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«Промисловість та крафт для HoReCa в туризмі: досвід, проблеми, інновації»

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Проведення конференції направлене на обговорення сучасних тенденцій та стратегії розвитку промислового та крафтового виробництва, інновацій в харчових технологіях для HoReCa в туризмі та розширеного представлення наукових здобутків академічної спільноти НУХТ, профільних національних та закордонних університетів, представників промислових та крафтових підприємств, туристичних організацій, учасників ринку HoReCa та суміжних галузей.

Матеріали конференції представлені для ознайомлення учасників з інноваційними розробками, можливостями підвищення рівня екологічності та безпечності виробництв і шляхами розвитку харчової та туристичної сфери в Україні і світі, а також розвитку економіки та менеджменту індустрії гостинності.

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47. CURRENT TRENDS IN THE PRODUCTION OF LACTOSE-FREE DAIRY PRODUCTS

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Introduction. Recently research, aimed at developing methods and technologies for more efficient use of raw materials in the food industry (including the dairy industry), is intensively conducted.

Topicality. Despite the wide range of lactose-free dairy products, today there is a steady trend towards its expansion. It is promising to use components of natural origin that give products a pronounced taste and aroma, enrich with a complex of biologically active substances and are able to preserve their taste and aroma characteristics during their storage.

Materials and methods. Scientific research works, articles, abstract books, technologies of improvement of lactose-free dairy products were analyzed.

Results and discussion. The main task of manufacturers is to develop the foundations and principles of creating products for the target purpose, which will have a balanced composition with a given nutritional value and high sensory indicators. Such products do not differ from traditional

products in their sensory characteristics, but have a positive effect on human health. They can also contribute to reducing the level of development of diseases associated with improper nutrition.

One of the most relevant directions of product groups is the development of fermented milk products. After all, fermented milk products are recommended by nutritionists all over the world for daily use, because of their high nutritional and biological value. Fermented milk products are useful both for children's nutrition and for the adult population due to the content of nutrients important for the normal functioning of the body in balanced proportions and in an easily digestible form.

However, lactose intolerance is the main reason for refusing to use dairy products. This is caused by reduced production of the enzyme lactase in the intestine. Primary lactose intolerance is the most common type, which occurs when the activity of lactase in the small intestine decreases.

Today, domestic and foreign manufacturers are working on a range of "lactose free" dairy products to meet the needs of all consumers and make unlimited nutrition healthy and tasty. It is possible to reduce the lactose content in dairy products in various ways: ultrafiltration, dialysis, modification or splitting of lactose, isomerization and hydrolysis. The most common method is enzymatic, that mean adding the enzyme lactase, which splits lactose into glucose and galactose.

Lactose-free dairy products are products with a lactose content of no more than 0.1 g per 100 g of the finished product. They differ from ordinary dairy products only in the absence or low content of lactose, while the sensory properties remain unchanged. Such products remain an irreplaceable source of protein, calcium, phosphorus, potassium, vitamins A, D, B.

Another promising direction is the use of alternative milk. Alternative milk is a drink made by grinding vegetable raw materials mixed with water and further homogenizing the liquid. Such raw materials are characterized by low calorie content, absence of lactose and cholesterol. In appearance and consistency, it is similar to cow's milk. The most common types of alternative milk in Ukraine are soy, oat, almond, rice and coconut milk.

Soy milk is one of the most popular substitutes for cow's milk. Depending on the soybean varieties, milk from this raw material can have a different taste. In addition, it contains a lot of vegetable fiber, thiamin, pyridoxine, vitamin E. Due to the fact that the calorie content of soy milk is insignificant (54 kcal per 100 g of product), it is easily absorbed by the human body. Oat milk is rich in fiber, contains vitamins of group B, A, E, iron, phosphorus, and has a light sweet taste. Almond milk has a mild taste. In addition, it contains vitamins A, D and E, fatty acids, zinc, calcium, iron, magnesium and potassium.

Rice milk is lowers cholesterol, controls blood sugar, provides the body with energy, improves the work of the digestive system, supporting healthy intestinal flora. The caloric content of rice milk is low compared to other types of vegetable milk is 47 kcal per 100 g. Coconut milk has a sweet taste and a creamy texture, in addition to cheese, it is ideal for desserts and ice cream, in which the coconut aroma will be appropriate. It also has a high content of vitamins B1, B2, B3, A, C, K, E, PP, as well as Omega-3, Omega-6, Omega-9, calcium, magnesium, zinc, phosphorus. Its average fat content is 27%, carbohydrates is 6%, proteins is 4%. Its calorie content is quite high is from 150 to 250 kcal per 100 grams. Despite the wide range of products based on alternative milk, today there is a steady trend towards its expansion.

Dairy products based on such raw materials are an alternative for consumers who cannot consume animal milk (intolerance of lactose, animal protein) or do not want to consume it consciously due to their own beliefs.

Conclusion. Thus, it is important to develop targeted products that will be not only useful and safe, but also available for consumption by the general population.

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