



STEMsational Ag: The Virtual Farm

MIDDLE TENNESSEE STATE UNIVERSITY



Module 7: Bacon the Pig UNIT 1: PIGS LOVE SLOP Grades 9 – 12



USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

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Fermentation Science

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Module 7: Bacon the Pig
UNIT 1: PIGS LOVE SLOP
Grades 9 – 12



9th – 12th Grade:

Introduction to the Unit:

Farmers are faced with the daunting task of providing food, fuel, and fiber for an ever-growing population. The average U.S. farmer feeds 166 people. This number has increased dramatically over generations, as farmers have become more efficient in their practices and incorporated technology and innovation. In this unit, you will learn more about important topics in the pork industry.

Pre-assessment

How much do you know about the topic of swine, technology utilized in the swine industry, population growth, and careers in the swine industry? On a piece of paper, write the letters of the alphabet in a line on the left side of the paper, starting at the top of the page. Set a timer for 7 minutes and fill in as many of the letters as possible with words related to the swine industry. Here's an example:

- A. Agriculture
- B. Biosecurity
- C. Contractor

The purpose of this pre-assessment activity is to brainstorm. There are no “right or wrong” answers.
Do your best!



Purpose:

The purpose of this lesson is to discuss population growth and the benefits and concerns related to science and technologies applied in agriculture to increase yields and maintain sustainability. Additionally, students will predict the types of careers and skills agricultural scientists will need in the future to support agricultural production and meet the needs of a growing population.

Student Learning Outcomes for the Unit:

- ▶ Student will identify technologies utilized in the swine industry to increase yields.
- ▶ Student will explain how population growth will put strains on agriculture.
- ▶ Students will identify careers in the swine industry.

National Agriculture Literacy Outcomes:

Science, Technology, Engineering & Mathematics Outcomes, Theme 4 T4.9-12

- C. Discuss population growth and the benefits and concerns related to science and technologies applied in agriculture to increase yields and maintain sustainability.
- F. Predict the types of careers and skills agricultural scientists will need in the future to support agricultural production and meet the needs of a growing population.

Vocabulary Words:

- ▶ **Boar:** a mature male swine
- ▶ **Barrow:** a male swine that has been castrated
- ▶ **Farrowing:** giving birth to pigs
- ▶ **Gilt:** a young female swine that has not had a litter
- ▶ **Litter:** the young born to an animal at a single time
- ▶ **Pork:** the flesh of a pig or hog used as food
- ▶ **Sow:** a mature female swine who has given birth to piglets
- ▶ **USDA:** United States Department of Agriculture; the federal executive department responsible for developing and executing federal laws related to farming, forestry, rural economic development, and food

Materials Needed:

- ▶ Writing utensil
- ▶ Paper



Activity 1: Read an Article

Read the article below, *An Overview of Pork Production* in the U.S. from the website Agriculture.com. Read the following sections of the article for this activity (you can read the entire article if you like, optional):

- Introduction
- Successful Farming Highlights Pork Powerhouses
- The International Swine Industry

Essential Questions to Consider:

- ▶ What is vertical integration and how does it relate to the swine industry?
- ▶ What challenges does the swine industry face in expanding production?

You can check your answers to the activity questions with the Answer Key on page 16.

SF Successful Farming

AN OVERVIEW OF PORK PRODUCTION IN THE U.S.

By **Terri Queck-Matzie**

Pork is the most consumed meat in the world.

Pork production in the U.S. has an estimated \$23.4 billion of gross output per year, with around 26% of the nearly 2.2 million metric tons of pork and pork products produced exported to other countries.

Pigs consume billions of bushels of grain and oilseeds, and provide income for more than 60,000 pork producers, primarily in the Midwest and North Carolina.



iStock: deyanarobova



Here's more information on pork production and pork producers in the U.S.

Of the 60,000 U.S. pork producers, a handful lead the vertically integrated industry.

[Successful Farming's Pork Powerhouses ranks the 40 largest pig producers in the U.S.](#) Those producers account for roughly two thirds of the U.S. swine breeding herd.

Smithfield Foods, owned by Chinese company WH Group, leads the list, followed by Seaboard Farms, Pipestone System, and Iowa Select Farms.

The U.S. pork industry is still expanding, despite tariffs, labor challenges, and global disease risks. The nation's largest pig producers added 66,000 sows in 2019.

[Daryl Olsen is the senior veterinarian and one of 12 partners in AMVC](#) (Audubon-Manning Veterinary Clinic) Management Group located in western Iowa. The company accounts for around 145,000 sows in seven states. Olsen says their success is based on providing farmers with an avenue to maintain financial independence with the advantage and security of working within a larger system.

COMPANIES AND LEADERS THAT CHANGED THE PIG BUSINESS

When it comes to pork industry icons, no one tops Wendell Murphy, founder of Murphy Family Farms, number one on the original Pork Powerhouses® list published in 1994.

[In a sit down with Successful Farming's Besty Freese, Murphy reflected on his challenges and successes.](#)

From humble beginnings in North Carolina he grew a pig empire with annual production that topped the entire production of some ag states. Murphy Family Farms sold to Smithfield Farms in 2000.

Murphy started a small feed mill, shucking corn and selling it to local poultry producers, while working as a vocational ag instructor. His inclination for innovation took hold and he began grinding and bagging the cobs and shucks in a custom mix. The mill made more feed than it could sell, so Murphy began buying feeder pigs to eat the excess. Six years after the mill opened, it closed to public business in order to exclusively serve the Murphy hog enterprise.



By the late 1970s, Murphy could not buy enough pigs to feed his business. To grow they would need sows and infrastructure. There was no turning back.

While economies of scale have their limit, and can reach a tipping point where transport of inputs and outputs outweighs efficiencies, Murphy recognizes consolidation as a natural evolution of agriculture and lauds the efficiency of pork production today.

In 1895, John C. Clemens was raising hogs in Pennsylvania and hauling pork products via horse-drawn wagon to Philadelphia. Today, [Clemens Food Group is a major industry player.](#)

With the reputation of previous business incarnations Hatfield Packing Company and Hatfield Quality Meats, Clemens Food Group was approached by a group of Michigan hog producers in 2014 wanting to partner on a new plant.

Unlike other producer/packer arrangements, the Coldwater, Michigan, plant is a coordinated system. Rather than owning everything up and down the system, Clemens utilizes independent producers in the supply chain. The Coldwater plant, at 10,000 head a day, is supplied by about 12 producers. It was the first new packing plant built in 10 years and set off a wave of new construction.

[Bill Prestage is known as the gutsiest guy in the pig business.](#)

He is head of Prestage Farms, started in 1983, and one of the largest pork producers in the U.S. with 185,000 sows and a vertically integrated turkey line. The company is in the process of opening a new pork packing plant in Eagle Grove, Iowa.

Prestage began by following his father into the wholesale beer business, then taking his sales acumen to agriculture. He partnered with Otis Carroll in Carroll's Foods from the late 1960s till the early 1980s, redesigning hog houses with slat floors when others still used concrete or dirt.

Part of his success is due to cooperation within the North Carolina hog industry. Prestage has been part of a supply-purchasing co-op with other producers, and joined with industry partners to maintain access to rail transportation.

The new plant under construction in Iowa will feature the latest innovations, like an air scrubber to reduce odor and a completely enclosed offal plant. It takes its cues from the poultry business in bio-security with all trucks and trailers thoroughly washed before they leave the plant.

It's this type of innovation that keeps the U.S. pork industry growing and thriving.



AFRICAN SWINE FEVER AND SOW HEALTH

Diseases like the [current outbreak of African Swine Fever \(ASF\) in China](#) can have serious effects on worldwide swine production. Experts estimate 10 million sows and 100 million pigs have succumbed to ASF. The disease is spreading across East Asia, with reports now coming in from Vietnam, Cambodia, North Korea, and Laos.

There are no effective vaccines for ASF, and no effective treatment. Infected pigs must be euthanized.

[Research at Kansas State University is looking at the potential for the disease to spread through infected feed.](#) Although transmission requires a high dose of the virus, it can have a cumulative effect if fed over time. Feed production methods in countries affected by ASF may be adding to the problem, such as in China where grain is sometimes dried on roadways – the same roadways traveled by trucks traveling to and from infected farms.

Millions of kilograms of feed ingredients are imported from countries where ASF virus is currently circulating.

In recent years [Sow Prolapse Syndrome has become a growing concern](#) for U.S. pig producers. The vaginal and uterine prolapses result in sow, fetus, and pre-weaning mortality. The exact cause and treatments for the syndrome are unknown. Some operations have seen sow mortality due to prolapse increase 2-5% in recent years.

MORE FARMERS OPT TO CONTRACT FEED PIGS

[Much of U.S. pork production involves contract feeding.](#) The most popular model involves row crop farmers building hog finishing barns. The hogs provide cash flow and grain producers like the manure as a natural fertilizer, decreasing input costs of chemical fertilizers.

Kent Mowrer, Senior Field Coordinator for the Coalition to Support Iowa's Farmers, says the first step for a potential producer is to get to know the company and make sure they are a good fit.

Producers need to make sure they can meet labor, land, bio-security and financial needs. Each company has a preference for building style, and its own payment system.



THE INTERNATIONAL SWINE INDUSTRY

The U.S. produces a lot of hogs, but not as many as China. [China produces as many hogs as the rest of the world combined.](#)

That makes them a country to watch as they modernize production, and move large, industrial-type operations away from cities into rural areas. Like U.S. producers, feed and labor costs inspire increased efficiencies.

Pig health remains a top concern for China's producers, with African Swine Fever stealing headlines. One of the challenges faced in China is a lack of routine testing of herds and limited diagnostic laboratory access by its veterinarians. Inadequate diagnostics leads to overuse of medication and thus antimicrobial resistance.

Improvements are occurring in the country's top producers, but that still accounts for only a small portion of China's pigs.

[JBS, a Brazilian owned meat processing company, processes a good share of U.S. hogs,](#) including \$78 million worth of contracts granted through a USDA program designed to help U.S. farmers weather the trade wars. JBS won the contracts by undercutting the competition by as much as 33%.

JBS USA owns more than 300 live hog operations in the U.S. and has expanded its holdings with purchases of Swift & Co., Smithfield Beef Group, Inc., Pilgrim's Pride Poultry, and Cargill's pork business.

Global assets, combined with consolidation of the U.S. pork packing industry, allowed the move, according to industry insiders.

The USDA purchase of JBS pork does not change the individual farmer's ongoing contract arrangement with the packing powerhouse.

SHOWING PIGS IS A POPULAR PASTIME

Farm kids like to show livestock at the county fair, and pigs are easy subjects.

Along with learning the responsibilities of caring for livestock, [kids benefit from the vote of confidence parents and 4-H and FFA leaders place in them.](#) It can also be a time of family bonding.

[Kids with autism may find showing hogs as a way to bond with an animal,](#) but the sights, sounds, smells, and judge's questioning may be daunting to them. Some judges are becoming more aware and adjusting their techniques.



Activity 2: Industry Technology

On the following pages, view the video screenshots and follow the narration from the video “Pork Farming Documentary”. In the video, there are four technologies discussed that are utilized on the swine operation to be more efficient and provide better care for the hogs. They are:

- ▶ Tunnel ventilated barn
- ▶ Evaporative cooling
- ▶ Ultrasound machine
- ▶ European free stall pen system

Research each of the above topics and compile information outlining:

- ▶ What is the purpose of the technology?
- ▶ How does it impact the swine industry?
- ▶ How much does it cost to implement on an operation?

Create an informational piece (flier, brochure, PowerPoint, or any other informational document) outlining the technologies and purposes.



Pork Farming Documentary

Also available online at: <https://youtu.be/88gBI5NYANU>



On a day-by-day basis, we work very hard to care for our animals. Well cared for animals make for very healthy and robust growing animals. And those animals are bringing safe food to our nation and to everybody else.



My name is Malcolm DeKryger, and today we are at Cambalot Swine Breeders here in Northwest Indiana.



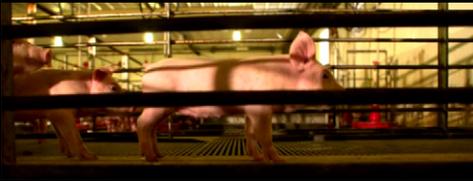
I grew up the son of a doctor and a teacher, and so I did not grow up on a farm. My grandparents were into farming, and uncles and other family members were into farming. And when I was a teenager, I kind of started working for my uncles and fell in love with a pig. I found it to be just a very fascinating and interesting sort of an animal to work with.



When I graduated from undergraduate, I decided to go to Purdue University and get my master's degree in animal sciences. And more specifically it was in monogastric nutrition and swine management.



More than 110,000 pigs are born each year at Cambalot Swine Breeders.



Forty/fifty/sixty years ago all these pigs were outdoors. And it got cold and the weather was inclement, and they suffered. And so we said, "Well, let's put them under a roof." Well, then the wind blew through there, so ... "Let's put walls around there."



And that's when we had to take control of the environment inside these barns. Our animals are indoors to keep them out of inclement weather. The three things that you've just got to do right to take care of animals are: you have to give them fresh food; you have to give them fresh water; and you have to give them fresh air at the right temperature.



If you take care of those three basic things the animal will be very comfortable, and it will flourish.



The breeding barn is the location where weaned animals (weaned sows) are brought. And about four to five days after they are weaned, they will naturally start to express estrus, or they'll come into heat.



It's quieted down now a little bit, but it often gets very noisy in here when the guys and the girls are talking to each other. This is a tunnel ventilated barn with evaporative cooling on it. This is a typical day in their breeding in gestation barn.



Technology has changed the way these animals are born and raised on this farm.



You know, one of the common questions that we hear is, "Well, what about all those antibiotics? And what about all those hormones?" For a variety of reasons, we have extremely healthy animals here, and we work very hard to keep them that healthy.



It allows us to not have to give much medicine ever. It allows us to minimize the amount of vaccinations that we have to give. It allows the animal to grow extremely well and robustly. If an animal is sick, it needs to have something to make it better. It likely won't just get over it like we would get over a cold. They need to have some help, and it is our responsibility as stewards to do that.



The only time that we give any kind of a hormone is in the birthing process – just like in a hospital where a woman would go to the hospital and get a shot of pitocin or oxytocin. We will give a little shot of that to the sows when they're having babies, because it helps let down milk and increase the contractions of the uterus. There are no hormones on the market to feed to pigs. There are no hormones that we give them a shot of as a growing and finishing pig.

Technology has changed the way these animals are born and raised on this farm.



My name is Nathan, and I'm using an ultrasound machine to confirm pregnancy.



The dark circles are fluid surrounding the fetus. This sow is about 35 days pregnant.



In this barn, there's probably about 3,000 sows.



Some of them are in traditional sow stalls like this one.



Others are in European free access stalls. We try to be early adapters of some of these new technologies, and we like the care that these sow stalls give to our animals. These animals are well protected – if they want to be.



This allows her to back out. She can walk around. And then if she wants to get back in, or if she wants to get back in to feed or to get some water, she can walk right back in. She pushes the front gate closed, and the gate latches behind her.



And, so 90% of the time – maybe 99% of the time – they stay in their stalls. They don't get out hardly at all, but it does allow them the choice if they want to get out. And it does allow them protection because when it's latched, unless she pushes it from the inside, another sow can't open it up and get at her backside.



There is a purpose for everything that our pigs experience whether it's their feeding, their breeding, or their farrowing. There is a timing to everything and what that does is that allows our employees to consistently know what should be happening next for the care of the animals. It allows for the consistent environment of the animals that they live in.



The thing that has changed over the years is that through government regulation and through greater technologies we have been monitoring and keeping closer records and data of all the nutrients that we place out into the fields and then also the crops that we can receive back off in those fields.



From a sustainability definition is just one big circle of life. It just keeps going around and around. And it's been pretty natural thing for us to be doing for many, many years.



This corn crop has been fertilized by some of the solids that are generated by the waste of the pigs on our farm. Corn that is raised is then turned around and brought to the feed mill. And we will grind it up and put it right back in the feed that goes into the pigs.



There are many different sized farms. We all are taking care of animals or we're all taking care of crops. And different groups of people, whether they are on a small farm or on a large farm, are faced with the same challenges.



The consumer wants to know that they can get safe, consistent food and definitely affordable. So, whatever we as a total group can do to give them that confidence we have to work together on that.



Post-Assessment

Directions: Answer the question and complete the activity below.

Question: Using letters A-F, like you did in the pre-assessment, what new things did you learn about swine?

Activity:

There are many great resources that outline how technology is impacting the swine industry and careers.

- ▶ Read the article Top Tech Takeaways from 5 Pork Industry Leaders from the website PorkBusiness.com (on pages 17-22)
- ▶ Based on the job titles and answers to the interview questions, which career do you find the most interesting?
- ▶ Choose a career and technological advancement in the industry that you read about in the article.
- ▶ Complete additional research about your topic, then select one of the three options below to present your findings:
 - Option 1: Design a comic strip about the topic
 - Option 2: Create a children's story about the topic (with or without illustrations)
 - Option 3: Create a PowerPoint presentation about the topic
- ▶ Share your project with a family member or friend to teach others about careers and technology in the swine industry.

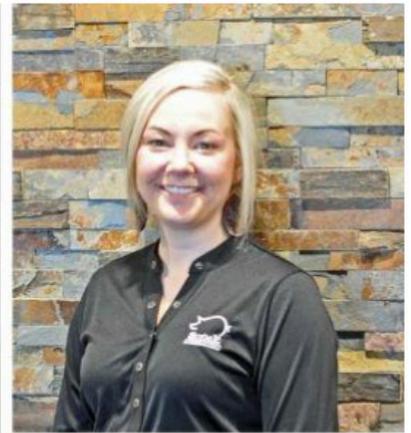
Answer Key to *Essential Questions to Consider on page 4*

1. In practice, vertical integration in agriculture often involves ownership of both farm production and processing activities, particularly in certain parts of the livestock sector. By tying premiums and discounts paid to the quality of hogs produced, Vertical coordination includes all the ways that output from one stage of production and distribution is transferred to another stage (for example, open-market exchange at spot prices, contract production, and vertical integration).
2. Tariffs, labor challenges, and global disease risks



INDUSTRY

Top Tech Takeaways from 5 Pork Industry Leaders



(Canva.com)

By **JENNIFER SHIKE** June 7, 2021



The U.S. pork industry has access to lots of technology, but some argue there's been little adoption of technology on the farm. With the current labor challenges facing the swine and pork processing plant industries, how can technology adoption make a difference? Farm Journal's PORK asked five pork industry leaders to share their perspectives on how they are using technology on the farm and how it's making a difference.



Brandi Burton, DVM – Suidae Health & Production, Pork Elite, LLC
Algona, Iowa

Q. What technology has had the greatest impact on your farm in the past year and why?

A. LeeO is an individual animal tracking system designed for paperless data collection in “real time” in the commercial pork supply chain. Utilizing a radio frequency identification (RFID), LeeO scans tags and records individual animal weights and other key data quickly using a proprietary LeeO Reader and Bluetooth technology that links to an app that can be downloaded on handheld devices. This system was implemented the past year on a 2,500-head farrow-to-finish commercial system. All pigs are individually identified with a tag and weighed at birth and at weaning. Using this system, we are able to track all production activities and extract records with that information. This would include inseminations, pregnancy checks, farrowing, treatment, weights, mortalities and reasons of death, sex, and much more. This data is available in real-time since the mobile devices have internet access, and therefore, data can be assessed whenever it is necessary from any location. This provides a tremendous opportunity for objective and quick decision making. It also allows in depth oversight of the production and health of all of those animals. We have not only used this technology for basic production records but also to do field-based research trials as well as on-farm investigations.

Q. What is the greatest benefit of incorporating more technology on the farm?

A. Advancing technologies in the swine industry allow farmers, caretakers, supervisors and veterinarians be more involved and connected than ever before. We are able to collect an immense amount of data, and as a result of that, we can and will continue to answer questions we weren't able to before. In the end, we are always looking at ways to better care for pigs and these technologies are able to help us make objective decisions in real time that not only will benefit the pigs but the farmer as well.



Q. How does technology affect how you do your job day-in and day-out on the farm?

A. As a veterinarian, technology allows me to stay connected with my clients when I am not able to be on farm. I can use the information from these various technologies and understand what is going on in the barn without being there. We can also assess trends in health and production in a much more efficient manner, and then we are able to use that information to help guide health and business decisions. I am able to provide a better service to my clients and their pigs when I am able to catch health challenges in the very beginning, and these technologies have really helped me identify early opportunities where I am able to make the biggest differences.



**Acacia Hagan, Two Mile Pork
Monroe City, Missouri**

Q. What technology has had the greatest impact on your farm in the past year and why?

A. This past year we have begun using the Farmera app. Farmera is compatible with our smart phones and offers us the ability to enter treatments, mortalities, barn temperatures or any comments we have daily. Each manager and employee has this app, so everyone is seeing real time data of what is happening in each barn. Our veterinarians are also on the app, so when we call with questions about sick pigs, they already have access to the history of those pigs to help make a more informed decision. Farmera has the ability to track the age of the pigs, so at the click of a button the logistics team is able to see exactly how many pigs are in a barn and what age they are, making scheduling more efficient.

Q. What is the greatest benefit of incorporating more technology on the farm?

A. I am sure efficiency is the greatest benefit. Since everyone has the information in their pocket, we have been able to diagnose pigs more quickly and effectively. Also, logistics has gained efficiency. Lastly, most noticeable is our data entry is now streamlined with less room for errors. Currently, our veterinarians have access to Farmera. If we see the need in the future, we have the ability to add consultants from anywhere to the app. This would allow us to get a wider range of opinions without risking pig health by having people come into the barns, and consultants can get a good view of what is happening without having to travel.



Q. How does technology affect how you do your job day-in and day-out on the farm?

A. One feature of Farmera that has not been mentioned is the cough monitors that have been installed in a few of our barns. These SoundTalks monitors are checking the level of noise in the barn 24/7 and communicating with us if the level spikes or falls. Each monitor has color-coded lights and the information from them is automatically put into the Farmera app. Since coughing is hard for a caretaker to measure, these monitors have helped us validate what we are hearing and if it is less than or greater than the level of coughing detected the day before. We have one example where a group of wean pigs were getting sick, the caretaker noticed a drop in water consumption (based off a meter in his barn) at the same time the cough monitors were alerting him and everyone else on the app that the level of coughing was spiking. These pigs were treated according to the veterinarian's recommendations and as water consumption came up, the cough monitors noted a fall in the level of cough. As an industry we know that a fall in water consumption typically means sick pigs, but we have other barns that do not have individual water meters, so these cough sensors in those barns are helping us to identify sick pigs.



Ryan Klocke, NexGen Ag Supply

Templeton, Iowa

Q. What technology has had the greatest impact on your farm in the past year and why?

A. The most impact on my farm would be the installation and upgrades to my hog barns with Skov's production management system. This consists of a camera pig weighing system called "ProGrow," electronic feed weighing and their farm management system called "Farm Online." The reason it has had the most impact is having good reliable data at your fingertips in real time to make fast and accurate management decisions. Along with streamlining day to day tasks with some of the automation that the system provides.



Q. What is the greatest benefit of incorporating more technology on the farm?

A. To me, the greatest benefit in technology is to become better and more efficient at what we do. This in turn will increase productivity and make us more profitable.

Q. How does technology affect how you do your job day-in and day-out on the farm?

A. The technology that I have incorporated allows me to make quicker, more educated management decisions in my barns by having good reliable data at my fingertips.



**Walt Laut, Jayce Mountain Pork
Fredericktown, Missouri**

Q. What technology has had the greatest impact on your farm in the past year and why?

A. Although we haven't added any notable new technology in the past year, we have been taking time to gain more from our existing technology and production software that we've added over the last several years. We've known there is additional, useful information to be gained by utilizing some of the features in our controllers and reports in our software.

Q. What is the greatest benefit of incorporating more technology on the farm?

A. Once things are working correctly, technology can save time and labor. It can also monitor, adjust and alert us for conditions in the barns 24 hours a day – even when the crew is gone. We can gain useful and timely information in order to respond quickly which is crucial for production.

Q. How does technology affect how you do your job day-in and day-out on the farm?

A. I really believe technology has made us better and given us the ability to be more precise, efficient and better producers. It affects every area of our lives and the hog operation is no different. But it comes with an obligation to maintain, update, monitor and watch for newer and better options on the market.



José A Santiago, Tosh Pork, LLC
Henry, Tennessee

Q. What technology has had the greatest impact on your farm in the past year and why?

A. We have used Smart Guard, Smart Counting by Romaine and started working on pig flow. We are always looking to find ways to make employee jobs easier and keep them motivated to do better with less work. Pig farming is a lot of work, and it's not very easy either. Today's generation needs motivation to come to work and be consistent. We need to flex and learn to evolve to our upcoming generation if we want to keep farms staffed and production where it needs to be. With new technology, we hope to make jobs more attractive to today's work force. Also, the labor pool is very active in technology. When we are interviewing candidates, they are shocked on no cell phones in farms and for them that's a deal breaker. With Pig Flow, they have a phone and it gives them a normal life feel. They can communicate within the farm and have that feeling or normalcy in the barn.

Q. What is the greatest benefit of incorporating more technology on the farm?

A. Job attraction and job satisfaction. Helping employees find easier ways to communicate and complete tasks will always have an upper hand in production. Happy people equal happy pigs. When employees are engaged and happy, you are more profitable. When they have the proper tools and you are giving them your trust with state-of-the-art technology, they feel welcomed, entitled and understand the urgency to do a great job. We can have the best technology in the world on our farms. But at the end of the day, it's all about the people working with it that makes the technology worth it.

Q. How does technology affect how you do your job day-in and day-out on the farm?

A. Technology gives us an extra tool to do day-to-day tasks. Our employees see that the company is investing in their daily workloads to help them have an easier day and that helps the work-life balance.