



Carcass composition and meat quality of indigenous Yanan pigs of China

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ABSTRACT. The Yanan (YN) pig is a traditional Chinese indigenous breed that is raised in southwest China in the Sichuan Province, but there is little data on the germplasm characteristics of this breed. To evaluate carcass characteristics and meat quality of the YN pig, we compared carcass and meat quality of YN pigs and Landrace × Yanan (CY) hybrid pigs; 30 YN pigs and 30 CY pigs weighing 20 ± 2 kg were reared and slaughtered at the normal slaughter weight (100-120 kg). The carcasses were chilled and the left carcass side was dissected into bone, lean meat, fat, and skin; meat quality parameters were measured. Carcasses of YN pigs were lighter (88.85 vs 90.05 kg, $P < 0.05$) and shorter (71.88 vs 77.61 cm, $P < 0.001$); they contained less lean meat (41.60 vs 49.25%, $P < 0.001$), less ham and breech (25.93 vs 27.53%, $P < 0.001$) and less carcass bone (9.83 vs 10.53%, $P < 0.01$) than did carcasses of CY pigs. On the other hand, YN pigs had more carcass subcutaneous fat and skin (48.58 vs 40.23%, $P < 0.001$), thicker backfat (3.67 vs 3.43 cm, $P < 0.001$) and smaller loin muscle area (9.83 vs 26.91 cm², $P < 0.001$) compared with CY pigs. Among meat quality parameters, YN pigs had higher pH₁ (6.41 vs 6.17, $P < 0.001$), higher color score_u (3.86 vs 3.36, $P < 0.001$) and lower Minolta L_u values (40.89 vs 45.32, $P < 0.01$)

than CY pigs. On the other hand, YN pigs had lower drip loss (1.31 vs 2.26%, $P < 0.05$) and lesser fiber area (2351.34 vs 3025.43 μm^2 , $P < 0.01$) than CY pigs. Both breeds had high intramuscular fat (4.46% in YN and 4.45% in CY). No significant differences in other carcass traits and meat quality were found in the two populations. We conclude that YN pigs could be used in commercial pig production to provide good tasting and high-quality niche products.

Key words: Chinese indigenous pig breed; Yanan breed; Meat quality; Landrace \times Yanan; Carcass composition