PHYTONCIDES

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Annatation: *Information about the meaning of herbal products, Containing phytoncides, in medicine and economy and their benefits.*

Key words: *composition, garlic, microbe, onion, worm, protection.*

Phytoncides are volatile substances and juices secreted by plants that have antimicrobial, antiviral, antifungal and preservative effects. The name phytoncides is derived from the Greek words phyto – plant and cidum – I kill, that is, destructive plants. (B.P. Tokin, 1974). Any plant is able to create substances that protect or suppress the harmful effects of microbes, fungi, rodents, pests and insects. At the same time, phytoncides are able to protect people and animals from pathogens of various infectious diseases.

Purpose: Currently, hundreds of plants and trees contain phytoncides. At the same time, the plants that store the most active and powerful phytoncides include onions, garlic, basil, nettle, eucalyptus, violet, chamomile, marigold, field tea, etc. Research methods: We analyze the composition of chamazulene and eucalyptus essential oils in chamomile and eucalyptus, take our prepared micropreparation from the product and place it in an aqueous solution of methylene blue, and under a microscope, the essential oils are colored blue.

We take our prepared micropreparation from the product and place it in Sudan 3 solution for 24 hours, and the essential oils are colored golden-red under the microscope.

If one drop of 1% quinine sulfate solution is added to 2-3 ml of the extract, an amorphous precipitate is formed, which means that it contains tannins.

Several crystals of sodium nitrite salt and 5 drops of 0.1 N HCl solution are added to 5 ml of the solution, and the hydrolyzed tannins form a brown color.

If 1 ml of constant sulfuric acid, 1 ml of alcohol and a 10% solution of iron (III) chloride are added to 2 ml of the extract, a blue-green color is formed upon heating (Lafon reaction).

Phytoncides are antibiotics. Therefore, plants containing many phytoncides are widely used in the treatment of wounds, boils, burns, tonsillitis, stomatitis, laryngitis, pharyngitis, purulent wounds, etc.

Recommendation: Locally, phytoncides have an irritating and analgesic effect. That is why we apply chopped onions and garlic to both temples of the head for headaches. Muscle and joint pain is treated in the same way. We recommend garlic capsules against worms for children. Garlic drops are recommended for the treatment of hypertension and atherosclerosis.

Phytoncides of onions, garlic and horseradish increase the secretory function of the stomach, improve appetite. They have a detrimental effect on worms and microbes. Therefore, phytoncide-containing plants are recommended for the treatment of influenza, intestinal atony, chronic colitis, hypertension, atherosclerosis (G. G. Kovaleva, 1972).

In addition to the listed medicinal substances, fruits and vegetables also contain tannins, saponins, alkaloids, glycosides, resins, additives, vitamins, polysaccharides and other biologically active substances.

Fruits and berries of many plants contain very valuable compounds called antioxidants (vitamins E.S.V., B2, selenium, etc.). They participate in all processes of tissue cell development in the human body.

In everyday life, plants that store phytoncides (onions, nettles, garlic) are often used to preserve fish and meat products. Meat products wrapped in freshly cut nettle leaves are stored much longer than those stored under normal conditions. A well-peeled onion or garlic is placed in a bag or container to protect flour and rice products from various insects.

Thus, food plants, primarily fruits and vegetables, play an important role in providing the human body with phytoncides in the most easily digestible form of nutrients, vitamins, minerals and organic acids. The

natural bioactive substances they contain have a beneficial effect on human health, improve physical and mental activity, prevent the occurrence of a number of diseases associated with metabolic processes, and also improve the functioning of the neuroendocrine systems of the body.

Summary.

Fruits and vegetables containing phytonutrients play a key role in the fight for human health. These sacred gifts of nature should be viewed from the point of view of modern man, modern pharmacognosy, pharmacology, chemistry and hygiene. Only tireless work, creative research, complex toxic-pharmacological, hygienic, clinical and phytochemical studies, we hope, will give correct recommendations on the rational use of fruits and vegetables, as well as a number of other food plants as medicinal and dietary products.

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