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PROSPECTS OF GREEN ENERGY IMPLEMENTATION IN UKRAINE

Exceptionally cheap solar and wind energy is forcing fossil fuels out of the world energy market faster than governments predicted [1]. However, in Ukraine, renewable energy sources (RES) have been in crisis for the second year after their rapid launch. Experts and market participants estimate that in 2022 the state regulation of RES will be more favorable, and Ukraine will not remain an outsider of the global green transition.

Against the background of uncertainty around the green tariff and the consequences of the Coronavirus crisis, 2021 cannot be estimated a good year for renewable energy in Ukraine. New mechanisms to support the green energy have been still in the process of development. However, while the state's examination is slow, economic factors make adjustments. Therefore, despite the lack of the government's support, RES providers are competitive and the supply continues to grow.

According to the State Energy Efficiency Agency [2], the installed capacity of the RES facilities in Ukraine increased by 8.3% in the first half of 2021.

Deloitte [3] predicts that the main trends for RES in 2022 will be:

1. Development of the next-generation technologies. The use of artificial intelligence for the energy processes optimization.

2. Implementation of new business models (in particular, business models for energy storage systems and the expansion of the RES projects into new markets).

3. Development of infrastructure for the RES projects.

4. Improvement of supply chains.

5. Introduction of the circular economy principles (rational use of resources and recycling of secondary raw materials).

Renewable energy suggests clean environment and a more stable climate. And, therefore, is beneficial for the health and well-being of current and future generations of Ukrainians. Therefore, individual consumers as well as communities are enthusiastic about wide-spread RES introduction and have a huge investment resource that can be attracted for quick implementation of renewable energy sources.

From the presented above analysis we can conclude that the transition to green energy is met with approval by both Ukrainian consumers and the government which in its turn should mean stimulation of small distributed generation in Ukrainian households and enterprises.

References

1. Рынок возобновляемых источников энергии (ВИЭ) Украины в 2021 году. Inventure: website. URL: [https://inventure.com.ua/analytics/investments /rynok-vozobnovlyaemyh-istochnikov-energii-vie-ukrainy-v-2021-godu](https://inventure.com.ua/analytics/investments/rynok-vozobnovlyaemyh-istochnikov-energii-vie-ukrainy-v-2021-godu) (дата звернення: 10.05.2022)

2. Рынок ВИЭ. Итоги года и перспективы 2022. Biz.nv.ua: website. URL: <https://biz.nv.ua/markets/vozobnovlyaemaya-energetika-v-ukraine-itogi-goda-i-prognozy-2022-vie-50203541.html> (дата звернення: 10.05.2022)

3. Как Украине успешно развивать возобновляемую энергетику? Getmarket: website. URL: <https://getmarket.com.ua/ru/news/kak-ukraine-uspeshno-razvivat-vozobnovlyaemuyu-energetiku> (дата звернення: 10.05.2022)

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TECHNOLOGY FOR MAKING CHOCOLATE WITH CAROB, STEVIA AND ISOMALT

In recent years, the trend towards making products with functional properties is gaining popularity. This is due to the fact that the quality of life is reduced, chronic diseases appear, and new ones appear because of environmental problems. Functional ingredients include substances that are designed to be consumed systematically, reduce the risk of foodborne disease, fill nutritional deficiencies in people and improve health [4].

Production of functional confectionery products primarily involves the use of food ingredients that firstly add certain useful properties to food products, secondly reduce the caloric content, and thirdly increase the range of natural products.

The purpose of this work is to analyze the prospects of using carob powder to replace cocoa powder and the use of stevia and isomaltose to replace sugar in the production of chocolate, the development of the technological scheme of production of the product. The substitute for cocoa powder in chocolate is carob. Carob is the dried pulp of the tree fruit. One of its advantages is that it does not contain caffeine or theobromine and is therefore not addictive or allergic; does not contain phenylethylamine and fromamine, which cause migraine; does not contain oxalic acid, which prevents the proper use of calcium and zinc; contains more carbohydrates and tannins, which have the properties of binding and removing toxic substances from the body.

Stevia is a perennial plant in the Asteraceae family. This natural, low-calorie sugar substitute also has many medicinal properties. The sweetness of stevia is justified by its non-carbohydrate nature, which makes it low in calories and widely used as a sweetener. This plant also contains various nutrients such as vitamins, antioxidants, minerals and organic acids. Isomaltose is a promising substitute for sugar in chocolate production. It is obtained from sucrose by enzymatic and catalytic hydrogenation. For organoleptic evaluation it resembles natural sugar, although it has less sweetness.

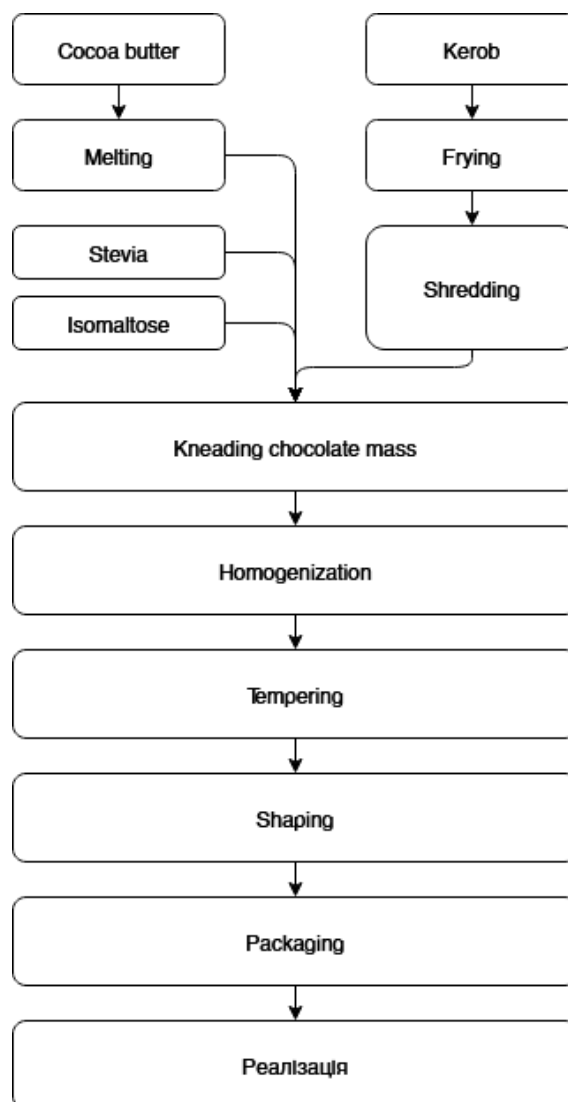


Figure 1. Technological scheme for the preparation of chocolate with modified composition

And so, the use of isomaltose as a sugar substitute, to make chocolate with a modified composition (Fig. 1), namely the addition of carob powder and stevia, is quite promising. Such chocolate has greater biological value than its analogues and has less calories, which allows it to be used for recreational purposes by overweight people. Also, one of the most important indicators of this chocolate is the absence of sugar, which gives the will to safely consume it to people with diabetes.

References

1. Yousif A. K., Alghzawi H. M. Processing and characterization of carob powder. Food Chemistry. 2000. No. 69. P. 283–287.
2. Бойдуник Р. М. Перспективи використання керобу в кондитерській промисловості. Вісник Львівської комерційної академії. Серія товарознавча. 2014. № 14. С. 117–120.
3. Зарецька Д. К., Сердюк М. Є. Стевія медова – як натуральний замітник цукру. Актуальні питання виробництва плодоовочевої продукції та винограду: матеріали Всеукр. науково-практ. інтернет-конф., м. Мелітополь, 22 квіт. 2021 р. 2021. С. 156–158.
4. Сердюк М.Є., Іванова І.Є., Малкіна В.М., Кривонос І.А., Тимошук Т.М., Євстафієва К.С. Формування сухих розчинних речовин у плодах черешні під впливом абіотичних факторів. Наукові горизонти: зб. наук. праць: Житомирський національний агроекологічний університет (ЖНАУ): Житомир. 2019. Вип. 03 (88) (С. 127-135) doi: 10.33249/2663-2144-2020-88-3-127-135

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На законодавчому рівні запровадження комплексного просторового планування територій громад відбулося з прийняттям Закону України «Про