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THE EFFECT OF VITAMIN-RICH MEDICINAL PLANTS ON HUMAN HEALTH

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Annotation: This article discusses the importance of vitamins in plant life and medicinal plants that contain vitamins.

Keywords: vitamins, medicinal herbs, hypovitaminosis, avitaminosis, biotin, asparagine, niacin.

Today, the need to provide the pharmaceutical industry with environmentally friendly medicinal plant raw materials is growing in the world. According to WHO, currently about 60% of the world's population and 80% of the population of developing countries use medicinal plants for health restoration and treatment. In this regard, our country has favorable climatic conditions for the cultivation of various medicinal plant resources. This article analyzes some medicinal plants growing in Uzbekistan and their impact on human health based on scientific sources.

VITAMINS

They are chemical organic compounds that are necessary for the normal growth and development of the body and are found in relatively small quantities. Vitamins are substances that ensure the normal course of various biochemical and physiological processes in a living organism.

Without vitamins, the human and animal body cannot live for a long time, and when there is a lack of vitamins in food, hypovitaminosis occurs, and when there is a complete lack of them, avitaminosis occurs. The main reasons for the lack or complete absence of vitamins in the body are: insufficient or complete absence of vitamins in the food, and the inability of some of them to be absorbed through the intestinal wall, negative factors that interfere with the synthesis of vitamins (in the digestive organs) in food, including antibiotics or sulfonamide drugs, and their continuous intake. Information about people getting sick as a result of a lack of certain substances in the food was recorded in ancient Chinese books, and later in the works of Hippocrates.

The scientific study of vitamins began in the 18th century. Lind, Majandi, Lunin, Eikman, Hopkins made a great contribution to the study of vitamins. Vitamins are not synthesized in the body, a person receives the vitamins he needs through various foods. The main source of vitamins is plants. Vitamins are synthesized mainly in the cells of plants and microorganisms. Vitamins play a major role in the life of plants. They participate in the biosynthesis of enzymes that are the main regulators of metabolism. Most vitamins combine with proteins to form enzymes. Some vitamins participate in the metabolism of amino acids. For example, vitamin H - biotin, participates in the metabolism of asparagine, serine and other amino acids.

Vitamin C-carotene, catechins and flavonols actively participate in the oxidation and reduction processes that constantly occur in plant tissues. During this process, vitamins are oxidized and reduced over a certain period of time.

Under the influence of vitamins, plant productivity increases, maturation accelerates, and root development occurs rapidly. Some vitamins also participate in the process of photosynthesis and pollination of plant flowers. The amount of vitamins in the product is constantly changing, and most often they accumulate in the above-ground organs during the flowering period. In fruits, they accumulate in large quantities during ripening. Therefore, the preparation of vitamin products should be carried out during the period rich in the above-mentioned vitamins.

Although most vitamins are stable compounds, they can be oxidized, decomposed, or otherwise changed under certain conditions (high temperature, humidity, light). As a result, vitamins lose their biological activity. In order to maintain the high quality of vitamin products, it is necessary to take into account the above-mentioned conditions when preparing, drying, and storing them. The following medicinal herbs and products are among the plants that contain a large amount of vitamins: lingonberry fruit, blackberry leaves and fruit, wild strawberry leaves and fruit, chesnut fruit, safflower fruit and oil, marigold flower, gazania leaf, cornflower stem, and the above-ground part of the safflower.

NA'MATAK - a beautiful and fragrant flowering thorny shrub, the fruit of which contains 4-6, sometimes up to 18% vitamin C, 0.3mg% vitamin B2, vitamin K, vitamin PP 12-18mg%, carotene. In folk medicine, the wet fruit of na'matak and its decoction are used for acute and chronic liver diseases and other diseases. According to Ibn Sina, na'matak, especially its flowers, are useful for throat diseases. In medicine, ripe fruits of na'matak are used as a multivitamin product. It is recommended to improve the patient's resistance to disease, as an anti-inflammatory, for anemia, chronic cholecystitis, and hypoacid gastritis. The oil extracted from the seeds of the plant contains carotenoids and tocopherols. Therefore, it accelerates the healing of various wounds and is used as an anti-inflammatory drug. Various medicinal preparations are prepared from the fruit of na'matak. Ascorbic acid is used to make tinctures, extracts, carotene, cranberry oil, juice, and tablets.



Chakanda fruit and oil – Fructus et oleum Hippophayos - The fruit of the sea buckthorn plant contains 450 mg% vitamin C, vitamins B1, B2, 145 mg% vitamin E, 60 mg% carotene and other carotenoids, folic acid, up to 9% fat, flavonoids and other substances. Sea buckthorn oil used for treatment is extracted from the juiced fruit by pressing it in sunflower oil. Sea buckthorn oil is semi-dry, thickly concentrated, orange, has a specific smell and taste. Sea buckthorn oil has an analgesic and wound-healing effect. The oil contains 180-300 mg% carotenoids, vitamins E and F. It is used to treat skin, mucous membranes, wounds, and burns of the esophagus and stomach mucosa damaged by radiation therapy, stomach ulcers, vitamin deficiency, and some gynecological diseases.



Calendula flower - Flores Calendulae contains 7.6-7.8 mg% carotene, essential oil, 0.33-0.88% flavanoids, coumarins, up to 4% mucus, 10.64-11.2% tannins, up to 19% bitter substance calendula, 6.84% malic acid and a small amount of salicylic acid. Medicinal preparations of the product are used to treat various wounds, burns, stomatitis, angina and sore throat, as a mouth and throat rinse. The drug Kaleflon is used as an anti-inflammatory and wound healing agent in gastric and duodenal ulcers, and in the treatment of gastritis.



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