



## FRANKFURTER TYPE SAUSAGE ENRICHED WITH OKARA FLOUR

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The development of new products enriched with quality vegetable protein such as okara flour is fundamental to guarantee food safety. Considering the low cost of okara, its flour can be produced at a price compatible with that of the soy proteins normally used in formulations of stuffed emulsified meat products. With this objective it was evaluated the addition of okara flour to a Frankfurter type sausage, based on the physical, chemical, technological and sensory characteristics of the final product. The okara, residue from soymilk processing, was provided by two soymilk producing companies whose production systems were based on the hot disintegration of the decorticated (company B) or non-decorticated (company A) soybeans. The okaras were dehydrated in a flash dryer and then ground to a flour ( $\geq 420 \mu\text{m}$ ). The A and B okara flours showed approximately the same values with respect to protein (35 and 40  $\text{g}\cdot 100\text{g}^{-1}$  dwb). The okara flour A presented higher values ( $p \leq 0.05$ ) for all the technological functional properties studied (emulsification capacity, emulsion stability, protein solubility and water hold capacity) than those of okara flour B. The A and B okara flours were used in a frankfurter sausage formulation in substitution of 1.5% and 4% of meat. The results showed that the sausages containing okara flours A and B, as also the control sausage, were equally accepted by the panelists. Moreover, there were no significant differences ( $p \leq 0.05$ ) in the physical (color, objective texture, emulsion stability) and chemical (pH, proximate composition) measurements of the sausages with and without the okara flour. The panelists declared the same buying intention ("probably buy" and "certainly buy") for the control sausage and for those containing 1.5% and 4% okara flour, indicating that the addition of okara flour did not affect negatively the quality of the sausages. The results of this research are of considerable importance to soymilk processing units, since these industries concede the okara free of charge to animal breeders for use as animal feed, since they are unaware of the quality and potential use of okara flour.

**Acknowledgments:** FAPESP and CNPq