

## **Legacies and Development of Taiwan Indigenous Black Pig Industry in Liouduei Area in South Taiwan**

Chun-chun Cheng and Yu-ten Ju

### **ABSTRACT**

According to industrial surveys conducted in early Japanese colonial era, domestic swine strains of Taoyuan and Meinong in Taiwan were first introduced from the Jiaying region by immigrants of Cantonese origin. Later, the Hakka population also migrated from mainland China to Taiwan, and brought along with them another strain of Chinese swine (*Sus scrofa domestica*), breeding techniques, and business model of animal husbandry. Consequently, swine husbandry developed in and expanded from Taoyuan and Meinong, and the swine reared in these areas became the indigenous breed of Taiwan. However, beginning from 1897, high economic benefits promised by imported foreign strains and interbreeding as well as the adoption of industrialized swine husbandry had led to marked decrease in the domestic strain over the years and gene introgression.

In 1984, the breeding stock of Taoyuan pigs collected from Hakka settlements in Longtan and Zhongli were subsequently preserved and maintained at the then Provincial Livestock Research Institute (i.e., currently the Livestock Research Institute). On the other hand, the pure breed of Meinong and Dingshuangsi pigs were thought to be lost due to genetic introgressions after 1952, and were thereby excluded from the strains to be preserved and maintained. In 2007, a research done by the National Taiwan University unveiled another breed of swine found in Liouduei settlement (mainly in Neipu and Jhutian Townships, where the breeders were mostly Hakka people) possessed mitochondrial DNA sequences distinctive from those of the Taoyuan lineage. Moreover, analysis of their microsatellite DNA polymorphisms found them to be genetically different from Taoyuan pigs. This special indigenous swine breed with Taiwan characteristics was considered a result of inbreeding between black pigs brought from mainland China and the local strain.

This study took the Swine Production and Marketing Group of Neipu Township as a case in point to look into the structural factors that have driven people in the Liouduei

settlement to continue breeding Taiwan indigenous black pig. Moreover, it examined the characteristics of Taiwan indigenous black pig (whose genetic traits can be distinguished from those of the Taoyuan strain) and pigs raised in the Liouduwei settlement, their cultural significance and industrial structure through the historical development of Taiwan's swine breeding industry. Before the outbreak of the foot-and-mouth disease (FMD) in 1997, the breeding of indigenous black pig had long been considered a sideline to traditional farming by the Hakkas. According to the Chinese traditional "scavenger feeding" convention, swill was the food for swine. With successive outbreaks of FMD in Taiwan, market of pork export almost came to a standstill, and the swine breeding industry was in jeopardy. A significant impact of this crisis was that the Hakka farmers in Neipu Township modified their breeding practice. First, they abandoned foreign swine breeds and opted for indigenous black pig that could adapt better to the local climate; and second, they combined traditional and modern ways of swine breeding. Such changes allowed farmers to find the niche within the competitive domestic pork market, enabling them to overcome the harsh challenges resulting from the outbreak of FMD, pork imports and soaring prices of international crops. Taiwan's swine husbandry with "scavenger feeding" practice had drawn attention to the culture of slow food that is rooted in the traditional way of feeding swine with swill. On the one hand, such rearing approach brought together agricultural practice and environmental protection through the concept of resource recycling; on the other hand, it also resulted in the preservation and remediation of Taiwan indigenous black pig.

**Keywords:** Taiwan Indigenous Black Pig, Scavenger Feeding, Swine Production and Marketing Group of Neipu Township, Foot-and-mouth Disease (FMD), Swine Breeding Industry