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CHICKEN CUTLETS WITH SPROUTED WHEAT AND CHICKPEA FLOUR FOR ELDERLY

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Currently, there is a steady change in the age composition population; there is an increase in older people. With help proper nutrition can reduce the risk of premature aging, and reduce many diseases such as diseases of the gastrointestinal tract, diseases of the endocrine, cardiovascular and other body systems. The problem of providing high-quality and safe food, protection and strengthening of the nation's health have been and remain one of the most important at all stages of the development of human society [1].

When developing fortified meat based foods environmentally friendly material and high-tech production to restore the loss of valuable nutrients in the process of technological processing or for the introduction of micronutrients into products that did not contain them initially. When developing the fortified chopped semi-finished products, chicken was used with the addition of sprouted beans and chickpea flour. The main criteria in the development of a new recipe are the balance of nutrients, high consumer qualities of the finished product, as well as the ability to diversify the taste to expand the range of products while maintaining a relatively low market value of the product.

To ensure a full-fledged diet of the population in the conditions of the modern pace of life, the most rational direction is the development and production of semi-finished products from poultry meat with the addition of vegetable components 2[].

Minced meat semi-finished products are portioned product made from minced meat raw materials with the addition of non-meat ingredients in accordance with the recipe. The semi-finished product market belongs to one of the most dynamically developing segments of the meat processing industry. The main consumers are busy city dwellers who buy convenience foods to save time and diversify their diets. At the same time, consumers can have both high and low income.

The aim of the work is to develop a technology for chopped semi-finished products developed on the basis of minced meat with the addition of wheat germ and chickpea flour.

The use of sprouted wheat is due to the increased content of essential amino acids in its composition, enzymatic and vitamin activity, the presence of dietary fiber; chickpea flour - a high amount of biologically valuable substances and dietary fiber. The design of recipes for chopped semi-finished products was based on the principles of designing heroic foods, which should contain a sufficient amount of complete proteins, polyunsaturated fatty acids, vitamins and minerals, especially calcium, potassium, iron, and dietary fiber.

In the spring, the human body is in dire need of vitamins. To give energy and replenish the lack of micronutrients, you can use sprouted wheat in food during the period of vitamin deficiency. The healing properties of wheat in germination are associated with the fact that the composition of the grain changes during germination. In the process, enzymes are activated, they process starch into maltose, amino acids are broken down from proteins, and fatty acids from fats. There is a process similar to the digestion of food in the body. As a result, "living food" is obtained from ordinary grains, biologically active and easily digestible food.

Sprouted wheat is rich in vitamins and minerals such as: vitamin B₁ - 15%, vitamin B₅ - 18.9%, vitamin B₆ - 13.3%, vitamin PP - 15.4%, magnesium - 20.5%, phosphorus - 25 %, iron - 11.9%, manganese - 92.9%, copper - 26.1%, selenium - 77.3%, zinc - 13.8% [3].

Sprouted wheat removes poisons, cholesterol and other harmful substances from the human body. After cleansing the body, the metabolism is normalized; the blood is saturated with oxygen; immunity increases; the respiratory, nervous, circulatory, thermoregulating, lymphatic systems are stabilized; the intestinal microflora is normalized; hair and nail plates are restored; the level of cold endurance increases; visual acuity increases; weight decreases; the skin is rejuvenated [4].

Chickpea flour is rich in vitamins and minerals such as: vitamin B₁ - 32.4%, vitamin B₅ - 12.1%, vitamin B₆ - 24.6%, vitamin B₉ - 109.3%, potassium - 33.8%, magnesium - 41.5%, phosphorus - 39.8%, iron - 27%, manganese - 80%, copper - 91.2%, selenium - 15.1%, zinc - 23.4% [5].

Cooking of semi-finished product. We take chicken fillet. After taking, prepare poultry meat, rinse in cold water. Cut the prepared chicken into small pieces and place in a bowl. Put the sprouted wheat in boiling water and cook for about 5 minutes, after cooking, remove and chop finely. Pour everything into a bowl; add the chicken egg, water, chickpea flour, salt, pepper, onion and garlic. Mix it all and form cutlets.

Frying of semi-finished product. Dip the semi-finished product in chickpea flour. Heat the oil to a temperature of 150-160°C, fry for 3-5 minutes on both sides until crisp. Appearance of cutlet mass rounded - oval shape, surface without torn and broken edges, in breading. Cutlets are evenly fried; the meat is uniform

without lumps and bone residues. The nutritional and nutritional value of the chicken cutlets is presented in the Table 1.

Table 1 - Chemical composition of the chicken cutlets sprouted wheat and chickpea flour

Indicators	Daily ration (result)	Percentage of daily requirement, %
Calorie content, kcal	1866	
Protein, g	107	
Fats, g	79	
Carbohydrates, g	181	
Fiber, g	29	
Vitamin A, mg	292	29
Vitamin B₁, mg	1,41	94
Vitamin B ₂ , mg	0,98	55
Vitamin C, mg	10	14
Vitamin E, mg	9,6	96
Vitamin PP, mg	69,5	348
Potassium, mg	1765,8	71
Calcium, mg	222,2	22
Magnesium, mg	337,2	84
Phosphorus, mg	1550	155
Sodium, mg	303,2	13
Iron, mg	19,7	141

During the study of the chemical parameters in the chicken cutlets, as can be seen from the Table 1, the main elements in content are vitamin B₁, vitamin PP and phosphorus. The increased content of protein and of indispensable amino acids indicates the possibility of replacing animal protein. All selected components of plant origin not only have a beneficial effect on the human body due to their chemical composition, but also contribute to improving the WHC of finished semi-finished products through the introduction, enhance the taste and aroma, which is very important due to the decreased sensitivity of taste buds with age.

The overall organoleptic assessment of the studied samples had a positive trend - the taste, smell improved, the texture became more uniform and delicate. Thus, adding sprouted beans to semi-finished chicken meat products is generally available for different segments of the population, besides the nutritional value of meat are not lost, but on the contrary improves, due to the fact that sprouted beans contain vitamins, minerals, enzymes and amino acids, which are easily absorbed by the human body. The basic principle in the diet of people over 60 is moderation in food. It is necessary to reduce the energy value of the diet, but the body must receive the required amount of protein and amino acids. Given its high nutritional value, the price justifies the quality of the product.

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