

Top 52 Bulbous Plants for Pollinators The best plants grown from bulbs, tubers or rhizomes,

National Botanic Garden of Wales Gardd Fotaneg Genedlaethol Cymru

List Curated by Thomas McBride

to plant to help our pollinating insects

From research data collected and collated at the National Botanic Garden of Wales

NB: Butterflies and Moths are not studied at the NBGW so any data on nectar plants beneficial for them is taken from Butterfly Conservation



<u>Introduction</u>

The majority of Garden Plants, excluding shrubs, are herbaceous which means they grow each year and have no lasting woody stems above ground. Bulbous plants are a subsection of herbaceous as they have significant storage organs near to the ground which remain over the plant's dormant period; providing energy and allowing for vigourous growth the following year. Due to this adaptation, bulbous plants are often (but not always) fast growing and may be earlier flowering than their herbaceous relatives.



Many bulbous plants are monocotyledonous, meaning they have one leaf sprout (cotyledon), such as onions. A few bulbous plants are dicotyledonous such as species in the Oxalidaceae and Ranunculaceae. It is important to note that, while all significant, subterranean storage organs are known as 'bulbs' in horticulture, botanists distinguish true bulbs from rhizomes, corms and tubers. True bulbs, with the exception of some Oxalis, are exclusively found in the monocots whereas Tubers and Corms tend to be Eudicots such as Dahlias and Anemones respectively. Rhizomes are found throughout many taxa.

Potato Tuber

Onion Bulb

<u>Planting with Bulbs – Rhizome, Corm or Tuber – Does it matter?</u>



Bulbous Plants can be some of the easiest to grow as they require little attention once they're established and will often spread over a large areas such as bluebells or grape hyacinths. The majority of bulbous plants prefer being planted only a few cm under the soil so light and air can easily penetrate.

Botanically, whether a bulb is a true bulb, rhizome, corm or tuber, is important, but it makes little difference in horticulture to how the plant is grown. However the differences are as follows:

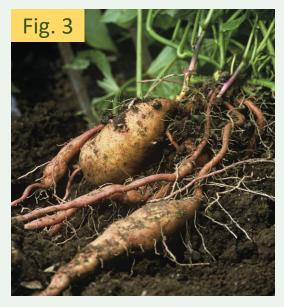


True Bulbs have multiple fleshy scales separated by layers of epithelium tissue. These layers are essentially underground leaves. A common example of a true bulb is the onion (fig.1) which shows clear layers. The growing point of a bulb is the centre which is a modified underground stem. Key bulbous families include Liliaceae, Amaryllidaceae and some Oxalidaceae.

Corms are also modified underground stems but are made from solid tissue rather than leaflike layers. Corms, such as the crocomia (fig. 2) have nodes just like standard underground stems. Key cormous plant families include Iridaceae, Colchicaceae, Musaceae and some Cyperaceae



<u>Planting with Bulbs – Rhizome, Corm or Tuber – Does it matter?</u>



Tubers are modified lateral roots. Unlike bulbs and corms, they will send out roots from any point of their external surface such as Sweet Potato tubers (fig. 3). Other examples include Dahlias and Anemones. Tuber, in Latin, means 'swelling' and tubers can also refer to **tuberous stems** such as potatoes and yams. These are very thick rhizomes and may produce stolons so are capable of growing both stems and roots! Stem tubers often decrease significantly in size following rapid growth of leaves.

When growing bulbous plants, remember to allow them time to photosynthesise before cutting them back or pulling up the bulbs. Early flowering species such as Daffodils require some weeks after the flowers have finished to obtain energy before they will naturally allow their foliage to die back. Pulling up too early each year will cause stunted growth or even blind (non-flowering) stems. Bulbs may produce bulblets which can be planted separately. Likewise, rhizomes and others may multiply and will do better if they are split and thinned out once in a while. This can be great for the gardener as you will have new plants.

Rhizomes, also known as rootstalks, are the final sort of 'bulb' and are the least like a true bulb. They tend to be narrower than other storage organs and are simply a partially widened underground stem. Examples include Irises (fig. 4), Alstroemeria, many grasses and also members of the ginger family (Zingiberaceae).





Map Guide to using these pages: Maps depict the native area of the plant (in green) They also show areas the plant is naturalised (in purple) All maps shown Latin Binomial Eranthis hyemalis Europe are derived from Name 'Plants of the Winter Aconite World Online'; Common courtesy of Kew English Gardens Name Flowering Period Photograph (this is when it is good of the plant Mid Winter Species for pollinators!) - Early Spring in flower 'Guinea Gold' Plant Family Ranunculaceae **Buttercup Family** Insect groups known to Growing habit favour the and mature size nectar of this of the plant hotograph from Flickr (CC) Peter Stenzel plant 19

Useful knowledge or warnings about the plant

RHS AGM cultivars of this species (or a related species occasionally)

Key to these Pages

Additional information on these garden plants



The flowers and/or leaves have a Pleasant scent





Plant is often used in traditional Herbal Remedies

The plant has edible parts that are commonly eaten or used in cooking



This plant would only be

suitable for meadow-style

Warnings



Plant tissue is highly toxic if ingested



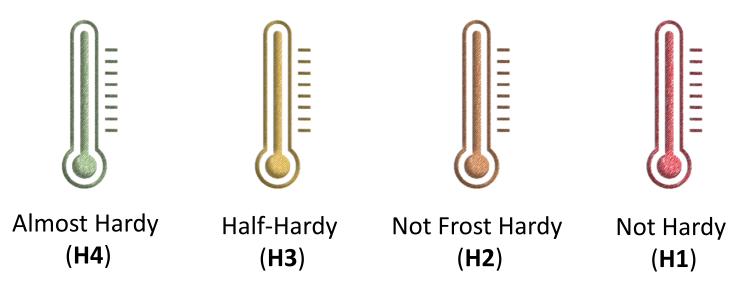
Sap may cause irritation (Wash hands after touching or avoid touching)

<u>Temperature</u>

Some of the plants listed in our Top 200 are not fully hardy in all or some parts of the United Kingdom.

Plants without a thermometer symbol are fully hardy in the severest UK Winter; equating to **H5** or hardier.

Plants with a coloured thermometer symbol are hardy to varying degrees as follows:



<u>RHS Hardiness Scale</u>		
H1a	-	Above 15°C
H1b	-	Minimum 10 ^o C
H1c	-	Minimum 5°C
H2	-	Minimum 1ºC
Н3	-	Minimum -5°C
H4	-	Minimum -10°C
H5	-	Minimum -15 [°] C

<u>Pollinators</u>

Our data on pollinators has been collected from studies spanning over a decade. Pollinator symbols appear when plants are proven to be good nectar plants for certain insects.

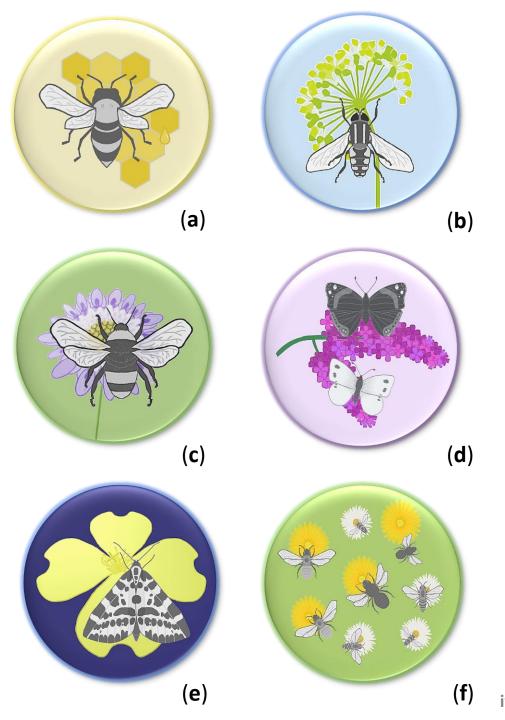
It should be noted that all bee and hoverfly data is ours but lepidoptera data is taken from Butterfly Conservation.

Our data spans a wide range of different insect species. For simplicity, these species have been condensed into six easy icons to represent them:

a) Honeybees c) Bumblebees e) Moths

b) Hoverflies d) Butterflies f) Solitary Bees (Includes Moths)

The next pages will describe each of the insect groups:



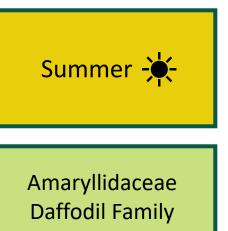
Allium caeruleum Blue-flowered Garlic





- Species -





Allium hollandicum Dutch Garlic, Persian Garlic





'Purple Sensation'





Amaryllidaceae Daffodil Family

Allium moly Yellow Garlic





'Jeannine'





Amaryllidaceae Daffodil Family

Allium schoenoprasum





None





Daffodil Family

Allium ursinum Wild Garlic, Ramsons









Alstroemeria x hybrida Garden Peruvian-lily

Complex group of hybrids of unknown parentage





'Apollo' 'Sirius' 'Spitfire' 'Tessa'



Late Summer - Mid Autumn

Alstroemeriaceae Peruvian-lily Family

Anemone blanda Balkan Windflower





- Species -'White Splendour'



Spring 🖑

Ranunculaceae Buttercup Family

Anemone nemorosa Wood Anemone







'Allenii' 'Robinsoniana'

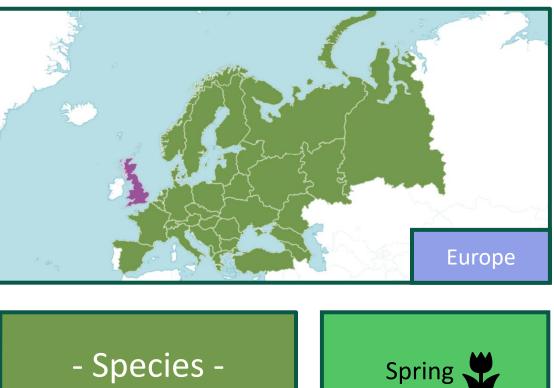


Spring 🕊

Ranunculaceae Buttercup Family

Anemone ranunculoides Buttercup Anemone





· 'Pleniflora'



Ranunculaceae Buttercup Family

Camassia quamash Common Camassia





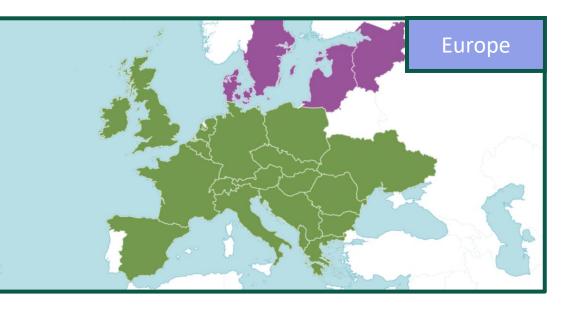


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Colchicum autumnale Autumn Crocus







'Album' 'Nancy Lindsay'





1ft Cormous

Convallaria majalis Lily-of-the-Valley







'Fortin's Giant' -Species-



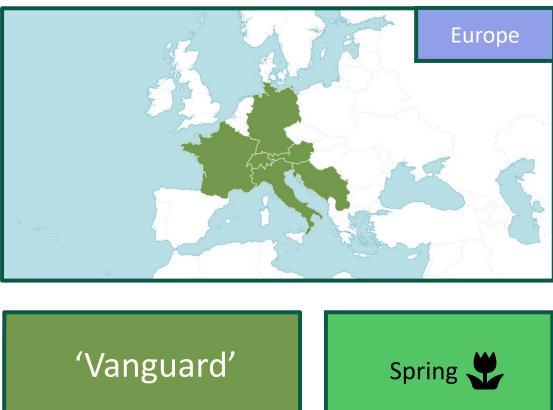


Asparagaceae Asparagus Family

1ft Rhizomous

Crocus vernus Spring Crocus









<1ft Cormous

Crocus chrysanthus Golden Crocus





'Cream Beauty' 'Goldilocks'



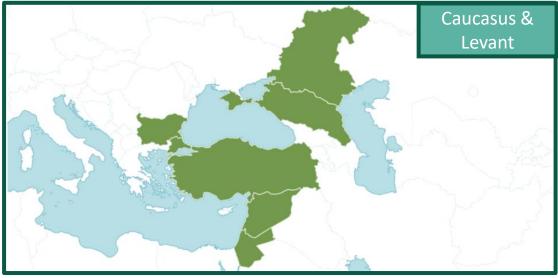
Late Winter - Mid Spring

> Iridaceae Iris Family

<1ft Cormous

Cyclamen coum Eastern Sowbread





- Species – Ssp. Coum



Late Winter - Mid Spring

Primulaceae Primrose Family

Dahlia coccinea Red Dahlia





'Bishop of Llandaff''Happy Single series'



Midsummer - Early Autumn

> Asteraceae Daisy Family

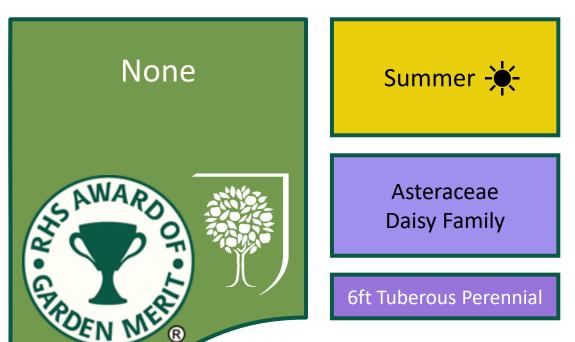
3ft Tuberous Perennial

* Will not survive a frost, only half-hardy, bring tubers indoors in winter to rest before planting in Spring

Dahlia imperialis Tree Dahlia



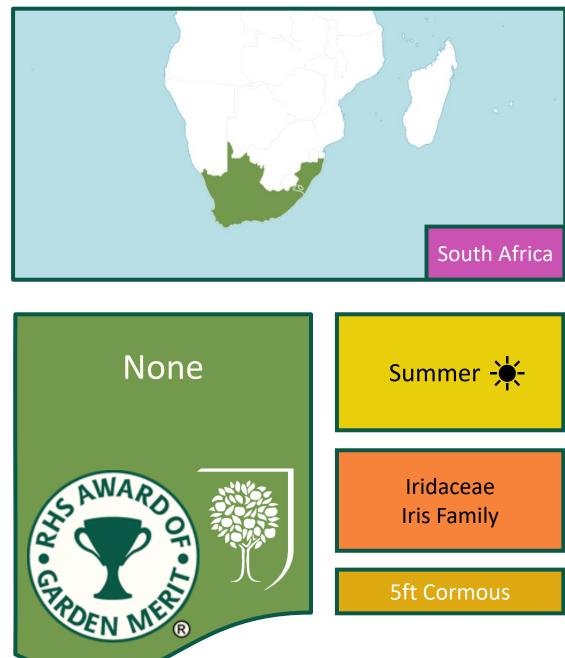




* This plant will struggle to survive below -5'c night temperatures so plant in a sheltered spot and wrap the stems/mulch the base during the winter period.

Dierama pulcherrimum Angel's Fishing Rod





Eranthis hyemalis Winter Aconite





Species 'Guinea Gold'

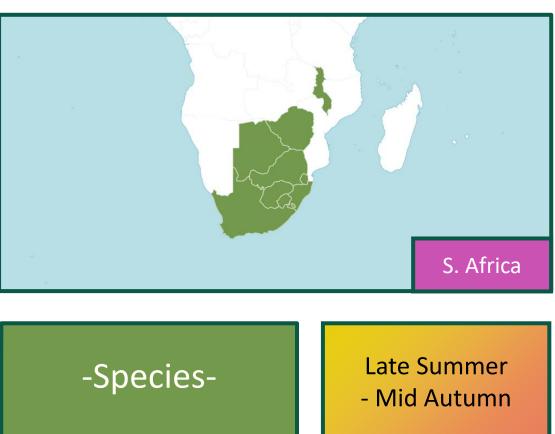


Mid Winter - Early Spring

Ranunculaceae Buttercup Family

Eucomis autumnalis Autumn Pineapple-lily



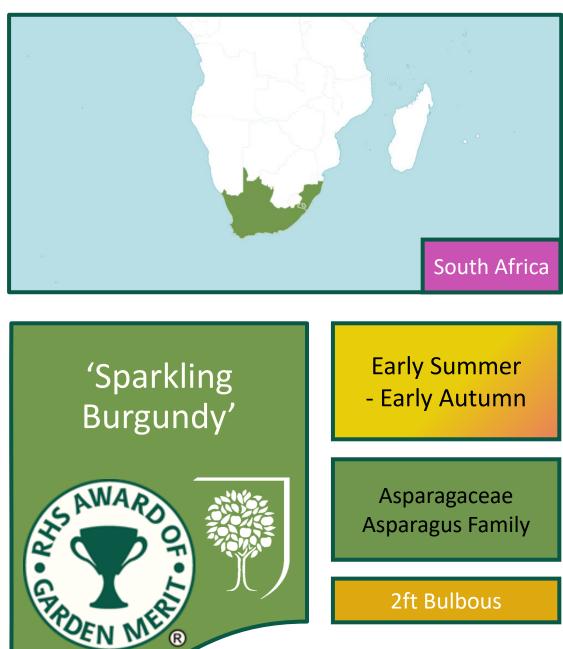




Asparagaceae Asparagus Family

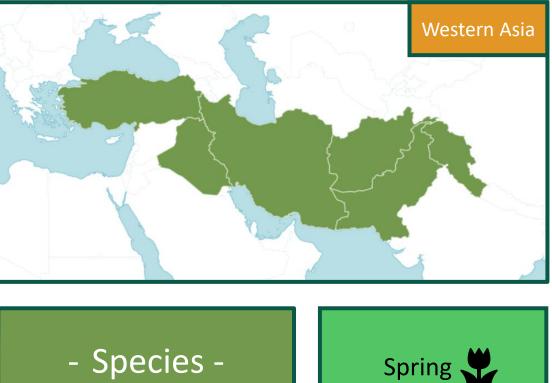
Eucomis comosa Common Pineapple-lily





Fritillaria imperialis Crown Imperial





- Species -'Maxima Lutea'

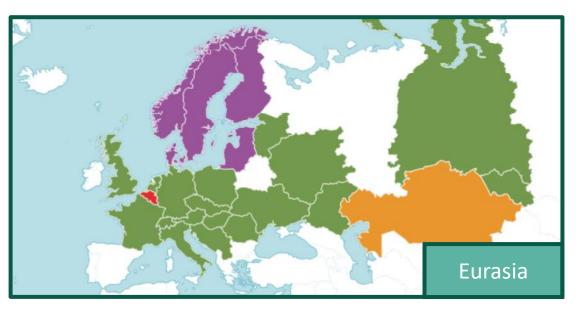




Fritillaria meleagris Snake's-head Fritillary







- Species var. unicolor 'Alba'

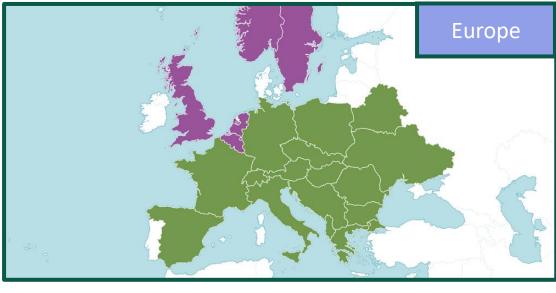




Lily Family

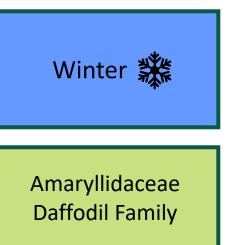
Galanthus nivalis Common Snowdrop





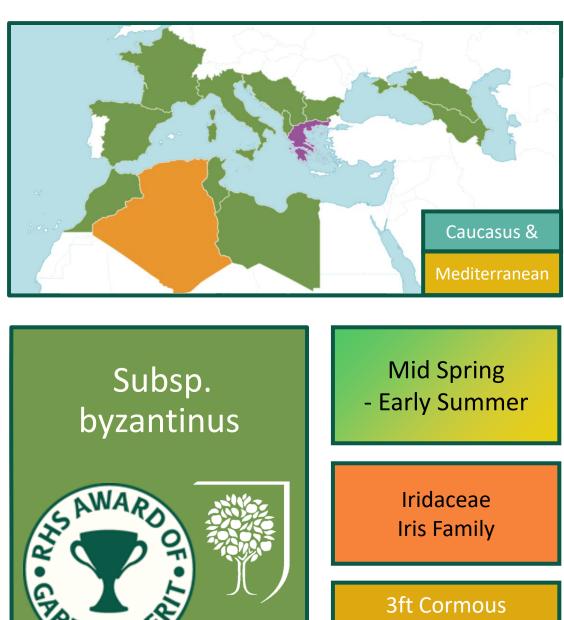
'Viridapice' -Species-





Gladiolus communis Eastern Gladiolus





Hepatica nobilis Common Liverleaf







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1ft Rhizomous

Hosta sieboldiana syn. H. fortunei Giant Blue Plantain-lily





Var. aureomarginata 'Frances Williams'



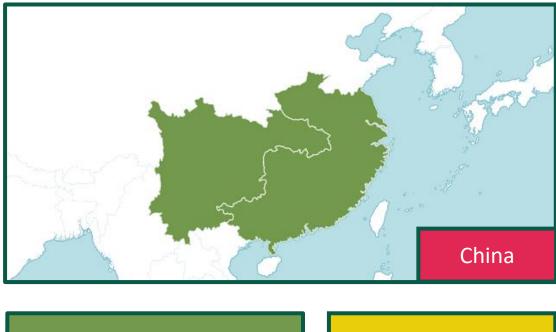


Asparagus Family

2ft Rhizomous

Hosta ventricosa Blue Plantain-lily





- Species -'Aureomarginata'





2ft Perennial

Hyacinthoides non-scripta English Bluebell





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Hyacinthus orientalis Garden Hyacinth





'Aida' 'Anna Marie' 'Gypsy Queen'



Late Winter - Mid Spring

Asparagaceae Asparagus Family

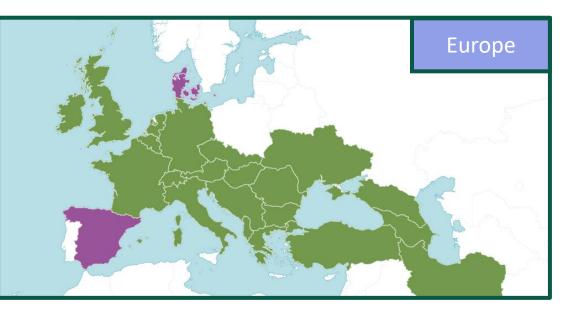
1ft Bulbous

* This plant will not survive below -10'c night temperatures, protect bulbs from very harsh winter nights

Leucojum aestivum Summer Snowflake







'Gravetye Giant'

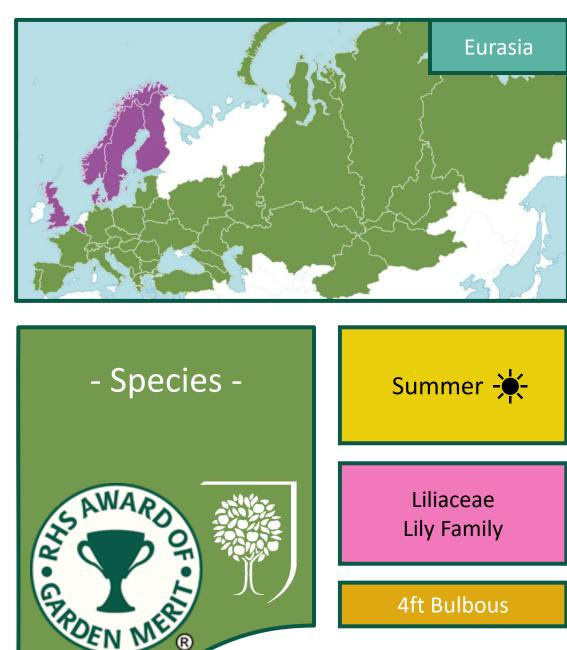




Amaryllidaceae Daffodil Family

Lilium martagon Turk's Cap Lily





Lilium regale Regal Lily





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Lily Family

Muscari armeniacum Garden Grape-Hyacinth





'Christmas Pearl' -Species-



Early Winter - Mid Spring

Asparagaceae Asparagus Family

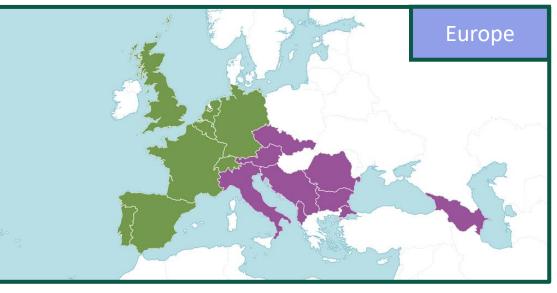
Muscari latifolium Broad-leaved Grape-Hyacinth





Narcissus pseudonarcissus Wild Daffodil, Lent-lily





Ssp. Pseudonarcissus 'Dutch Master'

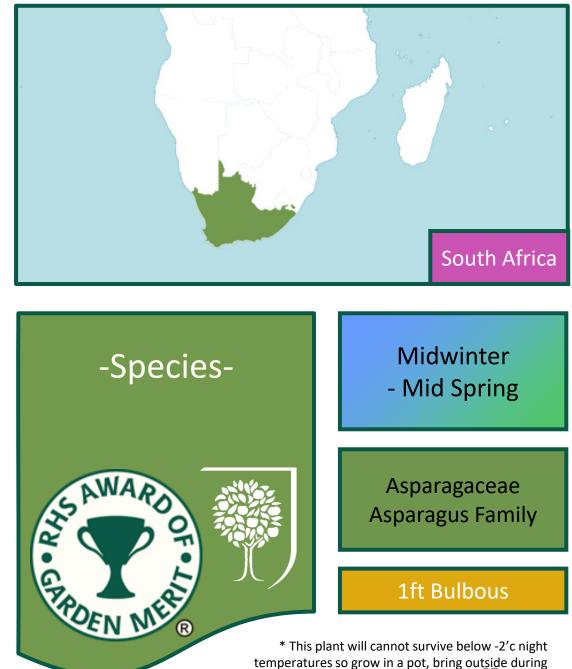


Late Winter - Mid Spring

Amaryllidaceae Daffodil Family

Ornithogalum dubium Orange Star-of-Bethlehem

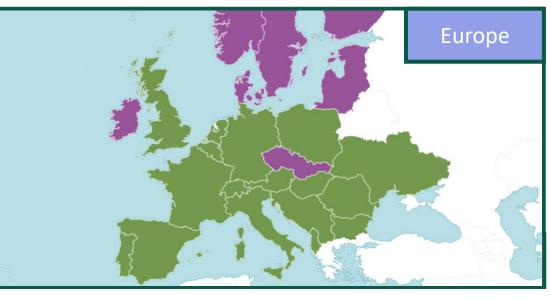




warmer days and keep in a sheltered, sunny position

Ornithogalum umbellatum Garden Star-of-Bethlehem





Related Species:

O. nutans





Asparagus Family

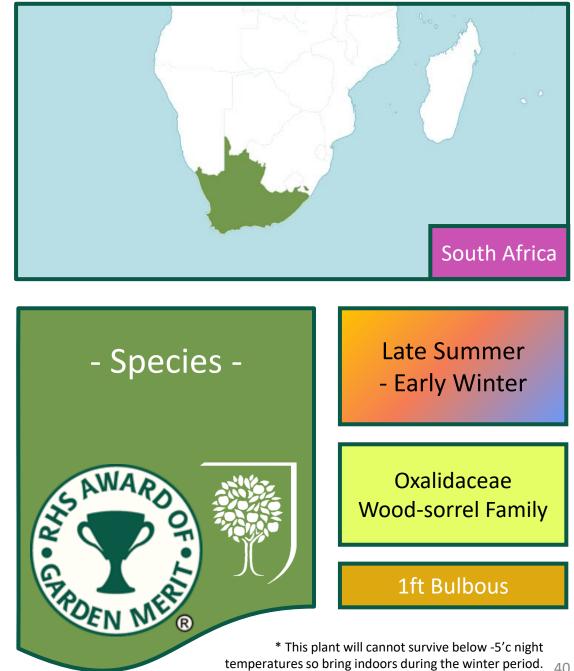
Oxalis adenophylla Chilean Sour-clover





Oxalis versicolor Candy-cane Sorrel





Polygonatum multiflorum Solomon's Seal





P. multiflorum x P. odoratum Polygonatum x hybridum





Asparagaceae Asparagus Family

Pulsatilla vulgaris Common Pasqueflower

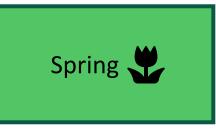






-Species-



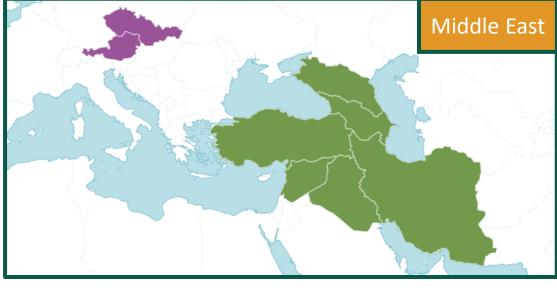


Ranunculaceae Buttercup Family

1ft Rhizomous

Puschkinia scilloides Lebanon Squill





var. libanotica

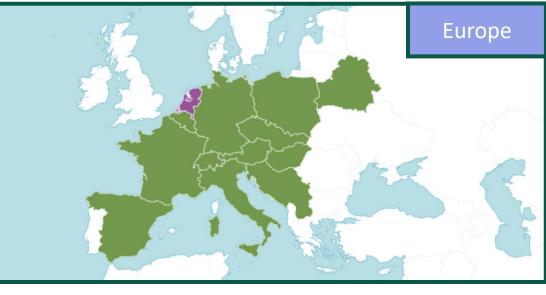




Asparagaceae Asparagus Family

Scilla bifolia Alpine Squill





-Species-

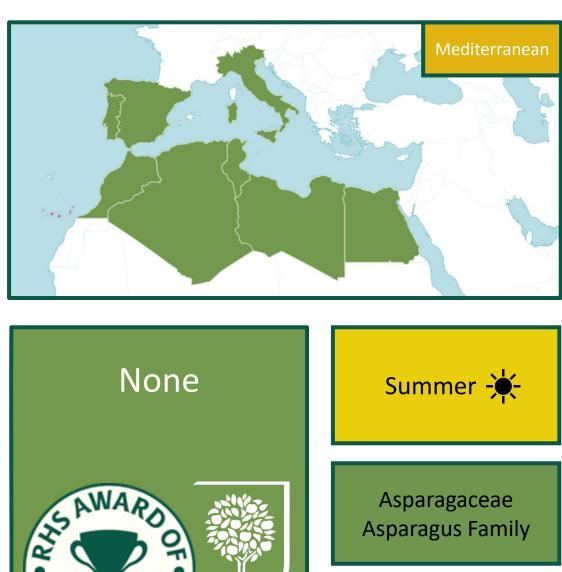


Late Winter - Early Spring

Asparagaceae Asparagus Family

Scilla peruviana Portuguese Squill





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Scilla siberica Wood Squill





-Species-



Late Winter - Early Spring

Asparagaceae Asparagus Family

Sisyrinchium bellum Californian Blue-eyed Grass





Similar Species:

S. Idahoense var. macounii 'Album'



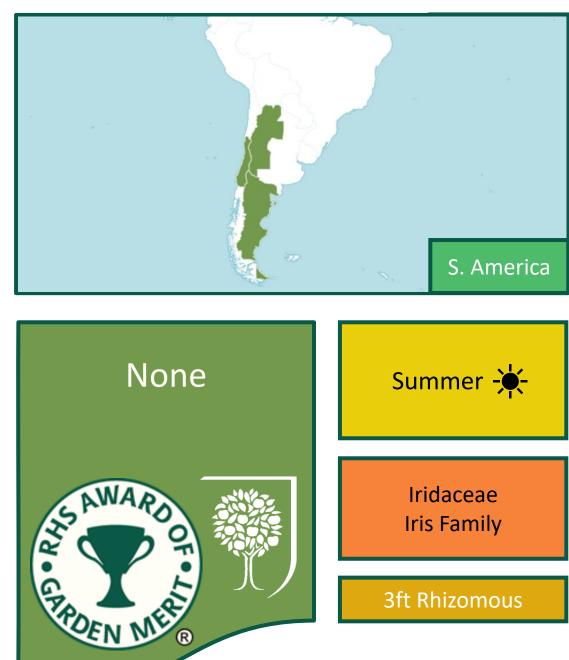
Mid Spring - Early Summer

> Iridaceae Iris Family

2ft Rhizomous

Sisyrinchium striatum Satin Flower





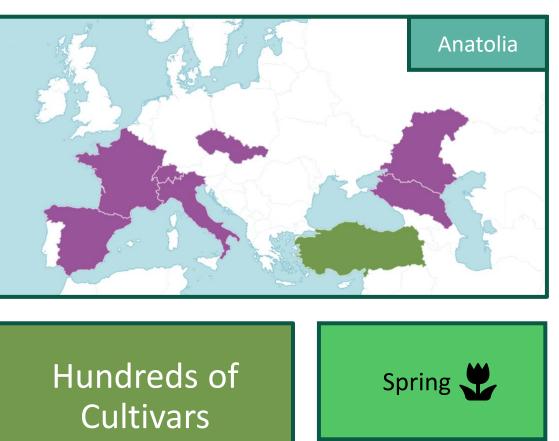
Tricyrtis formosana Taiwanese Toad Lily





Tulipa gesneriana Garden Tulip









Tulipa saxatilis Candia Tulip





'Lilac Wonder'





Liliaceae Lily Family

Tulipa urumiensis Late Tulip



