PLANTS AND PLANTING IN MEDITERRANEAN LANDSCAPES (VOLUME 1)

Editors

Juan José Galán Vivas Vicente Caballer Mellado

SHRUBS

DECIDUOUS TREES



EVERGREEN TREES

PALM TREES

MEDICINAL AND AROMATIC

GROUNDCOVERS

8 8 8 de

HEDGES

CLIMBERS



http://tiny.cc/edUPV_rea

Original Title: *Material vegetal en paisajismo mediterrráneo (Volumen 1)* ©Galán Vivas, Juan José; Caballer Mellado, Vicente; Ballester – Olmos Anguis, José Francisco; Sánchez García, Mariano; Albuixech Moliner, Jesús; Esteras Perez, Francisco Javier; Castell Zeising, Vicente ©edUPV, 2011

Collection Académica http://tiny.cc/edUPV_aca

To cite this publication please use the following reference: Galán Vivas, Juan José and Caballer Mellado, Vicente. (2024). *Plants and Planting in Mediterranean Landscapes (Volume 1).* Valencia: edUPV. DOI: https://doi.org/10.4995/REA.2024.677001

Editors Juan José Galán Vivas Vicente Caballer Mellado

Layout designers Antonio Fresneda Colomer Juan José Galán Vivas Júlia Martínez Villaronga (transfer to the English version)

Collaborators (in the preparation of the botanic datasheets) Rafael Barrera Valero David Sanz Sánchez César Martinez Graullera Raguel Katz Perales

Translated by Jacinta Mary Harrington-Flynn Translation funded by the NO BORDERS Program of the UPV

© of the texts and images: the authors

Edited by: edUPV, 2024 Ref.: 6770_01_01_01

ISBN: 978-84-1396-250-4 (printed version) ISBN: 978-84-1396-109-5 (electronic version) DOI: https://doi.org/10.4995/REA.2024.677001

If the reader detects a mistake in the book or wishes to contact the authors, he can send an email to edicion@editorial.upv.es



Plants and Planting in Mediterranean Landscapes (Vol.1) / edUPV

The reuse of the contents is allowed through the copying, distribution, exhibition and representation of the work, as well as the generation of derivative works as long as the authorship is acknowledged and it is cited with complete bibliographic information. Commercial use is not permitted and derivative works must be distributed under the same license as the original work.

TABLE OF CONTENTS

PRESENTATION	7
PROLOGUE	11
INTRODUCTION	13
CONTENTS	
Chapter 1: Broadleaf evergreen trees	15
Chapter 2: Broadleaf deciduous trees	79
Chapter 3: Conifers	131
Chapter 4: Palm trees, zamiaceae and cycadaceae	205
Chapter 5: Shrubs	255
Chapter 6: Groundcovers	329
Chapter 7: Climbers	369
Chapter 8: Medicinal and aromatic plants	411
Chapter 9: Hedges and topiary	467
Chapter 10: Citrus plants	499

LIST OF PLANT SPECIES

539



Chapter 7	CLIMBERS
Subchapter 7.1	Introduction
Subchapter 7.2	Species
Subchapter 7.3	Commercialization, use and planting
Subchapter 7.4	Maintenance
Subchapter 7.5	Recommended bibliography
Subchapter 7.1	Introduction

INTRODUCTION

Climbing plants or climbers refer to species capable of ascending vertically or adhere naturally to different types of supports (walls, trees, rocks...) This particular type of species is often confused with other species that have long samentose-type stems that can cover walls in height and width when there is an artificial anchor to fix them. This second group is known as samentose.

Most climbing plants inhabit wooded places and need trees as support to climb in search of light (necessary for the correct functioning of its upper part) However, its roots are accustomed to a shady soil and low temperatures. This thermal need gradient must then be considered when placed on a sunny garden wall.

Climbing plants in a broad sense have developed various anchoring systems; Some, like ivy, have sticky pads on their adventitious roots and others with pads that are shaped like suckers.

Other climbers, such as the vine, adhere and ascend using tendrils, which are like long leaf petioles devoid of limbs that through circular oscillatory movements (known as circumnutation) find contact with an element that serves as a grip. Then, the adaxial (upper side) cells grow at a much higher rate than the abaxial (lower side) ones, so that the development of the tendril takes place in a helical manner, repeatedly surrounding the object. Many *Clematis* use a similar system; however, they do not possess these specialized tendrils and so wrap their long petioles over anything that can support them.

The most common technique is the coiling of the stems that allow the plant to curl around the support and climb. This is typical of honeysuckle (*Lonicera spp.*), wisteria (*Wisteria spp.*) and many jasmine species (*Jasminum spp.*).

Sarmentose plants are limited to producing long and flexible stems in order to reach high points that will support them; the most common example is that of climbing roses, which in the case of not having an adequate support to which their stems can hook, or unless a new shoot finds the branch of a bush or a tree above its apex, will curve towards the ground. Subsequently, other stems will grow that, finding no support, will fall on the previous ones, so that this sarmentose plant can take on the appearance of a very untidy bush.

Using climbing plants in the landscape requires the application of the compositional principles that rule garden design (especially regarding colors, textures and flowering times). An early flowering climber can be planted next to a late flowering climber or vine or tree, or vice versa, thus achieving a longer total flowering period.

Likewise, the blooms, foliage, and autumn tones of climbers and sarmentose can be combined with the fronds, fruits and blooms of other climbing or sarmentose plants and trees.



Figure 7.1.1: Different ways climbers attach themselves to surfaces (From: Normas Tecnológicas de Jardinería y Paisajismo (C.O.E.T.A.P.A.C.))

Climbers are a versatile group of garden plants in which species with flowers or foliage of intense color can be chosen to create a visual accent, and others can provide a diffuse and subtle background; some, such as *Wisteria* and *Vitis*, also show interesting architectural forms when they lose their leaves in winter.

Over time, climbers will complement and even disguise a support, be it a wall, a fence or trellis. They also highlight the warm tones of the stone or brick and soften the hard architectural lines, while being able to cover the less attractive parts of the building and other constructions present in the garden. They can also serve as dense visual screens or shelter from the wind if grown on trellis-type supports.

Sarmentose species such as yellow jasmine (*Jasminum mesnyi*) are a very effective ground cover and have a particularly interesting effect when they are placed near a bench or spread over the edges of a terrace.

Both climbers and sarmentose species can be included in mixed shrub beds to which they contribute with their curved growth and their special texture.

Genus and species	Flower (time of year)	Climate	Attachment system
Ampelopsis veitchii	Red leaf (IX -X)	Warm/temperate	Adventitious Roots
Asparagus sprengeri		Warm/temperate	Twining
Bignonia ungis-cati	Yellow (IV-VI)	Warm/temperate, sunny	Tendrils
Bougainvillea glabra	Red-rose-orange	Hot	Training
Campsis radicans	Red (VIII-X)	Indifferent	Adventitious Roots
Clerodendrum thomsoniae	White-red (V-VIII)	Hot, shade	Twining
Ficus radicans (F. repens)		Shade	Adventitious Roots
Hedera canariensis variegata	Green-yellow leaf	Partial shade	Adventitious Roots
Hedera helix		Indifferent	Adventitious Roots
Ipomoea sp	Purple, white (V-X)	Hot, sunny	Twining
Jasminum azoricum	White ((V-IX)	Hot	Twining
Jasminum nitidum	White (IV-XI)	Hot, sunny	Twining
Jasminum nudiflorum	Yellow (IV-V)	Warm/temperate	Training
Jasminum offlcinale	White (V-X)	Hot	Twining
Jasminum polyanthum	White rose (III)	Hot	Twining
Jasminum sambac	Double White (IV-IX)	Hot	Twining
Jasminum simplicifolium	White (V-VIII)	Hot, sunny	Twining
Lonicera caprifolium	Yellow (V-VIII)	Warm/temperate	Twining
Lonicera peryclimenum	Yellow (VII-VIII)	Hot	Twining
Pandorea jasminoides	White-red (VI-IX)	Warm/temperate	Twining
Parthenocissus sp	Reddish leaf (IX -X)	Indifferent, sunny	Sucker
Passiflora x alatocaerulea	Violet(IV-X)	Hot, sunny, partial shade	Tendrils
Passiflora x "Amethystina"	Red-White all year round	Hot, sunny	Tendrils
Passiflora caerulea	White -blue (VI)	Resists cold temperatures	Tendrils
Passiflora edulis	White (V-VI)	Hot, sunny	Tendrils
Passiflora quadrangularis	Red -cream-violet	Hot, sunny	Tendrils
Plumbago auriculata	Blue (VI-IX)	Warm/temperate	Training
Podranea ricasoliana	Red (VI – VIII)	Warm/temperate	Training
Pysostegia venusta	Orange(II-IV)	Hot, sunny, partial shade	Tendrils
Rosa banksiae	White yellow	Warm/temperate	Training
Rosa x hybrida	Various	Warm/temperate, sunny	Training
Senecio scandens	Yellow (X-I)	Hot, sunny	Twining
Senecio confusus	Red (III-XI)	Hot, sunny	Twining
Solandra grandiflora	Yellow (XII-VI)	Hot, sunny	Training
Tecomaria capensis	Red	Hot	Training
Thunbergia grandiflora	Blue (IV-XI)	Hot, sunny	Twining
Trachelospermum jasminoides	White (V-VI)	Warm/temperate, partial shade	Twining
Wisteria sinensis	Purple(IV)	Indifferent	Twining

Table 7.1.1: Climbers and Sarmentose plants (Roman numerals refer to time of flowering months (January =I and December =XII)

Red	Blue, Mauve Violet	Yellow	Orange	Red	White
Bauhinia	Clematis	Allamanda	Bougainvillea	Bougainvillea	Bougainvillea
Bougainvillea	Clitoria	Bignonia	Lonicera	Clematis	Calonyction
Campsis	Heliotropium	Bougainvillea	Mutisia	Mandevilla	Clematis
Clematis	Іротоеа	Campsis	Pyrostegia	Podranea	Clerodendrum
Clerodendrum	Passiflora	Hibbertia	Thunbergia	Antigonon	Jasminum
Dipladenia	Plumbago	Jasminum	Rosa	Rosa	Mandevilla
Distictis	Solanum	Kerria			Pandorea
Lonicera	Thunbergia	Lonicera			Phaseolus
Passiflora	Wisteria	Muehlenbeckia			Polygonum
Quisqualis		Rosa			Quisqualis
Rosa		Senecio			Solanum
Tecomaria		Solandra			Stephanotis
Tropaeolum		Тесота			Thunbergia
Parthenocissus		Thunbergia			Wisteria
Senecio		Hedera			Rosa
					Trachelospermum

Table 7.1.2: Climbers and Sarmentose plants categorized by color

Trellis and patios:	Fences and exterior walls:
Allamanda	Campsis
Bougainvillea	Distictis
Jasminum	Heliotropium
Passiflora	Ipomoea
Podranea	Jasminum
Polygonum	Kerria
Pyrostegia	Lonicera
Quisqualis	Mikania
Rosa	Pandorea
Solandra	Passiflora
Solanum	Phaseolus caracalla
Thunbergia	Plumbago
Wisteria	Podranea
	Polygonum
Walls:	Pyrostegia
	Rosa
Ampelopsis	Solandra
Bignonia ungis-cati	Solanum
Campsis radicans	Stephanotis
Ficus repens	Тесота
Hedera helix	Tecomaria
Parthenocissus	Thunbergia
	Trachelospermum

Tabla 7.1.3: Climbers and Sarmentose plants for different applications

Climbers for North and East walls: Akebia quinata Celastrus orbiculatus Clematis montana	Climbers that tolerate air pollution: Campsis radicans Fallopia baldschuanicum Hydrangea anomala subesp. periolaris
Hedera colchica	, , ,
H. helix	Climbers for alkaline soils:
Humulus lupulus	Akebia quinata
Hydrangea anomala subesp. petiolaris	Jasminum officinale
Lathyrus latifolius	Wisteria sinensis
Lonicera x americana	Hedera canadiensis (This species is rather more delicate
L. x brownii	than other ivies and therefore in harsh winters pruning
L. sempervivens	is recommended)
L. x tellmanniana	
Pileostegia viburnoïdes	
Schizophragma integrifolium	
Tropaeolum speciosum	
Vitis coignetiae	

Tabla 7.1.4: Climbers and Sarmentose plants for different applications

Common ivy (*Hedera helix*) resists cold weather and has numerous green and variegated forms with leaves of varying sizes. Their completely green varieties are also decorative, especially those with extremely lobed leaves.

Among the most colorful climbing plants, the virgin vine stands out. *Parthenocissus tricuspidata* 'Veitchii' gives rise to a purple carpet on the walls in autumn. *Parthenocissus quinquefolia*, with five leaflets, is another virgin vine with foliage that is green when in season and scarlet or orange in autumn.

Subchapter 7.2 Species

This subchapter outlines **15 species of climbing plants** used in 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 subchapter.

Firstly, a table shows the different parameters and values that have been used to describe each species in its specific botanic datasheet.

Each datasheet gathers the information of each species and describes its botanical and ecological aspects, uses, cultivation, and other characteristics of interest, including its commercialization. This information is complemented by photographic information, which shows the general appearance of the described species and different morphological details.

PARAMETERS AND VA	LUES USED IN THE BOTANIC DATASHEET
TAXONOMY	
TAXONOMIC RANKS	DIVISION, SUBDIVISION, TYPE, ORDER, FAMILY
VARIETIES	OTHER VARIETIES OF INTEREST
STRUCTURE	
SHAPE	ROUNDED, OVAL, COLUMNAR, CONE, EXTENDED, IRREGULAR, PARASOL, FAN-SHAPED, HORIZONTAL, PALMIFORM, PENDULAR, HERBACEOUS, GRAMINOID
HEIGHT	AS APPROPRIATE- IN METERS OR CENTIMETERS
DIAMETER	AS APPROPRIATE -IN METERS OR CENTIMETERS
TEXTURE	TEXTURE: LEAVES>10CM= COARSE. LEAVES OR LEAFLETS BETWEEN 2-10CM= MEDIUM. LEAVES OR LEAFLETS <2CM= FINE
SHADE	LIGHT, FULL, DENSE
ROOT	TAPROOT, SCATTERED, OBLIQUE, HORIZONTAL, AERIAL, ADVENTITIOUS
MORPHOLOGY	
STEM	
TYPES OF STEM	UNDERGROUND, CREEPING, WOODY, CLIMBERS; YES, NO
LEAF	
ТҮРЕ	EVERGREEN, SEMI-EVERGREEN DECIDUOUS, SEMI-DECIDUOUS
SIZE OF LEAF	LENGTH OF LEAF (cm)
SIZE OF LEAFLET	LENGTH OF LEAFLET (cm)
COLOR OF UPPER SIDE (US)	PALE GREEN, LIGHT GREEN, DARK GREEN , BLUE/GREEN, GREY, PURPLE; PALE; YELLOW; VARIEGATED
COLOR OF LOWER	GREEN, LIGHT GREEN, DARK GREEN, BLUE/GREEN, GREY PURPLE; PALE; YELLOW; VARIEGATED; RUST COLORED; SILVER
TEXTURE OF UPPER	SHINY, ROUGH, GLABROUS, TOMENTOSE, HAIRY, ROUGH, SCALY, VISCOSE
TEXTURE OF LOWER	SHINY, ROUGH, GLABROUS, TOMENTOSE, HAIRY, ROUGH, SCALY, VISCOSE
COMPOUNDS	NO COMPOUND LEAVES YES. COMPOUNDS: IMPARIPINNATE, PARIPINNATE, TRIFOLIATE, PALMATE, PALMIFORM, PALM, PINNATE, BIPINNATE
HARDNESS	CORIACEOUS, SOFT, SUCCULENT, HARD, SUB CORIACEOUS
ARRANGEMENT	OPPOSITE, ALTERNATE, ROSETTE, VERTICAL
VENATION	PINNATE, PALMATE, PARALLEL, RETICULATE, SCALY, A3 MAIN VEINS
SHAPE	ROUNDED, LINEAR, LANCEOLATE, FALCATE, OVAL, OBLONG, ELLIPTIC, DELTOID, RHOMBOID, SPATULATE, ACICULAR GROUPS 2, ACICULAR GROUPS 3, ACICULAR GROUPS 5, ACICULAR GROUPS, ACICULAR IN 1 PLANE, ACICULAR IN SPIRAL, SCALY, PALM 7 LOBES, PALM 5 LOBES- PALM 3 LOBES, POLYMORPHIC; PANDURIFORM; PINNATIFID
LEAF MARGIN	ENTIRE, CILIATE, DENTATE, CRENATE, SERRATED, DOUBLE SERRATED, LOBED, DOUBLE LOBED
APEX	ACUTE, CUSPIDATE, OBTUSE, RETUSE,
LEAF BASE	ATTENUATE, CORDATE, ROUNDED, ASYMMETRIC
PETIOLE	LONG, SHORT, SESSILE, WIDE
FLOWER	
SIZE	HERMAPHRODITE (MALE/FEMALE FLOWERS): (CM OR MM)
ТҮРЕ	UNISEXUAL, HERMAPHRODITE
REPRODUCTION	MONOECIOUS, DIOECIOUS, HERMAPHRODITE, POLYGAMY, SYNOICOUS, STERILE

FLOWERING	SINGLE, INFLORESCENCE IN CORYMB, CYMOSE, RACEME, SPIKE, UMBEL, CATKIN, SPADIX, FLORET OR CAPITULUM, PANICLE (+ INFLORESCENCE SIZE (IN CM OR MM))
FRAGRANCE	YES, NO, UNPLEASANT
FRUIT	
SIZE	IN CM OR MM
ТҮРЕ	FOLLICLE, PLURIFOLLICLE, LEGUME, LOMENT, SAMARA, DOUBLE SAMARA, PLURISAMARA, CAPSULE, POLYATHENE, TETRACHENE, NUT, ACHENE; SYCONIUM, HESPERIDIUM, PLURISAMARA, ACORN, COMPOUND FRUIT, PLURIFOLLICLE, BERRY, RACEME, POME, BALAUSTA, DRUPE, CONIFER CONE, PSEUDO CONIFER, PINECONE
EDIBLE FRUIT	YES, NO
COLOR OF FRUIT	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
DEVELOPMENT	
GROWTH	SLOW, VERY SLOW, MEDIUM, FAST, VERY FAST
LONGEVITY	<25 YEARS, 25 YEARS, 50 YEAR, 75 YEARS, 100 YEARS, 150 YEARS, 200 YEARS, 250 YEARS, 300 YEARS, >300 YEARS
ECOLOGY	
CLIMATE	
ALTITUDE	NATURAL HEIGHT OF THE PLANT: interval of sea level altimetry
IRRIGATION	++HIGH, MODERATE, LOW, ++LOW (very low/low < 350 mm; Very high/high > 750 mm)
MINIMUM TEMPERATURE AND INTERNATIONAL CLASSIFICATION	CLASSIFICATION ACCORDING TO EUROPEAN REGULATION: (SEE MAP) G2HOT GREENHOUSES IN SOUTHERN EUROPE G1COLD GREENHOUSES IN SOUTHERN EUROPE H5THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM 0°C TO -5°C H4THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -10°C H3THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -15°C H2THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -15°C H1THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -20°C H1THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -20 CLASSIFICATION INTERNATIONAL REGULATIONS. ACCORDING TO MINIMUM TEMPERATURE RANGES Z1SUPPORT MINIMUM TEMPERATURES OF -50°C Z2SUPPORT MINIMUM TEMPERATURES OF -50°C TO -40°C Z3SUPPORT MINIMUM TEMPERATURES OF -50°C TO -40°C Z3SUPPORT MINIMUM TEMPERATURES OF -30°C TO -0°C Z4SUPPORT MINIMUM TEMPERATURES OF -30°C TO -0°C Z5
EXPOSURE TO SUNLIGHT DROUGHT	FULL SUN, FULL SHADE, SHADE, PART SHADE
RESISTANCE FROST RESISTANCE	YES, NO, MODERATE

SOIL	
РН ОРТІМИМ	PH: ALL TYPES; NEUTRAL, ACID, BASIC (OR INTERVAL OF PH)
LEVEL OF FERTILITY	FERTILE, AVERAGE, POOR
TEXTURE OF SOIL	SANDY, SLIT OR LOAMY, CLAYEY, SANDY/LOAMY, CLAYEY LOAMY - ALL TYPES
DRAINAGE	HIGH, MODERATE, LOW
RESISTANCE TO SEA	YES, NO, MODERATE
RESISTANCE TO LIME	YES, NO, MODERATE
USES	
RESISTANCES	
COASTAL	1 st LINE, 2 ND LINE, NO.
POLLUTION	HIGH, MODERATE, LOW
WIND	HIGH, MODERATE, LOW
APPLICATIONS	
SLOPE	
CARPET	
GROUPS	YES NO
WALLS	
TRELLIS	
ISOLATED	
PARAMETERS AND VA	LUES USED IN THE BOTANIC DATASHEET
SPACING	MINIMUM RECOMMENDED DISTANCE BETWEEN PLANT: M, CM
PLANTING AND PLAN	T HEALTH
PLANTING AND	
PLANT HEALTH	
CALENDARS	
CHROMATIC	FOLLAGE FLOW/EPING EPILITING SEASON: the color white represented with grav or black coll
CALENDAR	POLIAGE, FLOWERING, FROTTING SEASON. THE COOL WHITE TEPTESENTED WITH gray of black ten
CULTIVATION	SOWING PLANTING PRIMING
CALENDAR	
TREATMENTS	
CALENDAR	
COMMERCIALIZATION	
PRESENTATION	BR (BARE ROOT), CT (CONTAINER or POT (LITERS), CE (ROOT BALL), CEY (ROOT BALL IN GYPSUM), ROOT BALL IN MESH
SIZE OF CONTAINER	LITERS
TOTAL HEIGHT	CM, M OR YEARS
TRUNK HEIGHT	СМ, М



Figure 7.2.1: Thermal classification map according to European regulations

LIST OF CLIMBING SPECIES DESCRIBED

- 1. Bougainvillea glabra
- 2. Campsis x hybrida
- 3. Ficus repens
- 4. Hedera helix
- 5. Jasminum mesnyi
- 6. Jasminum officinale
- 7. Lonicera japonica
- 8. Macfadyena ungis-cati
- 9. Parthenocissus tricuspidata
- 10. Plumbago auriculata
- 11. Solandra maxima
- 12. Solanum jasminoides
- 13. Tecomaria capensis
- 14. Vitis vinifera
- 15. Wisteria sinensis

BOUGANVILLEA

Bougainvillea glabra

CLIMBER				SPANISH	VALENCIAN ENGLISH	FRENCH
5	STRUCTURE		DIVISION:	PHANEROGAMS	VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		
SARMENTOSE	5 M	3 M	TYPE:	DICOTYLEDONS		
Texture	Shade	Root	ORDER:	CARYOPHYLLALES		
MEDIUM	PARTIAL	SCATTERED	FAMILY:	NYCTAGINACEAE		
M	ORPHOLOGY		1			
04	UNDERG NO	WOODY YES				
Stem	CREEPING NO	CLIMBING NO	CR I			
Leaf	COMPOUND:	NO		Nor and I W		
Lear	HARDNESS:	SOFT		North Maria		
EVERGREEN	ARRANGEMENT:	ALTERNATE				S Mars
SIZE: 4-6 CM	VENATION:	PINNATE		~~~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
	SHAPE: 0	VAL/LANCEOLATE		Land State		
COLOR: US: DARK GREEN	MARGIN:	ENTIRE	A STATE			7-6
LS: DARK GREEN	APEX:	ACUTE	TO S	JECO AL		445
TEXTURE: US: SMOOTH	LEAF BASE:	ATTENUATE	215 × 6			175
LS: SMOOTH	PETIOLE:	SHORT	COT 4			
Flower	Туре	Reproduction				
1 lower	HERMAPHRODITE	HERMAPHRODITE		7 3 6		
SIZE: 3-4 cm	Flowering	Fragrant		A CONTRACT		
	RACEMES	NO	Tay to S	2. 2. 12		
	Туре	Color	3621/23	AT B TA		
Fruit	ACHENE		Sale and			In the base of the second
0.75	Edible	Fruiting season	1000 100			
SIZE:			31- 12	and the second second		
Growth	Rate	Longevity				Car of the se
	MEDIUM	50 YEARS				S. S. M.S.
	ECOLOGY		A STATE A			
Climato	Temperature	Drought resistant	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Clinate	-7°C,H4,Z6	MODERATE	Arres IV			
ALTITUDE: 0-400	Sun exposure	Frost resistant				
IRRIGATION: MODERATE	FULL SUN	MODERATE				Contraction Contraction
Soil	Texture	Salt resistant	an and the	The second second second	and the second se	and the survey of
	ALL TYPES	MODERATE		THE REAL	and the second	
pH: 6.5-8	Drainage	Lime resistant	1.00	1 20 M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		and the second
FERTILITY: MODERATE	MODERATE	HIGH		A CONTRACTOR	territy of the state	The state
	USES	1	101 Sa 1	State of the state	Star Providence in the All	
Resistances	Applic	cations		A Carlos A.	and setting the	18 1 3 C
COASTAL: MODERATE	SLOPES: YES	WALLS: YES		A SHEAR AND	and the second second second	and in the second
POLLUTION: MODERATE	CARPET: NO	TRELLIS: YES	See 1. 18	C Total State	and the second second	13 M 14
WINDY: MODERATE	GROUP: YES	ISOLATED: YES	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			the state of the
			POI	NTS OF INTEREST		
Native to Brazil, this i	s a very popular	climbing plant for it	s spectacular flowering	g that in adequate conditions	of sunlight and orientation will provide continuou	us blooms for several

months. This species has produced multiple varieties with colors that vary from white, violet-purple, red, yellow, salmon to purple and that are provided by the bracts that accompany some insignificant flowers. It needs to be cut back to control growth. In late autumn, cut the shoots close to the main structure, cutting the secondary shoots leaving only 2 or 3 leaves However, if it continues to flower until the end of the year, it is possible to delay pruning until the beginning of the following spring and before it starts to grow. This variety of climber equires support.

SPACING: 3 M

PLANTING AND PLANT HEALTH

This species of climbers adapts well to the Mediterranean climate, tolerating temperatures as low as -7°C. In the coldest regions it is recommended to use them in coastal places and facing south. It adapts well to different soil conditions, but prefers fertile and light ones. It requires moderate watering and easily resists drought (it is even convenient to not water it during the summer months). It prefers moderate-high humidity and full sun. Propagation by cutting of flowering branches.

CHROMATIC CALENDAR	COM	MERCIALIZATI	ON
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	1
	CT(30)	125-150	1
Cultivation Calendar			1
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
			1
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			
			1
			1
Fungicides Pesticides Fertilizers			

CAMPSIS

Campsis x híbrida

CLIMBER				JAZMÍN DE VIRGINIA SPANISH	VALENCIAN	BIGNONE ENGLISH	BIGNONE DE VIRGINIE FRENCH
5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		"FLAVA"	
SARMENTOSE	15 M	5 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	SCROPHULARIALES			
MEDIUM	PARTIAL	SCATTERED	FAMILY:	BIGNONIACEAE			
М	ORPHOLOGY						2
Stem	UNDERG NO CREEPING NO	WOODY YES CLIMBING NO	MAR O			782	115
Leaf	COMPOUND: HARDNESS:	IMPARIPINNATE SOFT				and a	198
DECIDUOUS	ARRANGEMENT:	OPPOSITE				Const	
SIZE: 15-20 CM	VENATION:	PINNATE	And And			A STATE	155
LEAFLET:2-10CM	SHAPE:	OVAL	10-45				
COLOR: US: GREEN	MARGIN:	SERRATE	- nons				
LS: GREEN	APEX:	ACUMINATE	The series		SA CONT		
TEXTURE: US: SMOOTH	LEAF BASE:	ATTENUATE			Marrie Contraction		
LS: HAIRY	PETIOLE:	SHORT			No.		
Flower	Туре	Reproduction	TS-11			4	
1101101	HERMAPHRODITE	HERMAPHRODITE	6/1 - 1/1 -			- Ann	
SIZE: 5-8CM	Flowering	Fragrant		Carlos Carlos		141 8/7	
	CORYMB	NO		Charles Star		12 11	
	Туре	Color	A A COM				J. Contraction
Fruit	CAPSULE						1 The second sec
SIZE:	Edible	Fruiting season		AND A STOCK		- 4 1	
	Rate	Longevity		NOS IN	and the second s		
Growth	FAST	50 YEARS		A A A A A A A A A A A A A A A A A A A	1 A COLOR		. /
	ECOLOGY			Vy la second			1 Aller
Climate	Temperature	Drought resistant			10 20 -		
	-3°C	MODERATE Erect registent					
IRRIGATION: MODERATE		MODERATE				1	
	Texture	Salt resistant			a shift of		
Soil	LOAMY/SANDY	LOW					
pH: 6.5-7.5	Drainage	Lime resistant	N Lot 6	A Plan los	analy v		
FERTILITY: MODERATE	MODERATE	MODERATE		(- 10 FCS			
	USES	•					
Resistances	Applic	cations				States and a	
COASTAL: MODERATE	SLOPES: NO	WALLS: YES			A Barrow	- Contraction	
POLLUTION: MODERATE	CARPET: NO	TRELLIS: YES	a constant	CALL MARKED	and the		
WIND: MODERATE	GROUP: YES	ISOLATED: YES			A States		
			Pi				
Native to Canada. It is a	a deciduous climbe	r with a trunk that ca	n thicken considerably a	and with exfoliating plates on the ba	ark. Predomninately red-	bearing flowers althout	ugh red-orange and
yellow varieties do exist	. (var. 'Flava').		,-		.,	J	с с
							SPACING: 3 M

PLANTING AND PLANT HEALTH

It has no special requirements. When pruning, remove the lower suckers early. To control growth, cut back shoots from the previous year, leaving two shoots at the end of winter. In summer, trim untidy branches. Propagation is done in summer by layering branches. It can also be done using cuttings from young semi-withered branches, or from roots. For the varieties, grafting is carried out in the months of April-May.



FICUS							Ficus repens
CLIMBER				FICUS TREPADOR SPANISH	VALENCIAN	CLIMBING FIG ENGLISH	FIGUIER NAIN / GRIMPANT FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SARMENTOSE	6 M	3 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	URTICALES			
MEDIUM	PARTIAL	SCATTERED	FAMILY:	MORACEAE			
M	ORPHOLOGY						
Stem	UNDERG NO CREEPIN G NO	WOODY YES CLIMBING YES	157				
Leaf	COMPOUND: HARDNESS:	NO CORIACEOUS		1201			Cart I
EVERGREEN	ARRANGEMENT:				A WAY NO		
SIZE: 2-3 CM	VENATION:	PINNATE					
	SHAPE:	OVAL				A ANC	1262
COLOR: US:DARK GREEN	MARGIN:	ENTIRE					
LS: LIGHT GREEN	APEX:	OBTUSE			CATA		
TEXTURE: US: SMOOTH	LEAF BASE:	ASYMMETRIC	1 and a start				
LS: SMOOTH	PETIOLE:	SHORT			STAR SOL		
Flower	I ype	Reproduction					
SIZE:	Flowering	Fragrance				P	
	RARELY	NO	And the second		- Mar		
	Type	Color	A Defense	and the second second	A AND AND AND AND AND AND AND AND AND AN	and the second	
Fruit	SYCONIUM				and the states	STAL SKI	
	Edible	Fruiting season	2 2 4 X 1	ALL	ACC ANT	ANT -	
SIZE:	NO				1.1.47	173 (2.0)	
Growth	Rate	Longetivty			12 - S- C-2	DANS	
Clowal	MEDIUM	25 YEARS	and the second second	Contraction of the second	Valle Part	Constant and the	
	ECOLOGY			- 2 Sec. 7 Sec.			
Oliverate	Temperature	Drought resistant	and Shares				
Climate	0°C	LOW	10		Sales and	F	1.4
ALTITUDE: 0-200	Sun exposure	Frost resistant		ALC: NOT THE OWNER OF		all a	2.10
IRRIGATION: MODERATE	PARTIAL SHADE	LOW		the second second		A Providence	
Soil	Texture	Salt resistant		ALK .		100	
	LOAMY	LOW				20-4	
pH: 6.5-7.5	Drainage	Lime resistant	201	2 - Contract - 🗠	A-34		00
FERTILITY: MODERATE	MODERATE	MODERATE			A A A A A A A A A A A A A A A A A A A	and the	- 46
	USES				15 10 201	At an	S CA SA
Resistances	Appli	cations			st for the st	(- N.	
COASTAL: MODERATE	SLOPES: NO	WALLS: YES			184	1 5 6	
POLLUTION: MODERATE	CARPET: NO	TRELLIS: NO	- Carlos and a second	Vice and a second			
WIND: MODERATE	GROUPS: NO	ISOLATED: NO	A A A A A A A A A A A A A A A A A A A	APR	and the second		1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			POIN	TS OF INTEREST			
O a manufacture and a standard and a	Deside in a Carrier a	- HER	A fair and fair all also fairs fairs	a barrent bark he the state of	Contains (Associated Asia as	and Arreston Red States in the	a la adda a la Brach a a anal la

Commonly known as climbing ficus or "Ficus pumila". It is an ideal choice for a houseplant. In its place of origin (tropical Asia and Australia) it can be both a climber and a creeper. It attaches itself to the ground or support elements with a glue-like material secreted from its aerial roots. When growing in a pot, it develops a bushy habit, losing elasticity in its stems. It needs indirect light, warm environments and cool temperatures. It is recommended to spray the leaves and keep the soil slightly moist. In the case of shrubby species, leaves are larger and generate flowers (although rarely) and fruits (which is why the species is also known as a climbing fig tree).

SPACING: 2 M

PLANTING AND PLANT HEALTH

Propagation can be done by cutting or layering (it is sufficient to put young stems in contact with peat so that they emit roots). Excessive moisture in the soil should be avoided since it can provoke rot.

CHROMATIC CALENDAR	CON	IMERCIALIZATI	ON
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	1
Outlineting Online day	CT(30)	125-150	1
Cultivation Calendar			1
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
			1
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
			1
Fungicides Pesticides Fertilizers			

HEDERA

CLIN

Hedera	helix

7. CLIMBERS

CLIMBER					HEDRA SPANISH	VALENCIAN	ENGLISH	FRENCH
	5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
SI	hape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SARM	MENTOSE	10-25 M	5 M	TYPE:	DICOTYLEDONS	MANY VARIETIES EXIST WITH D	DIFFERENT SIZES AND CO	LORS
			Root	ORDER:	UMBELLALES			
			SCATTERED	FAMILY:	ARALIACEAE			
	M	ORPHOLOGY						
6	tom	UNDERG NO	WOODY YES			Me A	5	
3	tem	CREEPING YES	CLIMBING YES		S. WAR	N		
1	eaf	COMPOUND:	NO	and the second s				
-	oui	HARDNESS:	SOFT		21/10/		a supp	A LAN ARE
EVER	RGREEN	ARRANGEMENT:	ALTERNATE				STATE	
SIZE:	5 CM	VENATION:	PINNATE			Asking	SP NW	1 All and a
		SHAPE:	RHOMBOID					and the
COLOR:	US:DARK GREEN	MARGIN:	ENTIRE	AL				Carlos Elle
	LS: PALE GREEN	APEX:	ACUTE					272/05
TEXTURE:	US: SMOOTH	LEAF BASE:	ATTENUATE				1	and the second
	LS: SMOOTH	PETIOLE:	LONG					and the second
Flo	ower	Туре	Reproduction		29		Lo	2 2 C 2
0.75		HERMAPHRODITE	HERMAPHRODITE				10-10-5	
SIZE:		Flowering	Fragrance		18 1 miles	Cit - St	-	
	UMBELS I	N RACEMES (4-5)	NU		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Mar And	
-		Type	Color	A BAR	Contraction of the second	A Contraction	and and	Stardy 1
F	ruit	BERRY	BLACK			and and a second second	5 7 7 F	
0.75		Edible	Fruiting season	A State of the state of the	the second	A STATE TO A PO	15 1.31	
JIZE.	-	Data	MARCH		a start of	and the second second	A Part	er a pla
Gr	owth	Rate	Longevity				755	1 1 5 50
		FAST	>100 YEARS	and the set	And the second	and the second second	and the	Carl and
		ECOLOGY			Same Prover Star	1 de lar	30071	
Cli	mato	Temperature	Drought resistant	the state of a	A STAR BEST	and the		Ken and
011	mato	-5°C,H4,Z6	MODERATE	and the second	JEL PROVINCE	and the	Sal -	113-11
ALTITUDE	E: 0-1000	Sun exposure	Frost resistant	and too	1-1-1-1-1-1	7. 212-	EN T	
IRRIGATIO	ON: MODERATE	SHADE/SUN	MODERATE	Contraction of the	1 Haller	27676	A LANGE ME	
s	Soil	Texture	Salt resistant	5 8 1 A	ALT A COM	2 And 1	Contraction of the second	
-11	0.5.0	ALL TIPES	LOW	Contraction of the second	CONSIGNATION OF	and the l	A	
pH:	0,0-8	Drainage	Lime resistant	Min The	A Station	e and		
FERTILITY	r: MUDERATE	-	MODERATE	2. 4.2	S STEL		10/10	
		USES		The Part of the	1 1 2 30	21412	VAR	
Resi	stances	Applic	cations		500 700	MAN THE NY		
COASTAL	L: MODERATE	SLOPES: YES	WALLS: YES			ADRAD		
POLLUTIO	N: MODERATE	CARPET: YES	TRELLIS: NO	and the state	1 PERCEN		A A	
WIND:	MODERATE	GROUP: YES	ISOLATED: YES	Contraction (4.)	Structure -	~ ~ ~ /		
				PO	INTS OF INTEREST			
has in some	otilo and yony o	any to grow both in t	he garden and on tar	races. As alimbing plants the	w quickly cover wells and other or	inport elements to which they a	ro attached by advantition	a roota. Tha isay ia alao a

Ivy is ver c) is consistent with two young to give young the generation of relates, no uninong parties and one support elements to which they are attached by adventitous roots. The livit is also a ground over plant, since it entits no which have less dense crowns, along so relations covers. It is prefers moderate-high humidity and although it adapts to both sunny and shaded exposure, it prefers the latter. Pruning includes trimming the edges once or twice a year (in February or March) so that new shoots come out in spring and avoid disheveled and loose plants. At the time of tying them to walls, a long shoot can also be ted horizontally so that, from this horizontal guide, new vertical shoots emerge that allow the plant to be widened from the base.

PLANTING AND PLANT HEALTH

Propagation is normally carried out by means of apical cultings of the stem of 7.5 to 10 cm in length or cultings of one or three nodes with leaves. It is preferable to place them directly in the pot where they are going to be grown to avoid assuallies in the transplanting stage. In numeries, the temperature must be kept at approximately 20°C and misting or fogging is convenient. The ease and time of rooting vary according to the varieties, faster for the green ones than for the arisingated ones. Cultify carried they are arrown of the wark. Anothornous. Collector/turn and Afternaria fund cause the appearance of leaf spots and are combated with products containing copper. The ivy attacked by the cochineal thow a weakening of the leaves and consequently their fall. Those attacked by aphids show twisted terminal stems in spring.

CHROMATIC CALENDAR	COMMERCIALIZATIO	N
Foliage, Flowering and Fruiting season	Presentation (L) Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(2) 80/100	
	CT(3) 100/125	
Cultivation Colondar	CT(7) 125/150	
	CT(30) 150/175	
JAIN FED MAR ADR MAT JUN JUL AUG SEFI OCI NOV DEC	CT(50) 175/200	
	CT(85) 200/250	
Sowing Planting Pruning X		
Treatment Calendar		
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC		
Fungicides Pesticides Fertilizers		

JASMINUM						Jasmi	num mesnyı
CLIMBER				JAZMIN AMARILLO SPANISH	GESMILER GROC VALENCIAN	PRIMROSE JASMINE ENGLISH	JASMIN PRIMEVÈRE FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SARMENTOSE	UP TO 5 M	5 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	GENTIANALES			
MEDIUM	PARTIAL	SCATTERED	FAMILY:	OLEACEAE			
M	ORPHOLOGY						
Stem	UNDERG NO CREEPING NO	WOODY YES CLIMBING NO					
Leaf	COMPOUND: HARDNESS:	IMPARIPINNATE SOFT			A A AN		2 the second
EVERGREEN	ARRANGEMENT:	OPPOSITE	A CONTRACTOR		NY CONCE	119-50-16/1	
SIZE: 3-8 CM	VENATION:	PINNATE		17 A B 14	A BUT A CON	The Alexander	and the second
3 LEAFLETS (2x7CM)	SHAPE:	LANCEOLATE			CAL INA	This K This	- 4 10 Try
COLOR: US: DARK GREEN	MARGIN:	ENTIRE	STA N			Ser Percenter	
LS: DARK GREEN	APEX:	ACUTE		NO YA		A State of the	
TEXTURE: US: SMOOTH	LEAF BASE:	ATTENUATE	CHO AL	A A DEL	AS T RO	2 Part	Barrie Wy
LS: SMOOTH	PETIOLE:	SHORT	CL OF D				12 Low Star
Flower	Туре	Reproduction		STATE TOP		· · · · · · · · · · · · · · · · · · ·	The second
	HERMAPHRODITE	HERMAPHRODITE		RANSA		C. A. A. M.	
SIZE: 4 CM	Туре	Fragrant					
SUBTERI	MINAL PANNICLE	YES	CAN AND	S. 10 - 1/3 -		Carl S	
Eit	Туре	Color	199215	MARCH AN	THE PARTY A	3 A. 4727	
Fruit	BERRY	Emiting access				1 States	Charles 1
SIZE:	Edible	Fruiling season	A TO TO TO	Me Can Ale	A CAR		A Company
Oneverth	Rate	Longevity				1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Growth	MEDIUM	25-50 YEARS	2 Maria		BLAN ZA		
	FCOLOGY	· · · · · · · · · · · · · · · · · · ·	Contract of	MARCE -		A BATA	1
	Temperature	Drought resistant		A CAR	A BARALAN		
Climate	-2°C	MODERATE		Part - Cha		HAD HAD	La Pale
ALTITUDE: 0-300	Sun exposure	Frost resistant					
IRRIGATION: MODERATE	SUN/PARTIAL SHADE	LIGHT		A CARACTER		175 C. C.	A CALLER AND
Soil	Texture ALL TYPES	Salt resistant					
pH: 6.5-8	Drainage	Lime resistant	SUS AND	C. PORPOSE			325314
FERTILITY: MODERATE	MODERATE	MODERATE	A AND AND	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	So Such		
			A AYAS	Star Star Star	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A SARAS	
Desisteres	USES				Sale S	ALL NAS	A MARTIN
	SLOPES: YES	WALLS : YES		Conton K			ALM ASS
	CARPET: NO	TRELLIS: YES		O SAL	- A A		
WIND: MODERATE	GROUP: YES	ISOLATED: YES		Start Start	KIBE	ATT L	
	1						
Notive to Couthment	tern Chine This	energiae in a looo	POIN	TS OF INTEREST	a tralliana ar ta data	avata annona Alc- ····	d to cover electro
It supports light from	terri Unina. This	species is a loos rom the base in c	ase of losing the aeria	I cimper. Ideal to cover Wall	s, relises or to deco	orate copses. Also use	previous sprouting

SPACING: 2 M

PLANTING AND PLANT HEALTH

growing in a limited space, yellow jasmine may need several prunings per year. This species of climber needs support.

it is ravisable to prune it after flowering. Cut the least productive stems to the ground and the best flowering stems to a strong bud or to a lower stem. In case of

This species prefers warm places and light soils although it will grow in any type (except waterlogged soils). It requires normal garden watering and moderate ground humidity. Propagation is carried out by cutting the semi woody stem at the end of summer or by seed.

CHROMATIC CALENDAR	COM	MERCIALIZATIO	N
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
	CT(30)	125-150	
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 Pestcides Fertilizers			

С

S

Jasminum officinale

	-							
LIMB	ER				JAZMIN REAL SPANISH	GESMILER VALENCIAN	COMMON JASMINE ENGLISH	JASMIN COMMUN FRENCH
		TRUCTURE			PHANEROCAMS		VARIETIES	
Sha	ine	Height	Diameter	SUBDIVISION.	ANGIOSPERMS		VARIETIES	
SARMEN	NTOSE	5-12 M	5 M	TYPE	DICOTYLEDONS			
Text	ure	Shade	Root	ORDER	GENTIANALES			
MEDI	IUM	PARTIAL	SCATTERED	FAMILY:	OLEACEAE			
	M	ORPHOLOGY	· · · · · · · · · · · · · · · · · · ·				8	
	M	UNDERG NO	WOODY YES	Contra Maria		2	No. of Contraction	LANG L
Ste	m	CREEPING NO	CLIMBING NO					en la
1.4	-4	COMPOUND:	IMPARIPINNATE					3.00
Le	ai	HARDNESS:	SOFT	XE LAC		1000	1.	11 31
EVERG	REEN	ARRANGEMENT:	OPPOSITE		the state	7		It A
SIZE:	7-11 CM	VENTATION:	PINNATE		2 - 2 0 0 S		58.5.1	the second
LE	EAFLETS:(5-9)	SHAPE:	OVATE			a start		
OLOR: U	S: DARK GREEN	MARGIN:	ENTIRE	S PARKET		· Charles and a state of	A A A A	
L	S: LIGHT GREEN	APEX:	ACUTE	A AL	1/1/	1	CHART I	
XTURE: I	US: SMOOTH	LEAF BASE:	ATTENUATE	C April	HAN SALAN TON H		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1	LS: SMOOTH	PETIOLE:	SHORT	Stor Bark	ST AND A	and a start	Contract of	
Flov	vor	Туре	Reproduction			2 Standards		
1104	101	HERMAPHRODITE	HERMAPHRODITE					
SIZE:	2-4 CM	Туре	Fragrant		AND			# 34 -7
	SUBTERN	INAL PANNICLE	YES	The states		Constant of the second		
_		Туре	Color			K CP THE		
Fru	lit	BERRY						STATISTICS.
SIZE:		Edible	Fruiting season	AND A STATE OF	1	2 Lett		
0	41-	Rate	Longevity	A Property	ALE ON FR		Name - 32	
Grov	vtn	FAST	50 YEARS	State 1		ALL NEL		
		ECOLOGY		3	to since for		ALC: AN	a faith and
Clim	ata	Temperature	Drought resistant	a line and	in sales the	A CAR	Sister Str	The said
CIIM	ale	-2°C	MODERATE	ALCONT LE	L Contraction		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	South Start
ALTITUDE:	0-300	Sun exposure	Frost resistant		and the second	and the second	A AND A A A A A A A A A A A A A A A A A	
RIGATION:	MODERATE	SUN	LIGHT		the second second	Alton h		AND ANTICAL
50	il	Texture	Salt resistant				1.1.1	
00		LOAMY/SANDY	LOW	The start of the start	N. C. Martin		March 1	21
pH:	6.5-8	Drainage	Lime resistant		AL TO PART		Children	South States 187
ERTILITY:	HARDY	GOOD	MODERATE		Designed in a		SAMES.	A states
		USES					1/00 - 00 5	CALX/1
Resista	ances	Applic	cations		PARAL N		A AND	Contraction of the second
COASTAL:	MODERATE	SLOPES: YES	WALLS: YES	9 22 34	A Providence	E AND M	ALL AND	
OLLUTION:	MODERATE	CARPET: NO	TRELLIS: YES				the search of the	A CONTRACTOR OF THE OWNER
WIND:	MODERATE	GROUP: YES	ISOLATED: YES	1 the the			all water and a set of the	
				POIN	ITS OF INTEREST			
pecies na	tive to Ch	ina and the Him	alayas but natural	ized in the Mediterrane	an area. When growing on a	a wall, it usually forms	a compact mass at	the top of it. By tying
wn one	of the ma	ain branches, it (can be made to	cover part of a wall. B	y placing it near a living or	passage area, the in	ntense aroma of its i	flowers will be better
preciate	d. Cultivat	ed in a pot, it can	be placed on terr	aces or porches. It requ	ires little pruning however si	ince the flowers appea	ar mostly on stems fro	om the previous year,
s advisal	ble to prun	e at the end of fl	owering. This clim	ber needs support.				

SPACING: 3 N

PLANTING AND PLANT HEALTH

Plenty of sunshine will guarantee rich and abundant blooms. Although this species does not resist frost, it can recover when pruned. Propagation can be carried out in summer months by layering the branches or planting semi-woody cuttings.

				СН	ROMATIC	CALENI	DAR					СОМ	MERCIALIZATIO	N N
			Fo	liage, Flo	wering a	nd Fruitir	ng Seaso	n				Presentation (L)	Length (cm)	Topiary shapes
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	CT(5)	60-80	
												CT(10)	80-100	
—				0	41							CT(30)	125-150	
				Cu	tivation C	alendar								
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
XXXX	хххх	HH	TIT	HH	ΗF		TTT	HIF	TTT	HH	XXXX			
Sowin	ng	Pla	inting	F	Pruning	х								
					_									
				-	Treatment	t Calenda	ır							1
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
HHP														
			****											1
Fung	icides		Pesticio	des		Fertilizers	6							

LONICERA

Lonicera japonica

CLIMBER				MADRESELVA SPANISH	LLIGABOSC VALENCIAN	JAPANESE HONEYSUCKLE ENGLISH	CHÈVREFEUILEE DU JAPON FRENCH
5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
TWINING CLIMBER	Up to 10 M	5 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	DIPSACALES			
MEDIUM	PARTIAL	SCATTERED	FAMILY:	CAPRIFOLIACEAE			
M	ORPHOLOGY						
Stem	UNDERG NO	WOODY YES CLIMBING YES			5		
Leaf	COMPOUND:	NO			the second se	2 1	
	HARDNESS:	SOFT			11	Lit	
EVERGREEN	ARRANGEMENT:	OPPOSITE	- In		V	7/2	
SIZE: 3-8 CM	VENATION:	PINNATE		-	5/230		Cart -
	SHAPE:	OVAL		Las Mr. M.			
COLOR: USIMID GREEN	MARGIN:	ENTIRE			R. S.		
TEXTURE: US: SMOOTH	APEX:	ACUTE					1 - 1 - 1 - 2 - C
LS: PUBESCENT	LEAF BASE:	SHORT					2014 - 21 MA
	Type	Reproduction					The second se
Flower	HERMAPHRODITE	HERMAPHRODITE					antes California
SIZE: 3-5 CM	Flowering	Fragrant					W
1	-	YES					
	Туре	Color					
Fruit	BERRY	BLACK					Salar Para
	Edible	Fruiting season					1 22
SIZE:	TOXIC						13
Growth	Rate	Longevity					
	FAST	25-50 YEARS			2.		
	ECOLOGY		- Survey				
Climate	Temperature	Drought resistant		Charles Con			
	-3°C; Z5; H5	MODERATE	A 1-25		and the second		
ALTITUDE: 0-400	Sun exposure	Frost resistant			AN GA		
IRRIGATION: MODERATE	SUN/PARTIAL SHADE	LIGHT		LON STAT	and the state		
Soil		Salt resistant	3				E E
	Drainago	LOW		TAN BET			
FERTILITY MODERATE	MODERATE	MODERATE			CEN 5		Contraction the
	11050						1000
Posistances	USES	otions	No sale	ALL AND TO	1 1 M	A A A	
	SLOPE: VES	WALLS VES		MARCHINE CON	10-100	N. JOS	13 A 1-3
	CARPET: NO	TRELLIS: YES	STAR DA			A A PART	
WIND: MODERATE	GROUP: YES	ISOLATED: YES	2011 30			A State A	
			DOIN				

Native to East Asia. This species is very popular for its persistent and beautiful foliage and for its continuous and aromatic flowering. They are ideal to cover upper parts of walls only (not suitable for the entire wall), tow roofs of auxiliary constructions, metal frameworks, lattices, trunks and slopes. To give it shape, pruning is recommended and is easily carried out by simply removing dead branches and by timming overgrown shoots after flowering. It can also be pruned back to the stump when it gets to storg. This species needs support.

SPACING: 2.5 M

PLANTING AND PLANT HEALTH

They can be planted in the sun or in partial shade. In areas prone to frost, they should be arranged so that they do not receive the morning sun's rays. They require a normal irrigation programme Propagation is carried out by woody cuttings at the end of autumn, or semi-woody in summer, and by seed.

CHROMATIC CALENDAR	COM	IMERCIALIZATIO	N
Foliage, Flowering and Fruiting Season	Presentation(L)	Length (cm)	Topiary shape
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
Cultivation Colondar	CT(30)	125-150	
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			

						Macradye	ena ungis-cat
IMBER				PETEGLORIO SPANISH	VALENCIAN	CAT CLAW IVY ENGLISH	GRIFFE DE CHAT FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS	1		
SARMENTOSE	5-12 M	5 M	TYPE:	DICOTYLEDONS	1		
Texture	Shade	Root	ORDER:	SCROPHULARIALES	1		
MEDIUM	PARTIAL	SCATTERED	FAMILY:	BIGNONIACEAE			
	MORPHOLOGY		Contract of the lot of the				
Stem	UNDERGR NO CREEPING NO	WOODY YES CLIMBING YES					
Leaf	COMPOUND:	NO	C. C. C.	A DE LA	-	a	
	HARDNESS:	SOFT				-	- Sec
EVERGREEN	ARRANGEMENT:	OPPOSITE			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
IZE: 4-8 CM	VENATION	PINNATE		SINGA ST		•	7
	SHAPE	OVATE		CAR ADD CONTRACT			
US:DARK GREE	MARGIN	ENTIRE					
LS:LIGHT GREE	N APEX	ACUTE	7.	Carl X		2	
TURE: US:SMOOTH	LEAF BASE	ATTENUATE	2	ALEAN CAR			
LS:SMOOTH	PETIOLE	SHORT	1000-1	A ANY AN	State R		and the second of
Flower	Туре	Reproduction					10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Flower	HERMAPHRODITE	HERMAPHRODITE		A Start			
IZE: 3-5 CM	Flowering	Fragrant	1000	AR A CAR	1 - 1 - 1	1000 S	
		NO	1		Y HOU		State of the second
	Туре	Color	11/1 C		CACIN		
Fruit	CAPSULE	BROWN	A STORA				States and the
ZE:	Edible NO	Fruiting season					A
Growth	Rate	Longevity	ALL AND		Sale and a second		
Clowin	FAST	50 YEARS	THE A		States -		A CONTRACTOR
	ECOLOGY		100 100	C. Ale	State of the	Acres 7	
Climate	Temperature	Drought resistant	Che Store	D. A. C. C. C.			
••••••	-3°C	MODERATE	Jan Strees		C Pro D	CALS 1	AND STOR
.TITUDE: 0-300	Sun exposure	Frost resistant		a start the second second	Consider the second		
IGATION: MODERATI	ë SUN	LIGHT	Charles Carson	CONTRACTOR NE	ALC: STATE OF		
Soil	Texture	Salt resistant		The second	THE	5 T 29 E 🛃	P 20 20 10 10
	ALL TYPES	LOW	1.01 St. 8. 1.4				- 24 AB 11 - 53
pH: 6.5-8	Drainage	Lime resistant	20120		T PLAT		
RTILITY: MODERATI	é MODERATE	MODERATE	1100		Contraction of the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A SOLAT
	USES			13 (B)	Coloral - Longood		A AND
Resistances	Appli	cations	1000	A CARLES	N. S. S. S.	6 3 4 C 3 9	Tor Street
DASTAL: MODERAT	E SLOPES: NO	WALLS: NO		A 15	1995		
	E CARPET: NO	TRELLIS: YES	Eline Al	A Standard	the Carlos		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
LLUTION: MODERAT		ISOLATED: NO	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		A Startes		Sector 1
LLUTION: MODERAT	E GROUPS: NO	ICOLITED. IIC					
ULUTION: MODERAT	E GROUPS: NO		P			Lagy 7 - Mage 19626000 - Mag	
WIND: MODERAT	ad Argentina This	climber grows ra	P apidly (up to 8 m) or c	OINTS OF INTEREST	e of golden tanestry. It	needs support on f	iences and bars. It is

PLANTING AND PLANT HEALTH

In warm areas it functions as an evergreen plant. It requires full sun and withstands severly dry conditions. Once established, it is drought tolerate. This species grows we in any drained, mulched soil. To achieve an adequate structure, it must be pruned after flowering. Propagation by seed and cuttings.

				CHR	OMATIC	CALEND	AR					COM	MERCIALIZATIO)N
			Fol	iage, Flo	wering ar	nd Fruitin	g Seaso	n				Presentation (L)	Length (cm)	Topiary shapes
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	CT(5)	60-80	
												CT(10)	80-100	
												CT(30L)	125-150	
				Cu	tivation 0	Calendar						, í		
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
						хххх								
Sowin	g	Plai	nting	F	Pruning	Х								
				1	Freatmen	t Calenda	ır							
JAN	FEB	MAR	ABR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
HH			\mathbf{H}		\mathbf{H}		HH	\mathbf{H}	HHH					
Fung	icides		Pesticio	les		Fertilizers								

SPACING: 3

Parthenocissus tricuspidata PARTHENOCISSUS JAPANESE CREEPER ENGLISH VIGNE-VIERGE JAPONAISE FRENCH **CLIMBER** VALENCIAN SPANISH STRUCTURE DIVISION PHANEROGAMS VARIETIES Diameter SUBDIVISION: ANGIOSPERMS Shape Height SARMENTOSE TYPE: DICOTYLEDONS 5-20 M 5-10 M Texture Shade Root ORDER RHAMNALES. MEDIUM PARTIA SCATTERED FAMILY: VITACEAE MORPHOLOGY INDERG NC 000 YES Stem REEPING NO CLIMBING YES COMPOUND Leaf HARDNESS SOFT DECIDUOUS RRANGEMENT: ALTERNATE SIZE: 5-20 CM VENATION: PINNATE SHAPE: LOBED COLOR: US:GREEN/RE MARGIN SERRATE LS:GREEN/RED APEX: ACUTE TEXTURE: US: SMOOTH I FAF BASE ATTENUATE LS: SMOOTH PETIOLE: SHORT Туре Reproduction Flower FRMAPHRODITE HERMAPHRODITE SIZE Flowering Fragrant NO INFLORES ICE IN CYMOSE Туре Color BLACK/BLUE Fruit BERRY Edible Fruiting season SIZE: 6-8 MM Rate Longevity Growth FAST 100 YEAF ECOLOGY Temperature Drought resistant Climate -10°C MODERATE/HIGH ALTITUDE: 0-1000 Sun exposure Frost resistant IRRIGATION: MODERAT SUN/SHADE MODERATE Texture Salt resistant Soil I OAMY/CLAYE pH: 6.5-8 Drainage Lime resistant FERTILITY: FERTILE MODERATE MODERATE USES Resistances Applications SLOPES: COASTAL: MODERAT NO WALLS: YES POLLUTION: MODERATE CARPET NO TRELLIS YES MODERAT GROUPS: NO ISOLATED: NC WIND:

POINTS OF INTEREST

Native to China, Japan and Korea. This species is widely used to completely cover the walls of houses. It can cover small auxiliary buildings, walls, trellises or any type of structure. This climber can also be a good carpet groundcover (in this case care must be taken to ensure that it does not climb up nearby trees or bushes). Although it is a self-adhesive climber; it requires initial support until suckers have sufficiently developed. The autumnal reddish color of its leaves is more intense in cold climates.

SPACING: 3-5M

PLANTING AND PLANT HEALTH

It prefers a fertile, permeable humus-rich soil. It requires a normal irrigation programme and is somewhat drought resistant. Hardy to humidity. Pruning can be carried out by removing unwanted or damaged growth. Propagation by cutting, seed and layering is very easy. Graft on P. quinquefolia.

CHROMATIC CALENDAR	COMME	ERCIALIZATION
Foliage, Flowering and Fruiting Season	Presentation (L) L	ength (cm) Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80
	CT(10)	80-100
	CT(30)	125-150
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	1	1

PLUMBAGO

Plumbago auriculata

Strage High Damoter Strage High Damoter No Toture Strage Resource No Toture Strage Resource No Stem No No No No Stem No No No No No Stem No No No No No No Stem Stem No </th <th>CLIME</th> <th>BER</th> <th></th> <th></th> <th></th> <th>JAZMIN AZUL SPANISH</th> <th>VALENCIAN</th> <th>LEADWORT, SKYFLOWER ENGLISH</th> <th>DENTELAIRE DU CAP FRENCH</th>	CLIME	BER				JAZMIN AZUL SPANISH	VALENCIAN	LEADWORT, SKYFLOWER ENGLISH	DENTELAIRE DU CAP FRENCH
SUBJECT		5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Service 19.4M 28.4M Totking Namedia Root Totking Namedia Root Service Namedia Service Service Service Namedia Service Service Namedia Service Service Namedia Service Service Service Service	Sh	ape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
Totaline Totaline Reader <threader< th=""> Reader Reader<th>SARM</th><th>ENTOSE</th><th>1-3 M</th><th>2-3 M</th><th>TYPE:</th><th>DICOTYLEDONS</th><th></th><th></th><th></th></threader<>	SARM	ENTOSE	1-3 M	2-3 M	TYPE:	DICOTYLEDONS			
MEDIM VENTIME CATTERIO PAULY PLUMEACINACEAE Image: Stress of the stres stress of the stress of the stress of the st	Te	xture	Shade	Root	ORDER:	PLUMBAGINALES			
Image: Note whether the state of whether the state of the st	ME	DIUM	PARTIAL	SCATTERED	FAMILY:	PLUMBAGINACEAE			
		M	ORPHOLOGY		a state of	A State State			
Lef OWNOR NO SVEMCREEN MANDAESS SO T MANDAESS SO T SVEMCREEN MANDAESS SO T MANDAESS SO T SVEMCREEN MANDAESS SO T MANDAESS SO T SVEMCREEN MANDAES SO T MANDAESS ALTENATE LSUBSERN MANDAES SO T MANDAES MANDAESS MANDAESS MANDAES SO T MANDAES MANDAESS TEXTUE USSIGNEN MANDAES SO OT MANDAES MANDAESS MANDAES SO OT MANDAESS MANDAESS SO OT TYPE Colority TO TYPE Colority MANDAESS MANDAESS MANDAESS MANDAESS MANDAESS LONG TO TYPE Colority	St	em	UNDERG NO	WOODY YES	And Alexand				
LeftLe		f	COMPOUND:	NO	41/4	The second second	R CO		222
EVEN WORKENSE W. LEWATE SVE SO WHORE SUNCE BHE ORLOWSPATULATE SUNCE BHE ORLOWSPATULATE SUNCE LESUNCE HERMANE SUNCE LESUNCE SUNCE SUNCE LESUNCE HERMANE SUNCE LESUNCE Type SUNCE POWE Type Color MICRESCENCE IN MARKEN NO SUE 2.5 CM Flowering PERTIFIC Type Color SUE Color Full SUE Turue Suesant Color SUE Color Full Color SUE Color Full Color SUE Color Color Color SUE Color Color Color SUE		ear	HARDNESS:	SOFT	A Coloren				
SE:: \$ 9 cm Useria cm PMATE SU:: Useria cm Superia cm Superia cm Superia cm COUR Useria cm Superia cm Super	EVER	GREEN	ARRANGEMENT:	ALTERNATE					
CUCRE USGREEN SHOPE OUTON <	SIZE:	5-6 CM	VENATION:	PINNATE		- Charles and a second			
CUCURE USEGREEN ISSURDENT WARENE: SMOOTH IEEE ASSE: ATTENNATE IEEE ASSE:			SHAPE: OE	LONG/SPATULATE	COMPANY NO				
LSGREPN LUSCRES AFE: A ACUTE SEX: SMOOTH AFE: A ACUTE ENTRATE LSGREPN LISSMOOTH LFE: AFE: NATE ENTRATE SMOOT FLOWER FEDORAL-RECONF Reproduction HERMARHACTIF Reproduction HERMARHACTIF SZ: 2.5.3 CM Flowering HERMARHACTIF Fergrant HERMARHACTIF Intermarkactif SZ: Type Color Color Color SZ: Type Color Color Color SZ: Total Total Color Color SZ: Total Total Color Color Attruct 0.000 Sun exposure Foot resistant Color Color Color Attruct 0.000 Sun exposure Foot resistant Color Color Color Y 0.000 Sun exposure Foot resistant Color Color Color Costati Successit Super Subrepoint Super Subrepoint Super Subrepoint Super Subrepoint Super Subrepoint Costati Successit Super Subrepoint Super Subrepoint Super Subrepoint Super Subrepoint Super Subrepoint Costati	COLOR:	US:GREEN	MARGIN:	SMOOTH		A state of the second second			States and
TEXTURE: US\$MOOTH Leve Ask: A TENUATE I Leve Ask: A TENUATE Reproduction I REVERTISE Point Strip Convertine I REVERTISE Reproduction Strip Convertine Strip Strip Strip Convertine Convertine		LS:GREEN	APEX:	ACUTE					
Issuorthi remulti shorthim Flower remulti shorthim Vietning remulti shorthim Strict 25.33 cM Flowering Pragranti Million Color	TEXTURE:	US:SMOOTH	LEAF BASE:	ATTENUATE		And the second second second			
Flower Type Reproduction SZE: 2.5.3 CM Flowering Fragrant NO.CRESCENCE NERACCEME NO. Fragrant NO. Fruit Togene Color Color SZE: Edible Fruiting season Fruiting season SZE: Edible Fruiting season Fruiting season SZE: Togenyue Color Color SZE: SZE SZE Togenyue Fouriting season SZE: Togenyue Fouriting season SZE SZE SZE SZE: SZE SZE Togenyue Fouriting season SZE SZE SZE SZE </th <th></th> <th>LS:SMOOTH</th> <th>PETIOLE:</th> <th>SHORT</th> <th>A second second</th> <th></th> <th>1 1 1 1 1</th> <th>has 2 have</th> <th></th>		LS:SMOOTH	PETIOLE:	SHORT	A second second		1 1 1 1 1	has 2 have	
SV::: 2.5 cm HERMAPRCONF HERMAPRCONF HERMAPRCONF SV::: 2.5 cm Type Color M:: Type Color SV::: 2.5 cm Edible Fruiting season SV::: Edible Fruiting season SV::: Edible Fruiting season SV::: Ecolory Edible Kincators Toperature Toopstreater Numeroscience Toxinge Line resistant Numeroscience Autritude Salt resistant Numeroscience Autritude Numeroscience Autritude Numeroscience Autritude Numeroscience Autritude Numeroscience Autritude Numeroscience Autritude Nun	Flo	wer	Туре	Reproduction		The start for	ALL C		
Set 25.00 million Proventing Program NR.CORESCIENCE IN RACEME IN O NO Color Set Edible Fruiting season sce Rate Longevity sce Temperature Dought resistant ALTTUDE: 0.300 Sin exposure Frost resistant LINTER Color Lint Lint Soil Texture Statile resistant Lint Lint Nume ModeRate ALTTYPE Salt resistant Lint Soil Texture Statile resistant Lint Color NUME ModeRate Applications Soil Silores No NUME ModeRate Applications Silores No South Silores No NUME ModeRate Applications Silores No Silores No Silores No No NUMER ModeRate Applications Silores No No No No No No NUMER ModeRate Applications Silores No No No No	CIZE:		HERMAPHRODITE	HERMAPHRODITE				- 10 C C C C C C C C C C C C C C C C C C	
Intercent restance Note Fruit Color Growth Rate Longevity Print Color Color Growth Rate Longevity Print Color Color Size: Color Color Growth Rate Longevity Color Size: Color Color Color Color Mittore: Oaso Sine exposure Frost resistant Color Mittore: Oaso Sine exposure Frost resistant Color Mittore: Sine exposure Control is in the exposure Sine exposure	JIZE.	2.5-3 CM	Flowering	Fragrant		and the second		A BRANK	
FruitCoolStellEdibleFruiting seasonStellEdibleFruiting seasonStellRateLongevityGrowthRateLongevityPAST0.25 YEARSTemperatureDrought resistantALITATION:MODERATESuin exposureFrost resistantMarketSuin exposureNumericationSuin exposureNumericationSuin exposureMarketSuin exposureNumericationSuin exposureNumerication		INFLORESC		Color			1 Jan		
Item	E,	nit	CAPSULE	COIOI	TA STA	and the second			
SZE: Longe I hang sector Growth Rafe FAST Longevity 0.25 YEARS FCOLOGY Drought resistant .2° Light Margine And Sector Drought resistant .2° Light Margine And Sector Sun exposure SUMPARAL SHOE Cost resistant Light Light Margine And Sector Sun exposure SUMPARAL SHOE Cost resistant Light Light Cost resistant Light Cost r		un	Edible	Fruiting season		and the second second second	and the second	State State	SALE HER DA
Growth Rate FAST Longevity U.25 YEARS ECOLOGY Tought resistant Soil RRIGATION: MODERATE Temperature Sum exposure HIGH Toroight resistant LOW ALTITUDE: 0.300 RRIGATION: MODERATE Texture ALLTYPES Toroight resistant LOW Forst resistant LOW PH: 0.543 PERTILITY: Texture ALLTYPES Salt resistant LOW LOWERATE Salt resistant MODERATE PH: 0.543 PERTILITY: Texture ALLTYPES Salt resistant MODERATE Texture Salt resistant MODERATE Salt resistant MODERATE PULLUTION: MODERATE POLLUTION: SLOPES: YES WALLS: NO CARPET: NO ROUPS: YES Constrat: MODERATE POLLUTION: SLOPES: YES SOLATED: YES Store ecolosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; so	SIZE:		Edibio	r rulling season	2433	The second second	1.000		State of the lot of the
GrowthFAST0-25 YEARSECOLOGYLimateTemperature 2°CDrought resistant LOWALTITUDE:0-30 2°OSunvaranta.stave LUGHTSoilTexture ALL TYPESSalt resistant LOWPit:6.58 ERTILIT:Drainage HIGHLimer LOWMODERATENUMPARTIA.stave LUGHTLight LOWPit:6.58 ERTILIT:Drainage HIGHLight LOWPit:6.58 COASTA:MODERATE HIGHSoil LOPES:VES VESNocesarteSunvaranta.stave LOPES:Nocesarte VESNocesarte NocesarteConstra:MODERATE NOCESATESoil Texture LOPES:Soil Soulte:No Texture No NocesarteNo Texture No NocesarteSoulte:No Texture No No Soulte:No Texture No<	-		Rate	Longevity	as at the state	18 19 48 5			De la construction de la constru
ECOLOGY Limite Temperature Drought resistant WOERATE Sum exposure Frost resistant Light Light Light Sum exposure Frost resistant None Light Light Sum exposure Frost resistant MODERATE Environmental sum exposure Sum exposure Sum exposure Sum exposure Frost resistant PH: 6.58 Drainage Light Low Diamage Light Diamage Light Diamage Sum exposure	Gro	owth	FAST	0-25 YEARS				Par al	72 8 6 6
Climate Temperature Drought resistant ALTITUDE: 0.300 Sin exposure Frost resistant LIGHT Sum exposure Frost resistant LIGHT Soil Texture Salt resistant ALTITUDE: 0.530 Drainage Light PH: 6.54 Drainage Lime resistant ALTITUDE: MODERATE Summark MODERATE Resistances Applications MODERATE Supress Constrat: MODERATE Supress YES VIND: MODERATE Supress YES Constrat: MODERATE Supress YES VIND: MODERATE Supress YES Constrat: MODERATE Supress YES Constand: MO			ECOLOGY			A COLOR	A1. 36	1. 1. 1. 1.	Mars -
Climate 20 LOW ALITTUDE: 4.00 Sun exposure Frost resistant IRRIGATION: MODERATE SUNPARTALS HADE LUHT Soil Texture Salt resistant PH: 6.54 Drainage Lime resistant HICH MODERATE MODERATE MODERATE VMD: WODERATE SLOPES: YES WALLE: NO COASTAL: MODERATE SLOPES: YES WALLE: NO VND: MODERATE SLOPES: YES WALLE: NO Coastal: MODERATE SLOPES: YES WALLE: NO VND: MODERATE SLOPES: YES WALLE: NO Coastal: MODERATE SLOPES: YES NOLATE: NO Coastal: MODERATE SLOPES: YES WALLE: NO Coastal: MODERATE SLOPES: YES NOLATE: NO Coastal: MODERATE SLOPES: YES NO NO NO Coastal: MODERATE			Temperature	Drought resistant		The Astronomical States			ALC: NOT
ALTTUDE: 0.300 IRRIGATION: Sun exposure SUMPARTIG.SHADE Frost resistant LIGHT Soil PH: ALTTYPES Salt resistant LOW LIGHT PH: 6.5-8 ERTILITY: Drainage Lime resistant MODERATE Lime resistant MODERATE VEST Drainage Lime resistant MODERATE MODERATE Applications SLOPES; YES Notestant MODERATE VIND: MODERATE CARPET: NO TRELIES: NO GRUPS; YES SLOPES; ISOLATED: YES Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape). Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against polsoning caused by lead furms.	Clir	nate	-2°C	LOW					and the second
IRRIGATION: MODERATE SUMPARTIAL SHADE LIGHT Soil Texture Salt resistant ALL TYPES Luw PH: 6.53 Drainage Limeresistant MODERATE SUPEs: VEST ALL TYPES Resistances Applications COASTAL: MODERATE NODERATE SLOPES: VEST SLOPES: NIND: MODERATE SLOPES: YES VIND: MODERATE SLOPES: YES NIND: MODERATE SLOPES: YES NIND: MODERATE SLOPES: YES Constrat: MODERATE Constrat: MODERATE Constrat: MODERATE Constrat: SLOPES: Constrat: BOUPES: Constrat: State: Constrat: State: Constrat: State: Constrat: State: Constrat: State: MODERATE State:	ALTITUDE	0-300	Sun exposure	Frost resistant					THE PERSON
Soil Texture ALI TYPES Salt resistant LOW PH: 6.5-8 FERTILITY: Drainage Lime resistant MODERATE Resistances COASTAL: Applications SLOPEs: YES WALLS: NO CARPET: NO POLUTION: MODERATE SIGLATED: VSES WIND: MODERATE SIGLATED: VSES Constrat: MODERATE SIGLATED: VSES Constrat: MODERATE SIGLATED: VSES VIND: MODERATE SIGLATED: VSES Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape). Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word <i>plumbum</i> which means lead, since these plants can contribute to a valuable medicine against polsoning caused by lead furmes.	IRRIGATION	I: MODERATE	SUN/PARTIAL SHADE	LIGHT					
OUT ALL TYPES LOW PH: 6.54 Drainage Lime resistant Drainage Lime resistant MODERATE Desistances Applications CARPET: NO PARLIS: NO COASTAL: MODERATE SLOPES: YES WALLS: NO WIND: MODERATE SLOPES: YES ISOLATED: YES POLUTO: YES ISOLATED: YES Construction of the gumps: YES ISOLATED: YES DOTES YES POLUTO: YES ISOLATED: YES Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape). Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The seintlific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead furmes.		oil	Texture	Salt resistant		A REAL PROPERTY	-	A CAN	Frankler Ind
pH: 6.5.8 FERTILITY: Drainage HIGH Lime resistant MODERATE FERTILITY: MODERATE HIGH MODERATE Resistances COASTAL: MODERATE Applications CARPET: NO NIND: MODERATE SLOPES: YES WIND: MODERATE SLOPES: YES OCASTAL: MODERATE SLOPES: YES VIND: MODERATE SLOPES: YES Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape), Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against polsoning caused by lead fumes.	3		ALL TYPES	LOW	A A A A A	A TAY	Contraction of		San Array
FERTILITY: MODERATE HIGH MODERATE USES Coastal: MODERATE Applications COASTAL: MODERATE Applications POLLUTION: MODERATE Applications WIND: MODERATE NO WIND: MODERATE SLOPE: Coastal: MODERATE POINTS OF INTEREST Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape), Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead furmes.	pH:	6.5-8	Drainage	Lime resistant				A Contraction	
USES Resistances constrat:::::::::::::::::::::::::::::::::::	FERTILIITY	: MODERATE	HIGH	MODERATE					A Contraction
Resistances COASTAL: MODERATE Applications SLOPEs: YES WALLS: NO CARPET: NO TRELLIS: NO GROUPS: YES ISOLATED: YES WIND: MODERATE CARPET: NO TRELLIS: NO GROUPS: YES ISOLATED: YES POINTS OF INTEREST Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape). Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead furmes. SPACING: 2 M			USES				1.		
COASTAL: MODERATE POLLUTION: MODERATE WIND: MODERATE SLOPES: YES CARPET: NO GROUPS: YES WALLS: NO TRELLIS: NO GROUPS: YES Image: No TRELLIS: NO GROUPS: YES WIND: MODERATE GROUPS: YES Image: No TRELLIS: NO GROUPS: YES POINTS OF INTEREST Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape). Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name <i>Plumbago</i> is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word <i>plumbum</i> which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead fumes.	Resis	tances	Applic	ations				11 8 S S	212 20
POLLUTION: MODERATE CARPET: NO TRELLIS: NO GRUPS: YES ISOLATED: YES WIND: MODERATE FOUPS: YES ISOLATED: YES DEVISION: FOR THE SECOND	COASTAL	MODERATE	SLOPES: YES	WALLS: NO		A ANT			NS CON
WIND: MODERATE GROUPS: YES ISOLATED: YES POINTS OF INTEREST Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape), Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word plumbum which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead fumes. SPACING: 2 M	POLLUTION	: MODERATE	CARPET: NO	TRELLIS: NO	W AND SI	A LANC	The set		
POINTS OF INTEREST Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape), Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name <i>Plumbago</i> is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word <i>plumbum</i> which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead fumes. SPACING: 2 M	WIND:	MODERATE	GROUPS: YES	ISOLATED: YES	Sol Mark		1		2 States
Commonly known as Leadwort, this species of Jasmine is native to South Africa (The Cape), Southeast Asia and the Malay Archipelago. It is widely as a shrub for enclosures and to cover fences due to its profuse flowering. The root contains juices that can be used against bad teeth and inflammation of the gums. It needs protection and support. The scientific name <i>Plumbago</i> is of uncertain origin; some attribute it to the leaden color of the flowers of some species, while others derive it from the Latin word <i>plumbum</i> which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead fumes. SPACING: 2 M					PC	DINTS OF INTEREST			
protection and support. The scientific name Plumbago is of uncertain origin; some attribute it to the leaden color of the howers of some species, while others derive it from the Latin word <i>plumbum</i> which means lead, since these plants can contribute to a valuable medicine against poisoning caused by lead fumes. SPACING: 2 M	Common for enclos	ly known a sures and t	is Leadwort, this to cover fences of	species of Jasr lue to its profuse	nine is native to Sc flowering. The root	outh Africa (The Cape), South contains juices that can be u	east Asia and the sed against bad te	Malay Archipelago. It is teth and inflammation of	s widely as a shrub the gums. It needs
SPACING: 2 M	from the l	Latin word	blumbum which	means lead, since	e these plants can co	ontribute to a valuable medicine	e against poisoning	caused by lead fumes.	vinie others derive it
									SPACING: 2 M
PLANTING AND PLANT HEALTH						G AND PLANT HEALTH			

Since it is a warm temperate shrub it is sensitive to cold. When exposed to full sun it requires fertile, rich and well-drained soils. In poor soils, light shade is advisable. It requires a high irrigation programme during growth and low when dormant. It is hardy to humidity and light and requires annual pruning. Once it has flowered, it is convenient to cut the flowering stems. It blooms more intensely when exposed to full sun. It propagates by cuttings from non-flowering shoots in the summer and at approximately 18°C.

CHROMATIC CALENDAR	COM	IMERCIALIZATI	ON
Foliage, Floration and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
	CT(30)	125-150	
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			

SOLANDRA

Solandra maxima

CLIMBER				SOLANDRA SPANISH	VALENCIAN	CUP OF GOLD VINE ENGLISH	LIANE TROMPETTE FRENCH
Shape SARMENTOSE Texture	STRUCTURE Height 3-5 M Shade	Diameter 3 M Root	DIVISION: SUBDIVISION: TYPE: ORDER:	PHANEROGAMS ANGIOSPERMS DICOTYLEDONS POLEMONIALES		VARIETIES	
FINE	LIGHT/PARTIAL	SCATTERED	FAMILY:	SOLANACEAE			
M		WOODY YES		State No.			- an-
Stem	CREEPIN NO	CLIMBING YES	and the	A Charles			-22/24
Leaf EVERGREEN SIZE: UP TO 15CM	COMPOUND: HARDNESS: ARRANGEMENT: VENATION:	NO CORACIOUS PETIOLED PINNATE				CAN	
COLOR: US:DARK GREEN	SHAPE: MARGIN: APEX:	ELLIPTICAL SMOOTH ACUTE				10	
TEXTURE: US:SMOOTH	LEAF BASE:	ATTENUATE	-, 1	A STATE TO THE		1 A	
Flower	Type HERMAPHRODITE	Reproduction	3	Contraction of the			
SIZE: 20 CM	Flowering	Fragrance AT NIGHT		and the	State P	N AS	
Fruit	Type BERRY Edible	Color WHITE/PALE YELLOW Fruiting season	Test por		4		
Growth	Rate	Longevity 0-25 YEARS		CONTRACTOR	ELCI		
	ECOLOGY		1	36 2 5 2 5			
Climate	Temperature 0°C; H5; Z6	Drought resistant MODERATE		19 Cal	-	- the	Approx
ALTITUDE: 0-200 IRRIGATION: MODERATE	Sun exposure SUN/PARTIAL SHADE	Frost resistant LOW		May Sel		Contraction of the	CICLED .
Soil	Texture LOAMY	Salt resistant			120		- the
pH: 6.5-7.5 FERTILITY: MODERATE	Drainage MODERATE	Lime resistant MODERATE			31 A.		A Car
	USES				· · · · ·		10
Resistances COASTAL: MODERATE POLLUTION: MODERATE WIND: MODERATE	Applic SLOPES: NO CARPET: NO GROUPS: YES	WALLS: YES TRELLIS: YES ISOLATED: YES			•	00 0 0	••••
·	•		POIN	TS OF INTEREST			

Commonly known as cup of gold. This species of climber is native to Mexico. In warm climates its leaves are persistantly green. When trimmed, the glossy foliage is the perfect contrast to the large trumpet-shaped flowers that appear in winter and summer.

SPACING: 2 M

PLANTING AND PLANT HEALTH

This species has low resistant to cold temperatures (minimum 10°C). It needs full sun and fertile, well-drained soil. It needs a high irrigation programme during the summer months. It needs to be tied down to some kind of support. Prune bushy branches after flowering. It is propagated by semi-ripe cuttings in the summer.

CHROMATIC CALENDAR	COMMERCIALIZATION
Foliage, Flowering and Fruiting Season	Presentation(L) Length (cm) Topiary shape
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5) 60-80
	CT(10) 80-100
Outlife stillers Only in day	CT(30) 125-150
Cultivation Calendar	
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	
Souring Diapting Pruning V	
Treatment Calendar	
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	
Fungicides Pesticides Fertilizers	

SOLANUM

Solanum jasminoides

CLIMBEF	२				DULCAMARA SPANISH	VALENCIAN	POTATO VINE ENGLISH	MORELLE FAUX JASMIN FRENCH
	S	TRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	9	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SARMENTO	DSE	5-8 M	5 M	TYPE:	DICOTYLEDONS			
Texture	е	Shade	Root	ORDER:	POLEMONIALES			
FINE		PARTIAL	SCATTERED	FAMILY:	SOLANACEAE			
	MO	RPHOLOGY						
		UNDERG NO	WOODY YES		Pik War		and the second	
Stem		CREEPIN NO	CLIMBING YES			and the second		
		COMPOUND:	NO		T PYZ	States and a state of the		
Leaf		HARDNESS:	SOFT	100 mg 200 100		1 h ~	101	Sand Cor
SEMI - PERSIS	STENT	ARRANGEMENT:			M LER MAN	ALC: NOT		MARK.
SIZE: 3	3-7 CM	VENATION	PINNATE			and the second		
		SHAPE: O						
COLOR: USDA	ARK GREEN	MARGIN:	SMOOTH		MART FUEL			
LS:DA	ARK GREEN	ADEY-	ACUTE	1450			1	2 day
TEXTURE: US	SHOOTH	AFEA.	ATTENUATE		Sole William			
IS:	SMOOTH	LEAF BASE.	SHORT		-OTA DULL		A	A CONTRACT
E0	3000111	Type	Poproduction	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
Flowe	r		невмариворите	and the second		1 80/34	N 19	
SIZE: 2	2.5 CM	Flowering	Fragrant			Add To ab	States and	CHEROMAN .
IN		INCE IN CYMOSE	NO	1.200		SINE SPEC	A Company	
		Type	Color	A AND A AND A	A CONTRACTOR	States Prove	1. S.	
Fruit		BERRY	PURPLE		the strange of the	ANS I VAL		Connect in
	- F	Edible	Fruiting season		David and	A contraction		HING OF A
SIZE:		Edible	SEPT-NOV	Ser 2 Barris	and an and the start	and the second second		AND THE REAL PROPERTY.
		Rate	Longevity	S	a state	Constant of the second	and the second	
Growt	h	FAST	0-25 YEARS		H & WAR - H		A LAND	
							- Here Lange	A CONTRACTOR
		Tomore			1 Marsh Marsh	A STATISTICS	A CAR AND	Lite mente
Climat	e	remperature	Drought resistant	2. 2.0			and the second	之为""将有","将
	0.000	0	MODERATE	12	and the state of t	COM CONTRACTOR		
IBBICATION:	IODEDATE							J. L. Charles
INTROATION.	IODEIGNIE	Texture	Salt registant		A Manufactor		States - Line	and the second
Soil			LOW	and the second	The second se			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
pH [.]	6575	Drainage	Lime resistant		The said of the second	A diama and a diama dia	and the second second	
FERTILITY: M	ODERATE	MODERATE	MODERATE	100 C	S Participant State			10 State Mar
					the states			1. 1. A. 1. 1. 1.
Desisters		USES	- 4'		10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			
Resistant	Ces	SLOPES NO			and the second second	A	alles and the	
COASTAL: M	IUDERATE	CARDET: NO	TDELLIS VEO	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				
POLLUTION: M		GROUPS: NO	ISOLATED: NO	- Company				
WIND: M	NUDERATE	3.1001 0. NO	ISSERTED. NO	All And And				111 - A.
				PO	INTS OF INTEREST			
Native to Brazil	I. The pota	ato vine is a very o	lecorative climber sp	ecies which produces pur	ple fruit berries in autumn. If le	ft to grow freely, it will form	a large creeping bush	n or perch on other hardier
bushes. It is mu	uch more o	conspicuous if gro	wn on a sunny wall, a	a screen or a trellis; in this	way, its large flower clusters wil	Il be more impressive.		

SPACING: 3 M.

PLANTING AND PLANT HEALTH

The potato vine is sensitive to frost and therefore warm temperatures are ideal. It prefers well-drained, fertile and light soils. It is resistant to drought but requires a high irrigation programme watering at the time of flowering. The shoots are pruned and cut in spring (although not always necessary). Propagation can be carried out by semi-woody cuttings in summer and by layering.

CHROMATIC CALENDAR	COM	MERCIALIZATI	NC
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shape
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
	CT(30)	125-150	
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			

TECOMARIA						Tecomai	ria capensis
CLIMBER				BIGNONIA ROJA SPANISH	VALENCIAN	CAPE HONEYSUCKLE ENGLISH	BIGNONE DU CAP FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SEMI-SARMENTOSE	3 M	2 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	SCROPHULARIALES			
FINE	PARTIAL	SCATTERED	FAMILY:	BIGNONIACEAE			
М	ORPHOLOGY						
Stem	UNDERG NO CREEPIN NO G NO	WOODY YES CLIMBING SEMI		AL SHOW			AT Y
Leaf	COMPOUND: HARDNESS:	IMPARIPINNATE SOFT	Carlo Carlo	and a start of the			
EVERGREEN	ARRANGEMENT:	OPPOSITE	2 BAR -	A Sherry State			
SIZE: 10-16 CM	VENATION:	PINNATE	and the second		112		
LEAFLETS:5-11	SHAPE:	OVATE			in the	124,000	
COLOR: US: DARK GREEN	MARGIN:	SERRATE		Sec. Sec.			
LS: DARK GREEN	APEX:	ACUTE	ALC: NOT	No. of the second s			
TEXTURE: US:SMOOTH	LEAF BASE:	ATTENUATE				and the second second	
LS:SMOOTH	PETIOLE:	SHORT				E (0)	
Flower	Туре	Reproduction		Contraction of the second			-7 1
SIZE: 5 CM	Elowering	Fragrant					18 1 Para
INFLORESC	ENCE IN RACEMES	NO					11 -
	Type	Color		- + + + + +	•		
Fruit	CAPSULES			and the second second	5-24 C		
	Edible	Fruiting season	A States		1.44		A REAL
SIZE:							
Growth	Rate	Longevity	and the second	the second second			
Growth	MEDIUM	0-25 YEARS	Sec. Sec. Sec. Sec. Sec. Sec. Sec. Sec.				
	ECOLOGY		and the second second				S VOR AS
	Temperature	Drought resistant		A CALL AND A CALL		ATA	
Climate	0°C	MODERATE		A REAL PROPERTY OF			
ALTITUDE: 0-200	Sun exposure	Frost resistant	ALC: NO			AL V	
IRRIGATION: MODERATE	SUN	LOW		The second se			All and the
0.11	Texture	Salt resistant	Contraction of the A				
Soll	LOAMY	LOW	100 M	All and a second second			
pH: 6.5-7.5	Drainage	Lime resistant	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A A A A A A A A A A A A A A A A A A A		MILL THE	
FERTILITY: MODERATE	MODERATE	MODERATE	A PARTY AND A	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		AND THE MAN	Par Maria
	USES		Par State			Contraction of the other	
Resistances	Applic	cations	Contraction of the			1	A PUT
COASTAL: MODERATE	SLOPES: NO	WALLS: YES	States & States			and the second second second	A AND
POLLUTION: MODERATE	CARPETS: NO	TRELLIS: YES		and and a second	Call Sol		18 X ASUL
WIND: MODERATE	GROUPS: YES	ISOLATED: NO	and the second	and the second second		Contraction of the second	CAV/STR
			PO	NTS OF INTEREST			

Commonly known as red bignonia. This speices is native to South Africa. It is a semi-climbing shrub that is easy to grow in large pots. If supported, it makes for a good climber. In various Indian tribes and in Mexico, tecomaria flowers are used as ornaments during some religious ceremonies or on occasions of marriage or magical initiation rites.

SPACING: 2 M

PLANTING AND PLANT HEALTH

Adapted to warm climates, it does well in coastal areas. It is hardy to soils but prefers well-drained and light ones. It requires a high irrigation programme in the summer and moderate to high humidity. Pruning must be very light in order to clean and eliminate any unwanted branches. Propagation by seed, cuttings from parched branches or layering. Graft on root of *Campsis radicans* (the trumpet vine).

CHROMATIC CALENDAR	COMM	IERCIALIZATIO	N
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shaoes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
Cultivation Calendar	CT(30)	125-150	
JAN FED WAR ADR WAT JUN JUL AUG SEFT OCT NOV DEC			
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			
Fungicides Pesticides Fertilizers			

VITIS

1 12 1 2		
Vitic	vinitora	
VIUS	VIIIICIA	

CLIMBER				PARRA SPANISH	PARRA VALENCIAN	GRAPE VINE ENGLISH	VIGNE FRENCH
Shape SARMENTOSE Texture FINE	STRUCTURE Height Up to 20 M Shade PARTIAL	Diameter 10 M Root SCATTERED	DIVISION: SUBDIVISION: TYPE: ORDER: FAMILY:	PHANEROGAMS ANGIOSPERMS DICOTYLEDONS FABALES LEGUMINOSAE		VARIETIES	
М	ORPHOLOGY				The second		A Starting
Stem	UNDERG NO CREEPIN G NO	WOODY YES CLIMBING YES					X
Leaf DECIDUOUS SIZE: 7-15 M	COMPOUND: HARDNESS: ARRANGEMENT: VENATION: SHAPE:	NO SOFT ALTERNATE PALMATE LOBED	-VE-				
COLOR: US:GREEN LS:GREEN TEXTURE: US:SMOOTH LS:TOMENTOSE	MARGIN: APEX: LEAF BASE: PETIOLE: Type	DENTATE ACUTE CORDATE SHORT Reproduction					
Flower SIZE: INFLORES	HERMAPHRODITE Flowering CENCE IN RACEME	HERMAPHRODITE Fragrant NO					1
Fruit	Type BERRY Edible YES	Color GREEN/BLACK Fruiting season SEPT-OCT					
Growth	Rate FAST	Longevity 120 YEARS					
	ECOLOGY					-7	
Climate	Temperature -10°C	Drought resistant HIGH					1
ALTITUDE: 0-1000 IRRIGATION: MODERATE	Sun exposure	Frost resistant HIGH					
Soil pH: 7-8	Texture ALL TYPES Drainage	Salt resistant LOW Lime resistant		Mar 1			
FERTILITY: MODERATE	MODERATE	MODERATE	Coral and	and the second		1 Star	
	USES		al si	A Carlo			
Resistances COASTAL: LOW POLLUTION: MODERATE WIND: MODERATE	Applic SLOPES: NO CARPETS: NO GROUPS: NO	WALLS: YES TRELLIS: YES ISOLATED: NO					
			POI	NTS OF INTEREST			
This vine is native to to its food, have give	o the Caspian Sea on rise to the typic	a,West India and t al trellises of Med	he Caucasus. They an iterranean gardens. It h	e ideal for decorating large v has numerous varieties that	walls, high trellises and have been selected ov	branches of large tre er centuries for cultiva	es. Vines, in addition ation.

PLANTING AND PLANT HEALTH

It requires warm and dry environments to grow normally. Low temperatures and persistent rains are unfavorable. Tolerates proximity to the sea. It is not very demanding in terms of soil, but light, rocky and well-drained ones are preferable. It requires a normal irrigation programme and excess moisture is not recommended. It must be pruned to obtain vigorous shoots. Propagation is by seed, cutting or grafting.

CHROMATIC CALENDAR	COMM	IERCIALIZATIC	N
Foliage, Flowering and Fruiting season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	
	CT(30)	125-150	
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAT JUN JUL AUG SEPT UCT NOV DEC			
Fungicides Pesticides Fertilizers			

SPACING: 3 N

WISTERIA

Wisteria sinensis

CLIMBER				GLICINIA SPANISH	VALENCIAN	CHINESE WISTERIA ENGLISH	GLYCINE DE CHINE FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
SARMENTOSE	5-10 M	5 M	TYPE:	DICOTYLEDONS			
Texture	Shade	Root	ORDER:	FABALES			
FINE	PARTIAL	SCATTERED	FAMILY:	LEGUMINOSAE			
N	IORPHOLOGY						
Stom	UNDERG NO	WOODY YES					
Stelli	CREEPING NO	CLIMBING YES					
Leaf	COMPOUND: YE	S. IMPARIPINNATE					SV
	HARDNESS:	SOFT	7 61				
DECIDUOUS	ARRANGEMENT:	OPPOSITE			A AND		
SIZE: 30 CM	VENATION:	PINNATE	A Carlotter			11 15 5	
LEAFLETS:3-8 CI	SHAPE:	LANCEOLATE					
COLOR: US:GREEN	MARGIN:	ENTIRE	1222				
LS:GREEN	APEX:	ACUTE	S _		200	AND THE REAL	
TEXTURE: US:SMOOTH	LEAF BASE:	ATTENUATE	220			ALC: Y AL	
LS:SMOOTH	PETIOLE:	SHORT	alan a set	HE CYNYCHE	A DEAL	and the second se	
Flower	Туре	Reproduction		A A A A A A A A A A A A A A A A A A A		209 C	
1 lower	HERMAPHRODITE	HERMAPHRODITE				and an other	
SIZE:	Flowering	Fragrant				1.00	
INFLORESCEN	CE IN RACEME (up to 60 cm)	NO			States and		1
	Туре	Color		A A A A	500		1
Fruit	LEGUME	WHITE/VIOLET/BLUE		8 1/ 2 1		100 C	
	Edible	Fruiting season	A Los Anto AC			and the second se	
SIZE:	NO		Stand P	ALCON THE REAL PROPERTY AND	A STATE A		
Growth	Rate	Longevity	Ciler	all the second second	A STATE OF	AND	100 Kon de les
Growth	MEDIUM	120 YEARS					Nº CON
	ECOLOGY				The American Straw		STATIST
	Temperature	Drought resistant	and the last		S A & & & A	A Star In	
Climate	-5°C	MODERATE					
ALTITUDE: 0-1000	Sun exposure	Frost resistant			MCET A		
IRRIGATION: MODERATE	SUN/PARTIAL SHADE	MODERATE	TO SHOW AND	Part of the second s			
	Texture	Salt resistant	A CONTRACTOR OF A CONTRACTOR OFTA A				
Soil	LOAMY	LOW	CALL & LAND FRAME		a statistica en esta		
pH: 6.5	Drainage	Lime resistant	State and	March 1997	12. 19. 19. 19		
FERTILITY: MODERATE	MODERATE	NO	A PARAMAN				
	USES		P COMPANY	1 1 1 B			
Resistances	Appli	cations	1 Lung alton		A CONTRACT		
COASTAL: LOW	SLOPES: NO	WALLS: YES		BURNER B			
POLLUTION: MODERATE	CARPETS: NO	TRELLIS: YES			All Astern		
WIND: MODERATE	GROUPS: NO	ISOLATED: NO		WE COMPANY	N N N	The second second	
·							
			POI	NTS OF INTEREST			

Native to China and Japan. Wisteria can cover tops of walls, trellises, railings and trunks with their deciduous foliage. It is not advisable to plant them next to walls of houses as they usually get into drains and under the tiles. In order to prevent the wisteria from damaging the support, it is advisable to have hoops. The hanging flower clusters are spectacular. The yearly stems or shoots can grow considerably in thickness and length, which gives the plant a woody and solid appearance. It must be isolated on a trellis since another neighboring climber (even if it is less vigorous) can suffocate it. They cling to supports or man-made structures by counterclockwise-twining stems.

SPACING: 3 M

PLANTING AND PLANT HEALTH

Although this climbing species resists cold tempartures, it prefers temperate climates. It adapts to any garden soil but prefers consistent, fresh, drained and lime-free ones as it is sensitive to iron chlorosis. It requires a normal irrigation programme and moderate humidity. It is necessary to direct the young shoots so that they cover the desired areas and the need to be pruned each year (generally last year's branches to within 10 cm of the junction with the oldest branch) to stimulate their flowering. As a result, a kind of corolla is formed, on which short and pointed branches develop that should not be pruned as they are floriferous. Conversely, long and sterile branches can be pruned.

CHROMATIC CALENDAR	COM	MERCIALIZATIO	N
Foliage, Flowering and Fruiting season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(5)	60-80	
	CT(10)	80-100	1
Cultivation Colondar	CT(30)	125-150	1
Cultivation Calendar			1
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
			1
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
			1
Fungicides Pesticides Fertilizers			

Subchapter 7.3

Commercialization, use and planting

COMMERCIAL FORMATS OF CLIMBING AND SARMENTOSE PLANTS

The commercial formats of climbing and sarmentose plant relates to their height (Table 7.3.1) in the case of species or cultivars of erect bearing, and to the size in those of extended or horizontal bearing.

Height in cm
10/20
20/40
40/60
60/80
80/100
100/125
125/150
150/175
175/200
200/225
225/250

Table 7.3.1: Measurements to classify climbing and sarmentose plants according to their height when supplied (Normas Tecnológicas de Jardinería y Paisajismo. (C.I.T.A.P.A.C.))

ROOT FORMATS

The production of climbing and sarmentose plants in nurseries follows four procedures:

- 1. Bare-root deciduous plants: Once the propagation of the young plants has been completed, they are planted in the field. Once the desired formats and sizes have been achieved, they are uprooted and supplied in bare root form.
- Evergreen plants with root ball: Once the propagation of the young plants has been completed, they are planted in the field. Once the desired formats and sizes have been achieved, they are uprooted and supplied in root ball form.
- 3. Plants with mixed field/container cultivation: After a first cycle corresponding to the propagation of the young plants, they are planted in the field. Once the desired formats and sizes have been achieved, they are uprooted and potted in a container. After a period of rooting and adaptation to the new environment, the plants are supplied for their commercialization.
- 4. Container-grown plants: After propagation, the young plants are potted in progressively larger containers, at least every one or two years depending on the container volume and the vigor and growth of the plant. Once the desired cultivated formats and sizes have been achieved, the plants are supplied for their commercialization.

When dealing with tap root species or varieties, care must be taken to ensure that the tap root has a length of about 20 cm on which sufficient secondary roots have been produced.

DECIDUOUS CLIMBING AND SARMENTOSE PLANTS SUPPLIED IN BARE ROOT

The root system must be consistent with a minimum size stipulated for the species or commercial variety. For example, a plant of 40/60 cm height should have a root system with a minimum diameter of 20/25 cm. Another plant measuring 80/100 cm should have a minimum width of 30 cm in its root system and a plant 125/150 cm tall should have a set of roots greater than 40 cm in diameter. The supply of bare root plants should be made from nurseries located in climates similar to where they will be planted.

Generally, bare-root climbing and sarmentose plants are supplied by grouping plants of the same format into homogeneous bundles containing 5 to 10 units.

EVERGREEN CLIMBING AND SARMENTOSE PLANTS SUPPLIED IN ROOT BALL

In the case of plants supplied with a root ball, the mass of soil should be homogeneous in quality and have no supplementary added substrate. The root balls will have a volume proportional to the aerial part of the plants and must be protected and wrapped with a biodegradable mesh that decomposes within 1.5 years of planting and tied with a similar degradable material. In the case of large specimens, the root ball must have a supplementary protection consisting of a non-galvanized metal mesh wrapper or reinforced plaster with non-galvanized mesh.

In the case of large specimens supplied bare root or with root ball, a record of how many times they have been root pruned must be made. This is an important indication of quality, especially in the case of plants with a taproot system where the longitudinal growth of the main root has been limited to ensure the development of secondary roots.

Evergreen climbing and sarmentose plant species should have been periodically root pruned at least every two or three years, depending on the species or commercial variety. This will ensure optimum conditions for the good rooting of the plant in the garden. At least one growing season should have elapsed between the last root pruning and the planting. The action of uprooting the plant prior to its commercialization should not be considered as root pruning.

Height of climbing plant in cm	Minimum diameter of root ball in cm	Minimum depth of root ball
20/40	20	15
40/60	20/25	15/20
60/80	25	20/30
80/100	25/30	25/30
100/125	30/35	25/30
125/150	35/40	30
150/175	40/45	30
175/200	45/50	35
200/225	50/55	35
225/250	55/60	40

Table 7.3.2: Recommended minimum diameter and depth of the root ball according to the height of the climbing and sarmentose plants when supplied. From N.T.J.P. (C.I.T.A.P.A.C.)

CLIMBING AND SARMENTOSE PLANTS SUPPLIED IN CONTAINERS

The production of plants in container eliminates the severe constraints of bare-root planting in winter and root ball planting in spring and fall, since container-produced plants can be planted practically any time of the year, except for the months with the highest evapotranspiration.

A good indication of quality containerized climbing plants is the absence of root spiraling since this hypogeal growth will impede the future development of the roots in the garden. In addition, roots that protrude from the container's drainage holes will affect future development as well as the use of pots or containers with non-degradable meshes, which in the latter case is unacceptable.

Minimum height of the plant in cm	Recommended minimum volume of container in liters	Upper and lower diameter of container in cm	
20/40	1.5/2	15/16	
40/60	2	16	
60/80	3	18	
80/100	3/5	18/22	
100/125	5	22	

Tabla 7.3.3: Minimum recommended volume of container in terms of height N.TJ.P. (C.I.T.A.P.A.C.)

SUBSTRATE

The substrate used in the production of containerized climbing and sarmentose plants must have a composition that does not create interfaces with undesirable water movement leading to serious excesses or defects in moisture in the root volume after planting.

In the case climbing and sarmentose plants growing in acid soils (e.g. *Wisteria*), a substrate with physicalchemical characteristics adapted to this type of plant must be applied.

The presence of evergreen weeds and mosses must be avoided and inspected at the source.

PLANT HEALTH

Irrespective of the species, the plants should show obvious health, as well as having a good development and a balanced and proportionate shape. Likewise, balance and proportion in the size of the root ball extracted or obtained in a container is required.

The plants should show no signs of diseases, pests, physiopathies, nutritional deficiencies or symptoms of phytotoxicity. Their trunks, stems and branches must be free of burns or wounds and no broken branches or buds must be observed. The roots must not show damage or rot.

The supplier must comply with the current legislation on plant health specially regarding harmful quarantine organisms and the required phytosanitary passport.

LABELLING AND DOCUMENTATION

The supplier must identify at least 5% of the plants in each lot with a durable label correctly and solidly attached to the plants or to the substrate, with indelible, visible characters, recording: its species and variety, the material used for rootstock and grafting, number of plants in the lot and its commercial format (total height and/or span and container volume, if applicable).

In addition, the supplied plants will be accompanied by a delivery note issued by the supplier in which the following **administrative information** will be indicated:

- Indication: "CEE quality"1
- Member State Code¹
- Name or identification code of the responsible official body¹
- Identification of the nursery or supplier (name and registration or authorization number)²
- Document issue date
- Individual serial or batch number
- Where applicable, Phytosanitary Passport number
- Where applicable, Ornamental Label
- In the case of imports from third countries, the name of the country of production
- The indication of the Technological Standard NTJ 07F: 1998 on a product represents the commitment by the producer that the product meets the requirements of the Technological Standard

¹Only in the case of specifically regulated species or cultivars, which must comply with current legal regulations. If desired, this information can be printed on the delivery note.

² If desired, this information can be printed on the delivery note.

And the following technical information:

- Botanical name.
- Cultivar denomination.
- Number of plants.
- Presentation of the root system.
 - · Bare Root: BR
 - $\cdot\,$ Container: CT
 - · Pot: P
 - · Root ball: CE
 - · Gypsum root ball: CEY in Gypsum
 - · Root ball with metal mesh: RB M.M.
- Total height and/or span, depending on the case.
- Stem height, in the case of tall plants.
- Volume or diameter of the container, indicating after the letter C (indicating container) the volume in liters, or designating behind the letter P (indicating pot) a figure indicating the upper and outer width of a square pot or the diameter top and outside of a round pot. In this second case, the letter "r" will be placed behind the number.

If the climbing plants supplied come from the forest or existing gardens, the extraction must have been carried out in accordance with the provisions of current legislation, and this origin must be recorded on the delivery note.

Additional important descriptions

- Denomination of the rootstock, if applicable.
- Sex, in the case of dioecious plants with interesting fruit.
- Number of trunks or main stems.
- Number of root prunes, if applicable.
- Presence of a leader, if applicable.
- Thinning, if applicable.
- Cutting back, if applicable.
- Approximate weight of the plant, counting that of the root ball and that of the container, if applicable.
- Last phytosanitary treatment carried out (active material and date).

The plantation framework (spacing) will depend on the adult size and vigor of the species or cultivar being used, the quality of the soil and other characteristics of the medium and cultivation.

Subchapter 7.4

Maintenance

FERTILIZER

Base dressing

Medium and large climbers and sarmentose plants

- Decorative for its foliage: 0.5 Kg/hole of 8-8-8 fertilizer
- Decorative for its flowering: 0.5 Kg/hole of 6-9-14 fertilizer

Fertilizing

Month	Types and doses			
November	Organic material: 150 Kg/100m ²			
	Ammonium nitrate: 3Kg/100m ²			
March	Lime superphosphate: 2.5 Kg/100m ²			
	Potassium superphosphate: 1.5 Kg/100m ²			
May	Ammonium Nitrate: 1.5 Kg/100m ²			
t. d	Lime superphospate: 2.5 Kg/100m ²			
July	Potassium sulphate: 1.5 Kg/100m ²			
August	Ammonium nitrate: 1.5 Kg/100m ²			

WATERING

The following table includes a guideline for Monthly Irrigation

Nº of watering	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
		1	1	1	2	3	3	2	1			

Table 7.4.1: Monthly irrigation or climbing plants

Average dose: 5 liters of water per foot

PRUNING

This operation depends on the type of plants:

- 1. Climbers and sarmentose plants with deciduous leaves
- 2. Flowering climbers and sarmentose plants
- 3. Climbers and sarmentose plants with evergreen leaves

The specialist, once in the garden will study how the climbers and sarmentose plants need to be pruned, making a note of the number of old branches, suckers, interior branches, etc. Once analyzed, the removal of all the old branches can begin. This will ensure healthy vegetation.

When it comes to small and thin branches, hand shears are used. If cuts need to be made at great height, a long reach looper is used and if necessary, with extendable handles. When dealing with thick branches, a prune saw is used and if tears occur, they can be filed down.

Once the removal of old branches has been completed, the suckers can be removed. The purpose of this pruning is to maintain the vegetative balance of the climbers and sarmentose plants, preventing suckers from diminishing the plant's vigor.

Finally, the cutting of interior branches takes place to allow light and air to penetrate the entire plant and finally, the trimming of branches that "invade" other bushes or cover the visibility of lampposts, windows is carried out.

Once the pruning is finished, a fungicidal paint is applied to all the cuts with a diameter over 2 centimeters.

Green pruning is usually carried out every month and includes the removal of withered branches and flowers, at no time will severe pruning be carried out since it can damage the climber and sarmentose plants

Then the adjacent paths are swept, and the remains of the pruning are collected and taken directly to the landfill or left in piles that will later be collected and adequately disposed of.

PHYTOSANITARY TREATMENTS

The treatments are carried out at the times indicated below, with the consent of the owner and taking into consideration the the species, products, and methods (c.p. = commercial product).

March

Treatment against insects, mites and cryptogamic diseases.

- Abamectin: 0.35 cc/l c.p.
- Thiram 80%: 2.5 g/l

May

Treatment against wax scales, other insects and cryptogamic diseases.

- Metilpirimifos: 1.75 g/l c.p.
- Thiram 80%: 2.5 g/l c.p.

July

Treatment against sucking insects, chewing insects and mites.

- Fenvalerate: 0.75 cc/l p.c.
- Dienochlor: 0.9 g/l p.c.

September

Treatment against sucking insects, chewing insects and mites.

- Abamectina: 0.35 cc/l p.c.
- Thiram 80%: 2.5 g/l June:

December Zineb 80%: 2.5 g/l p.c.

February Zineb 80%: 2.5 g/l p.c. The presence and symptoms of specific pests and diseases in some plants should be monitored throughout the year:

- Aphids/mites: Treat with Abamectin at 0.75 cc/l p.c. or with Ethiofencarb at 1 cc/l c.p.
- Powdery mildew: White spots on the leaves. Treat with Benomyl at 0.6 g/l as soon as it appears.
- Snails and slugs: Treat late in the day and water with Metaldehyde at a rate of 10-15 granules/m².
- Chlorosis (iron deficiency): Sequestrene 138 F at 3 g/m².

For the application of phytosanitary treatments, the following equipment can be used:

- Low toxicity phytosanitary product
- Wetting
- Small tank
- Vehicle for displacement
- Masks, aprons, forearm gloves, boots.

The treatment requires only one specialist/technician, who prepares the mixture in the tank or backpack and sprays the indicated species or specimens.

Phytosanitary treatments are preferably carried out during hours of minimal inconvenience, prior to notifying the owners or users of the green area.

WEEDING AND LIGHT DIGGING

This operation should be carried out throughout the year, at least once a month in autumn and winter and twice a month in spring and summer.

Material used: Baskets, hoes and rakes, curved knives, small sickles, and backpacks for herbicide treatments.

Weeding is carried out by lightly digging the soil surface, although sometimes it also includes mechanical means (low mowing) or chemical means (with non-toxic selective herbicides).

The superficial digging should be made between the plants forming a compact group using a hoe. At the same time, the remaining clods of soil should be crumbled and the weeds removed. When the entire clump is undercut, the soil should be leveled and raked so that the surface is uniform and free of stones or objects.

The weeds are then collected and disposed of. The operation ends with the transfer of the remains to the landfill.

MONTH	OPERATION
MARCH	Transplanting of bareroot plants Formative training / pruning
APRIL	Transplanting of evergreen species Fertilizing
MAY	Maintenance pruning
JUNE JULY AUGUST	Cut wilted spring flowers from climbing plants (head
OCTOBER NOVEMBER	Base dressing Maintenance pruning Transplanting of evergreen species
DECEMBER JANUARY	Transplanting and pruning weather permitting
FEBRUARY	Formative pruning and transplanting of deciduous species

Table 7.4.2: Calendar of annual operations

FREQUENCY

OPERATION	FREQUENCY					
	1 Mar / 31 Oct		ct	1 Nov / 28 Feb		
Irrigation in planting beds	Climbers and Sarmentose plants		3 times a week		Once a week	
	Pots		3 times a week		Once a week	
Base Dressing			Prior to any planting	g		
Renewal of substrate or ameliorations	As indicated D. T.					
Weeding or light digging	Once a month					
Fortilizing	Spring and Autumn		Winter			
rentinzing	5-8 mineral substrates		1 organic substrate			
Replanting	Climbers and Sarmentose As indicated by D. T.			г.		
	Free shapes	Green pruning once a month Formative pruning and rejuve once as indicated by D.T			ining and rejuvenation: indicated by D.T.	
Formative pruning	In rose bushes	Tra	ditional pruning (topping and finishing) winter	Remove wilted flowers: spring, summer, and autumn		
	In trained forms	Trimming: Once a month		2 trimmings as indicated by D.T.		
Phytosanitary treatments	From April to November or as indicated by D.T.					
Herbicides	Monthly					

Table 7.4.3: Operations and frequencies (D.T.: technical director)

Subchapter 7.5

Recommended bibliography

• ALMENAR, S., BALLESTER-OLMOS, JF. et al. 1978. Flora. Enciclopedia Salvat de la jardinería. Tomos I, II, III, IV, V, VI, VII, VIII, IX, X, XI y XII. Salvat editores, S.A. Barcelona.

- ARMATO, G. 1986. Plante mediterranee per giardini. Edagricole. Bologna.
- BALJON, L. 1995. Designing parks. Architectura and Natura Press. Amsterdam.

• BALLESTER-OLMOS, J.F. 1991. El medio ambiente urbano y la vegetación. Estudio de la situación de la ciudad de Valencia. Generalidad Valenciana. Conselleria de Agricultura y Pesca. Serie técnica.

- BALLESTER-OLMOS, J.F. 1997. Plantas ornamentales de jardín. Universidad Politécnica de Valencia.
- BALLESTER-OLMOS, J.F. (Ed). 1999. Diseño y construcción de jardines. Universidad Politécnica de Valencia.
- BALLESTER-OLMOS, J.F. (Ed). 2001. Parques para mañana. Universidad Politécnica de Valencia.
- BALLESTER-OLMOS, J.F. (Ed). 2003. Diseño y proyectos de jardinería. Universidad Politécnica de Valencia.
- BALLESTER-OLMOS, J.F. y MIRALLES, I. 1994. Composición en el diseño de jardines. Universidad Politécnica de Valencia.
- BALSTON, M. 1986. El jardín bien diseñado. Hermann Blume. Madrid.
- BALSTON, M. 1994: El jardín diseñado. Blume Ediciones. Madrid.
- BOISSET, C. 1995. Jardín y arquitectura. Blume. Barcelona.
- BORNAS, G. 1956. Jardinería. Salvat. Ediciones, S.A. Barcelona, etc.
- BRICKELL, C. 1990. Enciclopedia de plantas y flores. Ediciones Grijalbo, S.A. Barcelona.
- BROOKES, J., 1992: Diseño de jardines. Blume. Barcelona.
- BROOKES, J. 1992. Guía completa de diseño de jardines. Blume. Barcelona.
- BROOKES, J. 1994. Manual práctico de diseño de jardines. Blume. Barcelona.

• BURSTEIN, D. y STASIOWSKI, F. Manual de gestión de proyectos para arquitectos, ingenieros e interioristas. Gustavo Gili. Proyecto y Gestión.

- CAÑIZO, J.A. DEL y GONZALEZ ANDREU, R. 1994. Jardines: Diseño, proyecto, plantación. 5ª ed. Rev. Mundi-Prensa.
- COLBORN, N. 1995. Grandes trucos para pequeños jardines. Ed. Gustavo Gili, S.A. Barcelona.
- COLE, A. 1994. Color. Blume. Barcelona.
- COLEGIO OFICIAL INGENIEROS AGRÓNOMOS DE LEVENTE. 2000. El proyecto en jardines y paisajes. Universidad Politécnica de Valencia.
- COLOMBO, A. 2003. Il giardino mediterráneo. DVE Italia, S.p.A. Milán.

- COOMBS, G.K. 1991: Diseño de jardines. Blume. Barcelona.
- CRANDALL, C. y CRANDALL, B. 1999. Landscape plans. Ortho's. Des Moines, Iowa.
- DAVIDSON, H., MECKLEN BURG, R. Y PETERSON, C. 1981. Nursery Management. Regents/Prentice hall. New Jersey.
- DEMBER, W.N. y WARM, J.S. 1990. Psicología de la percepción. Alianza Editorial. Madrid.
- DEREK LOVEJOY PARTNERSHIP. 1997. Spon's Landscape Handbook. E & FN Spon. London, etc.
- FOUCARD, J.C. 1997. Viveros. Ediciones Mundi-Prensa. Madrid, etc.
- GARAU, A. 1992. Las armonías del color. Ed. Paidós. Barcelona, etc.
- GENIN, A. y CHAMPEAX, H. 1972. L'entreprise de jardins et espaces verts. Tomos I y II. Editions J.-B. Baillière. París.
- GILDEMEISTER, H. 1997. Su jardín mediterráneo. Ed. Moll. Palma de Mallorca.

• GOMBRICH, E.M. 1987. La imagen y el ojo: nuevos estudios sobre la psicología de la representación pictórica. Alianza Editorial. Madrid.

- GREY, G. y DENEKE, J. 1986. Urban forestry. John Wiley and Sons. Nueva York.
- HACKETT, B.1979. Planting design. McGraw-Hill book Company. New York.

• HARRIS, CW. Y DINES, N.T. 1988. Time-saver standards for landscape architecture. McGraw-Hill Publishing Company. New York.

• HASKELL, T. 1971. Environmental values of trees and landscape plants. National Symposium for Parks. Recreation, Environmental Design.

- HERWIG y STEHLING. 1987. Diseño de Jardines. Ed. Blume. Barcelona.
- HILLER, M. 1996. Guía práctica para cambiar el color en el jardín. Blume. Barcelona.
- JONHSON, H. 1981. Las artes del jardín. Ed. Blume. Barcelona.
- KÜPPERS, H. 1992. Fundamentos de la teoría de los colores. Gustavo Gili, S.A. México.
- LILLO, J. 1993. Psicología de la percepción. Debate. Madrid.
- LITTLEWOOD, M. 1988. Diseño urbano III. Gustavo Gili, S.A. México.
- MACKENZIE, D.S. 1989. Complete manual of perennial ground covers. Prentice Hall Inc. New Jersey.
- MARCUS, C.C. y FRANCIS, C. 1998. People places. Van Nostrand Reinhold. New York., etc.
- MIELGO M. 1990. Efecto cromático y profundidad . In : "Paisajismo y diseño en Jardíneria". U.P. Valencia.
- MOPU. 1990. Espacios públicos urbanos. Trazado, urbanización y mantenimiento. Instituto de Territorio y Urbanismo.

• MURET, J.P., ALLAIN, Y.M. and SABRIE M.L. 1987. Les espaces urbains. Concevoir, realiser, gerer. Editions du Moniteur. Paris.

- NOAILLES, VICOMTE de and LANCASTER, R. 1977. Plantas mediterráneas. Floraprint España, S.A. Valencia.
- NOURRY, J.P. 1971. Art et technique des jardins, I. Editions J.-B. Baillière et Fils. París.

• PAEZ DE LA CADENA, F. 2001. Plantaciones en vías públicas En: BALLESTER-OLMOS, J.F. (Ed.). PARQUES PARA MAÑANA. pp. 189-200. Universidad Politécnica de Valencia.

• PAEZ DE LA CADENA, F. 2003. Composición en el diseño del paisaje. En: BALLESTER-OLMOS, J.F. (Ed.). DISEÑO Y PROYECTOS DE JARDINERÍA. pp. 59-64. Universidad Politécnica de Valencia.

• PARSONS, M.J. 2002. Cómo entendemos el arte: una perspectiva cognitivo-evolutiva de la experiencia estética. Piados Ibérica. Barcelona 2002.

• PAUL, A. and REES, Y. 1988. Jardins d'aujourd'hui. Flammarion. Francia.

• PRIETO-PUGA, J. and GARCIA-VERDUGO, J.C. 1998. Especies ornamentales del jardín meridional. Consejería de Agricultura y Pesca. Sevilla.

• PUERTA, F. 2001. Análisis de la forma. Ed. Universidad Politécnica de Valencia.

• RUTLEDGE, A.J. 1971. Anatomy of a Park. McGraw-Hill book Company. New York, etc. Sagapress, INC./ Timber Press, Inc. Oregón.

• SANCHEZ DE LORENZO, J.M. 2000. Flora ornamental Española. Junta de Andalucía, Ediciones Mundi-Prensa y asociación Española de parques y jardines públicos. Madrid.

• SANCHEZ DE LORENZO, J.M. 2001. Guía de las plantas ornamentales. Ediciones Mundi-Prensa. Madrid, etc.

- SANZ, JC. 1993. El libro del color. Alianza Editorial. Madrid.
- STANLEY, J. Nursery and garden centers. Marketing Manual. Geo. J. Ball Publishing. U.S.A.
- STEVENS, D. 1996. Diseñar el jardín. Blume. Barcelona.
- STEVENS, D. y BUCHAN, V. 1997. Enciclopedia del jardín. Blume. Barcelona.
- TABOAS, T. 1991. El color en la arquitectura. Ediciós do castro. A Coruña.
- THOMAS, G.S. 1990. Perennial garden plants.

• VARIOS. 2000. Documentos de apontamientos de arquitectura paisajista. Universidad de Tras-Os- Montes e Alto Douro. Portugal.

• VARIOS. 2001. Il Jornadas Técnicas de Construção e Manutenção de Espaços Verdes. Universidad Politécnica de Valencia-Jardim e Arte. Estoril.

• WALKER, T.D. 1992. Site design and construction detailing. Van Nostrand Reinhold. New York.