

Farrowing pens for loose sows

There is no shortage of ideas, but it can be difficult to do everything at a competitive price.

SEGES Innovation has drawn up the following check list. It comprises 30 questions about the way in which your farrowing pen functions. The questions relate to the layout, which is important for:

- The sow – in part when loose and in part when/if confined for some days around farrowing time
- Piglets
- Stock people
- Environment

Each question can be answered with a -

- yes – the pen conforms
- no – the pen does not conform

To help you answer the questions, monitor a sow, 20 approx. 1-3-day-old piglets and 20 approx. three-week-old piglets. All cardboard pigs are to the scale of 1:10.

Once you have answered the questions, you can use the following table to make a summary – the number of 'yeses' and 'nos' there are for each layout. This will enable different pens to be compared more easily and, together with price, etc. form the basis for choosing a pen.

For use when collecting answers to the questions		Relevant answers:	
		Yes	No
Total number of yeses and noes	Number of questions		
1. The sow is loose	8		
2. The sow is confined	5		
3. Piglets	8		
4. Stock people	7		
5. Environment	2		
Total	30		



Landbrug & Fødevarer
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Danish Agriculture & Food Council, Sector Pigs, recommends that all new farrowing pens are designed for loose sows

We hope that this checklist will benefit you, your sows and piglets and that the material will assist you in your decision-making when it comes to selecting farrowing pens for loose sows – e.g prior to applying for a grant.

SEGES Innovation has collected insight and recommendations regarding farrowing pens for loose sows at svineproduktion.dk

Best wishes,

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The development of this checklist is funded by:			
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Check list – function requirements – layout of farrowing pens for loose sows

Below are 30 questions about pen layout (*with supplementary explanations/reasons for the questions*)

1. When the sow is loose, can she:	Yes	No
1.1. Prior to farrowing, can she take some steps in the pen? <i>Otherwise, the sow cannot nest build and this can increase the number of stillborns</i>		
1.2. Turn (full standing length)? <i>Otherwise, the sow may crush her piglets</i>		
1.3. Move backwards/forwards – beyond her own length – when she wishes to lie down? <i>Otherwise, the sow cannot get up and lie down easily and this can reduce milk production</i>		
1.4. 'Gather' piglets before she lies down? <i>Otherwise, there is a risk that the piglets will be crushed</i>		
1.5. Lie down with support – i.e. is there at least one, and ideally several, pen sides with an inclined lying wall and not a farrowing rail? <i>Otherwise, there is an increased risk of crushing the piglets</i>		
1.6. Lie fully on solid and on slatted floor? <i>Otherwise, the sow cannot thermoregulate</i>		
1.7. Stand straight at the feeder? <i>Otherwise, there is a risk that feed and water will be wasted</i>		
1.8. Stand easily so she avoids dunging on the solid floor? <i>Otherwise, there is a greater risk of poor hygiene</i>		
Total: Loose sows		

2. When the sow is confined:	Yes	No
2.1. Is there at least 20 cm behind the sow? <i>Otherwise, the piglets can have difficulty being born and it is difficult to provide farrowing assistance</i>		
2.2. Is there at least 125 cm (ie. the depth of the sow (from back to below the udder + one piglet length) from inside the stall to both sides of the pen so that there is space for the piglets to suckle on both sides. <i>Otherwise, the piglets will be unable to absorb sufficient colostrum and there is therefore an increased risk of them dying from dehydration, hunger or infection.</i>		
2.3. Is there only space for the piglets to suckle on one side? <i>Otherwise, the piglets will be unable to absorb sufficient colostrum and there is therefore an increased risk of them dying from dehydration, hunger or infection.</i>		
2.4. Can the sow be given nesting material on the solid floor? <i>Otherwise, the sow cannot nest build, which can increase the number of stillborns</i>		
2.5. Can the nesting material be retained – either on the floor or within the sow's reach – to enable the sow to have constant access to it – without it lying in the trough? <i>Otherwise, the sow cannot nest build which can increase the number of stillborns</i>		
Total: Confined sows		

3. Piglets		Yes	No
3.1.	Will the piglets be born close to the creep area? <i>Otherwise, there is an increased risk that the piglets will lose energy and subsequently die from cold</i>		
3.2.	Is there 1.4-1.5 m² solid/slatted floor so that 14-15, three-four week old piglets can rest on a dry, clean solid floor? <i>There is a legal requirement that all piglets can rest on a solid floor (or equivalent) and not least it is important that the risk of the piglets losing energy and subsequently dying from cold is reduced.</i>		
3.3.	Is there 1.6-1.7 m² solid/slatted floor so that 16-17, three-four-week-old piglets can rest on a dry, clean and solid floor? <i>With increasing litter sizes and piglet survival, it makes sense to ensure space for more pigs in the pen. Otherwise, there must be many free pens for nursing sows and a lot of time spent on them.</i>		
3.4.	Is there space for three-four-week piglets at the udder? In other words, is there 125 cm – so that the sow's depth (back to below the udder) and one piglet length and space for a piglet to come past? <i>It is a prerequisite for a high level of milk production and for the piglets' daily gain that the piglets have easy access to the sow's udder. .</i>		
3.5.	When the sow lies down – is there space for 14-15 pigs in other areas of the pen? <i>To reduce the risk of crushing to death, it is important that there is space in the pen – in addition to the space that the sow needs.</i>		
3.6.	When the sow lies down – is there space for 16-17 pigs in other areas of the pen? <i>With increasing litter sizes and piglet survival, it makes sense to ensure space for more pigs in the pen. Otherwise, there must be many free pens for nursing sows and a lot of time spent on them.</i>		
3.7.	Is there an area where the piglets can be given supplementary nutrition – without the sow being able to access it? <i>With increasing litter sizes and piglet survival, it makes sense to ensure space for more pigs in the pen. Otherwise, there must be many free pens for nursing sows and a lot of time spent on them. A prerequisite for more pigs in the pen is that they can be given supplementary nutrition.</i>		
3.8.	Is there an area with a solid floor where the piglets can be given rooting/enrichment material? <i>It is a legal requirement that all piglets have access to rooting/enrichment material</i>		
Total: Piglets			

4. Stock people		Yes	No
4.1.	Is it easy to keep the pen clean? <i>If there is a partially solid floor – can it be scraped from the passageway for example?</i>		
4.2.	Is it easy to 'catch' a piglet, including moving around the sow to catch it <u>when the sow is confined</u> ? <i>It's important that there is nowhere for the pig to hide or equipment which has to be opened/closed in order to move around the pen when, for example, stock people collect the piglets in the creep area for castration and other procedures.</i>		
4.3.	Is it easy to 'catch' a piglet, including moving around the sow to catch it <u>when the sow is loose</u> ? <i>It's important that there is nowhere for the pig to hide or equipment which has to be opened/closed in order to move around the pen when, for example, stock people collect the piglets in the creep area for castration and other procedures.</i>		
4.4.	Is it easy to check and empty the trough without entering the sow's area? <i>In order to save time and reduce the risk of the spread of infection, it is an advantage if the trough can be checked from the passageway or at least checked and emptied without entering the sow's area. This avoids wasting time on opening and closing gates, etc.</i>		
4.5.	Can the feed be adjusted from the passageway? <i>To save time and reduce the risk of the spread of infection, it is advantageous if the feed can be adjusted from the passageway.</i>		
4.6.	How easy is it to confine the sow? <i>As most/all sows are confined, it is important that this is easy to do (without any heavy lifting and that the equipment required is at hand).</i>		
4.7.	Are the stock people protected/separated from the sow when the sow is confined? <i>Can the farrowing wing, for example, be used to protect the stock people, i.e so that the wing is between the stock people and the sow when the sow is confined?</i>		
Total: Stockpeople			
5. Environment		Yes	No
5.1.	Is the solid floor in the pen limiting the slurry storage surface? <i>Farrowing pens for loose sows are larger than farrowing pens with crates and thus have – all other things being equal – a larger slurry surface per sow, which increases ammonia emission unless there is a partially solid floor in the farrowing pen and consequently a reduced cistern and slurry surface.</i>		
5.2.	Is there a risk of dunging on the solid floor? <i>In pens with a partly solid floor, it is important that the solid floor is clean and dry to ensure a low level of emissions. Therefore, the dimensions and position of the slatted floor area is important.</i>		
Total: Environment			