

Article

# Cultivation Technology of Common Thyme – (*Thymus vulgaris*)

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**Abstract:** In nature, the resources of medicinal herbaceous plants are gradually diminishing due to the unsystematic harvesting of their raw materials, alongside the growing demand for their medicinal properties. Overharvesting, combined with environmental degradation, has led to a decline in the availability of these valuable plants in their natural habitats. In response to this issue, it is crucial to implement widespread cultivation practices, promoting the cultivation of medicinal herbaceous plants in controlled plantations. This practice not only helps to preserve the natural reserves of these plants but also ensures their sustainable production for future generations. Protecting their natural habitats, maintaining biodiversity, and ensuring that these plants are used sustainably for human benefit is a key priority for conservation efforts. This approach will contribute to preserving nature's wealth while meeting the increasing demand for medicinal plants.

**Keywords:** Natural resource, scientific medicine, conservation, healthy seedling, neutral, phosphorus, potassium, row spacing, soil, plowing, young shoots, weeds, plant care. teaching chemistry, school education, general education institutions

## Introduction

### Relevan of the Topic

In our country, the natural wealth of wild-growing plants, no matter how abundant, requires protection. Just as there are no infinite resources on Earth, the reserves of the plant world are also not unlimited. Therefore, if the natural plant resources are not used properly, these "natural riches" may eventually disappear from the Earth. The development of industrial sectors and agriculture, as well as the large-scale reclamation of natural areas, have contributed to the disruption of the bio-ecological balance.

In scientific medicine, 80% of the 112 species of medicinal plants authorized in the Republic are wild-growing plant species. Their natural reserves are decreasing, and each year, thousands of tons of medicinal plant products are produced and used for the treatment and prevention of diseases. Therefore, ensuring the pharmaceutical industry is supplied with high-quality, abundant, cost-effective, and ecologically clean raw materials remains a major challenge [1,2].

### **Research Objective**

The objective of this research is to scientifically study the biological, ecological, and pharmacological characteristics of the thyme plant, determine its medicinal significance, and explore the technology for its cultivation.

### **Materials and Methods**

This article utilizes morphological, phenological, phytochemical, and statistical methods to study the plant.

### **Results and Analysis**

Common thyme (*Thymus vulgaris*) is a perennial medicinal plant from the *Lamiaceae* family. It has been used in traditional medicine for centuries and continues to be utilized in modern medicine. For instance, its compound, thymol, is used to disinfect the mucous membranes of the mouth, relieve toothaches, treat fungal skin infections, and expel intestinal worms [4,5,6,7].

To grow healthy thyme seedlings, it is necessary to prepare a special soil mixture. This mixture is made by blending field soil, peat, and sand in equal proportions. The resulting mixture is carefully placed in plastic containers designed for seedling cultivation. Prepared seed samples are then sown in the soil. Seedling Care. The young seedlings should be regularly watered with chlorine-free water at room temperature, ensuring the soil remains slightly moist but not overly wet. Planting the Seedlings. Several guidelines must be followed when transplanting thyme seedlings into open fields. A location that receives ample sunlight should be selected, and the soil should be deeply plowed to remove all weed roots. The soil should have a low acidity level, ideally neutral. To loosen the soil, compost should be added, and phosphorus and potassium-based fertilizers should be used [6,8,9,10].

When transplanting the young seedlings, the soil and containers should be thoroughly watered. Shallow holes, spaced 15-25 cm apart, should be dug, with a distance of 20-30 cm between rows. Healthy seedlings should be carefully planted to the correct root depth, ensuring they are well covered with a light layer of soil (which may be gently pressed down) and watered adequately. In the first year after planting, thyme plants, if compost is used, do not require additional fertilization. In subsequent years, if signs of poor plant health appear, any complex mineral fertilizer solution can be used to nourish the plants during the spring season [8,9,10,11,12,13].



**Figure 1. Cultivation of Common Thyme (*Thymus vulgaris*)**

### Conclusion

This plant, belonging to the *Lamiaceae* family, forms a dense plant carpet that protects the soil from erosion and suppresses the growth of various weeds in field conditions. The fragrant purple flowers and leaves of thyme attract bees, butterflies, and other pollinating insects, which in turn help with the pollination of other field plants.

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