European Journal of Business Startups and Open Society

Vol. 2 No. 6 (2022): EJBSOS ISSN: 2795-9228

www.innovatus.es

Improved Technology and Nutritional Value of the Culinary Product "Belly Roulette" Made From Co-Products

Najmiddin Muminov

Samarkand State Veterinary Medicine, University of livestock and biotechnologies

Zakirzhan Mamarasulov, Shuxrat Maksumov

Samarkand Institute of Economics and Service

Abstract: in the state studied the question of the safe use of co-products, optimized recipe and technology of culinary products from co-products, determined sensory analysis method and chemical composition.

Key words: co-products, biological value, essential amino acids, connective tissue, collagen, intestinal flora.

Introduction. On January 27, 2022, the President approved Decree No. PP-104 "On additional measures to develop the service sector" [1]. According to this decision, the implementation of new approaches to the development of this sector has the potential to increase the volume of market services by 1.5 times in 2022 and create an additional 1.5 million new jobs. Along with the rapid development of the service sector, special attention was paid to improving innovative technologies [2].

It should be noted that as a result of the improvement in lifestyle, the demand for meat products is increasing. Meat co-products contain nutrients necessary for human consumption - proteins, fats, carbohydrates, minerals, enzymes and vitamins [3]. Especially in the liver, kidneys, tongue and heart, it contains full value proteins, like meat, as well as all the essential amino acids.

Analysis of the relevant literature. Currently, much attention is paid to the processing of livestock products using innovative technologies. From foreign scientists in the preparation of various dishes from these products: Propin V.V., Filenko S.P., Mazilkin I.A. and others. Scientists of our country also conducted a number of studies in this area. In particular, the studies of T. O. Khudaishukurov, B. Eshuvvatov, M. K. Karimov, A. Yu. Khudaiberdiev and others should be noted.

The study of such research is of great importance for the development of our country.

Research methodology. In conducting research, we used experimental experience, laboratory studies and tasting methods.

According to the content of vitamins and minerals, the liver, kidneys, tongue are full-fledged meat [4].

One of the urgent tasks is to improve the formulation and technology of food products that are not inferior in nutritional value to meat, are considered useful in the treatment of many diseases, and are obtained from cheap co-products in terms of cost.

According to the scientific literature, glucose and gelatos, formed as a result of the breakdown of collagen in connective fibers during cooking, increase the secretion of gastric juice, improve the functioning of the gastrointestinal tract, and increase the state and function of beneficial intestinal flora [5].

Therefore, based on scientific data, co-products containing connective fiber are necessary component of the diet.

Based on the foregoing, we set the task to develop the technology and recipe for the “Abdominal Roll” from mutton co-products, to determine its sensory analysis *method* and chemical composition [6, 7]. To prepare the “abdominal roll”, the cleaned abdominal organ is soaked for 6-8 hours, changing the water, then doused with boiling water 2-3 times, cleaned and washed.

The abdomen is cut into 25x25 cm and spread on top in a row long, finger-shaped (1 cm thick, 4-5 cm long) fat tail and red carrots, between which are placed two cloves of garlic, sprigs of greens, pepper, salt, cumin, sprinkle and roll into a roll. Wrap the rope from one end to the other and simmer in hot water. 30 minutes before cooking, add salt, carrots, onions, bay leaves and pepper.

Cool the baked roll a little, apply sour cream on the surface and fry until a red crust in the oven. After cooling, divide into portions.

The recipe for the products needed to prepare the "Abdominal Roll" is given in table 1.

Table 1. “Belly roulette” recipe

Products	**Weight, g**	**Net weight, g**
Abdominal cavity	600	600
Kurdyuk	300	200
Red carrot	240	195
Garlic	50	40
Greens	50	40
Salt	10	10
Black pepper	0,5	0,5
Zira	2	2
For soup:		
Carrot	32	26
Bow	32	26
Salt	10	10
Bay leaves	2 pcs	2 pcs
Ready roulette output:	**-**	**1000**

When assessing the quality of food products, a comprehensive study of their sensory analysis *method* quality indicators, physic-chemical properties and biological value allows us to make a complete conclusion about these products.

Analysis results. In the study, when determining the chemical composition of the "Abdominal Roll" prepared from the belly of a sheep, the amount of protein was 11.2; oils - 25.3; carbohydrates - 1.78; ash - 0.96 g (Table 2).

Table 2. Chemical composition of “Belly roulette”

Name of indicators	**Units of measurement**	**Quantity in products**
Dry matter	gram	47,76
Squirrels	gram	11,2
Oils	gram	25,3
Carbohydrates:		
Monosaccharides	gram	1,62
Starch	gram	0,16
Cellulose	gram	0,43
Cool	gram	0,96
Organic acids	gram	0,01
Minerals		

Na	gram	69,7
K	gram	306,8
Ca	gram	28,7
Mg	gram	29
P	gram	126,5
Fe	gram	1,24
Vitamins:		
β-carotene	milligram	1,27
B_1	milligram	0,05
B_2	milligram	0,11
PP	milligram	1,44
C	milligram	7,2
Energy value, kcal	kcal	279

Due to the fact that the co-products are rich in vitamins and minerals, it is important to determine the amount of vitamins and minerals in the "Abdominal Roll", to determine the nutritional value of the finished product. The results showed that Na - 69.7 mineral elements; K - 306.8; Ca - 28.7; Mg - 29; P - 126.5; Fe - 1.24 mg. Vitamins B_1 - 0.05; B_2 - 0.11; PP - 1.44; C - 7.2 and β-carotene - 1.27 mg. it was found that the energy value of the “Belly roulette” was 279 kcal.

Conclusions and offers. Sensory analysis *method* is the fastest method and allows you to draw conclusions about the appearance, taste, smell, consistency of the product. Physical-chemical methods are more complex, but allow you to get reliable and complete conclusions about the nutritional value of food products.

Offal products were highly appreciated by tasters for their sensory analysis *method*, i.e. appearance, smell, taste, texture and other parameters.

Literature

1. Resolution of the President of the Republic of Uzbekistan dated January 27, 2022 No. PP-104 "On additional measures for the development of the services sector."
2. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures to further improve the activities of public catering and professional development of staff." - Tashkent. October 10, 2012, No. 289.
3. Propin V.V., Filenko S.P., Mazilkin I.A. Technology of primary processing of animal products. Lenyu GIORD. 978-5-8114-1452-91 SBN; SPb - 2013
4. Khudayshukurov T., Muxamadiev N., Muminov N., Shukurov I. Basics of food production. Textbook. Tashkent, "Economy and Finance", 2010.
5. T.Xudayshukurov, N. Muhamadiev, M. Karimov, N.Muminov. Food Chemistry: A Study Guide. - Samarkand, SamSU Publishing and Printing Center, 2002. - 173p.
6. Chemical composition of baked goods. Spravochnыe tablitsy soderjaniya osnovnyx pishchevyx veshchestv i energeticheskoy tsennosti blyud i culinary izdeliy. - M .: Legkaya and pishchevaya promыshlennost. 1984. - 328 p.
7. Chemical composition of baked goods. Book 2. Spravochnыe tablitsy soderjaniya amino acids, jirnyx acid, vitamins, macro- and microelements, organicheskix acid and carbohydrates. - M .: VO «Agropromizdat», 1987