

INCOME AND PHYSICAL-CHEMICAL CHARACTERISTICS OF "BABYBURGER" ELABORATED WITH SECONDARY CUT OF "BABY BUFFALO"

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ABSTRACT

Were aimed the income and the characteristics of "babyburger" elaborated with secondary cut of "baby buffalo" (*Bubalus bubalis*) with about 20 months old. Were added in 5,570 g of meat the following ingredients: 1.81 % of salt, 1 % of to sugar, 0.5 % of monosodium glutamate (flavor relief), 8 % of bread triturated toasted, 10 % of onion, 0.36 % of garlic, 3.62 % of hydrogenated vegetable fat, 0.9 % of vegetable oil and 0.9 % of egg. Was made the molding of the product and storage under cooling in freezer. The physical-chemical analyses (acidity, pH, protein, fat, cholesterol, humidity, ashes) elaborated in Belem, Para State, Brazil. The physical-chemical analyses indicated that the product is of excellent quality for human consumption.

Key words: Amazon, nutritive value, meat, cholesterol, protein.

INTRODUCTION

In the Amazon, the main purpose of raising buffalo is meat production. Lately, this animal species has constituted an important alternative source for meat production, mainly to supply demands of the developing countries, because of its similarities, and in some cases superiority in nutritional composition, in relation to the conventional meats, red (bovine) and white (chicken) (4). Recently, the meat of "baby buffalo", product of slaughtered animals when less than 24 months old and 450 kg of alive weight, has been commercialized in Belem, Para State, with good acceptance, as alternative red meat, in search of a healthy feeding, for prevention of cardiovascular diseases (5). The primary cuts, or noble, have guaranteed commercialization, however, the secondary ones, doesn't obtain detached offers of price in the local market. The alternative is to add value, transforming them into derivatives. The objective of this work was to evaluate the income and the physical-chemical characteristics of babyburger. elaborated with secondary cuts of "baby buffalo", proceeding from fattened animals in cultivated pasture, to add value to this derivative.

MATERIAL AND METHODS

Was used secondary cut of "baby buffalo" meat slaughtered when about 20 months old boned and separated the primary and secondary cuts. In the preparation of "babyburger" (Figure 1) was used 13 kg of meat, after the hygiene cleaning and disinfection of the utensils and equipment, and the production was of 95 units with 75 g each. Initially the meat was boned, being removed 3 kg of bones. After that, the preparation was initiated with the cleaning of the meat, sample 4,430 kg of shavings. Later, the clean meat (5,570 kg) was crushed for addition of the following ingredients: 1.81 % of salt, 1 % of sugar, 0.5 % of monosodium glutamate (flavor relief), 8 % of crushed toasted bread, 10 % of onion, 0.36 % of garlic, 3.62 % hydrogenate vegetal fat, 0.9 % vegetal oil and 0.9 % egg with white and yolk. The onion and the garlic were previously centrifuged. After the mixture of the meat with the ingredients, was carried out the molding in domestic hamburgerer.

The "babyburger" were packed in plastic bag, conditioned in plastic baskets and stored in freezer, where they were kept under freezing - 4°C. The physical-chemical analyses of the "babyburger" were carried out in the Laboratory of Chemical Engenieer of the Federal University of Para and in Maués Foods, in Belem, Para State (1).

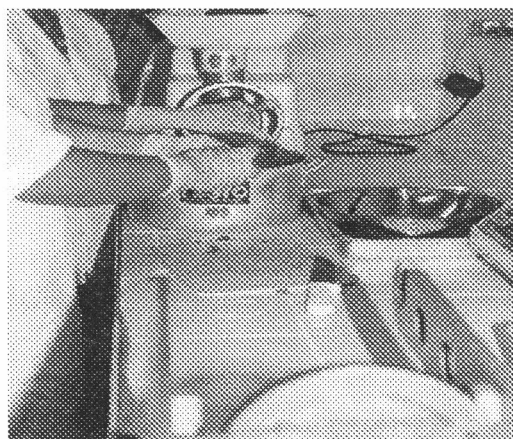


Figure 1. "Babyburger" elaboration with secondary cut of "baby buffalo".

RESULTS AND DISCUSSION

In Table 1 are the contents of humidity, lipids, proteins, ashes, carbohydrate and the caloric value of "babyburger".

Table 1 - Physical-chemical composition and caloric value of the "babyburger".

Product	Humidity (%)	Lipid (%)	Protein (%)	Ash (%)	Carbohydrate (%)	Caloric value (cal)
"Babyburger"	66.85	5.08	16.93	2.48	8.66	148.08

The literature (2) observed contents of humidity of 73.52 %, in formularization 1, and 67.80 %, in formularization 2, of buffalo meat hamburger, being that the second formula contained hydrogenate vegetal fat and vegetal oil. The humidity of 66.85 % in the present work is next to the one found in formularization 2. The level of lipids of "babyburger" is on the standards demanded for the current law and similar to the one observed in literature (2), of 5.40 %, in the formularization with oil and vegetal fat. In the meat of "baby buffalo" the lipid content was of 0.14 %, 0.18 % and 1.87 % (3). On the other hand, the protein content of the derivative of "baby buffalo" was little inferior to the one gotten by literature (2) in the formularization that did not contain oil and fat, of 14.10 %, and sufficiently superior to the one of the other formularization, with 8.1 % of protein. The value determined in this work attends the minimum demanded by the legislation (15 %). The ashes content of "babyburger" of 1.30 %, is inferior to the ones observed in literature (2). The levels of carbohydrate of the present work attends the minimum indicated by the legislation, and is in between the levels observed (2), of 7.14 % and 15.25 %, in formulas 1 and 2. The caloric value of "babyburger" is similar to the one observed in formularization 2, of 142 calories, and superior to the one of formula 1, of 95.67 (2). The cholesterol level of "babyburger" was of 42 mg/100g, inferior to the one determined in the "baby buffalo" meat, of 60 mg/100g (3). The unit/production cost of 75 grams of "babyburger", was US\$ 0.12 (US\$ 1.00 = R\$ 2,61). The hamburger commercialized in the supermarkets of Belem, Para State, costs US\$ 0.14, around 17 % more expensive. It is necessary to consider that the shavings and removed bones of the secondary cut of "baby buffalo", in the total of 7,430 kg, can be transformed into meat and bones flour, widely used as fertilizer, what reduces the cost of production of the "babyburger". The derived has excellent physical-chemical and sensorial characteristics. The elaboration cost is relatively low and its production is an alternative of income generation, through the aggregation of value to the meats of secondary cuts.

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