

**MORPHOBIOLOGICAL CHARACTERISTICS OF THE MEDICINAL
AMARANTH PLANT**

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E-mail: madinaxonabdخالilova@mail.ru**Abstract**

The article contains information about the geobotanical description of the medicinal amaranth plant, the role of certain substances included in this plant in human health, and the characteristics of the plant's growth and development during the vegetative period.

Keywords. Extraction, concentration, squalene, protein, osteochondrosis, arthrosis.

Introduction

The flora of Uzbekistan is very rich and diverse. Deserts and steppes, mountains and hills, lowlands and river deltas are located side by side to create a wonderful landscape. It may seem incredible, but in fact, compared to neighboring regions of Central Asia, the number of plants per unit of area in the mountains of Uzbekistan is several times higher. The rich flora of the country includes more than six thousand different plants, including medicinal plants. Such herbs are ecologically clean and are used as raw materials for the production of food, aromatic and pharmaceutical products. Complex processing of plant materials is carried out in accordance with all modern regulations, within which extraction, purification, concentration and standardization are carried out that meet all international quality standards of production [1].

The most common medicinal plants in Uzbekistan are basil (basilik), coriander, dill, mint, sebarga. Amaranth can be included among these plants. Wild plants can be found in plains and mountains, and can be bought in markets and pharmacies.

Research Materials and Methodology

It is very important to organize the preparation of raw materials of medicinal plants in a timely manner, and this work is usually done by the district central pharmacy (TMD-SRA). The preparation of medicinal plant products in the territory of the district is organized by a specialist in the position of a senior provisional pharmacognost in TMD, or if there is no such position, then by the deputy head of the pharmacy or any other specialist entrusted with this task. In TMD, the specialist responsible for organizing the preparation of medicinal plants by district performs and organizes the following:



- to know the preparation plan of medicinal plants in the district and determine it in comparison with the amount of medicinal products that can be collected in the district; when and how, what medicinal plants will be distributed among the people through the district newspaper and radio carry out appropriate explanatory work that provides full information on where to collect, dry, purchase price and where to hand over; printing leaflets that fully reflect the same issues and hanging them in public places where people gather; organization of short-term study (explanation) for medicinal plants preparers at the pharmacy; Determining the place and stock of medicinal plants, etc. [2].

Study of medicinal amaranth plant by A.P. Belavskaya [3] and phenology by I.N. It was determined by the methods of Beideman [4]. During the year, the growth and development of the medicinal amaranth plant was observed.

The best time to plant amaranth is the first half of May. Plant seeds are sown by hand in the first half of May to a depth of 4-5 cm, after which regular watering is carried out to ensure uniform germination of the seeds. During the growing season, depending on the conditions of the seasons, watering 5-6 times, weeding 2-3 times, after each watering practice, manual loosening of the interstices is carried out.

The Obtained Results and their Discussion

Medicinal amaranth belongs to the Amaranthaceae family, which includes about 75 species that grow in warm and temperate regions of the world [5]. The center of origin of amaranth is South America, and it is also very common in North America. India and China are the second centers of distribution of amaranth [6]. The height of the plant is 0.5-2.3 m, the thickness of the stem is 0.8-7 cm, the mass of the plant can reach from 0.6 to 10 kg. pin-shaped and pointed. The flowers are small, inconspicuous, and form a broom-like flower cluster that reaches up to half a meter in length. The flower is a 0.3- to 1.5-meter-long dark cone of various shapes and densities. The seeds are small, white, pink, black, and brown. The weight of 1000 seeds is 0.6-0.9 g. There are 0.06 to 0.3 kg of seeds in a furrow. It flowers in June and the seeds ripen in July [7,8].

Amaranthus seeds contain 18-20% protein, 8-9% oil and 65-75% carbohydrates. [8].

A number of diseases from Amaranthus seeds - respiratory diseases (bronchitis, laryngitis, pleurisy, pneumonia), endocrine correction (anemia, obesity, diabetes), bone and vascular diseases (ostechondrosis, arthrosis, arthritis), oncological diseases, insomnia and used in the treatment of other sexually transmitted diseases. [12].

Amaranthus seeds are a source of oil and squalene.

Squalene stops the development of cancer cells, rejuvenates the body, strengthens the immune system, restores the activity of the hormonal system of organs, and at the same time increases the duration of a healthy life. [10,11]. Laboratory analyzes conducted by an international scientific research institution confirmed that the lack of oxygen in the body leads to premature aging and the development of cancer. Amaranthus oil is a source of biologically active substances and microelements, which supplies blood with oxygen.

Amaranthus oil is used in the biosynthesis of cholesterol in medicine, in the purification of the body from radionuclides, heavy metal salts, infectious diseases, herpes, psoriasis,



vitiligo, neodermatitis, eczema, adopic dermatitis, gastrointestinal ulcers, diabetes, liver disease, genitourinary colds, It is widely used to solve the problems of atherosclerosis, avitaminosis, hypertension, oncological, cardiovascular diseases.

Conclusion.

Medicinal amaranth is one of the fast-growing annual plants. The height of the plant is 0.5-2.3 m, the thickness of the stem is 0.8-7 cm, the mass of the plant can reach from 0.6 to 10 kg. poniform and with a sharp tip. The flowers are small and inconspicuous and form a broom-like flower cluster up to half a meter long. The flower is a dark cone of various shapes and densities from 0.3 to 1.5 m long. The seeds are small white, pink, black and brown. Amaranth seeds germinate in 3-4 days after planting. The average height of the plant in the seed germination phase is 5.27 cm, the average number of leaves is 3.5 and the average height of the plant in the growth phase is 16.2 cm, and the average number of leaves is 3.5 during this period, the average height of the plant in the flowering phase is 1m 12.4 cm, the average number of leaves is 27.2, ripening The average plant height was 2m 18.2 cm.

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