

BIOECOLOGICAL PROPERTIES OF GINGER

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Abstract. Ginger (*Zingiber officinale*) is a perennial herb with thick roots and stems belonging to the ginger family. The production of ginger oil, which is widely used in pharmacology, aromatherapy, cosmetics and homeopathy, occupies a special place among all types of ginger products. In this article we will talk about the structure and medicinal properties of ginger.

Keywords: *Zingiber officinale*, kamfen, linalool, gingerin, frandandren, bisabolen.

INTRODUCTION

It is the root of the coca and resembles the root of the desert carrot, but smaller, the leaves thinner and longer. This coca grows mostly in Indian soil. A few stems grow vertically from the fragrant root stem. The leaves are arranged in two rows. The leaves can grow up to 20 cm in height. Mainly distributed in tropical and subtropical regions. Cultivated in South and Southeast Asia. Ginger is not found in the wild. It is cultivated in the Bengal part of India, in many countries such as Australia, Japan, China. It also has varieties that grow in the mountains and deserts. We often see this drug in Central Asian markets. [1-3]

MATERIALS AND METHODS

Ginger - grows in Japan, India, Central America, Ceylon, China. The essential oil is extracted from the rhizomes. You will need 50 kg of dry rhizomes to get 1 kg of oil. Ginger is one of the first spices to be brought to Europe from Asia.

The main ingredients of ginger are sintiberen or zingiberen (about 70%), starch (4%), camphene, linalool, gingerin, frandandren, bisabolen, borneol, citral, sineol, sugar and oil. The burning taste of the spice is given by a phenol-like gingerol substance (1.5%) and a pleasant odor by essential oils (1-3%). [4]

RESULTS AND DISCUSSION

To date, folk recipes based on ginger are used to treat any ailments:

For colds: tea with decoction, diluted juice or ginger relieves symptoms of acute respiratory viral infections, influenza, bronchitis, tonsillitis and even pneumonia, and helps inhalation using essential oil.

- with nasal congestion;
- for intestinal diseases: mild laxative effect of ginger extract relieves symptoms of food poisoning, relieves stomach pain, removes toxins from the intestine;
- with gynecological diseases: the beneficial effects of this plant affect the female reproductive system, relieve symptoms of inflammatory processes and facilitate their course;
- in diseases of the musculoskeletal system: in particular, ginger has established itself as the best medicine for rheumatism, arthritis, osteoarthritis and joint pain;
- with diabetes: the plant has a positive effect on blood sugar;
- with vascular pathologies: ginger increases the elasticity of capillaries, helps to clean them, reduces the risk of blood clots and improves cerebral circulation;
- from male diseases: this drug helps prevent prostatitis and increases libido;
- for weight loss: ginger accelerates metabolism and improves the digestion of fats, which contributes to the rapid breakdown of fats in the body;
- In cosmetology: masks, creams and lotions based on ginger juice or infusion - a magic tool at the first signs of aging, the intensification of oily skin and acne.

Aromatic water preparation method. Take a small amount of ginger root and use this

technology to distill aromatic water, which is an indispensable tool for treating cataracts. Ginger essential oil is used successfully in the treatment of various psychoemotional disorders: fear, insecurity, memory impairment, indifference, aggression, lack of tolerance, for the treatment of diseases of the musculoskeletal system: arthritis, osteoarthritis, arthritis joints and joints, immobility of joints. [3] In the autumn-winter period, ginger essential oil helps to fight colds and viral diseases: influenza, acute respiratory infections, tonsillitis, tonsillitis, laryngitis, pharyngitis, bronchitis, pneumonia.

When ginger is absorbed by mouth, it relieves thirst caused by the accumulation of mucus in the stomach. If it is felt, it strengthens the limbs. Ginger root contains essential oil. The dried root is fragrant and delicious, rich in essential oil. The fragrant scent of crushed ginger lasts longer than crushed. The rhizomes contain gingerol essential oils, starch micronutrients and other substances that lull the human tongue. The factor that ensures the aroma of essential oils is zingiberol. Ginger not only satisfies the appetite, but also has medicinal properties. Abu Ali ibn Sina spoke about the properties of ginger and said that it is pleasing to the heart and gives it strength, stops vomiting and relieves diarrhea. Ginger extract is used in medicine to treat liver, heart and stomach diseases. Ginger oil is an ancient medicine and a wonderful spice, an unforgettable aroma and a powerful antidepressant, a pleasant aphrodisiac and a wonderful antiseptic. [1]

CONCLUSION

Composition and valuable properties of ginger oil. The production of ginger oil, which is widely used in pharmacology, aromatherapy, cosmetics and homeopathy, occupies a special place among all types of ginger products. Ginger oil plant. For example, unlike citrus fruits, whose oils are only 0.5-1.5%, ginger rhizomes contain 1-3% essential oil. Ginger essential oil was first obtained by steam distillation in Copenhagen in the 17th century. [3-4] Today, it is produced in India, China, England, and the United States and exported to more than 130 countries around the world. Worldwide production of ginger oil is 20 tons per year. The main producers of ginger oil are the United Kingdom, China and India. During the manufacturing process, a light yellow, yellowish, or green liquid with a warm, fresh, woody aroma is formed. There are several varieties of ginger, the oil content of which varies depending on the place of growth. For example, African oil has a darker color than others. On the outside, ginger root essential oil (*Zingiber officinale*) is a yellow liquid that thickens on contact with air. It has a less pungent, bitter aromatic odor than ginger roots.

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