

Strategies to maximize feed intake for lactating sows under heat stress

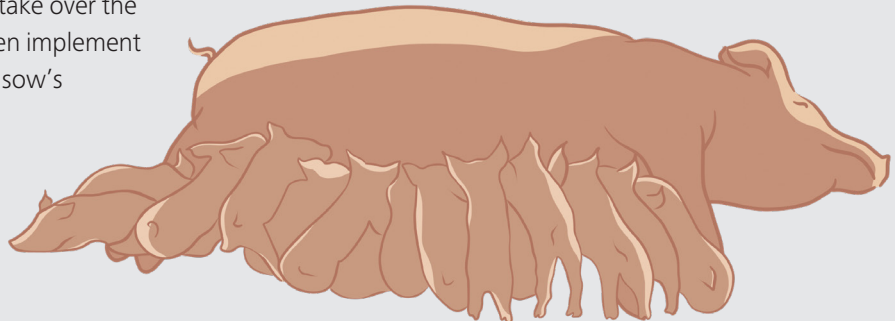
Heat stress can reduce feed intake during lactation, resulting in an undersupply of nutrients needed for milk production and maintenance, negatively affecting subsequent litter performance. Therefore, stimulating feed intake is crucial for sow performance during lactation.



How to support feed intake in lactation?

✓ Feed management

- Feed 3 to 4 times per day in smaller portions (not more than 2.5 kg) to boost daily feed intake and reduce metabolic heat production.
 - Always start with a clean feed trough!
- Adjust feeding times to the cooler periods of the day: early morning, late afternoon or nighttime.
- Gradually increase daily feed intake over the first 6 to 8 days of lactation, then implement controlled feeding to meet the sow's nutritional needs.



✓ Feed additives

- Phytogetic products improve gut health, enhancing digestion and stimulating appetite.
- Flavor, aroma, and sweetener additives enhance feed palatability.
- Toxin binders tackle mycotoxins and the formation of endotoxins.
- A strong laxative (usually in the form of a salt) promotes gut mobility and prevents constipation.
- Other feed additives that can help improve nutrient efficiency:
 - Chromium Propionate/Picolinate (according to local legislation)
 - Enzymes (increase nutrient utilization influencing indirectly diet density)
 - Sodium bicarbonate (helps to improve dEB)
 - Antioxidants (also Vit C, Vit E, Se, and Polyphenols)
 - Liver support (L-Carnitine, Choline, Betaine, B-Vit complex, Niacin, Citric and Fumaric acid)
 - Magnesium Oxide (as laxative)

✓ Feed strategies

- Invest in a transition and in a lactation diet to match the distinct sows' needs during this period:
 - Transition diet aims for a laxative effect, high energy, low protein, and a low dietary electrolyte balance (dEB).
 - Lactation diet targets milk production, high energy, relatively high protein, and high dEB. To stimulate feed intake and prevent hypocalcemia focus on dEB ~200 meq/kg.
- Provide fresh feed for better acceptance. Prevent rancidity, stale, dirty, or contaminated feed.
- Consider the presentation of the feed. Pellets lead to higher feed intake than mash.
- Increase nutrient density of the diet to account for the expected reduction in feed intake during summer, which can decrease by 10 to 25%.
- Minimize internal heat production:
 - Reduce dietary fiber levels (depending on initial concentration) and consider reducing crude protein levels.
 - Replace starch with fat as energy source. Undigested starch is fermented and generates more internal heat than fat.
 - Prefer fat with low (fatty acid) oxidation and add antioxidants to prevent rancidity.
- Reduce the available water in the diet (below 0.5) to prevent fermentation and spoilage.



Pigs must have unlimited access to fresh, cold (16 – 19°C), and clean water!

✓ General management

- Supply cooling systems and ventilation to regulate temperature and humidity levels. The maximum comfortable temperature for lactating sows is 18°C.
- Keep the herd in optimal body condition. Over-conditioned sows have reduced appetite during lactation, while underdeveloped sows may have lower intake capacity.
- If wet feed is offered, it must be under constant supervision to avoid fermentation.
- Clean the silos at least twice a year. Never feed animals stale leftover feed from previous batches.
- Proper moisture control of the silo is essential to prevent blockages caused by moisture buildup.



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