

On the Key Points of Landscaping Maintenance Technology and Maintenance Management Countermeasures

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Abstract: *With the continuous progress of our society and the rapid development of science and technology, people's living standards have also been improved day by day. People put forward higher requirements for landscaping. However, due to the influence of traditional ideas for a long time, there is no standard for the corresponding maintenance and management in the actual landscaping work, which has an impact on the effect of landscaping. The author discusses the key points of garden maintenance technology and management countermeasures through his own relevant work experience.*

Keywords: Landscaping; Key points of maintenance technology; Maintenance management; Countermeasure.

1. THE CONNOTATION OF GARDEN GREENING MAINTENANCE

Landscape greening maintenance is a complex project that involves many aspects, which puts high demands on maintenance personnel. It requires maintenance personnel to master the growth status of plants, understand the growth laws of plants, and apply appropriate fertilizers, water, and insecticides to plants during their growth process. Regular pruning of plants is also necessary to ensure their normal growth. Only through this benign artificial cultivation can plants achieve the effect of beautifying gardens, thereby promoting urban green development.

2. THE SIGNIFICANCE OF GARDEN GREENING MAINTENANCE AND MANAGEMENT WORK

In the entire greening project, the maintenance of green plants is very important and an essential link to ensure the early construction results. Maintenance management is a long-term and sustainable work, which mainly relies on the efforts of garden workers to protect the early construction results. Ensure sufficient water and nutrients are supplied for the normal growth of green plants, effectively preventing interference from other factors. The entire maintenance work needs to be carried out according to changes in the surrounding environment, not simply mechanical repetitive work, to meet the needs of the natural ecological chain. At present, with the urbanization construction, the government has gradually increased its efforts to rectify environmental problems, and landscaping has become a key focus of urban construction. The maintenance of greening projects is particularly important. To build a modern garden city and continuously expand the urban green area, it is necessary to develop practical maintenance plans, protect the natural ecological industry chain with local characteristics, enhance its cultural aesthetics, and strengthen the maintenance and upkeep of urban greening.

3. KEY POINTS OF GARDEN GREENING MAINTENANCE TECHNOLOGY

3.1 Fertilization

Plants require certain nutrients during their growth process, such as inorganic salts and water. The actual nutrients present in the soil are limited, and as plants continue to absorb them, the nutrient content in the soil will continuously decrease, resulting in insufficient nutrients required for plant growth. Fertilization techniques can ensure that the soil has the nutrients needed for plant growth. During the fertilization period, excessive one-time fertilization should be avoided to reduce the problem of "burning seedlings" caused by it. During the fertilization period, it is necessary to control the depth and distance of fertilization according to the characteristics of the plants. Garden plants can adopt strip or hole fertilization methods, and the fertilization depth should exceed 5cm. The fertilization area should be around the plant roots, and the distance between the fertilizer and the plant roots should

exceed 10cm. At the same time, consideration should be given to plant species and growth and development status. For plants with vigorous growth, potassium fertilizer can be increased; Slow growing plants can be treated with quick acting nitrogen fertilizers; Leguminous plants that can fix nitrogen in gardens should be fertilized with phosphorus fertilizer. During the fertilization period, it is also necessary to consider the impact of environmental factors on the fertilization effect, such as clearing weeds around plants and timely drainage in areas with accumulated water to improve the effectiveness of fertilization.

3.2 Irrigation

Water is essential for plant survival, but the amount of water available for plants to absorb and utilize in the soil is very limited. Therefore, it is important to provide sufficient water for green plants in a timely manner, which is also an important part of maintenance work. At present, the main techniques for plant irrigation and maintenance include drip irrigation, sprinkler irrigation, and pipe irrigation, each with its own shortcomings and advantages. For example, sprinkler irrigation has a large range, but requires a relatively large amount of water. To ensure the effectiveness of irrigation, this technology can be used for large lawns. Scientific control of irrigation volume and frequency is the key to effective irrigation management. It is necessary to carefully investigate the climate and soil characteristics of green plant growing areas, determine irrigation plans based on the planting time and growth stage of seedlings, and ensure that irrigation frequency and volume can be adjusted according to actual conditions.

3.3 Reasonable Pruning Ensures better Growth of Green Plants

Gardens have certain ornamental social attributes, and therefore pruning of green plants is also an important part of landscaping. Trimming garden plants can improve their beauty and enhance their aesthetic value. The focus of pruning green plants is mainly on tall plants, and the best time for pruning is around dusk. Pruning work should be completed before dew appears, so that the pruning work will not be affected by sunlight and will not cause harm to the plants. Choosing a reasonable pruning time, environment, and scope can avoid negative impacts on vegetation due to improper pruning timing. Reasonable pruning can help green plants grow better, avoid nutrient absorption by excess branches and leaves, and extend the lifespan of green plants. Green plant seedlings do not need to be pruned, and plants with poor healing ability should not be pruned frequently.

3.4 Disease and Pest Control

The pests and diseases of landscaping plants generally do not occur in a wide range, but rather in a certain area or plant. The prevention and control of pests and diseases is also a key aspect of landscaping maintenance work. It is still due to the special nature of landscaping plants that the hygiene of gardens is difficult to guarantee, especially for the plants on both sides of the road, which are difficult to maintain cleanliness and hygiene. In addition, environmental factors such as high temperature and humidity make it easy for garden plants to breed diseases and pests. Considering the particularity of garden plants, there are various methods for pest and disease control, among which the most commonly used is spraying. Selecting targeted therapeutic drugs for pests and diseases, spraying them on the surface or roots of plants for prevention and control. You can also bury pesticides in plant roots, apply them on the surface of tree trunks, etc; During the prevention and control period, for plants that have already suffered from pests, diseases, and serious illnesses or have already died, direct contact with maintenance personnel should be avoided when cleaning up dead branches and leaves, and harmless treatment such as direct incineration should be achieved. In recent years, the types of pests and diseases in gardens have gradually increased, and it is necessary to pay attention to drug control and concentration control. In addition, it is best to choose biological or physical prevention and control methods, which can maximize the protection of the ecological environment and avoid drug use polluting the environment.

3.5 Drainage Technology

In the design of landscaping projects, it is necessary to fully consider the drainage problem of the garden. The terrain or drainage ditches can be fully utilized for drainage to prevent water accumulation in the garden green space, which will ultimately have a great impact on the growth and development of plant roots. If unexpected situations such as excessive precipitation or water pipe rupture occur suddenly, and the original drainage system cannot fully meet the drainage needs, the number of drainage ditches should be increased or machines such as water pumps should be used for drainage. Drainage must be done in a timely manner, as plants soaked in water are prone to disease or even death.

4. MAINTENANCE AND MANAGEMENT STRATEGIES FOR GARDEN PLANTS

4.1 Develop Management Related Systems for Garden Greening and Maintenance

When carrying out garden greening maintenance work, different garden plants have different maintenance technology requirements. In order to facilitate maintenance workers to better carry out maintenance work, detailed and complete maintenance work systems such as watering, fertilization, pruning, and pest control should be formulated to make landscaping maintenance work more scientific, standardized, and institutionalized.

4.2 Building an Excellent Maintenance Team

At present, there are significant differences in the overall quality of maintenance personnel, and the effectiveness of maintenance work is greatly reduced. We can start from two aspects to build an excellent maintenance team and lay a solid foundation for the orderly development of maintenance work. On the one hand, it is possible to hire maintenance management personnel with rich theoretical knowledge and management experience every year to enhance the professional level of the maintenance team; On the other hand, newly hired staff need to receive targeted training to enable maintenance personnel to master advanced maintenance knowledge, understand the needs of management work, enhance their sense of responsibility, and do a good job in maintenance work. In order to promote the advancement of maintenance personnel's abilities and skills, experts can be regularly invited to popularize maintenance knowledge, broaden communication channels, and enhance the vitality of existing teams.

4.3 Carry Out Publicity Work on Garden Environment Protection

Landscape greening work is aimed at beautifying the environment and improving people's living environment. Therefore, the maintenance of landscape plants should be improved by the participation of all members of society. Researchers should strengthen the development of scientific methods for preventing and controlling diseases and pests, cultivate new vegetation that is easy to grow, resistant to pests and diseases, and has high ornamental value, timely improve vegetation transplantation and planting, and develop more energy-saving and efficient irrigation machinery. The relevant government departments should increase investment in landscaping projects, promote research and development of landscaping, introduce high-end professional landscaping maintenance and management talents, technologies, and advanced technologies. They should also strengthen the promotion of knowledge related to landscaping, enhance the sense of responsibility of all members of society, make more people aware of the importance of landscaping work, promote more people to participate in landscaping maintenance work, and create a good growth environment for landscaping plants.

4.4 Actively Introducing Scientific Management and Technology

In the process of maintaining landscaping, various problems are often encountered, such as soil issues, pest and disease problems, etc. In order to effectively address maintenance issues, advanced maintenance techniques should be actively applied. At present, there is still a certain gap in the level of plant maintenance between China and developed countries. In order to ensure the healthy development of landscaping in China, technological innovation should be carried out, and advanced maintenance and management technologies should be reasonably introduced. In addition, relevant functional departments should also develop a comprehensive maintenance mechanism for this work, guide maintenance personnel to carry out their work reasonably, and thereby improve the maintenance effect of garden greening.

4.5 Strengthen the Mechanization Management of Maintenance

Nowadays, with the continuous development of science and technology and information technology, the maintenance methods and development directions of garden greening have gradually changed. The maintenance methods are more diversified, and greening maintenance is gradually developing towards intelligence and mechanization. Implementing mechanized production for green maintenance can effectively reduce the workload of maintenance personnel and improve the efficiency and quality of maintenance work. Developing a mechanized equipment production plan based on the actual situation of the garden can further ensure the overall quality of garden greening.

4.6 Emphasize the Maintenance Work in the Later Stage

Firstly, the maintenance of trees and vegetation. The construction of landscaping projects is not completed after completion, and the plants planted should also be maintained and managed. When maintaining and managing vegetation, regular pruning should be carried out to avoid excessive growth of branches and leaves, which may cause them to compete with the roots of the trees for nutrients and affect their growth. Therefore, regular pruning of trees is very necessary. It should be noted that pruning should also be carried out according to the different seasons and the characteristics of the vegetation itself, in order to ensure the best pruning effect. In addition, the prevention and control of plant diseases and pests is also a key focus. For trees that are found to be affected by diseases and pests, timely treatment should be carried out. Secondly, adopt reasonable fertilization measures. After the planting of garden vegetation is completed, regular fertilization is also required during maintenance work to ensure the healthy growth of vegetation. When fertilizing, it is necessary to analyze different plants, understand their characteristics, and choose the appropriate fertilization method and amount. If it is for the maintenance of flowers, attention should be paid to the sufficient inorganic content in the soil, and this characteristic should be taken into account when choosing. In addition, the looseness of soil in vegetation planting areas should be strictly controlled to avoid soil erosion or nutrient washing away. In areas with more rainfall, relevant drainage work should also be done well. Generally speaking, fertilization of garden plants only needs to be done about twice a year. When fertilizing in spring, it should be done before the plants sprout, and in winter, it should be done after the plants stop growing.

5. CONCLUSION

In short, the maintenance and management of urban landscaping is a long-term and complex task. Relevant management departments and units should recognize the importance of maintaining sufficient green plants, and identify the shortcomings based on the current situation of urban landscaping maintenance. Targeted water, fertilizer, pest and disease control, and pruning maintenance should be given according to the planting type to promote the presentation of a perfect urban greening landscape and contribute to the construction of an ecological city.

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