

EFFECT OF GENDER, CASTRATION, AND DIET ON SENSORY CHARACTERISTICS OF PORK DRY CURED LOINS

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1. Introduction

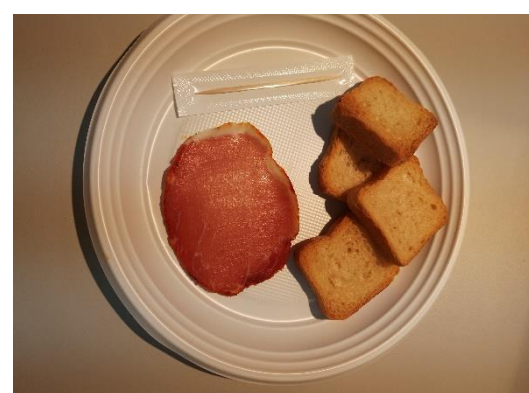
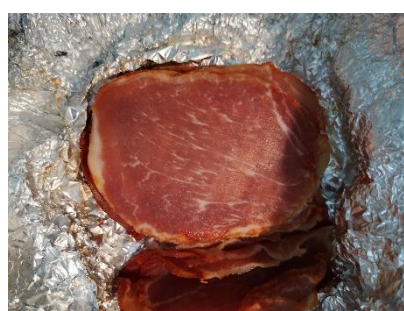
The need to end the routine surgical castration without anesthesia of male pigs, when they are slaughtered at high weights and intended for cured products has been increasing in recent years, both from an animal welfare point of view and the perception and acceptance of the final consumer. Alternatives are rearing whole pigs (raising them without castration to lower weights) and immunization against GnRH (vaccination). While the first option can have advantages, it can also cause some problems after a certain weight/age is reached, leading to economic losses. On the other hand, immunocastration can influence the hormonal effects on the animals' meat quality and behavior. Also, recent studies showed clear evidence that the production of skatole and, ultimately, its subsequent deposition in the fat of pigs can be affected by dietary means

2. Objective

This work aimed to compare the sensory characteristics from pork dry cured loins from immunocastrated females (F), surgical castrated males (CM), immunocastrated males (IM), fed with peas (P) or soyabean meal (S) as main dietary source of crude protein.

2. Material and methods

The pigs were Duroc x Berkshire crossbreds slaughtered at 140 kg of body-weight. Half loins were spiced and cured for 8 weeks (3 replicates per group).



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A capacidade de abstração em relação a tudo e a concentração nos seus sentidos são fatores determinantes para a execução de uma boa avaliação sensorial

Email *

Identifique a amostra *

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Atributos visuais e odor

Cor do músculo (magro) *

Considere a cor global da amostra dando particular ênfase para a cor do músculo (carne magra) e baseando na seguinte sequência de cores:

1 2 3 4 5 6 7 8 9



Cor da gordura *

1 2 3 4 5 6 7 8 9

Branco Predomina gordura

Relação músculo/gordura *

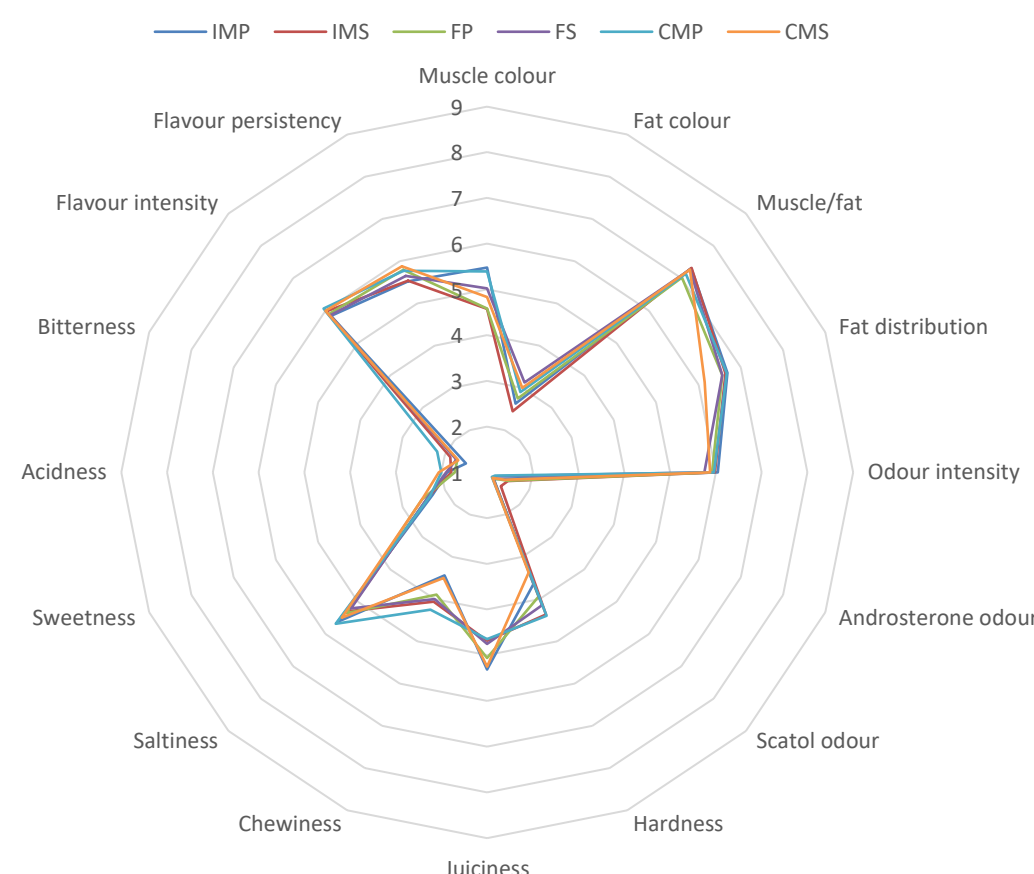
1 2 3 4 5 6 7 8 9

Predomina gordura Predomina músculo

Twenty-two qualitative and quantitative appearance, odor, texture, and taste attributes were evaluated by a trained taste panel (n=8 people), all treatments were evaluated in duplicate in each of 3 sessions. Data were submitted to a non-parametric ANOVA, and pairwise comparisons were made using Friedman test for related samples with SPSS.

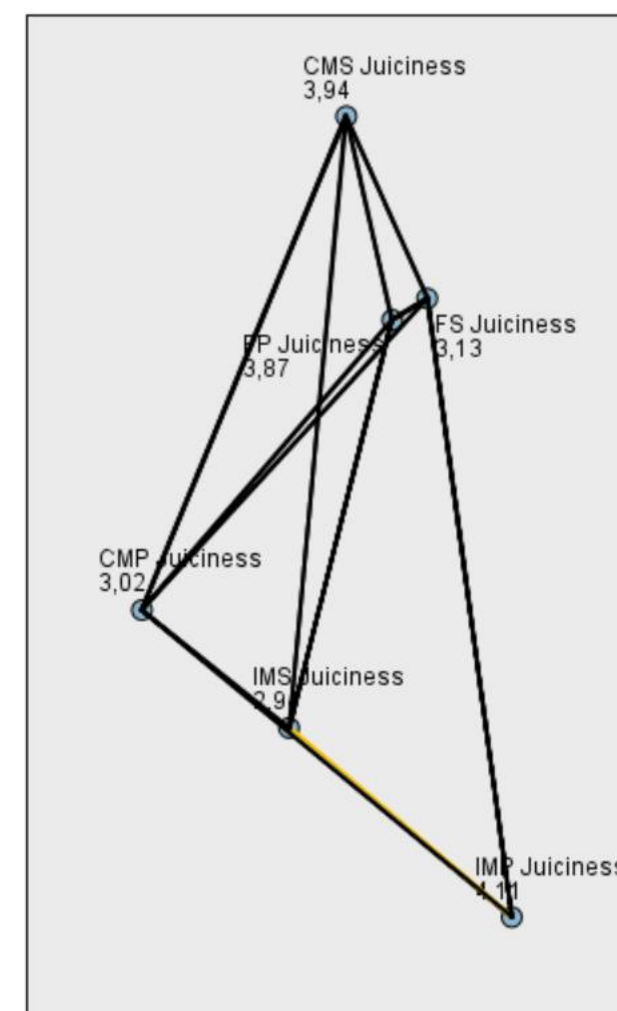
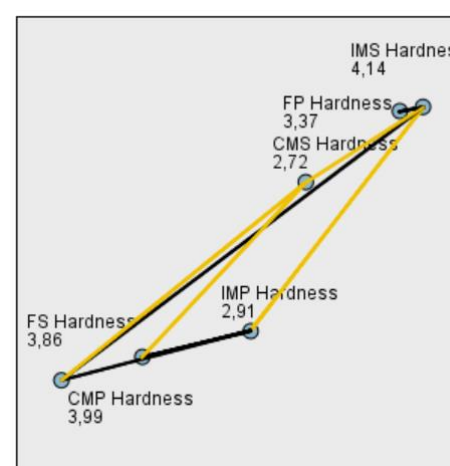
3. Results

Graph 1 show the sensory profile of the cured loins obtained from the animals submitted to the different treatments.



Graph 1 – Sensory profile (quantitative sensory attributes means) evaluated in the cured loins obtained from the animals submitted to the studied treatments.

Results showed significant differences between fat colour from FS and IMS dry cured loins. The highest differences were found in texture attributes, hardness, and juiciness. Gender, castration method and feed influenced dry cured loins hardness. CMS were significantly less hard than IMS and FS, and CMP. IMP were less hard than IMS. Juiciness was higher in IMS than IMP. About chewiness, pairwise comparisons indicated no significant differences between samples. IMP dry cured loins were considered bitter than CMP.



Only a small amount of sexual odor was detected by panelists, and no significant differences were found among the studied samples.

Qualitative attributes that indicate the perception of odor and specific flavor of pork, as well as the presence of condiments associated with the recipe used in the production of pork cured loins, were sensorially evaluated.

5. Final Considerations

Immunocastration did not compromise the boar taint scoring and may be a good alternative to supply high quality meat products.

Acknowledgements



Laboratory of Technology and Quality of the Carcass and Meat

