

## **REP-OP-05**

### **TITLE**

TRANSABDOMINAL ULTRASOUND EXAMINATION OF SOWS TO IMPROVE THE REPRODUCTION – A FIELD STUDY

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### **CONTENT**

#### Introduction

The number of weaned piglets/sow/year is an important economic parameter. A lot of farms work with hyper prolific genetics. In many cases in the same batch we can find different genetic lines. The reproductive behavior (such as weaning-to-estrus interval, length of heat, ovulation time of these lines) maybe different.

#### Material and Methods

A Hungarian large-scale farm (1800 sows) uses a one-week-batch management: weaning on every Thursday, and heat detection and AI starts on Monday afternoon. The owner asked some support from MSD AH because of the increasing number of anestrus, inactive ovaries and „not-in-pig” sows. After data analysis, farm audit, slaughterhouse examinations of genital tract, laboratory investigation and on-farm progesterone tests we realized that there is no anestrus on the farm. After weaning we divided the sows into 3 groups, the old genetic line (12 sows, A), the new (17 sows, B) and the mix, F1 (18 sows, C). We started to checking the ovaries on Sunday morning by transabdominal ultrasound using a 4.5 MHz convex probe. The ovaries were checked every 4 hours until the ovulation.

#### Results

A decisive difference was found between the reproductive behavior of the diverse genetic lines. 76% of the sows from B ovulated on Monday morning (most of them already on Sunday afternoon) while A only 10% ovulated on Monday morning. By Tuesday morning, 100% of the sows from B ovulated while only 66% from the A had. The C was in the middle between A and B. The B had a shorter weaning to estrus interval.

#### Discussion and Conclusions

The traditional heat detection method worked for the A, but not for the B. Some changes are needed in the protocol and in the timing. Ultrasound check of the ovaries was a very useful, non-invasive on-farm tool to support the effectiveness of reproduction.