

Ministry of Education and Science of Ukraine

National University of Food Technologies

89

**International scientific conference
of young scientist and students**

**"Youth scientific achievements
to the 21st century nutrition
problem solution"**

April, 3-7 2023

Part 2

Kyiv, NUFT, 2023

Міністерство освіти і науки України

Національний університет харчових технологій

89

**Міжнародна наукова
конференція молодих учених,
аспірантів і студентів**

**"Наукові здобутки молоді –
вирішенню проблем
харчування людства у ХХІ
столітті"**

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The publication contains materials of 89 International scientific conference of young scientists and students "Youth scientific achievements to the 21st century Nutrition problem solution".

It was considered the problems of improving existing and creating new energy and resource saving technologies for food production based on modern physical and chemical methods, the use of unconventional raw materials, modern technological and energy saving equipment, improve of efficiency of the enterprises, and also the students research work results for improve quality training of future professionals of the food industry.

The publication is intended for young scientists and researchers who are engaged in definite problems in the food science and industry.

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Матеріали 89 Міжнародної наукової конференції молодих учених, аспірантів і студентів "Наукові здобутки молоді – вирішенню проблем харчування людства у ХХІ столітті", 3-7 квітня 2023 р. – К.: НУХТ, 2023 р. – Ч.2. – 359 с.

Видання містить матеріали 89 Міжнародної наукової конференції молодих учених, аспірантів і студентів "Наукові здобутки молоді – вирішенню проблем харчування людства у ХХІ столітті".

Розглянуто проблеми удосконалення існуючих та створення нових енерго-та ресурсощадних технологій для виробництва харчових продуктів на основі сучасних фізико-хімічних методів, використання нетрадиційної сировини, новітнього технологічного та енергозберігаючого обладнання, підвищення ефективності діяльності підприємств, а також результати науково-дослідних робіт студентів з метою підвищення якості підготовки майбутніх фахівців харчової промисловості.

Розраховано на молодих науковців і дослідників, які займаються означеними проблемами у харчовій науці та промисловості.

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24. Technological innovations in the production of Coca-Cola: the secrets of its success

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Introduction. Coca-Cola is one of the most popular drinks in the world, which is produced by a large number of companies around the world. The production of this drink requires careful observance of certain technological processes that ensure stable quality and taste.

Materials and methods. One of the key stages in the production of Coca-Cola is the creation of raw syrup. For this, a mixture of high-quality sugars and water is used, which goes through several stages of purification and filtering to ensure maximum purity. Then various ingredients are added to the syrup, such as natural flavors, caramel, phosphoric acid, caffeine and other components.

After the creation of the raw syrup comes the stage of mixing, pasteurization and filtering to ensure the maximum purity and stability of the drink's taste. The final product is stored in special tanks, after which it is packaged in bottles of various shapes and materials.

Results and discussion.

Ingredients:

The main ingredients of Coca-Cola are sugar, caramel, phosphoric acid, caffeine, water and various natural and artificial flavors. During the production of Coca-Cola, these ingredients are mixed and stirred in special tanks with a strictly controlled temperature.

Production process:

The first stage in the production of Coca-Cola is to dissolve sugar in water. Then caramel, phosphoric acid, caffeine and flavorings are added to the solution, after which everything is mixed. The result is a raw material that contains the main ingredients of Coca-Cola.

The next stage is the addition of carbon dioxide to the raw materials. This is done with the help of a special machine that adds a certain amount of carbon dioxide to the raw materials. The drink is then pasteurized to kill bacteria and other microorganisms that can reduce the shelf life of the drink.

After pasteurization, Coca-Cola is filtered to remove any remaining ingredients or impurities. Then the drink is bottled in bottles, cans or other packaging. At the same time, it is important to adhere to all production standards and requirements.

Conclusions. Coca-Cola is a product with a mysterious composition, the existence of which has never been confirmed by official information from the Coca-Cola Company. Information about the composition of Coca-Cola is considered a trade secret, which is protected by law.

According to some estimates, the composition of Coca-Cola contains about 60 ingredients, including water, sugar, caramel, acids, natural flavors and other components. However, the exact composition and amount of each ingredient is a closely guarded secret.

The Coca-Cola company invests a lot of effort in keeping the composition of its product secret. They use various technologies and procedures to protect confidential information, such as physical safeguards, electronic security systems, and contracts with limited access rights to confidential information.

So, although some of the ingredients in Coca-Cola are known, the exact composition and proportions of the ingredients remain a closely guarded secret of the Coca-Cola Company.