

Effects of Bedded Gestation Housing on Litter Size and Culling: Preliminary Results

P. Lammers and M.S. Honeyman

Department of Animal Science, Iowa State University, Ames, IA

Contact: Mark Honeyman, Department of Animal Science, 32 Curtiss Hall. Phone: 515-294-4621. Email: honeyman@iastate.edu

The effects of swine gestation housing on sow and litter performance were evaluated at the Iowa State University Lauren Christian Swine Research and Demonstration Farm near Atlantic, IA. The gestation systems were 1) individual gestation crates in a mechanically ventilated, partially slatted floor, manure flush confinement building (CRATE); and 2) group pens in deep-bedded, naturally ventilated hoop structures (HOOP). The HOOP sows were fed with individual feed stalls.

The sows were artificially inseminated in a central breeding barn with slatted floors and mechanical ventilation. Groups of 35 sows were moved to their randomly assigned gestation housing treatment within 12 days of weaning. Farrowing occurred every 2 weeks on a year-round basis. All sows were farrowed in conventional farrowing crates inside a mechanically ventilated building. First parity gilts were gestated in CRATE and then randomly assigned as a group to a gestation treatment for subsequent parities. All sows were fed 2 kg/day of a corn-soy diet and increased to 2.7 lb/day during the last trimester of gestation. Also during the winter, HOOP sows were fed 25% more and CRATE sows were fed 5% more.

Reproductive performance was summarized for 828 litters during the period January 2001 to January 2004. Preliminary trends were 0.7 more live pigs born per litter, and lower sow removals for litters following HOOP. Slightly lower pre-wean mortality rates occurred in litters following CRATE gestation, with a similar distribution of reasons for sow removal for both groups. The preliminary results suggest that gestating sows can be housed in deep-bedded hoop barns equipped with individual feeding stalls and achieve results comparable to individual crated gestation systems.