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



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Chapter 6 GROUNDCOVERS

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Subchapter 6.1

Introduction

INTRODUCTION

In Tudor England, walkable meadows in garden areas were reclaimed meadows cut with scythes. In the 16th century, they were created with chamomile and grass that, according to a gardener of the time, "the more you stepped on it, the faster it grew." Short-stem aromatic plants became popular in the 17th century and native thyme, mints and chamomiles were frequently used in England. One of the most famous chamomile tapestries in Britain is that of Buckingham Palace, which is mixed with grass and cut with a lawn mower. There, even in the driest summers, *Anthemis nobilis* (Figure 6.1.1) withstands heavy use and maintains its greenness even when the grass has lost it. The best is the *Treneague* variety for its compactness.



Figure 6.1.1: Anthemis nobilis

In today's gardens, land without herbaceous vegetation around trees and shrubs has low aesthetic value, in addition to being prone to weeds resulting in increased maintenance costs. The absence of plant cover also brings with it greater aridity since there is no shade to screen the direct sunlight on the ground and prevent water evaporation. In nature, if soil moisture and fertility are good, it is unusual to see bare land.

Therefore, the introduction of groundcovers is not about establishing walkable meadows throughout the garden, but rather creating a low-height green carpet by using plants that form dense groups and have short stems, or creeping species that cover the ground with their foliage.

On other occasions the situation is different. For example, when there are areas in the garden that, due to excess shade, drought, or humidity, do not allow a lawn to grow correctly. There, a series of non-grass groundcover species can grow and replace the classical meadow although, in some cases, they might not tolerate trampling.

In general, ground cover plants are those species that naturally and without cutting reach a height that ranges between 2 and 30 cm, although in a broader sense they might also include species more than 1 m tall.

They can be annual, biennial or perennial, woody, succulent or herbaceous. Its growth habit can be widely varied and have an extensive or concentrated growth pattern, vigorous or slow development, and different shapes and profiles. We can find deciduous, semi-persistent and evergreen species, conifers, and angiosperms.

Within all the diversity that can be found among groundcover plants, there is one constant characteristic; the abundance of vegetation when the correct species is properly chosen, planted and cultivated. Groundcovers can be ground-hugging plants such as *Saxifraga* and *Thymus*, or low evergreen shrubs such as creeping juniper, *Erica and Cotoneaster horizontalis*. Even the tallest shrubs, such as *Berberis, Choisya, Eleagnus* and *Potentilla*, have low branches thick enough to inhibit most weeds. Other non-woody species with large leaves that cover the ground during the summer are also suitable for this purpose, such as *Hosta, Acanthus* and *Ligularia dentata*.

The best species for dry shade are Vinca minor (20 cm), especially the varieties Bowles' Variety or La Graveana, Coerulea Plena and Multiplex; Pachysandra terminalis its Variegata form, P. procumbens, Lysimachia nummularia Aurea and Lamium maculatum. In sun and shade the following species do well: Coprosma x Kirkilii, Duchesnea indica, Fragaria vesca, Polygonum capitatum and Dichondra repens (deep shade or sun).

In the case of areas with steep slopes, species that retain the soil efficiently should be chosen (*Nepeta spp., Juniperus sabina, "Tamariscifolia"* (50 cm tall) and different varieties of *J. horizontalis* (40 cm), *Cotoneaster horizontalis, C. adpressus* and *C. microphyllus* (10cm), Vinca major (20cm), *Hypericum calycinum* (30 cm)

For places with moist soil, species such as *Cotoneaster dammeri* (30cm), *Lysimachia nummularia* and its "Aurea form", or the creeping *Cornus canadensis* can be chosen; in waterlogged areas, the *Myosotis palustris* and the water clover *Menyanthes palustris* are suitable.

Among the flowering plants, the Arabis, Auberieta, Epimedium, Tiarella, Nepeta and Phlox subulata are recommended, which give attractive blooms in spring. Saponaria ocymoides creeps among rocks and covers bare ground but needs sun and good drainage; the Hypericum calycinum is ideal for shady places and soil with some constant humidity; Galium odoratum (Asperula odorata) is interesting, as are the creeping species of the Cytisus genus, such as Cytissus x kewensis and C. procumbens.

Groundcover species with colored foliage can be of interest such as *Heuchera* "Palace Purple," *Pachysandra terminalis* "Variegata" and species of Epimedium, *Juniperus sabina* "Tamariscifolia" (50cm), *V. procumbens* "Nana", *Picea abies* "Procumbens" and yews *Taxus baccata* "Cavendishisi" and T.b. "Procumbens".

Among the deciduous species are *Ajuga reptans* "Variegata" (20cm) with cream variegated foliage, A. r. "Atropurpurea" with purple leaves and the A. r. "Multicolor" or "Rainbow", with bronze, pink and yellow leaves. There is a purple four-leaf clover (*Trifolium repens* "Purpurascens") and *Lamium maculatum* is also of interest.

There are also groundcover plants with silver leaves for sunny and dry places. Among them are Artemisia schmidtiana "Nana," A. brachyloba, Stachys lanata "Sylver carpet" and S. byzantina. Cerastium tomentosum (10cm). In addition, Nepeta hederaceae "Variegata" are also highly recommended.

Certain short-stemmed plants resist trampling from time to time, although it should not be abused. Some of the most tolerant are *Sagina glabra* (S. filifera), of which the "Aurea" variety is especially showy. The

Minuartia (Arenaria or Alsina) verna caespitosa "Aurea" is also recommended. Among the species which prefers moist and well-drained soils we can find Acaena buchanani and A. microphylla (20cm), Sedum acre, Phyla nodiflora (Lippea repens) (deciduous), Armeria caespitosa, Achillea millefolium, Arctotheca calendula (invasive), Fragaria chilloensis, Gazania, Grevillea rosmarinifolia, Verbena peruviana, Cotula squalida and Mentha pulegium.

The *Dichondra repens* is noteworthy as it can withstand light trampling. It is a non-grass species with small, rounded leaves that can cover large surfaces with a 5 to 10 cm high carpet. It is not recommended in cold areas (resists up to -9 °C).



Figure 6.1.2. Dichondra.

Other groundcover species such as: Pachysandra, Hedera, Lysimachia nummularia, Chysanthemum (Tanacetum) haradjanii, Erigeron harvinskianus (E. mucronatus) cannot tolerate trampling. Species such as Frankenia laevis and Campanula cochleariifolia (C. pusilla) also form attractive carpets however they also cannot tolerate trampling.

Also recommended are *Raoulia hookeri*, *R. australis* and *R. tenuicaulis*, *Gypsophila repens* "Fratensis" and *Globularia meridionalis* (*G. bellidifolia*), which grow well on limestone soils. *Parochetus communis* is suitable for moist, shady gardens.

The following species are suitable for the Mediterranean garden and form a carpet with an irregular surface: Achillea tomentosa, Baccharis pilularis, Felicia amelloides, Helianthemum nummularium, Lantana montevidensis, Lithiodora diffusa, Osteospermum fruticosum, Pelargonium tomentosum and Teucrium chamaedrys.

The "cushion-like" species used in Mediterranean gardens are usually plants that require special drainage: Aurinia saxatilis, Ballota, Cerastium, Dianthus deltoides, Erigeron karvinskianus, Iberis saxatilis, I. sempervirens, Lavandula, Phylica ericoides, Rosmarinus officinalis "Prostratus," Santolina spp. and the Verbena tenuisecta, (very tolerant to drought).

Some species recommended for the Mediterranean garden have bushy growth and are between 20 and 40 cm tall: *Arctostaphylos hookeri* "Monterrey Carpet", *Ceanothus thyrsiflorus* var. *repens* (100cm) and *Cotoneaster dammeri* "Lowfast".

In addition to those mentioned in previous paragraphs, there are also climbers and twiners that are excellent groundcovers in Mediterranean gardens, such as: *Macfadyena (Doxantha) unguis-cati, Hardenia violacea,*

Lonicera japonica, L. pileata, Pelargonium peltatum, Trachelospermum jasminoides and Tropaeolum majus for full sun, Vinca difformis and Ficus repens for sun and shade, and x Fatsedara lizei for shade.

Other groundcover species that are suitable for Mediterranean gardens are: *Carissa grandiflora* "Postrata," *Coprosma repens, Cornus canadensis, Ostheosporum (Dimorphoteca) repens, Euonymus fortunei, Hypericum x moserianum, Lamium maculatum, Lysimachia nummularia, Drosanthemum spp, Aptenia cordifolia, Muehlembeckia complexa, Myoporum parvifolium, Nepeta x faasenii, Ophiopogon japonicus, O. jaburan, Verbena radicans, V. repens.* The succulent species *Lampranthus spp, Carpobrotus spp.* are also interesting species.

Many varieties of thyme can be used as groundcovers, all of which are evergreen, aromatic and with white, pink or red flowers. Thyme masses or clumps can be made using one or several of its species such as: *Thymus serphyllum (T. drucei)*, mainly its "Pink Chintz" and "Snowdrift" varieties, *T. X citriodorus* "Aureus" (20cm in size) and the variegated form "Silver Queen", *T. herba-barona*, and *T. drucei var*. pseudolanuginosus.

Species such as: Saxifraga paniculata (S. aizoon) S. burseniana, S. x "Jenkinsae" and Oxalis magellanica are ideal for shaded areas.

The following groundcover plants are also of special interest: *Cotoneaster dammneri* "Major" (10 cm high), *C. microphyllus* "Streib's Finding" (10cm), *C.salicifolius* var. *repens* (20cm), *Hedera helix* "Shamrock" (20cm), *Rosa* "Snow carpet" (10cm), *Rubus* "Betty Ashurner" (30cm), *Rubus tricolor* (30cm), *Juniperus horizontalis* "Andorra Compacta" (40cm), *J. squamata* "Blue carpet" (30cm), *Acaena microphylla* (20cm), *Alyssum saxatile* (20cm), *Arabis blepharophylla* (10cm), *Festuca glauca* (30cm), *Polygonum affine* (30cm), *Sagina subulata* (10cm) and *Salvia officinalis* "Purpuracens" (30cm).

TYPOLOGY OF GROUNDCOVER PLANTS

In the following figures 6.1.3 and 6.1.4 we can appreciate the different types of groundcover plants.



Figure 6.1.3: Types of groundcovers plants I (NTJ 07J C.O.I.T.A.P.A.C.)



Figura 6.1.4: Types of II (NTJ 07J C.O.I.T.A.P.A.C.)

ADVANTAGES OF USING GROUNDCOVERS AND CREEPERS

Soil

They improve the stabilization of sloping soils, preventing erosion. They increase the porosity of the soil and prevent compaction, in addition to enriching it with organic matter from its plant residues.

Maintenance

The maintenance of most groundcover plants is notably cheaper than that of lawns, both in open areas and in areas that are difficult for machinery to access (patios, large halls in commercial areas, street medians, patches of garden at the foot of trees or shrubs, places with steep slopes...) In addition, these plants save irrigation water by reducing the evaporation of soil moisture.

Aesthetic

Groundcover plants, properly chosen and planted together, can unify compositions including different materials. They also serve to soften angular built elements (paths, facades, enclosures) and better integrate them into the greenery of the garden.

The perception of dimensions in the garden can be modified through a careful selection and use of groundcovers, choosing them according to their textures and colors. Small textures and neutral or cold colors increase the feeling of amplitude and big textures and warm colors have the opposite effect.

The considerable number of groundcover species create and endless number of combinations thus avoiding monotonous or repeated a landscape designs.

Recommendations

1- Using too many species in a composition with groundcovers should be avoided. Ideally only one or few species should be used, even for big areas.

2- In general, the species with larger leaves should be planted in parks or garden areas where the scale is greater, and those with small leaves in small gardens or in secluded corners.

3- The soil, irrigation, temperature, and lighting needs of the groundcover plants and the other species that will form the set must be considered, and the choice must be made based on the compatibility of the ecological requirements of each species.

Subchapter 6.2

Species

This chapter outlines **18 species of groundcover 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 describes for each species 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 species and different morphological details.

PARAMETERS AND VALUES USED IN THE BOTANIC DATASHEET					
ΤΑΧΟΝΟΜΥ					
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					
TRUNK					
BARK	SMOOTH, VERTICAL FISSURES, LONGITUDINAL FISSURES, DIAGONAL FISSURES; ROUGH, SCALY, CORKY WITH PLATES				
COLOR OF BARK	GREYS; GREEN/GREY OR BLUE/GREY. SILVER; LIGHT GREEN, YELLOW, LIGHT BROWN, DARK, GREEN, RED; RED. PURPLE; YELLOW; BLACK; MARBLED; TWO- TONED; THREE-TONED; LIGHT GREY, DARK GREY;				
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 SIDE (LS)	GREEN, LIGHT GREEN, DARK GREEN, BLUE/GREEN, GREY PURPLE; PALE; YELLOW; VARIEGATED; RUST COLORED; SILVER				
TEXTURE OF UPPER SIDE (US)	SHINY, ROUGH, GLABROUS, TOMENTOSE, HAIRY, ROUGH, SCALY, VISCOSE				
TEXTURE OF LOWER SIDE (LS)	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 ENTIRE, CILIATE, DENTATE, CRENATE, SERRATED, DOUBLE SERRATED, LOBED,				
LEAF MARGIN	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, PINE CONE				
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 TEMPERATURES: DEGREES CELSIUS
MINIMUM	
TEMPERATURE	CLASSIFICATION ACCORDING TO EUROPEAN REGULATION: (SEE MAP)
AND	G2HOT GREENHOUSES IN SOUTHERN EUROPE
INTERNATIONAL	H5 THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM OVE TO -590
	H4 THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -5°C TO -10°C
CLASSIFICATION	H3 THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -10°C TO -15°C
	H2 THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -15ºC TO -20ºC
	H1THE PLANT SUPPORTS MINIMUM TEMPERATURES FROM -20
	CLASSIFICATION INTERNATIONAL REGULATIONS. ACCORDING TO MINIMUM TEMPERATURE RANGES
	Z1SUPPORT MINIMUM TEMPERATURES OF -50ºC
	Z2SUPPORT MINIMUM TEMPERATURES OF -50ºC TO -40ºC
	Z3 SUPPORT MINIMUM TEMPERATURES OF -40°C TO -30°C
	Z4SUPPORT MINIMUM TEMPERATURES OF -30°C TO -20°C
	77 SUPPORT MINIMUM TEMPERATURES OF -0°C TO 10°C
	Z8 SUPPORT MINIMUM TEMPERATURES OF 10°C TO 20°C
	Z9 SUPPORT MINIMUM TEMPERATURES OF 20ºC TO 30ºC
	Z10SUPPORT MINIMUM TEMPERATURES OF 30°C TO 40°C
	Z11SUPPORT MINIMUM TEMPERATURES OF MORE THAN 40°C
EXPOSURE TO	FULL SUN, FULL SHADE, SHADE, PART SHADE
SUNLIGHT	
DROUGHT	YES, NO, MODERATE
RESISTANCE	
FROST RESISTANCE	YES, NO, MODERATE
SOIL	
PH OPTIMUM	PH: ALL TYPES; NEUTRAL, ACID, BASIC (OR INTERVAL OF PH)
LEVEL OF FERTILITY	FERTILE, AVERAGE, POOR
TEXTURE OF SOIL	SANDY, SLIT OR LOAMY, CLAY, SANDY LOAM, CLAY LOAM - ALL TYPES
DRAINAGE	HIGH, MODERATE, LOW
RESISTANCE TO SEA	YES, NO, MODERATE
RESISTANCE TO LIME	YES, NO, MODERATE
USES	
RESISTANCES	
RESISTANCES COASTAL	1 st LINE, 2 ND LINE, NO.
RESISTANCES COASTAL POLLUTION	1 st LINE, 2 ND LINE, NO. HIGH, MODERATE, LOW
RESISTANCES COASTAL POLLUTION WIND	1 st LINE, 2 ND LINE, NO. HIGH, MODERATE, LOW HIGH, MODERATE, LOW

IN SLOPES			
CLIMBERS			
HANGING	YES, NO		
PAVEMENTS			
ISOLATED			
SPACING	MINIMUM RECOMMENDED DISTANCE BETWEEN PLANT: M, CM		
PLANTING AND PLANT	r health		
PLANTING AND			
PLANT HEALTH			
CALENDARS			
CHROMATIC	FOLIAGE, FLOWERING, FRUITING SEASON: the color white represented with		
CALENDAR	grey or black cell		
CULTIVATION	SOWING PLANTING PRIMING		
CALENDAR			
TREATMENTS			
CALENDAR	TONGICIDES, FESTICIDES, FERTILIZERS, HERDICIDES		
COMMERCIALIZATION			
PRESENTATION	BR (BARE ROOT), CT (CONTAINER or POT (LITERS), CE (ROOT BALL), CEY (ROOT BALL IN GYPSUM), ROOT BALL IN MESH		
STEM GIRTH(TREE)	GIRTH (perimeter): CM or years or SAMPLE, or shrubs (in tree species)		
HEIGHT (SHRUBS,			
CONIFERS AND	HEIGHT: CM, M		
PALMS)			



Figure 6.2.1: Thermal classification map according to European regulations

LIST OF GROUNDCOVER SPECIES DESCRIBED

- 1. Aptenia cordifolia
- 2. Asparagus densiflorus
- 3. Carpobrotus acinaciformis
- 4. Carpobrotus edulis
- 5. Cerastium tomentosum
- 6. Drosanthemum floribundum
- 7. Felicia amelloides
- 8. Festuca cinerea
- 9. Gazania x hybrida
- 10. Hedera helix
- 11. Hypericum calycinum
- 12. Lampranthus aureus
- 13. Lampranthus spectabilis
- 14. Lantana montevidensis
- 15. Lobularia maritima
- 16. Ophiopogon japonicus
- 17. Verbena x hybrida
- 18. Vinca Major

APTENIA

Aptenia cordifolia

GROUND CO	VER			APTENIA SPANISH	VALENCIAN	ROCK ROSE ENGLISH	APTENIA FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		RED APPLE	
EXTENDED	0.05-0/20 M	4-6 M	TYPE:	DICOTYLEDONS		VARIEGATA	
		Root	ORDER:	CARYOPHYLLACEAE		SUNNY SUE	
		SCATTERED	FAMILY:	AIZOACEAE			
M	ORPHOLOGY						
	UNDERG NO	WOODY NO					
Stem	CREEPING YES	CLIMBING NO				ALE CA	
Leaf	COMPOUND:	NO					
Lear	HARDNESS:	FLESHY	With a		AN 77.12		
EVERGREEN	ARRANGEMENT:	OPPOSITE			120 /30		
SIZE: 1.5-5.5 CM	VENATION:	PINNATE					_
	SHAPE:	OVATE		MERICAN			A MAN
COLOR: US:GREEN	MARGIN:	ENTIRE			ALL STAS		
LS:GREEN	APEX:	ACUTE					
TEXTURE: US: SMOOTH	LEAF BASE:	ATTENUATE			XC VAN		- Agent
LS: SMOOTH	PETIOLE:	SHORT			STO AND		STATISTICS D
Flower	Туре	Reproduction				A TRY	
	HERMAPHRODITE	HERMAPHRODITE					
SIZE: 1 CM	Flowering	Fragrant					1 1 1 1
		NO	Charles and the second se		Martin K		
	Туре	Color	1	1 ALAN		7 Frence	2212
Fruit	CAPSULE						
SIZE	Edible	Fruiting season					
GIZE.	Poto	Longovity		LA JAKE	· Ent		
Growth	MODERATE	VICOROLIS			N		
	MODEIOTE	VIGORODO	200		14		1
	ECOLOGY		y and				
Climate	Temperature	Drought resistant			1000		E F S
	0°C,H5,Z7	MODERATE	the second		Cont Days	Live	
ALTITUDE: 0-200	Sun exposure	Frost resistant		AS VIR			
IRRIGATION: LOW	FULL SUN	NU Calt registent	-			A CONTRACT	
Soil	LOAMY/SANDY	MODERATENICH	Carl L		7120	5 1 2 3	
pH: 65.9	Drainage	Lime resistant					E
FERTILITY: MODERATE	HIGH	MODERATE	FELLY.				
		MODERATE	1115		1.157	And Barris	A P
	USES				CY L	2 200	Do An
Resistances	Applic	ations		5 7 A		Contraction of the second seco	12.
COASTAL: YES	SLOPES: YES	HANGING: YES	200				
POLLUTION: MODERATE	UKEEPEK: NO	FAVEMENT: NO		12.37	The second		
WIND: MODERATE		IGULATED: YES					
	POINTS OF INTEREST						

Succulent ground cover plant with bright green fleshy leaves and profuse flowering. It densely covers the ground and has a tendency to branch abundantly, which makes it especially suitable for covering walls and slopes. Due to its resistance to the coastal environment, it makes it an ideal species in coastal gardens. The natural density of the carpet inhibits the development of weeds.

SPACING: 0.50 M

PLANTING AND PLANT HEALTH

Despite its resistance to drought, it needs a regular irrigation programme and well-drained soil. Given its sensitivity to frost, in cold areas it is convenient to protect the area of the garden where it is located or plant cuttings in protected pots to transplant the following spring. Despite its rusticity in terms of soil, it is convenient to fertilize lightly in autumn and spring with any type of organic fertilizer.

CHROMATIC CALENDAR	COMN	IERCIALIZATIO	DN .
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (m)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(2)		
	CT(3)		
Cultivation Calandar			
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			

ASPARAGUS

Asparagus densiflorus

GROUND CO	VER			ESPARRAGUERA AFRICANA SPANISH	VALENCIAN	SPRENGUER'S ASPARAGUS FERN ENGLISH	ASPARAGUS FRENCH
5	STRUCTURE DIVISION			PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		SPRENGERI	
EXTENDED	1-2 M	1-2 M	TYPE:	DICOYILEDONS			
		Root	ORDER:	ASPARAGACEAES			
		SCATTERED	FAMILY:	ASPARAGACEAE			
M	ORPHOLOGY				The second second		
Stem	UNDERG NO CREEPIN G YES	WOODY NO CLIMBING NO					
Leaf	COMPOUND:	NO			and a share		
	HARDNESS:	SOFT	and the second second				A COLOR
SIZE: 0.5-1.5 CM	VENATION:	VERTICIEATE	" TANK A BANK				V V V
0.22. 0.0 1.0 0.0	SHAPE:				E. KU	1	
COLOR: US:GREEN	MARGIN	SMOOTH	A - Martin Par		ALL AND	E Contraction of the second se	Contraction of the
LS: GREEN	APEX.	ACUTE	A CARLES AND		SO X		Contraction of the
EXTURE: US: SMOOTH	LEAF BASE	ATTENUATE	A STATISTICS		A AN	The second station	A CARLES
LS: SMOOTH	PETIOLE:	SESSILE	Mered High			the second is	CALL NO.
-	Туре	Reproduction	Start Carl				and the start
Flower	HERMAPHRODITE	HERMAPHRODITE				AND DESCRIPTION OF ADDRESS OF ADDRES	
SIZE: 0.2-0.5 CM	Flowering	Fragrant NO			To all		NA FOR
	Туре	Color		and the second	Ause (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	de parent
Fruit	BERRY	RED	AL GINERA	The self of the second	ALL SALES	and the part of the	and the second
SIZE:	Edible	Fruiting season					-1-14
Growth	Rate	Longevity	A CONTRACTOR		Di I C	Real Parts of the	T STATISTICS
Glowin	MODERATE	VIGOROUS			ALL STREET		e Marine
	ECOLOGY					A SNALL AND	A CARGA
0 11 /	Temperature	Drought resistant		The Party of		A ALAN	
Climate	0°C,H5,Z7	NO		NO AVER IN	C Frederic		
ALTITUDE: 0-400	Sun exposure	Frost resistant	Profes	and the states		Heles Inder	BOR DESS
RRIGATION: MOD/HIGH	SHADE	NO	A SHORE Y	the set of			an an alter
Soil	Texture LOAMY	Salt resistant		1 The second			Contraction of the
pH: 6.5-7.5	Drainage	Lime resistant	Sterra			The second se	
FERTILITY: MODERATE	MODERATE	MODERATE	18 A. 20		a hit of	and the second second	
	USES		3 4 18	E. C. F.	12 2 2 3		Colora Con
Resistances	Applic	cations		1 1 M 6 19	200 - C.		No lead
COASTAL: LOW	SLOPES: YES	HANGING: YES	100 M		SVA		10
POLLUTION: LOW	CLIMBERS: YES	+PAVEMENTS: NO	AN STORE TO	Contraction of the second		A CHARTER	AND AND
WIND: MODERATE		ISOLATED: YES			Helle Solde	A SALES	
			POI				
Originally from South	pern Africa and t	tronical Asia in th	eir natural state asna	radus drows as climbers su	innorted by larger r	plants. Of the many spec	ies that make up the
genus, only a few ar out especially if used	e used for their (l as a hanging pla	ornamental value. ant.	In general, they are v	ery easy to grow species, a	daptable to the out	doors. Its feathery appea	arance always stands
							SPACING: 0.50-1 N
			PLANTING	AND PLANT HEALTH			
Not demanding in on notable differences.	environmental h Branches will y rogramme. In the	umidity. Howeve vellow in poor light spring, the clum	r, they are not resist nting or direct sunligh ps can be divided by a	ant to dry environments. ⁻ t. They are rustic in terms rranging them in new smalle	They prefer mode of soils but appre	rate temperatures, altho eciate a spring-summer	ough they tolerate fertilization and a

CHROMATIC CALENDAR	COM	IMERCIALIZATIO	DN
Foliage, Flowering and Fruiting Season	Presentation (L)	Diameter (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(2)	15	
	CT(3)	18	
Cultivation Colondar	CT(7)	22	
	CT(10)	24	
JAN FED MAR ADR MAT JUN JUL AUG SEFT UCT NUV DEC	CT(30)	36	
Sowing Planting Pruning X			
Treatment Calendar			
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			
Fungicides Pesticides Fertilizers			

CARPOBROTUS

Carpobrotus acinaciformis

GROUND CO	VER			FLOR DEL CUCHILLO SPANISH	VALENCIAN	ELANDS SOURFIG ENGLISH	GRIFFE, DOIGT DE SORCIÈRE FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.15 M	4-6 M	TYPE:	DICOYILEDONS			
		Root	ORDER:	CARYOPHYLLACEAE			
		SCATTERED	FAMILY:	AIZOACEAE			
M	ORPHOLOGY						
Stem	UNDERG NO	WOODY NO			I ALL XI		
otom	CREEPING YES	CLIMBING NO					
Leaf	COMPOUND:	NO				11111	
	HARDNESS:	FLESHY				1 P	
EVERGREEN	ARRANGEMENT:	OPPOSITE	Mall			21	
SIZE: 9 CM	VENATION:		A ALLAN			Sal and	
	SHAPE: CY	LINDRICAL/CURVED					
COLOR: US:GREEN	MARGIN:		1 - all			200 A 10 10 10 10 10 10 10 10 10 10 10 10 10	
LS:GREEN	APEX:	POINTED				The set	
TEXTURE: US:SMOOTH	LEAF BASE:	ROUNDED		A Adda		11/1/11	
LS:SMOOTH	PETIOLE:	SESSILE					
Flower	Туре	Reproduction	Contract (. de	
	HERMAPHRODITE	HERMAPHRODITE					
SIZE: 12 CM	Flowering	Fragrant					2 4 15 14
		NO			11 - JA	1 1 00	
	Туре	Color		- A Castron	A ANT		
Fruit	CAPSULE		1- 215	V N Z PAR	11000		
	Edible	Fruiting Season	0111.4	C. Meners	ALL N	115 2	A PARA YA
SIZE:			and the second s			Santal An er. Sain	
Growth	Rate	Longevity	TAX	The Area Maring	11/2012		The start
	FAST	VIGOROUS	C/ 2		1		3.800
	FERTILITY:		A FINA	S. E.	1	- martin	JEST &
Oliverate	Temperature	Drought resistant	1. 1			and the state	
Climate	0°C,H5,Z7	MODERATE	Contraction of the second				
ALTITUDE: 0-200	Sun exposure	Frost resistant	and second and the	The second second	Constant Sector		Constant.
IRRIGATION: LOW	FULL SUN	NO	The second		Land Differen	State of the second second	All States
Soil	Texture	Salt resistant	27 2 6 4 5	The second second second	the state of the s		Sector States
5011	LOAMY/SANDY	YES	19 19 19 19 19 19 19 19 19 19 19 19 19 1			ATT PARTY AND	and the second second
pH: 6.5-8	Drainage	Lime resistant		The state of the	F 122 1 69	A CONTRACT	THE SHALL
FERTILITY: MODERATE	HIGH	MODERATE	5-1-2-1×	State -	and the second	- Aler Man	the states
	USES			Then -		A REAL PROPERTY AND A REAL	A Company A
Resistances	Appliq	cations			the such the	A CONTRACTOR	
COASTAL: YES	SLOPES: YES	HANGING YES	A CAL	An Carton	107	Contraction of the	a state of the second
POLLUTION: MODERATE	CLIMBERS: NO	+PAVEMENTS: NO		attract in	10	the state of	STREET, STREET
WIND: MODERATE		ISOLATED: YES		Con Contraction	TAMES		
	•		-				
			PC	JINI S OF INTEREST			

Native to South Africa. With succulent foliage and creeping branched stems, it is used as an extensive ground cover for dunes and sandy areas. Its high water content makes it heavy and as a result, can be slippery on very sloping ground. It has attractive flowers of variable colors although pink-yellow tones predominate. They produce an edible fruit. Its fast growth and low irrigation programme make it a great value in gardening. However, its invasive nature and its naturalization have made it a threat to the local flora in coastal and dune areas. Given its high water content, it is an excellent fire retardant. The species *Carpobrotus acinaciorimis* is used, fundamentally, for terracing of landscaped rocky areas and in dune areas for the protection of the "mounds". In general, this species is widely distributed throughout the Andalusian coast.

SPACING: 0.50 M

PLANTING AND PLANT HEALTH

This species of groundcover needs good lighting, sunny exposure, temperate climate (although it can tolerate frost). It accepts all type of soil and is resistant to salt.

CHROMATIC CALENDAR	CO	MMERCIALIZATI	ON
Foliage, Flowering and Fruiting Season	Presentation	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT	15	
	CT	20	
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			

CARPOBROTUS

Carpobrotus edulis

GROUND CO	VER			SPANISH	VALENCIAN	ENGLISH	FRENCH
/	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.15 M	4-6 M	TYPE:	DICOYILEDONS			
	Γ	Root	ORDER:	CARYOPHYLLACEAE			
	<u> </u>	SCATTERED	FAMILY:	AIZOACEAE			
M	IORPHOLOGY				NE 10	1010 M	1 hours
Stem	UNDERG NO CREEPING YES	WOODY NO CLIMBING NO	14		MY M	R	112
Leaf	COMPOUND: HARDNESS:	NO FLESHY	1 AA				12
EVERGREEN	ARRANGEMENT:	OPPOSITE	San Barris		CALL MAR	"He had	2
SIZE: 4-13 CM	VENTATION:			The start for		"Allas	aller .
I	SHAPE: CY	/LINDRICAL/CURVED				- CAMAR	Alla a
COLOR: US:GREEN	MARGIN:	SMOOTH	Statute P			- 00 alla	
LS:GREEN	APEX:	SHARP					
TEXTURE: US:SMOOTH	LEAF BASE:	ROUND					
LS:SMOOTH	PETIOLE:	SESSILE					
Flower	Type HERMAPHRODITE	Reproduction HERMAPHRODITE				· Same	
SIZE: 8-10 CM	Flowering	Fragrant			Ser anno		
ı	FLORET	NO			A Carlos A		
	Туре	Color		M MARKEN IN		200	
Fruit	CAPSULE	' <u></u> '		Stark /	1 All		1 X Contraction
i	Edible	Fruiting Season				Tom The	and and
SIZE:	YES	<u> '</u>					100
Growth	Rate	Longevity				5	2
	FAST	VIGOROUS		A CALL	AN	5 It file	
	ECOLOGY			A STATISTICS	2	S 397	10 200
Climate	Temperature	Drought resistant				Se	
Gillinate	0°C,H5 ,Z7	TOLERANT	1		Los C	a series	TO A
ALTITUDE: 0-200	Sun exposure	Frost resistant		-11-0		~	1 Caller
IRRIGATION: LOW	FULL SUN	NO		- ALAN	A Star	A-V	RES IN
Soil	Texture	Salt resistant	THE REAL PROPERTY OF		A DESCRIPTION OF THE OWNER		
1	LOAMY/SANDY	YES	and the second	the Manual and	1 the state	A REAL PROPERTY.	an all the set
pH: 6.5-8	Drainage	Frost resistant	State of the second	Street De Street Street	States and and	and the second second	and the second
FERTILITY: LOW	HIGH	YES	States States	Ser Statistics	A	The second second	HIT I STATE
[USES		the state of the	The state of the state	and the second		A CARE
Resistances	Appli	cations	States	Contraction of the second	the state of the	· · · · · ·	Section of the
COASTAL: YES	SLOPES: YES	HANGING: YES	200	- section of the section	and the second second	1302	A State of the second
POLLUTION: MODERATE	CLIMBERS: NO	+PAVEMENT: NO				14 4 5	A DECEMBER OF
WIND: MODERATE	<u>. </u>	ISOLATED : YES	Statistics where he	Standard and and a	and	S. M. S. C.	a state of the party of
			POI	NTS OF INTEREST			
Originally from Sout	th Africa. With st	ucculent foliage a	and creeping branche	d stems, it is used as an exte	ensive ground cover	for dunes and sa	andy areas. Its high
water content make	es it heavy and	as a result, car	1 be slippery on very	/ sloping ground. It has attrac	tive flowers of varia	able color althoug	h pink-yellow tones
predominate. They r	produce an edibl	le fruit. Its fast gro	owth rate and its low i	rrigation programme makes it a	great value in garde	ening. However, its	invasive nature and
ate noturolization por	a mode it a three	at to the local tional	in coactal and dune a	read Given its high water conte	nt it is an evcellent t	äre retardant	

PLANTING AND PLANTING HEALTH

It needs good lighting, sunny exposure, temperate climate, although it can tolerate frost. This species accepts all types of soil and is very resistant to salinity.

CHROMATIC CALENDAR	CON	IMERCIALIZATIO	N
Foliage, Flowering and Fruiting Season	Presentation	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT	15	
	CT	20	1
Cultivation Calendar			1
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			
Sowing Planting Pruning X			
Treatment Calendar			1
ENE FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC			1
Fungicides Pesticides Fertilizers			

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CERASTIUM

Cerastium tomentosum

GROUND CO	VER			ROCALLA BLANCA SPANISH	VALENCIAN	SNOW IN SUMMER ENGLISH	CERAISTE VELU FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
ROUND	0.15-0.20 M	0.25-0.30 M	TYPE:	DICOTYLEDONS			
		Root	ORDER:	CARYOPHYLLALES			
		SCATTERED	FAMILY:	CARYOPHYLLACEAE			
м	ORPHOLOGY					Contract and	
Stom	UNDERG YES	WOODY NO	20214		The state		
Stem	CREEPING YES	CLIMBING NO	t for a	CALL REAL	2 W 2/5 1000	6764	
Loaf	COMPOUND:	NO				5 # 2.5	
Leai	HARDNESS:	SOFT	the search	AND AND	Marine X 1	1	
EVERGREEN	ARRANGEMENT:	OPPOSITE				A BAT	
SIZE: 1-3 CM	VENATION:	PINNATE	A Start Start		SULT I	5 Y / 45	T
	SHAPE: LIN	NEAR-LANCEOLATE	Correspondences				
COLOR: US:DULL GRAY	MARGIN: OVA	AL/CURVED AT ENDS				States V	
LS:DULL GRAY	APEX:	ACUTE				A State of the second s	
TEXTURE: US:TOMENTOSE	LEAF BASE:	ATTENUATE		and the second second			
LS:TOMENTOSE	PETIOLE:	SHORT	1 2 - 1 - 1	A A A A A A A A A A A A A A A A A A A		Contention	1 1 1 1 2 5 A
Flower	Туре	Reproduction					AND THE REAL PROPERTY OF
TIOWEI	HERMAPHRODITE	HERMAPHRODITE	all starting		AND ALL	Te De la contra	Contraction of the second
SIZE: 2.5 CM	Flowering	Fragrant			AND - AN DECEM		
	ISOLATED	NO	144016				and the second
	Туре	Color	A ALAR	and the second second	South States	alizer -	Charles and the second
Fruit	CAPSULE						+ Contraction
	Edible	Fruiting Season	C. C. M. M.		Charles and	ORGE	Ver Alle
SIZE:			and the		1000	NOTE LA	Y Dealers
Growth	Rate	Longevity	The set of the set			VE LON	THE SALES
Growin	FAST	VIGOROUS					
	ECOLOGY		10 00	A CALLER AND			Art of
	Temperature	Drought resistant	TOPA		The second		015 - OKS
Climate	0°C, H5, Z7	MODERATE	A CONTRACT	A HAR I WITT			
ALTITUDE: 0-200	Sun exposure	Frost resistant				C. C. C.	A CAK
IRRIGATION: MODERATE	FULL SUN	NO		Contraction of the	ALL	States .	
	Texture	Salt resistant					
Soll	LOAMY	NO	1 W Land				and the second
pH: 6.5-7.5	Drainage	Lime resistant	PUSS	5 A. A. F. A.	A TRANS		the loss of an
FERTILITY: POOR	HIGH	YES	AFILA	A Contractor	A A A A A	075752	A STATE AND
	USES		1. 7. 57	Terre S-ALS			and the fait
Resistances	Appli	cations	and to all	Barrisk, Barris	· Land Cart	Mile and	A 1941 47 314
COASTAL: MODERATE	SLOPES: YES	HANGING: NO	5 - La Sont	MARA DE MA		Carlo Al	E ALAN
POLLUTION: MODERATE	CLIMBERS: NO	+PAVEMENT: NO	A HANNE THE	AFLI AND W		1 1 2 3 12	
WIND: MODERATE		ISOLATED: YES		REALIN	ANT SALAN	and the second of the	172 3 2 3
l							
1			POI	NTS OF INTEREST			

This species of cerastium produces numerous thin shoots. Tomentose refers to the silky, silvery, frizzy and entangled hairs that cover the leaves. It develops in tight clusters that grow adapting to the shape of the land or fall like vegetable hair if they are planted on top of a low wall or in some type of container. It is suitable for marginal areas of the garden, between rocks or on slopes. It produces a special effect on the top of stone walls or growing on the edges or between the steps of a staircase. It is ideal for framing a path made with stone slabs. It can also be planted in flower boxes on terraces and balconies.

SPACING: 0.30 M

PLANTING AND PLANT HEALTH

It needs permeable and well-drained soil. In areas that are too dry and hot, it requires complementary weekly irrigations. It grows best in alkaline soils that are poor in nutrients, which helps maintain the gray color of its leaves. To densify its growth prune after flowering. Propagation is simple by dividing the bushes in autumn or spring and by means of non-flowering cuttings taken in early or late summer.

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(2)	15	
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			
Europiedas Dostinidas Eartilizars			

DROSANTHEMUM

Drosanthemum floribundum

GROUND CO	OVER			MESEM PENDULA, ROCIO ROSA SPANISH	VALENCIAN	ENGLISH	FRENCH
S	TRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.05-0.10 M	0.6-2 M	TYPE:	DICOTYLEDONS			
		Root	ORDER:	CARYOPHYLLACEAE			
		SCATTERED	FAMILY:	AIZOACEAE			
M	ORPHOLOGY						
Ctown	UNDERG NO	WOODY NO			AN LONG BUILD		
Stem	CREEPING YES	CLIMBING NO			A Contraction	SK 🔍	ALC: NO
Leaf	COMPOUND:	NO			as we we the to		
	HARDNESS:	FLESHY			ACT SPACE		
EVERGREEN	ARRANGEMENT:	OPPOSITE					
SIZE: 0.7-1.2 CM	VENATION:		and the second	A	SUE STA		1 Nates
	SHAPE:	CYLINDRICAL			States and a series of a		
COLOR: US:GREENIGRAY	MARGIN:	SMOOTH				🚱 💉 🖌	
LS:GREEN/GRAY	APEX:	ROUND	Sale Sta				The second second
LATORE: USTOMENTOSE	LEAF BASE:	KUUND					100 Contraction
LO. TOMENTOSE	PETIOLE:	Reproduction	- Contraction				the
Flower	HERMAPHRODITE	HERMAPHRODITE		COLOR OF BOARD	Repair 10 - 10		NT7
SIZE: 2-3.5 CM	Flowering	Fragant	AND ALL MARK		4		
	FLORET	NO	3 17 VE 14	COLLARS VA	A PRIME STATES		A Company
	Type	Color			C. S. Junger		March Contraction
Fruit	CAPSULE			THE ALE AND A DECK		53 6	
	Edible	Fruiting season					N N ~
SIZE:		-	ALC: NO	CONSISTER OF		A. Star	
Growth	Rate	Longevity	C. Sandara	A STATE OF	S DE SAI	T ALL LINE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Growin	FAST	VIGOROUS	2 3100	So and SM	ALL STREET	-APR - A	2 2 3 B
	ECOLOGY			The second second	CA 25 REA	E-STOP!	
Olimente	Temperature	Drought resistant	100 1000	Sec. and the second		-16	Same in
Climate	0°C,H5,Z7	MODERATE			An and the set	MIN THE	A DECKSON
ALTITUDE: 0-200	Sun exposure	Frost resistant	20 - H - H - H - H - H - H - H - H - H -	A CARD STREET	ATTACKS .	1200	
IRRIGATION: LOW	FULL SUN	NO	March 1	A Start	SIN FAR	S113 7	the same and
Soil	Texture	Salt resistant	See 1		THE TELL	- and	Den A
	LOAMY/SANDY	MODERATE/HIGH			A LUNA		
pH: 6.5-8	Drainage	Lime resistant		A COLORED TO A COLORED	82 500	\$ A (). ?	1-1-1-1
FERTILITY: MODERATE	HIGH	MODERATE			and a start of the		ALL
	USES			Calmar 2 1	The PA	and the gas	Street St
Resistances	Aplica	iciones		ANTAL DAY SCINE	100 10 1 1922 S	100 Y	ANT - ANT
COASTAL: YES	SLOPES: YES	HANGING: YES	Real Property in	AL AND	and the second	A REAL PROPERTY AND	CREASE STREET
POLLUTION: MODERATE	CLIMBERS: NO	+PAVEMENT: NO		1	A States	C ALL	PROFE ST
WIND: MODERATE		ISOLATED: YES			A REAL PROPERTY AND A REAL	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
			P	DINTS OF INTEREST			
This species is both bot	anically and morph	ologically related w	ith those of the genus La	ampranthus. Its name comes from	n the Greek words "Drosos"	meaning dew and "	Anthos" flower, referring
to the luminous appear	ance of many of th	e species of the ge	enust that "collect" the m	norning dew on its tomentose lea	ives. It is the ideal plant to c	over coastal garder	ns in hot summer areas.
cover up to 2 m ² during	iat give it the nickr	iame of "purple cal	rpet open at noon and	ciose again in the atternoon, e	xcept on gray days, when t	ney remain closed.	An individual plant can
serer up to 2 m during	no o to r yours or		to working allows it to fild	main no compactnoso.			
1							SPACING: 0.50 M

PLANTING AND PLANT HEALTH

A very hardy species, this plant resists heat, frost and drought in any type of garden, except in clay soils. They can be propagated by rooted twigs or cuttings, although they usually propagate by seed.

	CHROMATIC CALENDAR									CON	IMERCIALIZATIO	NC	
		F	oliage, Flo	wering ar	nd Fruitin	g Seasoi	n				Presentation	Length (cm)	Topiary shapes
JAN F	FEB MA	R ABF	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
			Cı	ultivation	Calendar								
JAN F	FEB MA	R ABF	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
Sowing		Planting		Pruning	Х								
				Treatment	Calenda	r							
JAN F	FEB MA	AR ABP	R MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC			
Fungicide	es	Pest	cides		Fertilizers								

FELICIA

Felicia amelloides

GROU	ND CO	VER			MARGARITA AZUL SPANISH	VALENCIAN	BLUE DAISY ENGLISH	MARGUERITE DU CAP FRENCH
		STRUCTURE		DIVISION:	PHFANEROGAMS		VARIETY	
Sha	ape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		JOLLY (DWARF)	
ROUND/E	XTENDED	10-25 CM	1-2 M	TYPE:	DICOYILEDONS			
			Root	ORDER	ASTERALES			
			SCATTERED	FAMILY	COMPOSITAE			
					00111 0011112			
	M	ORPHOLOGY						
Sto	h	UNDERG NO	WOODY NO	NTA SA		50000		
316	5111	CREEPING YES	CLIMBING NO	2-2-2		100 - 10 - 10 - 10		
	of	COMPOUND:	NO		A A A A A A A A A A A A A A A A A A A			- Link
Le	a	HARDNESS:	SOFT			Son and and of		
EVERG	GREEN	ARRANGEMENT:	ALTERNATE	and the lot		STAR SIN		
SIZE:	up to 3CM	VENATION:	PINNATE	AS S				
		SHAPE:	OBLONG		and the palace			
COLOR:	US:GREEN	MARGIN:	ENTIRE	20.50		LANDA HA		
	LS:GREEN	APEX:	ACUTE	The second second		NORMA MA		
TEXTURE:	US:SMOOTH	LEAF BASE:	ATTENUATE	3 129		ATT NP N PS NO		
	LS:SMOOTH	PETIOLE:	SESSILE	C	ANY CHEROH			
		Type	Reproduction					
FIO	wer	HERMAPHRODITE	HERMAPHRODITE		And Address of the	A DOWN	The second second	NESI
SIZE:		Flowering	Fragrant		198	- Wa 60		No.
	INFLORESCE	NCE IN FLORET (4CM)	NO				A	
		Type	Color		States and the second second			
En	uit	ACHENE		Vial	State of the second			
···		Edible	Fruiting season		A STATE OF A			A CON
SIZE:		Labio	r railing oodoorr					Mark - D
		Rate	Longevity				Contraction of the second	
Gro	wth	MODERATE	VIGOROUS			State Brite	ALA.	
				1 Share		VIAID EN	and a photo of	
		ECOLOGY			Charles 1	ter and	40	1000 233 11
Clim	nato	Temperature	Drought resistant	a ser all				A COM
0	late	0°C	NO		VISION S		SE AL	- was I
ALTITUDE:	0-400	Sun exposure	Frost resistant		IN SALES			A Participation of the
IRRIGATION	: MOD/HIGH	SUN/PARTIAL SHADE	NO	1.1	ANNE SE			A The / St
60	sil	Texture	Salt resistant		and the second se			2000 6 2
	511	LOAMY	NO	TO A BEAR OF	E HELLER STATE	EST SEX SEA	No. 10 Decision	the march
pH:	6.5-7.5	Drainage	Lime resistant	SALVA SEL	Sterre and sol		111	1000
FERTILITY:	MODERATE	MODERATE	MODERATE	States and the second	AVLA CERS		35 U//////	
LISES				S Startes	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	118 301 2 10	10/201	STATISTICS STATISTICS
Resist	ances	Applic	ations	A BARAN		SER ALS ALS	he was start	12 - P. P.
COASTAL	LOW	SLOPES: YES	HANGING: NO		20 01 3 1 1 2 1 CA	A STANKING STAFF	Stole States	The strength
POLILITION	. LOW	CLIMBERS: NO	+PAVEMENT: NO	1.50 3.6		1 15 25 05	CALL AND AND	AND NEVI
WIND:	MODERATE	LIMBERG. NO	ISOLATED: YES	State States	All para att		in the second	Notest In S
VVIIND:	MODERATE						MORINA COLOR	and a state on the
				POI	NTS OF INTEREST			

Native to South Africa. It is commonly known as the blue daisy. It is a spreading shrub that quickly covers the ground and nearby plants. It blooms all year. It can live indoors but is usually planted in gardens in full sun, in pots, on balconies or hanging baskets. The flower remains closed on cloudy days. The cut of the first flowers allows to have a second flowering at the beginning of autumn. The "Jolly" variety is dwarf.

SPACING: 0.30-0.50 M

PLANTING AND PLANT HEALTH

Trimming the blue daisy favors more intense flowering and compact growth (severe pruning in summer). It accepts most types of soil and is resistant to drought. This species is suitable for sunny coastal locations both in the garden and in a pot. It is easily propagated with cuttings or seeds. It requires a moderate irrigation programme as well as light, well-drained soils.

CHROMATIC CALENDAR	COMMERCIALIZATION
Foliage, Flowering and Fruiting Season	Presentation Length (cm) Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	
Cultivation Calendar	
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	
Sowing Planting Pruning X	
Treatment Calendar	
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	
Fungicides Pesticides Fertilizers	

FERTUCA

Sowing

Fungicides

Division

Fungicides Pesticides

FESTUCA						Festu	ca cinerea
GROUND CO	OVER			FESTUCA SPANISH	VALENCIAN	BLUE FESCUE ENGLISH	FÉTUQUE BLEUE FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
GRAMINOID/GRAMINEAE	0.10-0.12 M	20-25 M	TYPE:	DICOTYLEDONS			
		SCATTERED	FAMILY:	GRAMINAE			
м	ORPHOLOGY		20130100000000000000000000000000000				
Stom	UNDERG NO	WOODY NO					Sector State
Stelli	G REEPIN NO	CLIMBING NO				AL SA	TANK TANK
Leaf	COMPOUND:	NO			10 500 100		
EVERGREEN	ARRANGEMENT:	0011	Sector 1				
SIZE: 10-12 CM	VENATION:	LINEAR	119128				
	SHAPE:	LINEAR					
LS:LIGHT BLUE	APEX:	ACUTE	N Trans	Con al Mar Side	A STATE OF STATE		ANDIA
TEXTURE: US: SMOOTH	LEAF BASE:	ATTENUATE			1 Alexandre	Marce WA	
LS: SMOOTH	PETIOLE:	SESSILE	and the second second		and with	MARS-	
Flower	Туре	Reproduction			and a with		
SIZE:	Flowering	Fragrant	a star	W. A.M. K. T.		Mar all All San San S	
INFLORESCE	INCE IN SPIKE (30 MM)	NO	Contraction of the second			VIII Charles	
E-mui é	Туре	Color	St. 6				
Fruit	Edible	Fruiting season	and the second second		NON MAG		
SIZE:	Edibio	r rulang obacon	Contraction of the second		Partice.		and the state
Growth	Rate	Longevity	S S S A		Contraction of the second		
	MEDIUM	VIGOROUS	No. Contraction		AND NE		
	ECOLOGY	Descelatore interest		* · / / /	ARRAR	and the second second	
Climate	l emperature	VES			A WARKAN		A CONTRACTOR OF THE OWNER OWNER OF THE OWNER
ALTITUDE: 0-400	Sun exposure	Frost resistant	Charles and the second	Carle Carlos			and a second
IRRIGATION: MODERATE	SUN/PARTIAL SHADE	MODERATE			SSIM DATE STATES AND		
Soil	Texture	Salt resistant			MADE FRA	C. S. A. W.	To CAL
pH: 6.5-8	Drainage	Lime resistant				2. 74 de 11 1 1 1 1 1	The second
FERTILITY: MODERATE	HIGH	MODERATE		MALLE SAL	1 1 1	ALL	1.2.
	USES			A NASSING	Sector 1		123
Resistances	Applic	ations	Star Art	1/aglita	Contraction of the	The State	
COASTAL: YES	CLIMBERS: NO	+PAVEMENT: NO				1 the	
WIND: YES	GROUPS: YES	ISOLATED: YES	1.5	STAN A STAN	New Y	1 ANN	and the second
	-		POI	NTS OF INTEREST			
This species is known	for its exotic icy blu	e color that thrives	in summer months and is	s ideal as an ornamental grass. Per	rfect as a garden b	order or ground cover, it is	widely planted in rock
gardens or in dry rivert it forms a surprising ca	peas. Highly prized rpet that maintains i	IN Asian gardens ar ts bluish color while	nd landscapes in areas pr other grasses turn yellow	one to drought. Combines well with in summer.	small perennials th	at will not outgrow it. Plante	a in compact groups,
							SPACING: 0.25 M
			PLANTING	AND PLANT HEALTH			
Constant watering durin so that new leaves can	ng the initial growing emerge. Divide the	season is recomm bushes every 2 or 3	ended so that a deep and by years in early spring to m	extensive root system can be estat aintain their vigor thereby achieving	plished. To achieve propagation that ma	a neat appearance, old foliag aintains the features of the o	ge must be removed riginal plant.
				<u> </u>			
		CHROMATI	CCALENDAR			COMMERCIALIZATI	ON
	Fo	liage, Flowering	and Fruiting Season		Presenta	ation (L) Length (cm)	Topiary shapes
JAN FEB	MAR ABR	MAY JUN	JUL AUG	SEPT OCT NOV DI	EC CT	(2) 30	
					СТ	(3) 30	
		Cultivatio	n Calendar				
JAN FEB	MAR ABR	MAY JUN	JUL AUG	SEPT OCT NOV DI	EC		

Fertilizers

Pruning X Treatment Calendar JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC

GAZANIA Gazania x hybrida GAZANIA SPANISH GAZ GAZANIE FRENCH **GROUND COVER** VALENCIAN ENGLISH STRUCTURE DIVISION PHANEROGAMS VARIETIES Shape Height SUBDIVISION: ANGIOSPERMS Diameter EXTENDED TYPE: 0.15-0.20 M DICOTYLEDONS 1.5-2.5 M Root ORDER ASTERALES SCATTERED FAMILY: ASTERACEAE MORPHOLOGY UNDERG NO NOOD NO Stem CREEDIN YES CLIMBING NO COMPOUND NO Leaf HARDNESS SOFT EVERGREEN RRANGEMENT ALTERNATE SIZE: 9 CM VENATION PINNATE DINNATIEID/ OBED COLOR: US:LIGHT GREE MARGIN: ENTIRE LS:BLUE GREEN ACUTE APEX TEXTURE: US:TOMENTOS LESF BASE: ATTENUATE LS: TOMENTOS PETIOLE SHORT Tvpe Reproduction Flower HERMAPHRODUTE HERMAPHRODITE SIZE 7-10 CM Flowering Fragrant INELORESCENCE IN ELORET (7 Туре Color Fruit ACHENE Edible Fruiting season SIZE Rate Longevity Growth HIGH VIGOROUS ECOLOGY Temperature Drought resistan Climate 2°C. H5. Z6 MODERATE ALTITUDE: 0-400 Sun exposure Frost resistant IRRIGATION: MODERATE FULL SUN LIGHT Texture Salt resistant Soil LOAMY MODERATE pH: 6.5-8 Drainage Lime resistant FERTILITY: MODERATE MODERATE MODERA Resistances Applications SLOPES: COASTAL: MOD/HIG YES HANGING: YES POLLUTION: MOD/HIGH CLIMBERS: NO +PAVEMENT: NO ISOLATED YES WIND MOD/HIGH POINTS OF INTEREST Native to South Africa. This plant has dense clusters of foliage that form a carpet on slopes as well as in rockeries. The best blooms occur with warm temperatures (>24°C), night temperatures above 10°C and full sun exposure. The flowers close at night and the rosette leaves fold upwards. It blooms mainly during the summer and also intermittently throughout the year. Suitable for rocky or coastal gardens, to fix soils and to stabilize slopes.

SPACING: 0.40 M

PLANTING AND PLANT HEALTH

Gazanias can accept all types of soil as long as they are well drained. In summer it has to be watered once or twice a month, but keeping the leaves dry. Gravel mulch is beneficial. Propagation occurs by division, cutting, and more slowly by seed.

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(2) 20
Cultivation Colonday	
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	

STRUCTURE

MORPHOLOGY UNDERG

COMPOUND:

HARDNESS:

SHAPE:

MARGIN:

LEAF BASE:

PETIOLE

Туре

HERMAPHRODITE

Flowering

Туре

REPRY Edible

Rate

FAST

-5°C H4 Z6

Sun exposure

SUN/SHADE

Texture

ALL TYPES

Drainage

USES

SLOPES:

CLIMBERS: YES

ECOLOGY Temperature

RACEMES (4-5

ARRANGEMENT:

Height

10-25 M

Aplicaciones

YES HANGING:

HEDERA

Shape

CLIMBING

Stem

Leaf

EVERGREEN

TEXTURE: US:SMOOTH

Flower

Fruit

Growth

Climate

IRRIGATION MODERATE

Soil

Resistances

COASTAL: MODERAT

POLLUTION: MODERATE

0-1000

6.5-8

MODERAT

MODERAT

ALTITUDE:

рH

FERTILITY:

WIND.

5 CM

US:DARK GREEN

LS:LIGHT GREEN

LS:SMOOTH

UMBLES IN

SIZE

COLOR

SIZE:

SIZE

GROUND COVER

				Hee	dera helix
		HIEDRA	HEURA	IVY	LIERRE
		SPANISH	VALENCIAN	ENGLISH	FRENCH
	DIVISION:	PHANEROGAMS		VARIETIES	
Diameter	SUBDIVISION:	ANGIOSPERMS	There are many varieties w	ith different shapes inclu	ding the variegated
5 M	OPPER		variety and those with differ	rent colored leaves.	
SCATTERING					
GOATTENING		ANALIACEAE			
			The way	A SE LA	
WOODY Yes				77	
CLIMBING Yes					
NO	a sel /	A	X		
SOFT				and the second	
ALTERNATE				VALUE	
PINNATE			1 3 4 4 4 4		- Alacas
RHOMBOID	S Brah		A DECEMBER		CALLE C
ACUTE					and a company
ATTENLIATE					Bigs 12/14
LONG					
Reproduction		CA A			16.9
HERMAPHRODITE	and the second s			A FIG	115
Fragrant			ash and a start		A THERE A
NO				A Contractor	2 - MAR
Color	State And		1 Cast Black	and an and the	and the second of
BLACK	and the second		and and the second	112 2	at the second
Fruiting season	Contraction of the	the last	A Stage Stage	1 631	
MARCH		a washing of	and the second	State Production	De Ach
Longevity	-				
>100 YEARS	and the set	Prosta 12.	The state the		A STREET
	1 - Charles		En and the set		2000
Drought resistant	Contraction of the	A STAR STAR	all and the		the state
MODERATE	and the second	Let ward a	CHARTER CO	A. J.	13 1
Frost resistant	1942 Ent	and the second	1- 1-3		
MODERATE	State The State	1. 1	LO DISE	PARE IF	
Salt resistant	a and a	AN AREA		40 40	
LOW		Charles 1		1 CAL	
Lime resistant	1000 Aller	STO - MAG	R		
MODERATE	2		and the second	- 1/18	
	and the	the - AV		166	
ciones	S Carlos C	ER PAR	Left and and		KIEST
HANGING: YES	N W				14 50
+PAVEMENT: NO	ANT AR	Le la se			SA SVERA
ISOLATED YES				A Z A MARCE	
	PO	INTS OF INTEREST			

vy is versatile and very easy to grow both in the garden and on terraces. As climbing plants they can quickly cover walls using their adventitious roots. The ivy is also a ground cover plant since can easily emit new adventitious roots in the nodes that touch the ground. Ivy can cover large areas of the ground, such as those located under trees that do not have very dense crowns, slopes or nerbaceous covers. It prefers medium-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 (it February or March) so that new shools come out in spring and avoid disheveled and loose plants. When tying them to walls, a long shoot can also be tied horizontally so that, from this horizonta guide, new vertical shoots emerge that allow the plant to be widened from the base

PLANTING AND PLANT HEALTH

stem 7.5 to 10 cm in length or by cuttings of one or three out by cutting the apica are going to be grown to avoid casualties in the transplant. In nurseries, the temperature must be kept close to 20°C and using a mist or fogging system is convenient. The ease and time of rooting vary according to the varieties; the green ones for instance are faster than the variegated species. Cutting can be done at any time of the year. Xanthomonas, Colletrotrichum and Alternaria func use the appearance of leaf spots and are combated with products containing copper. If the ivy is attacked by the cochineal bug, the leaves will weaken and therefore fall. Those attacked by aphids show twisted terminal stems in spring

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(2)	80/100	
	CT(3)	100/125	
Cultivation Colondar	CT(7)	125/150	
	CT(30)	150/175	
JAN TEB MAR ABR MAT JON JOE AGG SETT OCT NOV DEG	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			

HYPERICUM

Hypericum calycinum

GROU	IND CO	OVER			SPANISH	VALENCIAN	ROSE OF SHARON ENGLISH	MILLEPERTUIS FRENCH
	5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Sha	ape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTER	NDED	0.3-0.6 M	1.5 M +	TYPE:	DICOTYLEDONS			
			Root	ORDER:	THEALES			
			SCATTERED	FAMILY:	GUTTIFERAE			
	M	ORPHOLOGY	·				V. F	
-		UNDERG NO	WOODY YES		NO TA	11112314		Mill of 18 ma
Ste	əm	CREEPING NO	CLIMBING NO	ALL TO A				18 15
	-4	COMPOUND:	NO	TP NOME		S NEW T	The second with	and the second
Le	ar	HARDNESS:	SOFT		1111 34	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Contraction of the	· ····································
SEMI-EVE	ERGREEN	ARRANGEMENT:	ALTERNATE	- 11 Ar		A CARLEN	A States	The second secon
SIZE:	4.5-10 CM	VENATION:	PINNATE			Paris - St		
		SHAPE:	OVATE		California -	and the state of t		
COLOR:	US:GREEN	MARGIN:	ENTIRE	a shall be a shall be				
	LS:GREEN	APEX:	ACUTE	ALLE				
TEXTURE: U	US: SMOOTH	LEAF BASE:	ATTENUATE	A THE STORE CAL	appender Harris	and the second of the		
	LS: SMOOTH	PETIOLE:	SESSILE		A Participant of the			
Flox	wor	Туре	Reproduction	in manager and		to the the		
	WEI	HERMAPHRODITE	HERMAPHRODITE			3.56 31		
SIZE:	2.5-4 CM	Flowering	Fragrant	and the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ser and the second		
	so	DLITARY	NO					
_		Туре	Color	The care is		S I A		
Fru	uit	CAPSULE				LAD		A PAL
0.75		Edible	Fruitign season		A SHOW	- THE		
SIZE:				-1		e a n	- 6- /-	
Gro	wth	Rate	Longevity				M	
		MEDIUM	0-20 YEARS	1 ACTO	VI RAL		4 1	
		ECOLOGY			1 1 1			1 IN
Clim	nato	Temperature	Drought resistant		A A L	AV P		
	ato	-5°C,H4,Z6	LOW			A 433 2.68	A STAN	A PERSONAL PROPERTY AND
ALTITUDE:	0-1000	Sun exposure	Frost resistant	5 1 - S - 1 - 1		ast a sta	The second	1. 1. 1 M
IRRIGATION:	: MODERATE	SUN/PARTIAL SHADE	MODERATE	39.24	State Care	State Alta	15 A 24	1 4 1 4 1 4 1 K
Sc	bil	Texture	Salt resistant	14 16 A	CAR REACT	CONTRACTOR		
		AL TYPES	HIGH	and the second second	A Charles	ALCON CONTRACTOR	A SALES	
pH:	6.5-7.5	Drainage	Lime resistant		59. 50	the details		a to the same
FERTILITY:	POOR	MODERATE	MODERATE/HIGH	12000	States and	Contract of the	17. Stall	20
		USES			ALT SAL	the state of the second		C COMP
Resist	tances	Applic	ations	A CONTRACTOR	Ser and a series of the series	all and	ALC: ANT	1-01-
COASTAL:	YES	SLOPES: YES	HANGING: NO	S S S S S S S S S S S S S S S S S S S			and the second	AT A PAR
POLLUTION:	: MODERATE	CLIMBERS: NO	+PAVEMENT: NO		A A ANT	State 1		
WIND:	MOD/HIGH		ISOLATED: YES		and the second second		1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	

POINTS OF INTEREST

Native to Southeastern Europe and Western Asia Minor. This species of groundcover is an evergreen carpet that spreads rapidly which, together with the abundance, duration and color of its flowering, makes it very suitable for flower beds and to cover steep slopes. It prefers exposure to full sun, blooming less if it is located in semi-shade. This is an invasive species of ground cover.

SPACING : 0.50 M

PLANTING AND PLANT HEALTH

If out every other year to the ground in early spring (March) it blooms on new growth. In the annual pruning it is advisable to cut the stems in half at the end of spring. The larger ones require a less drastic cutting. In spring the upper third of the branches are removed. It tolerates drought and it is necessary to avoid waterlogging. It accepts all types of soils but prefers loose ones. It grows very well on sandy soils and tolerates sainity.

CHROMATIC CALENDAR	COM	MERCIALIZATIO	NC
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(20)	30-40	
	CT(25)	40-60	
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			

LAMPRANTHUS

Lampranthus aureus

GROU	ND CO\	/ER			MESEM SPANISH	VALENCIAN	GOLDEN ICE PLANT, VYGIE ENGLISH	VYGIE FRENCH
Sha EXTE	S ape NDED	TRUCTURE Height 0.30-0.40 M	Diameter 40 M Root SCATTERED	DIVISION: SUBDIVISION: TYPE: ORDER: FAMILY:	PHANEROGAMS ANGIOSPERMS DICOTYLEDONS CARYOPHYLLACEAE AIZOACEAE		VARIETIES	
	MC	ORPHOLOGY			- Miles	State of the second	And the second second	9
Ste	əm	UNDERG NO CREEPING YES	WOODY NO CLIMBING NO	- Ary	See.		Sec. 1	and will
Le	af	COMPOUND:	NO	STATES / =		91000	S1800.107	7 A
EVER	DEEN	HARDNESS:	FLESHY		ALL NO DE	17 18 1 1 M		Cara State
SIZE:	5 CM	ARRANGEMENT	OPPOSITE		THRE A		State A state of the state	10
JIZE.	5 GW	VENATION:		200 3	MAL MARANTY	A	and the second	
COLOR:	US-GREEN/GRAY	MARGIN:	CTEINDRICAL	Mart A	124 2010	The section		- 1-2
	LS:GREEN/GRAY	APEX-	OBTUSE		10000	200	Er	
TEXTURE:	US:SMOOTH	LEAF BASE:	ROUNDED	Sel. 🛛 🗐		12.00		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	LS:SMOOTH	PETIOLE:	SHORT	I Vance to	the ford	S		
E la		Туре	Reproduction			11. 200	and the second	
FIO	wer	HERMAPHRODITE	HERMAPHRODITE			No. 1		
SIZE:	2.5-3.5 CM	Flowering	Fragrant			12 Prese 1		
		FLORET	NO	and the second sec	A A A STOCK OF	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	
		Туре	Color		11 355 120		11 A COM	
Fr	uit	CAPSULE				A COMPANY	111. Deals	4.1
SIZE:		Edible	Fruiting season		· 2005		ALC: NO	- up
Gro	wth	Rate	Longevity	and the second	A Laboration	ALC: NO		
		MODERATE	VIGOROUS	A A A A	STORE STORES	1 Courses	A COMPANY	IT ANY
		ECOLOGY			11		A DECK	24 S 2
Clin	nato	Temperature	Drought resistant	the second se	15 13	all the second		A DECEMBER OF
0	late	0°C	MODERATE	and the second second		100 BUN 17 - TO	Carl AND	
ALTITUDE:	0-200	Sun exposure	Frost resistant	24	Contraction of the		Stra 1	Charles I
IRRIGATION	: LOW	FULL SUN	NO		Later Martin	-	State of the Contraction of the	See Sector
Sc	bil	Texture	Salt resistant			- um	5 July 13	NW ALS
		LUAMT/SANDT	MODERATE/HIGH		100 March 100	and the second second	and and the state of the	3550112
PH:	6.5-8	Drainage	Lime resistant	Sec. In case	and the state	S. gripping	CAP A CONTRACT	and the same of
FERTILITY.	WODERATE	нібн	MODERATE			Ser State	The second states	Sec. Sec.
		USES		COLUMN TWO IS NOT		and the second	A BYOUR	A SHORE SHOW
Resist	ances	Applic	ations		and the second	- 10		1217 3
COASTAL:	MODERATE	SLOPES: YES	HANGING: YES	22	CONTRACTOR OF	S. S. 3.	and the other	10
POLLUTION:	MODERATE	CREEPING: NO	TPAVEMENT. NO		• • • • • • • • • • • • • • • • • • •	And the second	and the Party	1000
WIND:	MODERATE		ISULATED YES	- BAN			A PARTY AND	2/2/5/6028 C
				POI	NTS OF INTEREST		· · · · · · · · · · · · · · · · · · ·	
This species	s, like the Me	sembryamthemum	species, is native t	o South Africa. It forms a	25 cm high carpet that can be s	pread over large surfa	ces. Pink flowers perists over l	ong period of time. It
is a hardy s	pecies that p	oreters sandy and v	veil-drained soils ar	to is somewhat drought r	esistant during the summer more	ntns. The flowers open on to circulate and to m	i in spring, carpeting the counti aintain the plant. Cut back slide	side with their vivid
55.0r. 0i106		table, the analigen	ione or interoperace	sides on the ground betw	reen alle planta allowa pedestila	an to onounce and to m	annann ano piant. Out baok siigi	ay anor noworing.

SPACING: 0.50M

PLANTING AND PLANT HEALTH

Propagation by cuttings to be cut after flowering and inserted into the ground or between sunny rocks. It can also be propagated by seeds.

CHROMATIC CALENDAR	CON	MERCIALIZATIO	NC
Foliage, Flowering and Fruiting Season	Presentation	Length (cm)	Topiary forms
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT	<15	
	CT	15-20	
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			

LAMPRANTHUS

Lampranthus spectabilis

STRUCTURE Diameter Shape Height Diameter EXTENCED 1050-02 Diameter Stape Height Diameter Stape 100-07 Biologic Anticipation Stape 100-07 Biologic Anticipation Stape Diameter Statemeter Diameter Stape Books to	GROUND CO	JVER			SPANSH	VALENCIAN	ENGLISH	FRENCH
Shape EXTENSED Height 0150394 Diameter 04.41 M No Soft TYPE: Soft TYPE: Soft TYPE: CARYOPHYLLACEAE FAMILY: CARYOPHYLLACEAE AZOACEAE Stem NORPHOLOGY MORENE: Soft TYPE: Soft Type EVENORES NO NO Stem NORPHOLOGY MORENE: Soft Type EVENORES NO NO Stem NORPHOLOGY MORENE: Soft Type EVENORES NO NO Used Soft Soft Soft Type EVENORES COMONIC HAR MORENE CONNOCIDE HERE SOFT NO NO NO Used Soft Soft Soft Soft Soft Soft Soft Soft	5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
EXTENDED 0:4530M 0:441 M Image: Source of the sou	Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
Rod ORDER: CARYOPHYLACEAE MORPHOLOGY ACCASE ACCASE Stem MACERS NO NO Leaf MORPHOLOGY NO NO Leaf MORPHOLOGY NO NO Userse V13 MORPHOLOGY NO MORPHOLOGY NO NO NO Leaf MORPHOLOGY NO NO MORPHOLOGY NO NO NO NO WADRESS PLESMORT MARDAR PLESMORT NAMORAN Stem SAMORT MARDAR ENTHE SAMORT PORPTE Stem TOPE Reproduction FERPORED NO NO PORPTE NO Stem FOLOGY NO NO PORPTE NO	EXTENDED	0.15-0.30 M	0.40-1 M	TYPE:	DICOTYLEDONS			
FMILY: ALCAGEA MORPHOLOGY NO Stem OWERNEL NO Led OWERNEL NO Led OWERNEL NO VERNELE NO NO NO Led OWERNEL NO NO VERNELE NO NO NO NO VERNELE Stem NO NO NO NO VERNELE Stem NO NO NO NO NO NO NO Stem Stem NO			Root	ORDER:	CARYOPHYLLACEAE			
MORPHOLOGY Stem JURCER of VES WOODY MO Leaf Colomona NO Leaf Colomona NO Stem: S 6 M Monoscient Opposite VENDORE N Summary S 6 M Monoscient Opposite VENDOR Summary S 6 M Monoscient Opposite Summary Opposite VENDOR US SUMORNY Manoscient Entret Summary Opposite Su			SCATTERED	FAMILY:	AIZOACEAE			
	M	ORPHOLOGY		A CAR	N 1 3 2 1 2	AN 16		
Under VES Used VES Leaf Heakness VERCERCER Normania SZE S 6 CM VERCENCER Normania SUE S 6 CM VERCENCER Normania MARKARSS PERPORTE VERCENCER Normania SUE S 6 CM VERCENCER Normania MARKARSS ENTRE VERCENCER PERPORTE MARKARSS ENTRE VERCENCER PERPORTE VERCENCER PERPORTE VERCENCER PERPORTE MARKARSS PERPORTE VERCENCER	Stem	UNDERG NO	WOODY NO		A COMPANY			man
Leaf UNX EVER.GR.EPN HARONESS FLSHV HARONESS FLSHV HARONESS FLSHV BURE SACH HARONESS SUB SACH HARONE SUB SACH HARONE SUB SACH HERMAPHROOTE FLOWER HERMAPHROOTE HERMAPHROOTE SUB Type Color LEAS HARONES HERMAPHROOTE SUB Type Color LARA HERMAPHROOTE HERMAPHROOTE SUB Type Color LARA HERMAPHROOTE HERMAPHROOTE SUB Type Color LARA HERMAPHROOTE HERMAPHROOTE NODERATE VICORALIS HERMAPHROOTE SUB Toperature Toperature Toperature MODERATE MODERATE MODERATE HERMAPHRO		CREEPING YES	CLIMBING NO	16	(35 2 - 1 - 1 1/-		11/2	112
	Leaf	HARDNESS:			COLORIAN STA			1.3
SZE: 5 S CM VENATION: SHUE: SHUE: CUINDRIGAL MARKA: ENTRE: PONTED LS.SIGENORM MARKA: ENTRE: MARKA: ENTRE: PONTED LS.SIGENORM MARKA: ENTRE: MARKA: ENTRE: PONTED LS.SIGENORM MARKA: ENTRE: MARKA: ENTRE: REPORT PETICE: SOUNCE Flowering Fruit CAPSULE Fragrant NOPERATE Longevity NOPERATE Longevity NOPERATE Longevity NOPERATE Longevity NOPERATE MOREATE NUTTUDE: 0.20 NONE Sun exposure Full LONEST NUMERATION: MOREATE NONERATE MOREATE <td>EVERGREEN</td> <td>ARRANGEMENT:</td> <td>OPPOSITE</td> <td></td> <td>24 12 12 A</td> <td></td> <td></td> <td></td>	EVERGREEN	ARRANGEMENT:	OPPOSITE		24 12 12 A			
	SIZE: 5-8 CM	VENATION:	off oone					March 1
COLOR: USGREENGAT MARGIN: ENTIRE APEX: POINTED LISGREENGAT APEX: POINTED LISGREENGAT APEX: POINTED LISGREENGAT APEX: POINTED LISGREENGAT Type Reproduction PETOLE: SHORT TOWER HERMAPHROOFFE HERMAPHROOFFE FLORET Reproduction Fragrant FLORET SZE: 5-7 CM Flowering Flowering Fragrant FLORET SZE: CAPBULE Color CAPBULE Fultiting season WODERATE For Uniting season WODERATE SZE: COLOR MODERATE For Initing season WODERATE For Treistant MODERATE For Initing season WODERATE Soil Extra MODINGR WID: MODERATE Sail resistant MODERATE For St resistant MODERATE For St resistant MODERATE NITTUD: 6.5.9 LIMER: NO HERM SAINDY MODERATE VICOROUS VICOROUS Soil Extra MODINGR WID: MODERATE Tresistant MODERATE VICOROUS VICOROUS Soil ULTTON: MODERATE Sail resistant MODERATE MODERATE VICOROUS MODERATE Sail RESISTANT MODERATE MODERATE VICOROUS VICOROUS MODERATE MODERATE MODERATE VICOROUS VICOROUS <td></td> <td>SHAPE:</td> <td>CYLINDRICAL</td> <td>-</td> <td>Part of the second</td> <td></td> <td></td> <td>DA S</td>		SHAPE:	CYLINDRICAL	-	Part of the second			DA S
LSGRENGRY KUTRE: 4PEX: POINTED LEW FASE: POINTED ROUNDED LS MOOTH LS MOOTH LEW FASE: FOUNDED LS MOOTH Type Reproduction HERMAPHROOTH Reproduction HERMAPHROOTH SZE: 5.7 CM Type Color Color SZE: 5.7 CM Type Color Color SZE: 5.7 CM Type Color Color Growth Rate Color Longevity visorous Color SZE: Edible Fruiting season WodeRATE Color NTTUDE: 0.000 Full King Color Visorous NTTUDE: 0.000 Foot resistant MODERATE MODERATE Soil Terkure Sall resistant MODERATE NODERATE MODERATE NUTUDE: 0.000 Fruiting Sall resistant MODERATE MODERATE MODERATE Soil Soil Soil Soil Resistances Subres Not MORERATE NUTUDE: MODERATE MODERATE MODERATE MODERATE MODERATE NUTUDE: MODERATE Subres Not MODERATE MODERATE NUTUDE: MODERATE Subres Not MODERATE MODERATE MODERATE NUTUDE: Soil Soil Subres Not MODERATE	COLOR: US:GREEN/GRAY	MARGIN:	ENTIRE	The section	Et al		211	MA Ad.
EXTURE: US:SMOOTH US:SMOOTH LEAF BASE: ROUNDED SHORT Flower SIZE: S:7 CM Flowering Flowering Fragrant Flowering Fragrant Flowering SIZE: S:7 CM Flowering Flowering Fragrant Flowering Fragrant Flowering Fragrant Flowering SIZE: S:7 CM Flowering Fragrant Flowering Flowering Fragrant Flowering Fragrant Flowering Fragrant Flowering Fragrant Flowering Flowering Fragrant Flowering Flowering Flo	LS:GREEN/GRAY	APEX:	POINTED	E Arak	SIS PANAS			
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Flower stZE: S7 CM Type HERMAPHRODITE Flowering Floweri	LS: SMOOTH	PETIOLE:	SHORT		1 1 3	200		CO-SC
Increment HERMAPHRCOTTE HERMAPHRCOTTE SIZE: 5-7 CM Flowering Fragrant NO Type Color CAPSULE Edible Fruiting season SIZE: Temperature Drought resistant MODERATE VICNO Soil Temperature SOII Extra Stant NODERATE NODERATE VICNO Soil USES Applications SLOPES YES CLIMBER: NO VICNO NODERATE VICNO NODERATE VICNO Soil ULTOR: MODERATE VICNO NO NO NO VICNO NO Soil Texture NO NO VICNO NO VICNO NO VICNO NO	Elowor	Туре	Reproduction	A SI	ALC: STOR		Charles of the	ALL
SZE: 5-7 CM Flowering Fragrant NO Type Color Applications Color SZE: Ethelia Fruiting season Image No	Tiower	HERMAPHRODITE	HERMAPHRODITE	The second second	1 / A Star		1	and the second
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Fruit Type Color CAPSULE Edble Fruiting season sze: Edble Fruiting season Growth Rate Longevity Wigorous Imperature Prought resistant MODERATE No No VITTUDE: 0-20 Sun exposure Frost resistant NO Frost resistant No No Soil Texture Salt resistant MODERATE WODERATE No Soil Texture Salt resistant MODERATE MODERATE No Soil Texture Salt resistant MODERATE MODERATE No Soil Texture Salt resistant MODERATE MODERATE No VINTUM: MODERATE NODERATE Soil Texture Salt resistant MODERATE NO ************************************		FLORET	NO		A STIPLE			
Fruit CAPSULE Edible Fruiting season stze: Edible Fruiting season Growth Rate MODERATE Longevity ViGOROUS ECOLOGY Temperature or:A5 Drought resistant MODERATE Drought resistant MODERATE Soil Sun exposure Frost resistant Put LSUN Frost resistant MODERATE Salt resistant MODERATE Salt resistant MODERATE PH: 6.5.8 Drainage Lime resistant MODERATE MODERATE USES Applications SLOPES: YES HANGING: YES CLIMBER: NO VIND: MODERATE NO */// EXPL VIND: MODERATE NO VIND: MODERATE NO Sold Resistances CLUTION: MODERATE NO Sold REST YES HANGING: YES VIND: MODERATE NO */// EXPL VIND: MODERATE NO *// EXPL Sold REST Sold REST *// EXPL NO Sold REST NO *// EXPL NO Sold REST NO *// EXPL NO Sold REST NO		Туре	Color			The second with		ALL AND
SZE: Edble Fruiting season Growth Rate MODERATE Longevity Vigorous ECOLOGY Drought resistan 0°C,45 Drought resistan MODERATE Drought resistan 0°C,45 Drought resistan MODERATE Soil Irecation: Texture LOAWYSANDY Salt resistant MODERATE No Forst resistant MODERATE No Soil Iretation: Texture Diul SUN Salt resistant MODERATE No MODERATE No Soil Iretation: Texture MODERATE Salt resistant MODERATE No MODERATE High Diamoderate MODERATE Prime resistant MODERATE Constrail: MODERATE MODERATE Applications SURPES: YES HANGING: YES HANGING: YES CLIMERE: SOILATED: YES POINTS OF INTEREST Sepages like the Mesembroanthermum species is Name to South Afroa Afrong 2 for biol parget lage surfaces and surfaces parties over loop candid of time to south Afroanter Domas 2 for biol parget lage surfaces and s	Fruit	CAPSULE			ALL	MARK -		and the second
Climate Rate MODERATE Longevity VisoRous FCOLOGY Temperature Orought resistant OrC.45 MODERATE MODERATE VITITUDE: 0.200 Full SUN exposure Frost resistant MODERATE Immer Seistant MODERATE Soil Texture Salt resistant MODERATE No Full SUN MODERATE PH: 6.5-8 Drainage Lime resistant MODERATE No PH: 6.5-8 Drainage Lime resistant MODERATE No SOASTAL: MODERATE NO HANGING: YES LIMER: NO COASTAL: MODERATE NO HANGING: YES LIMERE: NO COASTAL: MODERATE NO HANGING: YES LUNEREN: NO CUITION: MODERATE NO HANGING: YES SLOPES: YES HANGING: YES NO ULUTION: MODERATE NO HANGING: YES NO HANGING: YES	SIZE-	Edible	Fruiting season			and the second second	Contraction.	C. Car
Growth Node Node Node F Luigonus vigonus ECOLOGY Imperature 0°C.H5 Drought resistant 0°C.H5 Drought resistant 0°C.H5 NITTUDE: 0.200 FULISUN Sun exposure Fost resistant 0°C.H5 No Soil Texture FULLSUN Salt resistant 0°C.H5 No No Fost resistant 0°C.H5 No Soil Texture Full Sun exposure Full Sun exposure Fost resistant 0°C.H5 No No Fost resistant 0°C.H5 No No Fost resistant HIGH No PH: 6.5-9 COASTAL: Drainage SLOPES: YES CLUBER: No SLOPES: YES CLUBER: NO SLOPES: YES CLUBER: NO NODERATE: NO #NODERATE: <	OILL.	Pata	Longovity			- Harris dans	California and and and and and and and and and an	
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ECOLOGY Climate Temperature orc.45 Drought resistant MODERATE ALTITUDE: 0-200 Sun exposure Frost resistant NULLSUN Soil Texture FulLSUN Salt resistant MODERATE MODERATE-HIGH PH: 6.5-8 Drainage Lime resistant MODERATE MODERATE-HIGH PH: 6.5-8 Drainage Lime resistant MODERATE MODERATE-HIGH Resistances COASTAL: MODHIGH NODERATE SLOPES: YES HANGING: YES CLIMBER: NO WIND: MODERATE NO *PAREMENT: NO ISOLATED: YES POINTS OF INTEREST						Sandalan	and the second second	
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ALTITUDE: 0-200 RIGATION: LOW Soil PH: 6-5-8 EETILITY: MODERATE Resistances COASTAL: MODHIGH SLOPES: YES Applications SLOPES: YES Applications SLOPES: YES Applications SLOPES: YES Applications SLOPES: YES CLIMER: NO #ODERATE NO BLOPES: YES CLIMER: NO #ODERATE SLOPES: YES Applications SLOPES: YES CLIMER: NO #ODERATE NO BLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS BLOPES: YES APPLICATIONS SLOPES: YES APPLICATIONS APPLICATIONS SLOPES: YES APPLICATIONS SLOPES: YE	Climate	remperature	MODERATE		ENGINE SUP	E FIN	121/1/201	7 4 F
Bits Cold	ALTITUDE: 0-200	Sun exposure	Frost resistant		The second	AT CONS		
Soil Texture Salt resistant pH: 6.5-8 Image: Constraint of the second o	IRRIGATION: LOW	FULL SUN	NO	S STATE IN	The ANTHER AN	- 12/83	12211	A TO
Soil LOAMY/SANDY MODERATE/HIGH PH: 6.5-9 PRTLITY: MODERATE HIGH MODERATE WINDERATE USES COASTAL: MODERATE ULTION: MODERATE NIDD: MODERATE NIDD: MODERATE NIDD: MODERATE NIDD: MODERATE NODERATE NO * MODERATE		Texture	Salt resistant	The man		E /	100	2 MAR IN
pH: 6.5-8 Drainage Lime resistant MODERATE Drainage Lime resistant MODERATE USES Resistances Applications SLOPES: YES MUND: MODERATE VIND: MODERATE CLIMBER: NO **PAVEMENT: NO *SOLATED: YES	Soll	LOAMY/SANDY	MODERATE/HIGH			Same SU	A	S VE
ERTILITY: MODERATE HIGH MODERATE USES Resistances Applications 20ASTAL: MOD/HIGH SLOPES: YES SLOPES: YES HANGING: YES VIND: MODERATE VIND: **PAVEMENT: NO VIND: MODERATE VIND: **PAVEMENT: NO SOULTED: YES	pH: 6.5-8	Drainage	Lime resistant	200		Emp. 0	A COMPANY	A STAL
USES CONSTAL: MODHICH SLOPES: YES HANGING: YES CLIMBER: NO #PAVEMENT: NO ISOLATED: YES POINTS OF INTEREST Is species like the Mesembroanthemum species is Native to South Africa. II forms a 25 cm high carpet that can be spread over large surfaces. Eink flowers peried over large surfaces. Eink flowers peried of time. II	FERTILITY: MODERATE	HIGH	MODERATE		Str 20 - 51	Kan Sawel		
Resistances coastal: Applications succession Applications SLOPES: YES HANGING: YES ULUTION: MODERATE NO ************************************		USES		n- Call	A 11 10			
COASTAL: MODHIGH SLOPES: YES HANGING: YES CLINER: NO ISOLATED: YES WIND: MODERATE SolateD: YES ISOLATED: YES POINTS OF INTEREST POINTS OF INTEREST POINTS OF INTEREST ISOLATED: Solation of the solat	Resistances	Applic	cations	Manna M		700051		
OLLUTION: MODERATE CLIMBER: NO +PAVEMENT: NO WIND: MODERATE CLIMBER: NO +PAVEMENT: NO ISOLATED: YES POINTS OF INTEREST is species. like the Mesembryanthemum species is Native to South Africa. It forms a 25 cm high carnet that can be spread over large surfaces. Pink flowers perists over long period of time. It	COASTAL: MOD/HIGH	SLOPES: YES	HANGING: YES		Salar Andrews	16. 91	15 Perces	
WIND: INODERATE ISOLATED: YES POINTS OF INTEREST is species like the Mesembryanthemum species is Native to South Africa. It forms a 25 cm high carnet that can be spread over large surfaces. Pink flowers perists over long period of time. It	POLLUTION: MODERATE	CLIMBER: NO	+PAVEMENT: NO			1		
POINTS OF INTEREST	WIND: MODERATE		ISOLATED: YES		ANTE MAN	-112 - Zmin	SAN ANY	
is species. like the Mesembryanthemum species is Native to South Africa. It forms a 25 cm high carpet that can be spread over large surfaces. Pink flowers periods over long period of time. It				PC	DINTS OF INTEREST			
and an object of the second of	This species, like the Me	esembryanthemum	species, is Native to	South Africa. It forms a	25 cm high carpet that can be spre	ad over large surfaces. Pir	nk flowers perists over lo	ong period of time. It i

SPACING: 0.50 M

PLANTING AND PLANT HEALTH

wide color. Since it is not wakable, the arrangement of interspread slabs on the ground between the plants allows pedestrian to circulate and to maintain the plant. Cut back slightly after

Propagation is done by cuttings to be cut after flowering and inserted into the ground or between sunny rocks. It can also be propagated by seeds.

CHROMATIC CALENDAR	CON	MERCIALIZATIO	DN .
Foliage, Flowering and Fruiting Season	Presentation	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT	<15	
	СТ	15-20	
Cultivation Calender			
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			

flowering.

LANTANA

Lantana montevidensis

GROUND CO	VER			LANTANA SPANISH	VALENCIAN	TRAILING LANTANA ENGLISH	LANTANA FRENCH
5	TRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.25-0.40 M	Up to 2 M	TYPE:	DICOTYLEDONES			
		Root	ORDER:	LAMIALES			
		SCATTERED	FAMILY:	VERBENACEAE			
M	ORPHOLOGY						223
Stom	UNDERG NO	WOODY NO			10 - 2000		
Stem	CREEPING YES	CLIMBING NO		a company and a second		24	a billion
Loaf	COMPOUND:	NO	A CALL SAN	AND TRACK	and the second of the		A The
Loui	HARDNESS:	SOFT		SABUT	and the second		OP -
EVERGREEN	ARRANGEMENT:	OPPOSITE	at the second second	NETON	a state of the		
SIZE: 3.5 CM	VENATION:	PINNATE	TO A CONTRACTOR		ANNI AUE		
	SHAPE:	OVATE	S. A. 19. 36		1200		
COLOR: US:GREEN/GRAY	MARGIN:	DENATE			SUN CON		
LS:GREEN/GRAY	APEX:	ACUTE	100	and the second s			
LATURE: USTOMENTOSE	LEAF BASE:	ATTENUATE			Ver Steen		
LS:TOMENTOSE	Type	Reproduction					
Flower	HERMAPHRODITE	HERMAPHROPDITE					
SIZE: 7-8 MM	Flowering	Fragrant			AN ALA	A. 2. 199	and the second
INFLORESCENC	EINFLORET (2.5-3.5 CM)	YES	· · ·	and the second have			
	Type	Color	Con Least -	1 2 3 4 7	11 12/2	and the second second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Fruit	.)		and the state	1 and the state			
	Edible	Fruiting season		A SET MANY	ANT L' IN		100 100
SIZE:		ů,		Seas A Car	- Martin		1
Onewith	Rate	Longevity	a de tertes	2012 2011			6.0.6
Growth	MODERATE	VIGOROUS		- Artalia	Starter.	- 10- 2 - 16 S	COLUMN TO AND
	ECOLOGY		22/10/2014/02/00			A REAL PROPERTY AND A REAL	
011 1	Temperature	Drought resistant	State of the	ALL CLARKE	A 123/3/3		
Climate	0°C,H5,Z7	MODERATE	Sa		A Start St	A CONTRACTOR OF THE OWNER	an hundred and
ALTITUDE: 0-400	Sun exposure	Frost resistant	Contraction (11)			ALLA DEC	1 North
IRRIGATION: MODERATE	SUN	LIGHT				18 SA 52	
Soil	Texture	Salt resistant		12-11-59-	R. J. C.	CI. Cater	
0011	LOAMY	MODERATE	C-FRANK	Stall Company	100	The second	ANS SAIL
pH: 6.5-8	Drainage	Lime resistant	Contraction of the second		STATION	CRIMAN	VI. DEL
FERTILITY: MODERATE	MODERATE	MODERATE	416145		22 And		
	USES			COL TRAC	1.2.1.1.1	TOUR A LANGE	A A A A A
Resistances	Applic	cations	AT LONG	A-2637-15		A CONTRACTOR	and inst
COASTAL: MODERATE	SLOPES: YES	HANGING: YES		1 And the second	the sides	The base	W CONTRACT
POLLUTION: MODERATE	CLIMBER: NO	+PAVEMENT: NO		PAR ANT			Contraction 2
WIND: MOD/HIGH		ISOLATED: YES	A SELF	and the state of the	and the second		mar lister
			POI	NTS OF INTEREST			
Native to Central and S	South America. Thi	s groundcover shrut	guarantees long-lasting a	and colorful flowering. In warr	m climates it is evergreer	and produces flowers for	most of the year. In
cooler climates it is dec	iduous and produc	es flowers from sur	nmer to late fall. It is resista	ant and easy-to-grow that car	n hang down walls and p	ots. Lilac verbena-like flowe	ers cover the leaves
during the hottest seaso	on.						
							SPACING: 0.40 M
			ΡΙ ΔΝΤΙΝ	G AND PLANT HEALTH			
It needs full sun expos	ure and mild wint	ers. It tolerates mos	st soil types but requires of	good drainage. Responds w	ell to mulching. It require	es a high irrigation program	me once or twice a
month. Pruning in spring	g causes vigorous	growth but if the aim	is to contain its developme	ent, pruning only the tips is re	commended. Propagation	n occurs by cuttings althoug	h it can also be done
by seed. It is considered	an invasive specie	es in South Africa.					

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(2)		
	CT(3)		
Or Winstein Orthogon	CT(7)		
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			

LOBULARIA

Lobularia maritima

GROUND CO	VER			LOBULARIA SPANISH	VALENCIAN	SWEET ALYSSUM ENGLISH	ALISE ODORANTE FRENCH
5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS		CARPET OF SNOW	
EXTENDED	0.5-0.20 M	25 M	TYPE:	DICOTYLEDONS			
		Root	ORDER:	PAPAVERALES			
		SCATTERED	FAMILY:	BRASSICACEAE			
M	ORPHOLOGY						-
Stom	UNDERG NO	WOODY NO			CALL SAME	and the second	
Stem	CREEPING YES	CLIMBING NO					100
Leaf	COMPOUND:	NO				-Vel	
Loui	HARDNESS:	SOFT			ALC: NO	1.0	
EVERGREEN	ARRANGEMENT:	ALTERNATE	and the second				
SIZE: 1-4 CM	VENATION:	PINNATE			Press Carl	No the	March 1
	SHAPE:	LANCEOLATE	2 Con Star			1973 W 1	AT US
COLOR: US:GREEN	MARGIN:	ENTIRE					
LS:GREEN	APEX:	ACUTE	A Prost	OL NUMERIE	LOC BALL		
TEXTURE: US:TOMENTOSE	LEAF BASE:	ATTENUATE					SP .
LS:TOMENTOSE	PETIOLE:	SHORT					
Flower	Туре	Reproduction		AN TOP S			1
TIOWEI	HERMAPHRODITE	HERMAPHRODITE					1
SIZE: 0.3-0.4 CM	Flowering	Fragrance	A	a set a set of s	AN PART OF	and the second s	
CORY	'MB (2-3 CM)	NO					
	Туре	Color					
Fruit			F				State of the state
	Edible	Fruiting season			DR. A. E.		
SIZE:			and a state of the	The second	A Same	10 C C 10	194 A.
Growth	Rate	Longevity		Constant of the		-	A CONTRACTOR
Growan	MODERATE	VIGOROUS	15 10 100	A CARDON			Section on
	ECOLOGY		E Brits and		Care Care	- A	a an and
Oliverate	Temperature	Drought resistant	Carlos Carlos Carlos	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the second	2.2.943
Climate	0°C,H5 ,Z7	NO			ACCES OF		a second and
ALTITUDE: 0-400	Sun exposure	Frost resistant	1. S.	R CONTRACTOR		and the second second	All August.
IRRIGATION: MODERATE	FULL SUN	NO					
Call	Texture	Salt resistant		Bh COOr	A WAR -		
501	ALL TYPES	LOW	no Part	- 64° 87' 1	20 5.000	10 - 12 B . 2 2 3	
pH: 6.5-7.5	Drainage	Lime resistant	PORCO PILL	PER USANO	10.012	ALL GOOD DE	Second 1
FERTILITY: MODERATE	MODERATE	MODERATE	Sad Bar			TODAL CALL	1.200 200 1
	USES		08	A Para le	A Dura C	P. S. States	10000
Resistances	Applic	cations		1 18 States	0010 00 00	22-31-8-31 60°	9201
COASTAL: MODERATE	SLOPES: YES	HANGING: YES		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a 19 48	Ser on of the	1010
POLLUTION: MODERATE	CLIMBER: YES	+PAVEMENT: NO		1 - Bost - St	1997 0	PUS REALESS	1.11
WIND: MODERATE		ISOLATED: YES		1 Second sol	and the second	Ref Aller	0°57
			BOI				
			POI	VIS OF INTEREST			

The sea cress is an annual or perennial creeping groundcover (20 cm) that produces a profuse white bloom. It grows very well in hot climates and tolerates maritime conditions. It also grows well on dry, sandy soils and dry walls. Despite being a short-cycle perennial, it loses its compact growth habit if grown for more than a year and is therefore often grown as an annual. The *Carpet of Snow* variety, with larger flowers, forms a dense white carpet especially valued in rockeries. In Spain it was traditionally used to combat scurvy given its vitamin C content as well as its diuretic properties. The leaves, stems and young flowers can be used as a dressing in salads and other dishes.

SPACING: 0.25 M.

PLANTING AND PLANT HEALTH

Pruning after flowering is recommended. After planting, it grows rapidly, and can become invasive.



STRUCTURE

MORPHOLOGY UNDERG NC

COMPOUND.

HARDNESS

VENATION:

SHAPE:

MARGIN

I FAF BASE

PETIOLE:

Туре

ERMAPHODRIT

Flowering

CAPSULE Edible

Rate

MODERATE/FAST

-2°C (H5, Z6)

Sun exposure

SHADE/PARTIAL SHADE

Texture

LOAMY

Drainage

MODERATE

USES

SLOPES. NO

CLIMBER: NO

ECOLOGY Temperature

INFLORESCENCE IN SPIKE (5-10 CM Туре

APEX:

CREEPIN YES

Height

0.15-0.20 M

Applications

Ophiopogon

GROUND COVER

Shape

GRAMINOIDS

Stem

Leaf

EVERGREEN

TEXTURE: US: SMOOTH

Flower

Fruit

Growth

Climate

IRRIGATION: MODERATI

Soil

Resistances

POLLUTION: MODERATI

6.5-8

MODERAT

MODERAT

MOD/HIG

ALTITUDE:

Ph

FERTILITY:

COASTAL:

WIND:

10-20 CM

US'GREEN

LS:GREEN

LS: SMOOTH

SIZE:

COLOR.

SIZE

SIZE

				Ophiopogo	on japonicus
		OFIOPOGON SPANISH	VALENCIAN	FOUNTAIN PLANT, MONKEY GRASS ENGLISH	BARBE DE SERPENT FRENCH
D : 1	DIVISION:	PHANEROGAMS		VARIETIES	
0.20-0.25 M	TYPE:	DICOTYLEDONS		ALBUS KYOTO - DWARF	
Root	ORDER:	LILIALES			
SCATTERED	FAMILY:	LILIACEAE			
WOCOY NO CLIMBING NO NO SOFT ROSETTE LINEAR LINEAR ENTIRE ACUTE ACUTE ACUTE SESSILE Reproduction HERMAPHRODITE Fragrant NO					
Color DARK BLUE Fruiting season Longevity VIGOROUS Drought resistant					
LOW Frost resistant LIGHT Salt resistant LOW Lime resistant MODERATE ations HANGING: NO +PAVEMENT: NO ISOLATED: YES					

POINTS OF INTEREST

ts linear leaves create a surface that is similar to grass, which it can replace in small areas. It is also used for borders or as a background for more colorful plants. In summer it forms nflorescences that grow from long stolons and tuberous roots, forming short and erect racemes of liac or purple-colored flowers of little interest since they remain hidden among the dense foliage as well as the small blue fruits that follow them. The "Albus" variety is white, "Kyoto Dwarf" is dense and 3-5 cm tall. Both plants produce small dark blue fruits.

SPACING: 0.30 M

PLANTING AND PLANT HEALTH

This is an undemanding and slow-growing species which grows easily in mulched humus enriched soil and adapts well to poorer soils. The soil must be kept moist although the plant has ome resistance to drought. Propagation by seed or the rhizomes can be divided in spring. Requires very little maintainance

CHROMATIC CALENDAR	COM	MERCIALIZATIC	DN .
Foliage, Flowering and Fruiting Season	Presentation (L)	Length (cm)	Topiary shapes
JAN FEB MAR ABR MAY JUN JUL AUG SEPT OCT NOV DEC	CT(1)	20	
	CT(2)	25	
Or Minester Ordender	CT(3)	30	
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			

Verbena

Verbena x hybrida

GROUND CO	VER			SPANISH	VALENCIAN	HYBRID VERBENA ENGLISH	VERBEINE HYBRIDE FRENCH
	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.30-0.40 M	0.80-1.5 M	TYPE:	DICOTYLEDONS			
		Root	ORDER:	LAMIALES			
		SCATTERED	FAMILY:	VERBENACEAE			
M	ORPHOLOGY		3				SSSSSSSSSSSSS
Stem	UNDERG NO	WOODY NO					r les m
	CREEPING YES	CLIMBING NO					to the
Leaf	COMPOUND:	NO	4				
EVEDODEEN	HARDNESS:	SOFT			And Charles		20201
EVERGREEN	ARRANGMENT:	OPPOSITE	Print.				
SIZE: 8 CM	VENATION:	PINNATE	5.5	July Constant of		500	0 0
	MARGIN:	DENTATE	and the second	No. No.	and the second second	IN RIL TO CO	A MAN
LS:GREEN	APEY:	ACUTE	2000		11-1 9 10 10 10	Carlo I. C.	
TEXTURE: US:SMOOTH	LEAE BASE:	ATTENUATE	100 A 100 A			100	
LS:SMOOTH	PETIOLE:	SHORT				and -	
	Type	Reproduction		1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1- 14 1	1.14	
Flower	HERMAPHRODITE	HERMAPHRODITE		2 14		10	
SIZE: 2-3 CM	Flowering	Fragrant	STATE STATE	All and a second	New York Contraction	A REAL PROPERTY	THE ALL AND A
INFLORESC	ENCE IN CORYMB	YES		all and the	and the second field	Color La Carlo	and the second
	Туре	Color	the second second	Line Page	Cont States	Part and state	1 4 M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Fruit				and the state of the			
	Edible	Fruiting season	in the set	State of the second	a service at	and the state of the	1
SIZE:					Ending 1946		
Growth	Rate	Longevity	5. C. C. C.	a shirt way	and the state		1 1 5 T.
	MODERATE	VIGOROUS		Start the set	1		ar and a start
	ECOLOGY				Carles Services		and the star
Climate	Temperature	Drought resistant					
Jiiiiuto	0°C,H5,Z7	MODERATE			172 2		
ALTITUDE: 0-400	Sun exposure	Frost resistant	The second				
IKKIGATION: MODERATE	FULL	LIGHT		Stat States			
Soil	LOAMY	Sait resistant	and the second	THE REAL	R Startes		*
nH: 65.8	Drainage	Lime resistant				FATE P	at Annual Con
FERTILITY MODERATE	MODERATE	MODERATE			and the second		is to-
					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Contraction of the	STAR A
	USES		ALC: PLUS	CALLS IN THE	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		A Bar - K
Resistances	SLOPES: VES			The second	Start A Port		and the set
POLILITION: MODERATE	CLIMBER: NO	+PAVEMENT: NO		All and all	MARCH AND	A STATE OF THE STA	125, 287
WIND: MOD/HIGH		ISOLATED: YES	- Aller	21-21-24	Car and a start		
WIND. WOD/HIGH		LEDGATED. TEO				A STANDARD	100 C 100

POINTS OF INTEREST

The verbena forms a compact floral carpet thanks to its abundant branches covered by cleft leaves. It is a fast growing plant that quickly covers the ground around it within a few weeks. When hanging down slopes they generate a very showy flowery green carpet. They are often used to decorate raised planters or hanging baskets. They are sensitive to fungal attack, so an interspersed irrigation programme in large doses is recommended at mid-morning.

SPACING: 0.40 M

PLANTING AND PLANT HEALTH

Verbena seeds should be germinated at the beginning of March in a warm seedbed and in small pots that facilitate their subsequent transplant. Once germinated and somewhat developed, the most vigorous one will be selected in each pot, discarding the others. After a short hardening period, they will be moved to their final location in April, beginning to flower after three or five weeks. In places with a mild winter, a second budding in spring may occur, which will be more intense if all the plants are pruned flush in November or December.



Vinca

Vinca						V	inca major
GROUND CO	VER			HIERBA DONCELLA SPANISH	VALENCIAN	BIGLEAF PERYWINKLE ENGLISH	GRANDE PERVENCHE FRENCH
5	STRUCTURE		DIVISION:	PHANEROGAMS		VARIETIES	
Shape	Height	Diameter	SUBDIVISION:	ANGIOSPERMS			
EXTENDED	0.20-0.30 M	Up to 2 M	TYPE:	DICOTYLEDONS			
		Root	ORDER:	GENTIANALES			
		SCATTERED	FAMILY:	APOCYNACEAE			
M	ORPHOLOGY						
Ctom	UNDERG No	WOODY No			ALL STATES		
Stem	CREEPING Yes	CLIMBING No		ALC STORE SAL	A CAN		1 5
Loof	COMPOUND:	NO			Carden of the		100
Leai	HARDNESS:	SOFT			A THE AL		
EVERGREEN	ARRANGEMENT:	OPPOSITE			WERE VEEL OF		
SIZE: 3-5.5 CM	VENATION:	PINNATE			-bon de la		
	SHAPE:	OVAL		A TAX	In these with		
COLOR: US:GREEN	MARGIN:	ENTIRE		14			
LS:GREEN	APEX:	ACUTE		~ 24 (13)	AV/ SCI		
TEXTURE: US:SMOOTH	LEAF BASE:	ATTENUATE					
LS:SMOOTH	PETIOLE:	SHORT		11 Add Sol	1 marth 7		
Flower	Туре	Reproduction					2
Flower	HERMAPHRODITE	HERMAPHRODITE	2 And the		and the second		
SIZE: 4-4.5 CM	Flowering	Fragrant	SECTO				A CAR
IS	OLATED	NO	Second and		and the second		
	Туре	Color		A STATE AND A STATE OF			
Fruit	FLORET			0 VV	AN TO AN	100	ALL YAY
	Edible	Fruiting season		A GAL		A 16 1	
SIZE:			FAT STAT	ALALE	L	CALCENT D	
Growth	Rate	Longevity				1	1.7
Clowin	MODERATE/HIGH	VIGOROUS		T D OF		A TT D	- 6-
	ECOLOGY		1		Circles Internet	A A	Min Mi
Climate	Temperature	Drought resistant	E FE		11-1-		A da
Climate	-3°C	MODERATE				1 -11	
ALTITUDE: 0-400	Sun exposure	Frost resistant				U Charles	
IRRIGATION: MODERATE	SHADE/PARTIAL SHADE	LIGHT				- 16-	
Soil	Texture	Salt resistant		AN ANA		-A	
3011	LOAMY	LOW		alle pr		ALL N	Mari
pH: 6.5-8	Drainage	Lime resistant		AL AM			
FERTILITY: MODERATE	MODERATE	MODERATE	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	French		H-NAL	
	USES		7-1	10			JIL SALL
Resistances	Appli	cations		1479		TRA	
COASTAL: MODERATE	SLOPES: YES	HANGING: YES		- Hore		No.	
POLLUTION: MODERATE	CLIMBER: NO	+PAVEMENT: NO					
WIND: MOD/HIGH		ISOLATED: YES		1 total	A. L	1 70	
	•		POIN	ITS OF INTEREST			
Its main use is in garde	ening, small hedge	s, humid corners,cle	arings, and filling the bases	s of trees and especially for the	he attractiveness of its 3 to	o 5 cm flowers that range	e from blue to purple.
It requires very little ma	aintainance and th	rives in sun or shad	e, although most varieties a	are better suited to shade. It	is ideal for controlling soi	l erosion or shading slop	bes, for ground cover
under trees and shrubs,	, and for window pl	anters.					

SPACING : 0.40 M

PLANTING AND PLANT HEALTH

They adapt well to loose, humus-rich, moist soils. Most varieties spread quickly and may require pruning. If planted with the spacing recommended, it should provide complete cover in one year except on very dry soils. Depending on whether it is located in the sun or in the shade, it will produce more flowers or more foliage. Propagate by cuttings or by separating a piece of shoot that has rooted.

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(2)	45	
	CT(3)	45	
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			

Subchapter 6.3

Commercialization, use and planting

COMMERCIALIZATION

Groundcover plants can be commercialized: bare root, root ball or container. Although the most usual format is in a container.

Groundcover plants cultivated in containers

Firstly, the plants must have a sufficiently developed root system before planting. This can be checked when the plant is removed from the container since the root ball should be cohesive enough to maintain its shape.

Types of containers:

- Container
- Truncated cone pot
- Truncated pyramid pot
- Seed plug tray (for seedlings and rooted cuttings)

Plant size

The indications on Tables 6.3.1 and 6.3.2 should be followed:

Classification of width (cm)	Classification according to number of main stems and stolons.
5/10	1
10/20	2
20/30	3/4
30/40	5/7
40/60	8/12
60/80	
80/100	

Table 6.3.1: Classification of groundcover plants according to width and number of main stems (NTJ 07J C.O.I.T.A.P.A.C.)

Diant width in an	Minimum volume of co	ntainer in liters
Plant width in cm	Shrub and subshrubs	Herbaceous plants
5/10	0.5	0.5
10/20	0.5/1	0.5
20/30	1/1.5	1
30/40	1.5/2	
40/60	2/2.5	
60/80	3/5	
80/100	5/7.5	

USES

Façade base and vegetative elements

Groundcover plants can be used to hide undesirable aspects in the lower parts of façades or to create and highlight a visual base besides a building. They can also be used to accentuate the appearance of a monument or some special specimen of trees or bushes.

When buildings have noticeable vertical lines, a green layer or base that clearly marks a horizontal line a few decimeters from the ground can be of interest. In this situation, water runoff from the roofs and the necessary waterproofing of the lower part of the façades must be considered. Plants that grow near façades receive less light and therefore the appropriate species must be chosen. In these cases, a gentle slope on the ground towards the outside is of interest, which in certain compositions should not influence the horizontality of the upper plane of the plant set. Likewise, the effect of the groundcovers root system on different infrastructures (water, electricity, drainage...) must be considered when they are located around one building.

The use of groundcover plants as a visual base for larger plants is an important topic in garden design and should be given proper attention. In some cases, it deals with framing the presence of trunks or bush bases; on others, the objective is to achieve the visual connection of different trees or shrubs through a green base with a homogeneous and continuous texture and chromatic tone.

Grasses for pavements

To soften the harsh effects of the pieces that make up the pavement of a pathway, or an esplanade, plants can be grown in their interstices. For this, the soil must be well prepared at a depth of about 15-20 cm.

If quick covering is needed, Aubrieta, Helianthemum and Phlox subulata, are recommended which give internal spots of pink, white, red, purple, orange and yellow, and should be cut back to 15 cm after flowering. The following species are also suitable for this purpose: *Armeria caespitosa, Thymus serphyllum, Dianthus gratianopolitanus* (D. caesius), D. arenarius, D x arvernensis, Veronica prostrata (V. rupestris), Hypericum reptans, Linaria alpina, Acantholimon glumaceum, Globularia meridionalis (G. bellidifolia), Androsace sarmentosa, Gentiana acaulis, G. septemfida, Campanula pulla, and C. x haylodgensis.

Other uses

Some groundcovers, especially those with fleshy stems and leaves, function as firebreaks in places where there are barbecues. In these sites, the use of resinous and other flammable species must be avoided.

It can sometimes be of interest to intersperse some bulbous plants among the groundcover set. The use of tulips, hyacinths or daffodils add a special attraction and provide a remarkable chromatic touch at the beginning of spring, when some of the groundcover species are still in their winter stage and display their worst characteristics. With the same objective, annual flower or foliage species can be planted, but always considering the main rule of interspersing, which determines the size ratio and indicates that the height of the groundcover should not be greater than 1/3 to ½ of the size of the foliage of the bulbous or annuals.

Using groundcovers as mulch can inhibit the development of weeds. These "mulch" species can sometimes replace grass in areas where trampling is not frequent (*Ophiopogon*) and ornamental meadows or lawns are not required.

Groundcover species can play an interesting role when used to visually accentuate a special element of the landscape such as stairs, entrances, rock gardens, and various ornamental elements. By considering the

groundcover features (foliage, bark, stems, flowers) and proportions, a slight, medium, or intense emphasis can be achieved.

Another common use for this group of species is to mark limits, delineate boundaries, identify zones, and protect embankments (see Table 6.3.3).

Plant	Height (cm)	Ornamental purpose
Acaena buchanii	10	Yellow flowering in warm season
Achillea millefolium	15	White flowering in warm season
Ajuga reptans	10	Blue flowering in warm season
Anthemis tinctoria	40	Yellow flowering in warm-temperate season
Armeria maritime	10-20	Pink flowering in warm season
Bergenia cordifolia	20-30	Red flowering in cold season
Capparia spinosa	20-50	white bloom
Carpobrothus	15-20	Red-yellow flowering in warm season
Cerastium tomentosum	5-10	White flowering in warm-temperate season
Dichondra repens	5-10	Evergreen foliage
Drosanthemum floribundum	5-10 15-20	Violet flowering in warm season
Gazania splendens	5-10	Yellow flowering in warm season
Glechoma hederacea	10-20	Tinged foliage
Hedera helix	3-5	Intense foliage
Helxine soleirolii	15-20	compact foliage
Hypericum clycinum	10-20	Yellow flowering in warm season
Lamprantrus	3-5	Orange flowering in warm season
Lippia canescens	30-50	White flowering in warm season
Lysimachia nummularia	20-30	Yellow flowering in warm season
Nepeta musinii	10-15	Blue flowering in warm season
Ononis	15-20	Yellow flowering in warm season
Ophipogon japonicum	15-25	Lilac flowering in warm season
Pachysandra terminalis	30-60	White flowering in warm season
Pyracantha	2-3	Red fruiting in cold season
Sagina subulata	10-20	White flowering in warm season
Saxifraga	10-15	White flowering in warm season
Sedum	10-25	Varied flowering in warm season
Spergularia rubra	10-20	Violet flowering in warm-temperate season
Stachys lanata	5-10	Silver foliage
Thymus serpyllum	10-20	Violet flowering in warm season
Tradescantia	3-6	Glossy foliage
Verbena repens	10-20	Violet flowering in warm season
Vinca	10-20	Blue flowering in warm-temperate season
Viola		Violet flowering in warm-temperate season

PLANTING AND SOWING

Plants are supplied in different formats depending on the plant group to which they belong: herbaceous plants in an 8-12 cm pot or container, or in plug trays. Groundcover shrubs and conifers in a 15 or 17 cm container.

There are more groundcover species suited for humid shady areas than for dry sunny areas. As a result, an adequate preparation of the soil is recommended and enhancing it with organic matter and peat to achieve greater moisture retention. In subsequent years, new organic contributions must be carried out for this same purpose.

The best time to plant groundcovers depend on the species and the climatic conditions of the area in question. In cold areas, planting in spring is more recommended however it can also be carried out in the summer months. It is nevertheless advisable not to postpone it until the end of summer since the plants may not be sufficiently settled when the cold arrives. In warm temperate zones they can be planted in early spring or autumn.

Most creepers and groundcover plants are soil hardy nevertheless they prefer well prepared, enhanced, fertilized and well-drained soil. Likewise, temperature, lighting and water requirements of different species must be studied, so that the most appropriate ones are chosen for each climate and microclimate.

Before planting, it is necessary to carry out the normal preparatory tasks including the elimination of weeds and their roots. The soil will be ameliorated by providing 400-800 Kg/area (100 m²) of organic matter, which can be quality manure or the material commonly used in gardening (2% of urban organic waste free of glass, metal and plastic + 60 % pomace + 20% manure). In very clayey soils, it is advisable to add 2-3 m³/area of siliceous sand, especially if mediterranean or xerophyte species are to be planted. Mineral or inorganic fertilizers will be provided at a rate of 8-13 grams/m² of complex 9-18-27.

Plant	Standards (cm)	Nº Plants/m ² or linear meter		
Shrubs				
Dwarf or slow growth	45-60	3-5		
Medium	100-120	1		
Vigorous	150-180	1 plant/2-3 m ²		
Rose bushes	45-60	3-4		
Perennials				
Medium	30-50	4-11		
Vigorous	60-150	1-3		
Small herbaceous	20-30	11-25		

Table 6.3.4: Planting standards

In some groundcover species, such as *Dichondra repens*, sowing is recommended and can be done from May to October, using a dose of 5gr/m².

Subchapter 6.4

Maintenance

GENERAL CONDITIONS OF MAINTENANCE

Groundcover species require minimal maintenance and although this is one of their most interesting features, this could lead to their abandonment. Periodic watering, occasional weeding (until it has the adequate density that inhibits weed development), soil improvement, trimming, pest and disease control, and replanting are still necessary.

Consistent watering is especially important immediately after planting; this will prevent wilting and encourage a strong root system. Many groundcover species have a certain resistance to drought, so once established, excesses should be avoided, especially in autumn, winter and the first part of spring.

Weed control - which is minimal once the groundcovers have grown - must be thorough and consistent in the first months after planting. This will become less necessary once good preventive practices for eliminating weeds have been carried out on the ground. Residual pre-emergence herbicides can also be used to prevent the appearance of these undesirable species during the planting period.

For most groundcover plants, an annual pruning or trimming is ideal. This improves light penetration inside the plants and better ventilation resulting in vigorous budding and development, and subsequently, plants become more branched and leafier.

The spring-flowering species should be cut back immediately after flowering ends, while those that flower in summer and autumn should be cut back in spring. For herbaceous species that lose their foliage in winter, dead stems and leaves should be removed in the fall or winter. In the case of sub-woody or woody species, the removal of no more than a third of the length of the branches is recommended. In other groundcovers such as Dichondra, watering is less frequent than in the case of lawns (once a month at most).

Most groundcover species need an adequate fertilization program. In general, slow releasing fertilizers of nitrogen and potassium are sufficient; Phosphorus does not need to be provided in a slow releasing format since it has low solubility.

The recommended N-P-K (Nitrogen, Phosphorus and Potassium) ratio is usually 2-1-2, for example a 10-5-10 formulation and can be applied at a rate of 0.75 kg N per area (100m2) in mid-spring and 0.5kg N per area in early autumn. Likewise, it will be convenient to make regular contributions of organic matter, preferably in November and at a rate of 150 kg/area and year.

Some groundcover species, especially those that propagate vegetatively by dividing the bush, develop so densely that they become overpopulated, with which growth is limited and flowering is reduced in quantity and showiness. To stop this from occurring, an annual thinning is recommended and adding organic matter and new soil to the thinning sites.

In order to establish groundcovers correctly, careful, attention must be given to the distribution of the plants in the assigned surface. This will ensure quick coverage and avoid competition for available space or the loss of its distinguishing features.

Therefore, prior to planting, it is convenient to know each plant's potential and to calculate its approximate extension and to consider the root and stolon development.

Hummock-like species are the most controllable, however, other species, such as *Hypericum calycinum* and peppermint, grow through underground roots, which can create an invasive habit. Species such as

Campanula gromerata, Euphorbia robbiae and Anaphales triplinervis also spread through their roots.

Other plants (*Tiarella, Symphytum grandiflorum, Stachys lanata* and *Ajuga*) spread by rooting from the nodes of the stems and branches. This makes easy to control their growth by cutting the branches in the area where there is excess.

Others, like Alchemilla mollis, multiply by seed with impressive speed. It is advisable to avoid planting Saponaria officinalis among other shrubs and Mentha gentilis in a mix of herbaceous plants since both species are so expansive that they should only be used where the growth of any other plant is not required.

Maintenance Schedule

March

Treatment with Abamectina 0.35 cc p.c./l + Thiram 80% 2.5 g p.c./l General adjustments planting

April Planting and fertilizers

May

Treatment with Metilpirimifos 1.75 g p.c./l + Thiram 80% 2.5 g p.c./l Remove weeds Maintenance pruning

June Deadheading

July

Treatment with Fenvalerato 0.75 cc p.c./ I +Dienocloro 0.9 g p.c./I Deadheading

August Deadheading

September Treatment with Abamectina 0.35 cc p.c./ I + Thiram 80% 2.5 g p.c./I

October and November

Planting Maintenance pruning Deep fertilizers

December

Treatment with Zineb 80% 2.5 g p.c./l Weeding

February

Treatment with Zineb 80% 2.5 g p.c./l Planting Pruning