

Consumer testing of fresh meat from young boars: relationships with androstenone content in fats

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HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés. visual and olfactive contact with sows) and two diets (R1 balanced control and R2 with an excess of tryptophan) were compared. Neither rearing conditions nor diets had a significant effect on growing performance or male genital tract development. A tendency to lower incidence of boar taint in pigs fed with diet R2 (32 to 40 p. 100 of opinions vs 47 to 58 p. 100 for diet R1; p < 0.10). This result is contrary to the hypothesis according to which an excess of tryptophan could lead to higher synthesis and storage of skatole (compound having a faecal odour) in fat. In other respects, there was a significant relationship between boar taint intensity and weight of bulbourethral glands (r = + 0.59; p < 0.01). The weight of these glands could be a simple criterion to be used on the slaughter line for an easy detection of suspect carcasses needing further testing.

Consumer testing of fresh meat from young boars : relationships with androstenone content in fats

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Consumer testing of roasts and ribs was made in 55 French families from the area of Paris. Large White young boars were raised according to different rearing conditions either with or without females in adjacent pens and either in individual or collective boxes. The animals were slaughtered at 95 kg and 167 days or 105 kg and 185 days, on an average. Results concerning the storage of androstenone in backfat have been published previously (BONNEAU and DESMOULIN, 1980). The results of 229 consumption tests are reported in table 1 for boar meat and control meat from castrates and females according to cuts and main criteria, i.e. cooking odours or taste at the family table.

1) The main cooking odour difference ($\Delta_{\rm HT}$) corresponded to the unpleasant odours recorded in boar meat (37-39 p. 100) as compared with control meat (3-9 p. 100). There was tendency to a greater number of unpleasant assessments for boars reared with females. However, the largest differences were registered according to slaughter weights, especially for taste of boar meats : 34 p. 100 unpleasant rating at 105 kg versus 18 at 95 kg.

2) According to androstenone content in fats, a clear *threshold* of *unacceptable cooking odours* was noticed for meats above 1 ppm androstenone : 18 p. 100 of the total boar production is involved in this refusal by the consumers. On the other hand, there were tendencies for an *increase in critical notations for meat taste* above 0.5 ppm androstenone ; 45 p. 100 of the total boar production may be concerned. The strong taste was generally registered, but the criticism was less marked as for cooking odours.

The role of androstenone is discussed on account of the different off flavours of boar meat during the cooking procedure.

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