



Preventing undesired behaviors and reducing the risk of boar taint in organic intact male pigs by genetic, management and feeding strategies

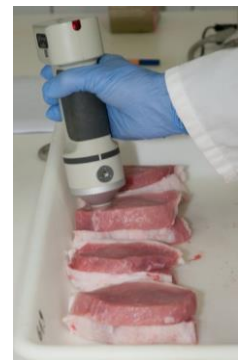
Two experiments are dedicated to evaluate the main levers to reduce boar taint and undesired behaviors (sexual mounting and aggressions) in organic intact male pigs: genetics, age/live weight at slaughter, management and feeding.

Genetic strategies and age/live weight at slaughter

One study, in progress in 2022, compares two pig genotypes: Large White x Duroc, favorable for pork quality (tenderness, processing yield) vs. Large White x Pietrain, considered as conventional but with lower risk for boar taint. All pigs are produced in optimized social (stable groups from weaning) and housing conditions (good ventilation and cleanliness of the inside pens on straw and of the outdoor runs) to reduce boar taint.



Pig growth performance and indicators of animal behaviour are recorded at various stages of the growing-finishing period (25-125 kg live weight). Carcass composition and commercial value are determined. Meat quality traits are measured at slaughterhouse and by laboratory analyses to evaluate sensory (tenderness, boar taint: androstenone, skatole) and technological properties of pork.



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The effect of lower slaughter age/live weight on boar taint risk is also assessed by predicting the level of odour components from blood samples.

Pig management and feeding strategies

A second study compares improved rearing management: additional straw in the pen and additional fibre in the diet (alfalfa meal) vs 'standard' organic conditions on pig welfare and boar taint.

The behaviour and health status of the animals are recorded during the growing-finishing period. These observations, still in progress, will allow to have a follow-up of the behaviour, the health status and the cleanliness of the housing during the fattening phase. In the first experimental batch, several injuries were observed on young sows that were mixed with entire males. This indicates that, as mentioned by other farmers, the young sows need to be separated from entire males during the 30-120 kg bodyweight range.



A pig with aggression lesions on the left, unharmed on the right

Preliminary data indicate that average daily gain of entire male pigs was not adversely impacted compared to barrows. Lean meat content of carcasses was logically higher for entire male pigs than for barrows.

On average, the level of tainted carcasses detected by the human nose method was around 4.6 %, which is quite high compared to conventional production (2 to 4 %), but has to be confirmed when all data will be available. In addition, first results (to be confirmed) show a lower level of scatol in fat from pigs reared in improved conditions with added straw in the pen and added fiber in the diet, suggesting a favourable effect of these conditions on the reduction of the risk for boar taint.



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Altogether, these animal experiments conducted in experimental and commercial organic pig farms will propose practical farming solutions to allow ending of surgical castration of organic male pigs in good conditions for animals (reduced aggressiveness), producers (good growth performance of intact males, lower carcass discount due to tainted pork), and consumers (improved animal welfare and meat quality).



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