ZOOTECNIA BRASIL
Centro de Convenções da PUC-GO | Goiânia-GO
27 a 30 de agosto de 2018

55ª REUNIÃO ANUAL DA SOCIEDADE BRASILEIRA DE ZOOTECNIA

ZOOTEC 28º CONGRESSO BRASILEIRO DE ZOOTECNIA

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

LOSSES DUE AGING PROCESS IN CHICKEN BREAST FILLETS AFFECTED BY WOODEN BREAST MYOPATHY[1]

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[1]This study was financed by São Paulo Research Foundation (Fundação de Amparo à Pesquisa do Estado de São Paulo, Brazil – FAPESP, 2017/05754-4)
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Aging is a technological procedure used to promote the increase of meat softness. It's a viable alternative to improve the commercialization of meat less tender, even though this is an uncommon practice in the poultry industry. Thus, this study aimed to evaluate the effect of aging process on the exudation, storage weight loss, and soluble protein in the exudate in chicken breast fillets affected by wooden breast. Were used 120 *Pectoralis major* muscle samples, from male Cobb broilers, slaughtered at 45-d-age in a commercial slaughterhouse. Samples were classified according to the myopathy severity as: Normal (NORM) (n = 40) - breast fillet flexible throughout its extension; Moderate (MOD) (n = 40) - hardness found on the cranial portion or on the caudal portion of the breast fillet; Severe (SEV) (n = 40) - hardness found throughout the breast fillet. Samples were individually identified, vacuum packed and aged in a BOD incubator (2±0.5°C) for three and seven days. Samples were weighed after and before the trial for three and seven days, to verify the storage weight loss (SWL); the exudate volume (EV) was measured using a measuring cylinder, collected in test tubes and frozen; posteriorly, the concentration of soluble protein (SP) was quantified in the exudate. Data were analyzed using a completely randomized design in a 3x2 factorial arrangement (three myopathy degrees and two aging times) and 20 replicates. Results were analyzed by SAS 9.4 (2013), tested by ANOVA and compared by Tukey's test at a significance level of $P<0.05$. Samples aged for seven days showed higher ($P<0.01$) SWL (4.34%) and higher ($P<0.01$) EV (0.030 ml/g) when than samples aged for three days (SWL= 2.88% and EV=0.019 ml/g, on average). There was a significant interaction ($P<0.01$) between myopathy degree and aging time for SP. A reduction ($P=0.0057$) of SP concentration was verified in SEV samples from three (0.120 mg/ml) to seven (0.111 mg/ml) days of aging. After seven days, the SP concentration was reduced in SEV samples (0.111 mg/ml) when compared to NORM (0.119 mg/ml) and MOD (0.120 mg/ml) samples. The longer the aging process, the greater the storage weight loss and the greater the production of exudate. Aging severe wooden breast samples for seven days' results in less protein loss through the exudate fluid.

Keywords: drip, exudate, hartree, meat quality, storage