

ABSTRACT

The overall objective of this thesis was to develop a new range of healthy-products chicken´s: restructureds, with omega 3 and b-glucans, without added fat, water, salts, and, using vacuum cooking technology in the preparation of pre-cooked product, and, to compare vacuum technologies with traditional cooking, to regenerate the product before consumption.

Incorporating omega 3 discusses two types of processing: first, in its formula, used as ingredient a omega-3 dietary supplement, while the second employs meat chickens modified lipid profile due to the addition of flax oil or fish rich in omega 3, in poultry feed. The b-glucans is provided by the oat bran, which after to mixed with the chicken meat, forms a stable three-dimensional matrix, provides structure and binds the ingredients.

The challenge in both preparations, is to keep the sensory and nutritional properties of the new product, which is related to protecting omega 3 oxidation. The oxidizing action is heat treatment and therefore matter to study the effect of precooking, performing as stage of development, and also the effect of the cooking is done by regenerating the product for consumption. In precooking three treatments were studied two vacuum: steam cook vide and sous vide, and the third: steamed at atmospheric pressure. In cooking before consumption, the effect of traditional methods are compared: microwave and baked, with others than lower temperatures applied: cooking steamed at atmospheric pressure and sous vide.

At work many analytical techniques allowed to determine weight gain due to the precooking cook vide, changes in the texture profile due to the ingredients , the chemical composition proximal, detect differences in the composition of chicken meat due to feeding birds, studies of the level of acceptability and consumer preference , preliminary analysis of shelf life and determine the conditions prior to use thermal regeneration , as applicable , and the effect on the oxidative stability and color of product innovation. Overall, the results suggest that technologies, cook-vide and sous-vide, are the best to preserve the sensory and nutritional properties, facilitate handling during marketing and protect the regeneration of the product, prior to consumption, domestic or catering.