

Effects of a novel housing system for fattening rabbits on skin injuries, daily gain and hygiene



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Introduction

Conventionally kept fattening rabbits are usually raised in wire cages with restricted amount of space and structure. Thus, increased demands on animal welfare also require adaptations of conventional rabbit housing. In the present study, an innovative housing system was developed and integrated on a commercial farm. To assess the system different welfare parameters were investigated in rabbits kept in the novel housing system and in conventional wire cages on the same farm.

Material and Methods

- 525 fattening rabbits from two housing systems (IC vs. CC, Tab.1) kept on the same commercial farm were investigated in five batches from weaning (31d) to slaughter (78d)
- Different parts of the body were scored for skin lesions and a cumulative lesion score for each animal was calculated
- Daily weight gain and mortality were recorded
- Cleanliness of hind feet and floor was evaluated

Table 1. Innovative (IC) and conventional (CC) housing conditions for fattening rabbits

IC	CC
<ul style="list-style-type: none"> • Rabbits were born in the system and weaned by removing does and mixing up to 6 litters in 6 pens • Groups with up to 65 animals • Pens with slatted plastic floor (812 cm² per animal) • Elevated platforms with solid floor, plastic tubes and different gnawing materials 	<ul style="list-style-type: none"> • Rabbits were born in conventional wire cages and moved after weaning to new cages • Eight animals from two litters were mixed into a new group • Cages with wire mesh floor (428 cm² per animal) • An elevated platform with slatted floor and one piece of wood as gnawing material

Results

- Skin lesions were less frequent in rabbits from IC than from CC at the first three observation times. At the end of the fattening period a distinct increase of the cumulative lesion score was noted in both groups reaching a similar level (Fig.1)
- IC rabbits showed higher daily weight gains than CC rabbits (46.25g vs. 43.04g)
- Cleanliness of feet (Fig. 2) and floor differed between the systems at any time with CC being cleaner than IC
- Except for batch one mortality was higher in IC than in CC housing (18.5 % vs. 12.4 %)

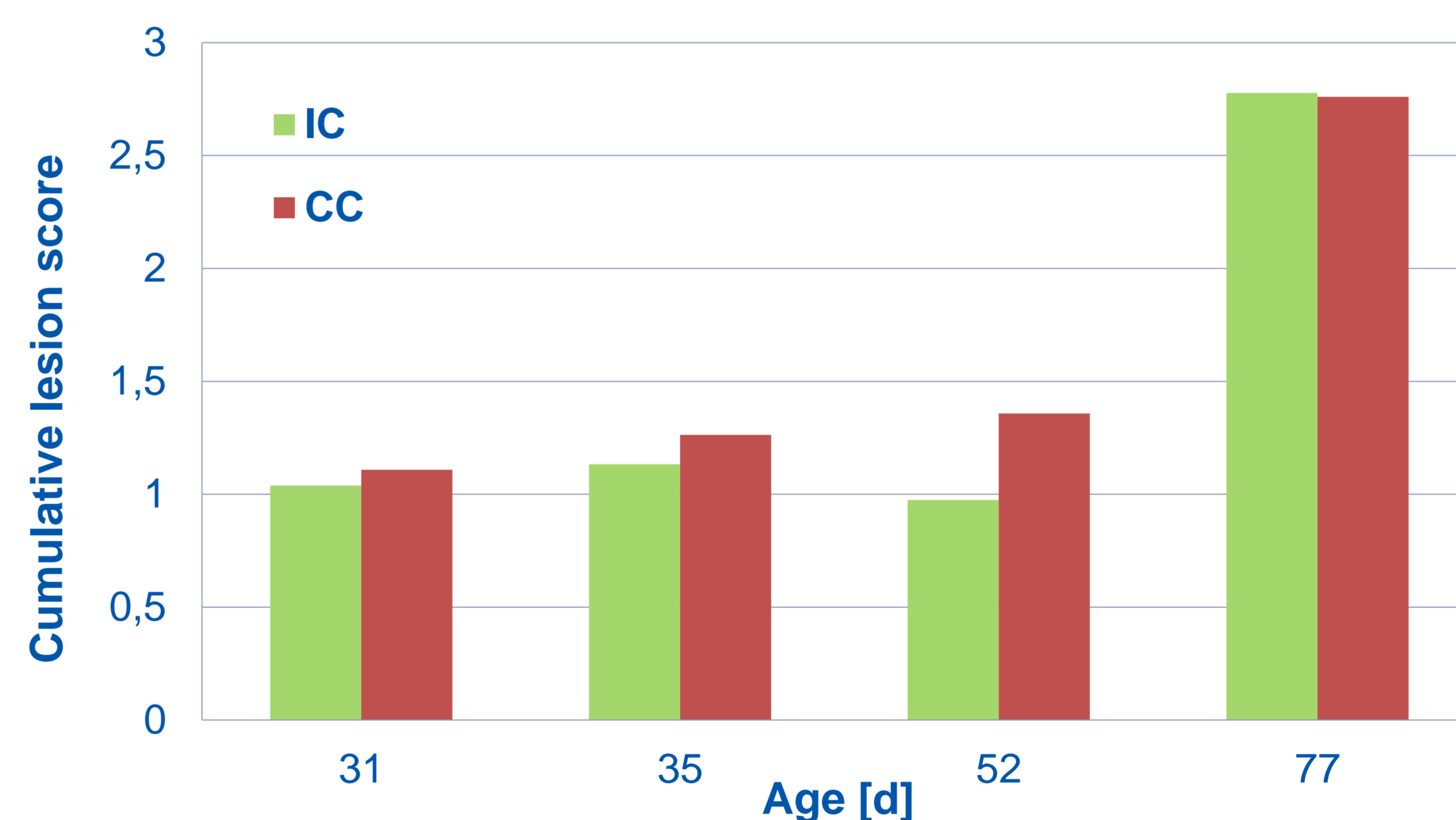


Figure 1. Average cumulative lesion score (min.: 0; max.: 28) at four observation times during fattening of rabbits from innovative (IC) or conventional housing conditions (CC)

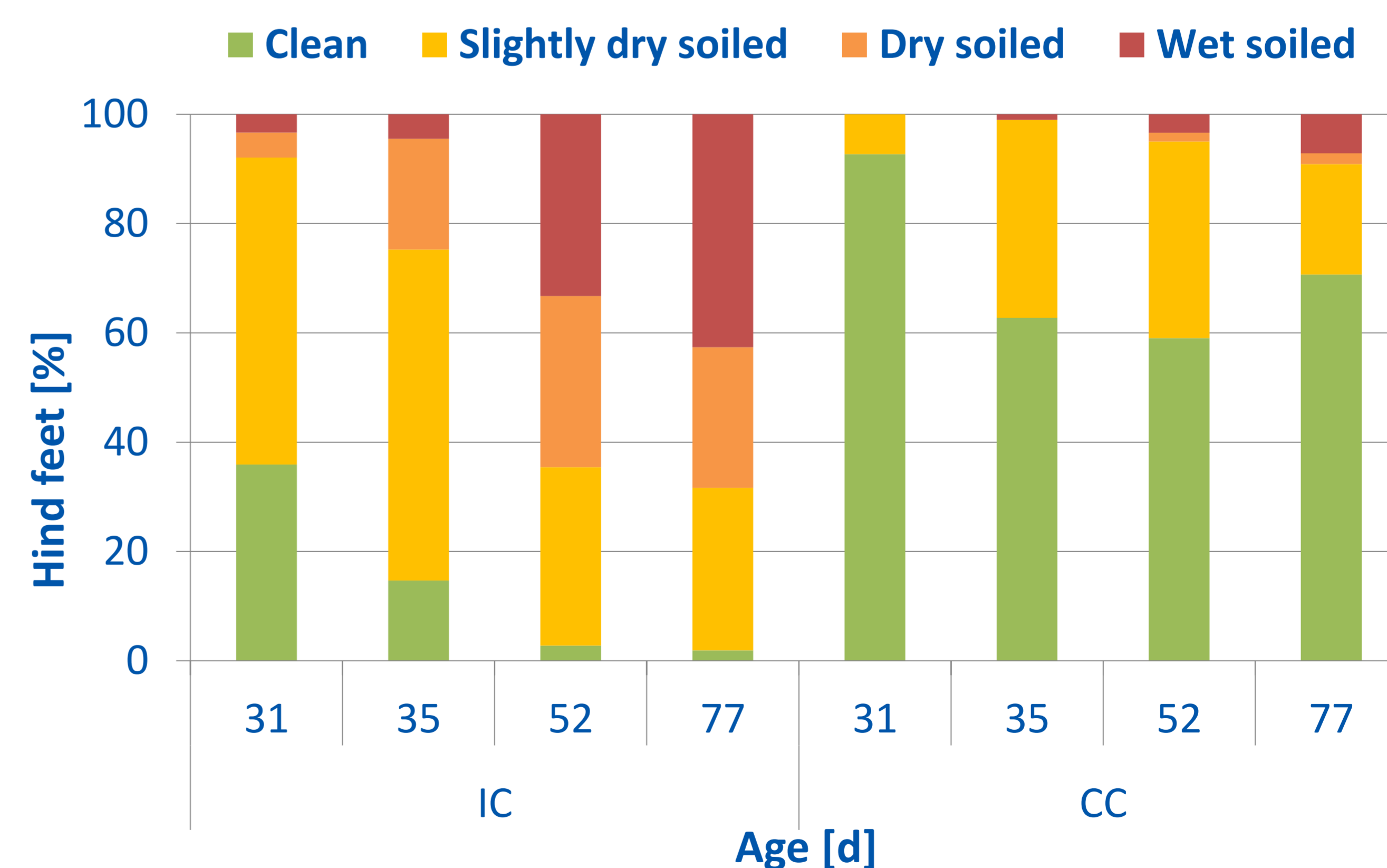


Figure 2. Percentage of hind feet evaluated regarding cleanliness at four observation times during fattening of rabbits from innovative (IC) or conventional housing conditions (CC)

Conclusion

A lower incidence of injuries in the first half of the fattening period and higher daily weight gain may indicate increased welfare in rabbits from innovative housing conditions. However, the increased mortality and the hygienic challenges posed by this system make further adjustment necessary.



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