Evolution of testes characteristics in entire and immunocastrated male pigs from 30 to 120 kg live weight as assessed by computed tomography with perspective on boar taint

Meat Science (2016) 116, 8–15

Maria Font-i-Furnols [1,*], Anna Carabús [1], Israel Muñoz [2], Marjeta Čandek-Potokar [3], Marina Gispert [1].

[1] IRTA, Product Quality, Finca Camps i Armet, 17121, Monells, Girona, Spain
[2] IRTA, Food Technology, Finca Camps i Armet, 17121, Monells, Girona, Spain
[3] Agricultural Institute of Slovenia, Hacquetova ulica 17, 1000 Ljubljana, Slovenia

[*] Corresponding authors: maria.font@irta.cat

Abstract

The present study addressed (1) the levels of boar taint compounds in entire (EM) and immunocastrated (IM) male pigs during their growth, (2) the evolution of testes volume and density and (3) the relationship between physical characteristics of the testes and boar taint compounds. For that purpose 24 EM and 20 IM pigs were CT scanned at several body weights (TBW). After each scanning a subsample of pigs was slaughtered, and subcutaneous fat was collected to determine androstenone and skatole concentration. Additional subsample (n=4/sex) was CT scanned 13 days after the second vaccination (V2). Testes density changes with growth, is different in EM and IM, but is not a reliable marker of the level of boar taint compounds. On the other hand, testes to body volume ratio is a better predictor for androstenone and could provide a good tool at slaughter plants to detect immunocastrated pigs with high boar taint compounds.