

Feed accounts for roughly 65-75% of the cost of production, making it the most expensive input within any swine business. Properly formulated diets are only part of the equation when it comes to feeding pigs. The feeder is the final interface between the pig and diet, and if we cannot effectively deliver the feed to the pig we are hurting performance and our bottom line.

To fully grasp the importance of feeder management one needs to consider the amount of feed that passes through a single feeder. Consider a 1200 head barn with 48 pens (25 pigs per pen) and 24 fence line feeders. Assuming pigs enter the barn at 55 lbs and are marketed at 280 lbs with a 2.8 feed efficiency, they will consume 630 lbs of feed.

<i><u>Feed</u></i>	<i><u>Barn</u></i>
$630 \times 50 = 31,500 \text{ lbs of feed/feeder/turn}$	$31,500 \times 24 = 756,000 \text{ lbs of feed/barn/turn}$
$31,500 \times 2.8 = 88,200 \text{ lbs/feed/feeder/year}$	$756,000 \times 2.8 = 2,116,800 \text{ lbs of feed/barn/year}$
$88,200 \div 2000 = 44.1 \text{ tons/feed/feeder/year}$	$2,116,800 \div 2000 = 1058.4 \text{ tons/feed/barn/year}$
<i>Feed cost = \$185.00/ton</i>	
$44.1 \times \$185.00 = \$8,158.50 \text{ of feed/feeder/year}$	$1058.4 \times \$185.00 = \$195,804.00 \text{ of feed/barn/year}$

The pounds and dollars of feed that passes through each feeder and barn per year is remarkable. Feeder management is a relatively simple way to reduce feed wastage and increase feed efficiency.

Three main components in successful feeder management are:

Adequate feeder trough space

Proper feeder adjustment/feeder pan coverage

Reducing/eliminating out of feed events

Trough Space

Feeder trough space is an important step in improving overall feeder management. The first step is to determine how many pigs your feeder can handle efficiently. This is dependent on a myriad of factors:

- **Feeder design** – Wet/dry feeders can service more pigs than dry feeders because feed and water are in the same location enabling pigs to eat more feed in less time.

- **Feed form** – If pelleted diets are provided, the feeder will be able to service more pigs due to an increase in eating speed when pigs are presented pelleted diets.

Feeder Type	Stocking Density
Dry Feeder	8-10 pigs per space*
Wet/Dry	12-15 pigs per space**
Tube Feeders	11 pigs/drop/side*
*2" of trough space per pig minimum	
** 1" of trough space per pig minimum	

Feeder adjustment

Studies have shown that an improperly adjusted feeder can increase feed wastage by 1.7-5.4%. This could equate to \$55.00-175.00 in wasted feed per feeder per group.

Due to the variety of feeder types available there isn't a single setting recommendation for feeder adjustment. Rather, feeder pan coverage is utilized as a measure of proper feeder adjustment.

Growth performance is optimized when pan coverage is approximately 40-60%

It is also important to remember that feeder adjustment isn't a one-time deal when pigs are placed. Feeders should be continually checked and adjusted to maintain proper feeder pan coverage.

Changes in diet composition (fiber) and form (meal vs. pellet) will affect how the feed flows through the feeder. Therefore, feeders should be checked and readjusted if a significant diet change occurs.

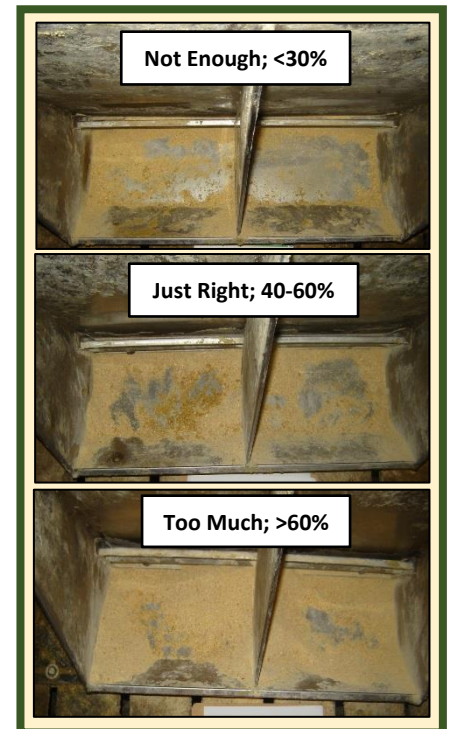
Adjusting feeders is one of those barn chores that often gets overlooked or marked off the to-do list. However, taking a little more time to evaluate feeder pan coverage can pay dividends through increased ADG and decreased feed wastage.

Out-of-Feed Events

An out-of-feed event can be defined as a period of time in which the pigs do not have access to feed as a result of:

- Late feed delivery
- Bridging of bulk bins, feed lines, or feeders
- Clogged feeders
- Equipment error

Regardless of the cause of the out-of-feed event, its impact on the pig is the same. Following an out-of-feed event aggression and fighting may be observed along with an increase in the incidence of ulcers and HBS, and a reduction in daily gain. A potential increase in mortalities, lighter pigs, or more days on feed will occur with an economic impact to the producer.



Feeder Management FAQ

- **What should my feeder trough dimensions be?**

- Feeder troughs should be 8-12” deep, with a 4-5” lip, and the width should be 1.1 x pig shoulder width.

Pig weight, lbs	Shoulder width	Shoulder width x 1.1
44	6.8	7.5
88	8.5	9.3
132	9.7	10.7
176	10.7	11.8
220	11.5	12.7
275	12.4	13.6

- **What should my micron size be to help prevent feed from bridging?**

- Mash diets with a particle size below 600 microns will have a tendency to bridge easier in bulk bins and feeders. The general recommendation for particle size in mash diets is between 650-750 microns.

- **Do pigs need an additional water source with wet/dry feeders?**

- Pigs with wet/dry feeders do not require a secondary water source. All of their water needs can be met through the nipple located in the feeder, assuming that there is adequate feeder space per pig. In addition, with the water nipple being located within the feeder, wet/dry feeders have been shown to reduce water wastage by ~35% when compared to fence line nipple drinkers. When stocking density is high or during hot weather, extra waterers in addition to the water provided via wet/dry feeders have been reported to be of benefit. In sort barns, extra waterers located outside of the food court area have also been reported as being beneficial.

- **I experience a few out of feed events per turn, but my pigs are out of feed for less than 24 hours, will this create any adversely effects?**

- Regardless of duration an out-of-feed event can have a significant impact on pig welfare, health, and performance.
 - Welfare – Out-of-feed events are stressful and pigs may turn to negative behaviors such as tail- and ear-biting as a coping mechanism. Once feed does become available pigs may exhibit aggressive behavior which can lead to fighting and the increased risk of injury of pigs within a pen.
 - Health – Less than 24 hours of feed deprivation has been shown to cause and aggravate stomach ulcers in growing pigs. In addition, it has been hypothesized that out-of-feed events could play a role in increased incidences of hemorrhagic bowel syndrome.
 - Performance- It has been observed over a 24 hour period, that pigs without access to feed will not compensate for the missed meals once feed does become available. During a 24 hour out-of-feed event, the pig will use its body stores to maintain basic bodily functions. This maintenance cost is equivalent to roughly 1 lb of a corn-soy diet per day. Once pigs regain access to feed they will have to consume an extra pound of feed on top of their normal daily consumption to compensate for the body stores lost during the out-of-feed event, plus the additional feed needed to account for the lost gain. Gut capacity likely prevents pigs from fully recovering from an out-of-feed event, as they cannot physically eat enough feed to make up for lost gain. Therefore, one 24 hour out-of-feed event can be thought as an equivalent to 1 day longer on feed. This could cause some economic set-backs, especially in fixed time systems.