Spinal deformation, bone quality & pododermatitis in rabbit does - Effects of housing and floor type

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Reproduction does (the maternal parent stock of meat rabbits) are commonly housed in individual wire floor cages.

Such housing is under increased scrutiny because it is thought to restrict activity and diminish foot health.

We compared individual wire cage housing to two alternative semi-group housing systems. In semi-group housing does lived in groups for 21d during each of four 42d long reproductive cycles, but were housed individually around kindling. Half of the group pens had plastic floors.

**INDIVIDUAL HOUSING (CONTROL)**
Individual housing (0.4 m²/doe + platform)
Wire floor with plastic footrest
63 cm high at highest point
24 cages / cycle

**SEMI-GROUP HOUSING - WIRE**
4 does/group (0.5 m²/doe + platform)
Wire floor with plastic footrest
Open-top (no height limitation)
6 group pens /cycle

**SEMI-GROUP HOUSING - PLASTIC**
4 does/group (0.5 m²/doe + platform)
Plastic slatted floor
Open-top (no height limitation)
6 group pens / cycle

**SPINAL DEFORMATION**
(scoliosis, kyphosis & lordosis)
No difference between systems
High overall
38% of the does had a deformation, although usually mild

**BONE QUALITY**
(tibia and femur width and strength)
Semi-group housing ► Thicker tibia cortex than individual housing
(1.46 vs 1.38 mm ± 0.03, P=0.05)
No effect on bone strength

**PODODERMATITIS**
(hyperkeratosis: bald patch + callus)
Plastic floor ► Fewer does with hyperkeratosis
(5 vs. 67% ± 9, P<0.0001)
Severe pododermatitis absent

**IMPACT ON WELFARE**
Changes in bone morphology suggest increased activity in semi-group housing. To interpret this change in terms of welfare more research is needed (was activity increased due to increased space and incentive, or because does were chased by conspecifics?).

Foot health was better on the plastic slatted floor (hyperkeratosis was less common), suggesting a positive effect on welfare.

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