Official Journal of the Animal Science and Production Association (ASPA)

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ISSN 1594-4077

eISSN 1828-051X

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http://www.tandfonline.com/tjas

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Italian Journal of Animal Science

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volume 16

supplement 1

2017

italian journal of animal science

ASPA 22nd CONGRESS

Perugia, June 13–16, 2017

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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was to determine the effects of chamomile extract in the productive parameter of chickens. For this experiment were used 240 "Campero-INTA" line chickens, which is a chicken commercial line with 25% Cornish, 25% Red Rhode Island and 50% Ross. These animals were randomly divided in 4 treatments with different levels of chamomile extract in the water: 0, 2, 4, and 6% in T1, T2, T3 and T4, respectively. The chickens' productive cycle lasted 55 days, with starter (0-15 days of life), grower (16-40 days of life) and finisher (41-55 days of life) concentrated feeds used in the trial. The daily weight gain, final body weight, feed conversion efficiency and carcass yield were recorded or calculated. For statistical analyses, unifactorial ANOVA was used and the Waller Duncan test was used to separate the means (SPSS 16.0.2). Differences in carcass yield, due to the chamomile extract concentration, were observed. The T3 group showed the highest carcass yield (75.6%), followed by the T2 (72.9%), T4 (70.4%) and T1 groups (69.2%). As for the other productive parameters, no differences due to the chamomile extract concentration were found. In conclusion, the chamomile extract increased the chickens' carcass yield. Further research is needed to investigate the role of polyphenols in the birds' growth process and other productive and health parameter must be evaluated.

Acknowledgements

The research was funded by Escuela Superior Politécnica de Chimborazo, Facultad de Ciencias Pecuarias, Escuela Superior Politécnica de Chimborazo, Ecuador.

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Effects of the feeding system on performance and myopathy occurrence in two broiler chicken genotypes

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To evaluate whether performance and myopathy occurrence differed according to genotype (Cobb 500 vs. Ross 308) and feeding system (AL: *ad libitum* vs. ER: early restricted from 13 to 23 d of age, vs. LR: late restricted from 27 to 37 d; restriction rate: 80% of *ad libitum*), 828 day-old male chicks were assigned to 6 groups (2 x 3 arrangement), housed in 36 pens, and controlled for: individual live weight (weekly) and pen feed intake (daily) until slaughter (48 d); white striping and wooden breast occurrence at slaughter. Individual data were analysed by PROC MIXED of SAS (fixed effects: feeding system, genotype, and interaction; random effect: pen); pen feed intake and myopathy occurrence were analysed by PROC GLM and CATMOD, respectively. The feeding system affected performance: at the end of the first period (1-22 d), ER chickens showed lower weight gain (40.5 g/d *vs* 47.8 g/d and 48.0 g/d), feed intake (50.8 g/d *vs* 61.0 g/d and 60.2 g/d) and live weight (903 g *vs* 1056 g and 1059 g) than AL and LR broilers ($p<.001$); at the end of the second period (23-48 d), ER chickens showed higher weight gain (98.3 g/d *vs* 93.6 g/d and 90.2 g/d) and feed intake (182 g/d *vs* 177 g/d and 171 g/d) compared to AL and LR chickens ($p<.001$). Final live weight was the highest in AL group, intermediate in ER group, and the lowest in the LR one (3482 g, 3454 g, and 3399 g; $p<.01$). Feed conversion in the whole period did not change with the feeding system. At gross examination, white striping occurrence changed from 77.8% to 67.1%, and 81.7% in AL, ER and LR broilers ($p=.10$). Differences between genotypes were evident from the first day and, at the end of the trial, weight gain (74.3 g/d *vs* 70.1 g/d), feed intake (126 g/d *vs* 114 g/d), feed conversion (1.69 *vs* 1.64), and live weight (3548 g *vs* 3342 g) were higher in the Ross than in the Cobb chickens ($p<.001$). At slaughter, the rate of white-striped breasts was similar (on average 75.5%), but the occurrence of severely white-striped breasts was higher in the Ross than in the Cobb chickens (25.9% *vs* 7.41%; $p<.001$). Wooden breast occurrence (on average 5.1%) did not change with the feeding system or the genotype. In conclusion, under our conditions, a late feed restriction did not permit to recover performance at the end of the trial nor to control white striping occurrence. Moreover, the genotype affected growth rate and white striping degree: the highest the growth rate, the highest the severity of white striping.

Acknowledgements

The research was funded by the University of Padova (Year 2013; Research Project CUP: C24G14000090001).