

Effects of sex and halothane gene on the pig grading prediction equations of lean meat percentage*G. Daumas and M. Monziols**IFIP-Institut du Porc, BP 35104, 35601 Le Rheu Cedex, France; gerard.daumas@ifip.asso.fr*

Automation of pig classification methods make it relevant to quantify the main effects influencing the prediction equations of the lean meat percentage (LM%). A representative sample of the French pig slaughtering was selected in 3 abattoirs and stratified according to sex (50% castrated males and 50% females). Carcasses were measured by 3 classification methods – CSB Image-Meater® (IM), CGM, ZP – and cooled. An ear sample was analysed for Halothane gene (Hal). The left sides were cut according to the EU procedure and the four main joints were CT scanned. Images were thresholded in order to determine lean meat weight. Among the 209 pigs, the proportions of Nn and NN alleles were respectively of 52% and 48%, leading to a well balanced design. The least squares means were calculated for the factors SEX and Hal in an analysis-of-covariance model per classification method including the corresponding fat and muscle depths as well as the interactions. Interactions were never significant. Hal effect was not significant for the CGM. The adjusted differences between females and castrated males were for the lean meat percentage predicted by CGM, ZP and IM respectively of 1.0, 1.7 and 1.8. The adjusted differences between Nn and NN alleles were for the lean meat percentage predicted by ZP and IM respectively of 1.0 and 1.3. Sex could be managed by a different intercept in the classification equations if it is considered of practical relevance. The knowledge of the bias size between Hal alleles is of interest for the pig chain stakeholders.