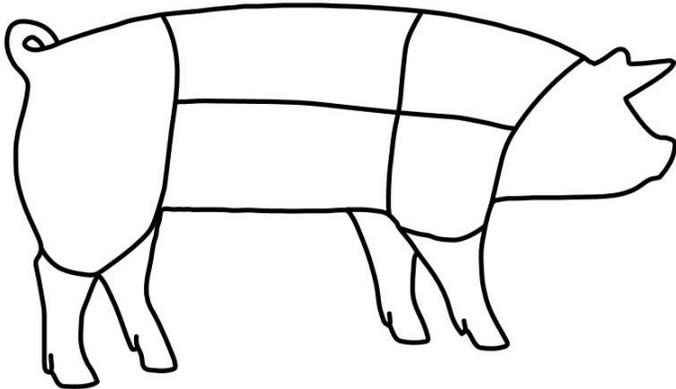
Match the correct color with the number to reveal a surprise.

- 1 PINK
- 2 YELLOW
- 3 GREEN
- 4 GRAY
- 5 BLACK
- 6 BLUE



Can you label to correct cuts of the pig?

- LOIN
- BELLY
- SHOULDER
- BOSTON BUTT
- HAM
- HEAD



Pig farms use a variety of technologies and techniques to ensure pork is safe to eat.

Find the answers to the kids page activities on page 47.



How many of each can you find?

	<input type="text"/>								
	<input type="text"/>								



Design Matters

Farm Layout Plays an Important Role in Pig Health



By: Dr. Evan Koep
Veterinarian
Pipestone Veterinary Services

What are the greatest factors that influence pig health? Most will say the health of the sow farm, pig density, and area disease pressure. While these are all true, a common item gets overlooked: the overall design of the operation. This topic can even be broken down into the macro and micro features of the operation or the barn. The big picture of the operation such as pig flow and site design (macro level) are important for disease spread between pigs you own and the ability to control or eliminate disease

in future groups. The micro level is focused on the individual barn design and environment. Both viewpoints are important in preventing and controlling disease, and therefore, limiting the need for antibiotics. Consumers have become more critical of antibiotic use and resistance in livestock production throughout the years; therefore, ensuring your operation is designed to prevent and/or mitigate disease will allow you to minimize antibiotic use, which respects the consumers desire and lowers your direct cost in the pig.

Big Picture Design:

How your operation is designed matters. This includes your pig source and where/how the pigs are placed. Fundamental goals to prevent and/or minimize disease challenges include:

1

All in/All out by site

- Important to stop disease between groups or to prevent a snowball effect of disease to other pigs on the site
- Allows success for cleaning up disease on a site if disease is introduced

2

Single Source

- All pigs on the site carry the same bugs/diseases
- Not spreading disease present in one source to another source that is naïve

3

Single age groups

- Prevents the spread of disease from older pigs to younger pigs

4

Minimizing age spread within groups

- Limits the compounding effect of disease from older pigs to youngest pigs
- Generally easier to start pigs
- Impact of long fill times can equal \$0.25+/pig for each added day of fill time due to mortality and production drag

5

Proximity to other pigs

- Close distance to other pigs increases chance of spread between groups

6

Consistent, healthy pig source

- Healthy pigs perform better than sick pigs
- Consistent source allows you to know the health status and be familiar with what to expect

7

Biosecurity

- Need to have in place to prevent disease spread to other groups
- Needs to be thorough, but practical
- Fundamentals such as clean/dirty lines and shower in/shower out work

The list to the left are ideas to strive for. While they may not all work for your specific operation today, they give a guide for how to improve your operation for the future.

Most operations I see today were built over time, meaning that barns built 20 years ago were designed for the size of the operation 20 years ago. Many operations have also expanded over the years, so barns built 20 years ago do not fit the size of today's pig flow. This has caused the pig flow to accommodate old barn size with new barn size, potential different sources, multiple age groups, and others. This does not fit some of the principles listed above. Although the current operation has worked, think outside of the box to continue to find ways to improve your operation. Big decisions like changing the flow of your barns or expanding your pig source/sow farm may sound unrealistic, but try to view it as structuring your operation for the future. Current industry trends such as larger sow farms, all in/all out, and further antibiotic stewardship are not likely to go away. The economics support these trends. Structure your pig operation to allow further improvement and allow you to be relevant in the future so in the next 20 years you may not think, "I wish I would have done that differently 20 years ago".

Pig-Level Design

Everyone could debate at length about designing the perfect barn. While opinions will vary greatly, the goal of raising pigs healthy and efficiently are the same. Giving pigs the best environment possible allows them to perform the best, therefore, we need to always strive for this. Keeping up on barn maintenance, making sure the ventilation is set right, and making sure fans and waters are cleaned and working properly are just a few items to make the environment the best possible. When attention is given to the details and environmental stress is minimized to the pig, it may prevent a disease outbreak and the need to use medication.

Summary

There are multiple factors that affect pig health, with the farm design playing an important role to both the health of the pig and the health of the operation. As the industry strives to make progress on improving health and reducing antibiotic use do not forget to take a step back and critically evaluate your operation to find areas for improvement. Consult with your veterinarian on areas to improve on your health, reduce the need to use antibiotics, and improve your bottom line.



Reduce Antibiotic Usage and Improve Full Value Pigs at Market



By: Casey Neill
Head-Nutritionist
Pipestone Nutrition

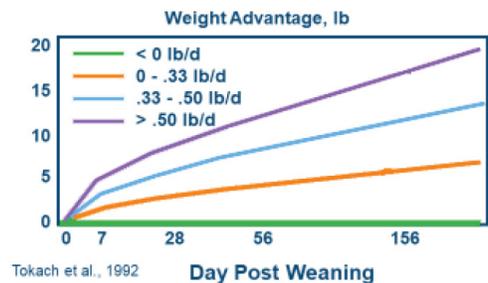
The goal for most swine producers is to make money raising hogs. With current ingredient prices, we have been getting many questions about how to reduce feed cost, which is a great question. However, many producers focus on feed cost per ton and immediately focus on the nursery diets. The most expensive feed cost per ton is always the first couple nursery diets, although the feed budget for the nursery phase only makes up about 3% of the total feed budget. Even though it is very tempting to reduce feed budgets or skip the first and second phase, I would proceed with caution for several reasons:

Nursery Nutrition: Mortality, Culls, Treatments and Fall Behinds

From our research trials and close-out data, we have validated that nursery feed formulation and feed budgets are an important area to reduce nursery mortality and fall behinds. The first couple weeks post weaning will affect the overall performance of that group. When cheaper feed formulations are used, we can document a higher fall out rate in those groups. Wean pigs do not respond well with a quick transition from liquid sow milk to dry feed and less complex ingredient choices. As a result, more pigs will back off on feed intake, become thin and not grow well. Soon that pig will become a fall behind pig. Many fall behind pigs may not make a full value finishing pig. This can transpire into enteric issues that subsequently lead to secondary problems and soon that pig needs an antibiotic treatment.

With the industry making a strong push for less antibiotics, nursery nutrition is a tool to promote healthy pigs and fewer treatments are needed. To demonstrate the importance of the first week post weaning, we have a table from Tokach et al. 1992 that demonstrates how the first 7 days post weaning can affect the lifetime performance of that pig. In the study, Tokach took pigs that grew well in the first 7 days post weaning and compared their weight to pigs in the same group that did not start well the first 7 days. As you can see, when pigs start well, by having good ADG, they will grow well the entire turn and weigh more compared to the groups of pigs that had poor ADG that first week on feed.

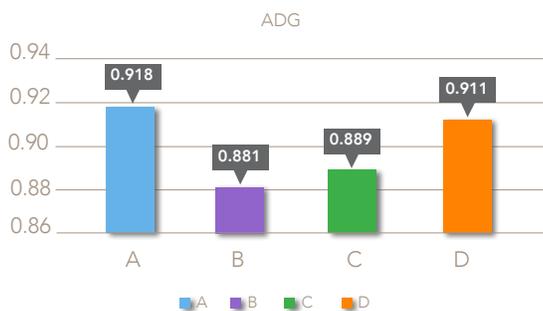
Influence of Growth During the First Week Post Weaning on Subsequent Performance



Below is a research trial conducted at a Pipestone Research barn which evaluated different nursery diet formulation options to reduce cost. Treatment A is the current Pipestone Nutrition formulation. Not only was it the fastest ADG, but it also had the lowest number of removals. When we do our research, we look at growth performance, economics, and mortality. One way to reduce feed cost is to sell more pigs as Full Value pigs and the nursery formulation plays an important role in that area.

With the proper nursery formulation, we see less pigs that fall behind and require antibiotic treatment.

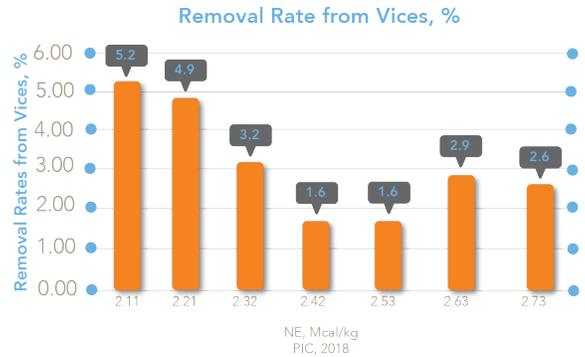
Overall Results (d 0-49)



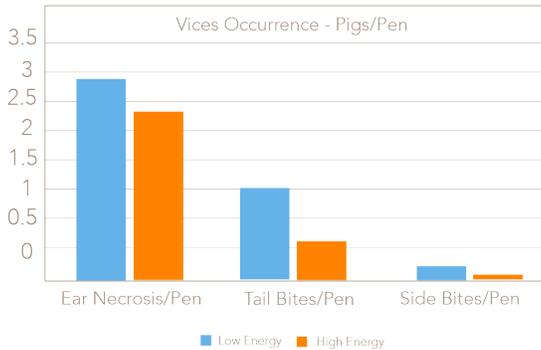
	A	B	C	D
# of Removals	5	12	8	11
% Removals	0.8%	2.0%	1.3%	1.9%
% Pens > 1 Removal	19.0%	45.0%	33.3%	35.0%

Finisher Nutrition: Reduce Vices and Improve Full Value Pigs

The Finisher diet formulation also plays a major role with reducing the use of antibiotics by preventing vices such as tail bites, ear necrosis, flank bites, etc. When vices occur, pigs need to be treated to fully recover. A trial that was conducted in Canada looked at different energy levels and the response to vices. To the right is the table that shows the removal rate from vices by energy level of the diet. When energy got too low the amount of removals went up.

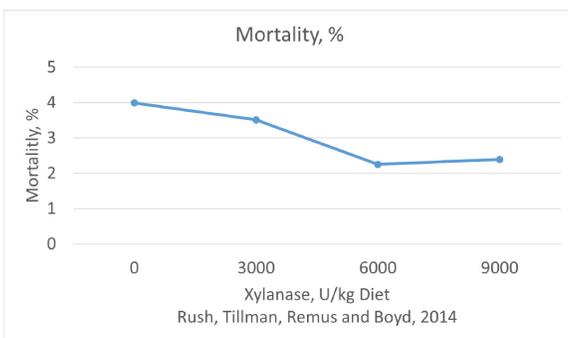
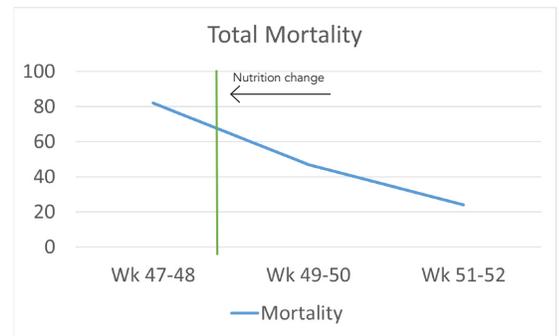


Finisher Pig Health - PGF



In another trial at PIPESTONE, we saw similar results when we evaluated energy levels. When pigs were fed low energy diets, we reported an increase in vices, and therefore increased treatment was needed.

A case study from a producer in North West Iowa dealing with vices showed that when they switched to Pipestone Nutrition formulation with improved levels of energy and amino acids, we were able to slow down the tail bites and decrease mortality.



Enzymes are another tool we can use to reduce finisher mortality. A trial conducted by Rush et al. 2014 demonstrated the use of a xylanase enzyme levels on finisher pig mortality.

A field trial conducted by Pipestone Nutrition demonstrated similar results and lower mortality and now xylanase is used in all Pipestone Nutrition finisher diets.

To reduce the use of antibiotics there are several items to think about on the nutrition side:

1. Nursery nutrition – do not go cheap. Having proper formulation will reduce the amount of fall behinds and the need for treatment. Also, ingredient choices will help with a good start that first 7 days post weaning, which will help their overall performance.
2. Finisher nutrition – correct energy and enzymes. Both research barn and field experiences have shown that proper formulation has a major impact on vice behavior. In return, less pigs need to be treated and more full value pigs will make it to market. Enzymes also help with lowering finisher mortality and is very economical to use.

Feeding the Sow for Healthier Piglets



By: Kiah Gourley
Nutritionist/Sow Tech Service
Pipestone Nutrition

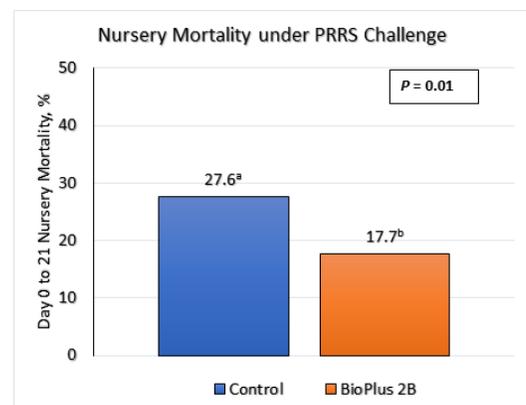
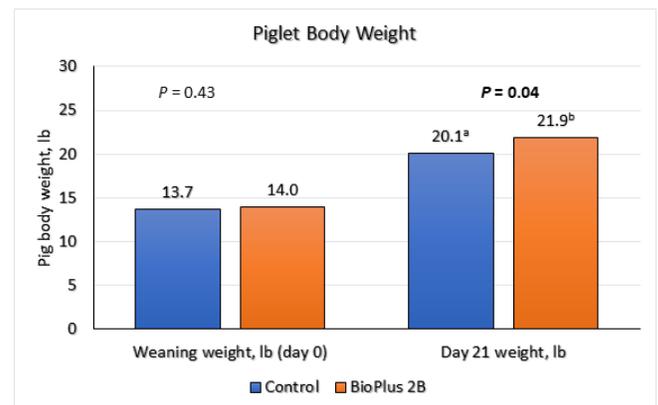
Do you think you can impact the health of your piglets in the nursery by what the sow is eating at the sow farm? We had the very same question, and set out to conduct a research trial to test the idea. If we could improve the health and performance of the pigs in the nursery by simply adjusting the sow ration, what impact would this have on reducing routine antibiotic use on weaned pigs especially in the face of a health challenge?

Other researchers have found that the sow and her fecal material can improve or restore normal gut flora in the nursery. Niederwerder et al (2018) discovered that when piglets were given a fecal microbiota transplant (FMT) from healthy sows, and then challenged with PRRSv and PCV-2, their morbidity and mortality was significantly reduced compared to piglets who had not received FMT. This demonstrated that pigs exposed to fecal microorganisms of healthy sows lowered clinical signs of disease and could “program” the pigs immune system starting in the farrowing house.

BioPlus 2B is a bacillus-based product from Chr Hansen that is added to the complete feed. Previous research has shown that sows consuming BioPlus 2B have improved lactation feed intake, weaning weights, and could help lower bacterial load in the farrowing house. In the current trial we evaluated the difference in nursery growth performance and mortality, under a PRRS challenge, from pigs weaned from sows fed with or without BioPlus 2B in lactation.

In this Pipestone Applied Research trial, 286 weaned pigs from control sows and 288 weaned pigs from BioPlus 2B sows were weaned into our research nursery and acclimated to nursery diets for 7 days. Pigs were challenged with PRRS (1-7-4) on day 7 in the nursery. Pigs were weighed every 7 days until 21 days post challenge. In the chart data to the right, we observed an improvement in average daily gain and feed conversion in pigs from sows fed BioPlus 2B when under a PRRS challenge, which resulted in increased body weight at 21 days in the nursery. One of the most exciting results was the reduction in mortality in pigs weaned from sows fed BioPlus 2B. This demonstrated that the

pig can be set up up for success while they are still nursing the sow, and we can translate that into performance and mortality improvements in the nursery.



Based on these results, Pipestone Nutrition is utilizing BioPlus 2B in all Pipestone Management sow diets to promote lactation feed intake and wean weights, but also to improve the health of our piglets downstream. This is just one example of our efforts to reduce routine antibiotic use in our pig flows through nutrition strategies at the sow farm.

Citation:

Niederwerder MC, Constance LA, Rowland RRR, Abbas W, Fernando SC, Potter ML, Sheahan MA, Burkey TE, Hesse RA and Cino-Ozuna AG (2018) Fecal Microbiota Transplantation Is Associated With Reduced Morbidity and Mortality in Porcine Circovirus Associated Disease. *Front. Microbiol.* 9:1631. doi: 10.3389/fmicb.2018.01631



PIPESTONE

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Integrity Caring Commitment Growth Teamwork

Producer

Jason Domeyer
AR Pork

Location

Earlville, Iowa

Front row left to right: Myles Payne, Kennedy Duddeck, Kian Payne, Quinn Duddeck, Jordan Duddeck. Back row left to right: Jenna Duddeck, Ron Domeyer, & Melissa Payne.



Big Stone Marketing Producer Highlight

Tell me about your farm?

Our operation is very family involved, including my dad, myself, my 2 sisters, and my kids. My dad started the farm in 1980 and farmed independently until I became a partner in 2002. My sister, Jenna Duddeck, partnered in 2008, the other sister, Melissa Payne, joined in April of this year. All kids are exposed to activities on the farm. I have 5 children, Jenna has 4, and Melissa has 2. We used to have a true farrow-to-finish operation that turned out 1300 pigs every 4 weeks. Just recently, we decided to switch to wean-to-finish where we will be processing 2600 pigs every 4 weeks. We are currently in the midst of remodeling to adapt to a wean-to-finish site. We started remodeling in February and are planning to finish in November. Throughout the remodel to all the barns, our operation never stopped or even slowed down once.

Tell me about your work with PIPESTONE and Big Stone Marketing?

I started working with Big Stone in June of 2019 with Chris McCulloh. I have been marketing with them 100% since day one. They keep their nose to the grindstone and are maximizing the profitability. Big Stone Marketing is a phenomenal value to have because they are knowledgeable, can hedge positions and their marketing flexibilities are great. Big Stone was also great to work with through covid and were able to get everything accomplished. We also watch the webinars that Big Stone puts out once a month.

What measures do you take to practice responsible antibiotic use?

We do not treat pigs unless they need to be treated.

What are some new technologies and practices that you have implemented on your farm?

I am exploring doing a web-based facility monitoring system to control water, power, and temperature. We live on the same site where the pigs are; however, if there was a certain situation it would be nice to have the notifications in case something were to go wrong. We were using a computer-based feeding system for the sows until we converted back to self-feeding. For us we learned that computer-based feeding was not practical for a growing pig, they need a self-feeder.

What aspirations do you have for your farm 5 years from now?

I would like to bring the kids into the operation if they are willing and have the desire to continue the farm. I also want to continue to grow the business to maximize our costs. Ideally, I would like to build an operation to have all our own financing for the operation.

What do you enjoy most about pig farming?

What I enjoy the most, is always challenging myself to do as good or better than before every time we send pigs to market. Looking at the kill sheets and seeing what I did before to get the best average weight is what I enjoy the most. I like the challenge of knowing I can constantly improve.

What is the biggest challenge you have faced raising pigs?

I do not think there is a challenge – we just do it. When you enjoy what you are doing, you just do it and learn how to adapt. If I had to pick one challenge, it would be keeping track of break evens.

Big Stone Marketing Team Spotlight



Chris McCulloh
Eastern Regional Manager

Big Stone Marketing team member, Chris McCulloh, serves as the Eastern Regional Manager. For the past 9 years, Chris has been assisting producers in marketing their pigs, forward contracting, target weights, and packer agreement negotiations. Working with independent producers is his favorite part of working for Big Stone. Chris started working with Big Stone Marketing through his original Cargill role. He graduated from Iowa State University with an Animal Science Degree and still enjoys following Iowa State football and basketball. Today, Chris and his wife Lindsay have three children; Calvin (7), Morgan (5), and Hailey (3), and are involved with the family farm purebred swine genetic operation.

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Behind the Label



By: Alicia Place
Communications Coordinator

Grocery shopping is a balancing act of buying the “best” for your family while also staying within your budget. With the large variety of food labels out there, it can be hard to know what you’re buying.

When it comes to understanding food labels there are a couple of points to remember.

- All pork in your grocery store is safe.
- All retail pork is thoroughly inspected and follows strict government guidelines to ensure the highest level of safety.
- All pork is nutrient-packed and a great source of protein.
- Added hormones are not allowed in raising hogs. So the label No Added Hormones can not be used on pork unless it also includes Federal regulation prohibiting the use of hormones label.



All Natural

This label declares that nothing “un-natural” has been added to the finished product. Meat with this label can only be minimally processed, meaning the product has not been fundamentally altered. All Natural claims have nothing to do with how the animal was raised or animal management processes.

Example: Pork tenderloin- All-Natural label Allowed.
Garlic Herb Injected Pork Tenderloin- Not Allowed.



Locally Grown

USDA does not have guidelines defining “local”. What defines “local” may vary from one person to another. This label is 100% personal interpretation.



No Antibiotic Claims/Raised without Antibiotics

All label claims referring to the use or lack of use of antibiotics are set by the farm or company. Producers send documentation to the USDA to support their claim, but there is no inspection or audit. IF the claim is accompanied by the USDA Process Verified seal, THEN the USDA has performed audits to confirm claims. Antibiotic claims without the USDA seal are unvalidated claims.



USDA Process Verified Seal

The seal is granted by the USDA to validate label claims such as NAE. The seal means USDA inspectors have visited the farm to confirm claims are valid. Any farm, company, or food company can establish a USDA process verified program. It is not specific to antibiotics, housing, or animal handling. This USDA program offers applicants a unique way to market their products. They must establish a quality manual which is followed by a comprehensive on-site audit. www.ams.usda.gov/services/auditing/process-verified-programs



Certified Organic

Pork raised under the certified organic program is audited by certified organizations, fed only organic feed, and raised only on certified organic land while having access to the outdoors. This program is certified by third party audits and monitored by the USDA.



Free Range

The USDA standard for pork is that hogs must have continuous access to pasture for at least 80% of their life. To be certified this claim must be accompanied by the USDA Process Verified Seal.



Naturally Raised

There is not a USDA Naturally Raised standard for pork products. This definition may vary from one naturally raised pork product to another. Producers can become USDA process verified as a Naturally Raised program. To see process verified program details visit, www.ams.usda.gov.

To sum it all up. All pork in your grocery store is safe! No matter what the label on your packaging says if you cook pork to the correct internal temperature you are guaranteed a delicious meal!

Doing our PART

Sturtevant Feedlot



Responsible antibiotic use is a subject American pig farmers are accustomed to. Consumers expect it and packing plants require it. Utilizing resources through PIPESTONE, Sturtevant Feedlots has taken their antibiotic stewardship to the top of the industry.

Scott Sturtevant farms in Shannon, Illinois alongside his brother, Steve, son, Trey, and his father, Ron.

"It's been a real blessing working with family," Scott shared.

Sturtevant Feedlots is a wean-to-finish operation finishing 16,000 pigs each year. In 2017, when Bethany Health Services joined the PIPESTONE team, the Sturtevants transitioned as well. "At first I didn't know if I was going to like it. I didn't know if our operation was going to get

lost in the shuffle of a big company," Scott said. "I think the opposite has happened. It feels good to know that we're a part of something bigger that has our back."

Questioning the Road to Success

Shortly after their transition, PIPESTONE veterinarian, Dr. Steve Feuerbach, shared antibiotic benchmarking data from PART (Pipestone Antibiotic Resistance Tracker). After seeing the first set of data, Scott knew he wanted to improve their farm's responsible antibiotic use. "The questions after seeing benchmarking data from PART were driven by them," Dr. Feuerbach mentioned. "Questions like, 'why are we higher than the rest of the industry and others working with PIPESTONE in antibiotic usage?' motivated the Sturtevants to drill down and look deeper into their usage."

"It really shifted our mindset," Scott said. "We want to tell a better story and make consumers feel better about what we're doing on our farm. Consumers want to know they are getting a healthy pig, and we want to do our PART in making them feel comfortable buying our product."

Leaders in Pork Production

Dr. Feuerbach has worked with Sturtevant Feedlots for nearly 20 years.

"Sturtevant Feedlots is a leader in many different areas. They are extremely good producers and leaders in production, average daily gain and feed conversion. Anything they can be leaders in, they put a lot of effort into being the best they can in those areas," Steve said.

The agriculture industry is one where responsible antibiotic use is a must. Knowing this, the Sturtevants, with the help of Dr. Feuerbach, started making change to their antibiotic administration methods to deliver high quality market pigs to the American food supply.

"The unique aspect about Sturtevant Feedlots is they challenge me as their consultant to challenge them to be better. Antibiotic usage on their farm was one thing they challenged me to evaluate, and I think that says a lot about them as producers," said Dr. Feuerbach.

The first step taken was to evaluate feed records. They switched to an individual pig care approach versus a whole herd treatment. One concern of Scott's was an increase of animal health challenges, which was quickly erased. With better

antibiotic practices, the Sturtevants were able to focus more on management practices.

"We've done a number of things [to make a change] including doing every other management practice better than we did before," said Scott. Scott credits Dr. Feuerbach as a key player in encouraging the farm to become members of PART.

"We're able to be better managers because of PART," Scott said.

They've started washing buildings better, adjusting temperature curves in the barns and switching to water medication where needed, only as needed. Scott made the adjustment to target specific animals in need of antibiotics, compared to historically treating the whole herd with a feed antibiotic.

"The responsible use of antibiotics is not only fiscally and financially important for our farm, but more importantly, it's the right thing to do," Scott said. "One of the things that motivated us was telling our story to other people."

Transparency with Consumers

Scott enjoys sharing his farm's story with the public. The farm is located in a lively community of pork consumers. Once Scott shares he's a pig farmer, fellow community members are eager to learn more. They ask about antibiotic use as well as how Scott cares for his pigs each day.

"We raise too many pigs for everyone to know the farmer that raised them. Consumers need to know that the meat they're getting from packing plants is a quality product," Scott said. "As a consumer, I expect that from the food I eat, too."





Pushing Forward with PART

Through PART, producers can compare their records to others in the industry, while keeping their data private.

"It gives us a better knowledge of where we're at as producers and gives us a benchmark to see where we want to be," Scott said. "It's been a really valuable tool to see where we are in the industry." Dr. Feuerbach has been very impressed with the progress Sturtevant Feedlots has made and hopes other producers can do the same.

"Quite frankly, we've reduced their antibiotic usage by two-thirds of what they had at one point in time, while not giving anything up on the animal welfare side," noted Steve.

The success Sturtevant Feedlots has seen after becoming members of PART is proven through their records. They remain to be leaders in the industry and pave the way for others to do the same. "You need a baseline and records," Scott said. "Evaluate where you are and where you want to be. Ask yourself, 'is there something I can do on my farm to help reduce antibiotics?' If you say no, I'd tell you to ask yourself the same question tomorrow," Scott laughed. "I bet there's something you can do."

Bringing Value for Generations to Come

Although working with family proves it's challenges, Scott shared he's been blessed to work with his. He and his brother, Steve, have worked with their father to create the farm of today, and hopes to make improvements to set his son, Trey, up for a better farm of tomorrow.

What does that look like for Scott? Efficiency. Sturtevant Feedlots is in the process of becoming a three-site operation. They are building a nursery site, wanting to improve the health of their pigs by giving them more space.

Sturtevant Feedlots is a great example of a success story through PART. The changes they've made to their farm have been through passion and a drive to be better.

"I think one of the main things for producers to do is really take a look at their antibiotic usage, which requires them having good records. It's hard to manage what you don't measure," Dr. Feuerbach said. "I think a lot of producers in the industry can do the same thing as Sturtevant Feedlots has done."

Article by: Kyra Flom, Website & Digital Specialist

SwineTime

Podcast

Business

Episode 26

How TN Visa Talent from Mexico Can Impact Your Farm

Pork producers continue to share the challenge of hiring reliable and hard-working employees for their farm operations. As the US farm labor shortage continues, PIPESTONE has begun offering its customers with a practical staffing solution. The service is called FarmTeam and it is offered through Pipestone Business. FarmTeam provides pork producers with a pipeline of talented candidates who are motivated to join their team on the family farm. Utilizing the human resource team at PIPESTONE, FarmTeam is a reliable source of employees with a desire to work on the grow-finish side of pork production.

In this episode of the SwineTime podcast, host Spencer Wayne, veterinarian with Pipestone Veterinary Services is joined by Rob Hofmeyer, Director of Grow Finish Operations at Pipestone Business and Jesús Colorado Galan, FarmTeam Talent Trainer, as they discuss a solution for recruiting talented team members to your farm.

TN NAFTA Professionals were initially recognized by the North American Free Trade Agreement. The TN nonimmigrant status continues today and permits qualified Canadian and Mexican citizens to seek temporary entry into the United States to engage in business activities at a professional level. On the podcast, Jesús shares that most TN workers come to the United States seeking both professional and economic opportunities. He goes on to explain that TN team members are highly educated and prepared to work in the US pork industry. Through their formal

education, FarmTeam members have an appreciation for the business of agriculture and a desire to care for pigs with respect.

A detailed job description is an important part of the FarmTeam onboarding process. We work with the farm owner to create reasonable expectations for daily job responsibilities and work schedules that are a win-win for a FarmTeam member and the farm operation. With the job description in mind, PIPESTONE matches the FarmTeam member to your farm. Once the FarmTeam member arrives on your farm, it is your responsibility to direct work assignments and monitor daily activities. It is common for FarmTeam members to become an integral part of the team working regularly with family members and other farm employees.

When a FarmTeam member is placed on your farm, they continue as an employee of PIPESTONE. The burden of administering bi-weekly payroll, securing competitive benefits and complying with labor regulations remains the responsibility of PIPESTONE. New FarmTeam members are introduced to our standard operating practices (SOPs) in pork production during their recommended initial training period. Following initial training, Jesús is available to spend time on the farm to understand your workflow, assist with language barriers and ensure a smooth and successful transition.

If you are interested in learning more, please contact Rob Hofmeyer with your FarmTeam questions.



SwineTime is available on the following:



www.pipestone.com

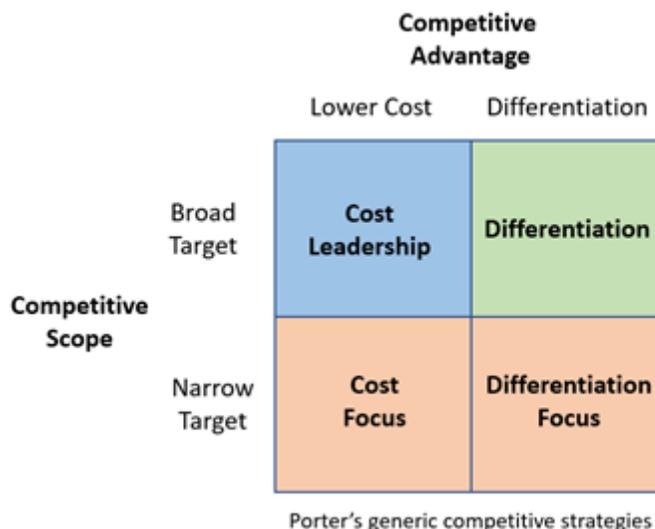
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Competitive Strategy on Farm



By: Jim Marzolf
Vice President
Pipestone Business

In 1980, Michael Porter, distinguished professor at Harvard Business School, wrote that competitive strategy is “how a firm can actually create and sustain a competitive advantage in its industry.” In his book *Competitive Strategy*, he outlines that the two basic types of competitive advantage are cost leadership and differentiation.



Commodity

1. An economic good: such as:
 - a. a product of agriculture or mining
 - b. a mass-produced unspecialized product
2. A good or service whose wide availability typically leads to smaller profit margins and diminishes the importance of factors other than price.

The very definition from Merriam-Webster.com of a commodity implies that the consumer sees no discernable difference between the pig you raise and the pig your neighbor raises.

If we blend the concept of competitive strategy with the definition of a commodity, the obvious question is how does a commodity producer create and sustain a competitive advantage in their industry?

Historically, the answer has been simple. **Commodity producers compete on cost leadership.** For the farmer raising agricultural commodities, their competitive strategy begins with “the pursuit of economies of scale, proprietary technologies, and preferential access to raw materials” to achieve the lowest cost of production.

In recent years, consumers as well as animal and environmental activists have amplified their voices and escalated their actions demanding meat supply chains to recognize and respond to their preferences. While invasive and frustrating for meat producers, these consumer and activist preferences do in fact create opportunities for commodity producers to listen to market signals and differentiate their commodities by providing the desired product attributes. Recent examples of attributes in pork production include ractopamine free, open pen gestation, genetic influence on meat quality, and more recently Proposition 12 compliance.

With each of these attributes, the competitive advantage has been greatest for the early adopters. In many cases, early adoption of the attribute translates into additional revenue per pig.

As the consumer preference for an attribute becomes more mainstream and more commodity producers change their production systems to provide the attribute, the producer's share of the monetary value derived from the attribute declines. When adoption of the attribute becomes mandatory for producers, the monetary value disappears and the intrinsic value becomes only market access. Once this happens, the commodity has again become undifferentiated.

It is easy for commodity producers to become frustrated when consumers challenge producers' thoughtful decisions to raise pigs both responsibly and economically and exercise their power to dictate changes to farm production systems. Likely, automotive manufacturers feel the same as pork producers when their consumers (and governments) increase the demand for electric vehicles. Throughout the years, auto manufacturers have scaled their production systems to achieve economies of scale and adopt technologies that make them low cost producers of petroleum powered vehicles. There is no doubt that the changing consumer preference for electric vehicles will force manufacturers to make additional investments in their production facilities and staffing that result in both production inefficiencies and operational disruptions. While frustrating, the consumer has spoken and ultimately votes with their wallet. A failure to respond swiftly will put certain auto makers at a competitive disadvantage.

The challenge for pork producers is to decide whether an attribute is a trend or a fad. In other words, will the consumer's or activist's preference stand the test of time and justify the often substantial investment to convert our pork production systems to produce the new attribute. As preferences become mainstream, producers gain clarity on whether the signal to produce the attribute was in fact a trend and not a fad. The trick is making that informed decision before other producers while the opportunity to monetize the value still exists.

Increasingly, consumer and activist concerns for product quality, consumer health, animal welfare and climate impact are creating opportunities for production system attributes. The latest attributes for pork producers to consider include Proposition 12, antibiotic free, and carbon friendly systems. Consistent with the pork attributes discussed earlier, it is up to producers to do their homework and decide whether these attributes will prove to be a trend or a fad and whether it is prudent to be an early adopter.



PRRSV 144

A Rapid Response to a National Crisis

In partnership with Boehringer Ingelheim Animal Health USA Inc., Pipestone Research has provided a rapid response to bring science-based answers to managing the emergence of PRRSV 144 L1C. Based on field observations from practitioners and producers, stating that, “This is the worst strain of PRRSV ever,” “Vaccines don’t work anymore”, and “Biosecurity protocols are ineffective,” the team determined that immediate action was needed.

This industry-wide feeling of panic encouraged PIPESTONE to respond using science to generate answers to these concerns. PIPESTONE Chief Veterinary Officer, Dr. Joel Nerem responded with a Call to Arms, stating that, “Answering difficult questions with production-driven research for farmers is our wheelhouse.” stated Dr. Joel Nerem. “We need answers. Let’s do a study and share the results.” Pipestone Research team members, Dr. Scott Dee, Roy Edler and Dan Hanson put the wheels in motion, joined forces with Dr. Amanda Sponheim, Dr. Reid Philips, and Justin Rustvold from Boehringer Ingelheim Animal Health USA, Inc., and completed three studies targeting the field concerns, including:

Study 1 (Pathogenicity): Is PRRSV 144 worse than PRRSV 174?

Design: Naïve pigs were challenged with either PRRSV 144 or PRRSV 174. Outcomes included average daily gain (ADG), percent mortality, viral load, clinical scores, pyrexia, and number of treatment events.

Results: Across all metrics, PRRS 174 was more pathogenic than PRRSV 144.

Study 2: Do vaccines still work on PRRSV 144?

Design: Pigs were vaccinated either with Ingelvac PRRS® MLV (BI) or Prevacent® PRRS (Elanco) and compared to a non-vaccinated control group. Vaccination was applied according to label instructions and challenge occurred 28-day post-vaccination.

Results: Both vaccines were effective against PRRSV 144 and performance in vaccinated groups was significantly better than non-vaccinates.

Metric	Vaccine A	Vaccine B	144 (NV)	174 (NV)
ADG (lbs)	1.39 ^a	1.38 ^a	1.20 ^b	1.21 ^b
% Mortality ⁱ	5.3	4.0	4.0	13.3
Pyrexia (°F) (14 DPC)	103.8 ^a	104.7 ^{ab}	104.9 ^b	105.2 ^b
# treatment events	19	28	57	50

^{ab}means differ P≤0.05

ⁱtrending towards significance P=0.06

Study 3: Can biosecurity protocols prevent PRRSV 144 introduction?

Design: Six biosecurity protocols were tested on pigs challenged with PRRSV 144. The study evaluated transmission of 144 through feed, using natural feeding behavior, transmission via contaminated personal and fomites (boots, coveralls, and hands), the ability of PRRSV 144 to be detected in aerosols from infected pigs, survival in slurry (14 vs 21 days), and whether the transport (feed truck) could serve as a vehicle for viral movement between sites. In addition, intervention strategies, including 2 disinfectants (Ag Forte Pro or Synergize™), 2 feed mitigants (Guardian™ or Sal CURB®), air filtration (Camfill Farr MERV 14) and a shower protocol with a boots/coverall change, were tested to determine if the respective risks could be managed.



Results:

- **Disinfectants:** Ag Forte Pro and Synergize™ neutralized PRRSV 144 after 60 minutes of contact.
- **Contaminated feed:** PRRSV 144 was transmitted through feed via natural feeding behavior. Both feed mitigants (Guardian™ or Sal CURB®) prevented infection.
- **Feed transport:** PRRSV 144 survived in the feed transport model and infected pigs.
- **Survival in slurry:** PRRSV survived in slurry for 14 days, but not 21 days.
- **Contaminated fomites/Shower in protocol:** Following 30 minutes of contact with infected pigs, PRRSV 144 was detected on hands, boots, and coveralls of personnel. In the absence of a shower and clothes/footwear change, virus was transmitted to contact controls. After a shower and clothes/footwear change, virus was not transmitted to contact controls.
- **Filtration:** PRRSV RNA was detected in 28%-43% of interior air samples during the challenge period. In contrast, there was no detectable PRRSV 144 in exterior air samples post-filtration.

In closing, under the conditions of this study, it appeared that PRRSV 174 was more pathogenic than PRRSV 144 and modified live virus vaccines were effective against PRRSV 144. In addition, standard protocols of biosecurity such as disinfection, showering, changing boots and coveralls between infected and non-infected populations are still effective. Aerosols and feed appear to be risk factors for PRRSV 144 spread, but risk is reduced through filtration and feed mitigation. Finally, the risk of contaminated transport (feed truck) continues to be a risk factor for viral movement between farms.

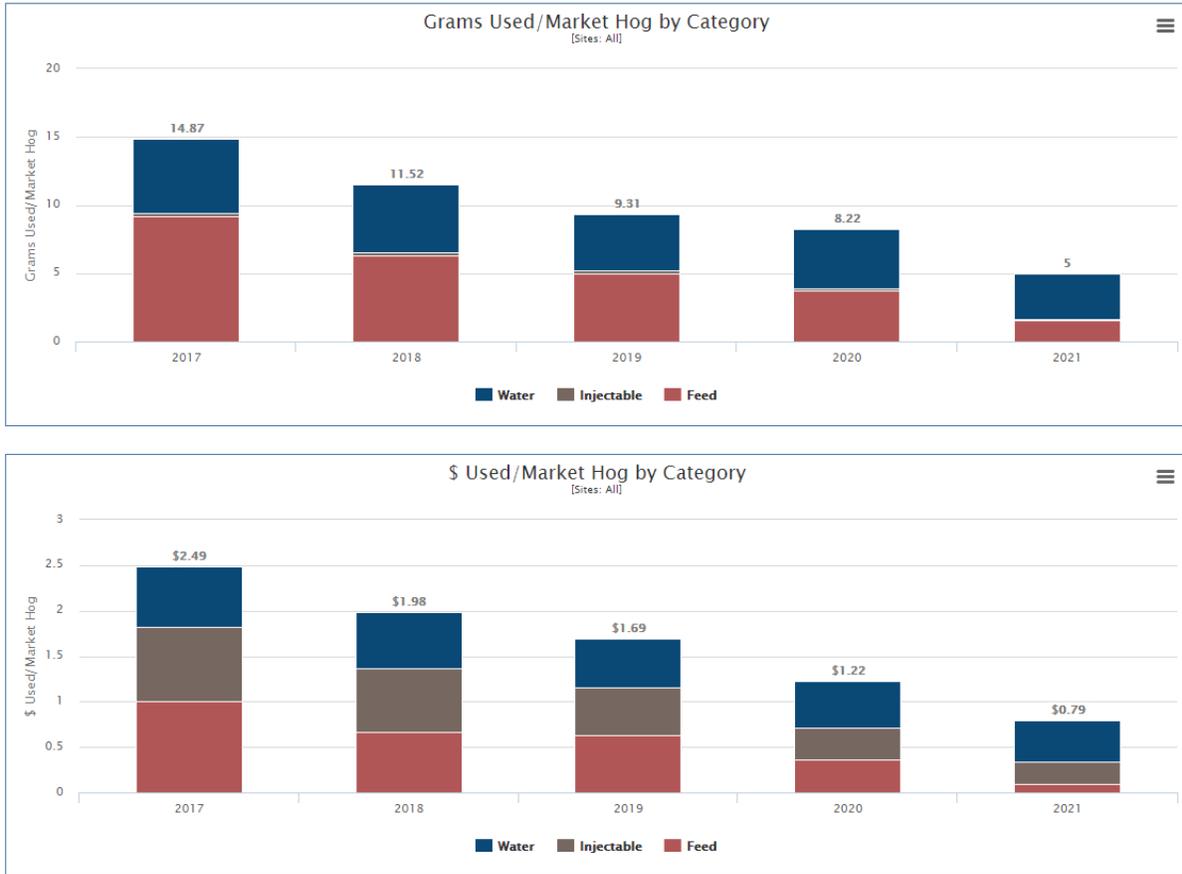
As a results of this study, PIPESTONE and Boehringer Ingelheim Animal Health USA Inc., recommend keeping up on all practices related to biosecurity. "You know what to do, don't give up," said Dr. Scott Dee, PIPESTONE Director of Research. "We know the routes of transmission and how to manage these risks. Don't take shortcuts, keep using modified live virus vaccines according to label, and don't relax. PRRS season is almost upon us!"



Dr. Scott Dee
Director of Applied Research

PART provides livestock farmers with

- Web-based tools to do their PART in the fight against Antibiotic Resistance
- Exhibiting and monitoring responsible antibiotic use in accordance with their veterinarian.



163
Producers

7.5 Million
Market Hogs

10 Million
Weaned Pigs

PART allows producers to Record, Review and Respond for the Responsible Use of Antibiotics.



RECORD



REVIEW



RESPOND



Driving Force Show Pig

Pipestone Veterinary Services is excited to provide a new service offering, to a new audience: Driving Force show pig!

Driving Force is the official show pig brand of PIPESTONE, working to provide show pig breeders and showmen with the necessary products and resources to raise champions. Success is totally dependent on your drive. That is why we at Driving Force provide high-quality products to help you get there.

To start, Driving Force will be offering product kits that contain everything from successful breed a show sow or gilt and get a healthy pig in the ring. The kits are bundled with vaccines and supplies to accomplish each of our three initiatives: breeding, pre-farrow, and production. Included in the kit is an instruction card that gives dosage recommendations, timing of dosing and key information that will serve an educational purpose of the kit. On the kit instruction card, is a QR code linking to an exclusive video by Dr. Taylor Spronk, a swine veterinarian, to provide more background, as well as why vaccines should be given at any point in time.

In addition to the three show pig kits, PIPESTONE offers a variety of additional animal health products and supplies including: needles, syringes, coveralls, brooms, BlueLight, sort panels, heat Lamps, feed pans, and more!

Simply order our kits securely Online and receive a quick and easy delivery from our bio-secure warehouse. Now all you need to do is drive forward and not look back.



Breeding Kit



Pre-Farrow Kit



Production Kit



We are eager to reach another audience in the swine industry! Learn more about Driving Force at www.drivingforceshowpig.com!

Alternatives to ANTIBIOTICS

Products to treat sick pigs responsibly- before the use of antibiotics



Swine BlueLite® Hydration

An electrolyte water acidifier designed to combat body shrink, dehydration and hypoglycemia in swine of any age when first noticed from stress events, scours or weaning management.



Refresh Swine Supplement

Designed to provide additional nutrient fortification to swine, helping to maintain body electrolyte balance, hydration and support the natural intestinal health of pigs. Refresh is a water miscible supplement containing vitamins, minerals, electrolytes, amino acids and a direct fed microbial called Calsporin.



AniPrin LQ-PM Aspirin

A pre-mixed, concentrated liquid aspirin solution for livestock use. This oral solution can be mixed directly into livestock drinking water and is available with a caffeine included version.



Respire

Respire is a water-dispersible blend of essential oils specifically designed to alleviate the symptoms of respiratory disease, especially in cases which cannot be treated with antibiotics. It aids in the recovery process through immune system stimulation.



Dexamethasone Injectable

Used as supportive therapy, Dexamethasone Injectable Solution may be used in the management of various rheumatic, allergic, dermatologic and other diseases known to be responsive to anti-inflammatory corticosteroids.



Vaccines

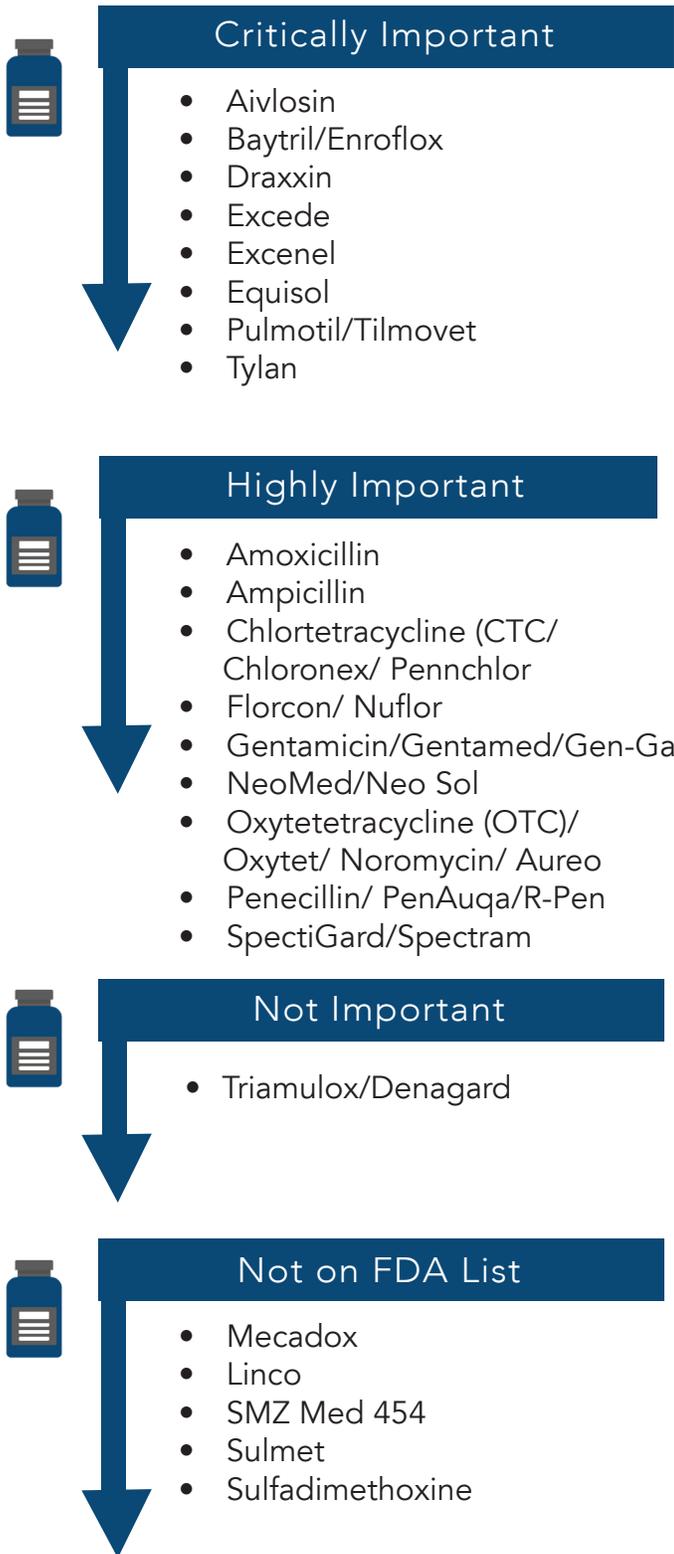
Commercial and autogenous vaccines are available to help kickstart a healthy pig. Establishing a pig vaccination program helps to protect your herd from contagious diseases at all stages of development and properly utilizing swine vaccines helps your farming bottom line. Whether it is controlling bacteria or viruses, Pipestone Veterinary Services can provide low prices on swine vaccinations needed to protect your pigs, regardless of age from rhinitis, erysipelas, pneumonia, swine influenza, PRRS and those needed during the breeding process.

Additional antibiotic alternatives and vaccines can be found at www.pipestone.com or by calling our Swine Resource Team at (507) 562-PIGS(7447).



FDA List of Drug Importance

The following are antibiotics (treatments) referred to by Dr. Cara Haden and Dr. Carissa Odland. Responsible Antibiotic Use starts with proper drug selection. Can you limit the use of critically important drugs on your farm?



Did you know:

We have vaccinations to reduce the need for antibiotics and to prevent common diseases including:

- Porcine Epidemic Diarrhea Virus (PEDv)
- Porcine Respiratory and Reproductive Syndrome (PRRS)
- Lawsonia intracellularis (Ileitis)
- Salmonella choleraesuis/ Salmonella typhimurium
- Erysipelothrix rhusiopathiae (Erysipelas)
- Escherichia coli (F18, K88, K99, F41 and 987P)
- Leptospira canicola
- Leptospira grippotyphosa
- Leptospira hardjo
- Leptospira icterohaemorrhagiae
- Leptospira Pomona
- Porcine Parvovirus (PPV)
- Porcine Circovirus Associated Disease (PCVAD) (Types 1 & 2)
- Mycoplasma hyopneumoniae
- Mycoplasma hyorhinis (Mhr)
- Pasteurella multocida (Types A & D)
- Bordetella bronchiseptica
- Clostridium perfringens (Type C)
- Porcine Rotavirus
- Swine Influenza Virus (H1N1, H1N2 and H3N2)
- Haemophilus parasuis
- Strep Suis





Pipestone Veterinary Services of Sycamore

Meet the Sycamore Clinic Team

(Pictured in order starting from first column descending down)

(Not pictured)

Dr. Michael Schelkopf
Swine Veterinarian

Stephanie Kirkwood
Production Supervisor

Dr. Wesley Lyons
Swine Veterinarian

Larry Griebenow
Finisher Swine Tech Supv.

Dr. Steven Feuerbach
Swine Veterinarian

Ashley Finney
Office Clerk

Dr. Charles Schelkopf
Swine Veterinarian

Cassie Felix
Practice Manager

Dr. Adam Schelkopf
Swine Veterinarian

Debbie Gandolfo
Info Analyst

Jenna Meurer
Account Manager

Carrie Pollard
Health Technician

Kim Potter
Sow Farm Coordinator

Carol Ford
Swine Specialist

Cindy Sampson
HR Supervisor

**2435 Bethany
Road Sycamore,
IL 60178**

815.756.3279

Pipestone Veterinary Services has six locations: Independence, IA, Orange City, IA, Ottumwa, IA, Pipestone, MN, Rensselaer, IN, & Sycamore, IL.

COVERALLS

- Color coded by size
- Short sleeve design
- Multiple varieties



FARM VISITOR LOG

Spiral bound to track visitors in your barn.



KEEP DISEASE OUT

SHOWER SUPPLIES

- Body wash
- Shower curtain
- Shampoo & conditioner



TEK-TROL DISINFECTANT

Disinfectant and fungicide for a wide range of viruses and bacteria.



AG FORTE

A water based pig barn and swine transportation degreaser.



HYDRO FOAMER

Clean and sanitize surfaces, vehicles and equipment.



BOOTS

Boot selections range from elastic to heavy duty!



SHOP BIOSECURITY

SYNERGIZE DISINFECTANT

Barn disinfectant cleaner and swine transport disinfectant.



TRAFFIC COP

Dry foot bath.
No need to add water or dilute.



 **PIPESTONE**
Veterinary Services

2021 Summer Internships

During this past summer, PIPESTONE had 19 interns come and learn about the pork industry and all that PIPESTONE has to offer. The interns were spread out: in Sow Farm Production, Research, Tech Services, Warehouse, Financial, Nutrition, IT, Marketing & Communication, and Veterinary Services. During their summer, they had the opportunity to learn about all aspects of their specialty area, conduct a research trial, and talked with consumers about agriculture at the Pipestone Discovery Barn. One unique opportunity the interns were able to do is attend the Youth Leader Agriculture Conference held this year in Sioux Falls, SD.

Courtney Pohlen, a nutrition intern this summer, has now accepted a full-time position with PIPESTONE.

Where did you go to school?

South Dakota State University – Animal Science with a Meat Science minor

Why did you decide to intern with PIPESTONE?

I decided to intern with PIPESTONE because I heard great things from not only Dr. Crystal Levesque at SDSU, but many others as well. I knew this internship would broaden my knowledge in the swine industry, and I knew that PIPESTONE wasn't just focused on just swine production but also other areas of the industry. I wanted to learn more about swine nutrition, and this was the perfect step for me.



What did you gain from your internship:

I gained a lot of connections with professionals in the industry and learned a lot of aspects of the company that I didn't realize before this summer. I also learned more about the industry and swine nutrition.

What was your favorite thing about your internship?

My internship was so complex, with a lot more things to do than I was expecting, especially working with the research trials. I learned a lot about formulations which I found to be interesting. I loved the fairs and being able to talk to the public and answer questions, as well as chill out with some baby pigs.

Why did you decide to stay with PIPESTONE?

I just love the people I work with. Everyone is easygoing and they are always there to answer my questions and teach me on what I want to know. I felt like part of their team during my internship and wanted to learn more about research and swine nutrition.



Thank you to our 19 interns who decided to spend their summer with PIPESTONE! If you know of someone who would like to apply for next year's summer internship visit. www.Pipestone.com/internships/

RECIPES:

Carnitas Tacos

- 2 pound boneless pork shoulder roast
- 1 carrot diced
- 1/2 onion diced
- 1/4 cup dry red wine
- 2 tablespoons chili powder
- 4 cups red cabbage thinly shredded
- 3 tablespoons mayonnaise
- salt and pepper
- 1 avocado pitted, peeled, thinly sliced
- 12 8-inch corn tortillas warmed

Combine carrot, onion, and wine in slow cooker. Mix chili powder, salt and pepper. Rub chili powder mix on all sides of pork shoulder and place in slow cooker (can substitute taco seasoning for rub mix).

Cover and cook on low until roast is falling-apart tender, about 6 hours. Use tongs or a slotted spoon to transfer meat to a large bowl. Use two forks to shred meat into bite-sized pieces. Moisten/season with cooking juices to taste. Cover to keep warm and set aside. In a medium bowl, combine cabbage and mayonnaise. Season with salt and pepper to taste.

Arrange 2 tortillas on each serving plate. Fill tortillas with pork, cabbage mixture, and avocado and serve. (Alternately, arrange pork, cabbage mixture, and avocado on a platter and let guests make their own tacos.)

Cooking tip: For even more flavorful carnitas, brown roast on all sides in a lightly oiled skillet before sprinkling with chili powder.



Pork Shooters

- 12 oz smoked pork sausage links or Androli sausage
- 12 oz bacon
- 8 oz cream cheese, softened
- 6 oz sharp cheddar, grated fine
- 1 Tablespoon BBQ Rub
- 1 Tablespoon Hot Sauce or Barbecue Sauce

Preheat your Smokers to 250°F. Cut bacon strips in half. Slice the sausage into rounds about 1/2 an inch. Wrap the bacon slices around the sausage slices and pin with a toothpick creating a cup. Place on tray, sausage side down.

Combine the cream cheese, 4 oz of the cheddar, BBQ Rub and Hot Sauce in a bowl and mix well. Place the cheese mixture in a zip top bag. Cut a corner off the bag and pipe the mixture inside the bacon, on top of the sausage. Top the cheese mixture with a pinch of cheddar cheese.

Place Frogmats or foil on the top shelf of your cooker. Place the Pork Shots on the Frogmat. Smoke until the bacon is cooked through, about 1 hour 15 minutes. Serve with Barbecue Sauce or enjoy as is!



Connect with PIPESTONE

A successful pig business operates at its highest profitability when health, management, nutrition, marketing, research, and business are working together correctly. The challenges and speed of business that independent producers face today are different than the generations before them.

Our passion for animal care and drive to create the farms of tomorrow has led us to create new service offerings throughout the years for pork producers.

What started as a small town veterinary clinic in 1942, is now the largest swine veterinary clinic in the United States. The world-class sow management company, Pipestone Management, was formed in 1990 and today proudly manages over 70 sow farms for 450 family farmers across the Midwest. Production-driven research, nutrition, record keeping, and marketing services were all molded to support the independent family farmer and our mission of Helping Farmers Today Create the Farms of Tomorrow.

Today, PIPESTONE is proudly helping over 1,000 pig farmers by providing resources and expertise in health, management, nutrition, marketing, research and business.

Listen in: SwineTime Podcast

The SwineTime podcast is a monthly podcast created for the pork industry and individual pork producers around the country. The podcast provides world-renowned resources and expertise on Swine health, management, nutrition, marketing, research, business and more. Hosted by Dr. Spencer Wayne with Pipestone Veterinary Services, the podcast contains pork industry news, advancements in animal care and how to enhance your productivity. New podcasts are released monthly on the 2nd Tuesday.



SUBSCRIBE TO SWINETIME ON YOUR FAVORITE LISTENING PLATFORM:



Read: Swine News e-newsletter

Did you know that here at PIPESTONE we publish a monthly swine-focused e-newsletter, containing expert advice, research and information in health, management, business, marketing and nutrition? Upholding our mission, Helping Farmers of Today Create the Farms of Tomorrow, we work to provide timely, accurate and top notch information sent directly to your inbox each month. Sign up on our website: www.pipestone.com.



What is PART?

Antibiotic Resistance is a growing topic of concern among us all. We recognize that human health and animal health must work together understand and combat antibiotic resistance. PART provides livestock farmers a web-based tool to do their PART in the fight against Antibiotic Resistance by exhibiting and monitoring responsible antibiotic use in accordance with their veterinarian. PART allows producers to Record, Review, and Respond for the Responsible Use of Antibiotics.

Learn more:
Go online at pipestone.com/part/

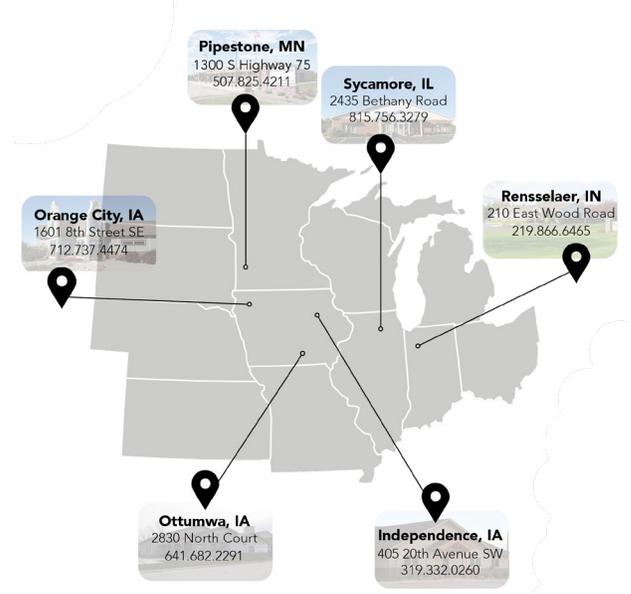
Follow us: Social Media

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-  Pipestone - Helping Farmers
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-  PIPESTONE - Helping Farmers

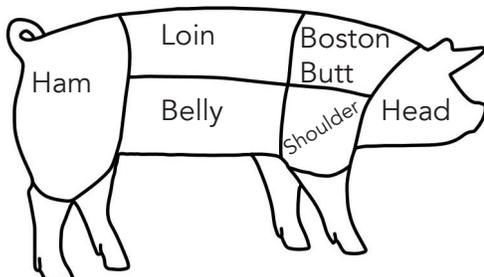


Meet with us: Our Locations

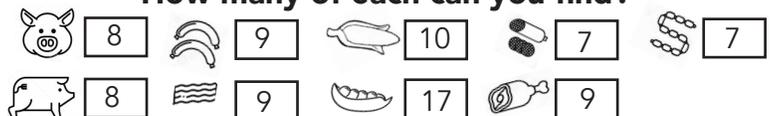
In an effort to best reach you, PIPESTONE is available in six locations across the Midwest. While our headquarters remain in Pipestone, Minnesota, team members are available to assist you in Independence, Iowa; Orange City, Iowa; Ottumwa, Iowa; Sycamore, Illinois; and Rensselaer, Indiana.



Answers to the kids activity on page 12!



How many of each can you find?





1300 So Hwy 75
Pipestone, MN 56164

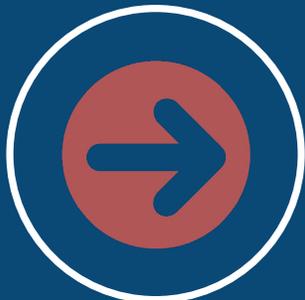
 **PIPESTONE** IS DOING OUR PART



RECORD



REVIEW



RESPOND

PRACTICE RESPONSIBLE ANTIBIOTIC USE