

Carcass characteristics and boar taint in entire male pigs from commercial French organic farms

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Surgical castration of male pigs is now forbidden without anaesthesia and analgesia in France. Rearing entire male pigs is a way to stop castration and to improve feed conversion and Lean Meat Percentage (LMP) which have important economic values in organic pig production. However, there is a risk of tainted meat which is mainly due to androstenone (A) and skatole (S) stored in fat tissues. This project focuses on the performance and boar taint of entire male pigs in organic farming. Entire male pigs from six organic farms located in the western part of France were followed along one year. Data collection included age at slaughter, carcass weight, LMP (n = 849), human nose evaluation (n = 622), S and A concentrations in backfat (n = 577). For human nose evaluation, carcasses were scored 0 (no boar taint), 1 (suspicious odour), or 2 (boar taint).

Most of the boars (84%) were slaughtered before 210 days of age with great variation between farms from 178 ± 1 to 209 ± 2 days (mean \pm SE, $P < 0.001$). The average carcass weight varied also between farms (90.1 ± 0.7 to 99.2 ± 1.6 kg, $P < 0.001$) as well as the average LMP (59.2 ± 0.3 to 60.7 ± 0.3 $P < 0.001$). For human nose evaluation, most carcasses (94.5%) were scored 0, 4.0% were scored 1, and 1.4% scored 2. Median S (0.02 to 0.06 $\mu\text{g/g}$ pure fat) and A (0.54 to 1.78 $\mu\text{g/g}$) concentrations in backfat varied a lot between farms ($P < 0.001$). A positive correlation was depicted between A and S ($P < 0.0001$), and between carcass weight and A ($P < 0.03$). Within farms, analyses revealed a significant variation between trimesters in one farm for A and in a second farm for S and a positive correlation between age at slaughter and A in two farms ($P < 0.03$).

Rearing entire male pigs can be a good alternative to castration in organic farming provided the risk of boar taint is under control choosing a genotype with low risk for A, avoiding old and heavy pigs at slaughter and maintaining a clean and well-ventilated housing.

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