

## 28. **Viburnum is a symbol of Ukraine and a source of biologically active substances**

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**Introduction.** Viburnum has long been used in traditional and folk medicine. Viburnum is a very valuable nutritious product, but, unfortunately, its production in our country is insignificant due to the complexity and duration of industrial production.

**Materials and methods.** The presence of phytoncides as medicinal raw materials use the fruits, bark, flowers and roots of viburnum. Fruit juice is used to treat peptic ulcer disease, edema, normalize the acidity of gastric juice, and provide prevention of oncology of the breast and stomach.

**Results.** Viburnum is widely used in the food industry, traditional and folk medicine. Wild berries are valuable carriers of vitamins and other biologically active substances. Viburnum fruits are eaten after freezing, when they lose their bitter taste. The fruits are edible, although in large quantities they are harmful to children. The slightly toxic properties of the berries disappear most noticeably after the first frosts or at high temperatures.

Folk medicine of Ukraine widely uses a warm decoction of fruits with honey for colds, cough, long hoarseness and chronic bronchitis. Fresh fruits rubbed with sugar are recommended for nervous excitement, hypertension and atherosclerosis. Decoctions and infusions of dried fruits are used for asthma, pulmonary tuberculosis, ascites, cholecystitis, diarrhea, hepatitis, colitis. Viburnum fruits have a tonic effect and improve heart function. Tea from fresh berries and infusion from dried fruits are recommended for colds, as an antipyretic and diaphoretic.

Viburnum fruits contain sugars (up to 32%), tannins (up to 3%), pectin substances, essential oil, phytosterols, amino acids, vitamins (ascorbic acid, carotenoids, vitamins P, K), organic acids.

Viburnum also contains microelements, such as rare selenium, which strengthens the immune system. In addition, copper, zinc, chromium, boron and others are found in the fruits. The fruits also have a high content of potassium, calcium, magnesium, iron, copper, manganese (0.2 mg%), zinc (0.6 mg%) and selenium, and the ability of viburnum fruits to accumulate selenium has been established.

The presence of ascorbic acid is one of the important conditions determining the medicinal and nutritional value of viburnum fruits. Flavonoids such as quercetin and rutin are found in viburnum and may help prevent cardiovascular disease and other diseases. Carotenoids, such as lycopene and beta-carotene, have antioxidant effects and may help prevent cancer and other diseases. Viburnum berry phytoncides help fight infections and prevent the development of inflammatory processes.

So, after analyzing the literary sources about the value of viburnum, its importance in the food industry should be noted: the berries are used to prepare juices, liqueurs, tinctures, wines, jelly, extracts, which have a sharp sour taste; they are also used to make fillings for pies, seasonings for meat dishes; fruits are also added when sauerkraut; due to the high content of pectins, the fruits are used to prepare marmalade; viburnum juice is used to make vinegar; fruit seeds have a tonic effect, sometimes they are used as a substitute for coffee.

**Conclusions.** According to its chemical composition and nutritional value, viburnum is a valuable source of protein, carbohydrates, vitamins, macro- and microelements, organic acids, and also has valuable therapeutic and preventive properties, good taste and aroma. Therefore, viburnum fruits are a promising raw material for the food industry.