



HERD HEALTH MANAGEMENT & ECONOMY

HHM-001

A COMPARISON OF MALE PIGS DESTINED FOR THE PRODUCTION OF HIGH-QUALITY CURED PRODUCTS USING EITHER PHYSICAL CASTRATION OR IMMUNOCASTRATION: META-ANALYSIS OF RELEVANT CARCASS DATA

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Introduction

High intramuscular (IM) fat content and backfat depth are important requirements for pigs destined for high-quality cured products (HQCP). Those pigs are commonly slaughtered at heavy live-weights; therefore need to be castrated to avoid boar taint and unacceptable male behaviour. Immunocastration with Improvac® (Zoetis) (IC) is a growing and effective and animal-friendly alternative to physical castration (PC), which is voluntarily abandoned by 2018 in Europe. The aim of this study was to compare the impact of these two approaches on ham yield, IM fat and backfat by applying meta-analyses techniques.

Materials and Methods

Pigs of different breeds, destined for the production of HQCP, were included. For subgroup analyses, hot carcass weight was used to categorize studies into heavy-weight pig production (>97.7kg) and medium-weight pig production (90.9kg-97.7kg). For all analyses including >3 comparisons, a random-effect model was used; when ≤3 comparisons, the more suitable fixed-effect model was applied.

Results

Five experiments comparing 250 IC pigs with 243 PC pigs, published in four peer-reviewed articles were identified. Over all pigs, absolute weights of hams were similar. Considering heavy pigs only, IC pigs yielded 300g more ham than PC pigs ($P<0.05$). % IM fat was numerically smaller in IC compared with PC pigs, although not statistically significant. Backfat was approximately 3mm lower in IC pigs ($p<0.0001$). Nevertheless, IC pigs met the minimum requirements defined for HQCP: in average all pigs had >2.5% IM fat and >20mm backfat, and Iberian pigs had an average backfat of >50mm.

Discussion and Conclusion

Meta-analyses of studies comparing IC and PC pigs raised for the production of HQCP showed that Improvac is a suitable alternative to PC, as IC pigs also exceeded the required thresholds for IM fat and backfat defined for HQCP. Moreover, heavy-weight IC pigs yielded higher weights of ham compared to heavy-weight PC pigs.