

Report of Workshop 4 – Temporary Crating

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Introduction

The aim of this workshop was to find out the importance of temporary crates within the discussion of free farrowing systems and to consider the challenges and their possible solutions which are given by this type of free farrowing pen.

Statements

1. Three pen concepts with temporary crating (J. Troxler)
2. Temporary crating- theory and practice (B. Zehndner/J. Troxler)
3. Why we switched to temporary crating (H. Weber)

Summary of Discussion

During this workshop the following main seven topics were discussed:

- acceptance by the public and the farmers
- welfare aspects
- duration of fixation
- measurements of stress levels and welfare of the sows
- pen size
- flooring

The first issue was how to get farrowing pens with temporary crates accepted by the public in means of improved welfare. The public opinion probably can not see any improvement for the sows in pens where crates are still used even only for a short time. Danish welfare organisations for instance believe that some of the farmers will not open the crates after birth and the sows are going to be confined during the whole suckling period. This possibility will be definitely a risk for the welfare of the sows, because controlling the farmers if they really open the crate will be very difficult. One solution of this problem could be that fixed management operation procedures have to be documented by the farmers.

But to convince the farmers that opening the crate could also be a benefit for them was considered as a better solution. Some studies were mentioned which show a better weight gain in free farrowing systems which could be a good economic argument. It was confirmed, that we need economic reasons for the farmers to move from the crate to temporary crating and that temporary crating could be the first step to get the farmers accustomed to free farrowing pens.

Farmers who are convinced of the system will do a better job.

There was an agreement that we should not only be concerned about the public opinion and the needs of the farmers but above all we should focus on the needs of the sows and piglets.

So the question was what would we have to ask the sows and the piglets to design an adequate farrowing pen?

J. Troxler, Vetmeduni Vienna, explained that few days before farrowing there are two basic needs of the sows. One is the separation of lying and dunging area and the second is nest building behaviour. He also mentioned that R. Weber, Research Station – FAT Tänikon, found out, that in the time before farrowing sows are less clean in the lying area but after birth the sows separate the lying and dunging area very well if there is the right temperature in the pen.

So in the opinion of J. Troxler the moment of confining the sows in the crates must be considered very carefully and that in the view of the welfare the sows can not be crated during the nest building period. He suggested to crate the sow when she gets into the

farrowing pen, to open the crate in the beginning of nest building activity for 12 to 24 hours and then to close the crate for birth.

E. von Borell, Martin-Luther University Halle-Wittenberg, made the point that there are works which show the importance of keeping the sows loose during birth. In that time it is supposed to have less posture changes and less piglets crushed. But J. Troxler mentioned studies done at the Vetmeduni Vienna which show that in the time after the first piglets were born sows use to stand up and that could be a risk for crushing the newborns.

There was an agreement that on the moment and duration of confining the sow further research must be done.

In the discussion about nest building behaviour there was also a focus on nest building material.

There is no doubt that one of the most important things for the welfare of the sow is to give her the possibility to carry out nest building activity.

Therefore she needs an adequate material. There was an agreement that sawdust is too small and straw or hay are the most common materials used for nest building. But it is known that using straw is difficult because of the drainage system and it is a challenge for the flooring, which was also one of the points of the discussion. In some country in Europe it is already difficult and rather expensive for the farmers to get straw like in the Netherlands, where they recently try to use pieces of jute-bags as nesting material.

Another important aspect of nest building behaviour is the motivation of the sow, which is controlled by internal and external stimuli. So the sow tries to do nest building activity even when there is no nest building material in the pen, which leads to bar biting and more posture changes. But there was also the question, how intense is the frustration of the sow, if she has nest building material, but is crated. Which should be the parameters to be looked at for the attempt to answer this question?

The possibility to measure cortisol-levels was talked through. E. von Borell, Martin-Luther-University Halle-Wittenberg, could not see any reason in cortisol measures, because they are expensive and afflicted with methodical problems. For him the better way would be to look at the behaviour of the sow and to measure the heart-rate.

In the discussion it was always indicated not forget to consider the welfare aspects of the piglets. So what would be the best parameters for this issue?

It was mentioned that we have to look at piglet mortality and injuries but also at piglet behaviour like successful suckling and milk intake.

But to implement the needs of the sows and the piglets we have to search for the adequate pen size and compatible design. It was mentioned that for instance in Switzerland the minimal pen size is 5,5m³ and even this size is almost too small for temporary crating. But on the other hand in conventional systems farmers are forced to invest in farrowing pens up to 5 m³ because also the sows became bigger. So there is not such a big gap between these two systems anymore.

One grate challenge for the construction of farrowing pens with temporary crating is the flooring.

We need flooring that can handle nest building material, does not cause injuries and is very hygienic.

When we use straw or hay for the nest material we need a solid floor where you have a hygienic problem with the faeces. Different possibilities how to design the pen were discussed. One suggestion was to keep the sow loose for the birth process so that she can keep the lying area clean and give birth on solid floor with bedding where the newborn piglets then find a better environment in the matter of climate and hygiene. This could be an argument to crate the sow after birth. To help the sow keep clean the lying area a threshold between lying and dunging area about 30 cm could be installed. Another suggestion was to use a temporary feeder which is fixed after birth near the dunging area. But this could be a problem for a good access to the trough to clean it. J. Troxler, Vetmeduni Vienna, also raised

concerns over the position of the trough near the dunging area. He explained that the course of movements of the sow is to go to the dunging area after getting up and therefore this position of the trough would not be the best one. He also mentioned studies which show that we have a higher hygiene in the rectangular form of the temporary crating pens than in the trapezoid form. Maybe one detail which could be discussed in more depth is to assemble a sprinkle system to keep the slatted floor wet.

But the discussion about flooring showed that a lot of further research must be done on this issue.

Conclusion

To find the best possible conditions for the sows and the piglets in farrowing pens with temporary crating the following aspects have to be considered more deeply:

- minimal pen size – ensure place for the sow to turn around
- nest building material
- duration of fixation- pre and post farrowing
- flooring
- piglet behaviour – mortality, suckling behaviour, injuries,

For further research questions the whole period of the stay in the farrowing pen should be divided into 4 phases:

Nest building / birth process / the first days when crate is closed / time crate is opened