



Successful floor feeding: how to do it right

Barn Insights Series – Practical Solutions
 to Group Sow Housing (Part 2)

Sows during feed dropping time



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When it comes to group housing for gestation sows, there are usually two major categories of housing based on the feeding system – protected and non-protected (or also conventionally known as non-competitive vs. competitive) systems. Protected feeding systems include individual free access stalls and most electronic sow feeders (ESF). In these systems, sows move into a protected space and can feed individually, relatively undisturbed. Non-protected feeding systems include floor feeding, long trough

feeding or shoulder stall feeding. Contrary to the protected systems, sows feed together socially with little or no barrier between them. As adult sows have social hierarchy and pregnant sows are usually restrictedly fed to maintain a healthy body condition during gestation, feeding is a time that can create aggression due to competition, stress and physical injuries. The selection of a suitable feeding system is therefore a critical consideration for producers who are transitioning to group housing of sows.

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Solid flooring allows more lying comfort. Solid floor area is kept clean for lying and feeding, and dunging happens in slatted area, which creates good functional areas. (Photo credit: Dave DeVries)

Protected systems offer sows a more isolated feeding environment, however, the footprint and capital investment can be higher, which may not be suitable for all scales of production. For medium-sized barns, floor feeding offers a more affordable renovation option. However, floor feeding is considered to increase feeding competition, aggression, variation in body condition and hygiene management issues. Are there ways to manage this system so that it can work for the producers and animals? This is the question we had in mind when we visited Dave DeVries' farm in Drayton, Ontario.

"I just like being able to walk through the pens, and the sows are up and moving, and you can interact." -- Dave DeVries

A formula for successful floor feeding

Dave runs a 350-sow, farrow-to-finish operation with a 2-week batch farrowing. He started this group housing in 2018. Back then, before deciding on which systems to go for, he talked to other producers extensively, did lots of research and went to other barns to see them with his own eyes. He chose the floor feeding system due to its simplicity. "Nothing really can go wrong," said Dave, "we saw another barn with the same setup...how calm and quiet it was, and the sows were just very consistent...very little fighting." In Dave's barn, sow aggression is minimal. We visited during one of the feed-dropping times, and what we saw was that most sows just quietly ate with no fighting and vocalisation. Some did not even bother getting up for that drop and stayed lying. Some went for a drink before

the feed drop was finished. Dave only has 48 stalls in the barn for mating. Four days after the sows are bred, they are moved to the group pens, which consist of around 25 to 30 sows per pen. He has 8 group pens in total, and each pen is equipped with 8 drop feeders. Feed drops are on a timer, and they drop feed 6 times per day. The pens are two-thirds solid and one-third slatted at the back where the nipple drinkers are. When the mated sows first move in, the highest amount of aggression is expected, so he pre-drops lots of feed on the floor so that competition for feed is not triggering the sows to fight. He moves the sows in later in the day so that sows are not hungry as they have already eaten that day. In this way, even on the day of mixing, he does not observe excessive aggression. The feed is also a key: Dave feeds the sows a high-fibre diet, with 30% of wheat shorts in it that he mills on farm.

Genetics matters

Genetics is also an important factor. He chooses maternal lines with good leg health which he thinks is critical for successful group housing. He breeds his own gilts now to reduce biosecurity risk.

Choose a system that works for you

For Dave, a good housing system should be easy to manage. He does not like the idea of training sows to use a feeding system as it makes the system high maintenance and may require more labour input. He also likes the solid flooring as it is good for sow leg health and provides better comfort for sows. The lying bays also provide some hiding and separation areas for sows that do not get along. However, once the sows are settled in, they establish their social hierarchy and fighting isn't usually an issue. Currently Dave is very happy with the investment he made to build this system and would never go back to stall housing. He maintains an 85% farrowing rate, just under 12 weaned per litter, which he expects to see an increase as he changes to a new genetic line. For Dave, the three factors of success to group sow housing are being open-minded, watching the animals while walking the pens and good genetics. Dave has demonstrated to us that floor feeding can work, when it is done right.



Dave DeVries and his son Garret.