

Influence of Chinese breeds on pork quality of commercial pig lines

A.S.M. Cesar¹, A.C.P. Silveira¹, P.F.A. Freitas¹, E.C. Guimarães¹,
D.F.A. Batista¹, L.C. Torido¹, F.V. Meirelles² and R.C. Antunes¹

¹Programa de Pós-Graduação em Ciências Veterinárias, Faculdade de Medicina Veterinária, Universidade Federal de Uberlândia, Uberlândia, MG, Brasil

²Departamento de Ciências Básicas, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de São Paulo, Pirassununga, SP, Brasil

Corresponding author: A.S.M. Cesar

E-mail: aline_cesar@yahoo.com.br

Genet. Mol. Res. 9 (2): 727-733 (2010)

Received December 20, 2009

Accepted January 30, 2010

Published April 20, 2010

DOI 10.4238/vol9-2gmr733

ABSTRACT. We compared carcass and meat quality of pigs from the same sire line and two different dam lines, one that included Chinese breeds and one that did not. Line A consisted of 1/4 Landrace, 1/2 Large White, 1/8 Chinese breeds (Meishan, Fengjing, Jiaxing), and 1/8 Large White, Duroc and Pietrain, and line B consisted of 1/2 Large White and 1/2 Pietrain. The animals (N = 144) were slaughtered at a live weight of 108 kg. Backfat thickness, percentage of lean meat, pH 24 h after slaughter, meat color, percentage of drip loss, and percentage of intramuscular fat were measured and compared using analysis of variance in a completely randomized design; the BioEstat 5.0 test was applied for the comparison of means at a significance level of 5% for all analyses. Backfat was significantly lower for line A (12.78 mm) than for line B (15.90 mm). The pH measured 24 h after slaughter was significantly lower in line A (5.68) compared to line B (5.84). Percent lean meat was significantly higher for line A (61.21%) compared to line B (59.72%). Percentage drip loss was significantly higher in line A (2.73%) than in line B (2.23%). Percentage intramuscular fat and meat color were not significantly different between the lines. The inclusion of Chinese breeds produced a higher percentage of lean meat and

reduced fat thickness, along with increased heterosis, which are important characteristics for breeding programs.

Key words: Pork; Breed; pH; Muscle; Drip loss