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THE EFFECTS OF DIFFERENT PROCESSING CONDITIONS ON BIOGENIC AMINE FORMATION AND SOME QUALITATIVE PROPERTIES IN PASTIRMA PRODUCTION

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In this research, two different curing temperatures (4℃ or 10℃) and two different curing agents (150 ppm sodium nitrite or 300 ppm potassium nitrate) for pastırma production were selected as factors and it was aimed to determine the effects of those factors on biogenic amine content and some other qualitative properties of pastırma. The production of pastırma was conducted under controlled conditions. After the production, analysis of biogenic amines as well as pH, aw, residual nitrite, TBARS, non-protein nitrogenous substance content and color (L*, a* and b*) analyzes were performed in the final product. Microbiological (Lactic acid bacteria, *Micrococcus/Staphylococcus*, Enterobacteriaceae and yeast-mold) properties of samples were also analyzed. Both curing temperature and curing agent had no significant differences ($P>0.05$) on the amounts of tryptamine, cadaverine, histamine, tyramine and spermine. Very significant effects ($P<0.01$) of curing temperature on the amount of putrescine and of curing agent on the amount of spermidine was also determined. Phenylethylamine was not detected in pastırma samples.The amount of residual nitrite was detected under the 10 ppm in all of pastırma samples. Both curing temperature and curing agent were found to have very significant effect ($P<0.01$) on the TBARS value. Curing agent had a very significant effect ($P<0.05$) on non-protein nitrogenous substance content. Curing temperature of 10℃ increased L* value, use of nitrate also increased a* value. The use of nitrite had shown a negative effect on the growth of lactic acid bacteria. *Micrococcus/Staphylococcus* showed a good growth in the presence of nitrate. In all of pastırma samples, Enterobacteriaceae counts were found under the detectable level.
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