

SECTION 1: PREPARATION AND BIOSECURITY

Providing the proper environment for the newly-weaned pig improves the health status of the pig, lessens the stress of weaning and improves performance. Below is a list of items to consider when preparing for a new group of weaned pigs.

Cleaning and disinfection

It has been well-established that animal performance is increased in a clean vs. a dirty environment. The nursery pig is more susceptible to infections from enteric organisms, so sanitation is especially important for nursery facilities.

1. Thoroughly clean the room and entryway with a high-pressure washer using hot water and a detergent. Thoroughly wash floors, walls, ceilings and curtains. Clean all equipment, including feeders, fans, fan blades, housing, shutters, heaters and floormats. Include equipment such as sort boards, rattle paddles, shakers, boots, gruel pans and carts.
2. Pay close attention to commonly missed areas during sanitation, such as gate feet, fan inlets, floor joints and cracks, chutes, syringe and bottle holders, medication totes and hand tools used in the barn.
3. Disinfect all exposed areas, such as floors, feeders, mats, walls, ceilings, entryways, loading chutes and storage rooms. Disinfect equipment kept outside of the room that potentially came in contact with pigs, such as lamps and carts. Disinfectants should be selected based on label claims, effectiveness and veterinarian recommendations.
4. Flush out the water lines and nipples using a solution of bleach or 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.
5. The room should be dry and warm before pigs arrive. All equipment, such as feeders and mats, should also be dry. Set the temperature according to manufacturer guidelines. All heaters should be fully operational and functioning correctly. Make sure slats are warm.
6. When needed, place supplemental heat and comfort mats in the pens before pigs arrive.
7. Adjust pit fans to provide enough air flow 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.
8. All rooms or buildings should pass a pre-pig inspection prior to pig placement.

Maintenance between turns

1. Grease all pulleys and gears.
2. Reset all backup devices, being mindful of upcoming changes to ventilation parameters.
3. Test ventilation equipment after cleaning.
4. If appropriate, winterize the site.
5. Review ventilation probe accuracy.

Biosecurity principles

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

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

Pest control

1. Animals, including rodents and birds, are a major vector for disease transmission.
2. To control these pests, PIC recommends taking the following measures:
 - a. Use outside bait stations and have them checked and filled on a monthly basis.
 - b. Maintain a 3-foot rock perimeter to minimize vegetation against the building.
 - c. Weeds and excess vegetation should be routinely mowed and sprayed and maintained below a height of 4 inches.
 - d. Remove unnecessary clutter or debris to eliminate potential areas of harbor.
 - e. Put bird netting in place and keep it well-maintained to prevent birds from entering the premises.
3. Fly and insect control
 - a. Some producers consider flies a normal and unavoidable consequence of pig production; however, large insect populations can have many negative impacts on animal health and welfare.
 - b. Flies can carry pig pathogens, including *E. coli*, *Salmonella*, *Brachyspira* (swine dysentery), *Lawsonia* (ileitis) and tuberculosis.
 - c. Cockroaches can spread *Brachyspira* and PCV2.
 - d. 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.
 - e. Monitor the fly and insect populations throughout the year; do not wait until fly numbers are at unacceptable levels before trying to reduce them.