Calving monitoring is essential to ensure breeding progress. With increasing size of herd, monitoring tools are in expansion.

The Vel’Phone® system is based on the analysis of temperature variation using a vaginal thermometer. It sends out alerts to the farmer by SMS: probable calving within 48 hours, calving expected within 48 hours or thermometer expulsion with the breaking of the foetal membranes.

Three assays were conducted in the experimental farm « Les Trinottières (CA49) » from November 2010 and December 2012. In total, 55 heifers and 151 Prim’Holstein cows were concerned.

RESULTS

Time implementation

11 heifers and 21 cows were not fitted with Vel’Phone® due to early calving.

Interval between introduction of the thermometer and expected full-term calving: 9.3 ± 4.5 days in heifers (n=44) and 6.2 ± 3 days in cows (n=130).

Interval between introduction of the thermometer and real calving: 5.4 ± 3.3 days in heifers (n=44) and 4 ± 3.2 days in cows (n=130).

Positives predictives values (% alert followed by a calving): 100% whatever alert and parity.

Interval between alerts and calving: Table 1.

MAIN CONCLUSIONS

Optimal time to place the thermometer is difficult to determine because of the delay between expected and real calving (manufacturer’s recommendation: implementation 7 to 10 days before expected full-term calving).

The alert expulsion of the thermometer is a good calving predictor.

The sensibility of detection is more variable for predictive alerts (probable calving and expected calving).

A special supervision of the cow is advised if the alert is sent out since more than 2 hours.

The Vel’Phone® is an interesting device to reduce the constraint of supervision and thus to improve the comfort of the farmer.

> Table 1 Interval (in hours) between alerts of the Vel’Phone® and calving in heifers and cows

<table>
<thead>
<tr>
<th>Alert</th>
<th>Probable calving</th>
<th>Expected calving</th>
<th>Thermometer expulsion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parity</td>
<td>Mean ± SD</td>
<td>Min - Max</td>
</tr>
<tr>
<td>Heifers</td>
<td>9</td>
<td>60.7 ± 62.7</td>
<td>3.4 - 168.0</td>
</tr>
<tr>
<td>Cows</td>
<td>37</td>
<td>46.0 ± 44.2</td>
<td>7.7 - 220.0</td>
</tr>
</tbody>
</table>

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