

18 EFFECTS OF TWO IMMUNOCASTRATION PROTOCOLS ON MEAT QUALITY OF PURE ALENTEJANO BREED MALES REARED OUTDOORS: FIRST RESULTS

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The Alentejano pig, a local portuguese breed, is known for its high-quality PDO and PGI meat and meat products. Traditionally, these animals are reared to older ages and heavier weights, with male castration used to prevent boar taint, which adversely affects meat flavor and odor, as well as to reduce aggressive behaviors. With the impending ban on surgical castration within the European Union, alternative solutions are necessary. Immunocastration (IMC) offers a promising alternative, yet protocols for outdoor-reared pigs of this breed, as well as their effect on meat quality, are not well established. Under the SUMO project (Sustainability of the “Montado”) a study was initiated to evaluate the impact of different immunocastration protocols on the meat quality of Alentejano breed males. Thirty males, reared from 5 to 14 months of age (~52 to 191 kg body weight) were divided into three experimental groups, each consisting of 10 animals: group C – control group with surgically castrated males; group IMCP – males subjected to an early IMC protocol involving four Improvac® administrations beginning at 5 months of age; and group IMCT – animals subjected to a late IMC protocol with three Improvac® administrations starting at 10 months. The pigs were reared in three outdoor parks, each with more than 100m² per animal. Each park had a collective shelter, and a set of ten feeding stations with individual feeders and drinkers, allowing for individual feeding and drinking. The feeding regimen, based on commercial diets, followed those used on commercial farms for animals intended for the “Montanheira” system (outdoor fattening with pasture and acorns), including a feed restriction period before fattening.

Animals were slaughtered at an average weight of 190.6 kg BW, and performance and carcass data are presented in companion works. Samples of Longissimus lumborum (LL) were collected and analysed. Moisture, total ashes, ultimate pH, drip loss, total collagen and CIE color were not affected by treatments. However, C and IMCP pigs presented significantly lower LL protein content and higher intramuscular fat content compared to IMCT pigs. These results suggest that pigs subjected to the early IMC protocol exhibited similar meat quality parameters to the surgically castrated ones, whereas IMCT pigs produced a leaner meat, most likely due to the late administration of Improvac® in the latter group.

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