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Association analysis between carcass weight and meat quality of Bamei pigs

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ABSTRACT. A total of 48 crossbred Bamei pig carcasses were divided into three groups (A, 60-69 kg; B, 70-79 kg; and C, 80-90 kg) to investigate the influence of carcass weight on meat quality. The intramuscular fat content of the three groups increased from 2.20% (Group A) to 4.14% (Group C). Group B had higher drip loss (6.83%, $P < 0.05$) than the other two groups. Warner-Bratzler shear force decreased with increasing weight (61.16 > 51.63 > 43.64 N, $P < 0.05$). No significant differences were observed in meat color, cooking percentage, and water holding capacity among the three groups. The polyunsaturated fatty acids/saturated fatty acids ratio in group B (0.23) was significantly higher than that in the other two groups. In conclusion,

our results suggested that a carcass weight of 70-79 kg is suitable for the production of Bamei pigs.

Key words: Carcass weight; Fatty acid composition; Bamei pig; Meat quality; Free amino acid composition