Aloe (Aloe vera) cultivation technology and medicinal properties

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Abstract: In this article, the medicinal properties of the aloe plant, its importance in folk medicine and economy, and its chemical composition are explained.

Key words: Aloe barboadensis, South-Eastern Africa, aloin

Aloe is a group of evergreens, perennial herbs (sometimes trees) belonging to the tulip family. The homeland of the aloe plant is the South East of Africa. Grows in tropical and subtropical regions. About 180 species are known. Aloe species are also grown in pot; their leaves are fat, rough, thick and prickly. The juice extracted from the aloe leaf and dried is used as an antidote, and the preserved juice is used to treat various wounds, burns, and gastritis. A biostimulant-rich extract taken from aloe leaves and preserved is injected under the skin as a means of increasing the strength of the body.

15 types of aloe plants are considered medicinal. 4 types are used to obtain medicinal raw materials. These are
1. Aloe vera (aloe barboadensis)
2. Aloe tree (aloe arborescens)
3. Aloe socotrimskoe (aloe succotrina)
4. Amazing aloe (aloe freox)
The most common of these are aloe vera and aloe tree. The chemical composition of aloe vera and aloe tree is almost the same, but they also have different properties.

The difference between aloe vera and aloe tree is the shape. Aloe tree is more of a tree-like plant with succulent fleshy buds attached to its stem. Aloe vera is more like a shrub with broad upward facing leaves.

Another important difference between them is related to the field of medicine. Their chemical composition is similar, but the instructions for use are different. It is not recommended to take aloe tree by mouth. It is only suitable for external use. Wounds, cuts, skin helps to restore. In addition, it is effective for varicose veins.

Aloe vera, on the contrary, has a beneficial effect on the work of internal organs. It is used in the treatment of diseases of the cardiovascular system, arthritis and diabetes.

Chemical composition and use: The leaves and sabur extracted from it contain anthracene derivatives (aloin, vataloin, isoemodin), resins, essential oil, bitter and other substances. (0.01-0.02g) is drunk to improve digestion and increase appetite. Liquid extract from its leaves rich in biogenic stimulants (available in vials and ampoules). In folk medicine, aloe leaf and its juice are used to treat various diseases: stomach and duodenal ulcers, pulmonary tuberculosis, etc. It contains a substance that prevents the growth of bacteria. That is why, when bitten by a bee, or when the skin is cut with a knife or other object, the aloe leaf is split lengthwise in the middle and bandaged in order to prevent it from festering. It also removes bee venom. For medical use, sap is extracted from a freshly harvested aloe leaf and preserved with alcohol. Sap has bactéricidal properties and is used in the treatment of burns, infectious and other wounds, and some diseases of the stomach and intestines (colitis, gastritis, etc.). Aqueous extract of aloe has immunostimulating properties and protects the body from various diseases. Aloe emulsion is prepared by adding sesame oil and eucalypt essential oil from aloe leaves rich in biogenic stimulants. These drugs increase the body's ability to fight diseases. Therefore, the stimulating liquid extract made from aloe leaves is widely used in the treatment of eye diseases (conjunctivitis, vitreous opacity, etc.), chronic arthritis, gastric and duodenal ulcers. Aloe emulsion is used to treat skin diseases (dry and wet epidermitis) and light treatment. Gynecological diseases are also usually treated with aloe leaf juice against uterine erosion disease. It is not only a medicinal plant, but also an appetizer.

Cultivation technology. The tree type of aloe is grown as an annual plant in special farms located on the coast of the Black Sea in Georgia. Usually, side shoots of aloe are cut off and transferred to cotton fields in summer,
and in spring they are transferred to open ground and harvested in autumn. In our conditions, aloe is grown in special boxes in rooms and greenhouses. Soils for planting aloe should be fertile. It is advisable to use more organic fertilizers than mineral fertilizers. During the growing season, the soil should always be moist. It is necessary to constantly strengthen the control against insects, diseases and weeds

**Conclusion:** Summarizing this article, I can say that Aloe is primarily an ornamental and medicinal plant. There are many types of aloe, and all of them are considered medicinal. The correct use of the medicinal properties of this plant, the pure extraction of the substances contained in them, the preparation of medicinal preparations from them, and the wide use of them in medicine is necessary. Use such useful medicinal plants wisely and multiply more we need to set it up.

**References:**