

H22 - Texture of feed for lactating sows



The Bygholm sieve is frequently used by pig producers mixing feed on-farm

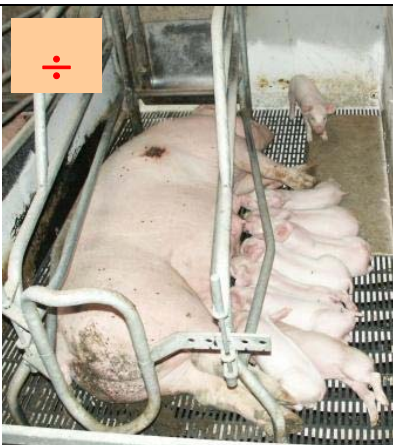


With ready-mixed feed, 10-20% rolled not heat-treated barley or expandate give a good texture

Texture of the feed for lactating sows is important to their gastric health. Texture is also essential to ensure a high feed intake among lactating sows.

Prerequisites for a high level of gastric health in lactating sows

1. Pig producers mixing feed on-farm must routinely check grinding of the grain.
2. Buyers of ready-mixed feed can obtain the right texture either by adding 10-20% rolled, not heat-treated grain or by purchasing expandate.
3. Gastric health is routinely checked by evaluating feed intake, colour and texture of the manure and by checking for pale sows and performing a "USK stomachs".
4. The sow has never suffered from gastric ulcers.



The sow has not had a sufficient feed intake due to poor gastric health



The texture of pelleted feed does not benefit sows' gastric function

Symptoms of a poor level of gastric health:

- Great loss of body condition in the farrowing facility.
- Too many sows stop eating, and vomiting may be seen during feeding.
- Many cases of shoulder lesions.
- Sudden deaths among lactating sows.
- Pale sows with spiky fur.
- Black and lumpy faeces behind the sows.

Additional comments - Texture of feed for lactating sows

See Appendix 21 - Prevention of gastric ulcers in gilts and sows.

1. If you mix your feed on-farm, routinely check grinding with a Bygholm sieve. Make a control screening every 4 weeks. Screen ground grain (barley / wheat / oats) before adding fat, minerals and soybean meal. Recommended screening profile:

		> 3 mm	3 - 2 mm	2 - 1 mm	< 1 mm
Currently in your herd	Barley				
Currently in your herd	Wheat				
Aim		3	12	35	50

When you use the Bygholm sieve, it is important that you shake the sample for min. 5 minutes as the sample will otherwise seem coarser than it really is.

2. If you use ready-mixed feed, you have several opportunities for ensuring a good texture:
- **Not heat-treated grain:** Add 10-20% rolled grain (typically barley) that is neither heat-treated nor pelleted to obtain a good level of gastric health. In theory, there is a risk of segregation in long feed pipes, but in practice very few problems are seen.
 - **Expandate:** Several companies offer expandate, which is heat-treated feed that has been led through an expander instead of through the pelleting process with a texture typically similar to toppings for dairy products. This results in a high feed intake and good gastric health, but the effect is highly dependent on the degree of grinding used by the feedstuff company. Note that the volume of the feed is larger than that of pelleted feed and that this reduces the silo capacity.

3. Routine evaluation of gastric health:
- **Feed intake:** Assess whether the sows have a good appetite during lactation and only have limited loss of body condition. An example of a general feed chart is shown in Appendix 19 - Guiding feed charts. Investigate further if the current feed intake is significantly lower than this.
 - **Colour and texture of manure:** Clotted blood colours the manure black. Sows with bleeding gastric ulcers will therefore have black manure that is lumpy.
 - **Pale sows and sows with spiky hair:** Due to internal bleeding, a pale sow may suffer from a gastric ulcer. Investigate further if you observe many pale sows.
 - **Post-mortem** of dead sows if you have a high rate of acute deaths. Discuss this with the herd vet.



The picture shows a pale sow with a great loss of body condition in the farrowing facility. The subsequent post-mortem revealed large amounts of clotted blood (black) from an ulcer in the white part of the stomach.

An extended health control of stomachs may give an indication of the current gastric health among the pigs in your herd. In practice, this is done during post-mortems by examining stomachs from 15-30 slaughter sows. Your herd vet will help get started on an extended health control of stomachs.

4. Gastric health and thereby also the frequency of gastric changes are affected by the grinding of the feed. Coarse grinding reduces feed conversion by up to 10%, but should also be seen as an investment. The fibre content of the feed and allocation of straw also have positive effects on gastric health. Current studies show that feed must contain 240 g dietary fibre per 100 kg for gilts to have a satisfactory gastric health. Gilts need such a diet from they weigh approx. 70 kg.