

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

WOODEN BREAST MYOPATHY INFLUENCES VARIABLES RELATED TO JUICINESS IN CHICKEN BREAST FILLETS AGED FOR UP TO SEVEN DAYS¹

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Currently, there is high incidence of a new myopathy associated to chicken breast meat quality known as Wooden Breast, which affects the Pectoralis major muscle. This study aimed to evaluate the effect of aging process on water holding capacity and cooking loss in chicken breast fillets affected by the different degrees of wooden breast myopathy. A total of 180 Pectoralis major muscle samples, from male Cobb broilers, slaughtered at 45-d-age in a commercial slaughterhouse, was used. Samples were classified according to the myopathy severity as: normal (n = 60) - breast fillet flexible throughout its extension; moderate (n = 60) - hardness found on the cranial portion or on the caudal portion of the breast fillet; severe (n = 60) - 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. Water holding capacity and cooking loss were analyzed in samples at the beginning of this study and after three and seven days of aging. Data were analyzed using a completely randomized design in a 3x3 factorial arrangement (three myopathy degrees and three aging times) and 20 replicates. Results were analyzed by SAS 9.4 (2013), tested by ANOVA and compared by Tukey test at 5% of significance. Severe samples showed lower (P<0.05) water holding capacity (68.43%) than normal (72.80%) and moderate (72.22%) samples. Despite the increase (P<0.05) of water holding capacity in samples aged for three days (74.25%), when compared to the non-aged samples (71.47%) and to samples aged for seven days (70.06%), all results may be considered normal. There was a significant interaction (P <0.05) between myopathy degree and aging time for cooking loss variable. Due to the reduction of water holding capacity, cooking loss increased (P=0.04) as the myopathy severity increased, from 22.54% (normal) to 26.27% (severe). Severe samples are more exudative than normal and moderate samples, which possibly results in less succulent fillets.

Keywords: aging, meat quality, muscle disease, succulence

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