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Sodium reduction in cooked meat products by using commercial potassium phosphate mixtures

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## Abstract

In addition to salt (NaCl), sodium phosphate also increases the sodium content of meat products. Thus, the effects of replacing phosphate with potassium phosphate on sodium content and properties of low-salt cooked bologna-type sausage and cooked ham were studied. Sausage formulations were prepared. In formulations 1 and 2, the target sodium content was 0.55 g Na/100 g, and in recipes 3 and 4, 0.35 g Na/100 g. The salt content in formulation 2 was the same as in formulation 3, namely 1.2% NaCl, but the sodium content in the hams was lower. In the cooked hams of recipes 1 and 2, the salt content was 1.4%, and in recipes 3 and 4, 1.8%. Sodium phosphate was used in recipes 1 and 3, and potassium phosphate in recipes 2 and 4. Very low-salt (i.e. 1.0-1.4% NaCl) meat products can be prepared providing phosphates are added. Further reduction of sodium content in low-salt meat products is possible by replacing sodium phosphate with potassium phosphate. The extent of sodium reduction depends on the phosphates used and their sodium content, being equivalent to a sodium content of 0.55 g Na/100 g or more. The replacement resulted in no adverse effects. Alkaline phosphates are also recommended in very low-salt products to minimize purge.

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