



# **The ” Hampshire effect ” on the technological qualities of pork**

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water binding capacity), FOP and TEST values on different muscles. For the « best » 2-variable equations, which combine the pH24 of *Adductor femoris* (AF) or *Biceps femoris* (BF) and the subjective score for wetness, R was around 0.72. For the « best » 3-variable equations, where the same variables as above were combined with one FOP measurement, R was around 0.76. When using only pH24 or FOP measurements which can be taken without cutting the carcass R was around 0.68 and 0.72 with the best 2 and 3 variable prediction equations, respectively. A new « meat quality index » (MQI) was established on the basis of these results for use in progeny-testing stations : MQI was a 3-variable linear combination of pH24 of AF muscle, REF and TGW of BF muscle, and the correlation between MQI and TY was 0.718.

### The " Hampshire effect " on the technological qualities of pork

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The aim of the experiment was to determine the technological properties of meat from *Hampshire* (H) pigs, as compared to good quality meat from *Large White* (LW) pigs and to exudative meat from halothane-positive (HP) *Pietrain* pigs. All H and LW pigs were halothane-negative (HN). In 129 females and castrated males (45 LW, 20 HN *Pietrain*, 27 HP *Pietrain*, 35 H) several quality characteristics were measured on raw meat and one ham was processed into cooked « Paris ham ». Though pH was normal one hour *post mortem* in H pigs, which did not differ from LW pigs in this respects, pork from H pigs, especially females, showed a very low ultimate pH and the highest cooking loss in processing. However, meat was much less exudative when fresh and generally darker (reflectance measured at 630 nm) in H than in HP *Pietrain* pigs. A very low ultimate pH occurred in muscle from H pigs owing to a very high « glycolytic potential » (essentially glycogen content). It is proposed to use the term « Hampshire type » to denote meat whose qualitative inadequacies basically result from an abnormally lowered ultimate pH and to keep the term « PSE » to refer to meat whose exudative state comes from a too rapid pH fall in the first few instants following slaughtering.

### Meat quality in four pig breeds : relationships with halothane sensitivity and plasma creatine phosphokinase activity

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The halothane test was applied, at 25-30 kg live weight, to 1 156 female pigs from four breeds : 365 *Large White* (LW), 244 *French Landrace* (FL), 397 *Belgian Landrace* (BL),