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## **Book of Abstracts**

Guest Editors: Massimo Trabalza-Marinucci (Coordinator), Cesare Castellini, Emiliano Lasagna, Stefano Capomaccio, Katia Cappelli, Simone Ceccobelli, Andrea Giontella



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#### **O08**1

### Influence of group housing, lactation system and floor type on performance and injuries in rabbit does

Cristina Zomeño<sup>1</sup>, Marco Birolo<sup>1</sup>, Francesco Gratta<sup>2</sup>, Andrea Zuffellato<sup>3</sup>, Gerolamo Xiccato<sup>2</sup>, Angela Trocino<sup>1</sup> <sup>1</sup>Dipartimento di Biomedicina Comparata e Alimentazione, University of Padova, Italy <sup>2</sup>Dipartimento di Agronomia Animali Alimenti Risorse Naturali e Ambiente, University of Padova, Italy <sup>3</sup>Agricola Italiana Alimentare S.p.A., Verona, Italy Contact: cristina.zomenosegado@unipd.it

To evaluate the effect of group housing, lactation system, and floor type, 40 crossbred multiparous pregnant rabbit does were transferred to individual pens (0.5 m x 1.0 m); 8 does were kept individually during all the trial (I; n = 8); the other 32 does were kept in 8 collective pens (2.0 m x 1.0 m, by joining 4 individual pens) in stable groups of 4 individuals (G: n=8) from 8 d until 2 d before kindling and from 2 d until 33 d after kindling. Half pens had wire net floor covered with plastic mats (W; n = 8) and the other half plastic slatted floor (P; n = 8). Within G does, in half pens (n = 4) each doe nursed its own litter (fixed lactation, F); in the remaining half, each doe randomly nursed the litters of the group (random lactation, R). Doe performance at kindling and during lactation, litter performance from standardization until weaning (33 d), and skin injuries on G does (5, 12, 19, 26 and 34 d after kindling) were monitored. The effect of the housing system on performance was tested by PROC GLM of SAS. Within G does, the effect of the lactation system and floor type was evaluated by PROC MIXED (pen as random effect); the injury frequency was analysed by PROC FREQ according to observation day, lactation system, and floor type. Housing system did not affect doe kindling or lactation performance; litter weight at standardization was higher for G than I does (680 vs 619 g, p < .05), but differences disappeared at weaning. The lactation system showed some residual effects when controlled lactation finished, nests were opened, and kits free of moving. In fact, from 19 to 33 d after kindling, does and litters had higher feed intake (679 g/d vs 602 g/d; p < .05) and, at 33 d, kits were heavier (775 vs 748 g, p < .05) in R than in F pens. Floor type (W vs P pens) affected milk production (244 vs 225 g/d; p=.06), and kit weight at the end of controlled lactation (301 vs 290 g; p < .05), without residual effects at weaning. The injury frequency changed after the group formation: 34% at 5 d, 47% at 12 d, 13% at 19 and 26 d, and 10% at 34 d of lactation (p < .05). In conclusion, under our conditions, group housing did not impair doe performance; lactation system and floor type had minor effects; aggressiveness among does was evident after group formation during early lactation but decreased in the late lactation.

Further recordings on more reproductive cycles would be necessary to confirm the present results.

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#### 0082

### Main welfare problems in intensive broiler chicken production systems: is there any way to differentiate farms?

Marta Brscic, Michele Gazzo, Barbara Contiero, Flaviana Gottardo

Dipartimento di Medicina Animale, Produzioni e Salute, University of Padova, Italy Contact: marta.brscic@unipd

In a scenario of intensive and standardized broiler chicken production system, the aim of this study was to assess the prevalence of main welfare problems using the Welfare Quality assessment protocol and to differentiate farms. A shortened protocol (only on-farm) was applied in 13 farms in the Verona province from late-May to half-July 2016 with 35 housing facilities accessed in total. Animal-based measures were assessed: panting (indicator of heat stress); plumage cleanliness (indicator of litter quality); hock burn, food pad dermatitis and on farm mortality and culling rates (indicators of good health); and avoidance distance test (indicator of human-animal relationship quality). Information regarding the flock housed (breed, stocking density), environmental dust and litter quality were collected. The stocking density limit resulted in line with the regulation and there was a good litter management, proven also by the good level of plumage cleanliness  $(77.7 \pm 24.5\%)$  observed birds clean). Prevalence of hock burn and foot pad dermatitis showed also positive results. Mortality and cullying rate were relatively high  $(3.5 \pm 2.7\%)$  died/culled) and high numbers of birds were panting in an attempt to cope with heat stress in some farms  $(13.1 \pm 22.6\%)$ . The avoidance distance test showed high fearfulness of animals towards humans in 2 farms with 0 animals touched. The application of a shortened protocol does not allow the calculation of an overall welfare score due to missing data and the differentiation of farms in this standardized production system could be done based on some negative results only contextually at measure level. Panting, and mortality and culling rate could point out farmers adopting efficient *vs* inefficient management of environmental temperatures and animals (0.0 vs 15.0% birds panting and 1.4 vs 4.4% of birds died/culled in first vs third quartile,

