Formosa Black pig in Taiwan breeding swine auction web with selection traits on growth performance, body conformation and total sperm count

Mingche Wu¹, Yungyu Lai¹, Deryuh Lin¹ and Guizhu Liu² ¹Taiwan Livestock Research Institute, Tainan, Taiwan ²Formosan Farmers Association for Swine Improvement, New Taipei, Taiwan

Formosa Black pig is in common name in Taiwan for a large body size, solid black in coat color, a meat-type crossbred. Genetic improvement on traits of Formosa Black pig was adapted with birth recording in breeding herd book and breeding swine auction web system where applicable for international breed of pigs. Seven breeding farms raised them in small scale. Litter size and number of teats were 12.6 ± 2.4 live piglets and 14.1 ± 0.9 teats, respectively. Selection traits listed their means as follows: Age at 100 Kg of body weight in 48 gilts were 156 ± 6 days old with 3-point back fat thickness of 1.49 ± 0.03 cm and age at 110 Kg of body weight in 88 boars were 155 ± 4 days old and 1.43 ± 0.04 cm thickness of back fat. During the growth performance test period from 30 to 100/110 kg (gilt/boar), average daily gain was 0.96 ± 0.04 Kg in gilts with feed efficiency of 2.17 ± 0.05 ; average daily gain was 1.02 ± 0.01 Kg in boars with feed efficiency of 2.21 \pm 0.03. Semen of each of tested-off boars collected on 253 \pm 3 days of age with 159 ± 16 ml of semen. Body conformation traits of 109 boars measured at 168 Kg of body weight on 286 days old with 1.59 ± 0.06 cm thickness of back fat, 73.9 cm in shoulder height, 146.0 cm in length from neck to tail root and 36.7 cm in rump width. Total sperm count per collection was 67.2 ± 8.8 billion sperms in 196 ± 23 ml of semen. Body conformation traits of 139 gilts at 136 Kg of body weight were measured on 238 days old with 1.54 ± 0.05 cm thickness of back fat, 66.4 cm in shoulder height, 136.0 cm in length from neck to tail root and 35.0 cm in rump width. The combination length of shoulder height, body length and rump width were 256 cm in boar and 237 cm in gilt, respectively. In comparison to combination length in Duroc (258 cm), Landrace (263 cm) and Yorkshire (260 cm) boars, the body size of Formosa Black was like that of Duroc boar. Auction price sold of tested-off boars and gilts reached the highest of 75,000 and 40,000 TWD (30 TWD=1 USD), respectively. In conformation contest auction, sold price reached 109,000 TWD in boars and 39,000 TWD in gilts. Formosa Black in multiple breeding farms served as a terminal sire breed to produce a large body size of black hog for Taiwan live hog marketing.

Key words: Breeding, Marketing, Networking