



Location of burrows in housing: effects on their occupation rate and health of growing rabbits

Yayu Huang, Davi Savietto, David Labatut, Sébastien Pujol, Julien Breda, Sylvie Combes, Thierry Gidenne, Laurence Fortun-Lamothe

► To cite this version:

Yayu Huang, Davi Savietto, David Labatut, Sébastien Pujol, Julien Breda, et al.. Location of burrows in housing: effects on their occupation rate and health of growing rabbits. 72th EAAP conference (Ed. EAAP), Aug 2021, Davos, Switzerland. , pp.222. hal-03639280

HAL Id: hal-03639280

<https://hal.inrae.fr/hal-03639280>

Submitted on 12 Apr 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Location of burrows in housing: effects on their occupation rate and health of growing rabbits*Y. Huang, D. Saviotto, D. Labatut, S. Pujol, J. Breda, S. Combes, T. Gidenne and L. Fortun-Lamothe**UMR 1388 GenPhySE, Université de Toulouse, INRAE, INPT, ENVT, 24, chemin de Borde Rouge, 31326 Castanet-Tolosan, France; yayu.huang@inrae.fr*

Providing growing rabbits with a 'burrow like' area may enhance their wellbeing, by allowing animals the possibility to search for a refuge and hide. Here, we studied the effect of burrow location inside a pen on its occupancy rate, health status and activity of 180 growing rabbits from 28 to 77 days of age. Animals were housed by 30 in large pens (152×90×80 cm, W×L×H) equipped with two burrows (58×37×30 cm with a circular opening; Ø 15 cm). Experimental groups differed in the location of burrows: two ground burrows (2GB, n=60 rabbits), two raised burrows (2RB, n=60 rabbits) accessible by a platform and one ground and one raised burrow (GRB, n=60 rabbits). Spatial distribution of rabbits was recorded by direct observation twice daily (morning and afternoon), 3 days a week for 7 weeks. The rate of active rabbits and the dynamic use of burrows were measured through video recordings (40 minutes, both in the morning and in the afternoon) at 69 days of age. The percentage of rabbits inside the burrows was higher in the 2GB (23.7%) than 2RB group (5.2%), the GRB group being intermediate (13.7%; $P<0.01$). In GRB group, rabbits clearly prefer the ground burrow to the raised one (78.1 vs 21.9%; $P<0.001$). The percentage of rabbits inside the burrows significantly ($P<0.001$) increased from week 1 (9.1%) to week 7 (18.5%). The rate of active rabbit was higher in 2GB group vs 2RB and GRB (52.6 vs 35.9%; $P<0.05$). The mean interval between two exits was 4.3 min for ground burrows and 14.7 min for raised ones. Average live weight at 77 days was 2,235 g and mortality rate was 12.2%, being similar among groups. Morbidity rate, however, tended to be higher in the 2GB group vs 2RB and GRB (15.0 vs 5.0%). This study demonstrated a significant use of burrow and a clear preference for its location on the ground. However, the high occupation of ground burrows combined with a flat solid floor (faeces accumulation) seems to degrade the hygiene condition, affecting the morbidity rate.

Management practices associated with footpad dermatitis in turkey flocks*E.M. Leishman¹, N. Van Staaveren¹, B.J. Wood^{1,2,3}, A. Harlander¹ and C.F. Baes^{1,4}**¹University of Guelph, Animal Biosciences, 50 Stone Road E, N1G 2W1, Guelph, Ontario, Canada, ²Hybrid Turkeys, 650 Riverbend Drive, N2K 3S2, Kitchener, Ontario, Canada, ³University of Queensland, School of Veterinary Science, 4343, Gatton, Queensland, Australia, ⁴University of Bern, Institute of Genetics, Vetsuisse Faculty, 3001 Bern, Switzerland; eleishma@uoguelph.ca*

Footpad dermatitis (FPD), an ulcerative lesion of the footpad, is one of the most frequent diseases in turkey production. In addition to welfare concerns, birds severely affected by FPD demonstrate fewer behaviours, decrease feed intake and this reduces growth. FPD is a multifactorial problem and influenced by many aspects of production. The aim of this study was identifying factors associated with FPD prevalence in turkey flocks. A questionnaire and flock health-scoring guide was circulated to 500 turkey farmers across Canada. Farmers scored FPD on 30 birds in their flock using a 0-2 scoring scale based on severity. Prevalence of FPD in the flock was estimated as the percentage of affected birds (score 1 or 2). Univariable linear regression modelling was used to identify variables to be retained for multivariable analysis ($P<0.25$ or biologically relevant). Forward-stepping multivariable linear regression modelling then identified factors associated with the prevalence of FPD. Four variables were included in the final model and accounted for 26.7% of the variation in FPD prevalence: bird weight, litter type, picking up birds and using feed/water additives. As average bird weight (kg) increased, the prevalence of FPD was higher (3.6 ± 1.13). FPD was also higher in flocks bedded with straw (12.1 ± 7.9) and higher in flocks where the birds were examined individually less frequently during daily inspections (11.6 ± 8.10). Lastly, FPD was higher in flocks that used feed/water additives to reduce litter moisture (20.5 ± 10.59). These findings are an exploratory assessment of risk factors related to FPD prevalence on Canadian turkey farms and emphasizes the importance of litter management and the stockperson in reducing FPD. However, the estimates from this study need to be interpreted with caution and further longitudinal studies needed to assess the identified variables influence on FPD more accurately.