Effects of the living environment on the behaviour of rabbits

Manon Fetiveau, M Besson, Valérie Fillon, Mélanie Gunia, Laurence Lamothe

Effects of the living environment on the behaviour of rabbits

M. Fetiveau, M. Besson, V. Fillon, M. Gunia, L. Fortun-Lamothe
UMR 1388 GenPhySE, INRAE, Univ. Toulouse, 31326 Castanet-Tolosan, France

Context and objective

- Societal demand for improving welfare in livestock systems
- Citizens want animals to have access to the outdoor
- 95% of rabbits are raised indoors in wired cages

→ The trial aimed to study the effects of the living environment (cage vs indoor pen vs outdoor area) on the behaviour of rabbits

Method

- Animals: 477 rabbits weaned at 35 d. (two genetic lines)
- Period : summer 2022 (t°>40°C)
- Observations: 45, 56 and 66 d., morning and afternoon
- Scan sampling (2 observers)
- Ethogram
  - Locomotion (walking, leaping, running)
  - Maintenance (grazing, eating, resting, gnawing)
  - Exploration (scratching, observing, standing up)
  - Social interaction (side by side, nose to nose)

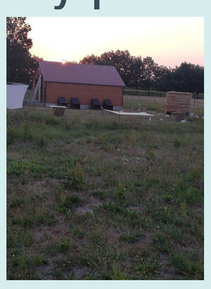
Control system

Cages

- Surelevated cages (0.8 m²; 5 rabbits / cage)
- Confined building
- n = 375

Alternative system

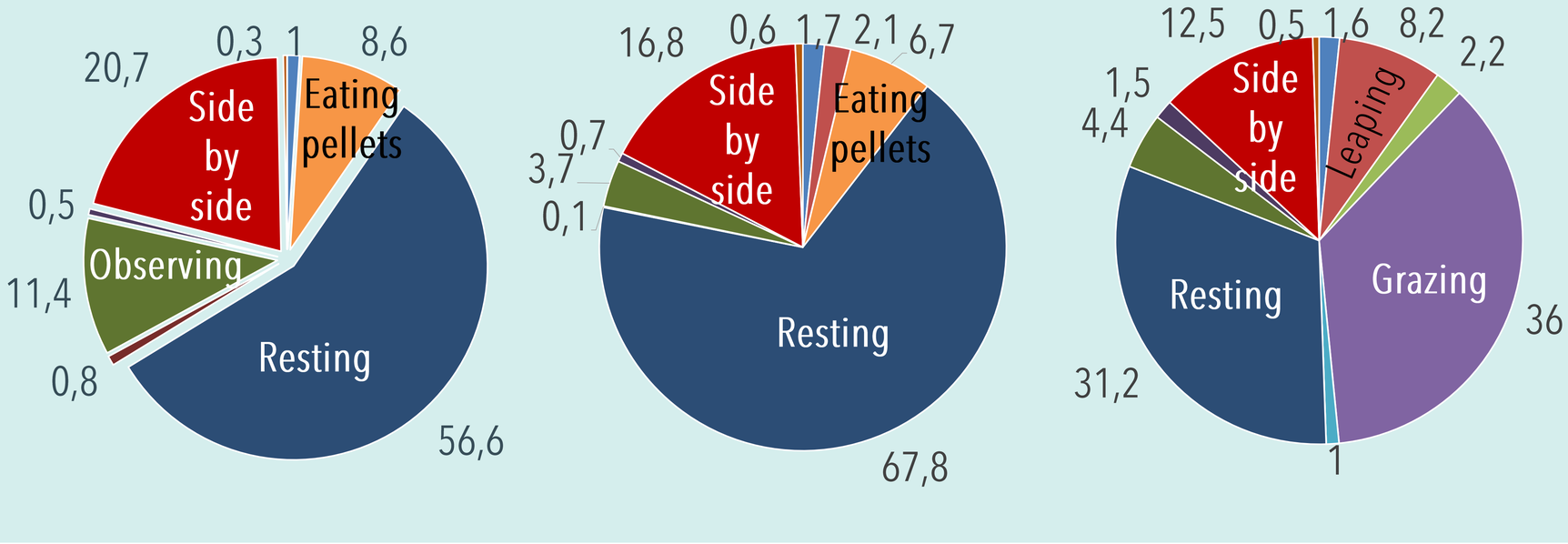
Indoor pens | Grassy paddock



- 8 roofless pens (2 m²) in a mobile building placed on 1940 m² grassy paddock
- n = 102

Results

Behaviour (%)



Statistical effects:

- Genetic line: NS except nose-to-nose
- Environment : P<0.001 for all behaviour except walking, side-to-side and nose-to-nose
- Day : P<0.001 except grazing, resting and growing
- Genetic line x environ^{t} : NS

High mortality : 24 % in the control system vs 49% in the alternative system ($P < 0.05$) due to excessive outside temperature

Conclusion

Access to a grassy paddock enabled

- A diversification of the behavioural repertoire
- A spatialisation of the living environment (differentiated use of space)
- A twilight behaviour
- To satisfy the rabbits' need to graze