Progress report to SLU EkoForsk 2017

Development of an organic piglet production system where batch wise breeding is made possible by exploring the natural physiology of the sow

Project responsible: Ylva Sjunnesson, Department of Clinical Sciences, SLU.

Project group: Ann-Sofi Bergqvist and Ola Thomsson; Department of Clinical Sciences, SLU.
Lena Eliasson-Selling, Swedish Animal Health Service AB.

Batch wise breeding consists of a group of sows that farrow at the same time, can be weaned from their piglets at the same time and thereby return to oestrus at the same time after the weaning. When one batch of animals is moved it is possible to make a throughout cleaning of the facilities before the next batch moves in. The cleaning keeps the risk of pathogen survival to a minimum from one batch to the next and increases animal welfare since unnecessary diseases are avoided.

In organic systems the batch wise breeding is not always easy to obtain, mainly since the longer period before weaning often results in some sows returning to oestrus before weaning and are thereby out of sync with the rest of their group.

In an attempt to facilitate the batch wise breeding in the organic systems this project has investigated the possibilities to synchronize the lactating sows before weaning using boar contact as stimulation. By allowing the lactating sows to be in contact with a boar during specific periods the sows prone to returning to oestrus are expected to do so within a limited time. This could then be used to choose a weaning date suitable for the whole group.

The boar-contact experiment included collection of faecal samples (for progesterone analysis to detect of ovulation had occurred) and collection of sow information (oestrous detection and pregnancy results). The experiment started in autumn 2014 on two different organic farms. The collection of samples and data finished in spring 2016 and has resulted in the inclusion of 51 sows in different batches from one farm and 36 included sows from another farm. In total 812 individual faecal samples were collected.

The initial planning included a third farm but unfortunately the experiment was not possible to perform in this farm. Due to this the experiment was increased in volume on the other two farms to reach the total number of sows correlating to the number decided in the application. The progesterone analysis was run during autumn 2016 at SLU.

The results which include a summary of progesterone values, oestrous information and pregnancy results are under preparation and will be shown before summer 2017.