

and 150 *Pietrain* (PP). Plasma creatine phosphokinase (CPK) activity was determined by the Antonik method from blood samples collected 8 hours after a physical stress at around 90 kg live weight. Meat quality criteria were assessed on ham muscles the day after slaughter : pH of *Adductor femoris* (PH 24), reflectance of *Gluteus superficialis* (REFL), « time to get wet » of *Biceps femoris* (TGW), subjective score (SCORE), and meat quality index (MQI), which is a linear combination of PH24, REFL and TGW. In REFL, TGW and SCORE, the LW breed gave the best results and the PP breed markedly the most unfavourable ones, whereas IQV was the same in the LW, LF and BL breeds. As regards log CPK, the breed means for LW, PP, FL and BL were  $1.23 \pm 0.02$ ,  $1.45 \pm 0.04$ ,  $1.49 \pm 0.02$  and  $1.75 \pm 0.02$ , respectively. The within-breed differences (d) between halothane-positive (HP) and halothane-negative (HN) pigs were estimated. Halothane-positive pigs gave a paler meat ( $d = 49 + 10$  in REFL), with a reduced water binding capacity ( $d = -2.8 \pm 0.6$  in TGW) and a lower subjective score ( $d = -2.2 \pm 0.3$ ), and had an elevated plasma CPK activity ( $d = 0.26 \pm 0.03$  in log CPK). However, whatever the breed, HN and HP pigs did not significantly differ in PH24 and MQI. Within-breed and slaughtering day correlations between log CPK and meat quality traits were generally very low : the CPK-test was, in the conditions of this study, a poor predictor of the technological quality of meat.

**Organoleptic qualities of pork from three breeds :  
Large White, Belgian Landrace, French Landrace**

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Organoleptic qualities of pork from three breeds were compared.

The *Longissimus dorsi* from 7 Large White (LW), French Landrace (FL) and Belgian Landrace (BL) females were analysed by testing panels and physico-chemical methods.

The following results were obtained :

	Breed characteristics			Differences
	LW	BL	FL	
Tenderness .....	5.5	4.1	5.9	***
Juiciness .....	3.7	3.5	3.5	—
Flavour .....	4.5	4.2	4.6	*

Large differences in meat tenderness could be observed, ranging from the most to the least tender meat : FL, LW, BL. But no significant differences were noted for juiciness and only small differences for flavour.

Physico-chemical characteristics did not show any significant differences for dry matter, nitrogen, lipids, pH and water binding capacity. Only the hydroxyproline content varied significantly between breeds (in decreasing order : BL, LW, FL).

The tougher BL meat could be explained by a higher collagen content, but also by the fact that those animals were more stress susceptible than the others.