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INFLUENCE OF LACTIC ACID AND ASCORBIC ACID MIXTURE ON THE QUALITY OF WILD BOAR MEAT STORED UNDER VACUUM PACKAGING AT CHILLED STORAGE

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Abstract

The wild boar (*Sus scrofa*) is one of the world's most widely dispersed animals. Recently, wild boar meat consumption has been increasing each year. Therefore, in this work, the impact of lactic acid and ascorbic acid mixture treatments was evaluated with the spray method in wild boar meat surfaces on meat quality parameters such as pH and color.

For the experiment, fresh wild boar meat from a local processing plant was used, and stored at 4 ± 1 ^{0}C for 1 day. A mixture of 2% lactic acid with 2% ascorbic acid was sprayed onto meat samples. The samples were vacuum-packed and stored at 4 ± 1 ^{0}C for 21 days. Quality parameters were measured on days: 0, 7, 14, and 21. The pH values were determined with a digital pH meter, and the color of the meat surface was measured using a colorimeter. L*, a*, and b* values were measured and delta E, hue angle, and chroma were calculated. The significance of differences between the treated and non-treated samples was determined by a two-way analysis of variance using the software IBM SPSS27.

Color measurement data indicate that the L* values of treated and non-treated wild boar meat samples did not show a significant ($P > 0.05$) difference from each other. However, treated samples had significantly ($P < 0.05$) higher a* values compared to non-treated samples on days 14 and 21. The a* values are important because a* values show redness and larger values that indicate a redder color. Therefore, spray treatment effected positively for color. For pH measurement, it was established that the lactic acid and ascorbic acid mixture are decreasing the pH of wild boar meat at the beginning of the display period. This initial decline could be caused by the acid treatment. Furthermore, pH values were slightly higher than non-treated samples at the end of the display period.

Therefore, in the conclusion, a 2% lactic acid and 2% ascorbic acid mixture could be an alternative to extend wild boar meat shelf life.

***Key words**: Wild boar meat, Lactic acid, Ascorbic acid, Spray method, Meat quality, Color.*