

REPRODUCTIVE FAILURE REMOVAL AMONG NURSE SOWS

Joab Malanda Osotsi^{1,2*}, Gabriella Novotni-Danko¹, Peter Balogh^{3,4}

¹University of Debrecen, Faculty of Agricultural and Food Sciences and Environmental Management, Institute of Animal Science, Biotechnology and Natural Conservation, Department of Animal Science, Böszörményi Street 138, 4032 Debrecen, HUNGARY

²University of Debrecen, Doctoral School of Animal Science Böszörményi Street 138, 4032 Debrecen, HUNGARY

³University of Debrecen, Faculty of Economics and Business, Institute of Statistics and Methodology, Nonindependent Department of Statistics and Methodology, Böszörményi Street 138, 4032 Debrecen, HUNGARY

⁴HUN-REN-DE High-Tech Technologies for Sustainable Management Research Group, University of Debrecen, Boszormenyi Street 138, H-4032 Debrecen, HUNGARY

*corresponding author: malanda@mailbox.unideb.hu

Due to hyperprolificacy in modern pig production, nurse sows are used to nurse surplus piglets. Additional stay in lactation results in losing back fat thickness which is associated with poor reproductive performance. Therefore, the aim of this research was to characterize and quantify causes of Reproductive Failure (RF) removal and the risk of removal associated with parity. Archived reproductive data was retrieved from a large company database between 2016-2022. Records of 37852 nurse sows culled due to reproductive failure before reaching their next parity were analyzed using SPSS statistics software and Chi-square test used to test between the group differences. The major RF causes were; failure to conceive 30.7%, no heat 23.0% vaginal discharges 19.3%, abortion 11.4%, failed to farrow 8.0% and retained pigs 7.5%. The risk of removal due to fail to conceive was significant ($\chi^2=352.480$, $P=0.001$) was detected for abortion among parities. RF is an unplanned sow removal reason that requires decision making in an attempt to control it. Understanding the risk associated with each cause of RF removal could help producers plan how to decide on selecting a nurse sows.