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The functional butter paste with additives of plant micronutrients

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ABSTRACT

The relevance of this work consists in the development of a new product, namely butter paste with plant micronutrients. We used inulin, flaxseeds and berries, also known as «arrowwood berry», «snowball berry», «guelder rose berry» or «highbush cranberry», also known as lat. *Viburnum opulus* L. This berry is used with sorbitol syrup, which is recommended for people with diabetes. *Viburnum opulus* L. contains polysaccharides, pectin, vitamins, organic acids, micro- and macronutrients, tannins and polyphenols. The high content of polyphenols, which also exhibit P-vitamin activity, allows us to consider this type of raw plant materials as a source of micronutrients for functional products. The butter paste composition also includes flaxseeds and polysaccharide inulin. Flaxseeds are very useful due to their oil, which contains the optimal ratio of essential polyunsaturated fatty acids of ω -3 and ω -6 family. Polyunsaturated fatty acids ω -3 are the most valuable, as participating in the construction of phospholipid layer of cell membranes and influencing their main function. When insufficient quantity of ω -3 enters the body with food, it may cause diabetes. Polysaccharide inulin improves lipid metabolism - cholesterol, triglycerides and phospholipids in the blood. Therefore, reducing the risk of cardiovascular diseases, softens its effects, and strengthens the immune system. It is also recommended for patients with diabetes, since it reduces the blood sugar level. As a result of research we developed a recipe, technology and technological scheme of butter paste production with vegetable micronutrients and we found that the selected components improve plasticity and consistency of the finished product and also thermostability, hardness and leakage of liquid fat.

KEY WORDS

Plant micronutrients, butter paste, functional properties, inulin, flaxseeds, *Viburnum opulus*.

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