

Coniferous Trees: Meaning, Types and Significance in Landscape Design

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Abstract: The article provides information about the meaning of conifers, their types, their ecological importance, specific characteristics, and natural resources obtained from these types of plants. In addition, information about its role, advantages and disadvantages in decorative gardening and landscape design is provided.

Key words: Conifers, natural tar, essential oil, resource, ecology, pests, decorative gardening, landscape design, larch, cedar, spruce, hemlock.

1. Introduction.

Conifers (lat. Pinophyta or Coniferae) are a group of trees with specific characteristics that distinguish them from other plant species. They are one of the most common and important species in the world.

A distinctive feature of conifers is that they have needles instead of leaves. This allows them to withstand the cold winter weather, because the needles are an impenetrable barrier for water, which maintains the internal temperature of the tree and protects it from freezing. In addition, the needles contain oil and natural resin, which gives the trees a unique smell.

Conifers also have enormous ecological value, they hold soil together to prevent erosion and contribute to global biodiversity.

Coniferous trees are an important source (resource) for people. Coniferous trees are widely used in forestry, construction, furniture making, paper and other products. They are preferred in the lumber industry due to their longevity, strength and beauty.

Since some types of plants of the khova type have antiseptic and anti-inflammatory properties, the resin and essential oils obtained from them are often widely used in the field of medicine and cosmetics. In addition, coniferous trees have a good effect on the physical and emotional state of people, help to improve the cleanliness and purity of the air [4].

2. Materials and Methods

An important aspect of conifers is their ecological importance. They act as a natural filter. It is capable of purifying the air by absorbing some harmful substances, gases, and dust in the air and releasing oxygen. It also reduces soil erosion and improves its composition.

Admiration and respect for conifers is due to their versatile properties and excellent benefits. They are a symbol of the beauty and wisdom of nature and occupy an important place in the life of nature and people [1].

One of the main characteristics of coniferous trees is the presence of needles in them. These needle-like leaves have a thin, hard structure and retain their green color even in winter. This allows conifers to maintain their greenness throughout the year, even in harsh winter climates.

Thus, conifers have properties that make them unique and unique. They play an important role in the ecological system and are of great importance to humans as a natural resource.

The conifer family includes a variety of trees, including pine, spruce, hemlock, hemlock, and cypress. Each species has its own characteristics and is well adapted to its own climatic conditions.

As we mentioned above, one of the main features of conifers is their ability to keep their leaves green throughout the year. Thanks to this, they become an excellent decorative element in the design of gardens, parks, flower beds and other landscape objects.

Conifers are of great interest to gardeners and lovers of greenery. Their diversity and unique characteristics make them indispensable in creating beautiful and comfortable garden compositions.

3. Results and Discussion

The importance of conifers in horticulture. Coniferous trees and shrubs are of great importance in horticulture. They are in demand due to their high resistance to adverse weather conditions, lack of attention and the fact that they are perennial plants. Below are the reasons why conifers are used in horticulture:

- First, coniferous trees are used to create green fences (Fig. 1). Their coniferous leaves have a dense structure and hold snow well, which creates additional protection from cold and wind. In addition, such barriers are an excellent sound-absorbing barrier, which is especially important for areas in noisy cities.
- Secondly, conifers are often used to create a decorative composition in gardens (Fig. 2). They add variety and visual interest to garden design because of their shape and color. Coniferous trees and shrubs can add character to the composition and serve as an accent or focal point in the composition.



Figure 1. A green fence made of camellia



Figure 2. Composition of coniferous plants in landscape design

In general, conifers are important plants in horticulture due to their unique properties and uses. They can improve the appearance of the garden, create a comfortable and protected atmosphere, and also benefit the environment [3].

Characteristics of conifers. Coniferous trees have several characteristics that distinguish them from deciduous trees. Some of them are:

Needles (needles) are one of the main characteristics of conifers. Due to this feature, they can adapt to cold climates. It helps retain moisture by forming an additional layer on the surface of the tree that helps protect against moisture loss.

Durability. Coniferous trees are stronger and better resistant to external influences than deciduous trees. For this reason, the use of this raw material in the construction industry and the furniture industry is an ideal option.

Endurance. Coniferous trees have the ability to withstand extreme conditions and temperature changes due to their durability. They are often found in the northern regions, where the climate is harsh and cold.

The smell. Many conifers have a unique scent that can be pleasing to humans. Due to this property, it is popular in aromatherapy use and in the essential oil production industry.

Pest resistance. Coniferous trees have the ability to repel insects and other pests that negatively affect their vital activity due to the natural resin they contain.

Conifers: types and variety. Pine is one of the most popular types of coniferous trees. Its needles are usually green and thin in shape. Pines are found in different forms, such as common pine, mountain pine, and black pine.

Spruce is another common type of coniferous species. Its needles are dark green in color and round in shape. Spruce trees are often used as Christmas trees abroad, representing the holiday season and the winter season.

Tilogoch (Listvennitsa) is another well-known coniferous tree that is found mainly in mountainous areas. Tilogoch has thin and long green needles. It is popular in landscape design due to its beauty and resistance to adverse conditions.

Cedar is a large and strong coniferous tree found in various countries. Cedar has beautiful large domes and long green needles. It is famous for its healing properties and the use of wood in construction.

This is a small part of conifers that exist in nature. Each species has its own characteristics and is adapted to certain living conditions. Conifers play an important role in the ecosystem due to their ability to retain moisture and provide shelter to various species of birds [2].

Coniferous plants are often an integral element of landscape design. These types of plants, distinguished by the simplicity of care, as we said above, maintain their decorativeness (greenness) throughout the year and clean the air. Compositions made of coniferous trees can be combined with other elements of landscape design, for example, bushes, stones and even flowers (Fig. 3).



Figure 3. A composition made by combining coniferous trees with bushes, stones and flowers

Advantages and disadvantages of conifers. There are several advantages for landscape designers and gardeners to use conifers in landscape compositions. They are as follows:

- Low temperature resistance. Conifers can withstand cold and frosty winter temperatures;
- Scenicness. They keep their beautiful green conifers throughout the year;
- Does not require special care. Trees of this type do not require frequent watering or fertilizing during the growing season;
- Pest resistant. Some conifers have natural defenses and can protect themselves from pest attacks.

However, in addition to the advantages, conifers also have disadvantages:

- It grows slowly. Coniferous trees grow more slowly than ornamental trees. If it is necessary to make a living wall of fast-growing plants in the area being greened, this type of plants does not fit in such a place;
- Soil acidity. Many conifers prefer to grow in acidic soils, which may require regular feeding and maintenance to maintain optimal growing conditions;
- Growing conditions. Not all conifers can grow successfully in certain climates, they should be selected based on their suitability for the local climate.

4. Conclusion.

Coniferous trees are distinguished from other types of plants by their resistance to any climatic conditions. They can withstand severe cold and high temperatures, besides, they can easily protect themselves from various diseases. Since conifers have a strong antibacterial effect, they saturate the air with oxygen and other useful substances more than other types of plants. And most importantly, they fit harmoniously into the design of any garden.

References:

1. Erkinovna, K. D., & Sergeyevna, K. G. The Reconstruction of the Architectural Landscape is a Means of Optimizing an Urban Environment. *International Journal on Integrated Education*, 4(4), 238-240.
2. Muratovich, K. A., & Erkinovna, K. D. (2022). Ornamental Plants Used for Flower Arrangements. *Spanish Journal of Innovation and Integrity*, 6, 511-514.
3. Кирина, И. Б., & Попова, И. Н. (2021). Хвойные породы в ландшафтном дизайне городов. *Наука и Образование*, 4(4).
4. Авраменко, И. (2022). *Деревья и кустарники в ландшафтном дизайне*. Litres.
5. Erkinovna, K. D., & Uyg'unqizi, M. Z. (2022). The Role of Color in Human Practice. *International Journal on Integrated Education*, 5(5), 193-195.
6. ЮНУСОВА, К. Б., & КАДИРОВА, Н. Б. (2017). РОЛЬ ЦВЕТА В ЛАНДШАФТНОМ ДИЗАЙНЕ. In *Молодежь и XXI век-2017* (pp. 337-340).
7. Bakhodirovna, Y. K., & Khudoykul, K. (2022). Landscape Solutions for a System of Low-Rise Residential Buildings (Mahallas) in the Historical Center of the City. *International Journal on Integrated Education*, 5(3), 296-299.
8. Lutz, J. A., Larson, A. J., Swanson, M. E., & Freund, J. A. (2012). Ecological importance of large-diameter trees in a temperate mixed-conifer forest. *PloS one*, 7(5), e36131.
9. Qizi, N. S. B., & Ashurovich, T. S. (2024). MANZARALI VA DORIVOR DARAXT-BUTA O 'SIMLIKLARINING BIOLOGIK HAMDA MANZARAVIYLIK XUSUSIYATLARI. *Science and innovation*, 3(Special Issue 20), 255-258.
10. Drobchenko, N. V. (2004). The history of the formation and development of landscape architecture in Uzbekistan. Samarkand: Abstract.