

Open stall feeding, floor feeding, and trickle feeding systems are classed as ‘competitive feeding systems’ within group sow housing. Competitive feeding systems allow all sows to access feed at the same time, and there is little or no protection from other sows during feeding.

COMPETITIVE FEEDING SYSTEMS

- Individual feed curves are not possible
- No sow training is required
- Sorting sows into uniform groups is key to success
- High levels of aggression and competition can result in drop out levels of up to 15%.
- Should be managed as static groups, with no new sow introductions after the initial mixing
- Requires lower capital costs at conversion compared to ESF or free access stall systems
- Minimal reduction in herd capacity or minimal increase in barn space requirements

In general these feeding systems are seen as less expensive. There is a lower capital cost at conversion as penning is minimal and existing feeders can be salvaged. However, there is little opportunity for individual sow feeding in these systems because dominant sows can steal feed and interrupt feeding of other sows and gilts in the group, affecting feed intake.

Floor Feeding

Floor feeding is a simple method of providing feed to group housed sows. Some systems use multiple feeding sites and others use just one feeding site. Observations have shown that less aggression occurs when feed is evenly distributed over the floor.

Intake will vary across dominant and submissive sows, as dominant sows push submissive sows away from the feed.

Aggression levels can be high in floor feeding, but options for reducing aggression are available. Ideas such as using partitions between different feeding sites as well as

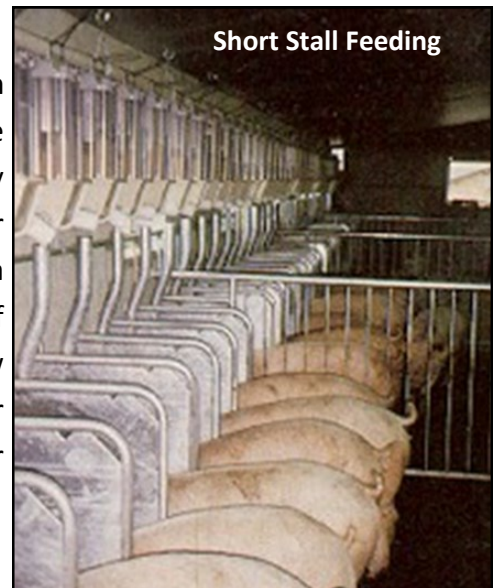
providing adequate floor space and strategic timing of feed drops to attract dominant sows to feed will reduce aggression and increase opportunities for submissive sows to feed.



Floor Feeding System—Guelph University

Short Stall Feeding

Stall feeding is an economically efficient way to re-use materials from existing gestation stalls in a conversion scenario. The front portion of the gestation stall can be used as a feeding stall. This is achieved by removing the stall gate and shortening the stall to “shoulder length”, or leaving it longer if sufficient space is available. Each sow then has a trough and a barrier from neighbouring sows, giving some degree of undisturbed feeding. However, the stall remains open and can allow faster-eating, dominant sows, to push submissive sows away from their feed. The quantity of feed dispensed to feed troughs will be the same for the entire group.



Trickle Feeding

Trickle feeding is an efficient system of providing feed to sows and gilts if managed correctly. Each feeder has a small hopper above it that is automatically filled to a set volume. At feeding time feed will trickle out of the individual feeders into a trough or on to the floor

The rate at which the feed is dispensed is adjusted to match the consumption rate of the slowest sow or gilt in the group. This timing reduces the probability of a faster sow finishing and leaving her feeding area to bully slower sows away from their feed. Some trickle feeding systems utilize barriers similar to shoulder stalls to provide some protection from dominant sows, however, aggression can still occur. Trickle feeding lends itself to smaller group sizes, on average between 5 and 10, with an 18—22 inch feeding space per sow.

Using smaller group sizes means that feed volumes for each pen can be altered based on average body condition, or a gestation feeding curve.

Grouping sows for optimising competitive feeding.

If competition within a feeding system gets too intense, thin sow syndrome will start to occur. Sows that do not get their daily ration because of bullying, will lose weight and may need to be removed from the group to an individual stall or comfort pen. The energy demands of gestation and lactation will be too high and sow longevity and production will be affected if thin sows are not removed.

The key to the success in competitive systems is to have well sorted groups that are matched for age, size, and body condition. This will even out competition and allow the best chance of correct daily feed intakes. The use of stalls during the breeding period should therefore be used to get sows to the optimum body condition which is generally regarded as Body Condition Score of 3.

Competition around feeding time can also cause injury. If dominant sows are causing excessive injury and lameness, or become overweight, then they should be removed from the group and penned individually until farrowing. Good flooring is important in competitive feeding systems to help prevent injury. Mixing sows during gestation must be avoided, so it is vital that sows are grouped correctly to begin with.

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