RISK FACTORS FOR PIGLET MORTALITY IN DANISH ORGANIC PIG PRODUCTION
THE PROJECT

- What? Identifying the risk factors of piglet mortality in Danish organic pig production.

- Why? An estimated pre weaning mortality between 25 and 40 % is unsustainable both from an economic and animal welfare point of view.

- How? 1. Detailed on farm registrations on the piglet mortality in 9 farms during one year
  - Approximately 6000 farrowings
  2. Necropsies on a selection of the dead piglets from the 9 farms
  - 100-125 piglets per farm per season ~ 4000 necropsies
STOCKMAN RECORDINGS FOR MORTALITY CALCULATIONS - METHODS

- A pocket sized booklet.
- Counting and registration of piglets four times during the seven week long pre weaning period; At birth, castration (or 3-5 days after birth), vaccination (or 14-21 days after birth) and at weaning.
- Registrations on the sows include: Parity, body condition, health status and functional teats on the gilts.
- Data collection from June 2014 until May 2015

- Registrations on approximately 6000 farrowings
STOCKMAN AND THEIR RECORDINGS DIFFERS ....
CROSS FOSTERING AND NURSING SOWS IS DIFFICULT

- Risk of double registrations when cross fostering piglets and using nursing sows

- Communication with the farmers and the employees in the farrowing unit
  - Have they changed their daily routines?
  - Are new employees being trained to do the registrations correctly?
NECROPSIES - METHODS

- Dead piglets from approximately 25 sows on each farm.
- 4 collection periods - summer, autumn, winter and spring.
- Collection during the same 12 month period as the mortality registrations are performed.
- Dead piglets are kept frozen and necropsies are performed at the farms.
- Detailed information on body condition, stomach content etc. and a cause of death is noted for each piglet.

- Necropsies on approximately 4000 piglets
NECROPSIES - A PICTURE IS WORTH A THOUSAND WORDS
Necropsies - Issues

- Dystocia vs. crushed – from what do the oedema originate?
- Intrauterine Growth Restriction (IUGR) is hard to evaluate
- Diagnoses on older piglets – often in need of histology or other diagnostic tools
- Consistency in the use of diagnoses
THE END PRODUCT OF THE STUDY

- A PhD thesis including three peer reviewed articles to be published in internationally recognised journals.

- Suggestions on how to combine the results from the necropsies and the detailed registrations in solid hypotheses.
HYPOTHESES – WORK IN PROGRESS

- A proportion of piglets that are diagnosed as crushed have other potential underlying predisposing factors such as poor nutritional state, low birth weight or infectious diseases.

- Poor health status, nutritional stage and high parity of the sow will increase the piglet mortality rates.

- There is a significant difference of pre weaning mortality and causes of death both regarding the temporal distribution and in the individual variations between the farms.