

MEDICINAL PLANTS AND THEIR BIOLOGICAL PROPERTIES.

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Annotation: Today, traditional medicine (folk medicine) is a very rich and huge complex of experience and knowledge, infused with people's ingenuity. It is an inexhaustible resource that enriches scientific medicine with new, effective medicinal preparations. The value and role of folk medicine in this field is priceless. For this, as an example, it is enough to remember that most of the medicinal plants used in modern medicine are taken from the treasury of folk medicine or that modern scientific medicine itself has developed on the basis of folk medicine.

Key words: *dyes, flavanoids, anthocyanins, tannins, alkaloids, glucosides, bitter substances, coumarins, organic acids, enzymes, phytoncides, starch, polysaccharides, nitrogenous substances, proteins, vitamins, essential oils, fatty and fatty acids.* .

247 species belonging to 70 families of 17,500 species of high-spore and flowering plants found in the flora of the CIS countries are used in medicine. Currently, due to the development of abandoned, gray and desert lands, the species and richness of wild medicinal plants are decreasing. In addition, the productivity of natural resources of medicinal plants is often unstable, depending on the annual weather conditions. Thus, 50 types of medicinal plants are being cultivated. According to the information of S. S. Sahobiddinov, 413 species of medicinal plants are used in folk medicine for the treatment of various diseases in the world of Central Asian plants. According to H. H. Dolmatov and Z. Holmatov and Z. Habibov, 577 types of medicinal plants have been identified in the flora of our republic. , depends on the effectiveness of the effect on bacteria and viruses. Medicines made from medicinal plants, depending on the nature of their effect on the body, calm, sleep, relieve pain, stop bleeding, numb, stimulate It is divided into groups such as anti-inflammatory, detoxifying, invigorating, healing, wound-healing and antibiotic.

Pigments Plant organs store various pigments, i.e. dyes. They include chlorophyll, flavonoid, anthocyanin, carotenoid and others. Chlorophyll is a green pigment found in the green parts of plant organs. This substance is divided into chlorophyll "A" and chlorophyll "B". Chlorophyll does not break down in water, but does break down in oil.

The word flavonoids means yellow. They are natural complex compounds and are considered benzo-U pyrone products, whose basis is phenyl-propane. is enough. Flavonoids, in turn, are divided into groups such as flavone, flavonoid, flavonol, catechin, antonian.





Anthocyanins give the appearance of purple to purple paint. Anthocyanins are flavone glucosides, hydrolyzed and broken down into sugar and aglyconanthocyanidins. They, in turn, are divided into kerasianin, enin and betanin. Anthocyanins are highly soluble in water. If it is heated or boiled, it quickly deteriorates, that is, it loses its color and properties. Anthocyanins are abundant in flowers, fruits and seeds of plants. Medicines made from quercetin and rutin substances are used more often in medicine. They are used against diseases such as cardiovascular disease, bleeding, stomach ulcer, and high blood pressure.

Tanid accumulates in the leaves, fruits, bark, roots and nodules of some plants. This substance is found dissolved in plant cell sap. It is combined with other substances or in some cases. After the plant tissue dies, it is absorbed into the cell walls. Tanid is the main raw material for the leather industry. This substance is used in medicine as a bactericidal substance to prevent gastro-intestinal diseases.

Alkaloids are substances consisting of very complex organic compounds with nitrogen-retaining and alkaline properties, which accumulate in various organs of plants. These substances have their own physiological effects. Various drugs such as morphine, papaverine, quinine, caffeine, codeine are produced from alkaloids. They are widely used in medicine for the treatment of various diseases.

Glucosides are found in all parts of the plant body. stored in fruits and roots. They are split into two under the influence of moisture and enzymes. As a result, it is divided into sugar glucoside and sugarless (aglycon) components. Depending on their effect on the human body, glucosides are divided into bitter, saponin glucosides and anthraglucosides, which affect the cardiovascular system. Unlike other substances that affect the cardiovascular system, glucosides directly affect the heart. Bitter glucosides increase the appetite of the gastrointestinal tract, open the appetite and improve digestion.

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Phytoncides are organic substances with a complex structure that accumulate in plant organs and destroy microorganisms. These substances are called plant antibiotics or phytoncides. Phytoncides can be in the form of alkaloid, essential oil, anthocyanin. Some phytoncides have been isolated from plants. For example, allicin phytoncide is extracted from garlic and consists of allin amino acids. It has bactericidal properties. Phytoncides kill bacteria and prevent their growth and reproduction. Phytoncides obtained from plants are used as antibiotics in medicine. It is especially used in the treatment of infectious diseases.

Starch belongs to polysaccharides and has a complex structure. It refreshes the body and increases its strength. Glucose is formed from it in a living organism. Medicines used in the treatment of gastrointestinal and skin diseases are prepared from starch. Also, starch is widely used in industry and household work.

Polysaccharides in all organs of plants. it is especially abundant in fruits, tubers, roots and onions. Polysaccharides have a complex structure and are composed of carbohydrates. They are one of the substances necessary for daily needs.

Nitrogen substances are composed of complex compounds, the basis of which is protein substances. They, in turn, consist of amino acids and amides. It also contains non-protein nitrogenous substances. nucleic acid, ammonia salts, nitrates, some vitamins and. preserves glucosides.

Proteins are mostly collected in seeds and fruits of plants. They are a source of nutritious food. Proteins are broken down into amino acids under the influence of proteolytic enzymes, participate in proper metabolism of the body and increase its strength.

Vitamins are formed from complex organic compounds and are present in all organs of plants. Vitamins are very resistant to the effects of the external environment, quickly deteriorate, disintegrate and lose their useful properties. For example, S. R. V1





V2, RR, N and pathogenic vitamins quickly decompose in boiling water and lose their healing properties. Vitamins A, Q, D, E do not break down or break down quickly in boiling water, but they break down in fats and lose their properties. Vitamins C, A, B are destroyed by oxygen. Vitamin V2 is more resistant to the effects. vitamin is considered one of the permanent and necessary components for human tissues and takes an active part in the process of metabolism. Increases the ability to protect the human body from various diseases. It prevents the accumulation of cholesterol in the walls of blood vessels. It also plays an important role in maintaining the blood composition.

Essential oils are a collection of organic substances that are genetically interconnected, consisting of a complex combination of several substances that accumulate in all organs of plants. The components of essential oils include hydrocarbon, alcohol, aldehyde, ketone, phenol, lactone, ether, quinone, acid, nitrogenous compounds and several substances. Medicines used in the treatment of various diseases are produced from essential oils in medicine. These drugs relieve pain, calm the nervous system, and improve gastrointestinal function. Essential oils are the main source of raw materials for the perfumery, pharmaceutical and food industries.

Oil and fatty acids are contained in the seeds, fruits and grains of plants and consist of monobasic fatty series of ether and glycerin acids with a complex structure. In addition to being used in the food industry, oil and oily substances are also used in other sectors of the heavy and light machinery industry. In medicine, they are used in the preparation of ointments, creams and plasters, and sometimes in the dissolution of medicinal substances. Often, vegetable oils have the ability to dissolve cholesterol in the walls of blood vessels and vessels. In general, it should be noted that the medicinal properties of plants depend not only on the above-mentioned substances, but also on the interaction of several organic compounds, mineral salts, macro and microelements. depending on the aspect.

Conclusion: Among the drugs used in the treatment of various diseases occurring in the human and animal body, the drugs prepared from medicinal plants have a significant place. Many medicinal plants are not sold in pharmacies, but are considered the main source of raw materials for the production of medicines. When we use medicines, we often do not even think about the fact that they are made from medicinal plants. For example: Cardiovalen is one of the high-quality drugs used in the treatment of heart diseases, and it is a complex compound made from hawthorn, valerian, adonis and several other types of plants. Currently, one third of the more than 900 different medicines used in medicine are products of medicinal plants. 77% of drugs used to treat heart diseases, 74% of drugs used to treat liver and gastrointestinal tract diseases, and 80% of drugs used against uterine diseases are made from medicinal plants.



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