



**THE GLOBAL GOALS**  
For Sustainable Development



ISTANBUL **GELISIM** UNIVERSITY

# LANDSCAPE STUDIES

REPORT 2019



Istanbul **Gelisim** University  
**COMMUNITY SERVICE**  
Unit

[www.gelisim.edu.tr](http://www.gelisim.edu.tr)



## Introduction

As the theme of sustainability has started to get the focal point around the world, urbanization and ultimate problem areas have become remarkable due to the intensification of human activities and structures. Deprivation of natural habitats; effects such as air, water and soil pollution and heat island transform cities into settlements that gradually lose their natural qualities. These impacts not only reduce the quality of human life, but also cause irreversible consequences on biological diversity.

One of the tools to reduce the effects of the environmental adverse effects of urbanization is to increase the presence of open and green spaces in cities. Sustainable landscape studies to be carried out for open and green areas contribute to the urban aesthetics and provide space for recreational activities as well as minimizing the environmental pollution impacts by reducing carbon dioxide and heat generation.

Sustainability of the existence of open and green spaces in cities is not only the responsibility of local governments but also the institutions and every individual of the society. Istanbul Gelişim University, which sets out with this awareness, carries out various studies in order to bring sustainable natural qualities to our city and to offer our students a green campus and a breathable environment. This report provides a summary of the landscape work carried out at Istanbul Gelişim University

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## 2. Selection and Planting of Plants in Campus Areas

The naturalness of the plant and tree species found in the green areas of our campuses has certainly not been spoiled and have not lost their origins and characteristics. According to Nowak and Dawyer (2007), the correct planning and management of open and green spaces provides many positive effects on the urban ecosystem and human health. We always choose appropriate plants before planting.

- ▶ ·Self-protection for many years
- ▶ ·Resistant to weather conditions and external factors
- ▶ ·Can be preserved and serve the purpose
- ▶ ·Self-sufficiency (no need for too much water consumption)

In addition, self-sufficient plants have many advantages.

### Some of them;

- ▶ It can save a considerable amount of water thanks to its not needing too much water.
- ▶ Their maintenance is not done with short intervals as other plants.
- ▶ It can prevent erosion to a great extent, as they are better under the soil.
- ▶ It is more resistant to natural weather conditions than other plants.
- ▶ Especially thorny plants have natural defenses against external dangers (animals etc.) thanks to their thorns.

Tecrübeli peyzaj mimarlarımız ve bahçıvanlarımız tarafından incelemeler yapıldıktan sonra uygun görülen bitkinin ekim işlemine başlanmaktadır. Yapılan araştırmalar sonucunda bitkilerin ekildiği alanlara göre değişik reaksiyonlar verebildiği gözlemlenmiş ve bitki türlerinin ekimi sırasında ekileceği yer seçiminin önemi vurgulanmıştır. Ekim yapılacak alanın yer tespiti yapıldıktan sonra ekim işlemi gerçekleştirilmektedir.

## 3. Care of Plants in Campus Areas

As Istanbul Gelisim University, we keep our seating areas at the maximum level in order to green our campus areas and to use the green areas at the highest level. In addition to all these, we attach importance to environmental cleanliness, and we care for all plant and tree species at regular intervals. For example; Our lawns in our campuses are irrigated twice a day, from 20:00 in the summer to 06:00 in the morning. Pruning is done in 3 periods, in winter, spring and summer. In winter, deciduous trees are pruned, especially. In the spring, trees that are likely to freeze in the winter are pruned. In summer, pruning is done to provide light and air. Apart from all these, the "annual garden maintenance schedule" that we plan annually and schedule according to each month is as follows.



### 3.1. Care in January

Cleaning the plant's decision is necessary to prevent frost effect and snow break. Operations such as cleaning broken branches, putting injured tissues, wrapping and preserving species sensitive to frost danger, eliminating drainage problems, draining ponds can be performed.

### 3.2. Care in February

February is the best time for pruning. Pruning of leafy trees, shrubs (fruit trees, ornamental plants, etc.) is carried out, taking into account the weather conditions (in dry weather). Towards the end of the month, the stem and leaves of the plants and the soil environment where the stem is connected to the soil should be sprayed with copper drugs.

### 3.3. Care in March

Pruning and forming work of winter plants can be maintained throughout March. In the same way, the protection spraying with copper pesticides should be done within this month. The grass is strengthened by applying nitrogen-weighted spring fertilization. The colors that turn yellow due to winter return to normal.

### 3.4. Care in April

Spring fertilization should be continued during this month. Protective fungus and insecticide spraying should be repeated every 15 days. The soil that has reached the pan in April should be processed. Seasonal flowers, some bulbous plants and perennial groundcovers can be planted. Seasonal flower seeds can be sown this month. Lawn plant through seed sowing is the most favorable month for eye vaccination on fruit trees.

### 3.5. Care in May

Sowing grass is not recommended after the first week because the weather suddenly gets warmer in May. Since lawns grow faster depending on the weather, they need to be cut once a week. It should be ensured that the grass areas are watered regularly and the soil is constantly moist.

The fight against insect and fungal pests should be repeated in 10-day periods from this month until the end of September. In cases where no pests are seen in the garden, by applying protective drugs, plants and grass areas are protected against pests that may come from the environment.

### 3.6. Care in June

As of June, grass lengths should be kept long and cut. Summer is the right time for fertilization. If dry and hot weather has caused color changes in the grass, Ammonium Nitrate can be used. Again, protection and control processes against pests should continue. For spraying, the days with no rain should be preferred and the evening hours when the temperature is lowest during the day should be chosen.



### 3.7. Care in July

Irrigation and mowing work should be done regularly because the fluff is hot and not rainy. During this month, ventilation, treatment in the grass areas ensures the healthy continuation of the grass. Lawn ventilation is done with a lawn ventilation machine or with the help of ventilation rakes. The grass should be mowed frequently by keeping it long. The fight against pests should continue.

### 3.8. Care in August

If the procedures to be carried out in July are unfinished or not done; can be completed in this month. Pest control and protection procedures should continue.

### 3.9. Care in September

Autumn care of the grass areas can be started this month. The places that have deteriorated due to illness or other reasons can be completed by planting. Grass that has been cut long during the summer should be cut short from this month. Worms become active this month. They pose a danger to grass roots. Detailed intervention should be made for such pests. Suitable month for lawn plant through sowing. If the weather is hot and dry, the second half of September should be preferred.

### 3.10. Care in October

As of October, intensive leaf fall begins in the gardens. Fallen leaves need to be collected over grass areas. If it is not cleaned, it causes an increase in insect and worm problem and thus damage the grass. At the end of October, the grass plant ends with the correct seed sowing path. This is the time to add winter fertilizer to the lawn. Winter fertilizer meets the potassium need of the grass during the winter season and prevents it from being affected by cold and frost. Regular mowing of the lawn area ends.

Seasonal flowers planted in the gardens in the spring will start to deteriorate, so they should be collected and cleaned. Seasonal flowers (pansies, broadcloths, winter daffodils, etc.) and bulbous plants that bloom throughout the winter can be planted.

### 3.11. Care in November

Works to be done on grass fields during the month of November; Cleaning of fallen leaves is to remove pests such as insect worms by pesticides.

Starting from the second half of November, the plants desired to be relocated in the garden can be planted in the desired location in accordance with the dismantling technique. Fruit trees and other plants can be protected from the effects of winter months with burnt, sifted and fumigated organic fertilizers or inorganic fertilizers.

### 3.12. Care in December

During the month of December, the work to be done in the garden is almost non-existent. In regions with snowfall as of the season, the snow on the plants should be constantly cleaned and the plants sensitive to cold should be wrapped.

Avoid walking around on wet or frozen grass. It is a suitable month for the maintenance and cleaning of garden equipment to prepare for the new season.



## 4. Plant Diversity in Campuses

### 4.1. A Block (Rectorate)

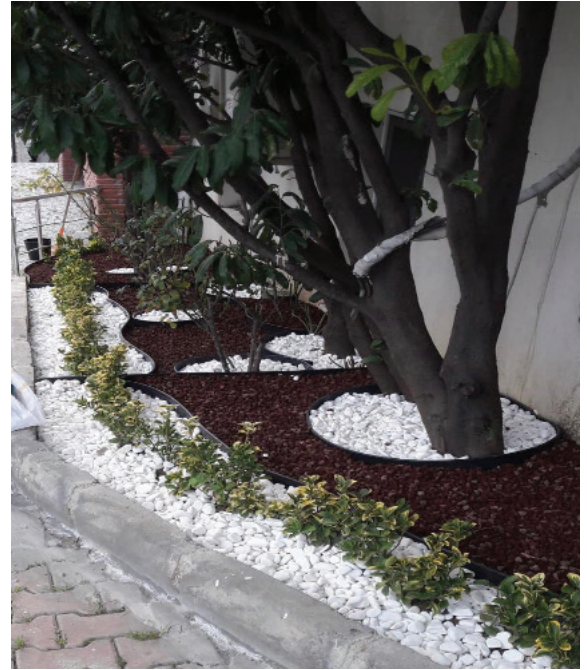
Here are some plant species in Istanbul Gelisim University A block Rectorate building:

#### Adult Trees

##### Feature

They do not need to be watered. Landslide application has been made in this area.

- ▶ Taflan
- ▶ Laurel
- ▶ Abella



##### Feature:

Laurel and Abella need water often. Taflan needs water frequently.

##### Recommendation

- ▶ Boxwood Ball
- ▶ Forest Rose



**Feature:**

Even if it is dehydrated in summer and winter, it does not dry out. If there is no application, it may dry out due to leafworm.

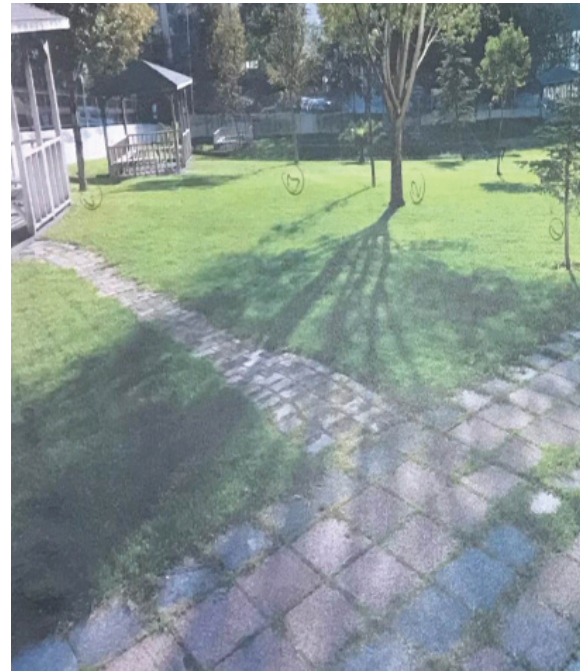
- ▶ Adult Trees
- ▶ Ligustrum

**Feature:**

Plants in this Region are adult and do not require water.

**Öneri**

- ▶ Adult Trees
- ▶ Rubber
- ▶ Ligustrum
- ▶ Magnolia
- ▶ Palm
- ▶ Feniks
- ▶ Pistachio Pine
- ▶ Poplar



**Feature:**

Boxwood is a plant that does not want water, Persian Carpet requires water.

- ▶ Boxwood Couple
- ▶ Persian Carpet

**Feature:**

Forest pine, Lemon cypress, Igde, Blackberry are plants that do not require water. Taflan is a plant that requires water.

- ▶ Taflan
- ▶ Forest Pine
- ▶ Lemon Cypress
- ▶ Silverberry
- ▶ Blackberry





## 4.2. B-C block ( Health Service)

Some of the plant species found in Istanbul Gelisim University B-C block Health Services buildings are;

### Feature:

Maple, Boxwood are plants that don't require much water. Pitos, Taflan and Apella are plants that require water.

- ▶ Pitos
- ▶ Taflan
- ▶ Maple
- ▶ Boxwood
- ▶ Apella



### Feature:

Maple, Boxwood are plants that don't require much water. Pitos are plants that require water.

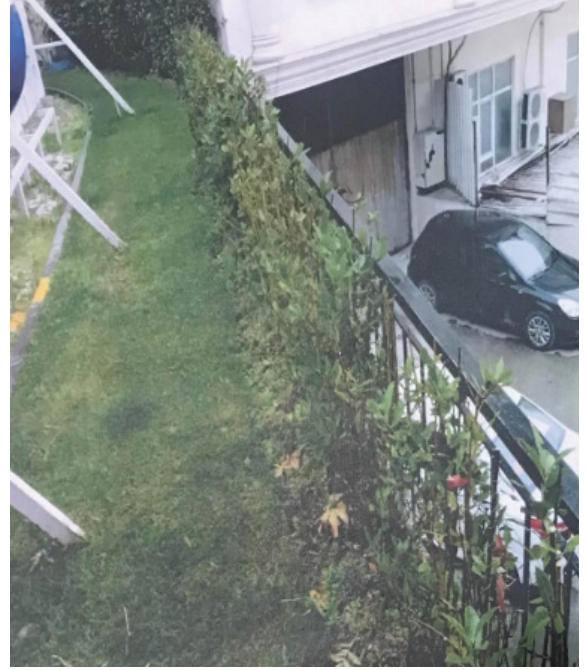
- ▶ Maple
- ▶ Boxwood
- ▶ Pitos



**Feature:**

They are plants that require water.

- ▶ Taflan

**4.3. D-E block ( MMF GSF )**

Some plant species found in Istanbul Gelisim University D-E block MMF and GSF buildings are;

**Feature:**

Pistachio pine and plum are plants that do not require water. Apella, Pitos and lavender are plants that require water.

- ▶ Apella
- ▶ Pistachio Pine
- ▶ Pitos
- ▶ Lavender
- ▶ Plum



**Feature:**

Chamomile and Jasmine plants are plants that require less water.

- ▶ Daisy
- ▶ Jasmine

**Feature:**

Ligustrum are plants that don't require much water. Pitos, Rose and Apella are plants that require water.

- ▶ Pitos
- ▶ Rose
- ▶ Apella
- ▶ Ligustrum



**Feature:**

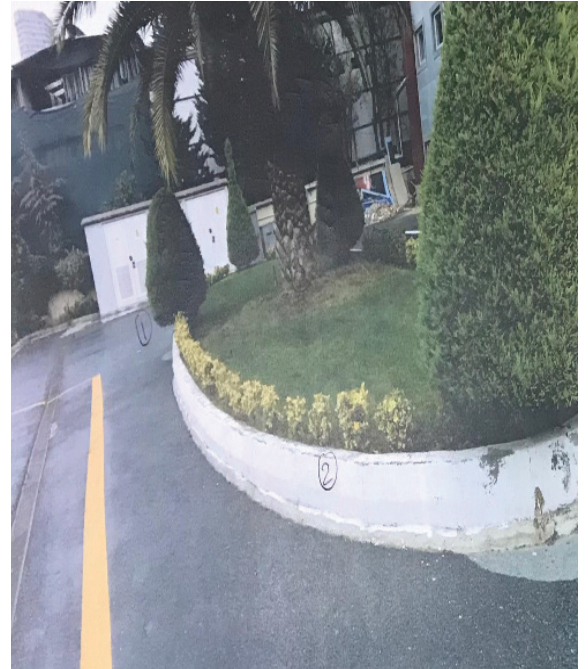
Pistachio Pine and Ligustrum are plants that do not require water. Seasonal plants are plants that require water.

- ▶ Ligustrum
- ▶ Seasonal
- ▶ Pistachio Pine

**Feature:**

All the plants mentioned above are hardy plants that do not need water.

- ▶ Feniks
- ▶ Palm
- ▶ Flame Tree
- ▶ Apricot
- ▶ Plum
- ▶ Ligustrum



#### 4.4. G block (Vocational High School)

Some plant species in Istanbul Gelisim University G block Vocational School building are as follows;

##### Feature:

Limoni Cypress and Leyland are plants that do not require much water. Pitos and Taflan are plants that require water.

- ▶ Limoni Cypress
- ▶ Pitos
- ▶ Taflan
- ▶ Leylandi



##### Feature:

Taflan are plants that require water.

- ▶ Taflan



#### 4.5. H,İ,J,K block ( Gelişim Tower )

Some plant species in Istanbul Gelisim University H, İ, J, K block Gelişim Tower building are;

##### Feature:

Ligustrum, Magnolia, Water-repellent Rosewood are less watered plants. Top Pitos and Prairie bushes are water-loving plants.

- ▶ Ligustrum
- ▶ Magnolia
- ▶ Rose Wood
- ▶ Top Pitos
- ▶ Prairie Shrub

##### Feature:

Feature: likes medium water.

- ▶ Adult cube and ball pitos

##### Feature:

The plants whose names are written above are plants that do not like water.

- ▶ Ifex
- ▶ Feniks
- ▶ Snowball



**Feature:**

Purple Cypress are plants that do not like water. Imported ball pitos are moderately water-loving plants.

- ▶ Mor Selvi
- ▶ İthal Pitos Top

**Feature:**

Magnolia are plants that do not require water. Native Taflan are plants that love water.

- ▶ Local Taflan
- ▶ Magnolia



## 5. Plant Numbers on Campuses

### 5.1. A block (Rectorate)

In our A block building,  
49 drought resistant,  
25 medium resistant,  
There are 17 plants that need a lot of water.

### 5.2. B-C block (Health Services)

In our B-C block buildings,  
34 drought resistant,  
26 moderately resistant,  
There are 21 plants that need a lot of water.

### 5.3. D-E block (MMF GSF)

In our B-C block buildings,  
36 drought resistant,  
17 medium resistant,  
There are 28 plants that need a lot of water.

### 5.4. G block (Vocational High School)

In our G block buildings,  
38 drought resistant,  
24 medium resistant,  
There are 30 plants that need a lot of water.

### 5.5. H,i,J,K blok (Gelişim Tower)

In our G block buildings,  
110 drought resistant,  
57 medium resistant,  
There are 43 plants that need a lot of water.







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IGU for “Ecological, Social and Economic Sustainability”

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