RACTOPAMINE HYDROCHLORIDE AND IMMUNOCASTRATION EFFECTS ON PHYSICAL AND PHYSICOCHEMICAL CHARACTERISTICS OF FRESH AND ENHANCED PORK LOIN


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The addition of ractopamine (RAC) on swines diets in termination phase has improved animals performance. Immunocastration substitutes the cruel physical castration method, using the benefits of testicular steroids effects on the development of the carcass before the second vaccine dose. There is few available research about the use of these technologies combined in industrialized products. The goal of the present study was to evaluate the RAC (7.5 ppm) effects on fresh and marinated loin characteristics (protein, humidity, pump level, pH, drip loss and for cooking loss) in immunocastrated, physically castrated, and females swines. Protein and humidity content of the fresh loin ranged from 22.01 to 24.41 g/100g and from 72.1 to 74.27 g/100g, respectively. After marination process there was a reduction of protein content in all treatments, due to the solubilization of the myofibrillar portions, and humidity decreased in treatments with RAC. RAC influenced (p<0.05) process performance, with a reduction in the brine absorption (RAC 0 – 11.88% and RAC 7.5 – 10.54%). Fresh meat pH ranged from 5.38 to 5.40. For marinated meat, this variation ranged between 0.1 and 0.2 units. There was no difference (p>0.05) for drip loss in fresh and marinated meat. Cooking loss were higher in RAC treatments for fresh meat (RAC 0 – 22.39% and RAC 7.5 – 24.62%). However, after enhancement there was no difference. The combination of RAC and immunocastration presented no negative effect on meat quality. Marination improved some swine loin quality aspects.