

Pig Improver

Biosecurity: More Important Than Ever



As African swine fever (ASF) continues its deadly spread across Asia and Europe, discussions on biosecurity are laced with increased urgency. But even without a foreign animal disease, there are plenty of domestic health challenges that underpin the need for sound biosecurity practices on every farm.

“Biosecurity, by simple definition, is a means to prevent the spread of pathogens from one place to another,” says Dr. Andrea Pitkin, Health Assurance Veterinarian with PIC. There are protocols and processes that need to be followed, but Dr. Pitkin says biosecurity is a mindset, not just a series of actions. Fostering a biosecurity culture is foremost to its long-term success. All farm employees need a determined mindset that says, ‘I *want* to do these things to protect the farm, the pigs and my livelihood.’

“Sometimes we don’t do a good job of explaining the ‘why,’” Dr. Pitkin says. When you explain first *why* biosecurity is important, then *how* you’re going to take specific actions to protect the farm and pigs, everyone takes more accountability and gains a better understanding of why their actions are important.

“It’s so much more than processes on paper,” she adds. “It’s the desire and determination to do the right thing to protect farms.”

High Risk vs. Low Risk

Dr. Pitkin, who admits she’s a “self-proclaimed biosecurity nerd,” knows producers don’t have unlimited funds to invest in biosecurity, so it’s a matter of considering high-risk and low-risk scenarios. Producers have to look at the most efficient use of their money and how they can invest in the highest risk.

“Where can you segregate and where should you decontaminate? You can get a lot of different answers, but incoming livestock need to be considered first,” Dr. Pitkin says. All trucking and transportation events also need to be well understood. Thirdly, people are a factor in terms of biosecurity concerns, because humans truck the animals and are frequently in and out of the buildings.



“Producers have to understand your quarantine unit processes when you look at biosecurity risks. These include showering in, decontaminating supplies, moving animals in and out (including mortalities), and more,” Dr. Pitkin says. She adds that one could argue: If feed is truly contaminated, or if viruses enter via aerosol transmission, those routes are largely out of the farm staff’s control. However, as a farm owner, you can help your employees understand high-

risk and low-risk factors. Focus on controlling the risks you can! “And remember, don’t get lost in the fact that just because something is low risk doesn’t mean it’s no risk,” she stresses. “Encourage your staff to pick the low-hanging fruit as it relates to biosecurity, have a plan in place for higher risk situations and think through the low risk concerns.”

Isolation Imperative

Dr. Pitkin says it’s crucial for any farm bringing in live animals from outside sources to adhere to a strict quarantine and acclimation period before entering those animals into the main herd. “At PIC, we take a lot of responsibility and accountability in having excellent biosecurity practices and maintaining healthy genetics. But at the same time, things can happen when moving animals to a farm and it’s crucial [for producers to] recognize that any incoming livestock can be a risk. Quarantine periods must be established, and acclimation programs adhered to before mixing those animals in with your main herd,” she says.

The general rule is a 30-day isolation period. This timeframe is considered reasonable for PRRS, coronaviruses and other major pathogens that can debilitate a herd. Dr. Pitkin says it’s becoming more common for producers to test prior to entry, with a focus on arrival diagnostics. Some producers have isolation units off-site, while others have chosen on-site facilities. Dr. Pitkin sees pros and cons with both options. It’s easier to care for isolated animals if they’re closer, but there’s a higher chance of bringing a pathogen into the herd. Off-site units mean you’re having to drive a vehicle to and from the site, but you also have more time to react and remove animals if they become infected.

“It comes down to management practices and what the farm staff is most comfortable with,” Dr. Pitkin says. “However, if you’re in a hog-dense area, I would definitely look at having an isolation unit either on-site or close to the farm.” For off-site isolation, Dr. Pitkin says testing at the end of the isolation period is absolutely critical: You want to know the status of those animals at the end of the isolation period just as much as you want to know the status when they come into the building, in that circumstance.

No ‘One Size Fits All’

Each farm is different in terms of management and facilities, so there’s no blanket approach to biosecurity. The first step is awareness, which has increased in recent years. Biosecurity protocols have advanced along with the industry’s knowledge of how diseases spread, but new technologies are still needed.

“We never used to think of feed as a major risk – we knew it could be contaminated but we were concerned with salmonella, molds or spoilage,” Dr. Pitkin says. “Now that we understand some pathogens, like PED or certain isolates of PRRS, can be in the feed longer, new technologies are coming to the industry in terms of treating, storing or processing feed differently. Other technologies are yet to be determined, with that route of transmission gaining more attention.”



She adds that producers have more disinfectants now compared to 10 years ago: “Different disinfectant technologies give producers a wider range of how [these products] work on certain surfaces and with different pathogens.” In addition, Dr. Pitkin believes the industry is taking a more holistic approach to herd health and biosecurity by looking at the combination of pathogens on the farm, rather than each one separately. There’s also more emphasis on keeping pathogens out of buildings with filtration systems. “It’s always better to focus on segregation as opposed to decontamination,” she says. (See “Five Steps You Can Take”)

It Comes Back to Communication

Farm owners who have done a good job of communicating the importance of biosecurity with their staff members have made an investment in protecting their farms. They ask questions like:

- How do I incorporate protocols to prevent transmission in the most cost-effective manner?
- How do I allow my employees to accomplish these tasks in the easiest and most efficient way possible?
- How do I set up my facilities in a way that allows my employees to do their jobs effectively with biosecurity in mind?
- How do I set up a two-stage loading system, with gates strategically placed, to ensure pigs cannot re-enter the building?
- What changes are needed in the load-out area that allow my employees to safely accomplish needed moving and load-out tasks?
- How do I keep from contaminating the shower area?
- Do I have fumigation rooms that make it easy for people to disinfect supplies to keep them separated from the main herd and allow for adequate down-time?

“Successful biosecurity measures include processes and procedures that have two or three stop-points,” Dr. Pitkin says, “But they also make implementation and the processes to conduct them as seamless and as flawless as possible.”

Spreading the Word

Dr. Pitkin is passionate about biosecurity and knows how important it is for the company as well as the industry.

“If the things I suggest prevent one farm from having a disease break, it feels like a great accomplishment because I truly believe in the concept of prevention,” Dr. Pitkin says. “We’d rather not have to deal with a disease than have to treat for it. Whatever farms can do to protect themselves is critical to the health and success of the operation.”

Cultivating a culture of sound biosecurity practices ultimately means better health for pigs, and more profit opportunities for producers.

Five Steps You Can Take

Where you can’t have segregation, you must rely on decontamination, says Dr. Andrea Pitkin, Health Assurance Veterinarian with PIC. She recommends these five basic protocols to follow:

1. Don’t use the same trailers for taking pigs to market that you use to bring in gilts. If you don’t have an option, Pitkin says you should adequately decontaminate and allow for as much downtime as possible.
2. “Make sure to audit the feed mills you use and have a very thorough understanding of their ingredient handling processes,” Pitkin says. “If you can’t hire someone who only looks after your isolation unit, make sure your day-to-day farm employees go to the isolation unit at the end of the day. Incorporate segregation and decontamination processes to keep your quarantine unit separated from the main farm as much as you can.”
3. Work with your feed mill – understand where you are in the delivery schedule. Pitkin suggests you ask if you can be first in the schedule every Monday morning. “Of course, everyone wants that, but work with your feed company to understand where the truck has been locally.”
4. It’s not just about feed. Think about your UPS driver and other deliveries to the farm, she says. “[It would be better to take] deliveries at the end of your driveway instead of having the truck come right up to your barn.”
5. In regard to fomites, include diligent decontamination and downtime protocols when supplies come into the farm, Pitkin recommends. Maintain the shower area so people can shower properly. Also, “make sure the people who work on your farm aren’t going to other pig farms, or don’t have pigs at home,” she says. “That might not always be feasible depending on where you are and who’s available to hire, but look at where you can segregate and identify the best decontamination processes.”

Pitkin says it’s all about understanding which factors are low risk or high risk, depending on your farm’s status at any given point in time. “You’ll be better prepared by thinking through all the various routes of transmission and having a plan in place,” she says.