

water. That's why it is critically important to adapt it to climate change, taking into account the decrease in the water level of rivers and the issue of water security in the region.

Water resources in Ukraine are threatened not only by the actions of the occupiers, but also by climate change. It is obvious that post-war reconstruction must take into account not only the consequences of combat operations and occupation, but also the negative impact of climate change.

After our victory and deoccupation of Ukrainian lands, it will be necessary to restore a controlled and technically correct water supply to the Crimean Peninsula. It will need to be taken into account when rebuilding agriculture in particular, irrigation systems to ensure the Crimeans' need for water and to minimally affect the irrigation of fields in the regions dependent on the Kakhovskii Reservoir.

Література:

1. <https://zn.ua/ukr/amp/ECOLOGY/vijna-i-zmina-klimatu-zahrozhujut-vodnij-bezpetsi-ukrajini.html>

УДК 811.111

VITAMINS AND THEIR CONTENT IN SEEDS AND NUTS (ВІТАМІНИ ТА ЇХ ВМІСТ В НАСІННІ ТА ГОРІХАХ)

Борисова А.О. – здобувач вищої освіти групи ХТ 4/1.

Науковий керівник - Саламатіна О. О., доцент кафедри іноземних мов МНАУ

У тезах проаналізовано вітаміни, їх різновиди та вміст вітамінів у насінні та горіхах.

Ключові слова: *вітаміни, жиророзчинні вітаміни, водорозчинні вітаміни.*

These theses analyse vitamins, their types and vitamin content in seeds and nuts.

Keywords: *vitamins, fat-soluble vitamins, water-soluble vitamins.*

Vitamins are a group of substances that are needed for normal cell function, growth, and development. There are 13 essential vitamins. This means that these vitamins are required for the body to work properly. They are:

- Vitamin A;

- Vitamin C;
- Vitamin D;
- Vitamin E;
- Vitamin K;
- Vitamin B1 (thiamine);
- Vitamin B2 (riboflavin);
- Vitamin B3 (niacin);
- Vitamin B6 (pyridoxine);
- Vitamin B12 (cyanocobalamin);
- Pantothenic acid (B5);
- Biotin (B7);
- Folate (folic acid or B9) [1].

Vitamins are grouped into two categories:

1. Fat-soluble vitamins are stored in the body's liver, fatty tissue, and muscles. The four fat-soluble vitamins are vitamins A, D, E, and K. These vitamins are absorbed more easily by the body in the presence of dietary fat. Water-soluble vitamins are not stored in the body.

2. The nine water-soluble vitamins are vitamin C and all the B vitamins. Any leftover or excess amounts of these leave the body through the urine. They have to be consumed on a regular basis to prevent shortages or deficiencies in the body. The exception to this is vitamin B12, which can be stored in the liver for many years.

Some vitamin-like nutrients are also needed by the body such as:

- Choline;
- Carnitine.

Crunchy, filling and nutritious, nuts are a fantastic food to have on hand. They're a good source of fiber, healthy fats, and plant protein. Plus, they're great on their own, paired with fruit, or added to dishes like salads, desserts, and grains.

Nuts are also an excellent food choice for kids. In fact, studies show that adding nuts to your child's diet may improve their intake of protein, healthy fats, and fiber.

Almonds are incredibly popular due to their flavor, impressive nutrient profile. You can eat them raw or roasted, and they're often made into almond butter, almond flour, and almond milk [2].

These nuts are especially rich in vitamin E, a fat-soluble nutrient that functions as an antioxidant to protect your cells against oxidative damage. This vitamin also supports immune function and cellular communication.

Pistachios — whose name is derived from the Greek word pistachios, which means “the green nut” — have been eaten since 6,000 B.C.

These vibrant nuts are packed with nutrients but lower in calories and fat than many other nuts.

Pistachios are a good source of numerous nutrients, including vitamin B6, which your body needs for nutrient metabolism and immune function.

Cashews have a crunchy texture and creamy mouthful that pair well with both savory and sweet dishes. You can eat them raw, roasted, or as nut butter. These nuts are a good source of several nutrients that are essential to bone health, including protein, vitamin K, magnesium, and manganese

Several studies have examined whether diets high in cashews improve symptoms of metabolic syndrome, a cluster of symptoms like elevated blood pressure, blood fat levels, blood sugar, and belly fat that increase your risk of heart disease and diabetes [3].

Pecans are mild nuts that are popular for cakes, pies, salads, and grain dishes.

Pecans are rich on Vitamin B1 (thiamine).

Macadamia nuts have a buttery texture and contain an array of nutrients. These nuts rich on Vitamin B1 (thiamine). Adding macadamia nuts to your diet may benefit your health in a number of ways.

Brazil nuts are a rich source of many nutrients, especially the mineral selenium. Brazil nuts are high in a number of vitamins and minerals, including vitamin E and magnesium, a mineral that's essential for blood sugar and blood pressure regulation, nerve function, and energy production.

Hazelnuts are highly nutritious, packing healthy fats, protein, and fiber. These nuts rich on Vitamin E. Therefore, these nuts may help improve your diet quality and increase your antioxidant intake. Regularly eating hazelnuts may help reduce heart disease risk factors like elevated LDL (bad) cholesterol and total cholesterol [4].

Peanuts are a rich source of plant protein, which can help you feel full, and are high in folate, a B vitamin that's especially important during pregnancy due to its role in fetal and placental development. Plus, studies show that diets rich in nuts, including peanuts, may benefit heart health. Peanuts, which are technically legumes, provide several B vitamins and may help reduce your risk of heart disease.

Seeds are great sources of fiber. They also contain healthy monounsaturated fats, polyunsaturated fats and many important vitamins, minerals and antioxidants.

When consumed as part of a healthy diet, seeds can help reduce blood sugar, cholesterol and blood pressure [5].

Like nuts, most seeds are rich in:

- protein, healthy fats, and fibre;
- minerals (such as magnesium, potassium, calcium, plant iron and zinc);

- vitamins B1, B2, B3 and vitamin E.

Common seeds include:

- pumpkin seeds rich on Vitamin B, A, E, K, D ;
- flax seeds rich on Vitamin B1. A lot of evidence has shown they may reduce cholesterol, blood pressure and even the risk of cancer;
- sesame seeds rich on Vitamin E. Sesame seeds may help reduce inflammation and oxidative stress;
- poppy seeds rich on Vitamin B1, B5, PP, A, C, E;
- sunflower seeds rich on Vitamin E. These seeds may help reduce inflammation and cholesterol levels;
- chia seeds rich on thiamine. Chia seeds may also help reduce blood sugar. These seeds may also reduce risk factors of heart disease [5].

Література:

1. Vitamins: MedlinePlus Medical Encyclopedia [Електронний ресурс] – Режим доступу до ресурсу: <https://medlineplus.gov/ency/article/002399.htm#:~:text=Vitamins%20are%20a%20group%20of,the%20body%20to%20work%20properly>.
2. Nuts and seeds - Better Health Channel [Електронний ресурс] – Режим доступу до ресурсу: <https://www.betterhealth.vic.gov.au/health/healthyliving/nuts-and-seeds#benefits-of-seeds>.
3. 6 Super Healthy Seeds You Should Eat [Електронний ресурс] – Режим доступу до ресурсу: https://www.healthline.com/nutrition/6-healthiest-seeds#TOC_TITLE_HDR_2.
4. Health Benefits of nuts [Електронний ресурс] – Режим доступу до ресурсу: <https://www.webmd.com/diet/health-benefits-nuts>.
5. The Top 9 Nuts to Eat for Better Health [Електронний ресурс] – Режим доступу до ресурсу: <https://www.healthline.com/nutrition/9-healthy-nuts#1.-Almonds>.