## Carcass lean content estimation of Taiwan Pin-Pu black hog by optical probe

S60002

Jia-Jun Xu<sup>1</sup>, Chih-Yu Lin<sup>1,2</sup>, He-Chang Su<sup>1</sup>, Rong-Shinn Lin<sup>1</sup>

<sup>1</sup>Department of Biotechnology and Animal Science, National Ilan University, Yilan, Taiwan (R.O.C.). <sup>2</sup>Department of Animal Science and Technology, National Taiwan University, Taipei, Taiwan (R.O.C.)

The aim of this study was to investigate the application of Fat-O-Meat'er II optical probe instrument (FOM II) in Taiwan Pin-Pu black hog carcass evaluation. Sixty hog carcasses from a commercial slaughter plant were measured by optical probe and carcass traits were recorded. The results showed that average live weigh, carcass weight and dressing percentage were 122.57±13.38 kg, 105.68±11.17 kg and 86.20±1.30 %, respectively. The correlation between carcass dissectible lean percentage and carcass lean percentage which estimated by FOM reading of the third and fourth to last lumbar vertebrae was r=0.301 (p<0.05). The carcass lean percentage estimated by FOM reading of the tenth rib which related to dissectible lean weight and lean percentage were r=0.507 (p<0.01) and 0.785 (p<0.001), respectively. The utilization of carcass weight and backfat depth of the third and fourth to last lumbar vertebrae measurement to serve as estimators could explain 43.5% of variation (RMSE=2.67) for carcass dissectible lean weight prediction. The utilization of carcass weight and loin depth of the last rib measurement to serve as estimators could explain 49.8% of variation (RMSE=2.46) for carcass dissectible lean weight prediction. The utilization of carcass weight and backfat depth of the tenth rib measurement to serve as estimators could explain 82.5% of variation (RMSE=1.44) for carcass dissectible lean weight prediction. In conclusion, the carcass dissectible lean weight prediction of Pin-Pu black hog, the tenth rib might be an appropriate detection site for optical probe measurement.

Key words: Pin-Pu black hog, Optical probe, Carcass lean