Validation of Timing of PigWatch's Insemination Request Relative to Ovulation in Sows

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A method to assess the timing of ovulation such that sow's natural behavior is not disturbed was developed in order to test the efficiency of the PigWatch system to target the good insemination timing. PigWatch is made of infrared sensors located above recently weaned sows and a computer that processes the behavioral data in order to statistically determine the best moment to inseminate. 123 sows of five different batches were inseminated according to PigWatch's insemination requests and blood samples were collected 5 times in 48 hours for each sow starting at the PigWatch request. Statistical analysis of progesterone and estradiol blood concentrations allowed us to estimate the timing of ovulation. From this information, it was shown that PigWatch SiS5 Beta asked 95.1% of the AI requests within -32 hours before and 8 hours after ovulation. The 122 tested sows had 95.1% fertility rate, 15.26 total piglets and 1.16 inseminations. Therefore, PigWatch has the potential to reduce the number of semen doses while at least maintaining good breeding performances.

Inseminating once at the right moment has the potential to reduce labour and insemination costs, improve performances and optimize the use of the best boars. All this can lead to important savings and benefits for both producers and genetic companies.