SENSORY ACCEPTANCE AND FATTY ACID PROFILE OF BOLOGNA SAUSAGE WITH ADDITION OF LINSEED OIL AND BLENDS OF HERBS AND SPICES

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The lipid reformulation profile of meat products using polyunsaturated oil as substitute for saturated fat (SFA) has been subject of many studies. However, the increase of polyunsaturated fatty acids (PUFAs) content at composition of meat products results in increase of susceptibility to oxidative deterioration, leading to loss of quality. To minimize such losses, natural antioxidants have received attention in researches. The aim of this study was to evaluate the sensory acceptance and fatty acid profile of bologna sausage with addition of herbs, spices and linseed oil as a partial substitute of pork fat. Five formulations were prepared with 7.2% of pork fat, 10.8% of linseed oil and 0.5% of blends with herbs and spices. The blends used were: F1: rosemary, coriander, white pepper and jamaica; F2, F3 and F4, identical to F1 with addition of marjoram, sage and thyme, respectively; and F5, with all the herbs and spices above mentioned. Two formulations without herbs and spices were also prepared: F6 with 7.2% of pork fat and 10.8% of linseed oil; F7 with 20% of pork fat. In sensory analysis, for flavor and taste, all formulations containing herbs and spices resulted in higher scores than for F6 and statistically equal to F7. Evaluating the fatty acid profile of products by gas chromatography there was an increase of PUFAs of more than 70% and a 47% reduction of SFAs when compared with F7. Furthermore, there was a decrease in the ratio $\omega-6/\omega-3$ from 9.06 in F7 to 0.4 for linseed oil formulations.