



## THE IMPORTANCE OF LETTUCE (LACTUCA SATIVA VAR. CAPITATA) AND GROWING SUGGESTIONS

<sup>1</sup>Khurramov Ulugbek Holmamatovich, <sup>2</sup>Asatov Shukhrat Ismatovich, <sup>3</sup>Khudoyorova Khafiza Khurramovna, <sup>4</sup>Khasanov Abror Pardayevich

Doctor of Philosophy in Agricultural Sciences of the Department of Vegetable, Melon and Potato growing of the Tashkent State Agrarian University Republic of Uzbekistan, Tashkent city<sup>1</sup>, Professor of the Department of Vegetable, Melon and Potato growing of the Tashkent State Agrarian University Republic of Uzbekistan, Tashkent city<sup>2</sup>, Assistant of the Department of Vegetable, Melon and Potato growing of the Tashkent State Agrarian University Republic of Uzbekistan, Tashkent city<sup>3</sup>, Assistant of the Department of Vegetable, Melon and Potato growing of the Tashkent State Agrarian University Republic of Uzbekistan, Tashkent city of the Department of Vegetable, Melon and Potato growing of the Tashkent State Agrarian University Republic of Uzbekistan, Tashkent city<sup>4</sup>  
[X.Ulugbek1986@mail.ru](mailto:X.Ulugbek1986@mail.ru)

### ABSTRACT

Lettuce sown is an early-ripening vegetable, which is a promising vegetable crop for early and late plantings.

Farmers and agrarians are recommended to grow head lettuce early and late from seedlings with and without tubers.

**Key words:** Lettuce sown, cabbage lettuce, aisberg, variety, hybrid, phenological, biometric, early ripening, late ripening, leaf, seed.

### INTRODUCTION

One of the most common green vegetable crops in the world today is lettuce sown. Nowadays, lettuce is widely grown in Europe and the USA. Now it is grown on all continents of the world because of the useful properties of cabbage lettuce.

At the same time it should be noted that a lot of work is being done in Uzbekistan on cultivation, consumption, reproduction, introduction and creation of new varieties[1].

At present, due to a sharp increase in environmental stress on the human body, a healthy lifestyle and a rational diet with an emphasis on the consumption of green vegetables are becoming increasingly important, as even a small amount of them has a positive effect on human performance. It helps to improve the condition and overall health.

Green vegetables are important as a dietary food. They contain a large number of biologically active substances necessary for human life, such as vitamins, mineral salts, organic acids and many other substances [2.].

It should be noted that the variety Aisberg head lettuce, in other words, "Ice Rock" is a plant with a juicy and crispy flavor. Usually, these cabbage salad leaves are very similar to ordinary white cabbage. One cabbage lettuce weighs from 300-400 grams to 1 kg.

Leaves are large light green or bright green. Its taste is a little sweet, a little bit harsh and has no distinct taste. The cabbage lettuce leaves are crisp and juicy, they taste very similar to the taste of your favorite Chinese cabbage. Unlike most salads, it can be kept in the fridge for up to 3 weeks. Unlike other vegetables, this crop

requires moderate cool air and relative humidity of 70-80% to wrap the cabbage. This crop is resistant to short-term frosts up to  $-6-70\text{ C}$  [3.].

Mineral salts of head lettuce regulate the activity of the kidneys, liver, pancreas and blood system. It also reduces the amount of cholesterol in the body, so it helps reduce excess weight and prevents atherosclerosis, lowers blood pressure, improves sleep, has a positive effect on people with diabetes.

Lettuce regulates the water balance in the body and normalizes metabolic processes in the body. Its iron content is useful for anemia, and patients with this disease are recommended to eat more. In addition, the main salad leaf is an excellent preventive agent against cancer. Cabbage lettuce leaves are high-calorie, and 100 g of salad produce 15 kcal of energy. Therefore, more parmesan dishes, salads and appetizers are prepared [4.].

Lettuce - an annual vegetable crop, belonging to a family of complex flowers. By grouping of consumption organs, they are included in the group of leafy vegetables. They are used for food with fresh leaves and cabbage, as well as in processed form [5.].

Terms of sowing should be determined on the basis of soil and climatic conditions of the region, the method of cultivation, as well as biological features of the plant, as well as the results of experiments. As a very early planting of seedlings, and delay in planting terms also affect growth and yield of plants [6.].

It should be noted that the head lettuce comes from the Mediterranean coast and has a number of unique features compared to other vegetable species, and these features should be taken into account when growing it.



1-picture. An Iceberg lettuce.

Relation to temperature: Aisberg salad variety can grow even at  $4-5\text{ }^{\circ}\text{C}$ , but at these temperatures it blooms quickly. For good growth and development is very comfortable at a temperature of  $18-22^{\circ}\text{C}$  and a short light day (10 hours). Another advantage of "Aisberg" variety is that this crop grows especially fast, and in 3 weeks after the seedlings the plant will have 4-5 real leaves.

Attitude to soil fertility: Lettuce salad grows from sandy soils to soils with heavy mechanical composition, but gives high yields on well-fertilized light sandy soils. In well prepared, well aerated soils, the risk of disease is reduced. Nomad salad requires a high content of mineral nutrients in the soil and a high norm of nitrogen fertilisers, like a nitrophilic plant. Lettuce salad absorbs 9,3-12,7 kg of nitrogen, 3,2-3,8 kg of phosphorus and 6,0-7,8 kg of potassium per 1 ton of harvested crop from the soil. It absorbs 60-70% of nutrients during the head formation period, which usually lasts 20-25 days. It requires more nitrogen during the formation of leaves and nitrogen, phosphorus and potassium during the formation of a lettuce.

Preparing the soil for planting: In late autumn the fields should be 35-40 cm long to grow in the open ground or under the film. You can sow after the harvest of many crops in late June, when deep plowing and re-growing.

Before ploughing, 25-30 tonnes of rotten manure, 100 kg of phosphorous and 50 kg of potash are spread evenly per hectare.

After ploughing the soil is well leveled, and the rows are located at a distance of 60-70 cm from each other.

Growing seedlings: First of all the soil mixture is prepared. In this case, the soil humidity of 30-40% to apply fertilizer - fresh rotten manure and mix well.

Place the prepared soil in cassettes of 6×6×6 cm.

After sowing the seeds of the main salad is soaked in water for 5-6 hours and planted at a depth of 0,7-1 cm.

After germination of seeds, from time to time preventive work is carried out with a watering can to maintain soil humidity at 75-80 percent. Feed the plants with mineral fertilisers when they form 2-3 real leaves. In this case, the solution concentration is no more than 10 g/l and immediately after applying the fertiliser, water the plant leaves with clean water to prevent burns.

The lawn is timely cleared of weeds.

The main salad seedlings will be ready in 30-35 days, depending on the feeding area. It is noted that the salad sprouts from a healthy head have 4-5 chin leaves, their height should be at least 10 cm.

The day before the removal of seedlings in the field are abundant irrigation.

At re-planting, sprouts of cabbage salad are carried out together with pre-sowing irrigation in the cool hours of the day (after 4 pm).

Seedlings are planted in pre-prepared sockets at a depth of 15-20 cm, and after transplanting seedlings are watered for good grip.

Maintenance: 30-35-day seedlings of the main varieties of lettuce in the morning in the southern regions of the country February 10-15, in the central areas of 20-25 February-15 March, in the northern regions March 15-30, in the evening of September 1-5, respectively. It is recommended to sow on August 15, 1-5.

Landing scheme 60x25 cm, 70x20 cm or 70x30 cm. The planting pattern is determined by the strong or weak growth of the plant.

In the fall, it is planned to prepare the territory planned for the main planting of salads, and when agates are harvested, the harvest will be 8-10 days earlier, and the harvest will be plentiful.

Plot planted with seedlings, should be regularly watered. In 2-3 days the branches are inspected and seedlings are planted again in the wrong places. After all the seedlings were caught, the space between the branches is processed, the area around the seedlings is softened and the first fertilizer is applied. The second cultivation is carried out after watering the harvest. It is cut twice.

Late salad is planted as a secondary culture. The day after harvesting the land before ploughing irrigate, then plough to a depth of 20-30 cm, melt and water.

The first mass treatment is carried out 15-20 days after landing. In this case, the row spacing is treated with a cultivator KRH-4.2 to a depth of 15-16 cm, and after softening the plant medium is fed with mineral fertilizers and watering. After 20-25 days is repeated mass processing [7].

Fertilizer: Lettuce salad is suitable for soil fertility and mineral fertilisers.

Ancient irrigated grey soils with deep groundwater should give an average of 150 kg of pure nitrogen, 100 kg of phosphorus and 50 kg of potassium per hectare to produce 20-22 tons per hectare.

When growing on meadow and meadow-marsh soils should be made an average of 120 kg of nitrogen, 80 kg of phosphorus and 60 kg of potassium per hectare.

When sowing lettuce salad in the evening to get an average yield of 23-25 tons of mineral fertilizers should be applied as follows:

In typical grey soils, which were irrigated for a long time, an average of 240 kg of nitrogen, 160 kg of phosphorus, 100 kg of potassium per hectare in pure form;

When growing on meadow, meadow and marsh soils on average give 200 kg of pure nitrogen, 160 kg of phosphorus, 120 kg of potassium.

Of the planned annual fertilisers, 70-75% of phosphorous, half of potassium is applied to the soil during the main tillage; the remaining part of phosphorous, together with 50% of nitrogen, is applied closer to the plants before the first complex tillage. The remaining 50 percent nitrogen is transferred together with 50 percent potassium when the head is wrapped.

The application of fertiliser to the main salad, as described above, will help increase yields and improve fertiliser quality.

Irrigation: on gray soils it is recommended to water 8-10 times a day, on shallow ground waters - 6-8 times a day. The norm of irrigation is 500-550 m<sup>3</sup> per hectare.

In the late period, water at an interval of 7-10 days at the beginning of vegetation, and then every 10-12 days.

Pest control: Apply drugs such as - 25% Cirax (0,2l/ha), Cipermethrin (0,16 l/ha), 15% Avaunt (0,4 l/ha) from pests such as lice, cabbage moth, aphids in cabbage salad.

Harvest: Head lettuce ripens in 55-60 days, depending on the variety planted, the quality of seeds and the agricultural techniques used.

The collection of head lettuce, planted in the nearest period, will begin in April-may. Since head lettuces ripen one after another, the crop is harvested at least 2-3 times in the spring for 6-8 days. Head lettuce is cut with a knife along with 3-5 leaves and sent for sale. After removing the main lettuce from the Bush, it should be stored in a cool place until it reaches the consumer. Because in the hot weather of our country, it quickly loses its marketable appearance. Head lettuce is well stored in refrigerators at + 1 °C, shelf life is 7-10 days.

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