

## Effect of sow lines and type of Belgian Piétrain sire line on carcass and meat quality

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For decades, pig breeding in Flanders has focused strongly on a high carcass lean meat content and low feed conversion ratio. However, the selection towards high carcass quality has unintendedly led to a lower meat quality in terms of taste, juiciness and PSE-like meat. Indeed, with higher lean growth and decreased fat deposition, lower intramuscular fat (IMF) level can be anticipated due to the genetic correlation between lean meat percentage and IMF level. As not only sire line, but also sow line may influence the outcome, the aim of this study was to evaluate the crossbred offspring of three most common sow lines in Flanders with two types of Belgian Piétrain sire lines on carcass quality (lean meat content) and meat quality (pH<sub>1</sub>, drip loss and IMF) of the loin. Three hybrid sows were compared: Topigs 20, TN70 (Topigs Norsvin), Mira (RA-SE genetics). The first type of sire line was selected for a higher growth rate (Optimal) and the second type of sire line for a higher carcass quality (Premium). Across three rounds, the lean meat percentage of 270 pigs (135 gilts and 135 immunocastrates) were evaluated. A total of 216 pigs (18 pigs/crossing/sex) were selected to evaluate meat quality. In the preliminary results (means of round 1), a higher lean meat content was observed by the offspring of TN70 (66.0%) compared to Mira (64.4%) and Topigs 20 (64.5%). No differences between the two sire lines were observed (65.3% Optimal, 65.2% Premium). Regarding the initial pH no big differences can be observed between the three sow lines and two sire lines, the mean varied between 6.34 and 6.44. Between the three sow lines, the drip loss percentage was the highest by Mira (10.2%), followed by TN70 (9.2%) and the lowest by Topigs 20 (7.9%). The Optimal sire line showed a higher drip loss percentage (9.2%) compared to Premium (8.8%). Regarding the IMF, Topigs 20 had the highest IMF (1.83%) compared to the two other (Mira:1.68% and TN70: 1.68%). The IMF content of the was 1.60% for optimal and 1.84% for the Premium sire line. The complete dataset will be available at the end of March 2019.