STUDY OF THE SEED AND AGROTECHNICS OF THE MEDICINAL AMARANTH (AMARANTHUS) PLANT

Rasulov Ilhom Makhmudovich[1], Aliqulova Aziza Mamanovna[2], Ruzieva Mehrinso Rakhmonkulovna[3]

[1,2,3] Research Institute of Plant Genetic Resources

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Abstract. *The article provides data from the Scientific Research Institute of Plant Genetic Resources, on breeding, seed production and agricultural engineering of medicinal plants. The Institute conducts research on the selection of medicinal plants, the organization of seed production and the development of cultivated agricultural equipment. Currently, morphobiological and economic features and features of the herbal medicinal Amaranthus are being studied. In the course of research, reproduction methods and basic elements of grown agricultural equipment will be developed.*

Keywords: *medicinal Amaranth (Amaranthus), collection, plant signs, schiritsa, pharmacological, siderative cultures, lipids, sodium, potassium, vitamins C, cluster expedition.*

Based on the decree of the President of the Republic of Uzbekistan dated April 10, 2020 PQ-4670 "On measures for the protection, cultural cultivation, processing and rational use of available resources of wild medicinal plants", the most urgent task is to meet the needs of the population in the basis of local raw materials for the production of medicines with high pharmacological properties.

As a result of research, the medicinal plant Amaranth (Amaranthus) is water-saving, adaptable to various climatic conditions, popular on the world market, medicinal and gives a high biomass, today, based on the decisions and orders of our state, there is a need for time to study its cultivation and medicinal properties.

The medicinal plant amaranth (Amaranthus), due to its valuable chemical composition, is currently important in the world in using it as food, fodder siderate crops and obtaining biologically active substances. Experts of the Food Organization of the United Nations (FAO) considered amaranth as a plant of the 21st century, having studied the most useful aspects for the development of man and society among the existing cultivated plants that bring a lot of income from the main economic side.

According to research by American scientists, amaranth protein has 75 points on a 100-point evaluation system, wheat protein - 56.9 points, soy protein - 68.0 points, cow's milk - 72.2 points. So, it is clear that the medicinal plant amaranth is somewhat overestimated in the experiments.

The forage plant amaranth was grown in the CIS countries in the 1930s and 1950s, mainly in Ukraine and the North Caucasus. Nowadays, our state pays great attention to the cultivation of medicinal plants and their use in medicine to protect human health, and the amaranth plant can be included in this list. Recognized as the plant of the century, this herb is one of the rare medicinal plants in nature, has healing and protective properties for the human body. Belongs to the Amaranth family (Amaranthus), which includes more than sixty species. In its native South America, it has been cultivated for its seeds for 8,000 years. Amaranth is widely

distributed throughout the world from South America to North America, to India and from there to Asian countries. In modern India and China, which are the secondary home of amaranth, there are many varieties of amaranth. In these countries, the amaranth plant is widely used in local medicine, national cuisine and industry. The most valuable and medicinal part of amaranth is its seed.

In the works of researchers in many literatures, it has been established that amaranth grain contains protein amino acids, biologically active substances, and lipids. In medicine, amaranth seeds are used for the following diseases to protect human health. For example:

a). Respiratory diseases (bronchitis, laryngitis, pleurisy, pneumonia);

b). In the treatment of endocrine glands (anemia, beriberi, obesity, diabetes);

in). Diseases of bones and blood vessels (osteochondrosis, arthrosis, arthritis);

g) oncological diseases (used to increase breast milk in women with small children, to treat insomnia).

Amaranth seeds brought from Andijan State University were planted in small and large nurseries of RIPGR (April-May) at a temperature of seed occurrence of 12-140C. With a plant height of 10-15 cm, it was processed between the rows, and to accelerate their development, 40 kg of nitrogen and 20 kg of potassium mineral fertilizers per hectare were added to the first dressing. The second top dressing is carried out when the plants reach a height of 30-35 cm with 30 kg of nitrogen-phosphorus mineral fertilizer. Before watering, the plant must be fed. ўсимликни бўйи 75-85 см бўлганда азотли ва калийли минерал ўғитлари билан озиқлантириб тугатилди. Фенологик кузатишларда, ўсув даври 98-136 кунни ташкил қилди. Уруғларини куритиб, турли хил қўшимчалардан тозалаб, миллий генбанкга топшириш учун тайёрлаб қўйилди.

Medicinal amaranth (Amaranthus), grown in the experimental field of the Research Institute of Plant Genetic Resources, is an annual plant, known among our people as "gultojikhoroz", because its flower is small, pink, dark pink, red and dark red, resembling a cock's crown It is cultivated in various directions, for example: vegetable, grain, decorative, food, and especially as a medicinal plant. The most valuable and healing part of the medicinal plant Amaranth (Amaranthus) is its seed.

In 100 grams of amaranth seeds, which corresponds to 370 calories, this plant contains 7 g of lipids, 4 mg of sodium, 508 mg of potassium, 65 mg of carbohydrates, 1.7 mg of sugar, 14 mg of protein, 159 mg of calcium, 4.2 vitamin C, 7.6 mg of iron, 248 mg of magnesium, 0.6 mg of vitamin B6 and many other vitamins. Considering that the medicinal properties of seeds of medicinal plants are important, the indicator of seed quality is one of the important issues. Seed quality parameters include 1000 seed weight, seed weight, seed purity, germination vigor and germination rate. When determining the mass of 1000 seeds of the medicinal plant amaranth in the laboratory of Ugriti, plant physiology and immunity, it was 0.65 grams. It has been established that seed germination is 98% at (+240C and +260C).

When cultivating amaranth officinalis, the following recommendations should be taken into account: To implement the tasks assigned to the department of selection of medicinal plants, seed production and agricultural technology, it is advisable to organize scientific expeditions and business trips on the territory of the republic. , farms and cluster farms, to determine the area of medicinal plants in accordance with their territories; To determine the seed yield of the plant amaranth officinalis (Amaranthus), the economic efficiency of agricultural growth and

development, it is necessary to carry out care, watering and agricultural technology associated with growing seedlings, plowing, applying mineral and organic fertilizers, mainly when planting from seeds.

It is desirable to carry out biochemical analyzes based on the determination of the accumulation of biologically active substances in the plant; In their place, qualified personnel with high knowledge is required.

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