Pork Production
HOW-TO
Pork Information Gateway

Preparing a Finishing Barn

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Introduction

Most pathogens detrimental to the health and well being of pigs can be eliminated by effective cleaning and disinfection of facilities. In order to achieve optimal productivity and allow pigs to reach their full genetic potential, each new group of pigs must get off to the right start. The right start involves a clean, dry and disinfected environment that is properly ventilated and heated and/or cooled. The environment must also provide adequate access to feed and water, have sufficient space, and be free of objects that can cause injury. The steps to preparing a barn for a new group of pigs should be done systematically so as to avoid holes in biosecurity and preparedness.

Steps to Preparing a Barn

1. **Monitor pit level**
   If there is not adequate freeboard space under the slats, either drain the manure to other storage or remove for land application. There should be sufficient space to provide for the wastewater from washing as well as avoid spray back when washing through slats.

2. **Cleaning**
   After removal of the previous group from the barn, begin the cleanup as soon as possible - manure that is still moist cleans away much easier than dry. The use of sprinklers is an effective way of softening dried, compacted manure in pens and on gating, etc prior to pressure washing. Feeders can be hand emptied prior to washing and ideally would be emptied by the previous group prior to marketing. In bedded systems, all bedding should be removed prior to washing.

   During pressure washing, set up a routine within each pen to avoid missed spots. For example, 1) wash the ceiling of the next pen, 2) wash the horizontal gate bars, top down; 3) wash the vertical bars; 4) wash the feeder; 5) wash the waterer and water line 6) wash the floor; 7) rinse all the gating, feeder, waterer and floor. The routine should be operator and barn specific for the most effective use of time and operator ease. Edges of slats and undersides of gates, feeders, etc are often overlooked yet must be washed. Removal of all organic matter is critical.

3. **Disinfecting**
   Once a building is adequately washed, the application of a disinfectant is warranted. Effectiveness of disinfectant is improved if applied immediately after pressure washing. Damp conditions help to evenly distribute the disinfectant at a time when microbial counts are low.

   There are numerous products available for disinfection of barns. It is wise to match the disinfectant product to the classic disease conditions found on the farm. It may also be effective to rotate products used for disinfection annually or per turn. Disinfectants are typically applied using a pressure washer or garden hose. Read the product label and avoid inhalation and skin exposure to certain disinfectants. A listing of these products by name, classification and effectiveness can be found within the PQA Plus™ manual.

   After disinfecting, remove pooled disinfectant from the feeders and waterers. Some of these products can foul the taste of feed or water and deter pigs from a rapid start.

4. **Drying**
   Most pathogens are removed by washing and disinfection. However, there are some pathogens such as the PRRS virus that can survive for longer periods of time within a moist environment. Thus, it is impera-

tive to dry the barn through time or the addition of heat and air movement. Adequately ventilate the barn to encourage drying when a satisfactory job of washing is completed.

5. **Conduct barn maintenance**
There is no better time to maintain and repair equipment and facilities than when the barn is empty. Check and repair feeders, waterers, gating, flooring, etc... It is helpful to maintain a list through the season of items that may need to be repaired, replaced or maintained while the barn is empty. The list may include gates, waterers, feeders, augers, inlets, curtains, controllers, etc.

6. **Check heating, cooling and ventilation systems**
Dependent on the seasons encountered during the anticipated grow-out period, if applicable, inspect and prepare heaters, fans, curtains and cool cells. Each component within the ventilation system should be operated to test function and response to the controllers. Fan blades should be cleaned to improve efficacy, energy efficiency and to reduce odor. Set the system for arrival of the pigs and their anticipated weight and growth curve. In cold weather it is imperative to preheat the barn sufficiently such that flooring is warm at arrival. In nursery or wean-to-finish barns, it may be necessary to place heat lamps, brooders or mats. Be sure that these items are also properly cleaned and disinfected. Set the appropriate height of lamps or brooders and check the bulbs.

7. **Order supplies**
There are numerous items that are used during the course of a finishing period. Common items are medication and health care products and equipment to administer them; i.e., syringes and needles. Miscellaneous items also include marking chalk or spray, gloves, and equipment supplies. For sites where fuel or bedding are used, ensure an adequate supply is or will be available. Rodent control points should also be checked and replaced and products should be ordered and restocked.

8. **Feed and water**
Empty feed bins and order the diet appropriate for the new pigs. Feeders should be set to provide adequate release of feed and will need to be adjusted once pigs arrive and begin eating. Check waterers

for operation and appropriate flow rate. If applicable, change or clean water filters and check water medicators for proper plumbing and operation. It is useful to purge the water line periodically. Upon entry of pigs, feed pans should contain plenty of feed and waterers should have water in them or nipples may be stuck open for the first hours to entice pigs to find the feed and water.

9. **Barn sheets**
As a component of quality assurance schemes and PQA Plus™ documentation of activities within the barn and treatments to pigs provide evidence of proper caretaking. Documentation of environmental parameters (daily temperature, water meter log, etc) and feed inventory or deliveries also assist in identifying pig health and growth. Example documents for keeping records and checklists are available within the PQA Plus™ manual and at the Iowa Pork Industry Center Web site.

References:

- **PQA Plus™ Manual:** http://www.pork.org/Producers/PQA/PQAPlusEdBook.pdf
- **Iowa Pork Industry Center:** http://www.ipic.iastate.edu/information/WaterchartV100.xls