

Lactation – Supporting a high number of nursing piglets



How to correctly manage lactation feeding

DanBred breeding animals come with an extraordinary genetic potential for reproductive performance. Focused attention on management and feeding during lactation has been proven to support piglets.

Feeding for high milk yield to maximise the number of nursing piglets

DanBred breeding animals comes with an extraordinary genetic potential for reproductive performance. Focussed attention on management and feeding during lactation has proven been to support immediate piglet growth as well as improve lifetime productivity.

Correct feeding and water supply will increase productivity

Among one of the most important maternal breeding goals for the DanBred female is live piglets on day 5 or LP5. This breeding goal not only supports piglet liveability and viability but also the development of sow milking and rearing capacity.

Careful attention to water and feeding during lactation is vital to reach the full potential for maximising piglet growth. The greatest component in sow milk is water, and it is estimated a sow needs a water intake of approximately 25-35 litres per day when milk production peaks (generally 3 weeks into lactation) (DPRC, 2010; DPRC, 2013).

Increasing water intake by optimising water flow, quality, placement and type of drinkers will have a positive effect on piglet growth and total litter gain (Fraser & Phillips, 1989). To ensure the targeted water intake is reached by the sows, it is recommended to have a minimum flow rate of at least 2 litres per minute (which should be checked regularly).

Size	Amount of feed
< 1 mm	50%
1-2 mm	35%
2-3 mm	12%
> 3 mm	3%

Table 1: Recemented micron sizes for lactation feed

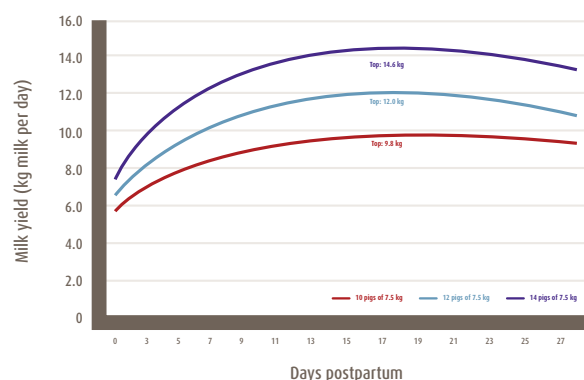


Figure 1. Estimated daily gain at litter sizes of 10, 12 and 14 piglets weaned at 28 days.

Feeding throughout lactation must ensure that weight loss does not exceed 5 % of the total sow body weight in order to reach optimum wean-to-service interval in subsequent litters (Thaker & Bilkei, 2005). Maintaining average body condition throughout lactation will furthermore impact the number of eggs developed, maximising the size of the following litter (DPRC, 2013).

To increase lactation consumption, it is recommended to feed at least 3-4 times per day throughout the entire lactation period. Additionally, a coarse grinding of feed will help optimise stomach health (DPRC, 2013).

Milk yield is naturally increasing during early lactation, which why feed allowance should increase gradually with daily adjustments. The aim is to reach the maximum feed allowance by around day 16 when milk yield is starting to peak (DPRC, 2013).

Trials have shown a linear relationship between the number of piglets with the sow and milk yield. Larger number of piglets with the sow will give a stronger stimulation of the udder resulting in a greater milk yield and result in subsequent litter weight gain. This highlights the importance of letting as many piglets as possible nurse with each sow (Hansen et. al, 2016). Optimising the equipment to match both sow and litter size is highly recommended, as piglet gain is closely linked to the accessibility of the udder when the sow lays down (DPRC, 2013).

The optimal ambient temperature for sows in lactation is 15-20°C whereas the piglets need a temperature around 32-36°C. A compromise between the recommendations is therefore needed to optimise both the sow and piglets' needs.

Easy steps to feed lactating sows

The following recommendations will help achieve maximised litter gain and subsequent litter size.

- Adjust the feed ration individually on a daily basis.
- It is advisable that trained personnel assume the task of daily feed observation and adjustment.
- Empty any leftovers from the troughs before each feeding.
- Feed the sows at least 3 to 4 times a day.

When using 3 to 4 feedings per day, the following example could be used for feeding times:

- 00-08.00
- 00-12.00
- 00-16.00
- and/or 19.00-21.00

Feedings should be done with adequate time spacing in between, depending upon staffing availability and temperature.

Daily feed adjustments for sows eating the full ration:

The feeding curve below is based on an energy concentration on 9.8 MJ NE/13.0 MJ ME /1,06 EW per kg feed, containing 8.3 g SID lysine per kg equivalent to 9.4 g total lysine per kg feed.

Gradually increase the feed allowance by 8-10 % per day for sows with good appetite.

Feed curve for sows with an average body condition score		
Days post farrowing	Minimum feed allowance (kg per day)	Aim for feed allowance (kg per day)
0	2.9	2.9
2	3.3	3.7
7	4.7	6.0
14	7.0	8.5
16	7.5	9.0
18	8.0	9.0
21	8.0	9.0
28	8.0	9.0
35	8.0	9.0

Table 2: Recommended feed curve for lactating sows with an average body condition.

Maximum feed allowance

- Maximum feed allowance should be reached by day 16 of lactation.
- Feed 2.4 – 2.9 kg for maintenance and add 0.47 kg per piglet (maximum).
- Sows feeding 14 piglets should be fed around 9.3 kg per day at their maximum milk yield. Gilts should be fed 8 kg a day but increase feed allowance if nursing above 12 piglets.

Body condition	Thin/Skinny	Average	Fat	Gilts
feed allowance (Kg per day)	up to 10.5	9.0	8.0	8.0

Table 3: Recommended feed based on body condition.

Water for lactating sows:

- Check the water nipples or drinkers regularly, making make sure the water flow is meeting the recommendations.
- Recommended water flow is at least https://danbred-knowledge.com/wp-content/uploads/2019/08/DSC_7417.jpg 4 litres a minute when 20% of the sows are using the nipples/drinkers.
- Lactating sows need 25-35 litres a day, but this is dependant on the number of piglets she is nursing.

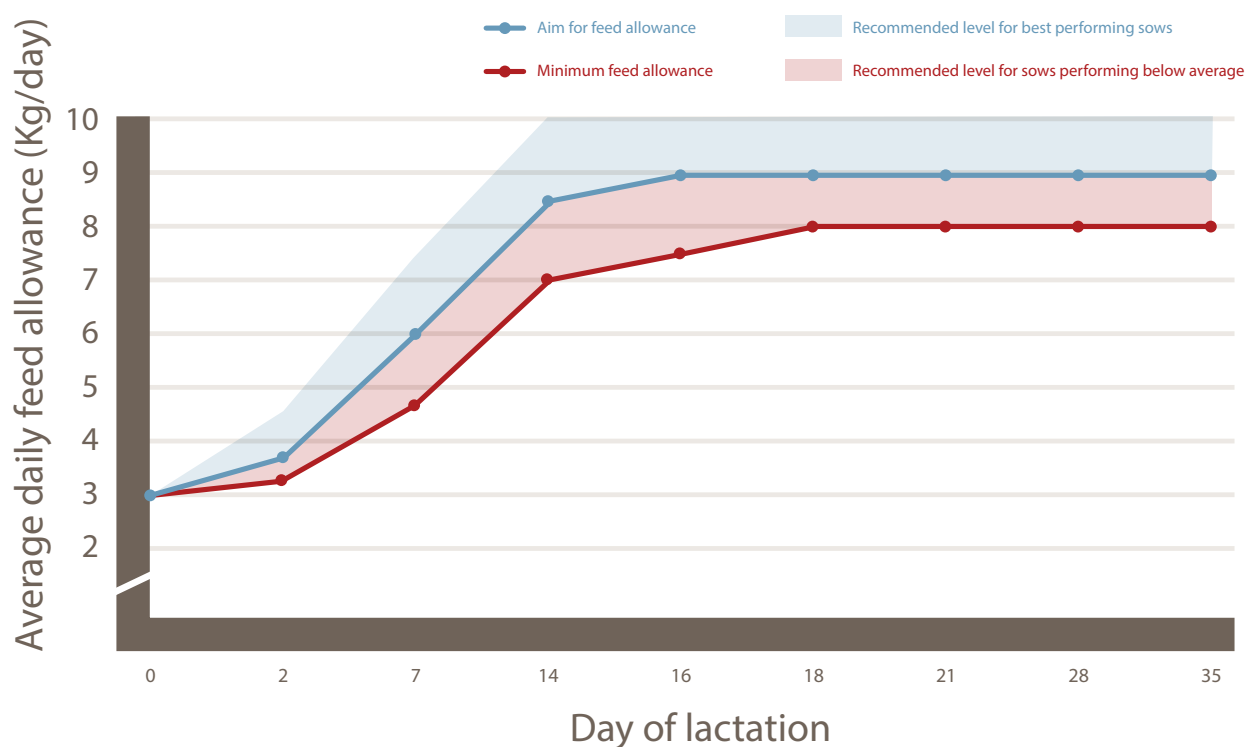


Figure 2: minimum feed allowance as well as the aim regarding feed allowance. Sows in good condition with many piglets should be fed levels of feed beyond the level of the blue line. Remaining sows should be fed a level in between the blue and grey line.

References

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