

Providing the proper environment for the newly weaned pig improves the health status of the pig, lessens the stress of weaning and improves performance. Outlined below is a list of factors to consider when preparing for a new group of weaned or grow-finish pigs.

## Cleaning and Disinfection

It has been well-established that animal performance can improve in a clean environment vs. a dirty one. Numerous studies have shown that when pigs are raised in a clean environment compared to a dirty environment, they can display improvements of 10% in their ADG and 18% in their feed intake. The nursery pig is more susceptible to infections from enteric organisms, so sanitation is especially important for nursery facilities.

- Run the feed lines empty prior to power-washing. This will help remove any excess feed from the facility and limit moldy feed for future groups of pigs.
- Thoroughly clean the room and entryway with a high-pressure washer using hot water and detergent. Thoroughly wash floors, walls, ceilings and curtains. Clean all equipment, including feeders, fans, fan blades, housing, shutters, heaters and floor mats. Cleanings should include equipment such as sort boards, rattle paddles, shakers, boots, gruel pans and carts.
- Pay close attention to commonly missed areas during sanitation, such as the gate feet, fan inlets, floor joints and cracks, chutes, syringes, bottle holders, medication totes and hand tools used in the barn.
- Disinfect all exposed areas, such as floors, feeders, mats, walls, ceilings, entryways, loading chutes and storage rooms. Disinfect equipment kept outside the room that pigs can potentially encounter, such as lamps and carts. Disinfectants should be selected based on their label claims and effectiveness, as well as veterinarian recommendations. If possible, when applying a disinfectant, use a foaming applicator. This will help create a visual for the person applying the disinfectant to ensure that all surfaces are covered.
- Flush out the water lines and nipples using a solution of bleach, citric acid or another recommended cleaner. Run water through the lines after using the cleaners. Check screens in the nipples to make sure they are not plugged. Poor water quality can reduce intake, lead to scours and decrease performance.
- The room should be dry and warm before pigs arrive. All equipment, such as feeders and mats, should also be dry. Viruses can survive in wet environments for a long time compared to dry ones. A study found that the PRRS virus could survive in water for 11 days, whereas it died quickly once the environment was dry. Set the temperature according to manufacturer guidelines. All heaters should be fully operational and functioning correctly. Make sure the slats are warm for nursery piglets.
- When needed, place supplemental heat and comfort mats in the pens before the pigs arrive.
- Adjust pit fans to provide enough airflow for minimum ventilation, avoiding excessive airflow that causes chilling or excessive heater operation. Check all air inlets for obstructions and make sure they are fully operational. Set the ventilation rate at the minimum for newly weaned pigs. Seal up any areas that might cause drafts.
- All rooms or buildings should pass a pre-pig inspection prior to pig placement.

## Biosecurity Principles

Biosecurity involves implementing preventative measures to avoid the introduction of, and/or to contain the spread of, infections and diseases on farms. With the increased health challenges associated with the transmission of highly infectious pathogens, farm biosecurity is especially critical for farm productivity.

- Pig transportation
  - It is important to recognize that animal movement between farms represents a significant risk for disease spread.
  - Consider taking proactive measures to limit certain pathogens from spreading, both when pigs arrive at and depart from the nursery facility.
- Feed delivery
  - Following the appropriate protocols is necessary during feed delivery, as feed trucks and their drivers may carry pathogens from farm to farm.
- Mortality removal
  - Dead pigs should be removed from the facility as quickly as possible.
  - Consider the placement of dead pig bins and the risk posed by rendering trucks, which have often visited other farms. Consider the use of composting as an alternative.
- People
  - Farm workers and visitors should be considered a potential source of pathogen spread.
  - Implement appropriate strategies to reduce the likelihood that people will spread pathogens.

## Pest Control

- Animals, including rodents and birds, are a major vector for disease transmission.
- To control these pests, consider implementing the following measures:
  - Use outside bait stations and have them checked and filled monthly.
  - Maintain a three-foot rock perimeter to minimize vegetation against the building.
  - Weeds and excess vegetation should be routinely mowed, sprayed and maintained below 4 inches.
  - Remove unnecessary clutter or debris to eliminate potential areas of harbor.
  - Put bird netting in place and keep it well-maintained to prevent birds from entering the premises.
- Fly and insect control
  - Some producers consider flies a normal and unavoidable consequence of pig production; however, large insect populations can negatively impact animal health and welfare.
  - Flies can carry pig pathogens, including *E. coli*, *Salmonella*, *Brachyspira* (swine dysentery), *Lawsonia* (ileitis) and tuberculosis.
  - Cockroaches can spread *Brachyspira* and PCV2.
  - The natural tendency of insects to wander — combined with their ability to fly distances of several miles — gives them the potential to spread disease between separate farms.