

**УЛУЧШЕНИЕ БИОЛОГИЧЕСКИХ СВОЙСТВ ЛУКА
РЕПЧАТОГО И НЕКОТОРЫХ ЭЛЕМЕНТОВ ВОЗДЕЛЫВАНИЯ
В ПОЧВЕННО-КЛИМАТИЧЕСКИХ УСЛОВИЯХ ФЕРГАНСКОЙ
ДОЛИНЫ**

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**Improving the biological properties of onion and some elements of cultivation
in the soil and climatic conditions of the Ferghana Valley**

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Annotation: Improving the soil and climatic conditions of the Fergana Valley is to improve the biological properties of leeks and some elements of cultivation. These studies are carried out within the framework of the priority direction of the development of science and technology of the Republic "Agriculture, biotechnology, ecology and environmental protection".

Аннотация: Улучшение почвенно-климатических условий Ферганской долины заключается в улучшении биологических свойств лука-порей и некоторых элементов выращивания. Данные

исследования проводятся в рамках приоритетного направления развития науки и техники Республики «Сельское хозяйство, биотехнология, экология и охрана окружающей среды».

Ключевые слова: лук порея, схема посадки, урожайность, сорт, вегетация, биохимический состав.

Key words: leek, planting scheme, yield, variety, vegetation, biochemical composition.

Introduction. The population of Uzbekistan seeks to increase the export potential of vegetable products and develop the processing industry with 8,100 books. Cereals, morning potatoes and vegetables and some other crops occupy 3.5-4 months of warm days lasting 8-9 months. Once they are harvested, it will be possible to grow vegetables and fodder crops with a short growing period as a secondary crop.

There is no science-based technology for growing vegetables in the summer months, as well as long-lived leeks as a secondary crop, and the cultivation of this crop is currently relevant. This guide provides information on the cultivation of leeks in our country.

Mankind has been using different types of onions as food since ancient times. Leek onions are no exception. The ancient Egyptians, Greeks and Romans used leek onion as a food plant. In Egypt, leek onions were grown in 3000 BC. His homeland was Old Asia, from where he came to the Mediterranean. In these areas, the wild form of *Allium ampeloprasum*, which grows without the cultivation of its wild 9 39-book Leek onion, is still found, from which the cultivated species was one of the main vegetable crops in ancient Egypt. In the Middle Ages, it was grown all over Europe. In the pictures given by ancient botanists, it can be seen that the bulbs of the leeks grown at that time were much larger than those of the leeks species now cultivated. In the manuscripts of Dioskrit (VI century) it is described as follows:



Leek onion has a rich chemical composition. It contains 83-87% of water, 7.3-11.2% of total carbohydrates, including 0.5% of sugar, 0.3% of starch, 1.5% of fiber, 2-3% of proteins, 0.2% of fats. organic acids-0.1%, vitamins (mg%) A carotene - 0.03; V1 thiamine - 0.06-01; V2 riboflavin - 0.04-0.06; VZ - 0.1; V6 -0.003; V9 folatsin - 0.03; S ascorbic acid - 35-80; E-1.5-3; N-0.14; RR niacin - 0.5; carotene - in the amount of 0.7. It also contains minerals (mg / 100g): sodium - 50, potassium - 225, calcium - 87, magnesium - 10, phosphorus - 58, iron - 1.0-2.4, zinc, manganese, copper, silicon in addition to the main macro-microelements contain nickel, cobalt, chromium, vanadium, molybdenum, titanium, sulfur, chlorine, sulfur essential oils, phytoncides, enzymes.

MORPHO-BIOLOGICAL PROPERTIES. Onion or pearl onion (lat. *Allium pōrrum*) is a species of onion in the family Alliaceae. In the first year of life the plant forms a strong, well-developed root system, the roots are fibrous, thickly branched. Damaged parts recover quickly during transplantation. In the first year of vegetation, a white, cylindrical false bulb is formed in the lower enlarged part of the leaves, which are densely packed with each other.

The bulb is covered on the outside with a dry, grayish-brown crusty layer. Leaf plate pen-shaped, sheath long Leek bulb beak beak, flat, wide (3-

6 cm), green, like garlic bulb, elliptical (alternate), waxy layer, length 40-60 cm to 90 cm. These long leaves are densely packed together and form a white false bulb 10-12 cm high at the bottom, 2-8 cm in diameter, and a light green false stem up to 80 cm high and 8 cm in diameter.



Leek blooms in the second year of the growing season, forming flower-forming stems (arrows) and seeds up to 2 m in height. At the base of the bulb is a large spherical, umbrella inflorescence of more than 800 flowers, covered with a sheath on the outside. The flowers are small, very fragrant, from white and pink to purple. They have a small amount of seeds and ripen very long, close to November.

Leek bulbs grow and develop well in light, organic matter-rich and fertilized soils, depending on their mechanical composition, regardless of the method and duration of cultivation. Leek grows slowly after the onion is planted, and during this period the area where it is planted is overgrown with weeds. Therefore, it is advisable to plant it between the rows in areas where there is a lot of cultivation and the soil is cleared of weeds to a certain extent. If Leek bulbs are planted as a secondary crop on lands devoid of grains, the soil should be cleared of plant debris and perennial weeds.

Leek forms the onion crop inside (below) the soil, so when preparing the soil for planting, special attention should be paid to the quality of driving it, crushing the lumps in the surface layer of the soil and increasing the volume of the soft layer of soil. When Leek onion seedlings are grown as a secondary crop, the remnants of

early ripening crops should be removed from the soil, and if the soil moisture is sufficient, they should be turned over, plowed, harrowed and leveled to a depth of 28-30 cm.

Wrapped in polyethylene film for storage in the refrigerator. It is then cooled to a temperature of -2°C to $+2^{\circ}\text{C}$. It is packed in polyethylene bags with a thickness of 40-60 microns in 5-8 pieces. Storage temperature should not be below -5°C . In this method the leek is stored for 4–5 months. Leek onions can also be stored frozen. To do this, the onion is cut into pieces of 3–4 cm, blanched for 4–5 minutes, first in the open air, then cooled in the refrigerator. Wrapped in plastic bags, glued or tied and placed in the refrigerator. Freezing is carried out at a temperature of -18°C . Frozen leek onions are stored at a temperature of -18°C to -5°C .

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