



# Dry Garden



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# 01 Philosophy



# Concept of dry gardens



The concept of a “dry” garden arises as a response to the necessity of adapting green areas to changing climatic conditions, including extreme temperatures, strong winds, and infrequent yet intense rainfall, primarily driven by climate change. The objective is to establish a garden that is resilient and self-sustaining, requiring minimal irrigation only during the hot months and relying on the resources provided by the natural ecosystem for the remainder.



**Xeriscaping is not just about saving water; it's about creating landscapes that are resilient, low-maintenance, vibrant and environmentally sustainable.**





# The birth of “Xeriscaping”

The emergence of “xeriscaping” and its connection to the California case: In the early 1960s, the United States witnessed the first movements against the extensive use of lawns. The traditional notion of a garden came under scrutiny due to its excessive water requirements and the environmental hazards posed by machinery and pesticides. In the early 1980s, during a severe drought in Denver that led to water rationing, the term “xeriscaping” (derived from the Greek words “xeros,” meaning “dry,” and “landscaping”) was coined.

This design approach aimed to minimize water usage while still achieving an attractive and vibrant green space by selecting plants with low water requirements and ensuring easy maintenance. In this context, the birth of the “dry garden” can be traced back to California, particularly after the prolonged drought experienced in 1977. Subsequently, the concept of the dry garden gained acceptance in Europe as a method of addressing the challenges posed by climate change, starting in the 1990s.





# Success and expansion

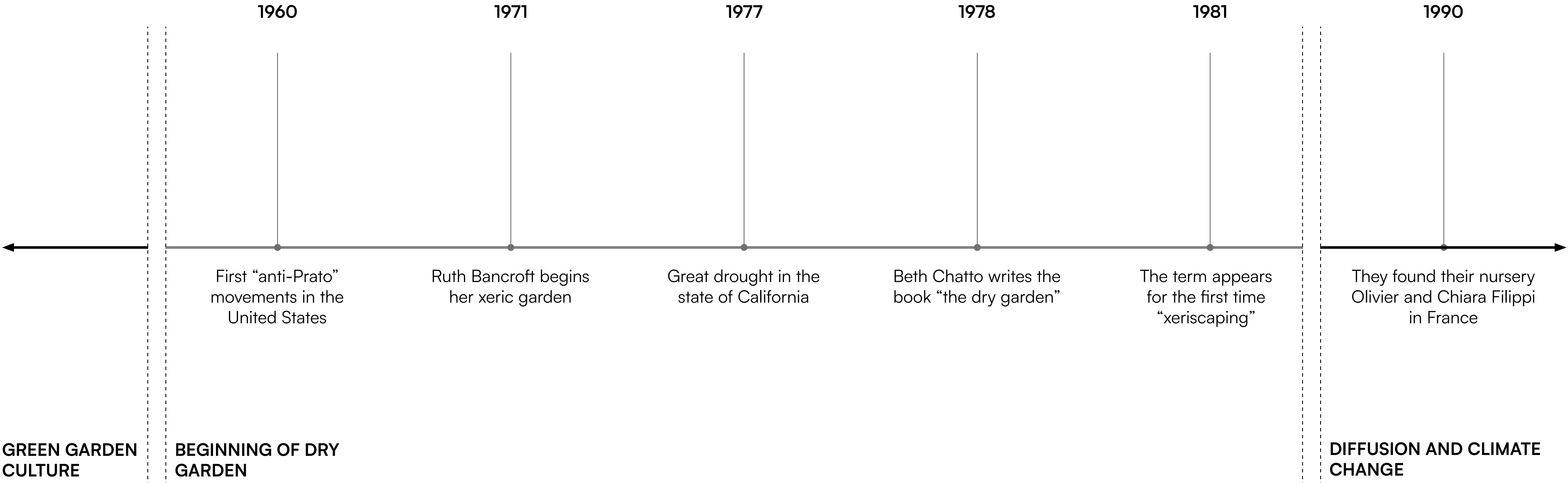


Achieving success and expanding in the Anglo-Saxon region: England, contrary to popular imagination, is not entirely characterized by lush greenery and rainfall. The southeastern countryside of London, for instance, is not particularly conducive to the botanical imagery commonly associated with the romantic borders of traditional English gardens. This realization prompted a rethinking of gardens in a more contemporary context, where careful consideration is given to selecting plant species that are well-suited to their specific locations, instead of forcing plants into unsuitable climates.

In 1978, English gardener Beth Chatto addressed this need by publishing her book “The Dry Garden,” which garnered significant appreciation in the United Kingdom but faced criticism abroad. The question arose: How can one discuss a dry garden in a typically humid Great Britain? Undeterred by ideological positions, Beth continued her research, demonstrating that a moderate level of human intervention can enable an environment to thrive when its intrinsic characteristics are respected.



# Timeline of dry gardens history



**GREEN GARDEN CULTURE**

**BEGINNING OF DRY GARDEN**

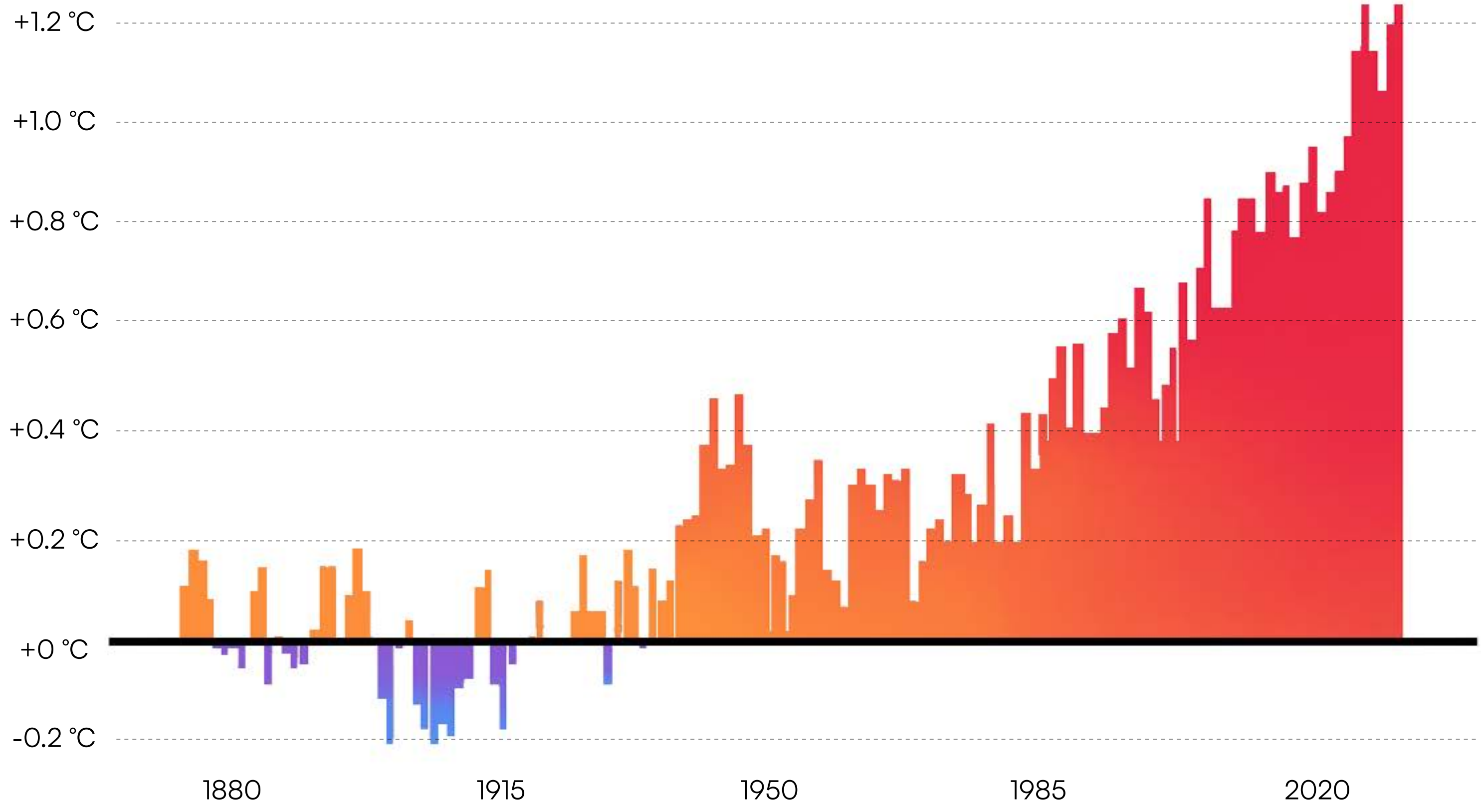
**DIFFUSION AND CLIMATE CHANGE**



Since 1981, there has been a noticeable increase in the rate of temperature variation. This global phenomenon has led to the emergence of environmental crises, which now stand as some of the most significant risks we face in our current era.



# Global average temperature evolution



2020 +1.25°C above the reference standard (1881-1910)

Source: NASA GISS & NOAA NCE



**In an era dominated by the challenges of climate change, how can we effectively design the future of our landscapes?**



# Dry gardens and climate change



The effects of climate change include rising temperatures, fluctuations in growing seasons, unpredictable precipitation patterns, and more frequent occurrences of intense storms and droughts. In the face of these challenges, establishing gardens and increasing the presence of green spaces can play a crucial role in adapting climate change.

By planting gardens and incorporating green spaces, we can effectively mitigate the impact of climate change at the local level. These green areas act as natural coolants, reducing temperatures in urban environments and countering the urban heat island effect. Additionally, they serve as carbon sinks, absorbing carbon dioxide from the atmosphere and helping to mitigate greenhouse gas emissions.

Moreover, the careful selection of drought-resistant plant species in dry gardens ensures their ability to thrive in arid conditions. These plants have adapted to survive with minimal water, making them excellent choices for water conservation. Moreover, their presence helps prevent soil erosion in dry areas, contributing to the preservation of precious water resources.



# Opportunities



The possibility of re-using poor land, damaged by drought or fire, that can help in leading to a gradual regeneration of the landscape.



These gardens have the capacity to thrive solely on rainwater irrigation, resulting in significant water conservation a now precious resource.



Creating additional green spaces presents a genuine opportunity for absorbing CO2 and offsetting carbon footprints.



The Mediterranean flora exhibits resilience to extreme temperatures and prolonged periods of water scarcity, which are becoming more frequent due to climate change.



# 02 **Technical aspects**



# Climate

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# Terrain

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# Planting

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# Irrigation

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# Maintenance

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# Essences

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# Climate

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Dry gardens are typically designed and cultivated in regions with a Mediterranean climate or other arid or semi-arid climates.

## Terrain

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## Planting

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## Irrigation

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## Maintenance

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## Essences

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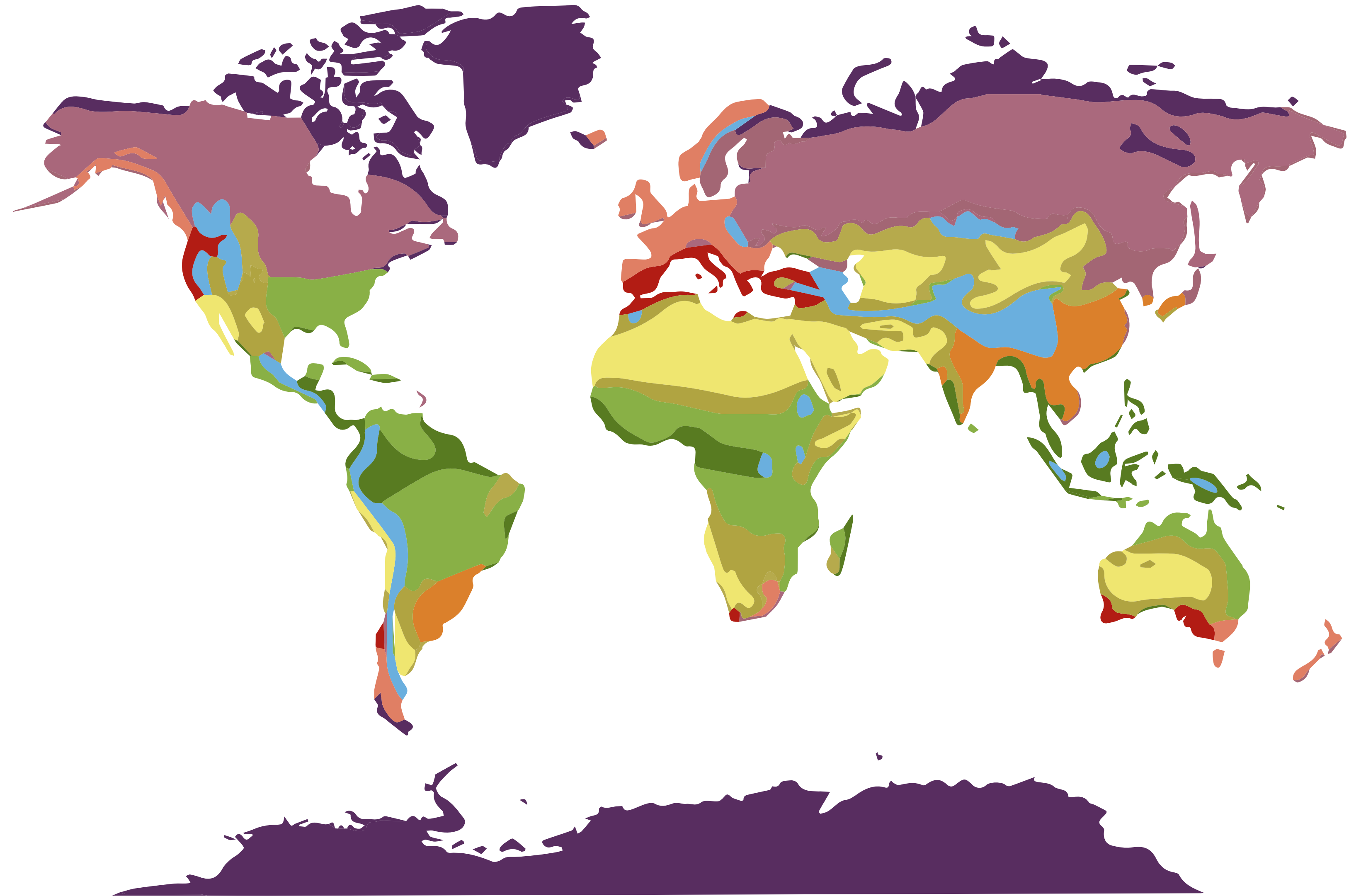
# Climate



The Köppen climate classification is a system created in 1900 by geographer and climatologist Wladimir peter Köppen, based on the relationship between natural vegetation and climate, in which the borders between one climate and the other were established taking account of the distribution of vegetation in a certain place.

The system divides the world's climate into five main categories: tropical (a), arid (b), temperate (c), continental (d) and polar (e). Then the high mountain climate is added (h). It is one of the most used climate classifications thanks to its generality and simplicity. The botanical world that characterizes the dry garden is composed of mainly Mediterranean essences, which thrives in two types of "dry" climate: Mediterranean and Steppe climates classification.

- Equatorial (e)
- Tropical savannah (a)
- Steppic (b)
- Desert (b)
- Mediterranean (c)
- Subtropical (c)
- Oceanic (c)
- Continental (d)
- Polar (e)
- High mountain (h)





# Mediterranean climate

- Mediterranean basin, parts of inner California and portions of southern Australia.
- Moderate winters and hot and dry summers.
- Precipitations in winter or in mid-seasons.
- Essences: wide range of colors, shapes, textures, densities and ways of reflecting light, different shapes, flowering in spring and summer. About 25,000 essences, many of which aromatic.





# Steppe climate

- Southeast Iberian Peninsula, Morocco, southern coast of California, inland Australia, inland north America, steppes of central Asia.
- Extreme temperatures and low precipitations.
- Essences: perennial plants, herbs, and bulbs with high resistance to drought. Shorter and poorest appearing, but with spectacular flowering in spring.





# The climate

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# Terrain

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When establishing a dry garden, it is essential to assess the specific characteristics of the terrain, including soil composition, drainage, and exposure to sunlight and wind. Understanding the terrain will help in selecting appropriate plants.

# Planting

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# Irrigation

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# Maintenance

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# Essences

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# Terrain

Ensuring effective drainage is of utmost importance in the creation of a dry garden, as stagnant water should be avoided. The land should be worked deeply to establish rainwater reservoirs, enabling plant roots to access natural reserves as needed. These reservoirs can be for example natural swimming pools or natural safety reservoir, playing a vital role in the growth of a dry garden.

During the initial two years of the establishment and planting phase, it is crucial to create small depressions or cups around each plant. This design allows water to be retained around the roots, promoting their attachment, and encouraging deep growth. Throughout this period, it is essential to acclimate the plants to minimal water availability. Therefore, artificial replication of summer showers becomes necessary, with infrequent but substantial water irrigation.

Plants suitable for a dry garden typically have low water demands. However, it is undeniable that adequate drainage plays a critical role in the project's success. Water should never accumulate but instead permeate deeply into the soil, providing essential nourishment to the plants during dry periods. Therefore, meticulous soil preparation is necessary, involving thorough milling to loosen the soil, integration of fertile soil, and potentially the incorporation of suitable organic matter.

## Mediterranean plants

## Draining mulch

## Well drained soil





# The terrain considerations

## Well-Drained Soil

Dry gardens thrive in soil with excellent drainage capabilities. Avoid areas with compacted or heavy clay soils that tend to retain water and become waterlogged. Opt for sandy or loamy soils that allow water to flow freely, preventing water accumulation and root rot.

## Soil Composition

Soils with a good balance of organic matter, helps improve water-holding capacity while still promoting adequate drainage. Adding compost or well-rotted manure, can enhance soil structure and fertility.

## pH Level

Most plants suitable for dry gardens prefer slightly acidic to neutral pH levels. Conduct a soil test to determine the pH and adjust it if necessary, using appropriate amendments.

## Soil Depth

Adequate soil depth allows plant roots to penetrate deeply, accessing moisture stored in lower soil layers. Ensure that the chosen terrain provides sufficient soil depth for plant roots to grow and establish a strong foundation.

## Slope and Elevation

A gentle slope aids in natural drainage, preventing waterlogging, while elevated areas may have better air circulation, reducing the risk of fungal diseases. However, extreme slopes can lead to erosion, so appropriate terracing or contouring may be necessary.

## Microclimates

Factors such as sun exposure, wind patterns, and proximity to buildings or large trees can influence moisture retention and evaporation rates. Identify areas with suitable microclimates for the specific needs of your chosen plants.



# Climate

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# Terrain

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# Planting

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Planting a dry garden requires careful consideration: research and choose drought-tolerant plants, soil preparation, consider mulching, plan the layout and irrigation practices.

# Irrigation

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# Maintenance

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# Essences

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**Choosing to plant in autumn sets the stage for the long-term success of a dry garden by allowing the plants to establish a strong foundation and access essential water resources in a sustainable and self-sufficient way.**



# Planting

The autumn season is widely regarded as the most favorable period for planting plants in a dry garden. This strategic choice offers numerous advantages as it allows the plants to establish and develop robust root systems over the winter months. By taking advantage of the seasonal rainfall, which tends to be more abundant during this time, the plants can effectively tap into the available water resources they need for growth and survival.

Planting in autumn grants them ample time to acclimate to their new environment and establish a strong foundation before the arrival of summer. As the seasons transition, these well-established plants will have already developed deep and extensive root systems, enabling them to efficiently seek out moisture from the deeper layers of the soil. This early establishment and root development provide them with a significant advantage, ensuring their resilience and ability to thrive even in periods of water scarcity.





# Climate

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# Terrain

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# Planting

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# Irrigation

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Irrigation in dry gardens should consider an efficient irrigation system, such as drip irrigation or soaker hoses, to deliver water directly to the plant roots. This minimizes water waste through evaporation or runoff. Water deeply but infrequently to encourage deep root growth and plant resilience.

# Maintenance

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# Essences

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# Irrigation

During the initial year following the potting of plants in a dry garden, it is crucial to provide regular irrigation until the plants have matured and gained increased self-sufficiency. In the early stages, watering frequency should be relatively high to support the plant's growth, resembling the effect of summer showers. By using significant quantities of water during these initial years, it allows the water to slowly permeate into the deeper layers of the soil where the plant's roots naturally seek moisture.

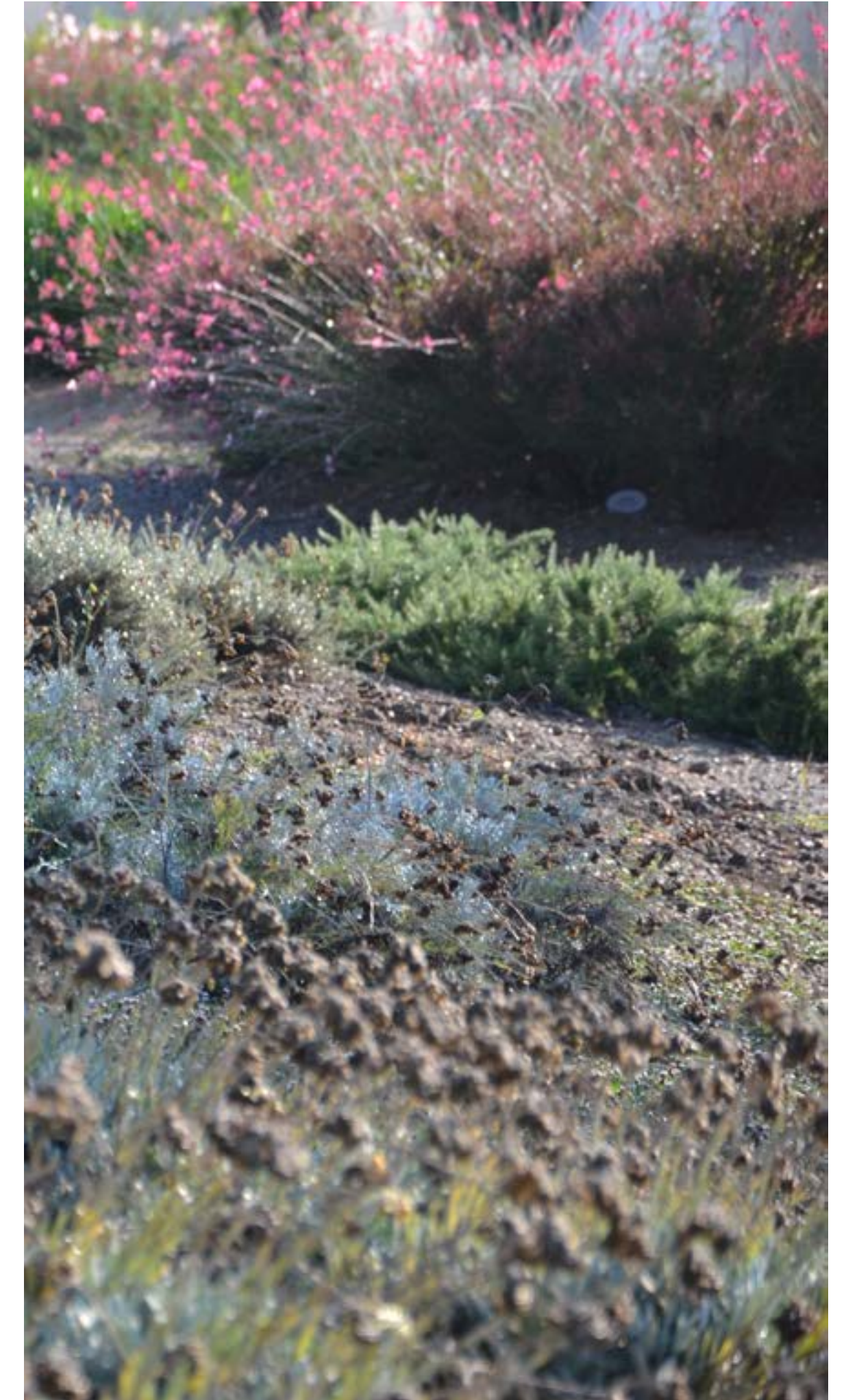
This approach aims to "train" the plant to adapt to receiving water infrequently, ultimately fostering their resilience and ability to survive with minimal irrigation in the future. As the plants become well-established and their root systems develop, they will gradually become independent, requiring less external watering. This process allows the plants to thrive and flourish in a self-sufficient manner within the dry garden environment.



**Classic lawn: about 7 lt / m2 per day**



**Rustic lawn: about 10-20 lt / m2 per week**



**Dry garden: 0 lt**



# Climate

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# Terrain

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# Planting

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# Irrigation

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# Maintenance

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Maintaining a dry garden involves specific practices to ensure the health and longevity of drought-tolerant plants. For example: pruning, weed control, mulching, fertilization, water management, pest and disease management.

# Essences

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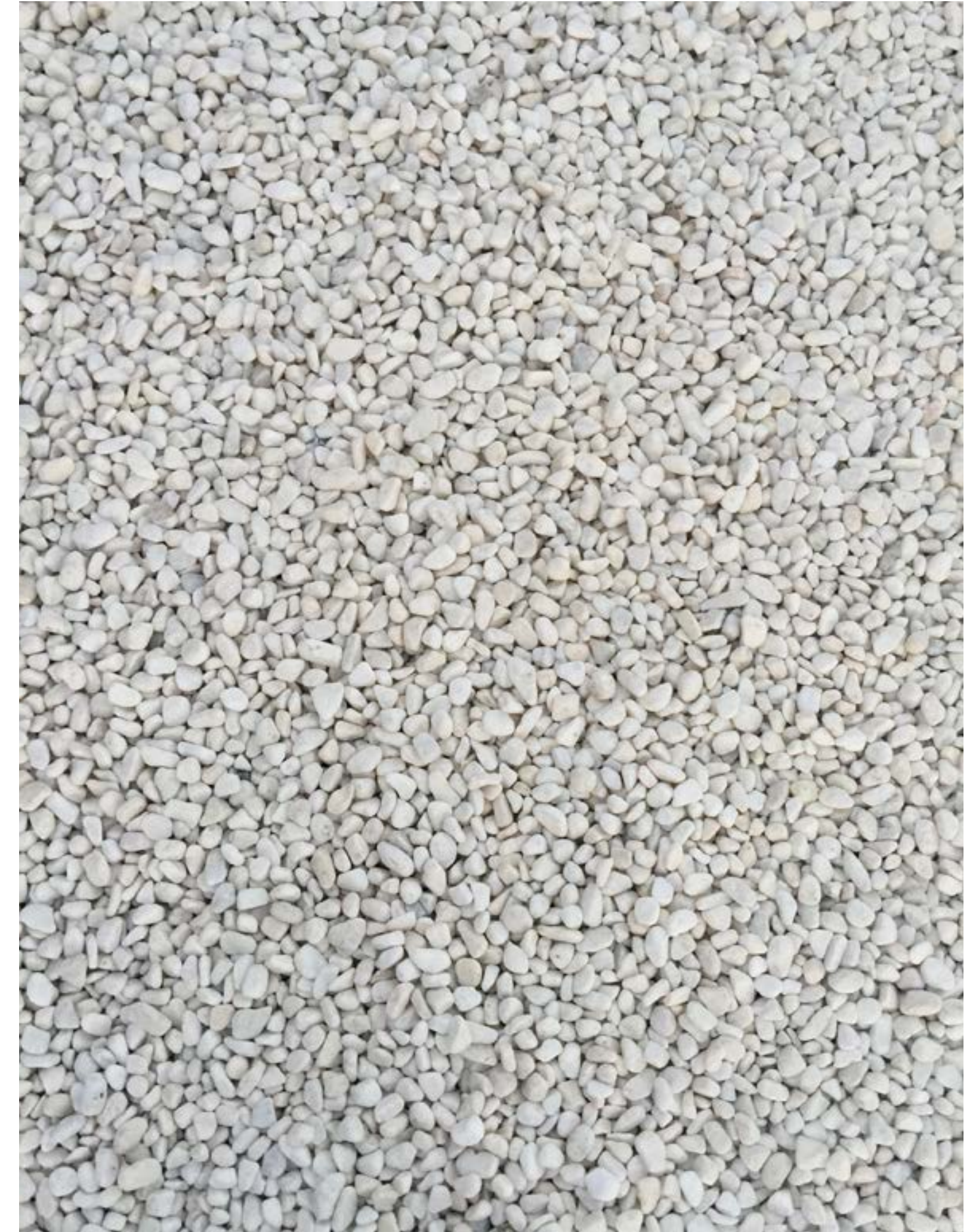
# Maintenance

Applying a layer of mulch around plants helps conserve soil moisture, reduce weed growth, mitigate evaporation, regulate soil temperature and effectively manage vegetation growth. Organic mulches like wood chips, straw, or compost can improve soil health as they break down over time. Maintain a layer of mulch to a depth of 2-4 inches, keeping it away from the base of plants to prevent moisture-related issues.

- The organic mulch: provides the added advantage of enriching the soil with organic matter, enhancing its fertility, and promoting healthy plant growth. For example: compost, wood chips, straw, pine needles, leaves, grass clippings, cocoa bean hulls.
- Inorganic mulch: serves both aesthetic and functional purposes, adding visual appeal to the garden while also helping to regulate soil temperature and moisture levels. For example: Gravel, crushed rock, rubber mulch, landscape fabric, synthetic mulch.



**Organic mulch**



**Inorganic mulch**



# Climate

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# Terrain

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# Planting

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# Irrigation

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# Maintenance

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# Essences

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The essence of dry gardens lies in their ability to thrive in arid or drought-prone environments, showcasing the beauty and resilience of plants adapted to such conditions. Offering a sustainable and environmentally friendly approach.



# Essences

In a dry garden, a diverse array of plant species can thrive, contributing to its unique beauty and resilience. Among the plant options suitable for such gardens are an assortment of trees, ranging from majestic to compact in size, as well as both tall and short shrubs. These can be complemented by a variety of aromatic plants, climbers, bulbs that offer year-round interest, and a wide selection of herbaceous perennials. Additionally, dry gardens often present viable alternatives to traditional lawns, creating a sustainable and water-efficient landscape.

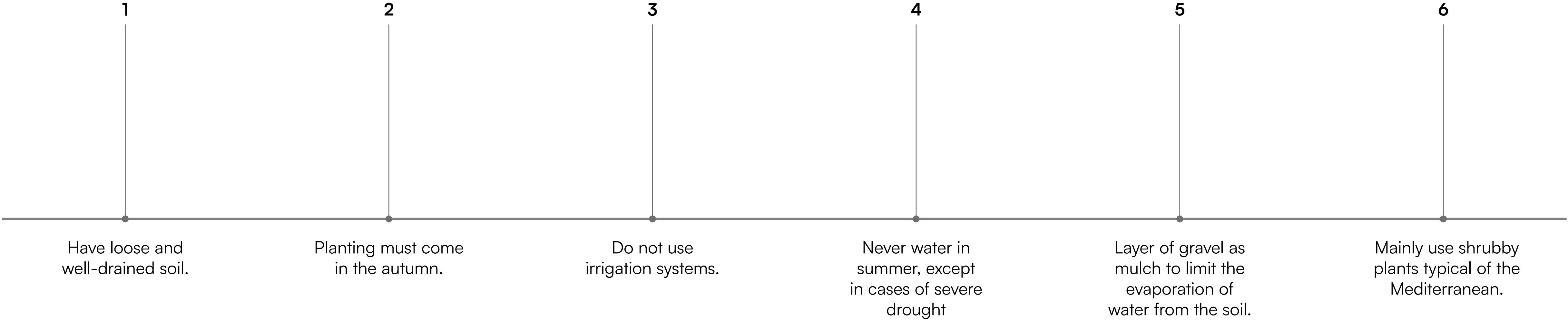
One of the remarkable aspects of dry gardens is the rich selection of endemic plants hailing from various regions with similar Mediterranean climates. These plants have naturally adapted to the challenging conditions of summer drought, displaying a remarkable ability to thrive in water-limited environments. Their resilience is further enhanced by their growth patterns, with the majority of their development occurring during autumn, winter, and spring, taking advantage of the potential rainfall during these seasons.

Many Mediterranean plants have developed unique adaptations to conserve water, such as the presence of leathery, shiny, hairy, or silver leaves. These leaf characteristics play a crucial role in limiting water evaporation, enabling the plants to efficiently utilize the available moisture. Even when these plants are not in bloom, their foliage offers an interesting and visually appealing aspect, showcasing an array of colors, textures, and structural formations.





# Dry gardens in a nutshell:





# 03 **Basic Abacus**

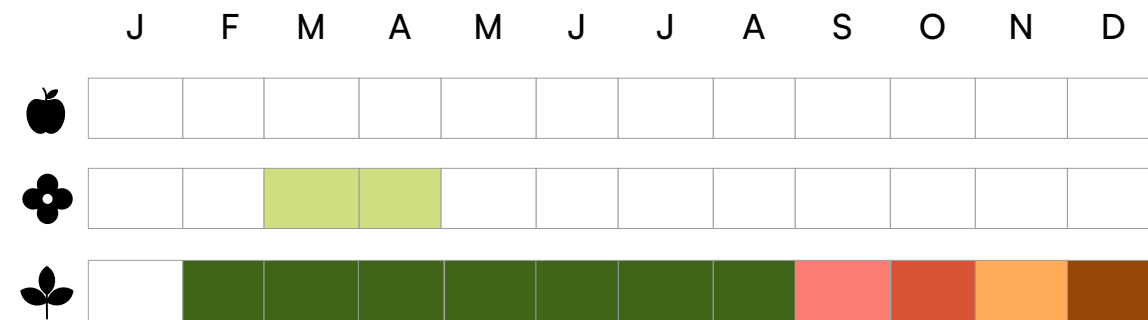


# Trees

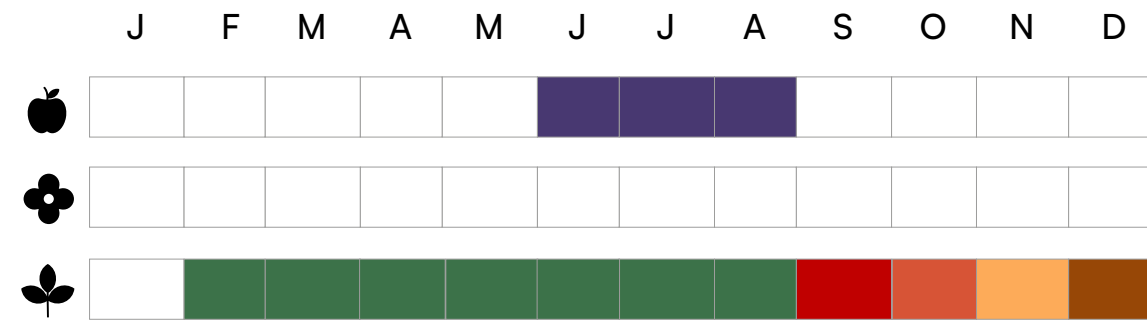
h: +4m



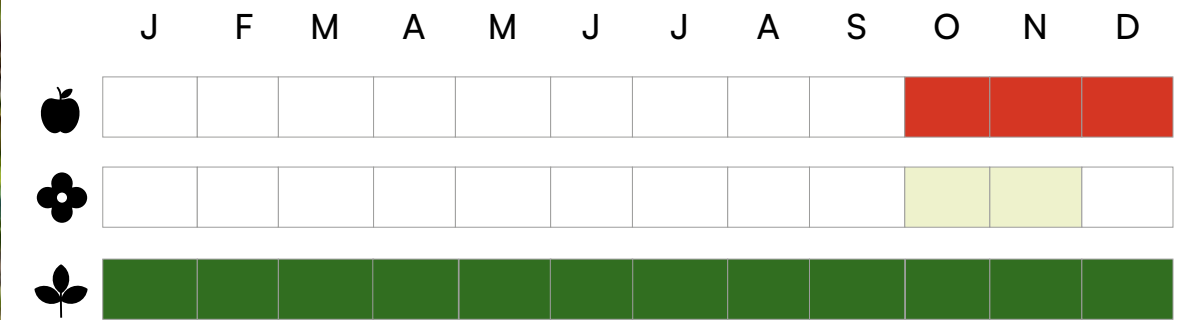
**Acer monspessulanum**<sup>1</sup>  
Deciduous | Evergreen  
H.5m | L.3-4m



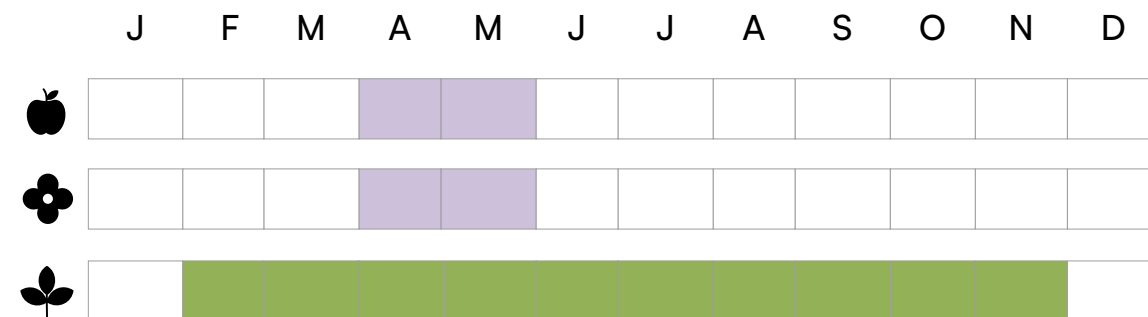
**Amelanchier ovalis**<sup>2</sup>  
Deciduous | Evergreen  
H.3m | L.1'5m



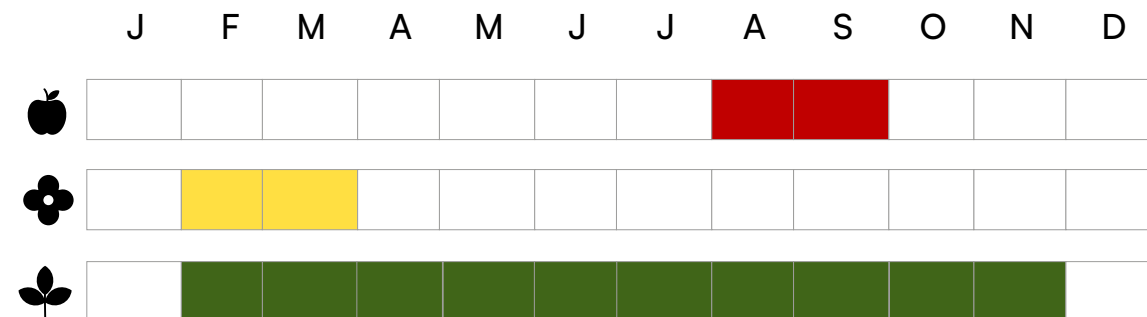
**Arbutus unedo**<sup>3</sup>  
Deciduous | Evergreen  
H.5m | L.3cm



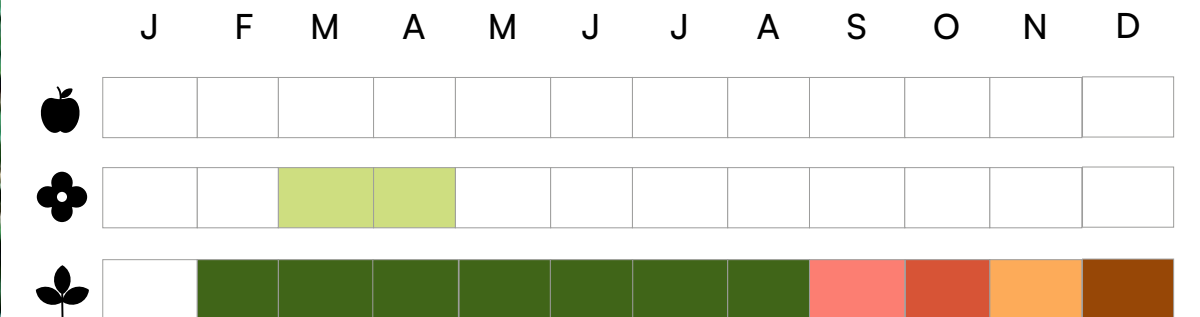
**Buddleja alternifolia**<sup>4</sup>  
Deciduous | Evergreen  
H.3m | L.3m



**Cornus mas**<sup>5</sup>  
Deciduous | Evergreen  
H.5m | L.3m



**Eleagnus x ebbingei**<sup>6</sup>  
Deciduous | Evergreen  
H.3m | L.3m



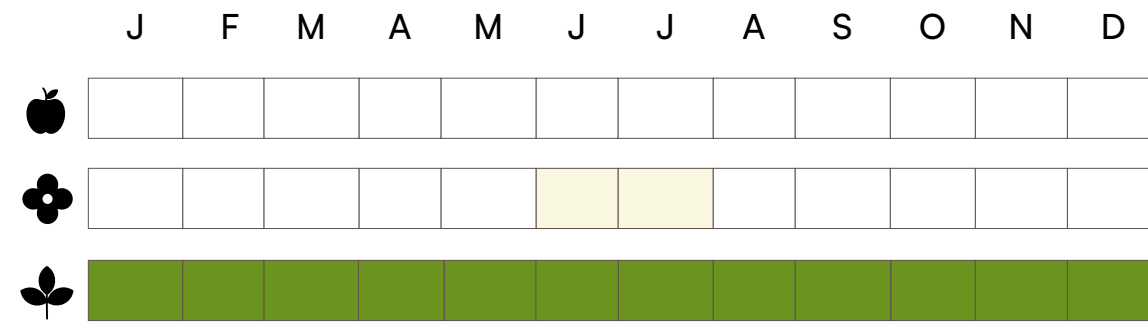


# Trees

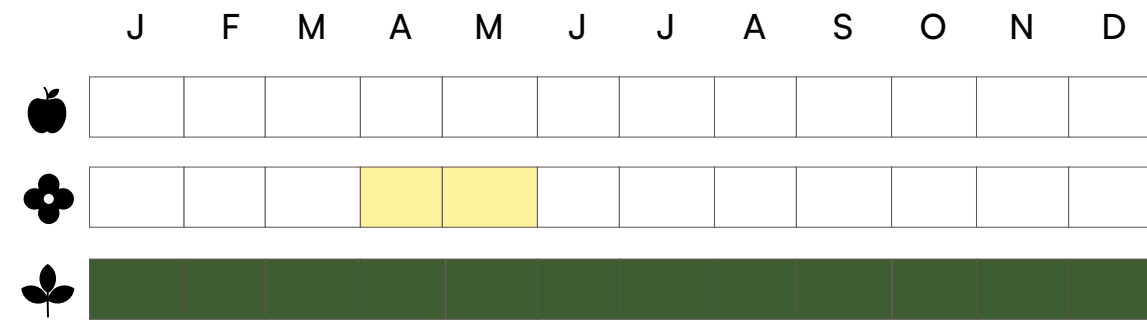
h: +4m



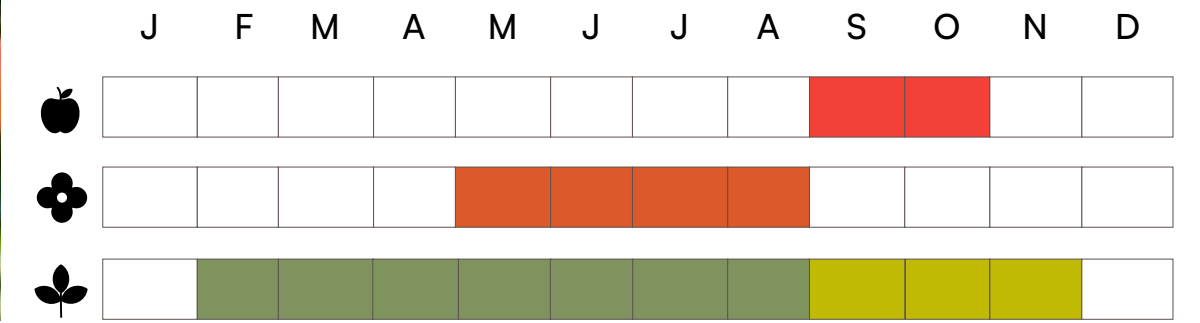
**Ligustrum vulgare** <sup>7</sup>  
Deciduous | Evergreen  
H.3m | L.2m



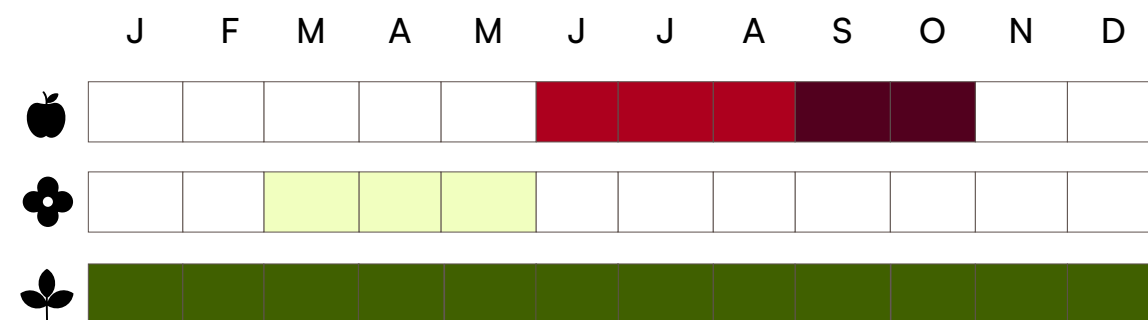
**Pittosporum truncatum** <sup>8</sup>  
Deciduous | **Evergreen**  
H.3m | L.3m



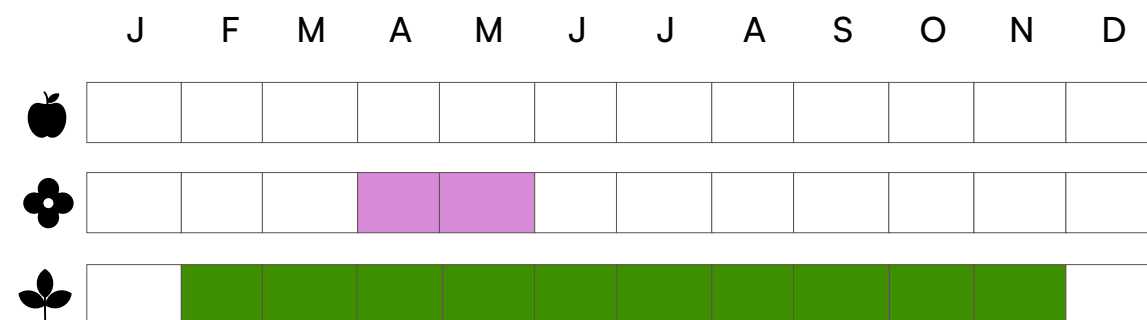
**Punica granatum 'Provence'** <sup>9</sup>  
Deciduous | Evergreen  
H.4m | L.3m



**Rhamnus alaternus** <sup>10</sup>  
Deciduous | **Evergreen**  
H.5m | L.2m



**Syringa vulgaris** <sup>11</sup>  
Deciduous | Evergreen  
H.4m | L.2m



**Tamarix ramosissima** <sup>12</sup>  
Deciduous | **Evergreen**  
H.6m | L.4m





# Bushes

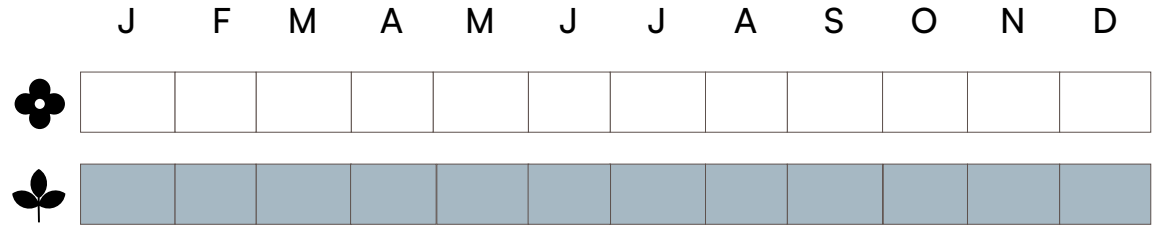
h: 2m - 60cm



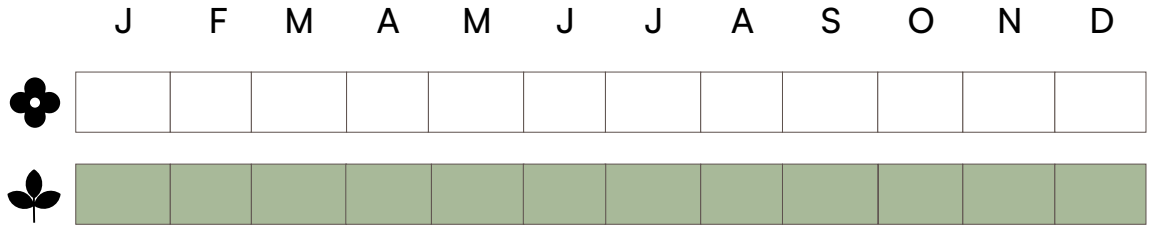
**Artemisia abrotanum 'Silver'** <sup>13</sup>  
Deciduous | **Evergreen**  
H.60cm | L.60cm



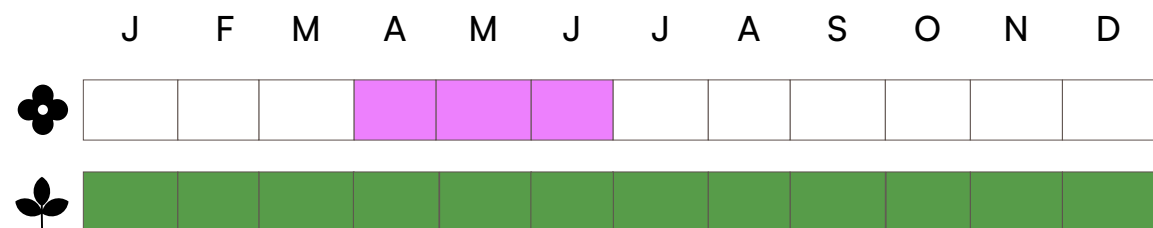
**Artemisia 'Canescens'** <sup>14</sup>  
Deciduous | **Evergreen**  
H.20cm | L.50cm



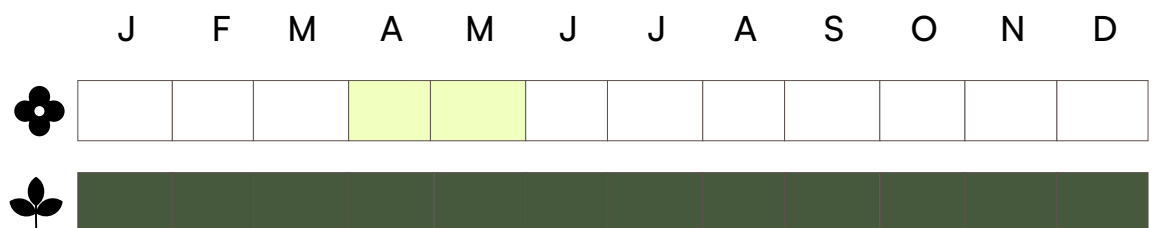
**Ballota pseudodictamnus** <sup>15</sup>  
Deciduous | **Evergreen**  
H.60cm | L.80cm



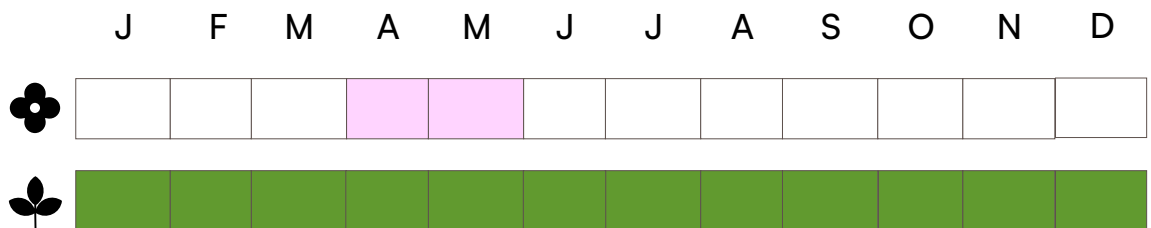
**Cistus creticus 'Ano Moulia'** <sup>16</sup>  
Deciduous | **Evergreen**  
H.30cm | L.50cm



**Cistus x pauranthus 'Natacha'** <sup>17</sup>  
Deciduous | **Evergreen**  
H.50cm | L.100cm



**Cistus x skanbergii** <sup>18</sup>  
Deciduous | **Evergreen**  
H.80cm | L.100cm





# Bushes

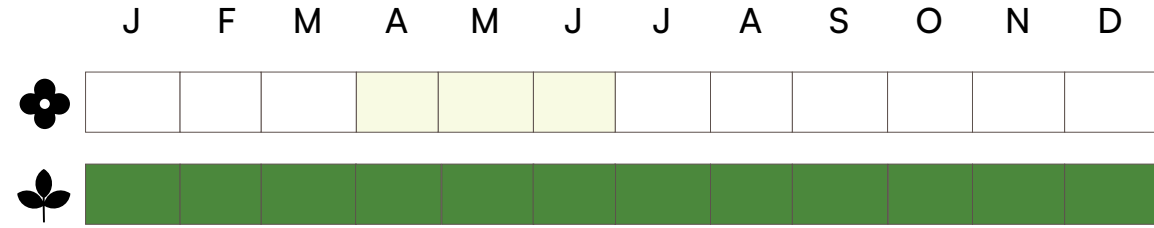
h: 2m - 60cm



**Convolvulus cneorum** <sup>19</sup>  
Deciduous | **Evergreen**  
H.50cm | L.80cm



**Erigeron karvinskianus** <sup>20</sup>  
Deciduous | **Evergreen**  
H.30cm | L.40cm



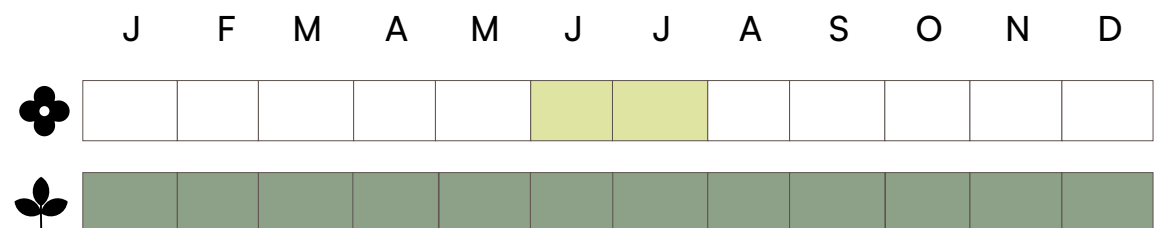
**Euphorbia dendroides** <sup>21</sup>  
Deciduous | **Evergreen**  
H.150cm | L.150cm



**Euphorbia spinosa** <sup>22</sup>  
Deciduous | **Evergreen**  
H.30cm | L.60cm



**Helichrysum italicum** <sup>23</sup>  
Deciduous | **Evergreen**  
H.40cm | L.50cm



**Lavandula angustifolia 'Folgate'** <sup>24</sup>  
Deciduous | **Evergreen**  
H.40cm | L.60cm





# Bushes

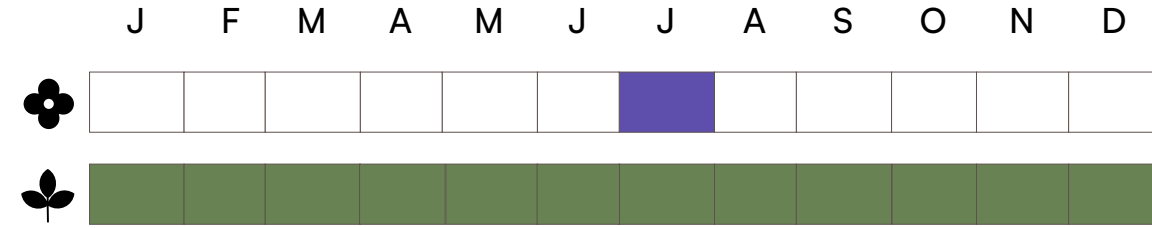
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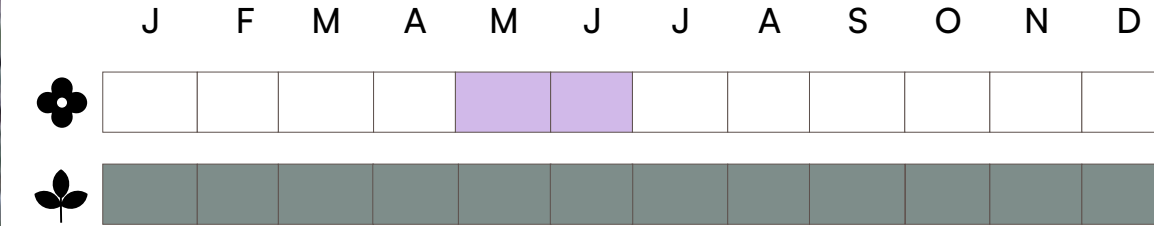
**Lavandula x chaytorae 'Silver Frost'** <sup>25</sup>  
Deciduous | **Evergreen**  
H.30cm | L.50cm



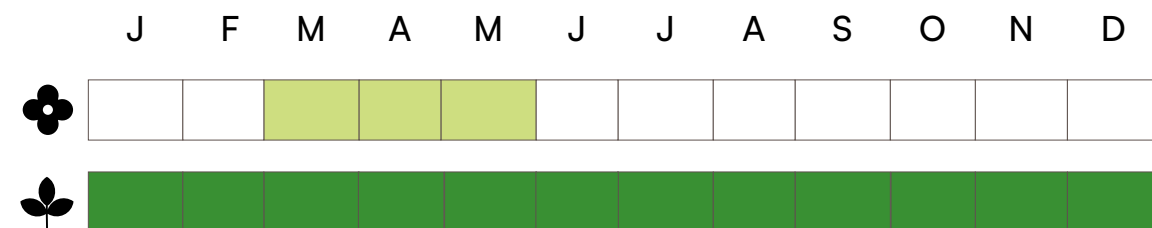
**Lavandula x intermedia 'Gorsso'** <sup>26</sup>  
Deciduous | **Evergreen**  
H.50cm | L.80cm



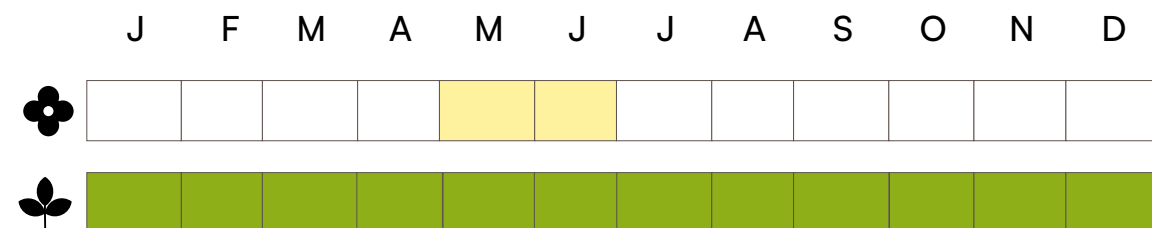
**Marrubium supinum** <sup>27</sup>  
Deciduous | **Evergreen**  
H.40cm | L.60cm



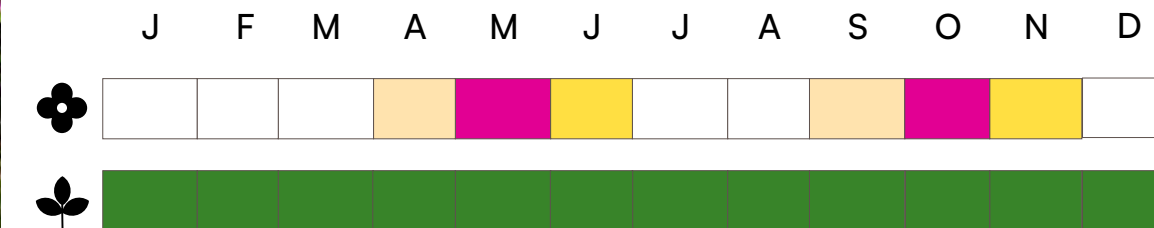
**Phillyrea angustifolia** <sup>28</sup>  
Deciduous | **Evergreen**  
H.300cm | L.200cm



**Pittosporum tobira 'Nanum'** <sup>29</sup>  
Deciduous | **Evergreen**  
H.100cm | L.100cm



**Rosa chinensis 'Mutabilis'** <sup>30</sup>  
Deciduous | **Evergreen**  
H.300cm | L.300cm



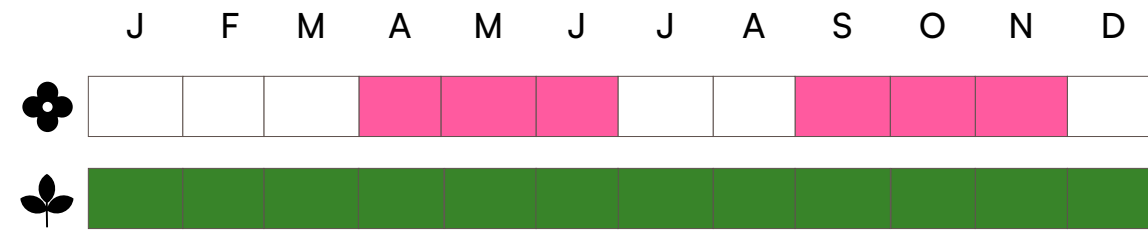


# Bushes

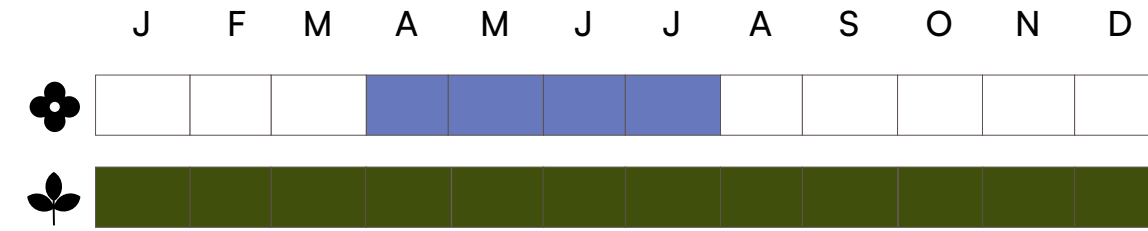
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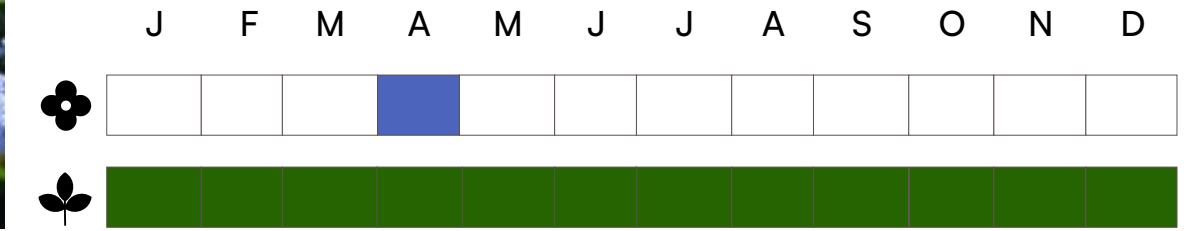
**Rosa chinensis 'Sanguinea'** <sup>31</sup>  
Deciduous | **Evergreen**  
H.300cm | L.300cm



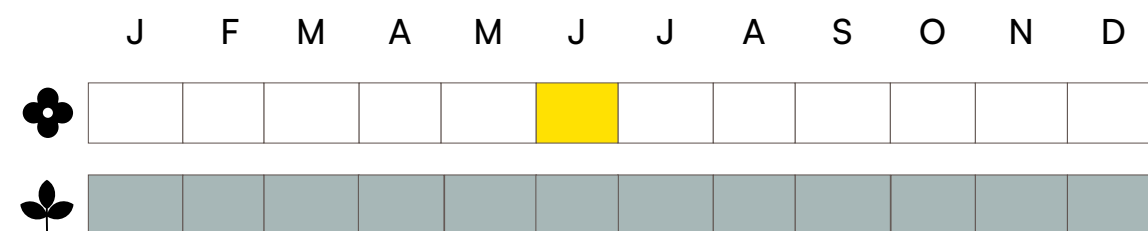
**Rosmarinus officinalis** <sup>32</sup>  
Deciduous | **Evergreen**  
H.100cm | L.80cm



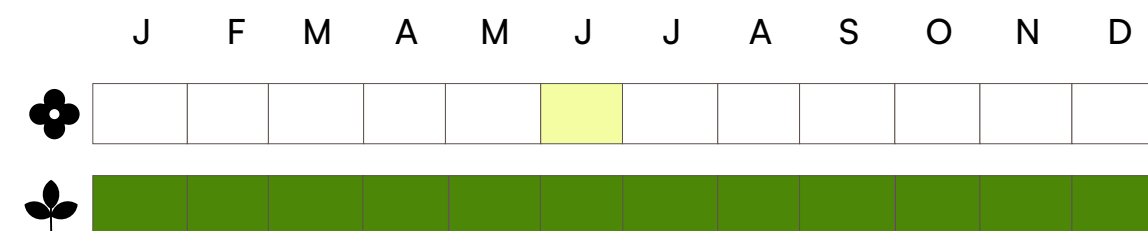
**Ceanothus 'Concha'** <sup>33</sup>  
Deciduous | **Evergreen**  
H.300cm | L.300cm



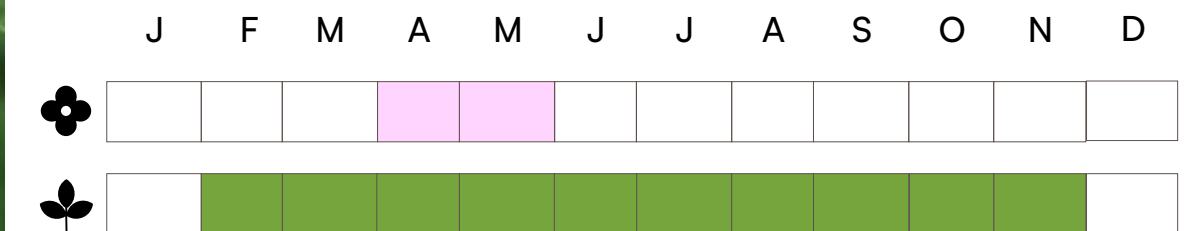
**Santolina chamaecyparissus** <sup>34</sup>  
Deciduous | **Evergreen**  
H.60cm | L.80cm



**Santolina lindavica** <sup>35</sup>  
Deciduous | **Evergreen**  
H.40cm | L.80cm



**Syringa x persica** <sup>36</sup>  
**Deciduous** | Evergreen  
H.150cm | L.120cm



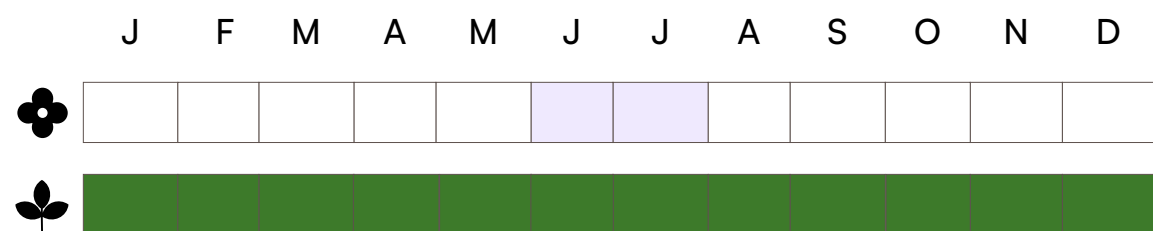


# Ground cover

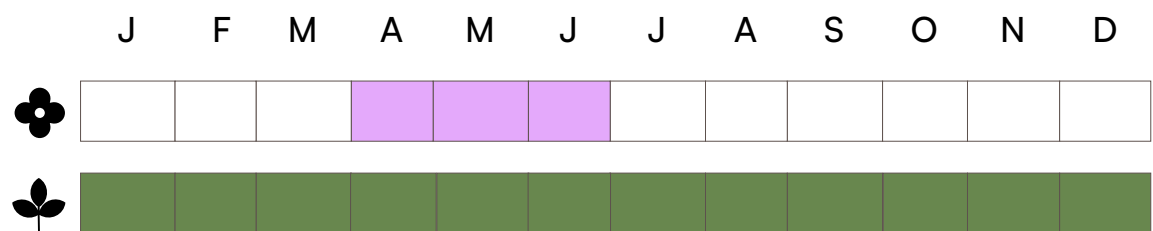
h: 30 - 40cm



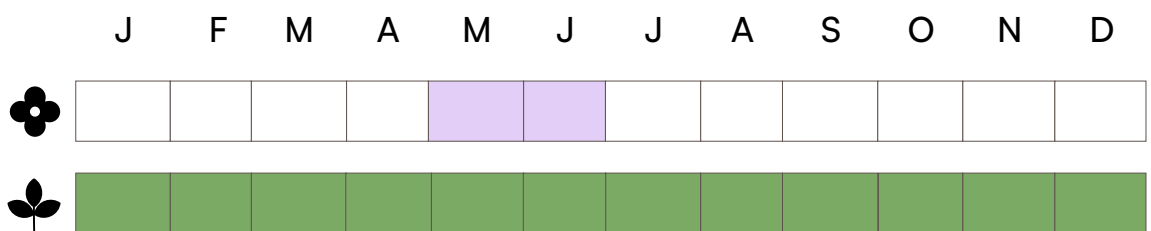
**Achillea millefolium** <sup>37</sup>  
Deciduous | **Evergreen**  
H.35cm | L.50cm



**Cistus creticus 'Calcosalto'** <sup>38</sup>  
Deciduous | **Evergreen**  
H.5cm | L.40cm



**Geranium cantabrigiense** <sup>39</sup>  
Deciduous | **Evergreen**  
H.20cm | L.40cm



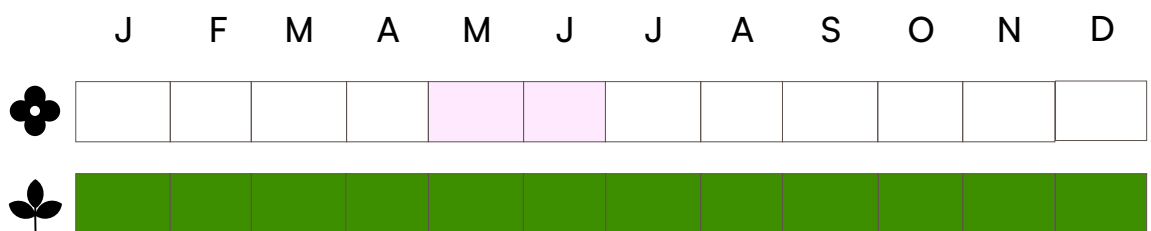
**Geranium sanguineum** <sup>40</sup>  
Deciduous | **Evergreen**  
H.20cm | L.40cm



**Salvia 'Bee's Bliss'** <sup>41</sup>  
Deciduous | **Evergreen**  
H.30cm | L.40cm



**Satureja montana** <sup>42</sup>  
Deciduous | **Evergreen**  
H.30cm | L.40cm



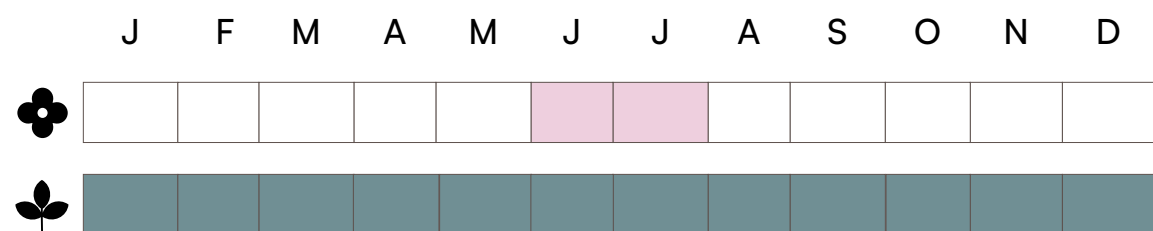


# Ground cover

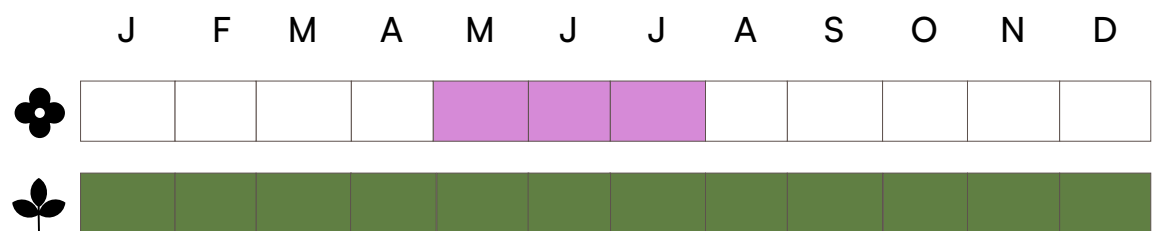
h: 30 - 40cm



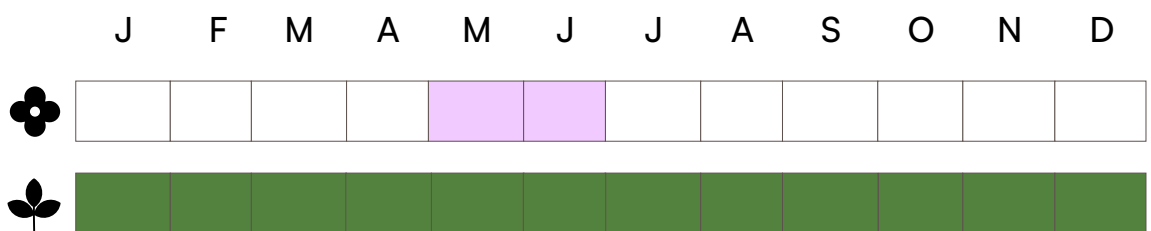
**Stachys byzantina** <sup>43</sup>  
Deciduous | **Evergreen**  
H.15cm | L.50cm



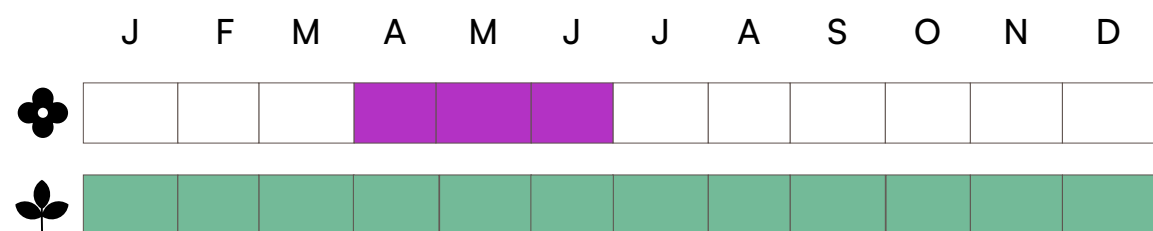
**Teucrium chamaedrys** <sup>44</sup>  
Deciduous | **Evergreen**  
H.25cm | L.40cm



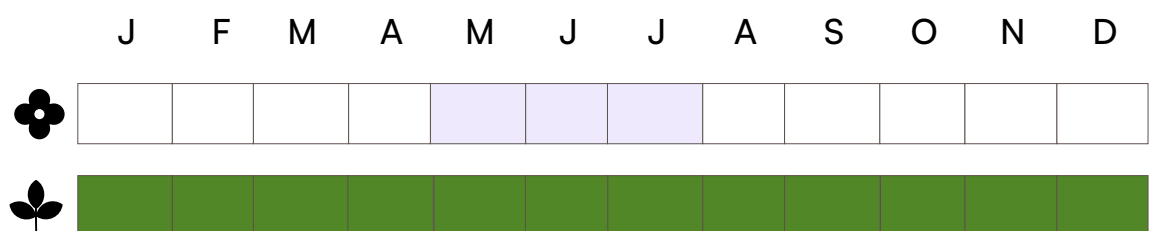
**Thymus hirsutus** <sup>45</sup>  
Deciduous | **Evergreen**  
H.5cm | L.50cm



**Verbena venosa** <sup>46</sup>  
Deciduous | **Evergreen**  
H.30cm | L.80cm



**Verbena venosa 'Lilacina'** <sup>47</sup>  
Deciduous | **Evergreen**  
H.30cm | L.80cm



**Thymus ciliatus** <sup>48</sup>  
Deciduous | **Evergreen**  
H.80cm | L.50cm





# 04 Case studies



“The Mediterranean is a totally man-made landscape, and as such it’s an immediate model for gardens, because it’s artificial and beautiful. It’s also extremely resilient through a long history of disturbances whatever happens, from fire to erosion to overgrazing, it always comes back”

Olivier Filippi



# Garden Walnut Creek

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# Le Jardin Sec Mèze

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# Prospect Cottage Kent

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# Gravel Garden

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# Garden Walnut Creek

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Le Jardin Sec Mèze

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Prospect Cottage Kent

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Gravel Garden

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# Garden Walnut Creek

Ruth Bancroft. California

Ruth Bancroft (1908 — 2017), a trailblazer in the realm of drought-tolerant gardening, embarked on her journey by cultivating flowers in the expansive flower beds surrounding her husband's family farm in Walnut Creek, their place of residence. In 1971, her husband bequeathed her three acres of land, presenting her with an opportunity to expand her vast collection of succulent plants. It was during this time that the notion of a xeric landscape, centered around the utilization of plants with low water requirements, began.

With an astute understanding of succulent plants and their integration into landscape design, Ruth Bancroft expertly curated combinations that showcased captivating textures, shapes, and hues. Her garden soon became an extraordinary testament to the possibilities of creating water-wise landscapes tailored to the demands of the Mediterranean climate.

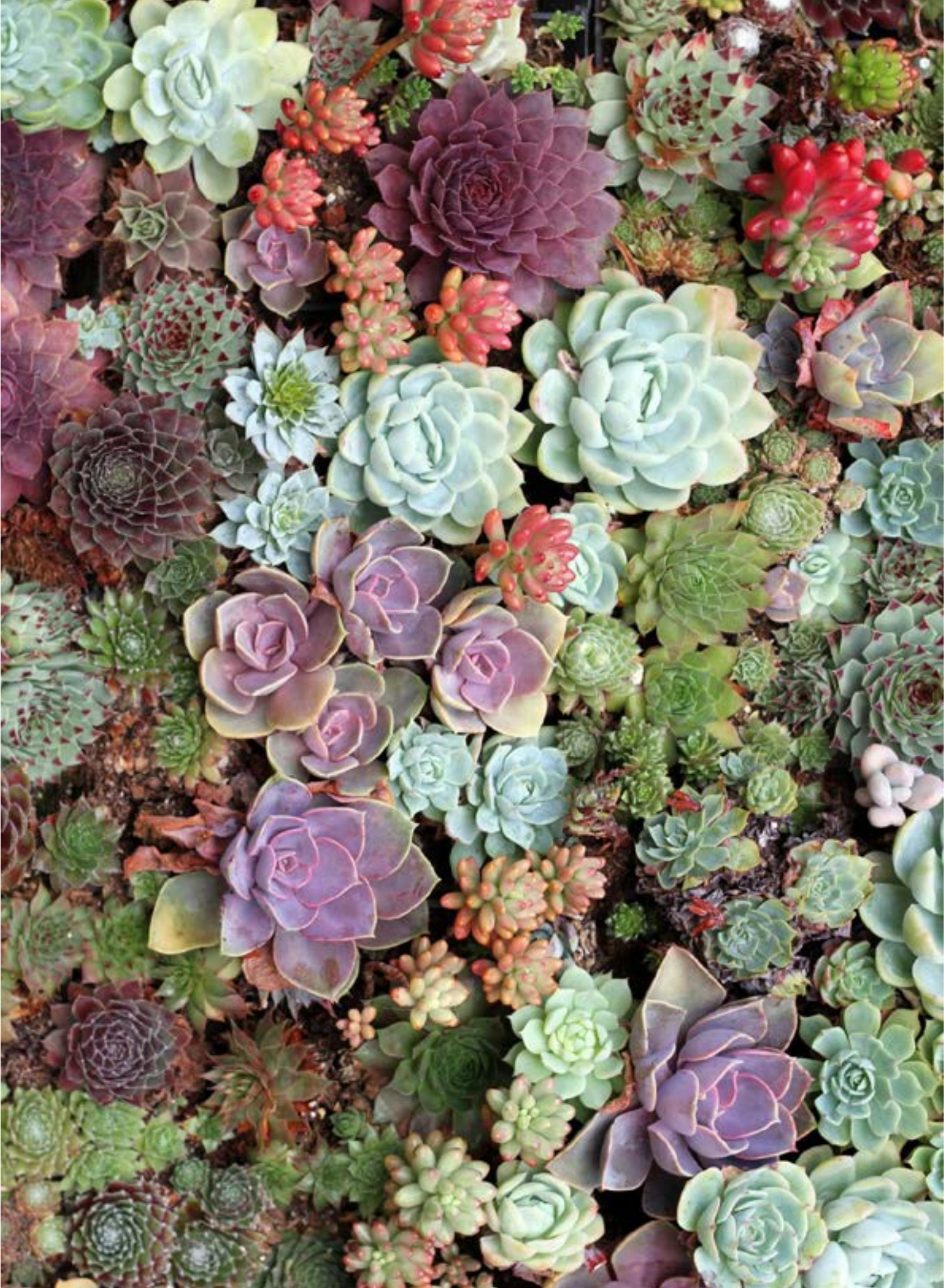
Presently, the Ruth Bancroft Garden, Inc. stands as a nonprofit organization, serving as the custodian of this remarkable garden and diligently raising funds for its preservation and conservation efforts. The garden continues to inspire and educate individuals, promoting the value of water conservation and showcasing the beauty that can be achieved through the thoughtful selection and arrangement of drought-tolerant plants.





# Garden Walnut Creek

Ruth Bancroft. California





Garden Walnut Creek

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**Le Jardin Sec Mèze**

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Prospect Cottage Kent

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Gravel Garden

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# Le Jardin Sec Mèze

Olivier and Clara Filippi. France

For three decades, Olivier and Clara Filippi have dedicated themselves to studying Mediterranean-like natural landscapes and plant communities that have successfully adapted to drought conditions. Through extensive research conducted in nature and experiments carried out in their nursery, established in the 1990s in the southern region of France, they have amassed a wealth of knowledge. This valuable expertise has been meticulously documented in several books authored by Filippi. Le Jardin Sec, an experimental garden spanning approximately 6000 square meters, has been flourishing since 1985. It showcases a diverse array of areas, each with its own unique characteristics.

One notable feature is the presence of densely packed low-lying vegetation, serving as an innovative alternative to traditional lawns. These ground-cover plants intermingle with gravel zones, creating a harmonious blend of textures and colors. Providing a striking contrast to the shorter vegetation are the towering Italian cypresses and other pine species with their expansive canopies.

What truly captivates the observer are the captivating shades of green-greys that permeate the garden ranging from grey-blue and grey-green to grey-brown and silver-grey. The Filippis' masterful and diverse selection of plant species exemplifies the originality and design potential of Mediterranean flora. Not only do these plants showcase exceptional aesthetics, but they also demonstrate remarkable performance in challenging climates, proving their worth in both form and function.





# Le Jardin Sec Mèze

Olivier and Clara Filippi. France





Garden Walnut Creek

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Le Jardin Sec Mèze

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**Prospect Cottage Kent**

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Gravel Garden

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# Prospect Cottage Kent

Michael Derek Elworthy Jarman. United Kingdom

Derek Jarman, born Michael Derek Elworthy Jarman (1942-1994), was a multifaceted British creative known for his work as a director, set designer, visual artist, and writer. One of his notable contributions is his beloved cottage called Cottage Prospect, situated in Dungeness on the Kent coast. Originally a Victorian fisherman's hut, it finds itself in close proximity to a nuclear power plant, nestled within an enchanting desert landscape. Through Jarman's artistic vision and the inclusion of plants and objects discovered in the area, the cottage has been transformed into a unique and joyful sanctuary.

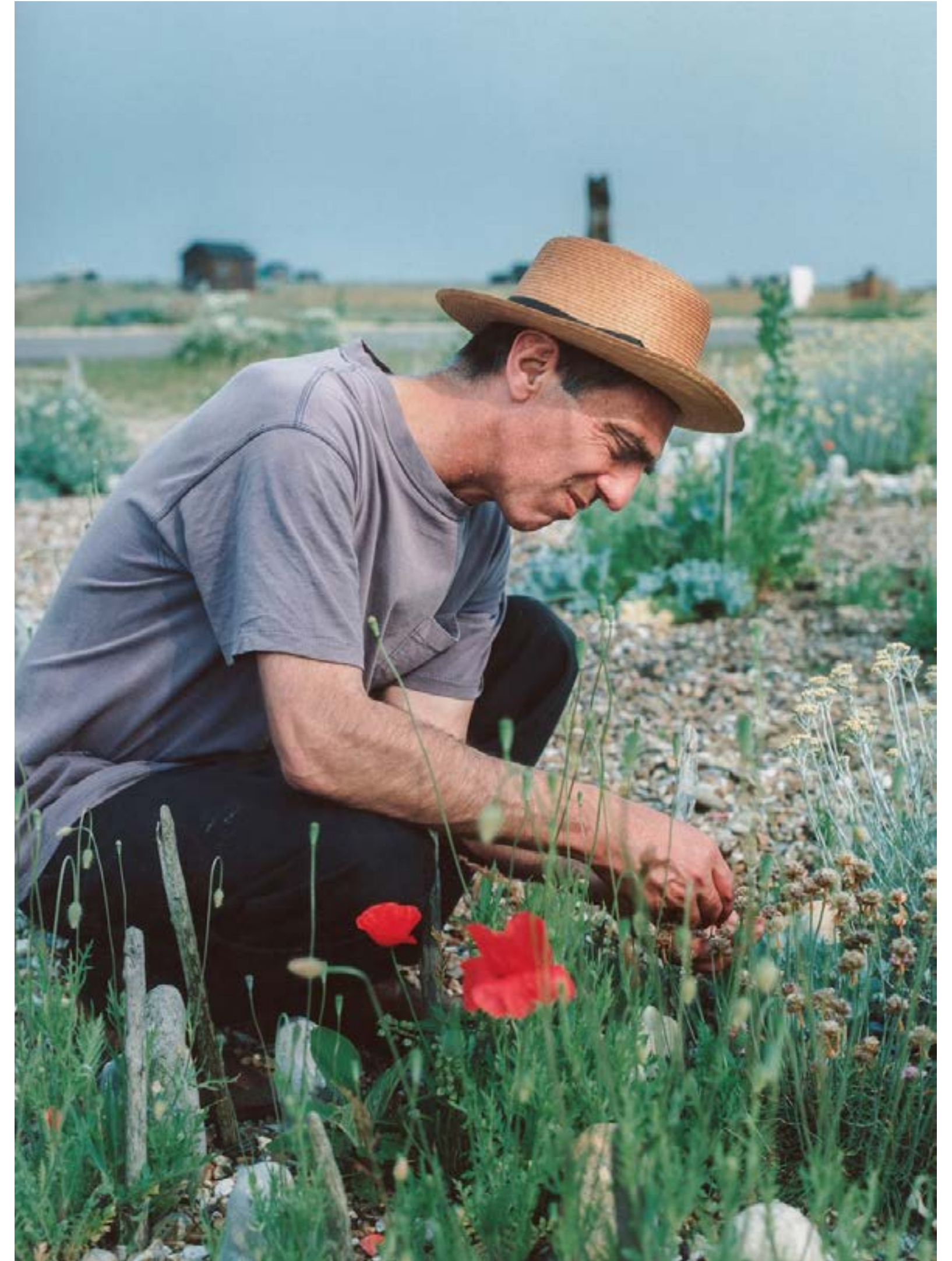
Jarman's affinity for gardening dates back to his childhood, and he commenced the creation of his garden in 1986. To this day, it remains adorned with exceptional flora and fauna, to the extent that it has been designated as a National Nature Reserve of Dungeness. Notably, the garden served as a profound inspiration for the gravel garden at Elmstead Market in Essex, known as the Beth Chatto Gardens. Jarman's Cottage Prospect stands as a testament to his artistic expression and reverence for nature, captivating visitors with its distinctive beauty and tranquil allure.





# Prospect Cottage Kent

Michael Derek Elworthy Jarman. United Kingdom





Garden Walnut Creek

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Le Jardin Sec Mèze

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Prospect Cottage Kent

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**Gravel Garden**

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# Gravel Garden

Beth Chatto Gardens. Elmstead Market, Essex

Beth Chatto (1923-2018) was an English gardener, garden designer, and writer, known for her pioneering approach of “right plant, right place” in gardening. The development of the Beth Chatto Gardens in Elmstead Market began in 1960, utilizing land adjacent to the Chatto family house. This particular area had not been previously cultivated due to its reputation for being excessively dry in some areas and overly wet in others, posing challenges for management. As a result, the entire space was left to grow spontaneously, partly due to the rarity of annual rainfall.

The transformation of the gravel garden, which was once a car park, has become renowned for its stunning display of drought-resistant plants. This garden has garnered significant attention for its ability to thrive in challenging conditions. Beth Chatto’s innovative approach to gardening and her keen understanding of matching plants with their ideal environments have made the Beth Chatto Gardens a testament to the beauty and resilience of nature.





# Gravel Garden

Beth Chatto Gardens. Elmstead Market, Essex





05 **Landscape in the  
urban environment**



“There are at least 25,000 drought-tolerant species in the Mediterranean, which is one-tenth of the world’s flora. How many of these thousands of plants are grown in cultivation? Maybe a couple of hundred. So there is a lot to do.”

Olivier Filippi



# Alternatives to the lawn

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## Ground cover at the feet of the trees

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## Green roofs

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## Garden on gravel

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## Plants suitable for topiary

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## Plants suitable for pots

---

## Climbers

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## Trailing plants

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# Alternatives to the lawn

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# Alternatives to the lawn

Traditional lawns typically have shallow surface roots, which require frequent and shallow watering to maintain their lush appearance. In contrast, alternatives to lawns, such as deep-rooted plants and ground covers, have extensive root systems that penetrate deeper into the soil. These deep roots enable them to access water sources from lower soil layers and rely less on surface watering.

By implementing a watering strategy that involves infrequent but deep watering sessions, the roots of these alternative plants are encouraged to grow downwards in search of water. This deep watering method helps train the roots to become more resilient and better equipped to withstand periods of drought. Rather than relying on frequent surface wetting, the plants become more self-sufficient, tapping into the moisture reserves available in the deeper soil layers.

This approach of providing spaced-out and deep watering sessions not only promotes the development of stronger root systems but also conserves water. By encouraging deep root growth and reducing surface evaporation, the plants become more adapted to drought conditions and require less irrigation over time.





# Alternatives to the lawn



Cynodon 'Santa Ana' <sup>49</sup>



Phyla Nodiflora Var. Canescens <sup>50</sup>



Thymus Ciliatus <sup>51</sup>



Achillea Crithmifolia <sup>52</sup>



Alternatives to the lawn

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# Ground cover at the feet of the trees

Deep-rooted ground cover plants are highly resilient and can effectively compete with certain tree species for resources. These plants are known for their ease of cultivation and their rapid ability to fill in available spaces. They require only a shallow layer of soil to establish themselves and flourish, making them ideal companions for other plants in mixed planting schemes.

These ground cover plants exhibit robust growth habits, quickly spreading and covering the ground with their lush foliage. They create a dense carpet-like effect that not only adds visual interest but also helps suppress weed growth, reducing the need for excessive maintenance.

Their resilient nature and adaptability, provide an excellent solution for areas where competition from certain tree species may be a challenge. Their ability to establish quickly and form a dense cover makes them valuable additions to any landscape, providing both functional and aesthetic benefits. <sup>81</sup>





# Ground cover at the feet of the trees



Centaurea Bella <sup>53</sup>



Acanthus Mollis <sup>54</sup>



Phlomis Russeliana <sup>55</sup>



Vinca Major <sup>56</sup>



Alternatives to the lawn

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# Green roof

A green roof, also known as a living roof or vegetated roof, is a system where vegetation is intentionally grown on the roof of a building. Green roofs can create additional green space in urban areas, enhance biodiversity, and contribute to the overall aesthetics of a building.

These plants stand out as excellent examples of low-water-demand species, making them highly suitable for water-efficient gardening. They belong to the group of evergreen ground cover plants, renowned for their remarkable ability to flourish in even the most minimal soil depths.

With their small, intricate root systems, they have evolved to thrive with minimal irrigation requirements. Their impressive adaptability and resilience make them an ideal for landscapes seeking sustainable and water-wise solutions.





# Green roof



Asfodelo fistoloso <sup>57</sup>



Sedum Album F. Murale <sup>58</sup>



Sedum sexangulare <sup>59</sup>



Iris lutescens <sup>60</sup>



Alternatives to the lawn

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---



# Garden on gravel

Gravel serves as an exceptional mulch for various reasons, making it a valuable addition to garden landscapes. Firstly, it effectively suppresses the growth of weeds, providing a natural weed control solution and reducing the need for frequent maintenance. Additionally, gravel acts as a protective layer, minimizing water evaporation from the soil and helping to retain moisture, thus prolonging the freshness of the soil. Moreover, the trampling of plants on the gravel surface facilitates their easy reproduction, resulting in a dynamic garden that continuously surprises with new growth and adds to the enchanting laissez-faire beauty of nature's own design.

The incorporation of gravel as a mulch in gardens offers a dual advantage of weed control and moisture retention while creating a harmonious balance between human intervention and the spontaneity of natural processes.





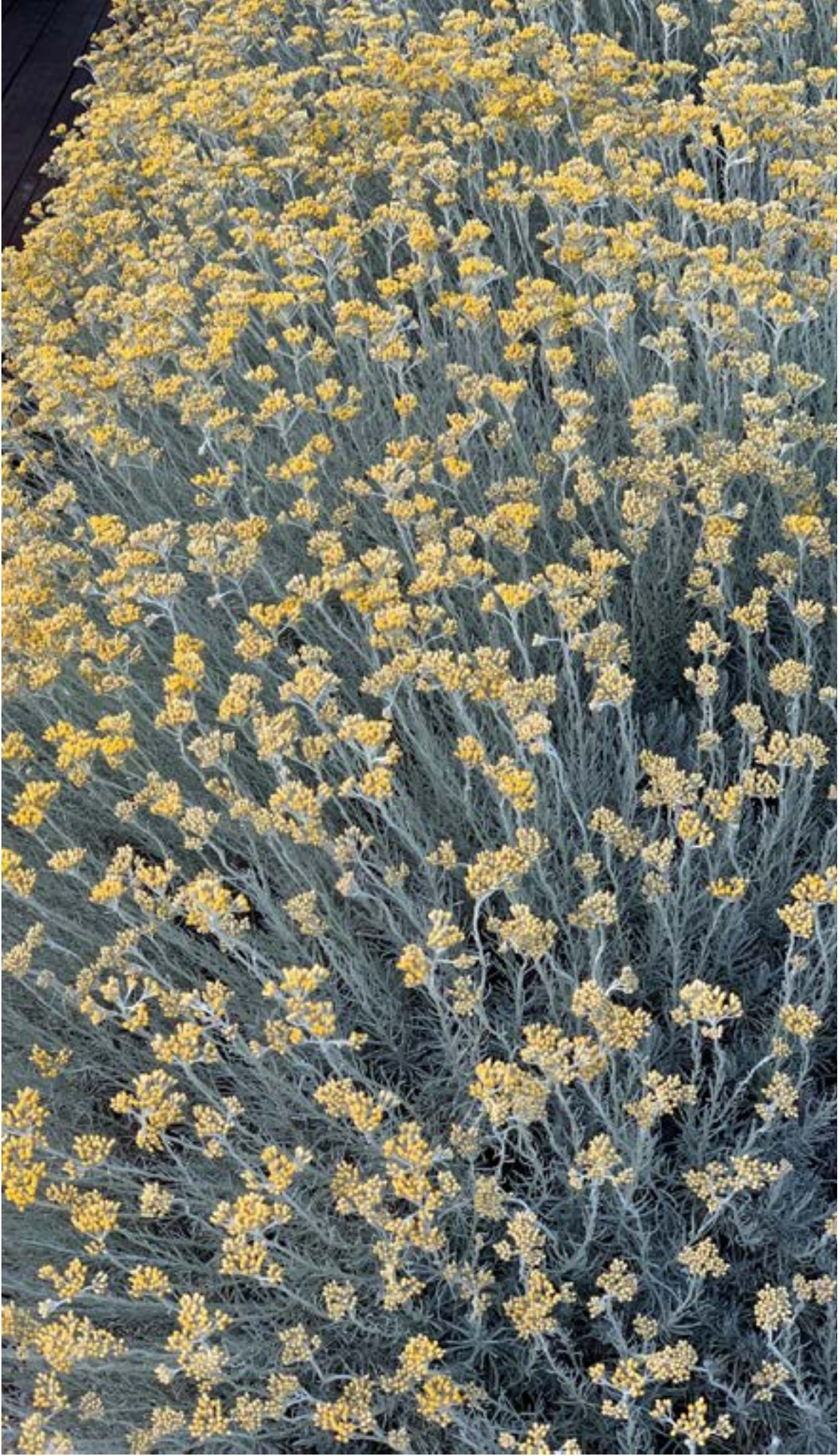
# Garden on gravel



Eryngium Amethystinum <sup>61</sup>



Cistus Creticus 'Calcosalto' <sup>62</sup>



Helichrysum Italicum <sup>63</sup>



Ballota Acetabulosa <sup>64</sup>



Alternatives to the lawn

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Plants suitable for pots

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Climbers

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Trailing plants

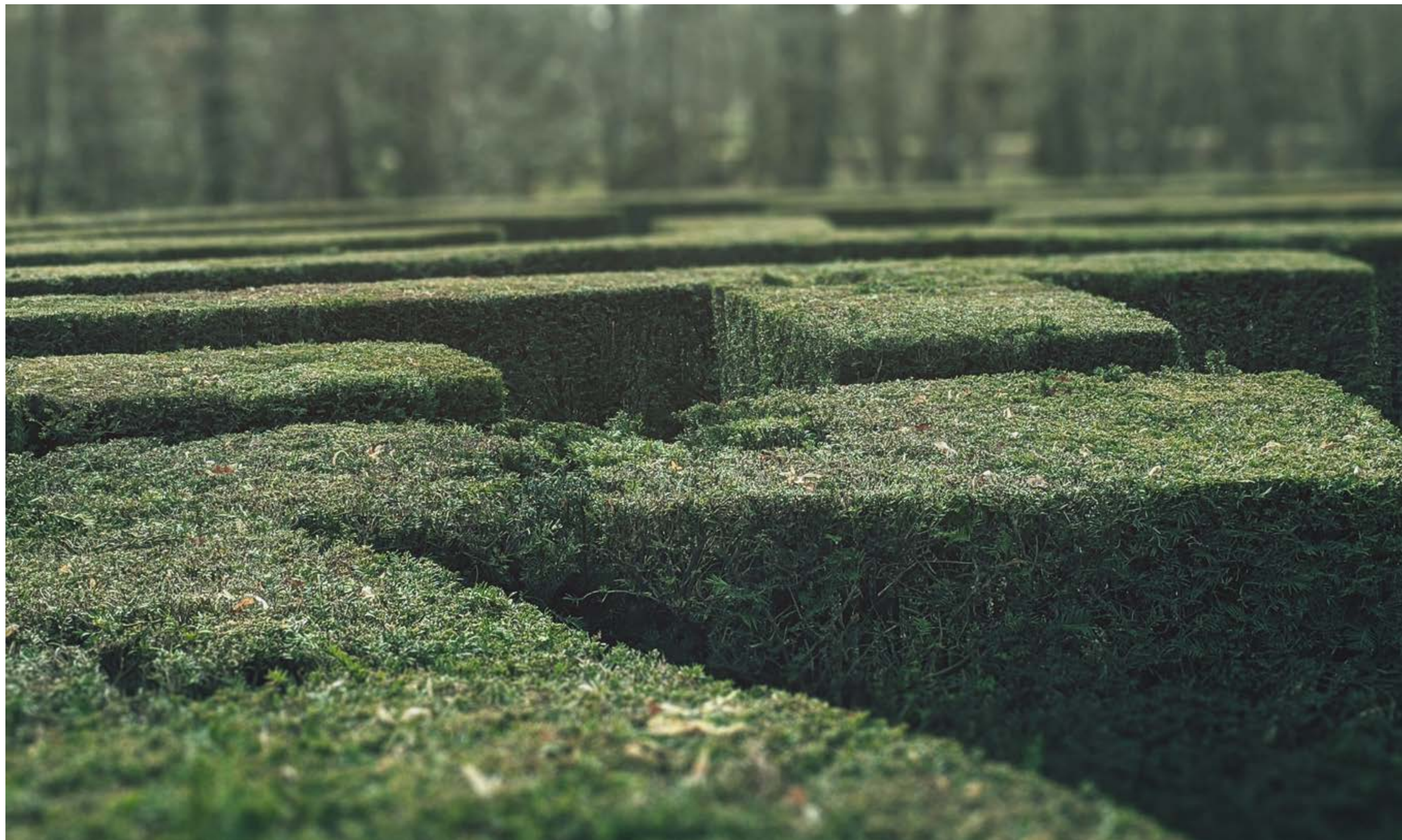
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# Plants suitable for topiary

Topiary is the art of shaping and trimming plants, typically shrubs and trees, into ornamental and decorative forms. With their predominantly evergreen nature and delightful aromas, these plants are renowned for their resilience and dense foliage. Not only do they possess a remarkable ability to thrive in challenging conditions, but they also respond exceptionally well to pruning. This unique characteristic allows them to be sculpted into well-defined shapes, which can be maintained for extended periods.

Whether in their natural form or expertly topiary-crafted, these specimens become steadfast, almost architectural focal points within the garden. Their presence adds a sense of permanence and structure, lending a touch of elegance to the overall landscape design.





# Plants suitable for topiary



Teucrium Fruticans <sup>65</sup>



Myrtus Communis Subsp. Tarentina <sup>66</sup>



Phyllirea Angustifolia <sup>67</sup>



Viburnum Tinus <sup>68</sup>



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# Plants suitable for pots

The plants ideal for container gardening possesses a remarkable ability to utilize all available space within the pot, effectively filling and colonizing the container they are planted in. These plants thrive with minimal soil requirements and are predominantly evergreen or semi-evergreen in nature.

They possess a unique adaptability to grow and flourish in confined spaces, making them perfect choices for adding greenery and beauty to small gardens or urban environments. Their resilient nature and minimal soil demands make them excellent candidates for container gardening, providing an easy and rewarding way to cultivate plants in limited areas.





# Plants suitable for pots



Agapanthus Praeox <sup>69</sup>



Anisodonteia Capensis <sup>70</sup>



Phlomis 'Marina' <sup>71</sup>



Geranium 'Rambling Robin' <sup>72</sup>



Alternatives to the lawn

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---

Trailing plants

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# Climbers

Also known as vines, are a type of plant that has specialized structures or adaptations that allow them to climb and cling to surfaces. These plants have the ability to grow vertically, attaching themselves to structures such as walls, fences, trellises, or other plants for support. They use different methods to climb, including twining their stems around a support, using tendrils or suckers to attach themselves, or by producing adhesive pads or aerial roots.

Climbing plants offer a wide range of options to suit various needs and preferences. Whether you require a vigorous climber or a more restrained one, an evergreen or deciduous variety, a plant for sunny or shaded areas, with or without flowers, and whether it needs support or can grow independently, there is a suitable climbing plant for every situation. The key is to select the right plant that matches the specific conditions, allowing it to quickly cover the available space and create a lush and vibrant vertical display.





# Climbers



Clematis Cirrhosa <sup>73</sup>



Akebia Quinata <sup>74</sup>



Clematis Armandii <sup>75</sup>



Ficus Pumila <sup>76</sup>



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# Trailing plants

Trailing plants, sometimes referred to as cascading or falling plants, exhibit a unique growth habit where their thin and flexible branches enable them to gracefully descend, even from considerable heights. While these plants are primarily known for their trailing nature, it's worth noting that many of them possess climbing abilities as well.

Their adaptable branches allow them to delicately navigate vertical surfaces, adding a touch of elegance to walls, trellises, or any structure they encounter. This combination of trailing and climbing characteristics makes these plants a captivating addition to any garden or landscape, creating a sense of vertical movement and beauty.





# Trailing plants



Clematis Flammula <sup>77</sup>



Muehlenbeckia Complexa <sup>78</sup>



Convolvulus Cneorum <sup>79</sup>



Rosmarinus Officinalis F. Repens <sup>80</sup>



The main obstacle to the development of dry gardens is not of a horticultural nature, but rather of a cultural and psychological nature: what has been handed down to us by the Anglo-Saxon culture since the 1500s and transferred to America in the mid-1800s is the use of the green lawn as an element garden essential.

## WILD, The Naturalistic Garden



The idea of a garden is something cognitive, cultural. Wanting lawns now is an out-of-time choice... There are valid and equally pleasant alternatives.



# Futher reading:

- [What Is a Dry Garden? Tips for Implementing One](#)
- [Don't add water: be inspired to plant a beautiful dry garden](#)
- [Why Gravel Gardens Are Better Than They Sound](#)
- [Xeriscaping in the Urban Environment](#)
- [Dry Garden Poetry by Arterra Landscape Architects](#)
- [The Bold Dry Garden: Lessons from the Ruth Bancroft Garden](#)
- [The Dry Gardening Handbook: Plants and Practices for a Changing Climate. Olivier Filippi](#)
- [Beth Chatto: Tips for creating a dry weather garden](#)



# Images sources:

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- <sup>3</sup> <https://antropocene.it/2017/08/27/arbutus-unedo/>
- <sup>4</sup> <https://www.onlinegarden.it/prodotto/piante-da-esterno/arbusti/buddleja-alternifolia-unique-albero-delle-farfalle/>
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- <sup>14</sup> <https://i.pinimg.com/564x/ed/25/c8/ed25c8610da72aeb91bc3228c52e47de.jpg>
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- <sup>32</sup> <https://www.sguardonelverde.com/rosmarinus-officinalis/>
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- <sup>39</sup> <https://www.rosai-e-piante-meilland.it/geranium-vivace-cantabrigiense-karina.html>
- <sup>40</sup> <https://www.rosai-e-piante-meilland.it/geranium-vivace-sanguin.html>
- <sup>41</sup> <https://plantright.org/better-plants/salvia-bees-bliss/>
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- <sup>43</sup> <https://www.venditapianteonline.it/shop/stachys-byzantina/>
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