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RISK FACTORS FOR SOW MORTALITY: INSIGHTS FROM 1.5 MILLION PRODUCTION CYCLES

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Background and Objectives

SEGES InSight is a database retrieving information from the management software (Agrovision, Cloudfarms, SKIOLD) of more than 250 Danish sow herds (>280,000 sows). It contains detailed records of events for each sow, including information on mating, farrowing, weaning, and whether the sow was sent for slaughter, died suddenly or was euthanized. This study uses SEGES InSight and other data sources to identify and prioritize risk factors for sow mortality, including sudden death and euthanasia.

Material and Methods

SEGES InSight data were combined with information on diseases (SPF-SUS, VetReg), daily outdoor temperatures for each herd (Danish Meteorological Institute), and additional data on feeding types and systems. Data from the SEGES InSight dataset were analyzed, comprising 236 commercial herds and 1,517,890 production cycles. Inclusion criteria were sows born after January 1, 2021; mated at least once. Animals were followed until death or until December 31, 2024. Statistical analyses included univariate and multivariate models, with outcomes categorized as sudden death or euthanasia.

Results

Preliminary results showed that the fewer total piglets born, the higher the risk of both sudden deaths and euthanasia of sows. A low total-born count in the previous litter specifically raised the likelihood of sudden deaths in the next parity. Age at first mating was found to influence the risk of both sudden deaths and euthanasia and findings support the recommended mating age of 210–230 days. The risk of sudden deaths was found to increase along with outdoor temperatures. Feeding systems and feed types used in gestation units had varying impacts on sow mortality.

Discussion and Conclusion

Sow mortality can be reduced by paying extra attention to sows with few total-born piglets at the next farrowing or by culling them. Outdoor temperatures above 20°C increase the risk of sudden death, requiring preventive measures. A mating age of 210–230 days can decrease sow mortality.