
Protocol for health at farrowing

Good health around the birth of piglets is important to reduce piglet mortality. The ministry LNV requested the steering group pig vitality and the partners of pig vitality undertake research into the successful factors for a good piglet survival rate. On the basis of an extensive questionnaire, a checklist for Pig Vitality was constructed. This protocol 'Health at farrowing' goes together with the checklist and gives tips and advice about work instructions and health factors around the birth of piglets.

The protocol 'Health at farrowing' focuses on basic practices around housing of livestock, climate, health and hygiene. It also covers a structured intervention/cross fostering policy, as a piglet can, at birth or just after, become infected via the sow if she carries one or more transmittable bacteria. These infections can take place during the birth process (in the birth canal), through the naval or nose to nose contact with an infected pig or carrier sow. Good care around birth is therefore very important.

A good starting point of minimising piglet mortality is that all piglets are raised by the sow. Good care around the birth of a piglet is therefore the most important success factor.

A - General hygiene protocol for farrowing stalls

Make sure that the chance of infections from different vectors are as small as possible

1. Production group
 - Keep animals of different ages (Different batches) strictly separated
 - Husbandry of the animals of different stages of production should take place from young to old
 - In an 'All in - All out' system this should occur at all stages of production and in each room i.e. from farrowing to weaning to growth. No mixed groups.
 - Ensure that there is a good biosecurity system for cleaning and disinfection
2. Production stage
 - Ensure that any working tools or materials stay within each barn or room. This also improves work efficiency
 - Deadstock buckets/transport with disposable inner bags, manure shovels etc
 - Work hygienically: Wash hands after every rooms/barn/building (Supply soap dispensers and washing facilities in the hall between barns/rooms. Hand hygiene is important to prevent the spread of infections
3. Farrowing pens

Access farrowing pens as little as possible

B - Basic management of the farrowing stalls

Along with hygiene, the basic management must also be standardised. The climate must be optimised and also the milk production of the sow should be checked to ensure adequate output and access by piglets. This should be done per litter not a small sample. The passive resistance of the piglets is determined by the milk intake in the first days (colostrum). The factors listed below are of importance:

1. Warmth
 - Provide a warm environment directly after birth, this can be done using a heat lamp behind the sow or warming creep area set at a temperature of 32°C
 - Make sure that the piglets do not cool down causing chill (Hypothermia)
2. Milk yield
 - Provide a good milk yield/output from the sow, stimulate the sow to eat and drink if you suspect that the milk yield is suboptimal
 - The water flow rate of the nipple drinkers in the farrowing stalls must be minimal 2litres per minute (Even if all animals are drinking at the same time)
3. Piglet nipple allocation
 - If necessary introduce the piglet to the sow's nipple
4. Split suckling
 - Apply split suckling in large litters
 - Put larger piglets with a good fat layer in a heated box first to allow lighter piglets first access to the colostrum. Make sure that same amount of piglets as the sow has nipples are in each litter, do not remove too many piglets during split suckling.
 - Keep piglets a maximum of 2hours from the sow during split suckling
 - The piglets that have been placed in the heated box should have enough warmth and be placed in open crates to retain contact with the sow.
5. Sow reproductive health (Post Farrowing).
 - Be aware of uterus and udder infections in the sow, signals of these are:
 - Poor intake of feed by the sow
 - Temperature increase in the sow >39.5°C
 - Sows that are lying on their stomach
 - In case of a poor milk yield from the sow:
 - Offer the piglets supplementary milk
 - Make sure that the sow can produce milk again as soon as possible, by using an adequate treatment protocol (Based on that described by the vet/company)

C - Hygiene protocol around farrowing

Good hygiene around farrowing reduces the chance of infecting the piglets.

- Before and during farrowing, remove manure from behind the sow
- During farrowing make use of powdered disinfectants throughout the farrowing stall
- Work hygienically when acting as farrowing assistance: Wash your hands, use gloves and enough lubricant and clean the water sack of the sow to prevent manure getting into the birth canal.

D - Intervention Policy

Judge if intervention is necessary

1. Check per sow how many piglets this sow can rear

Criteria for judging sows rearing capacity

- Amount of functional nipples/mammary gland packages
 - Sow body condition (Feed intake)
 - Amount of piglets weaned from previous litter
 - If intervention is needed, intervene as little possible with the litter. It is better to take half the litter completely to a nurse sow/additional litter rather than shared equally across multiple sows. This limits cross contamination of infections such as diarrhoea.
2. Timeframe of intervention/cross fostering
 - Take piglets between 12 – 24 hours of birth
 3. Guarantee good colostrum supply
 - Disinfect the udder with designated products
 - During the first 24 hours, do not carry out any piglet interventions such as iron injecting, castration, docking of tails etc
 - Castrate (if necessary) and perform iron injection from three days after birth.
 4. Fostering/Use of a nurse sow
 - Leave a few farrowing pens at each farrowing group when moving the sows.
 - On Day 4 - A sow who 3-4 weeks ago moved to the farrowing room/barn
 - Move the lighter piglets from a separate/large litter onto this sow
 - Key aspects for choosing a foster sow:
 - A sow with a good udder package (teats and active glands)
 - A sow with a good appetite.
 - Move the sow and not the piglets

E – Hygiene Protocol for Piglet Treatments

Do undertake piglet interventions for the first 24 hours, such as iron injecting, castration, docking of tails etc. Perform the necessary standard treatments as much as possible at the same time. One stressful moment is better than several in succession. Tail docking is recommended at day 4 after birth.

1. Hygiene
 - Use clean materials/bins per room
 - Clean the crates (or swap) per room and spray the cart
 - Wear gloves.
 - Use a needle per litter or inject needle-less.
 - Set the standard treatments for litters with diarrhoea.
 - Treat piglets of a foster sow last in a batch
2. Teeth Grinding

If the piglets damage the teats/udder of the sow, teething grinding can be considered at the piglets.

- Ensure a clean and well-functioning grinding tool.
- Smooth and round the teeth so that no sharp edges remain.

- Do not grind too far, so that no open wound occurs in the tooth
 - Grind on day seven after birth at the latest. As young as possible deserves preference.
3. Tail docking
 - Ensure a sufficiently hot, clean and sharp docking iron
 - Dock right, not too fast and from bottom to top
 - Dock on day 4 after birth
 4. Castration method
 - Provide clean and sharp materials.
 - Ensure clean hands, overalls and boots.
 - Disinfect the blade after every pig.
 - Make two small vertical cuts in both sides of the scrotum. The spermatic cord must be cut. You can not take it off!
 5. Method of administering Iron
 - Work with clean syringes and clean and sharp needles.
 - Preferably use a different (disposable) needle per litter.
 - Check that the correct dose is administered.

The Pig Vitality (Bigvitaliteit) checklist has been put together by Wageningen Livestock Research, De Varkenspraktijk, VGTZ, AdVee Dierenartsen, Varkensartsen, De Oosthof Dierenartsen, SUVITA Varkensartsen, Lintjeshof Dierenartsen, Dierenartsencombinatie ZuidOost en de KNMvD vakgroep gezondheidszorg varken in opdracht van en gefinancierd door het Ministerie LNV, de Stuurgroep Bigvitaliteit en de Partners Bigvitaliteit.

Original document in Dutch https://www.wur.nl/upload_mm/4/5/1/516bee42-b436-429e-8afd-5b83d3e53cdd_20180110%20Protocol%20zorg%20rondom%20geboorte.pdf

