

PLANTS AND PLANTING IN MEDITERRANEAN LANDSCAPES

(VOLUME 1)

Editors

Juan José Galán Vivas
Vicente Caballer Mellado



EVERGREEN TREES

DECIDUOUS TREES

SHRUBS

CONIFERS

PALM TREES

MEDICINAL AND AROMATIC

GROUNDCOVERS

HEDGES

CLIMBERS

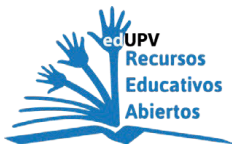
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**PLANTS AND PLANTING IN
MEDITERRANEAN LANDSCAPES
(VOLUMEN 1)**



Universitat Politècnica de València



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SUMMARY

The publication, "Plants and Planting in Mediterranean Landscapes", has systematically and didactically gathered information for the selection of botanic species suitable for landscape and garden designs in Mediterranean climates. Concerning the structure and in line with the above, the book defines a series of plant groups according to design criteria and then develops the introductory aspects, the specific characteristics of the species included within the group, the general conditions for their commercialization and planting, and some general criteria for their maintenance. In particular, the groups defined in this book focus on groups of long-lasting species that help define the main structural and spatial qualities of the landscape and which are ordered in 10 chapters.

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PRESENTATION

Nemesio Fernández Martínez

Director of the Higher Technical School of Agronomic engineering and Natural Environment of the Polytechnic University of Valencia

Vegetation is one of the architectural elements in landscape design together with water, landform, constructions and facilities. However, its role in the project becomes crucial as it is responsible for shaping the outer skin of the scenery. Plant materials are alive, they change with the seasons and throughout the life of the project allowing for a dynamic dimension in the landscape.

This publication on Mediterranean vegetation is an excellent selection and technical compilation of the characteristics of the main species that can be used in urban green areas. The book connects the morphological and functional characteristics of plants with their use in the design of the landscape. As a result, the organization of the chapters in this book covers the main species from trees to shrubs, distinguishing between evergreen trees, deciduous trees, conifers, palm trees and shrubs, including at the same time specific chapters for groundcover species, climbers, medicinal and aromatic plants, hedge plants, and ornamental citrus trees.

The combination of species and functional elements in the areas where they will be planted is infinite, but it should be based on the premise of the dialogue between plants, substratum and environment. The characterization and description of the species included in this book facilitate the knowledge of the living requirements of each plant and its adaptation to the place, to conditions that should guide the designer in the adequate selection of greenery.

This publication goes beyond the teaching objectives of the Master Garden and Landscape Design of the Polytechnic University of Valencia (UPV) and offers a book of general interest for those interested in the design and management of Mediterranean landscapes. As the person responsible for the education of technicians with the ability to manage greenery in the UPV; I would like to congratulate the editors and writers of these chapters for the usefulness and accuracy of the technical contents and the technical data of each species. This achievement is the result of precise information that will facilitate the understanding of the relationship between plants, their functions, and their visual appearance.

PRESENTATION

Ana Llopis Reyna

Director of the Higher Technical School of Architecture of the Polytechnic University of Valencia

The publication “Plants and Planting in Mediterranean Landscapes (Volume 1)”, presents, in an educational and easy-to-use format, a wide collection of data on Mediterranean plant species for the use of garden and landscape designers. Along with specific botanical characteristics for the use, commercialisation and maintenance of these species, fundamental design characteristics are presented for the architectural composition of the landscape, such as color, volume, size, shape, texture, height and shade produced by the various species studied. Its use within the landscape project will allow students and professionals to choose the right species for the right place.

Although nature as a generator of life has always been a source of architectural inspiration, it has also been the object of conquest and domination. Currently, the fine line between the natural environment and the anthropic environment is becoming increasingly blurred. Architecture deals with the creation, transformation and interpretation of the inhabited environment. It is a discipline that encompasses art, ideation, design, planning, project, management and materialization and requires its own elements of composition to give shape and character to the space in different scales. The landscape architect, starting from the specific knowledge of the design elements, must be able to design and carry out highly creative landscape projects, without jeopardizing the natural environment.

Indeed, the material gathered in this publication is essential for architecture students who study and design the landscape at any academic level, no matter if it is a degree, master’s or doctorate program, as well as for professionals who work in the landscape field.

PROLOGUE

Vicente Caballer Mellado

Full professor, Founder and Director of the Master Programme in Garden and Landscape Design of the Polytechnic University of Valencia

To think that vegetation is the most important part of gardening and landscape could, at first glance, seem excessive. However, there are several and very important reasons that highlight the essential role that plants play in natural and built landscapes.

Firstly, they are living beings and each species has its own unique soil, climatic and ecological needs whose deficiencies can bring about a deficient development, or even death, of the plant, with the subsequent failure of the landscape design.

The living nature of plants has chronological implications in any project, imposing dates and times, in planting and treatments, in contrast to other types of activities and operations that can be carried out at any time of the year.

Secondly, and also because of their condition as living beings, the geometric shape and aesthetic qualities of plants evolve over time, which means that the design must be considered on a double chronological plane: the initial moment of planting and the future. Thus, the designer faces the dilemma of choosing an optimal arrangement of plants at the time of opening with fully developed specimens (if they are available in the market) or assuming and playing with the future development of younger specimens that are easier to find in the market at cheaper prices.

Thirdly, vegetation generally tends to have higher maintenance needs than the non-living materials frequently used outdoors. Therefore, when deciding on which plants to use in garden designs or reforestation processes, it is necessary to consider the future - who will care for those plants and what will be their minimum maintenance.

Finally, in a globalized world, the possibilities of choosing between innumerable species, varieties, cultivars, hybrids, and presentations available, as well as their possible combinations are limitless. Conventional species, mistakenly thought of as regional or native, should include (according to the culture of Enlightenment) other species capable of being added to the design palette in order to increase their biodiversity.

The considerations outlined above allow the elaboration of a rich scenario of possibilities for any work dealing with the systematization and study of vegetation in landscape and garden design, whose selection criteria were deemed central when writing this book.

Following the culture that embodies the Master Programme in Garden and Landscape Design in which this publication is included, the book has been conceived to respond to the real needs of professional designers when dealing with spatial and technical restrictions. Indeed, reversing the conventional order, we start from the geographical delimitation of the book to the Mediterranean and subtropical areas, to then explain the species most frequently used or suitable for them.

Unlike other works, in which the selection criterion for grouping plants is strictly botanical or alphabetical, in this book, insisting on its use for the professional landscape designer, it was decided to follow the criterion of function or role that each species can perform in the design, construction and maintenance of parks and gardens, distinguishing between different types of trees, shrubs, groundcovers or climbers.

All that is left is an acknowledgement and a wish.

An acknowledgement to the authors who, once again, have made an extraordinary effort to summarize and limit the contents of each of the chapters, renouncing to develop a more detailed or scientific publication that would have exceeded the goals of this book.

A wish for all those dedicated to the wonderful endeavor of beautifying planet Earth with the hope that this book can help them make decisions and put them into practice. I want to extend this wish also to those who are preparing themselves for it and, especially to the students of the Master in Garden and Landscape Design, for their choice and confidence in this academic project that travels through the stormy sea of innovation and social commitment.

INTRODUCTION

Juan José Galán Vivas

Coordinator of the Master Programme in Garden and Landscape Design;
Polytechnic University of Valencia

OBJECTIVE

The publication, “Plants and Planting in Mediterranean Landscapes (Volume 1)”, has systematically and didactically gathered information for the selection of botanic species suitable for landscape and garden designs in Mediterranean climates.

STRUCTURE

Concerning the structure and in line with the above, the book defines a series of plant groups according to design criteria and then develops the introductory aspects, the specific characteristics of the species included within the group, the general conditions for their commercialization and planting, and some general criteria for their maintenance. In particular, the groups defined in this first volume focus on groups of long-lasting species that help define the main structural and spatial qualities of the landscape and which are ordered in the following chapters:

- CHAPTER 1: BROADLEAF EVERGREEN TREES
- CHAPTER 2: BROADLEAF DECIDUOUS TREES
- CHAPTER 3: CONIFERS
- CHAPTER 4: PALM TREES, ZAMIACEAE AND CYCADACEAE
- CHAPTER 5: SHRUBS
- CHAPTER 6: GROUNDCOVERS
- CHAPTER 7: CLIMBERS
- CHAPTER 8: MEDICINAL AND AROMATIC PLANTS
- CHAPTER 9: HEDGES AND TOPIARY
- CHAPTER 10: CITRUS PLANTS

The publication of this book would not have been possible without the collaboration of an invaluable team of professors and professionals who have prepared the contents of their corresponding chapters following a predetermined and common structure. This work involved the elaboration of a series of botanical datasheets explaining for each species its main morphological characteristics, ecological requirements, how the species should be used, seasonal variation, maintenance conditions, forms of supply and commercialization, and a set of illustrative images,

The aim of this publication is to provide landscape professionals and students with a practical and complete tool that, in the context of Mediterranean climates, helps them to choose plant species according to spatial, morphological, ecological, and functional criteria. This book continues in a second volume dedicated to more specific groups that include perennials, annuals and biannuals, bulbs, aquatic plants, grasses, cacti and succulents, roses, fruit trees for ornamental use, vegetables for ornamental use, ferns, weeds and ruderal vegetation, interior plants and greenhouse plants: epiphytes, orchids, and bromeliaceae.

1

BROADLEAF EVERGREEN TREES

Chapter 1 BROADLEAF EVERGREEN TREES

- Subchapter 1.1** Introduction
- Subchapter 1.2** Species
- Subchapter 1.3** Commercialization, use and planting
- Subchapter 1.4** Maintenance
- Subchapter 1.5** Recommended bibliography

Subchapter 1.1 Introduction

Trees that have evergreen leaves (also referred to as persisting leaves) are those whose photosynthesis process is active all year round and whose dead leaves do not fall before new ones have been developed. However, some trees, being of evergreen leaf, in colder areas, might partially lose their foliage for a short period of time and therefore referred to as semi deciduous.

Evergreen trees together with deciduous trees, take precedence since they are undoubtedly the most notable representatives of the flora of streets, parks, and gardens; either for their size, flowers, fruits, and foliage or for the shade and sensation of coolness that they provide.

The difference between evergreen and deciduous trees must be considered when creating a garden or when choosing the most adequate species for a street or avenue, depending on whether permanent shade is required or this effect is only necessary in spring-summer, allowing the sun to penetrate the rest of the year.

In general terms, it can be stated that evergreen trees are typical of tropical and subtropical climates, while deciduous trees are characteristic of temperate and cold areas. In addition, trees with beautiful blooms are more abundant in tropical and subtropical climates.

The decision to **use a certain species** of tree for a specific case can depend on **multiple factors**, among which the following should be considered:

For its structure and external morphology

- Size or height
- Width and shape of the crown
- The greater or lesser projection of shade
- Type and colour of the leaves
- Blooming season
- Production of flowers, its color and fragrance
- Production of ornamental or undesirable fruit

For its necessities or physiological limitations

- Resistance to frost and severe cold
- Resistance to excessive heat
- Resistance to drought
- Requirement of sunlight
- Resistance to winds
- Resistance in coastal areas
- Resistance to urban contamination
- Requirements of soil, pH, texture, humidity, etc.

- Extension of its root system
- Rate of growth
- Longevity
- Resistance to infestations and diseases
- Reaction to pruning

In order to choose the most suitable tree species, it is necessary to be familiar with the characteristics of each species, a knowledge that is acquired from years of observation or through the reading of specialized publications.

In **urban gardening, the tree** (whether in streets and avenues or in urban parks), must fulfill two fundamental functions: **the aesthetic, providing beauty and harmony, and environmental, improving environmental and ecological conditions.**

Trees play a major role in gardening. Since they define the upper or arboreal stratum (level 3), which gives meaning and perspective to the other two strata or levels of vegetation that make up a typical green area: the shrub-like plants (level 2) and the low scrubland or groundcovers (level 1). The tree can fulfill various functions:

- Hedges through species that can withstand trimming
- Background, generally with very large species
- Highlight architectural elements
- Form groups or copses
- Form enclosures that act as an acoustic or wind barrier
- Link and unify the visual landscape along streets, between squares and other green areas
- Highlight foregrounds or frame views, for instance using small species and geometric shapes

In all cases, extensive knowledge of how each species is necessary to successfully achieve the designed purpose.

In addition, big groups can help achieve the following effects:

- Reduce temperature
- Increase atmospheric humidity
- Break or minimize winds
- Capture and absorb atmospheric dust
- Buffer and mitigate noise
- Eliminate contaminating gases and carbon dioxide
- Release oxygen
- Filter solar radiation

Subchapter 1.2 Species

This chapter outlines **27 species of evergreen or semi-evergreen trees** used in Mediterranean landscape design. They have been selected primarily for their ornamental use in Mediterranean landscape design. They have been selected primarily for their ornamental use, botanical interest, or other characteristics. As a result, an in-depth analysis is carried out in this chapter. Firstly, a table shows the different parameters and values that have been used to describe each species. Secondly, each botanic datasheet gathers the information of each individual tree species covering botanical and ecological aspects, uses, cultivation, and other characteristics of interest, including its commercialization and maintenance. This information is complemented by photographic information, which shows the general appearance of the tree species and different morphological details.

PARAMETERS AND VALUES USED FOR THE BOTANIC DATASHEET	
TAXONOMY	
TAXONOMIC RANKS	DIVISION, SUBDIVISION, TYPE, ORDER, FAMILY
VARIETIES	VARIETIES OF INTEREST
STRUCTURE	
SHAPE	GLOBE-SHAPED/ROUND, OVAL, COLUMNAR, CONE, EXTENDED, IRREGULAR, PARASOL, FAN-SHAPED, HORIZONTAL, PALMIFORM, PENDULAR, WEEPING
HEIGHT	AS APPROPRIATE- IN METERS OR CENTIMETERS
DIAMETER	AS APPROPRIATE -IN METERS OR CENTIMETERS
TEXTURE	LEAVES>10CM= COARSE. LEAVES OR LEAFLETS BETWEEN 2-10CM= MEDIUM. LEAVES OR LEAFLETS <2CM= FINE
SHADE	LIGHT, MEDIUM, DENSE
ROOT	TAPROOT, FASCICULATE, OBLIQUE, HORIZONTAL, AERIAL, ADVENTITIOUS
MORPHOLOGY	
TRUNK	
BARK	SMOOTH, VERTICAL FISSURES, LONGITUDINAL FISSURES, DIAGONAL FISSURES; ROUGH, SCALY, CORKY WITH PLATES
COLOR OF BARK	GREY, GREENISH GREY OR BLUISH GREY,SILVER, LIGHT GREEN, YELLOWISH, LIGHT BROWN, DARK, GREEN, RED, PURPLE, YELLOW, BLACK, MARBLED, TWO-TONED, THREE-TONED, LIGHT GREY, DARK GREY
FOLIAGE	
LEAF TYPE	EVERGREEN, DECIDUOUS, SEMI-DECIDUOUS OR SEMI-EVERGREEN
LEAF SIZE	LENGTH (cm)
SIZE OF LEAFLET SHAPE	LENGTH (cm)
COLOR OF UPPER SIDE (US)	PALE GREEN, LIGHT GREEN, DARK GREEN, BLUE/GREEN, GREY, PURPLE; PALE; YELLOW; VARIEGATED
COLOR OF LOWER SIDE (LS)	PALE GREEN, LIGHT GREEN, DARK GREEN, BLUE/GREEN, GREY PURPLE, PALE, YELLOW, VARIEGATED, RUST COLORED, SILVER
TEXTURE OF UPPER SIDE (US)	GLOSSY, ROUGH, GLABROUS, TOMENTOSE, HAIRY, ROUGH, SCALY, VISCOSE
TEXTURE OF LOWER SIDE (LS)	GLOSSY, ROUGH, GLABROUS, TOMENTOSE, HAIRY, ROUGH, SCALY, VISCOSE
COMPOUND LEAF	NO COMPOUND LEAVES YES. IMPARIPINNATE, PARIPINNATE, TRIFOLIATE, PALMATE, PALMIFORM, PALM, PINNATE, BIPINNATE
HARDNESS	CORIACEOUS, SOFT, SUCCULENT
ARRANGEMENT	OPPOSITE, ALTERNATE, WHORLED, ROSETTE
VENATION	PINNATE, PALMATE, PARALLEL, RETICULATE, ARCUATE, A3 MAIN VEINS
LEAF SHAPE	ROUNDED, LINEAR, LANCEOLATE, FALCATE, OVAL, OBLONG, ELLIPTIC, DELTOID, RHOMBOID, SPATULATE, ACICULAR GROUPS OF 2, ACICULAR GROUPS OF 3, ACICULAR GROUPS OF 5, ACICULAR GROUPS, ACICULAR IN 1 PLANE, ACICULAR IN SPIRAL, SCALE, PALMATE 7 LOBES, PALMATE 5 LOBES- PALMATE 3 LOBES, POLYMORPHIC, PANDURIFORM, PINNATIFIDA, SAGITATE, RENIFORM, CORDATE, ORBICULAR, OBOVATE, OBLANCEOLATE, LIRATE, HASTATE, RUNCINATE
LEAF MARGIN	ENTIRE, CILIATE, DENTATE, CRENATE, SERRATE, DOUBLY SERRATE, LOBED, DOUBLE LOBED

APEX	ACUTE, CUSPIDATE, OBTUSE, RETUSE, MUCRONATE
LEAF BASE	ATTENUATE, CORDATE, ROUNDED, CUNEATE, OBLIQUE, SAGITATE, AURICULATE, HASTATE, ASYMMETRIC
PETIOLE	LONG, SHORT, SESSILE, WIDE
FLOWER	
SIZE	CM OR MM
TYPE	UNISEX, HERMAPHRODITE
REPRODUCTION	MONOECIOUS, DIOECIOUS, HERMAPHRODITE, POLYGAMY, SYNOICIOUS, STERILE
FLOWERING	SOLITARY, INFLORESCENCE IN CORYMB, IN CYMOSE, IN RACEME, IN SPIKE, IN UMBEL, IN CATKIN, IN SPADIX, IN FLORET OR CAPITULUM, IN PANICLE (+ INFLORESCENCE SIZE (IN CM OR MM))
FRAGRANCE	YES, NO, UNPLEASANT
FRUIT	
SIZE	IN CM OR MM
TYPE	FOLLICLE, PLURIFOLLICLE, LEGUME, LOMENT, SAMARA, DOUBLE SAMARA, PLURISAMARA, CAPSULE, ACHENE, TETRACHENE, POLYACHENE, NUT, ACORN, SYCONIUM, HESPERIDIUM, SOROSIS, BERRY, RACEME, POME, BALAUSTA, DRUPE, STROBILUS, PSEUDO STROBILUS, CONE
EDIBLE FRUIT	YES, NO
COLOR	RED, GREEN, YELLOW, BROWN, BLACK, PALE, WHITE, PURPLE
FRUITING SEASON	INTERVAL OF MONTHS: JAN, FEB, MAR, APR, MAY, JUN, JUL, AGO, SEP, OCT, NOV, DEC
PARAMETERS AND VALUES USED IN THE BOTANIC DATASHEET	
DEVELOPMENT	
GROWTH	VERY SLOW, SLOW, MEDIUM, FAST, VERY FAST
LONGEVITY	<25 YEARS, 25 YEARS, 50 YEARS, 75 YEARS, 100 YEARS, 150 YEARS, 200 YEARS, 250 YEARS, 300 YEARS, >300 YEARS
ECOLOGY	
CLIMATE	
ALTITUDE	INTERVAL OF ALTITUDE / ELEVATION ABOVE SEA LEVEL
IRRIGATION	++HIGH, MODERATE, LOW; ++LOW (very low/low < 350 mm. Very high/high > 750 mm)
MINIMUM TEMPERATURE AND INTERNATIONAL CLASSIFICATION	<p>MINIMUM TEMPERATURES: DEGREES CELSIUS</p> <p>CLASSIFICATION ACCORDING TO EUROPEAN REGULATION: (SEE MAP)</p> <p>G2___ HOT GREENHOUSES IN SOUTHERN EUROPE</p> <p>G1___ COLD GREENHOUSES IN SOTHERN EUROPE</p> <p>H5___ THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM 0°C TO -5°C</p> <p>H4___ THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -5°C TO -10°C</p> <p>H3___ THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -15°C</p> <p>H2___ THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -15°C TO -20°C</p> <p>H1___ THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -20 °C</p> <p>CLASSIFICATION INTERNATIONAL REGULATIONS. ACCORDING TO MINIMUM TEMPERATURE RANGES</p> <p>Z1___ SUPPORT MINIMUM TEMPERATURES OF -50°C</p> <p>Z2___ SUPPORT MINIMUM TEMPERATURES OF -50°C TO -40°C</p> <p>Z3___ SUPPORT MINIMUM TEMPERATURES OF -40°C TO -30°C</p> <p>Z4___ SUPPORT MINIMUM TEMPERATURES OF -30°C TO -20°C</p> <p>Z5___ SUPPORT MINIMUM TEMPERATURES OF -20°C TO -10°C</p> <p>Z6___ SUPPORT MINIMUM TEMPERATURES OF -10°C TO -0°C</p> <p>Z7___ SUPPORT MINIMUM TEMPERATURES OF -0°C TO 10°C</p> <p>Z8___ SUPPORT MINIMUM TEMPERATURES OF 10°C TO 20°C</p> <p>Z9___ SUPPORT MINIMUM TEMPERATURES OF 20°C TO 30°C</p> <p>Z10___ SUPPORT MINIMUM TEMPERATURES OF 30°C TO 40°C</p> <p>Z11___ SUPPORT MINIMUM TEMPERATURES OF MORE THAN 40°C</p>

EXPOSURE TO SUNLIGHT	FULL SUN, FULL-SHADE, PARTIAL SHADE, SHADE
DROUGHT RESISTANCE	YES, NO, MODERATE
RESISTANCE TO FROST	YES, NO, MODERATE
SOIL	
OPTIMUM PH	ALL TYPES, NEUTRAL, ACIDIC, BASIC OR ALKALINE (OR INTERVAL OF PH)
FERTILITY LEVEL	FERTILE, MODERATE, POOR
TEXTURE OF SOIL	SANDY, SILT OR LOAMY, CLAYEY, SANDY/LOAMY, CLAYEY/ LOAM, ALL TYPES
DRAINAGE	HIGH, MODERATE, LOW
RESISTANCE TO SALT	YES, NO, MODERATE
RESISTANCE TO LIME	YES, NO, MODERATE
USES	
RESISTANCES	
COASTAL	1 st LINE, 2 nd LINE, NO, MODERATE
POLLUTION	HIGH, MODERATE, LOW
WIND	HIGH, MODERATE LOW
USE	
IN SLOPES IN LINES ON RIVERBANKS AS WIND BREAKERS IN HEDGES IN FIELD BORDERS IN GROUPS ISOLATED	YES, NO
PARAMETERS AND VALUES USED IN THE BOTANIC DATASHEET	
NOTES OF INTEREST	
SPACING	MINIMUM RECOMMENDED DISTANCE BETWEEN PLANTS: M (METERS), CM (CENTIMETERS)
PLANTING AND PLANT HEALTH	
PLANTING AND PLANT HEALTH	
CALENDAR	
CHROMATIC CALENDAR	FOLIAGE, FLOWERING, FRUITING SEASON: the color white represented with grey or black cell
CULTIVATION CALENDAR	SOWING, PLANTING, PRUNING
TREATMENTS CALENDAR	FUNGICIDES, PESTICIDES, FERTILIZERS, HERBICIDES
COMMERCIALIZATION	
PRESENTATION	RD (BARE ROOT), CT (CONTAINER or POT (in liters), CE (ROOT BALL), CEY (ROOT BALL IN GYPSUM), ROOT BALL IN MESH
STEM GIRTH (TREES)	CM (usually measured at 1 meter above ground) or Year/Years
HEIGHT (in SHRUBS, CONIFERS AND PALM TREES)	CM, M

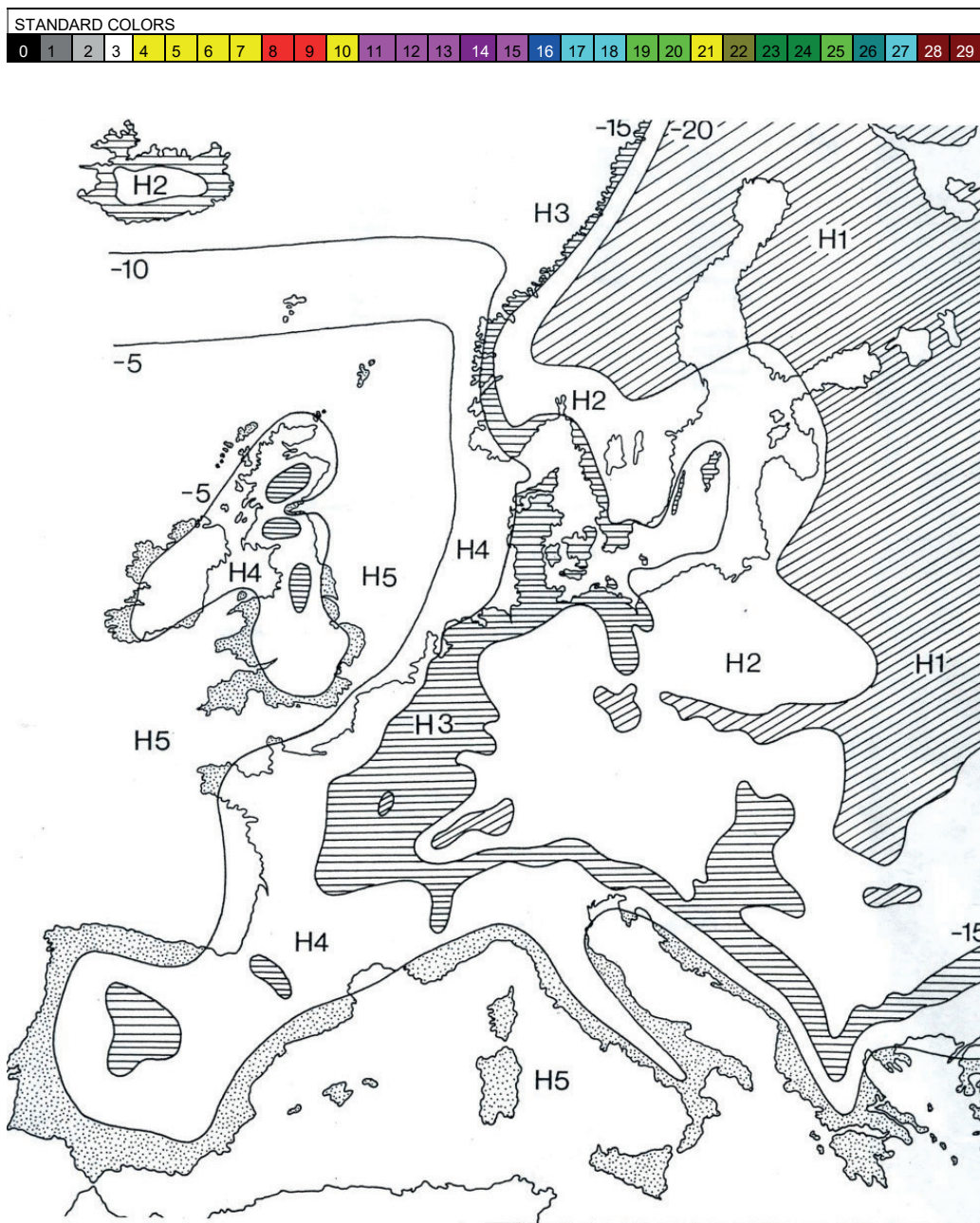


Figure 1.2.1: Thermic classification according to European regulations

LIST OF BROADLEAF EVERGREEN TREE SPECIES DESCRIBED IN THE DATASHEETS

1. *Acacia dealbata*
2. *Acacia saligna* (*Acacia cyanophylla*)
3. *Brachychiton acerifolius*
4. *Brachychiton populneus*
5. *Casuarina equisetifolia*
6. *Cinnamomum camphora*
7. *Coccoloba uvifera*
8. *Cocculus laurifolius*
9. *Eucalyptus camaldulensis*
10. *Eucalyptus ficifolia*
11. *Eucalyptus globulus*
12. *Ficus elastica*
13. *Ficus lyrata*
14. *Ficus macrophylla*
15. *Ficus microcarpa* (*Ficus nitida*)
16. *Ficus rubiginosa*
17. *Grevillea robusta*
18. *Lagunaria patersonii*
19. *Ligustrum lucidum*
20. *Magnolia grandiflora*
21. *Phytolacca dioica*
22. *Quercus ilex* subsp. *ilex*
23. *Quercus ilex* subsp. *ballota*
24. *Quercus suber*
25. *Schinus molle*
26. *Schinus terebinthifolius*
27. *Spathodea campanulata*

Acacia

Acacia dealbata Link

BROADLEAF EVERGREEN

MIMOSA COMÚN
SPANISH

MIMOSA COMUNA
VALENCIAN

SILVER WATTLE
ENGLISH

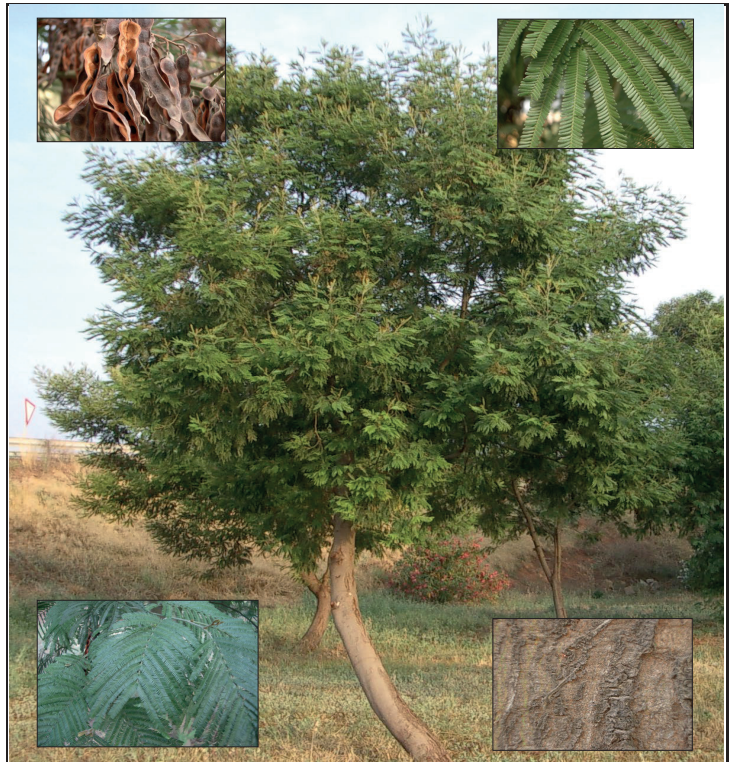
MIMOSA BLANCHISSANT
FRENCH

STRUCTURE		
Shape ROUND	Height 6-15 M	Diameter 4-6 M
Texture FINE	Shade SUN/PARTIAL SHADE	Root OBLIQUE

DIVISION:	SPERMATOPHYTES
SUBDIVISION:	ANGIOSPERMS
TYPE:	DICOTYLEDONS
ORDER:	FABALES
FAMILY:	MIMOSODICEAE

VARIETIES

MORPHOLOGY		
Trunk	Bark SMOOTH/FISSURED	Color GREEN-GRAY
Leaf EVERGREEN SIZE: LEAF: 20CM LEAFLET: 0.3CM COLOR: US: BLUE/GREEN LS: BLUE/GREEN TEXTURE: US: Tomentose LS: Tomentose	COMPOUNDS:	BIPINNATE
	HARDNESS:	SOFT
	ARRANGEMENT:	ALTERNATE
	VENATION:	PINNATE
	SHAPE:	PARIPINNATE
	MARGIN:	CILIATE
	APEX:	ROUND
	LEAF BASE:	ROUNDED
	PETIOLE:	SHORT
Flower SIZE: ♂M 3 MM	Type HERMAPHRODITE	Reproduction HERMAPHRODITE
	Flowering RACEME (10 cm)	Fragrant YES
Fruit SIZE: 5-8 CM	Type FLATTENED POD	Color BROWN
	Edible NO	Fruiting season JUN-JUL
Growth	Rate FAST	Longevity 25 YEARS



ECOLOGY		
Climate ALTITUDE: 0-100 IRRIGATION: LOW	Temperature -9°C, H4, Z6	Drought resistant YES
	Sun exposure FULL	Frost resistant MODERATE
Soil Ph: 5-7.5 FERTILITY: POOR	Texture SANDY	Salt resistant NO
	Drainage MODERATE	Lime resistant MODERATE

USES	
Resistances COASTAL: 2ND LINE POLLUTION: MODERATE WIND: LOW	Applications SLOPES: YES RIVERBANKS: NO GROUPS: YES LINE: NO WINDBREAKERS: NO ISOLATED: YES

POINTS OF INTEREST

Native to South East Australia and Tasmania. Cultivated for its ornamental value or in dunes. This species is naturalized and invasive, particularly after fires. Its beautiful flowering in the middle of winter makes this species singular for this season. Its branches are fragile and may pose a risk to pedestrians and vehicles.

SPACING: 5m

PLANTING AND PLANT HEALTH

Propagation by seed and cuttings. It can be attacked by polyphagous mealybugs such as *Aspidiotus hederae*, *Icerya purchasi*, etc. that may appear on leaves, trunks or fruits. These mealybugs emit molasses on which sooty molds (black) grow, forming a blackish layer on leaves, branches and trunk. Treatments with *Methyl-pirimiphos*, *Chlorpyrifos* or some phosphorous product (*Diazinon*, *Fenitrothion*, *Phentobate*) obtain good results. A fungicide with a Copper (Cu) base should be applied to fight against sooty molds.

CHROMATIC CALENDAR

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■

CULTIVATION CALENDAR

JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Sowing	■	Planting	■	Pruning	x						

TREATMENT CALENDAR

JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Fungicides	■	Pesticides	■	Fertilizers	■						

COMMERCIALIZATION

Presentation	Girth (cm)	Height (cm)
CT		100/125
CT		125/150
CT		150/175
CT		175/200
CT		200/250
CT	6-8	
CT	8-10	
CT	10-12	
CT	12-14	
CT	14-16	
RB	20-25	

Acacia

Acacia saligna (Labill.) H.L. Wendl.

BROADLEAF EVERGREEN

MIMOSA AZUL
SPANISH

MIMOSA BLAVA
VALENCIAN

BLUE-LEAF WATTLE
ENGLISH

MIMOSA BLEUTE
FRENCH

STRUCTURE		
Shape PENDULAR/IRREGULAR	Height 3-8 M	Diameter 4-6 M
Texture COARSE	Shade PARTIAL SHADE	Root OBLIQUE

DIVISION:	SPERMATOPHYTES
SUBDIVISION:	ANGIOSPERMS
TYPE:	DICOTYLEDONS
ORDER:	FABALES
FAMILY:	MIMOSIDAE

VARIETIES	

MORPHOLOGY		
Trunk	Bark SMOOTH/FISSURED	Color GRAY/RED
Leaf	COMPOUNDS: NO HARDNESS: SOFT ARRANGEMENT: ALTERNATE VENATION: PINNATE SHAPE: LINEAR/LANCEOLATE MARGIN: ENTIRE APEX: SHARP LEAF BASE: ACUTE PETIOLE: SHORT	
Flower	Type HERMAPHRODITE Flowering RACEME (15-20 CM)	Reproduction HERMAPHRODITE Fragrant YES
Fruit	Type LEGUME Edible NO	Color BROWN Fruiting season JUN-JUL
Growth	Rate FAST	Longevity 25 YEARS



ECOLOGY		
Climate	Temperature -6°C.H4.Z6	Drought resistant YES
ALTITUDE: 0-100 IRRIGATION: LOW	Sun exposure FULL SUN	Frost resistant MODERATE
SOIL	Texture LOAMY/SANDY	Salt resistant YES
pH: 5-9 FERTILITY: POOR	Drainage MODERATE	Lime resistant YES

USES	
Resistance	Applications
COASTAL: 1ST LINE POLLUTION: HIGH WIND: LOW	SLOPES: NO RIVERBANKS: NO GROUPS: YES
	LINE: NO BREAKERS: NO ISOLATED: YES

POINTS OF INTEREST

Native to the Western Australia and Tasmania. Cultivated for its ornamental value and in coastal dunes; occasionally naturalized. It is the most frequently cultivated species, especially in coastal areas and green spaces that accompany roads (roundabouts, islets, road curves, etc.).

SPACING: 5 M

PLANTING AND PLANT HEALTH

Propagation by seed and cuttings. It can be attacked by polyphagous mealybugs, such as *A.spidiotus hederae*, *Icerya purchasi*,... that may appear on leaves, trunks or fruits. These cochineals emit molasses on which sooty molds (black) grow, forming a blackish layer on leaves, branches and trunk. Treatments with *Methyl-pirimiphos*, *Chlorpyrifos* or some phosphorous product (*Diazinon*, *Fenitrothion*, *Phentoate*) produce good results. A Copper base (Cu) fungicide should be applied to fight against sooty molds.

CHROMATIC CALENDAR

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■

CULTIVATION CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Sowing	■	■	■	■	■	■	■	■	■	■	■
	■	■	■	■	■	■	■	■	■	■	■
					■						

TREATMENT CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Fungicides	■	■	■	■	■	■	■	■	■	■	■
Pesticides	■	■	■	■	■	■	■	■	■	■	■
Fertilizers	■	■	■	■	■	■	■	■	■	■	■

COMMERCIALIZATION

Presentation	Girth (cm)	Height (cm)
CT		80/100
CT		100/125
CT		175/200
CT		250/300
CT	6-8	250-300
CT/RB	8-10	
CT/RB	10-12	
CT/RB	12-14	
CT/RB	14-16	
CT	16-18	
CT	18-20	
CT	20-25	

Brachychiton

Brachychiton acerifolius (A. Cunn.) F.J. Muell.

Broadleaf evergreen

ÁRBOL DEL FUEGO
SPANISH

ARBRE DEL FOC
VALENCIAN

FLAME-TREE
ENGLISH

B. À FEUILLES D'ÉRABLE
FRENCH

STRUCTURE		
Shape CONE	Height 10-15 M	Diameter 4-6 M
Texture COARSE	Shade PARTIAL	Root OBLIQUE

DIVISION:	SPERMATOPHYTES
SUBDIVISION:	ANGIOSPERMS
TYPE:	DICOTYLEDONS
ORDE:	MALVALES
FAMILY:	STERCULIACEAE

VARIETIES

MORPHOLOGY		
Trunk	Bark VERTICALLY FISSURED	Color GREEN/GRAY
Leaf	COMPOUND HARDNESS: CORIAEOUS INSERTION: ALTERNATE VENATION: PALMATE SHAPE: PALMATE 5/7 LOBES MARGIN: LOBED APEX: SHARP BASE: CORDATE PETIOLE: LONG	NO
SEMI-DECIDUOUS SIZE: LEAF: 30CM COLOR: US: MED. GREEN LS: MED. GREEN TEXTURE: US: GLOSSY LS: GLOSSY		
Flower	Type UNISEXUAL	Reproduction MONOECIOUS
SIZE: ♂/F 15MM ♀/M 15 MM	Flowering PANICLE (40CM)	Fragrant NO
Fruit	Fruit FOLLICLE	Color BLACK
SIZE: 10-15CM	Edible NO	Fruiting season SEP-OCT
Growth	Rate FAST	Longevity 100 YEARS



ECOLOGY		
Climate	Temperature -3°C.H5.Z6	Drought resistant MODERATE
ALTITUDE: 0-100 IRRIGATION: MODERATE	Sun exposure SUN PARTIAL SHADE	Frost resistant MODERATE
Soil	Texture SANDY	Salt resistant NO
pH: 5.5-8.5 FERTILITY: MODERATE	Drainage MODERATE	Lime resistant YES

USES		
Resistances	Applications	
COASTAL: 2ND LINE POLLUTION: MODERATE WIND: MODERATE	SLOPES: NO RIVERBANKS: NO GROUPS: YES	LINE: YES WINDBREAKERS: YES ISOLATED: YES

POINTS OF INTEREST
Native to Australia. The lack of water in summer can cause defoliation, so a moderate irrigation programme is recommended. It does not flower for a few years (generally 6 to 10 years) and then it begins to produce trilobed leaves. Its spectacular flowering and appearance make this tree a focal point of attention in any green space or as a street tree. The specific name refers to the similarity between the leaves of this species and those of the *Acer* genus. It can be used (when young) as an indoor plant. In the Canary Islands, *Brachychiton x roseus Guymet* is occasionally cultivated, a hybrid form between *B. acerifolius* and *B. populneus*, with leaves similar to those of the latter and red flowers.

SPACING: 5 M

PLANTING AND PLANT HEALTH
This specimen is very easy to grow but requires a high irrigation programme. It easily propagates growing from seeds which are collected from the trees when the fruits are fully ripe and begin to open. It should be noted that the hairs that surround the seeds are quite irritating and uncomfortable, so care must be taken when handling. Seedbeds planted in March-April provide the following year with 50/60 cm tall plants suitable for rearing in the nursery for 2/3 more years until they reach commercial sizes. It can be transplanted successfully to root ball.

CHROMATIC CALENDAR											
FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■

CULTIVATION CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Sowing	■	Planting	■	Pruning	X						

TREATMENT CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Fungicides	■	Pesticides	■	Fertilizers	■						

COMMERCIALIZATION		
Presentation	Girth(cm)	Height (cm)
CT		50/60
CT		150/175
CT		175/200
CT		200/250
CT		250/300
CT		300/350
CT	12-14	
CT	14-16	
CT	16-18	
CT/RB	18-20	
CT/RB	20-25	
CT/RB	25-30	
CT/RB	30-35	

Cinnamomum

Cinnamomum camphora (L.) Siebold

BROADLEAF EVERGREEN

ARBOL DEL ALCANFOR
SPANISH

CAMFORER
VALENCIAN

CAMPFOR TREE
ENGLISH

CAMPFORIER
FRENCH

STRUCTURE		
Shape EXTENDED	Height 8-35 M	Diameter 8-10 M
Texture MEDIUM	Shade FULL	Root OBLIQUE

DIVISION:	SPERMATOPHYTES	VARIETIES
SUBDIVISION:	ANGIOSPERMS	
TYPE:	DICOTYLEDONS	
ORDER:	LAURALES	
FAMILY:	LAURACEAE	

MORPHOLOGY		
Trunk	Bark ROUGH	Color YELLOWISHBROWN
Leaf EVERGREEN	COMPOUND: NO HARDNESS: SUBCORIACEOUS ARRANGEMENT: ALTERNATE VENATION: PINNATE SHAPE: OVAL/ELLIPTICAL MARGIN: ENTIRE APEX: CUSPIDATE/ACUMINATE LEAF BASE: ACUTE PETIOLE: LONG	
SIZE: LEAF: 6-12.5		
COLOR: US:DK GREEN LS:MID GREEN		
TEXTURE: US:GLOSSY LS:GLOSSY		
Flower	Type HERMAPHRODITE	Reproduction HERMAPHRODITE
SIZE: ♂/M 2 MM	Flowering PANICLE (5 CM)	Fragrant NO
Fruit	Type DRUPE	Color BLACK
SIZE: 0.7-1 CM	Edible NO	Fruiting season SEP-NOV
Growth	Rate MODERATE	Longevity 100 YEARS



ECOLOGY		
Climate	Temperature -3°C.H5.Z6	Drought resistant MODERATE
ALTITUDE: 0-300	Sun Exposure SUN/PARTIAL SHADE	Frost resistant MODERATE
IRRIGATION: LOW	Texture SANDY	Salt resistant NO
Soil	Drainage MODERATE	Lime resistant NO
pH: 5-7.5		
FERTILITY: MODERATE		

USES		
Resistances	Applications	
COASTAL: NO	SLOPES: NO	LINE: NO
POLLUTION: LOW	RIVERBANKS: NO	WINDBREAKERS: YES
WIND: HIGH	GROUPS: NO	ISOLATED: YES

POINTS OF INTEREST

Native to China, Taiwan and Japan. Its specific name means camphor. It does not tolerate the continental climate, therefore its plantation is preferably restricted to areas near the Mediterranean coast. Its wood is very fragrant, rot-proof, easy to polish and used for furniture, cabinetry and interior finishes of buildings. By distillation of its wood, camphor is obtained and can be used in medicine and as an antiseptic. The ability of this wood to repel insects has prompted its use for boxes and chests, where valuable objects are kept. It can be confused with *Cocculus laurifolius*, but it is easy to differentiate since the leaf veins of the "camphor tree" are at a certain distance from the leaf blade, while in the *cocculus* they start from the leaf sheath.

SPACING: 12M

PLANTING AND PLANT HEALTH

Propagation by seed, which must be cleaned of the pulp and sown as soon as possible since their germination power is short. It is resistant to pests and diseases.

CHROMATIC CALENDAR

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars representing foliage, flowering, and fruiting periods]											
CULTIVATION CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars for sowing, planting, and pruning]											
Sowing											
Planting											
Pruning											
TREATMENT CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars for fungicides, pesticides, and fertilizers]											
Fungicides											
Pesticides											
Fertilizers											

COMMERCIALIZATION

Presentation	Girth (cm)	Height (cm)
CT3		60/80
CT10		100/125
CT50		150/175
CT50		175/200
CT240		250/300
CT30	8-10	
CT30	10-12	
CT50	12-14	
CT50	14-16	
CT140	18-20	
CT140	20-25	
CT500	40-45	
CT1000	60-70	

Coccoloba

Coccoloba uvifera (L.) L.

BROADLEAF EVERGREEN

UVA DE PLAYA
Spanish

RAÏM DE MAR
Valencian

SEA GRAPE/BAY GRAPE
English

RAISINIER
French

STRUCTURE		
Shape ROUND	Height 5-9 M	Diameter 4-6 M
Texture COARSE	Shade FULL	Root OBLIQUE

DIVISION:	SPERMATOPHYTES
SUBDIVISION:	ANGIOSPERMS
TYPE:	DICOTYLEDONS
ORDER:	POLYGONALES
FAMILY:	POLTGNACEAE

VARIETIES

MORPHOLOGY		
Trunk	Bark SMOOTH	Color GRAY
Leaf	COMPOUND: NO	HARDNESS: CORIAEOUS
EVERGREEN	HARDNESS: CORIAEOUS	ARRANGMENT: ALTERNATE
SIZE: LEAF: 7-25CM	VENATION: PINNATE	SHAPE: ROUND
Leaflet: NO	MARGIN: ENTIRE	APEX: ROUNDED
COLOR: US:BLUEGREEN	LEAF BASE: CORDATE	PETIOLE: SHORT
LS:MID GREEN		
TEXTURE: US: GLOSSY		
LS:GLOSSY		
Flower	Type UNISEXUAL	Reproduction DIOECIOUS
SIZE: ♂/M 6 MM	Flowering	Fragrant YES
♀/F 6 MM	RACEME (20-30 CM)	
Fruit	Type DRUPE	Color PURPLE
SIZE: 1-2 CM	Edible YES	Fruiting season SEP-DEC
Growth	Rate FAST	Longevity 10 YEARS



Ecology		
Climate	Temperature 6°C.G1.Z7	Drought resistant YES
ALTITUDE: 0-100	Sun exposure FULL SUN	Frost resistant NO
IRRIGATION: LOW	Texture SANDY	Salt resistant YES
Soil	Drainage MODERATE	Lime resistant MODERATE
pH:		
FERTILITY: POOR		

USES		
Resistances	Applications	
COASTAL: 1ST LINE	SLOPES: NO	LINE: YES
POLLUTION: MODERATE	RIVERBANKS: NO	WIND BREAKERS: YES
WIND: HIGH	GROUPS: YES	ISOLATED: YES

POINTS OF INTEREST

Native to the Antilles, Bahamas and tropical South America. Its specific name means grape producer. Apparently, it was the first plant that Christopher Columbus noticed when he first set foot on the beaches of America. Its wood is hard, very heavy, and is sometimes used in construction and in the manufacture of furniture. The bark contains tannins used in tanning. The roots and bark are used in folk medicine against diarrhea and dysentery. It produces a reddish sap that is used to dye and was used as ink, serving the first colonizers. Its fruits are sweet and edible, and can be eaten raw or in jams, and when fermented it produces a drink similar to wine. Resistant to seawater spray. Recommended for coastal gardens.

SPACING : 5M

PLANTING AND PLANT HEALTH

Propagation by seed. This species is resistant to pests and diseases.

CHROMATIC CALENDAR

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■

CULTIVATION CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Sowing	■	Planting	■	Pruning	X						

TREATMENT CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
■	■	■	■	■	■	■	■	■	■	■	■
Fungicides	■	Pesticides	■	Fertilizers	■						

COMMERCIALIZATION

Presentation	Girth (cm)	Height (cm)
Commercialized in the Canary Islands		

Cocculus

Cocculus laurifolius (Robx) DC.

BROADLEAF EVERGREEN

CÓCULO
SPANISH

CÓCUL
VALENCIAN

MOONSEED
ENGLISH

COCULE
FRENCH

STRUCTURE		
Shape EXTENDED/IRREGULAR	Height 5-10 M	Diameter 5-8 M
Texture COARSE	Shade FULL	Root HORIZONTAL

DIVISION:	SPERMATOPHYTES	VARIETIES
SUBDIVISION:	ANGIOSPERMS	
TYPE:	DICOTYLEDONS	
ORDER:	RANUNCULALES	
FAMILY:	MENISPERMUM	

MORPHOLOGY		
Trunk	Bark SMOOTH/FISSURED	Color LIGHT BROWN
LEAF EVERGREEN SIZE: LEAF:10-15CM COLOR: US:DARK GREEN LS:DARK GREEN TEXTURE: US: GLOSSY LS:GLOSSY	COMPOUND: NO	HARDNESS: SUB-CORIACEOUS
	ARRANGEMENT: ALTERNATE	VENATION: PINNATE
	SHAPE: OBLONG/LANCEOLATE	MARGIN: ENTIRE
	APEX: ACUMINATE/CUSPIDATE	LEAF BASE: ACUTE
	PETIOLE: SHORT	
Flower SIZE: ♂/M 4 MM ♀/F 4 MM	Type UNISEXUAL	Reproduction DIOECIOUS
	Flowering PANICLE (5 CM)	Fragrant NO
Fruit SIZE: 0.6 CM	Type DRUPE	Color BLACK
	Edible NO	Fruiting season SEPT-NOV
Growth	Rate SLOW	Longevity 100 YEARS



ECOLOGY		
Climate ALTITUDE: 500-800 IRRIGATION: HIGH	Temperature -15°C,H2,Z5	Drought resistant NO
	Sun exposure SUN/SHADE	Frost resistant YES
Soil pH: 5.5-7.5 FERTILITY: MODERATE	Texture SANDY	Salt resistant NO
	Drainage MODERATE	Lime resistant NO

USES	
Resistances	Applications
COASTAL: NO	SLOPES: NO LINE: NO
POLLUTION: MODERATE	RIVERBANKS: NO WINDBREAKERS: NO
WIND: LOW	GROUPS: YES ISOLATED: YES

POINTS OF INTEREST

Native to tropical and subtropical Eastern Asia, from India and the Himalayas to China and Japan, Southern Indonesia. Its specific name alludes to the resemblance of its leaves to those of the laurel (*Laurus nobilis*). It is cultivated for the ornamental value of its foliage. It can be confused with the "camphor tree" (*Cinnamomum camphora*), but it is easy to differentiate since the nerves of the "cocculus" start from the leaf base, while in the "camphor tree" they do so at a certain distance from it. Cultivated in coastal areas with a temperate climate. Stems and leaves contain a toxic substance similar to the curare used by the indigenous people of South America to poison their weapons. In the Himalayas, Malaysia and India, local people throw cocculus leaves into rivers to stupefy the fish that remain on the surface of the water making them easier to catch.

SPACING: 10M

PLANTING AND PLANT HEALTH

It is typical of temperate zones of the Asian mountains, from where its cultivation has spread throughout the temperate zones of the Northern hemisphere. In the areas where it is spontaneous, it colonizes moderately humid mountain areas but with a long period of summer drought. In the Iberian lands, its planting and cultivation must be carried out in deep and humid soils, even if the environment is dry. It multiplies by means of seeds although in Spain (due to the scarcity of existing specimens) it is difficult to obtain them. Propagation is by a cutting of the wood of the year with leaves.

CHROMATIC CALENDAR

COMMERCIALIZATION

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC

Presentation (L)	Girth(cm)	Height (cm)
CT (3)		
CT (7)		
CT (15)		
CT (25)		
CT (50)		
CT (85)		
CT (230)		
CT (500)		

CULTIVATION CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
x x x x x x x x x x x x											x x x x x
Sowing		Planting		Pruning	x						

Reduced commercialization

TREATMENT CALENDAR											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Fungicides		Pesticides		Fertilizers							

Eucalyptus

Eucalyptus camaldulensis Dehnh.

BROADLEAF EVERGREEN

EUCALYPTO ROJO
SPANISH

E. DE FULLES ESTRETES
VALENCIAN

RIVER RED GUM
ENGLISH

EUCALYPTUS ROUGE
FRENCH

STRUCTURE		
Shape OVAL/IRREGULAR	Height 30-50 M	Diameter 10 M
Texture COARSE	Shade PARTIAL	Root TAPROOT

DIVISION:	SPERMATOPHYTES	VARIETIES
SUBDIVISION:	ANGIOSPERMS	
TYPE:	DICOTYLEDONS	
ORDER:	MYRTALES	
FAMILY:	MYRTACEAE	

MORPHOLOGY		
Trunk	Bark SMOOTH/PLATES	Color TRICOLOR
Leaf	COMPOUND: NO	
EVERGREEN	HARDNESS: CORIACEOUS	
SIZE: LEAF: 12-22cm	ARRANGEMENT: ALTERNATE	
COLOR: US MID GREEN	VENATION: PINNATE	
LS MID GREEN	SHAPE: LANCEOLATE	
TEXTURE: US SMOOTH	MARGIN: ENTIRE	
LS SMOOTH	APEX: ACUMINATE/CUSPIDATE	
	LEAF BASE: ACUTE	
	PETIOLE: SHORT	
Flower	Type HERMAPHRODITE	Reproduction HERMAPHRODITE
SIZE: ♂/M 1.2 CM	Flowering	Fragrant
♀/F	UMBEL (2.5 CM)	YES
Fruit	Type CAPSULE	Color BROWN
SIZE: 0.5-0.8 CM	Edible NO	Fruiting AUG-SEP
Growth	Rate FAST	Longevity 200 YEARS



ECOLOGY		
Climate	Temperature -9°C, H4, Z6	Drought resistant MODERATE
ALTITUDE: 0-200	Sun exposure	Frost resistant MODERATE
IRRIGATION: LOW	FULL	MODERATE
Soil	Texture ALL TYPES	Salt resistant MODERATE
pH: 5.5-8.5	Drainage	Lime resistant MODERATE
FERTILITY: POOR	HIGH	

USES		
Resistances	Applications	
COASTAL: 1ST LINE	SLOPES: YES	LINE: YES
POLLUTION: MODERATE	RIVERBANKS: YES	WINDBREAKERS: YES
WIND: HIGH	GROUPS: YES	ISOLATED: YES

POINTS OF INTEREST

Native to Australia, where it can be found throughout most of the country, except for a small area in the South West. In Spain it is the most cultivated species of eucalyptus. Its trunk excretes a sap-like liquid called red gum, used for medicinal purposes. Its wood is very hard, strong and durable, being used for poles in wet areas, shipbuilding, railway sleepers, bridges and for paper pulp, and it is also a good fuel. It is a honey plant. Apparently, the leaves are eaten by goats when no other forage can be found. The specific name alludes to the Italian garden of Camalduli (Naples), from where the species seems to have been first described.

SPACING: 10M

PLANTING AND PLANT HEALTH

Propagation by seed. Due to its great growth and its aggressiveness, it is not recommended for small gardens nor near buildings. It needs large spaces to be able to develop freely. The "Phoracantha semipunctata" beetle creates galleries in trunks and branches causing the death of specimens of any age. The fight against this insect can only be preventive and is based on keeping the specimens vigorous since the females only lay their eggs on weakened or diseased trees. The species is also attacked by defoliating insects such as *Gonipterus scutellatus* and polyphagous mealybugs such as *Quadraspisiotus perniciosus*.

CHROMATIC CALENDAR

FOLIAGE, FLOWERING AND FRUITING SEASON											
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars representing seasonal activity]											

CULTIVATION CALENDAR

JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars for cultivation activities]											
Sowing		Planting		Pruning		X					

TREATMENT CALENDAR

JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
[Color-coded bars for treatments]											
Fungicides		Pesticides		Fertilizers							

COMMERCIALIZATION

Presentation	Girth (cm)	Height (cm)
CT		125-150
CT		150-175
CT		175-200
CT		200-250
CT		250-300
RB	6-8	
RB	18-20	
RB	20-25	
RB	25-30	
RB	30-35	
RB	35-40	
RB	40-45	
RB	45-50	

**Para seguir leyendo, inicie el
proceso de compra, click aquí**