Prevalence of vaginal discharge in Danish sow herds

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SPECIFIC AIM
The aim of this study was to estimate the prevalence of vaginal discharge among lactation sows, in a sample of Danish sow herds.

Vaginal discharge in the in lactation period

INTRODUCTION
Vaginal discharge is often observed in sows suffering from the Mastitis, Metritis and Agalactia (MMA) complex. In a study in 31 US sows herds the overall prevalence of MMA was 6.9%, and all sows with MMA presented vaginal discharge (Backstrom et. al. 1984). MMA is known to decrease the milk production of the sow, and may also increase reproductions problems in the following reproduction cycle (Hoy, 2004). Treatment of vaginal discharge and other urogenital diseases is among the most common causes of antibiotic, usage for sows in Denmark. However, the actual occurrence of vaginal discharge in Danish sow herds is unknown and therefore the aim of this study was to examine lactating sows and estimate the prevalence.

MATERIALS AND METHODS
The study design was cross-sectional. The herds were recruited from northern Denmark; the herds had to have more than 20 sows per farrowing group and keep reliable productivity recordings. Organic and outdoor herds were excluded. In each herd, 20 sows one to four days after farrowing (grp1) and 20 sows close to weaning (grp2) were randomly selected and clinically examined once by the same person. The sows were scored using a clinical scale with:

Score 0: No discharge
Score 1: Discharge, white to yellow
Score 2: Discharge, brownish

If the discharge where judged to be lochial discharge, the sow were getting score 0. Statistical analysis of differences in discharge between the two groups of sows was performed using Fisher’s Exact test.

RESULTS
In total, 1310 sows from 33 herds were examined from May 2011 to March 2013, 652 in grp1 and 658 in grp2.

<table>
<thead>
<tr>
<th>Score</th>
<th>Group 1 (after farrowing)</th>
<th>Group 2 (before weaning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>467 (72,4% [68,7-75,8])</td>
<td>646 (99,2% [98,1-99,7])</td>
</tr>
<tr>
<td>1</td>
<td>159 (24,7% [21,4-28,2])</td>
<td>5 (0,8% [0,3-1,9])</td>
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<tr>
<td>2</td>
<td>19 (2,9% [1,8-4,6])</td>
<td>0</td>
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<td>Data missing</td>
<td>7</td>
<td>7</td>
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</table>

Table 1: Overall prevalence of vaginal discharge.

The vaginal discharge scores were significantly different between the two groups, p < 0.001.

DISCUSSION
The study showed a higher prevalence of vaginal discharge just after farrowing, compared with later in lactation, with a large variation in within-herd prevalence. The prevalence of brownish discharge was lower than that of white to yellow discharge. Other studies have showed an association between vaginal discharge and MMA. The relationship between vaginal discharge and the health/productivity of the sow is under investigation.

CONCLUSION
The prevalence of vaginal discharge in this study was 27,7% just after farrowing and 0,8% before weaning.


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