

**THE EFFECT OF ATMOSPHERIC POLLUTION ON THE CONTENT
OF VITAMINS IN WHEAT GRAIN**

Mardanov Rustam Pardayevich.

National University of Uzbekistan named after Mirza Ulugbek,
Uzbekistan, Tashkent, Uzbekistan, 100174.

e-mail: rustammardanov0607@gmail.com

Grains and grain products are important sources of vitamins, which are essential for meeting human needs. The biological value of vitamins and carbohydrates contained in grains is a necessary source of energy for the human body. The amount of thiamin (B1), riboflavin (B2), niacin (PP), pyridoxine (B6), biotin (H), ascorbic acid (C), pantothenic acid (B12), myonocytes in grains is actively monitored. [1] The main amount of vitamins accumulates in the embryo and aleurone layers of the grain. They are used to preserve seeds and develop new plants that sprout from them [2].

However, these indicators change depending on the ecological environment of the areas where cereal crops are planted. That is, the composition of polluted soil and atmosphere has a negative effect on the biochemical indicators of grains, causing a decrease in the amount of vitamins in them, and ultimately a decrease in the biological value of grains [3].

Monitoring and analysis of the amount of vitamins contained in samples of wheat grains grown in Sariosia districts of Surkhandarya region.

The amount of vitamins in wheat grain samples was determined by the high pressure liquid chromatography method.

The quality of control in Sariosia district is significantly different from the samples taken from Qamashi district of Kashkadarya region. In Sariosia district, it was found that vitamin B1 is ten times less, other group B vitamins are 1.5 times less, vitamin C is 6.9 times less, and vitamin PP is 2.8 times less.



In addition, the significantly lower content of vitamins, exchangeable and non-exchangeable amino acids causes a decrease in the nutritional value of this grain and its products. This, in turn, has a significant impact on public health and leads to the development of various diseases among people.

Conclusion.

Overall, the results of the study show that harmful substances, especially fluorine compounds, released into the environment from the aluminum plant slow down the germination, growth, and development of plant seeds, leading to a decrease in yield and the amount of vitamins in wheat.

REFERENCES

1. Козьмина, Н.П. Зерноведение с основами биохимии растений / Н.П. Козьмина, В.А. Гунькин, Г.М. Сусянок. – М.: Колос. – 2006. – С. 464.
2. Hemery, Y. Dry processes to develop wheat fractions and products with enhanced nutritional quality // Y. Hemery, X. Rouau, V. Lullien-Pellerin, C. Barron, J. Abecassis / Journal of Cereal Science. – 2007. – № 46(3). – P. 327-347.
3. Шаршунов, В.А. Разработка направлений совершенствования оборудования для получения порошковых пищевых добавок из пророщенного зерна / В.А. Шаршунов // Вес. Нац. акад. навук Беларусі. – 2009. – № 4. – С. 114–119.