HHM-PP-32

TITLE

DETECTION WITH THERMOGRAPHIC DEGREE APP OF VAGINAL TEMPERATURE VARIATIONS DURING WEANING TO SERVICE INTERVAL (WTSI)

Paula Sánchez[1], Guillermo Ramis[2,3]

[1] *Agropor. Torres de Cotillas. Murcia. Spain*
[2] *Departamento Producción Animal. Facultad de Veterinaria. Universidad de Murcia. Spain*
[3] *Instituto Murciano de Investigación Bisoanitaria IMIB). Murcia.*

CONTENT

BACKGROUND AND OBJECTIVES

The accurate detection of oestrus is critical to improve reproductive performance in pig production. Nowadays is based on human and boar combined evaluation. However, the boars used to detect heat have a very high economical cost. The aim of this work was to investigate the ability of Degree app (degree2act) designed for fever detection to find temperature variations during weaning to service interval (WSTI).

MATERIAL AND METHODS

Rectal and vaginal temperature of sows after weaning was assessed over 7 days by clinical thermometer 3 folds a day (morning, afternoon and evening) and simultaneously a thermal image of the vulvar areas was obtained wit Degree app. This application calculates the maximum temperature in the image. Moreover, all the sows had a datalogger attached to neck skin to record continuously the skin temperature of the sows, reading temperature every 5 minutes (2048 records per animal). The onset and end of heat was visually assessed on the base of classical signs. All data were analysed with SPSS.

RESULTS

There was a significant difference between thermometric vaginal temperature and Degree temperature recorded during heat period compared to records during all the rest of the WSTI. In fact, there was a measurable decrease of vaginal temperature during heat period, also detected by Degree App. Rectal and skin temperature did not suffer variations along the whole period depending on the heat appearance. There was a high correlation between the vaginal temperature and Degree temperature ($r<0.650$, $p<0.001$).

DISCUSSION AND CONCLUSSION

Degree could allow detecting accurately the decrease of vaginal temperature related to heat; reading the vulvar infrared emission with high correlation to intravaginal temperature. We can hypothesize that could be a tool improving the election of insemination moment and improving then the reproductive performances. This last term needs for more research.