



# Genetic selection for docility is important in loose sow housing

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Docility is a trait found in certain breeds of cattle, sheep or pigs. It's also a trait that can be selected within breeds through careful management.

Selecting for gentle sows could be an important management tool when converting from gestation stalls to loose gestational sow housing.

Babcock Genetics, of Rochester, Minn. recently announced their efforts to convert to loose sow housing, and the role that genetics is playing in that conversion.

"We've had a closed herd for so long," said Susan Koehler, Babcock Genetics marketing director. "Our animals were always culled for disposition - if a sow was ever aggressive, she was culled. Our animals are docile, and that works really well with loose sow housing."

The southern Minnesota-based genetics company has built a nucleus herd with gentle dispositions, strong growth rates and desirable leanness.

The Babcock Genetics sow herd has been closed since 1969, said Babcock Genetics Senior Geneticist Jim Schneider. The company has worked on selecting for docility all those years.

"The most important trait to allow a transition from stalls to loose housing is that the animal be reasonably docile and not have a tendency to be aggressive to their pen mates," said Schneider.

Over the years, Babcock Genetics sows have been housed in one of two ways. Groups of 10-12 gestational sows were housed in 180-square-foot pens. They received feed and water through pneumatic pipes

that dropped the ration into pans. The sows walked up to the feeders to eat.

Babcock Genetics has also housed gestational sows in stalls that keep sows safe. Now the company is considering other forms of housing.

Babcock Genetics is converting five barns of breeding-herd sows to Kansas-based Osborne Industries TEAM (Total Electronic Animal Management) systems.

The systems include a feed station where each sow receives food and water. It also includes Radio Frequency Identification (RFID) tags, and even a system to determine if sows are in heat.

Each sow lines up to enter the feed station. When it's her turn, she pushes the entrance gate open and it closes behind her. This allows the sow to eat without other sows competing for her feed.

Her RFID communicates with the G-station computer that dispenses the correct feed and water for the sow. The sow then exits ahead when she is done eating. Water is also always available for the sows in the pens.

Feed quantities can be set up specifically for the sow's stage of gestation, as well as for gilt growth diets.

Once outside the feed station, Babcock Genetics wants their docile sows to relax in peace – not fight with other gestating sows.

"When housed in individual stalls, the sows don't have to get along, because there is relatively little contact between animals," said Koehler. "Now that we're looking at the implementation of new pen systems, disposition and aggression are important

factors that need to be considered, for both the safety of the animals and the people that work in the barns."

Schneider thinks that the modern swine industry has selected for aggressive animals without realizing it.

A pig may be fast growing - a good trait, because it is aggressive at the feeder - which is not necessarily a good trait otherwise.

"We've selected for docile animals, so we haven't created more aggressive pigs," said Schneider. "We still have the same level of docility or better than we had 20 years ago, despite the fact that our pigs are leaner and grow faster."

Schneider says that much work remains in testing loose sow housing with feed stations. The swine industry has to determine if these systems are cost effective.

Some farmers with older facilities have to remodel their barns anyway, and so they may select feed stations to go with their loose sow housing, he suggested.

"At least some niche markets are demanding this," said Schneider. "If nothing else, there's going to be a place in the market for the pigs from the sows living in a loose housing environment."

Sows kept in stalls may need time to adjust, he added.

"When you take females that have spent the past year of their life in conventional gestational stalls, putting them in a pen environment is something entirely different," he said. "This isn't an overnight process."

Employees at Babcock Genetics make sure every transitional sow has gotten through the feed station at

least once a day. They also observe each sow to determine her ability to use the feeders correctly.

Babcock Genetics will adopt the feeding station concept with gilts that are selected for breeding.

"Gilts that go from finishing pens into this type of facility will adjust very easily," said Schneider. "All they have to do is learn how to walk through a feeder rather than get accustomed to being in a pen environment as the sows are asked to do."

Newly bred gilts would be added in groups of at least three animals into loose sow housing. This technique can help minimize aggressiveness.

Another feature of the Osborne System is an automatic heat detection system.

A vasectomized boar lives in a pen between two loose housing sow pens. When the sows or gilts are in heat, they will go over to the boar pen, and stick their head through a circular opening to see the boar. A reader reads the RFID tag, and computer information is available on how often and how long a female sticks her head through the hole to see the boar. That information can indicate she is in heat.

There are several goals for loose sow housing, and among those goals is the opportunity for sows to spend most of their time laying down in whatever way is comfortable for them.

When the sows get their feed from a feeding station rather than once-a-day feedings, they pay less attention when people come into the barn.

"Under this system, you walk into the room and they ignore you," said Schneider.

