RABBIT HOUSING
new farming systems
with the regulations and
social demand?

Round table

Luc Maertens (chair) and Liesbeth Van Damme (presentation)

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History and situation in B & NL

• Experiments with alternatives for cage housing started already at the end of the 20th century

• In the Netherlands: focus on does. In Belgium focus on the fatteners (park) housing

• First experiments with (part-time) group housing of females from 1999 off in NL and from 2010 in B.
  
  ➢ NL: Ruis M., 2006 ...... Rommers et al., 2006; ...... Rommers and De Greef, 2018
  ➢ B: Maertens et al., 2011; ...... Buijs et al., 2014; ......

• First results:
  
  ➢ Encouraging performances with part-time group housing
  ➢ Aggression problems after regrouping

• Research necessary in view of future legislation (a transition to no cage systems)

• Focus on research to cope with this aggression problems …
Trial 1: postponing group housing

- Experiment on two large rabbit farms (1000-1500 does)
- 3 treatments: kits 22, 25 of 28 days old
- 5 reproduction cycles
- 60 combi parks
- 304 does & ±3500 kits
Trial 2: group size & hiding places

- Experiment on institute research facilities (48 does)
- Treatments
  - 3 or 4 does
  - Hiding places: pipes or second level platform
- 4 reproduction cycles
- 12 combi parks
- 60 does & ±2000 kits
Trial 3: enrichment & hiding places

- Experiment on large rabbit farm (1000-1500 does)
- Treatments
  - Alfalfa
  - Hiding places: wooden panels
- 3 reproduction cycles
- 20 combi parks
- 60 does & ±2000 kits
Trial 1: postponing group housing

Skin injuries
- Present before grouping!
- 93% injured does, 39% injured kits
- Mostly non-severe injuries → increase with time in group
- No evidence to reject early grouping (22 days)
Trial 2: group size & hiding places

- Extra platform not known from the start
- Mostly used by ‘victim’ does
- Pipes very popular for kits
Trial 3: enrichment & hiding places

- Panels used to ‘shake off’ aggressor
- Visual isolation, feeders separated
- Alfalfa good distraction (for does and kits)
Thank you
day 0
day 1
weaning

1 ear wound
1 ear wound and 1 paw wound
Table 1: Overview reproductive performances between treatments. Values represent least squares means ± SE. Results given from two and three reproduction cycles on farm 1 and 2 respectively (cycle 1 and 2: \( N = 60 \); cycle 3: \( N = 21 \)).

<table>
<thead>
<tr>
<th></th>
<th>G22</th>
<th>G25</th>
<th>G28</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility (pregnant does after AI) (%)*</td>
<td>87.7 ± 3.71</td>
<td>78.5 ± 5.34</td>
<td>84.4 ± 4.33</td>
<td>0.06</td>
</tr>
<tr>
<td>Doe weight gain (g)</td>
<td>252.0 ± 123</td>
<td>207.0 ± 122</td>
<td>291 ± 121</td>
<td>0.10</td>
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<tr>
<td>Litter size</td>
<td></td>
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<tr>
<td>Number of life born kits/litter*</td>
<td>11.8 ± 1.01</td>
<td>11.6 ± 1.01</td>
<td>11.7 ± 0.99</td>
<td>0.93</td>
</tr>
<tr>
<td>Number of dead born kits/litter*</td>
<td>0.60 ± 0.38</td>
<td>0.71 ± 0.39</td>
<td>0.55 ± 0.37</td>
<td>0.79</td>
</tr>
<tr>
<td>Number of kits, 22 days pp*</td>
<td>40.5 ± 0.69&lt;sup&gt;a&lt;/sup&gt;</td>
<td>40.0 ± 0.63&lt;sup&gt;b&lt;/sup&gt;</td>
<td>38.5 ± 0.60&lt;sup&gt;a&lt;/sup&gt;</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Number of kits, 35 days pp**</td>
<td>39.0 ± 0.88&lt;sup&gt;b&lt;/sup&gt;</td>
<td>38.3 ± 0.85&lt;sup&gt;b&lt;/sup&gt;</td>
<td>37.0 ± 0.80&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.002</td>
</tr>
<tr>
<td>Mortality kits day 0-day 22 (%)*</td>
<td>9.69 ± 1.40</td>
<td>10.28 ± 1.46</td>
<td>12.31 ± 1.68</td>
<td>0.06</td>
</tr>
<tr>
<td>Mortality kits day 22-day 35 (%)**</td>
<td>4.22 ± 1.48</td>
<td>3.15 ± 1.12</td>
<td>2.92 ± 1.04</td>
<td>0.12</td>
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<tr>
<td>Litter weight (g)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Weight kits, 22 days pp*</td>
<td>394 ± 20.2&lt;sup&gt;ab&lt;/sup&gt;</td>
<td>384 ± 19.8&lt;sup&gt;a&lt;/sup&gt;</td>
<td>397 ± 19.8&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.04</td>
</tr>
<tr>
<td>Weight kits, 35 days pp**</td>
<td>968 ± 46.7</td>
<td>941 ± 45.9</td>
<td>954 ± 45.8</td>
<td>0.15</td>
</tr>
<tr>
<td>Daily growth litter day 22-day 35**</td>
<td>43.9 ± 2.13</td>
<td>42.9 ± 2.07</td>
<td>42.7 ± 2.07</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Switch from single-litter to group housing of four does with their kits 22 (G22), 25 (G25) or 28 (G28) days pp until weaning (35 days pp).

* single-litter housing, ** group housing. AI = artificial insemination, pp = post-partum.