



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

Round table

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ILVO



Flanders
is agriculture and fisheries

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 grouphousing
 - 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

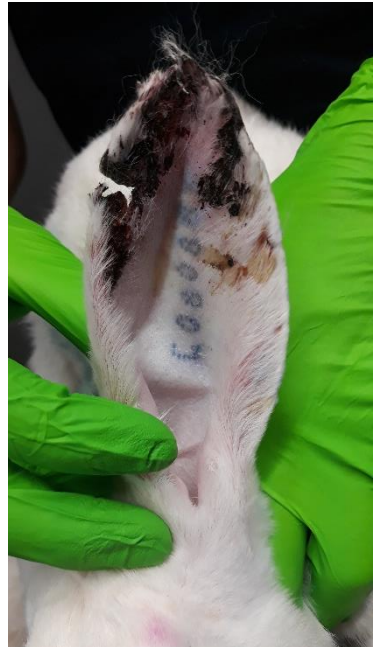




Trial 1: postponing group housing

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)



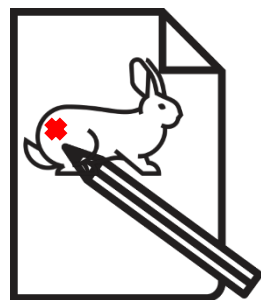
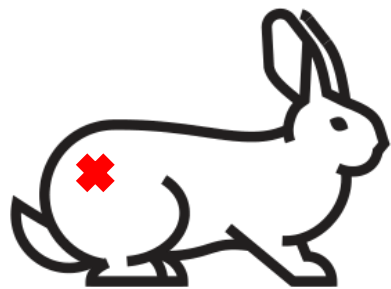
Thank you

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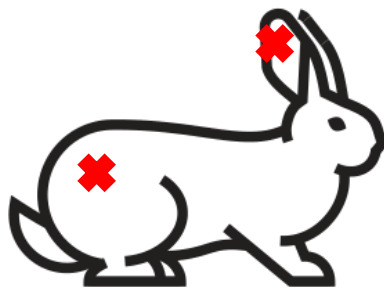
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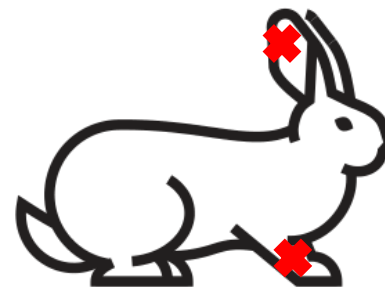
day 1



1 ear wound

...

weaning



1 ear wound and
1 paw wound



Results trial 1

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

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

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.