

Effect of gender on carcass traits and meat quality of Lanyu pigs ⁽¹⁾

Sheng-Yang Wu ⁽²⁾ Shin-Hsin Lee ⁽²⁾ Yu-Ling Huang ⁽²⁾ and Chia-Chieh Chang ⁽²⁾⁽³⁾

Received: Aug. 3, 2022; Accepted: Apr. 30, 2023

Abstract

The purpose of this experiment was to investigate the effect of gender on the carcass traits of Lanyu pigs. Eighteen 12-week-old Lanyu pigs with an average body weight of 13 ± 0.9 kg were assigned to either barrows or gilt groups. The feeding period was 16 weeks. The results showed that the live weight and carcass weight of the barrows were significantly heavier than the gilts ($P < 0.01$), and the loin eye area of the Lanyu gilts was significantly larger than the barrows ($P < 0.01$). There was no significant difference in terms of dressing yield, carcass length, and back fat thickness between the genders ($P > 0.05$). The analysis of the front, middle, and rear partitions of the carcass showed that the fat weight and total fat percentage of the barrows' carcasses were significantly higher than those of the gilts ($P < 0.05$), and the meat fat ratio (Lean : Fat) of middle and rear carcass of gilts was better than that of barrows ($P < 0.01$); The comparison of cuts showed that the shoulder ($P < 0.001$) in the carcass front part, lean weight ($P < 0.01$) and trimming weight ($P < 0.05$) in the carcass central part were significantly heavier in barrows than in gilts. However, there was no significant difference between genders in terms of the picnic, shank, neck meat, fore chopped lymph in the carcass front part, loin, belly, tenderloin in the carcass central part, ham, rear shank, and trimming in the carcass rear part. The fat content of the *Longissimus dorsi* muscle was significantly higher in barrows than in gilts ($P < 0.05$), and there was no significant difference between genders in terms of moisture content, crude protein content, ash content, drip loss, cooking loss, PH 1 and PH 24 of the loin and ham, and L*, a*, and b* values of muscle color.

Key words: Lanyu Pig, Carcass traits, Gender.

(1) Contribution No. 2746 from Taiwan Livestock Research Institute (TLRI), Ministry of Agriculture (MOA).

(2) Eastern Region Branch, MOA-TLRI, Ilan 268, Taiwan, R. O. C.

(3) Corresponding author, E-mail: janices@mail.tlri.gov.tw.