

# RECOMMENDATIONS FOR GRAFTING, FERTILIZING, AND GROWING PLANTS ON THE TERRITORY OF UZBEKISTAN

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## Abstract

The territory of Uzbekistan provides unique opportunities for agriculture with its geographical location, climatic conditions and variety of soil types. In order to effectively take advantage of these opportunities, it is necessary to study and practice in depth the processes of welding, fertilizing and growing plants. Each of these processes requires specific technological approaches and knowledge, and must also be carried out adapted to natural conditions.

**Keywords:** Welding, fertilizing, growing plants, productivity, varieties, vegetables, fruits, agriculture.

## Introduction

Grafting is the technology of creating a plant with new, improved properties by combining two types or varieties of plants. In Uzbek conditions, grafting is mainly used in fruit trees, grapes, vegetables and other agricultural crops. The main purpose of grafting is to make the root system of plants resistant to dry and saline soils, increase disease resistance, and also improve yield and fruit quality. In the process of grafting, varieties are selected that are suitable for soil and climatic conditions as part of the root. For example, in dry and hot regions of Uzbekistan, it is advisable to choose hard and salinity-resistant varieties as part of the root. And the top should consist of high-quality fruiting and disease-resistant varieties. During the welding process, the equipment must be clean and sterile, the process must be strictly observed hygienic rules. It is also necessary to care for grafted plants in special conditions, protect them from pests and organize watering in moderation.[1]

Fertilizing is the process of enriching the soil with nutrients necessary for plants. In many regions of Uzbekistan, the natural fertility of the soil is low, and organic and mineral fertilizers are used to improve them. The use of organic fertilizers, such as compost, manure and other natural substances, improves the structure of the soil, stimulates the activity of microorganisms and increases the water retention capacity of the soil. Mineral fertilizers, on the other hand, provide such elements as nitrogen, phosphorus, potassium, which are necessary for the rapid

growth and development of plants. In some regions of Uzbekistan, there is a shortage of nitrogen and phosphorus, so it is important to apply fertilizers containing these elements in moderation and at the right time. Soil analysis is a key tool in making fertilization plans because it helps determine the amount of nutrients in the soil. Improper application of fertilizers can lead to salinity of the soil, poisoning of plants and a decrease in yield. Therefore, it is necessary to strictly adhere to the fertilizing technology.[2]

When growing plants, however, climate conditions, soil characteristics, and rational use of water resources are important. In many regions of Uzbekistan, water resources for agriculture are limited, so it is necessary to introduce effective irrigation systems. Drip irrigation is particularly effective, which saves water and delivers it directly to plant roots. The quality of water during watering should also be taken into account, since salt water negatively affects plant growth. When caring for plants, it is important to use biological and chemical methods to combat pests, prevent diseases and treat them. In some regions of Uzbekistan, there is an opportunity to get a harvest all year round using greenhouse and polycarbonate structures. These methods serve to improve the quality of agricultural products and meet market demand. When growing plants in Uzbekistan conditions, it is necessary to constantly monitor the soil, control its moisture, oxygen levels and nutrients. To maintain and increase soil fertility, it is recommended to plan the next crops, update agricultural techniques and apply environmentally friendly methods. When growing plants, great attention should also be paid to the quality of seeds, since quality seeds are the basis of high yields. It is also important to properly care for plants during the growing season, regularly fight pests and organize watering in moderation.[3]

### Conclusion:

In conclusion, in order to achieve high results in the field of Agriculture on the territory of Uzbekistan, it is necessary to thoroughly study and practice the processes of welding, fertilizing and growing plants. Through grafting, it is possible to increase the genetic potential of plants, maintain and increase soil fertility through fertilization, and improve productivity and product quality by caring for plants in accordance with climatic conditions. This serves to ensure the country's food security and sustainable development in the agricultural sector. Each farmer and gardener can increase the efficiency of their work by putting these recommendations into practice. At the same time, programs and technological approaches to the development of agriculture by the state are also important. Further development of Uzbekistan's agricultural potential is possible by introducing innovation in the field of agriculture, supporting scientific research and engaging farmers in advanced training courses. Thus, the work carried out on the basis of thorough knowledge and experience in this area will serve the stable growth of the country's economy and the well-being of the population.

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