Use of promising species of plant in the development of meat products: Analysis of the behavior of amaranth (Amaranthus spp) as an extender

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ABSTRACT

This research evaluated the amaranth flour (HA) as an extender in Frankfurt sausages (SF) in substitution of modified potato starch (AMP). It were compared technological characteristics of the HA, against more used extenders in the meat industry (wheat flour, isolated soy protein and potato starch and cassava), it was determated that the HA does not present significant differences compared to other samples. Four formulations were elaborated replacing 25, 50, 75 and 100% of AMP by HA, working with a standard formulation of 100% of AMP. It were evaluated the efficiency of the process for each product, it were determinated the theoretical time of cooking, texture (Warner-Blazter), protein (Kjeldahl) and sensory analysis. The average time of cooking of the sausage was 9 minutes, however this time was reduced to 8.1 minutes in the sausage with replacement of 100% HA. The sample of AMP revealed a hardness of 2.49kgf, it represent doubling value compared with products made from HA, which showed no significant difference in the result, set so that the use HA reduces the hardness of the product. It were show an increase on the content of protein of 17.25% in the formulas of HA in comparison with the sample of AMP. The sausages with HA showed sensory differences, which indicates that HA confers flavor to the product. Overall, the use of HA has advantages in technology in the transformation process, as well as physicochemical characteristics of great contribution to consumers.

Keywords: Amaranth, Modified starch, SalchichasFrankfurt