



FEEDING THE SOW PART 2: THE LACTATING SOW

Part 1 of this newsletter series dealt with feeding the sow during gestation. If feed has been correctly managed at this stage, sows should enter the farrowing house in an appropriate body condition for farrowing and continue with a high feed intake throughout lactation.

In recent years, the number of pigs born has increased significantly due to genetic advancements. Given the extra demands these big numbers place on the sow, it is important to supply appropriate levels of nutrients in advance of and directly after farrowing. We must feed with an aim to support the sow during the farrowing process, lactation and the wean-to-service interval.



Golden Rule

Correct sow condition at farrowing leads to higher feed intake in lactation.

Successful lactating sow feeding will ensure that sows:

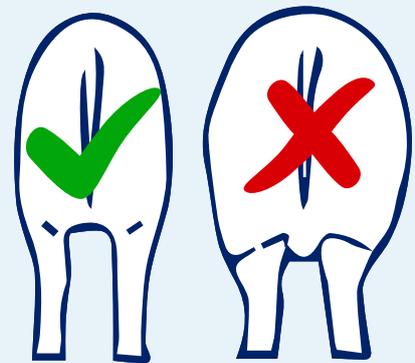
- Have sufficient energy for the farrowing process
- Can produce high quality colostrum & milk
- Do not suffer excessive body condition loss during lactation
- Can successfully rear a litter of high vitality piglets
- Can maintain a sufficient feed intake for the duration of lactation
- Have a short wean-to-service interval
- Have good heats and high conception rates

Sow Condition

Numerous studies have shown that sows that are over-conditioned following excessive feed allowance during gestation will have lower feed intake in lactation. Over-conditioned sows are less likely to get up to eat in the farrowing house, meaning that they milk off their back & use up body reserves, resulting in excess body condition loss. Fat sows also require more human intervention at farrowing.

Sow intakes should be monitored daily in the farrowing rooms to ensure no sow is falling behind. The faster action is taken, (e.g. a minus put on the valve or treatment to the sow if required), the faster her intake will recover.

Sow Body Condition





Phases & Feed Curves

1. Pre-farrowing

Sows are normally moved into the farrowing house ~1 week prior to farrowing. It is important to give the sow these 5 – 7 days to allow her settle into the farrowing room. Sows farrowing shortly after moving into the farrowing rooms tend to have more issues at farrowing and poorer feed intakes.

Feed intake in late gestation is closely related to how well sows eat in lactation, so we must supply sufficient amounts of nutrients at the end of gestation, but not over-supply to the point where intake is affected in lactation.

In the crates prior to farrowing, sows are eating a different diet to what they had eaten in the dry sow house. The lactating sow diet is more energy dense than the dry sow diet. However, the feed curve in these days prior to farrowing normally restricts intake to prevent any issues at farrowing. We must ensure sows have enough energy for the farrowing process, so do not provide a lower amount of feed than what she was eating in the last 3 weeks in the dry sow house.

Farrowmax is formulated for:

- Easy farrowing
- Decreased farrowing duration
- Improved piglet vitality
- Improved appetite after farrowing
- Improved colostrum quality
- Supports immunity, metabolism & liver function



Top-dress Farrowmax into troughs for 5 – 7 days prior to farrowing.

2. At farrowing

Lactating sow feed curves vary from farm-to-farm. It is important to ensure that sows get up to eat and drink after farrowing. Feed management around farrowing is critical to support milk production and let-down and energy levels in sows.

3. Post-farrowing

Traditional feeding systems tended to restrict sow intake post-farrowing. Genetic companies now recommend sows are fed ad-lib from farrowing. However, with ad-lib systems, this can be difficult on a practical level as sows that are not yet farrowed expect a feed delivery. Some producers with ad-lib systems turn on the ad-lib system when most sows in the farrowing rooms have farrowed. For a traditional Thursday farrowing system, this means ad-lib feeding is turned on the following Sunday or Monday.

Where ad-lib feeding is not used in lactating sows, we must ensure the feed curve is never restricting intake. **Shiny silver troughs and clean pipework are always indicators of under-feeding sows.** Apply a '+' to feed valves where appropriate. However, if you are applying '+'s on a regular basis, it may be time to increase the curve across the board, to ensure you capitalize on the intake potential of your high-performing sows. Always aim to be placing a '-' on the valves instead of a '+'. For working ease, farrowing house staff are always more inclined to apply a '-' than a '+'.

With older genetics, it was thought that piglets would scour if sow feed intake increased too quickly after farrowing, due to high levels of milk production. This is uncommon in modern pig farming due to high numbers born. There are many reasons sow intake may reduce during lactation e.g. hot weather, disease challenge or sickness. Act quickly to prevent long-term intake issues in lactating sows.

Care should be taken with gilts, where more gradual increases are often required post-farrowing. Gilts cannot handle the sharp increase in feed volume as well as multi-parous sows. It is common on a lot of bigger farms to have a separate gilt lactation feed curve which allows a more gradual increase of feed in the first 7 days post-farrowing. Alternatively, placing a constant minus on gilt valves in the first week post-farrowing can be advantageous. Throughout lactation, gilts and second-litter sows in some circumstances, may not have the same intake capacity as older sows, so individual sows will need attention. Speak to one of our nutritionists for advice.



Peak milk yield occurs around day 21 of lactation. Therefore, peak feed intake should occur around the same time. Many producers have a constant increase on lactating sow feed curves right up until weaning. However, it may be more in line with the sow's natural intake pattern to ensure the curve peaks at the end of week 3. While there isn't much of a drop-off in intake in week 4 of lactation, it can exist and an increase in week 4 is unlikely. A rising curve to the end of week 4 usually indicates under-feeding in week 3.

Lactating sows spend time in negative energy balance. This occurs when the sow requires more energy for output than what she is receiving from the diet. This is when sows 'milk off their backs'. It is important to limit the amount of time spent in negative energy balance. Increasing the density of the diet (with more oil & balancing amino acids to reduce protein excretion) is an option where volume is restricting.

With the disappearance of zinc oxide use at therapeutic levels, many units are weaning piglets >30 days. This places additional stress on sows, and care must be taken to monitor teats and sow condition. It is important to provide enough creep for piglets to relieve some pressure from the sow.

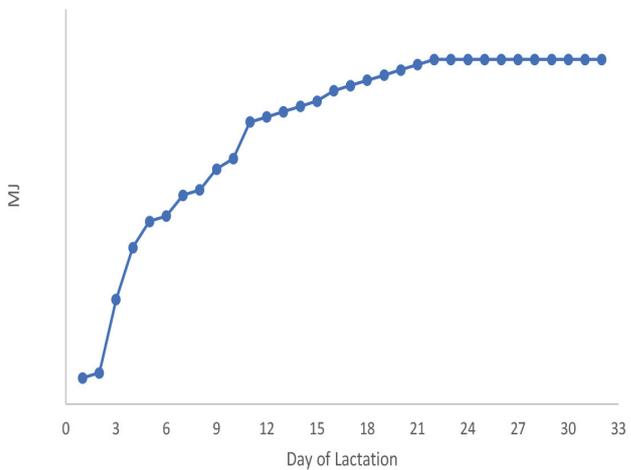


Fig 1. Example shape of lactating sow feed curve, with peak being reached by day 21. Individual deviations can be applied for individual sows.

 As with all areas of the farm, ensure the raw material (or whole diet, depending on your system) MJ values are accurate for your system, as this is how the feed curve calculates the amount of feed to supply to your sows.

A balanced diet

Sows need an appropriate lactating sow diet in order to maximise feed intake and ensure they are supplied with sufficient levels of nutrients. An important limiting factor in lactating sow intake is the volume of feed the sow can take in. Lactating sow diets are significantly more energy and protein dense than dry sow diets, with a lower fibre level than is fed in the gestating period.

With the current price of soya oil, the temptation exists to remove or significantly reduce the amount of soya oil being used across units. Reducing the oil level too much in lactating sow diets could have a detrimental effect on milk production and sow condition. Sows milking for big litters require energy dense diets, so soya oil is extremely important. There are other areas on the farm where reductions in soya oil usage could be applied (e.g. growers & finishers).

There are many feed additives which can be incorporated into premixes for lactating sows. These include balancing amino acid profiles with synthetic amino acids, yeasts, acids, & enzymes. Speak to our nutritionists for more information.

Feeds per day & Feed quality

Research shows that feeding lactating sows numerous times per day boosts feed intake compared to once-a-day feeding. This is normally required in liquid feeding systems anyway, as most liquid troughs can't handle the volume of feed being supplied to each sow if only fed once per day.

Following feeds daily is very important. It is imperative to clean out troughs if feed builds up, particularly for liquid-fed sows, as spontaneous fermentation will spoil feed quickly and reduce palatability.

Water



Sows have a huge demand for water during lactation, because the main component of milk is water. Milk yield can be directly affected by water consumption. Studies have shown that water intake in sows can spike in the days prior to farrowing, so easy access to clean water at an appropriate flow rate is vital. Research has shown a link between sow water intake and piglet growth rate. Ensuring sows have sufficient access to water will also help to minimize constipation in the farrowing house (in balance with an appropriate fibre level in the diet). At different stages of lactation, sows can drink between 15 and 40 litres of water, so this must be clean and at an appropriate temperature and flow rate (a minimum of 2 litres per minute, but closer to 4 litres per minute should be targeted).

Liquid feeding has been shown to increase feed intake in lactation. Of course, it wouldn't be feasible or realistic to change an entire feeding system for this benefit at farm level. If you are dry feeding your lactating sows, one option to promote increased feed intake is to place a water nipple over the trough and allow the sow to mix feed and water herself.

Water-to-feed ratios used in liquid-fed lactating sows are usually lower than those used in gestating sows, as producers are trying to get the largest feed volume as possible into the sow.

Water-to-feed ratios on different liquid feeding systems are often not directly comparable as some systems work on a fresh weight basis while others work on a dry matter basis, which has a significant impact on the water-to-feed ratio.

Environment



Sows must be comfortable in order to maximise feed intake. Sows that are too warm can restrict feed intake, as is often seen in hot weather during the summer. High temperatures tend to have more of an impact on young sows (which are normally lighter than average) and older sows (which are normally heavier than average). If intake is affected during hot weather, feed smaller meals more often throughout the day if possible, or feed at cooler times of the day.

Set an appropriate temperature in the farrowing rooms. New technologies such as units that blow cold air over the sow, effective heat pads and canopies for piglets have helped this significantly, as micro-climates can be created within the farrowing room.

TIPS AND TRICKS SUMMARY



- ✓ Have sows in appropriate body condition coming in to farrow
- ✓ Encourage feed intake by feeding multiple times per day
- ✓ Ensure your feed curve or feed allowance is not restrictive at any stage of lactation
- ✓ Keep feed troughs clean at all times, empty if feed is going rancid
- ✓ Monitor intakes of individual sows
 - Follow feeds daily
 - Ask reluctant sows to get up to eat where required
 - Check feed page daily
- ✓ Keep a realistic number of piglets on a sow & incorporate nurse sow and cross-fostering techniques if required (see previous newsletters)
- ✓ Keep raw material energy values accurate on your feed system

What can Inform Nutrition do for you?

At Inform Nutrition, we are passionate about high-welfare, efficient pig production, led by correct nutrition. We provide customer-specific premix and diet formulations to ensure you get the most out of your sows. We also discuss sow requirements and the effectiveness and accuracy of feed curves, in both dry and lactating sows on a regular basis. We can help with information regarding feeding by-products to sows, while also providing a background on feed additives. With 3 team members regularly walking through pig farms, we have informed opinions of sow condition across numerous farms. This results in active discussions around sow requirements and condition, leading to accurate sow feeding by tailored feed curves.

We support our customers in the following areas:

- Customised sow premixes
- Sow condition monitoring
- Grain quality inspection
- Mycotoxin analysis
- Developing unit-specific feed curves
- Diet formulation
- Background on feed additives
- Regulatory advice
- Advice on quality systems for inspections e.g. Bord Bia audit

Get in touch today to discuss feeding sows at a commercial farm level!

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