

**ECOLOGICAL AND HYGIENIC APPLICATION OF THE
ACCUMULATION OF TOXIC SUBSTANCES IN SOIL AND FOOD
PRODUCTS UNDER THE INFLUENCE OF AGRICULTURAL FACTORS**

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ABSTRACT

Worldwide, more than 420,000 people die each year from consuming poor-quality food, and about 600 million people are diagnosed with health problems after consuming food that does not respond to sanitary-hygienic standards. In addition, food-related risks lead to the development of more than 200 acute and chronic diseases of the gastrointestinal tract.[1] . Accordingly, the cultivation of organic pure fruits and vegetables is now relevant. Nowadays, ensuring food safety in maintaining a healthy lifestyle depends to some extent on the composition of fruits and vegetables. It is known that the amount of nitrate in fruits and vegetables exceeds the allowable level due to the excessive use of mineral fertilizers to increase the productivity of agricultural products. Also, a number of scientific studies are being conducted to reduce and prevent these risks. According to data from research ASSURE the amount of nitrate in the fruit fed with mineral fertilizers was 80.8 mg / kg (60 mg / kg according to GOST), and in the variant of biological fertilizers this figure was 50.9 mg / kg. At the same time, the amount of these nitrates also affected the sugar content and acidity of the fruit. %, 0.40% in the biological fertilizer option and 0.51% in the mineral fertilizer option, which is 0.21% higher than the control. It was also found experimentally that the dry matter content was 12.85% in the control variant, which is 0.9 times higher in the biological fertilizer variant than in the 13.6% mineral fertilizer variant. In addition, mineral and bio-fertilizers themselves the use of the fruit with a normal amount of nitrate present an updated mineral and organic contamination in the soil. In

conclusion, our research has shown that the use of biological (siderite) fertilizers as an alternative to mineral fertilizers in the prevention of nitrate poisoning is universally acceptable.

KEYWORDS: *Organic Product, Environmentally Friendly Product, Nitrate Content, Sugar Content, Acidity, Dry Matter, Soil Nutrients, Food Safety.*

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