

## Study on the dietary nutrition of TLRI No. 1 Black pig

Chueh-Fang Liu<sup>1</sup>, A-Li Hsu<sup>1</sup>, Zong-wen Liao<sup>1</sup>

<sup>1</sup>Taiwan Livestock Research Institute, Tainan, Taiwan

The TLRI Black Pig No. 1 (TBP) was named in 2001 and became a new breed of black pig, which contains 25% *Taoyuan* pig and 75% *Duroc* pig of blood line. The relevant nutritional studies are described below according to gestating and lactating sow, nursery pig and growing-finishing pigs: (1) For TBP gestating sows, increased the amount of daily feed from 2.0 kg to 2.4 kg or 2.8 kg during 90 - 114 days pregnancy. The results showed that increasing the amount of daily feed up to 2.8 kg/day from 90 -114 days pregnancy could raise the number of pigs born live and survival rate. (2) For TBP lactating sows, fed 15% crude protein (CP) or 18% CP or 15% CP supplemental lysine to equal the lysine content with 18% CP diet. The results demonstrated that sows fed containing 15% CP supplemental lysine of diet had a higher weight gain of suckling pigs than 15% CP diet. (3) For TBP nursery pigs, fed containing 0.85%, 0.95%, 1.05%, 1.15% and 1.25% lysine of diets, respectively. The feed efficiency of the weaning pigs were improved by increased lysine contents from 0.85% to 1.05%, but not in feed intake and daily weight gain among lysine contents. As state above estimated that feeding with 1.05% lysine level of diet could maintenance normal growth for TBP nursery pigs. (4) Nutritional studies of TBP growing- finishing pigs. TBP grower pigs fed with 0.75% and 0.85% lysine content of diets revealed that feeding 0.85% lysine had a higher feed intake and daily weight gain than 0.75% lysine excluding feed efficiency. According to results estimated 0.85% lysine content could satisfy the lysine required for TBP grower pigs. During finishing period, there was no significant difference in growth performance between 0.60% and 0.70% lysine contents while digestive energy (DE) was at 3250 kcal/kg. Based on results, indicated that 0.60% lysine and 3250 kcal/kg DE could be an appropriate lysine and energy requirement in growth performance and carcass quality of TBP finisher pigs. In the future perspective for TBP pigs will continuously improve their growth performance and carcass quality through selection, which still requires appropriate nutrition supply. Therefore, it is still necessary to continue to explore nutritional research to meet growth performance of the TBP pig.

Key words: Nutrition, Nursery pig, Gestating sow.