Identification of sow level risk factors on early piglet mortality in Danish organic sow herds during different seasons

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Introduction: An 8 year old study showed a high mortality rate with one of three organic piglets dying before weaning in Danish organic sow herds. The high mortality rate constitutes a major economic and animal welfare problem in organic pig production. Several studies have evaluated risk factors for piglet mortality within loose housed and crated sows but there are only limited studies of piglet mortality in the organic production system. In general piglet mortality is expected to be highly multi-factorial. To estimate piglet mortality levels with a high external validity it is necessary to study piglet mortality in commercial organic pig production. The objective of this study was to identify season, litter size, sow parity and sow health as risk factors for still birth and early piglet mortality in Danish organic pig herds.

Materials and Methods: The study was an observational prospective study and included observations performed in nine medium to large Danish organic pig herds over a one year period from June 2014 until June 2015 including approximately 6700 farrowings. Upon transfer to the farrowing field the following information about the sow was recorded: Sow number, parity, body condition and gait score. At the time of farrowing the date was recorded along with litter equalization and the number of piglets that were: live born, still born, small (max. 21 cm), dead after farrowing or euthanized. Counting and registration of the piglets was subsequently performed three times during the seven week long pre weaning period; At castration (or 3-5 days after birth), vaccination (or 14-21 days after birth) and at weaning (7 weeks after birth). If piglets were moved between sows or euthanized during the preweaning period it was recorded. Information about treatments of sick sows including date, condition and use of antibiotics was also recorded.

Results: Preliminary results from seven herds indicate a high mortality rate during summer. The median rate of still birth and early mortality of live born piglets (birth to castration) during the summer 2014 was respectively 8 % and 19 %. Variation between the seven herds however was large ranging from 6 – 12 % in still birth and 11-24 % in early mortality.

Conclusion: Effects of parity, high and low body condition and lameness and litter size will be presented at the conference.

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