

New Construction Ideas for Healthier Pigs—Farrowing and Nursery

Well designed housing can improve pig performance and should be carefully considered when planning new or remodeled facilities. Following are some suggestions for using perforated floors, farrowing crates, and farrowing and nursery pens to help raise healthy pigs, save you money on construction costs, and provide increased protection for the environment.

Flooring

Perforated floors, built out of woven metal or plastic-coated metal, can be suspended on supports over concrete or dirt floors. The solid and liquid pig wastes are trampled on and forced through the slats, keeping the pigs and pens clean and creating a healthy living environment.

Recommended slotted flooring for one sow and litter or for piglets only:

- 3-gauge woven wire in 1.5 x 2.1 m or 1.2 x 2.4 m (5 x 7 ft or 4 x 8 ft) sheets.
- Plastic-coated expanded metal is more expensive but keeps piglets warmer.



Plastic coated
expanded metal



3-gauge woven wire
recommended for sow
and litter or nursery



reinforced
concrete



wood

**Slats only for pigs
over 18 kg/40 lb**



**Beams under woven
wire support sow and
litter**

Perforated flooring for a sow and her litter must have strong supports to carry the sow's weight. Concrete blocks can be used for supports.

Farrowing crates

Raised farrowing crates provide for the comfort of the sow, the safety of the piglets, and ease of use. Raised farrowing crates provide the following benefits:

- Piglets are protected from injury by the sow. The crates are narrow (46–51 cm/18–20 inches) so the sow has to lie down on her belly first before rolling onto her side.



Farrowing crate with woven-wire floor

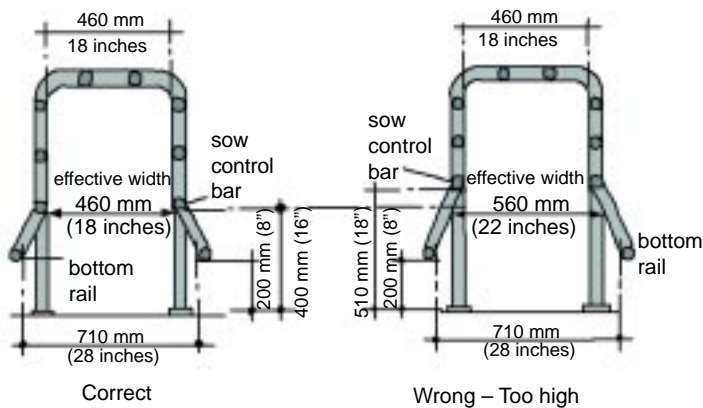
- Sows are easier to control during vaccinations due to their confinement in the crate.
- Creep feed and extra heat (from a heat lamp) can be provided for piglets while the sows are kept away.
- Perforated floors keep sows cool and comfortable and make cleaning the crates easy, thus promoting healthy pigs.

The recommended width of the crate is 46 cm (18 inches) for small sows or 51 cm (20 inches) for large sows. The bars on the farrowing crate must be at the right height to be effective.



Raised pig pens with slotted floors keep pigs clean by allowing manure to fall through the slats

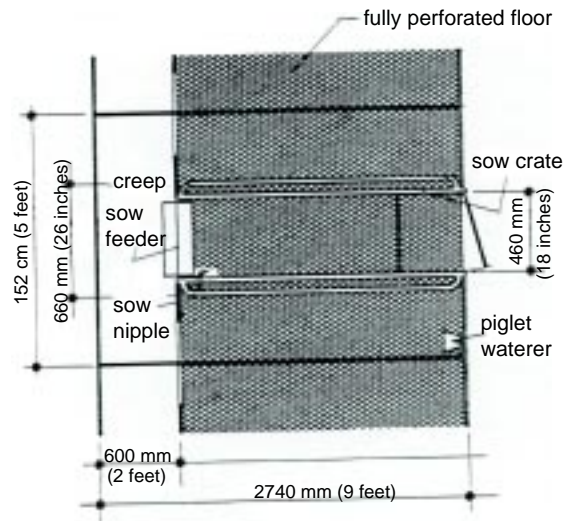
The width of the crate at the sow control bar and the height of the bar above the floor are important. If the crate is flared or tapered outward at the bottom, the effective width is the distance between the crate sides 400 mm (16 inches) above the floor.



Farrowing barn design*

Farrowing Barn Design and Management. Vaccine and Infectious Disease Organization, 1991.

The farrowing crate works well when placed on a perforated floor. With perforated floors, a sow feeder (or trough) is put into the front gate. A water pan or nipple drinker is located to the side of the front gate.



Crate with a perforated floor and an optional solid floor front creep*

Farrowing pen

Farrowing pens are used on concrete floors. Note that the sow control bars are mounted 20 cm (8 inches) above the floor to protect piglets from being caught between the sow and the pen. There is a separate area for the baby pigs and space under the divider for the piglets to enter.



Farrowing pen

Nursery pen

Woven-wire floors can also be used in pens to keep young pigs cool and comfortable and make cleaning the pens easy, thus promoting healthy pigs. The woven-wire floor must have good supports. Avoid feed waste by using a feeder designed to release small amounts of feed at a time.



Photo by Oldenkamp MFG, Inc.

Nursery pen for use with woven-wire floor

For additional resources and publications, refer to ADAP fact sheet 2003-11 on *Additional Information for Swine Waste Management*.

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