

## PORK MEAT QUALITY: INTRAMUSCULAR FAT AND LIPID BACKFAT PROFILE

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**Keywords:** pork meat quality, intramuscular fat, backfat.

The aim of this study was to provide information on the lipidic composition of pork meat considering the effect of the crosslinking of Landrace x Large White (La x LW) with the following male genotypes:

- A: Sintetic (Pietrain x Large White x Landrace) (Pi x LW x La)
- B: Sintetic Pen Ar Lan (Pi x Lw x Hampshire)
- C: Sintetic Pen Ar Lan x Pi
- D: Duroc x Pi

The intramuscular fat content and the fatty acid backfat profile were analysed in 196 loin and 105 backfat by gas chromatography. The intramuscular fat content was low (1.2%) and the backfat had a high content of polyunsaturated fatty acids (PUFA). A high level of linoleic acid (25.21%) was associated with a lower monounsaturated fatty acids (MUFA) percentage (37.98%). The highest linolenic acid content corresponded to animals of the group B, feeding with diet rich in corn.

These results showed that a high adaptability to the demand of lean meat was associated with a low technological suitability of the backfat as far as storage and elaboration of different meat products - in which PUFA a higher content of monounsaturated fatty acids was recommended - were concerned.

## Results

|                                 |       |       |       |       |
|---------------------------------|-------|-------|-------|-------|
| Genotype                        | A     | B     | C     | D     |
| Intramuscular fat (%)           | 1.2   | 1.2   | 1.2   | 1.2   |
| Backfat (%)                     | 1.2   | 1.2   | 1.2   | 1.2   |
| Linoleic acid (%)               | 25.21 | 25.21 | 25.21 | 25.21 |
| Monounsaturated fatty acids (%) | 37.98 | 37.98 | 37.98 | 37.98 |
| Linolenic acid (%)              | 1.2   | 1.2   | 1.2   | 1.2   |
| PUFA (%)                        | 1.2   | 1.2   | 1.2   | 1.2   |
| MUFA (%)                        | 37.98 | 37.98 | 37.98 | 37.98 |
| Linoleic acid (%)               | 25.21 | 25.21 | 25.21 | 25.21 |
| Monounsaturated fatty acids (%) | 37.98 | 37.98 | 37.98 | 37.98 |
| Linolenic acid (%)              | 1.2   | 1.2   | 1.2   | 1.2   |
| PUFA (%)                        | 1.2   | 1.2   | 1.2   | 1.2   |
| MUFA (%)                        | 37.98 | 37.98 | 37.98 | 37.98 |
| Linoleic acid (%)               | 25.21 | 25.21 | 25.21 | 25.21 |
| Monounsaturated fatty acids (%) | 37.98 | 37.98 | 37.98 | 37.98 |
| Linolenic acid (%)              | 1.2   | 1.2   | 1.2   | 1.2   |
| PUFA (%)                        | 1.2   | 1.2   | 1.2   | 1.2   |
| MUFA (%)                        | 37.98 | 37.98 | 37.98 | 37.98 |
| Linoleic acid (%)               | 25.21 | 25.21 | 25.21 | 25.21 |
| Monounsaturated fatty acids (%) | 37.98 | 37.98 | 37.98 | 37.98 |
| Linolenic acid (%)              | 1.2   | 1.2   | 1.2   | 1.2   |
| PUFA (%)                        | 1.2   | 1.2   | 1.2   | 1.2   |
| MUFA (%)                        | 37.98 | 37.98 | 37.98 | 37.98 |
| Linoleic acid (%)               | 25.21 | 25.21 | 25.21 | 25.21 |
| Monounsaturated fatty acids (%) | 37.98 | 37.98 | 37.98 | 37.98 |
| Linolenic acid (%)              | 1.2   | 1.2   | 1.2   | 1.2   |
| PUFA (%)                        | 1.2   | 1.2   | 1.2   | 1.2   |
| MUFA (%)                        | 37.98 | 37.98 | 37.98 | 37.98 |
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