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ZINGIBER OFFICINALE L. -HISTORY AND STUDY

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Abstract:

In this article, the history of the study of Zingiber officinale L., the worldwide scientific research on the species, ZINGIBER OFFICINALE. Botanical description of L., medicinal properties of Zingiber officinale L. are discussed. Ginger (Zingiber officinale L) is a spice and medicinal plant belonging to the ginger family. Ginger has been used in folk medicine in India and China since ancient times.

Keywords: *Zingiber officinale* L., history, type, world, scientific, botaic, description.

INTRODUCTION. Ginger (Zingiber officinale L.) is one of the medicinal plants that have been used by people since ancient times, and its homeland is China and India. Ginger was first brought to Europe in the first century AD when the ancient Romans traded with India. In the 15th century, with the rediscovery of the New World, ginger was brought to the Caribbean Sea, and due to the favorable climate of this region, this medicinal plant began to be cultivated on a large scale[2]. Medicinal properties of ginger have been recorded in Chinese medical books dating back to BC, and in Egyptian records dating back 1,500 years.

Since ancient times, this plant has been used as a medicinal plant in folk medicine. The Indians and Chinese believe that ginger has been used as a medicinal plant for over 5,000 years, and the plant is now cultivated in the humid tropics, with India being the largest producer.

ANALYSIS AND RESULTS. Today, the ginger plant is widespread in France, Italy, Turkey, Iran, India, China, Pakistan, Spain, Japan, Azerbaijan, Russia and other countries[3].

Today, global warming has become a global problem of the whole world. This, in turn, has a sharp negative impact on the productivity of agricultural crops and its quality, leading to an increase in the shortage of food products. This situation is especially observed in the Surkhandarya region, where the productivity of agricultural crops is decreasing due to the scorching heat. In this case, creation of methods of cultivation and propagation of ginger plant (Zingiber officinale L) suitable for the climatic conditions of Surkhandarya region and its introduction into agriculture are urgent issues[4].

Especially in India, the wet and dry root of ginger is widely used in medicine and food industry. The wet root of ginger is also used as a vegetable. It is used in western countries to make gingerbread, sweets, cakes, dishes and soft drinks. In folk medicine, it has been used as a medicinal herb against colds, sore throats, coughs, asthma and joint pain and as an appetite suppressant (Nadkarni, 2005; Pulliah, 2006; Ebadi, 2007; Kritikar and Basu, 2007; Khare, 2007; Waring, 2010; et al.)[4].

India is one of the main ginger growing and exporting countries, followed by China, Japan, Indonesia, Australia and Nigeria. India and China are the major ginger producing countries (Ravindran and Babu, 2005).

The increase in the number of people around the world requires an increase in the diversity of raw materials of a wide range of medicinal, food and aromatic plants and the development of new types of products from them. On the other hand, it is necessary to choose exportable medicinal plants with such characteristics, to meet the needs for their raw materials at the expense of introduced plants existing in the local flora or belonging to the flora of other regions, to grow plants in different soil and climate conditions. development of effective methods is one of the urgent problems[5].

It is known that approximately 50% of drugs produced in pharmaceutical enterprises worldwide are prepared from raw materials of medicinal plants. However, the rapid development of the pharmaceutical industry in many countries, including the Republic of Uzbekistan, causes a sharp increase in the demand for raw materials of medicinal plants. It should be noted that due to the limitation of the reserves of naturally growing medicinal plants, the demand of pharmaceutical industry enterprises for raw materials of medicinal plants is mainly limited to the cultivation of medicinal plants in specially designated areas[6].

and can only be satisfied by cultivation.

In this regard, in our country, special attention is being paid to the production and cultivation of raw materials of valuable plants that retain beneficial properties for human health. Among such promising plants is Zingiber officinale L. (Ginger). Taking into

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account that the plant is a source of valuable medicinal raw materials, it is of urgent importance to develop ways of growing exportable raw materials from the plant in different soil and climatic conditions[7]. In this regard, development of methods of acclimatization, propagation and cultivation of Zingiber officinale L. plant, organization of industrial plantations, improvement of ways of preparation of high-quality raw materials acquire scientific and practical importance.

The first written source of ginger comes from the Analects of Confucius, written in China (475-221 BC). It told Confucius to eat ginger with every meal. In 406 BC, monk Faxian wrote that ginger was grown in pots and transported on Chinese ships to prevent poverty. In 150 AD, Ptolemy noted that ginger was produced in Ceylon (Sri Lanka). Raw and preserved ginger was introduced to Europe in the Middle Ages[8].

It should be noted that ginger has been used as a food spice since ancient times. It gives a very pleasant smell and aroma. It is used to add flavor to many foods. The plant Zerafshaniya Z., known as "Ginger" by the local population, has also been studied in Uzbekistan[9].

Ginger is of the first rank in terms of rarity, extremely rare, endemic, 1 m tall in Western Pamir Aloy. It is a perennial herb with shoot roots reaching up to In early spring, the leaves of the plant begin to grow from the root stem. These balls are located in the central stems forming a rod. The length of the leaves of the leaf band is 4-6 cm and the width is about 1-2 cm. The three sides of the tubers attached to the rhizome are flowing, the part covering the stem is light green, and the bands are green. Every year in the autumn, the leaf bands are cut off, and the branches remain on the rhizome, protecting the buds that will grow next year from cold and external influences. The leaves of the plant are 15-35 cm long and 10-15 cm wide[10].

In mountain ridges 2,500-2,900 above sea level, the number of ginger bushes is slightly higher, that is, 8-11 bushes per 1 m2 area. The main reason for this is insufficient livestock grazing in that area. In nature, there are many plants known as Zanjabil (the local people call the Regel sedge plant by this name). But their types, use and systematic aspect are very different from each other[19]. A perennial herb of the Zingiber family, probably native to Southeast Asia, or its aromatic, pungent rhizome, used as a spice, flavoring agent, food, and medicine. Its common name Zingiber is derived from the Greek zingiberis. Its use has been known since ancient times in India and China, and by the first century AD traders had brought ginger to the Mediterranean region. By the 11th century, it was well known in England. The Spanish brought it to the West Indies and Mexico shortly after the conquest, and by 1547 ginger was being exported from Santiago to Spain[11].

Medicinal ginger (Zingiber officinale Roscoe), ginger family (Zingiberaceae) is widely used in both folk and official medicine practice. The name "ginger" means "horn trunk" and describes its root. It grows with white and pink buds that turn into yellow flowers. When the stem is dry, the rhizomes are harvested and immediately burned to prevent sprouting. Constant moderation in the cultivation of ginger rootstocks is the main factor in the cultivation of this plant. This factor, in turn, plays a key role in vegetative propagation of the plant[12].

Climate and soil:

Ginger grows best in warm, humid climates. The main guarantee of successful cultivation of the crop is its planting in the season of average rainfall. It is desirable to maintain high humidity during the entire crop period. However, for a full harvest, the soil should be rich in natural and mineral fertilizers.

Soil condition for growing ginger.

Ginger grows well in sandy, well-drained soils (clay, red clay). It is not recommended to grow ginger in the same place after a year.

Russian scientist L.Vekhov in his book "Ginger - 150 healing recipes for health, longevity, prevention of diseases, normalization of weight" provided a lot of information about the useful properties of ginger[13].

This pleasant and unique spice, which is a cure for many diseases, is considered an excellent tool for improving the digestive system, a valuable component of weight loss diets, an important factor in improving the quality of life and active longevity, a powerful antioxidant - these all are characteristic of ginger.

Famous Russian scientist Nikolay Danikov in his book "Ginger health and longevity" stated that ginger is a bitter aromatic plant used in scientific and folk medicine. ginger is officially recognized as a cure and describes it as "Add it to your daily diet and you will soon notice increased immunity, more lightness and energy, and less trouble from illness[14]."

And Yuri Konstantinov, in his book "Ginger - the root of health, beauty and longevity" says that "Ginger is a real healing agent, it has anti-inflammatory, healing effect, improves blood circulation and metabolic processes. accelerates, lowers blood pressure and cholesterol levels, stimulates digestion and cleanses the body[18]. Ginger improves memory, is a powerful antioxidant, prevents

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cancer, increases immunity and helps with weight loss. For people who consciously pay attention to all natural things, ginger should become a part of life. For those who have started to take care of their health, ginger helps to overcome this task, because all the things prepared with its use are not only useful, but also tasty," the author said in his book[15].

Dr. Wolfgang Marx, evaluating this unique plant, expressed the following opinions. "Standardized ginger (Zingiber officinale) extract" remains an important drug for nausea and vomiting, cancer, despite significant advances in antiemetic therapy. It contains a number of bioactive compounds that have a beneficial effect, and is rich in many beneficial substances that participate in these treatment results.

About the healing properties of ginger, the book "Miracle ginger against 100 diseases" by Polenova Tatiana Petrovna, a Russian scientist, contains a lot of information about the medicinal properties of the ginger plant[16].

CONCLUSION. As can be seen from the above information, the use of rare Zingiber officinale L. dates back to ancient times. The plant is considered a medicinal plant, and the work of many scientists in this regard is noteworthy. Its unique useful properties encourage further study of the plant. Therefore, it is appropriate to plant and create plantations of Zingiber officinale L. on a large scale, not only on a global scale, but also in our country. In this regard, it is urgent to study the growth cycle, bioecology of the plant in every region of our republic, and develop cultivation methods[17].

Today, using this plant in our country, based on the European experience in the treatment of tumor diseases, which have risen to the level of global danger, will give good results in the prevention and elimination of diseases.

Taking into account the medicinal aspects of the plant on a large scale in the pharmaceutical industry and folk medicine, bringing another new type of medicinal plant into the field of pharmaceutical industry is becoming important today.

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