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Bulbs

HOW TO SELECT AND GROW MORE THAN
400 SUMMER-HARDY AND TENDER BULBS

BARBARA W. ELLIS





Taylor's Guide to

Bulbs

HOW TO SELECT AND GROW
480 SPECIES OF SPRING
AND SUMMER BULBS



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Taylor's Guides to Gardening



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Introduction

Versatile, colorful, easy to plant and even easier to grow, bulbs belong in every garden. There are bulbs for both sun and shade, hot climates and cold, as well as selections perfect for every style of garden, from formal perennial borders to casual woodland or shade plantings. Planted *en masse*—arranged in either blocks or free-form drifts—bulbs make it easy to paint sheets of color over the landscape. Most are simple to tuck in among clumps of perennials, plant between the roots of trees, or naturalize in grass or wild gardens. Many make easy and stunning container plants, too. There are also many bulbs that thrive in difficult sites: in the pages of this book, you'll find plenty of choices for spots that are hot and dry in summer, for example. Fortunately, bulbs also are relatively inexpensive, putting stunning displays within the reach of nearly every gardener's budget. They are inexpensive enough that many are commonly grown as annuals—tulips and gladiolus are two examples. Growing bulbs as annuals makes it easy to change a garden color scheme for a single season, and it also makes experimenting practical: try out species you haven't grown before to find out what performs well in a particular site, for example.

This book contains information on hundreds of bulbs. It is designed to help you sample the amazing variety of these plants and determine which ones to add to your beds, borders, and container gardens. Both the photographs and the individual entries are listed in alphabetical order by botanical name: *Crocus*, *Curcuma*, *Cyclamen*, and so forth. See the index if you need to locate a plant by its common name. The photographs are accompanied by captions that

summarize essential information about the plants and give page numbers for the encyclopedia entries, where they are covered in more detail. The encyclopedia entries, located in the back of the book, include general information on each genus as well as a How to Grow section and individual accounts of outstanding species and cultivars, with descriptions and page references back to corresponding photographs. The How to Grow information covers essential site and soil requirements as well as other important cultural information, including planting time and depth, overwintering tips, and propagation information. When is the best time to plant the bulbs? How deep should they be planted? How do you overwinter them if they are not hardy in your area? What are the best methods for propagation?

WHAT IS A BULB?

Gardeners and botanists differ in their use of the word “bulb.” For botanists, bulb means a specific botanical structure consisting of a stem surrounded by fleshy, modified leaves. Onions, daffodils, tulips, and lilies all grow from true bulbs. Botanists further divide true bulbs into two general types: tunicate and fleshy. See Bulb Terms for definitions of various bulb structures as well as other terms relating to bulbs. Knowing the specific type of structure that a bulbous plant grows from is a valuable piece of information to have if you want to propagate it. See “Propagating Bulbs” for specifics on techniques that work with different types of structures.

When gardeners use the word “bulb,” they commonly are referring to plants that grow from a variety of underground structures, including true bulbs, corms, tubers, tuberous roots, and rhizomes. For simplicity’s sake, in this introduction, the word “bulb” is used in this general sense. In the encyclopedia entries, however, the various structures are referred to by their correct botanical names: a bulb is a true bulb and a tuber is a true tuber, for example. In the nursery trade, the term “bulb” is commonly used to refer to bulbs, corms, tubers, and other structures that can remain alive for two months out of the soil. Nursery owners use this definition because it means bulbs (and other structures) can be stored, packaged, and sold in a similar way and are typically offered in general bulb displays.

Bulbs also are often grouped according to when they bloom—a characteristic that is often more important to gardeners than the specific structure they grow from. See “Deciding What to Grow” on page 6 for more information on spring, summer, and fall bulbs.

(text continues on page 6)

BULB TERMS

BULB. A true bulb is a storage organ, usually underground, that is made up of fleshy scales, which are actually modified leaves, attached to a basal plate that gives rise to the roots. At the center of the bulb is a compressed stem containing an embryonic shoot or flower. The fleshy scales store food for the plant. Bulbs made up of a solid mass of tightly packed scales covered by a papery tunic are called tunicate bulbs. The tunic protects the bulb from being damaged or drying out. *Narcissus* spp., *Tulipa* spp., *Allium* spp., and *Hippeastrum* spp. all have tunicate bulbs. (In some cases, these bulbs are very poorly developed: many *Allium* spp. have bulbs that simply look like fleshy stems.) *Lilium* spp. and some *Fritillaria* spp. grow from bulbs that are not covered by a tunic and have loose scales. These are called scaly or nontunicate bulbs. Not only do they dry out more quickly, they also are damaged more easily than tunicate bulbs.

BULBIL. A small bulb that forms above ground, such as in the leaf axil of a plant.

BULBLET. A small bulb that forms below ground, such as along a plant's stem or around the base of a larger bulb.

BULBOUS. In gardening, this term is used to refer to any plant that bears swollen or rounded roots that resemble bulbs, whether the actual structures are true bulbs, corms, or tubers.

CORM. A bulblike organ for storing food that actually is a swollen, solid, underground stem. Unlike bulbs, corms are not constructed of layers of scales. They are usually covered with a papery tunic. The best-known plants that grow from corms are glads (*Gladiolus* spp.) and crocuses (*Crocus* spp.). Most corms live only one year: once the parent corm has bloomed, it withers and dies, and a new corm forms on top of the old corm.

CORMEL. A small corm that forms underground near the base of a parent corm.

OFFSET. A small bulb, shoot, or plant that is produced near the base of a parent plant.

PERIANTH SEGMENTS. Perianth is a collective term for both the calyx (sepals) and the corolla (petals) of a flower and is most commonly used when these two parts of a flower are similar in appearance. The “petals” of a flower with similar-looking sepals and true petals are correctly called perianth segments.

RACEME. A single-stemmed inflorescence (flower cluster) made up of flowers carried on individual stalks, called pedicels.

RHIZOME. A specialized, horizontal stem that runs underground or on the soil surface. Rhizomes contain nodes and internodes and also produce roots at the nodes. Plants that grow from fleshy rhizomes often are included in the general category of bulbs, including bearded irises (*Iris* bearded hybrids). Lily-of-the-valley (*Convallaria majalis*) also spreads by rhizomes, in this case thin ones called pips. Since the rhizomes can be stored and sold while they are dormant, these plants are often included in bulb catalogs and displays.

SCALY BULB. *See* Bulb.

SPIKE. A single-stemmed inflorescence (flower cluster) made up of flowers that are either attached directly to the main stem without a stalk or are nearly stalkless.

STEM TUBER. These structures are formed from swollen stem tissue, and, unlike conventional tubers such as potatoes, they have an upright orientation in the soil, with leaf and flower buds arising from the top and roots from the sides or bottom. Stem tubers are perennial and increase in size each year, but they do not produce offsets. Tuberous begonias (*Begonia* \times *tuberhybrida*) and cyclamen (*Cyclamen* spp.) both grow from stem tubers.

TEPAL. A tepal is a petal-like perianth segment (collectively, the calyx, sepals, and corolla, or petals, of a flower). In a flower with tepals, the true sepals and petals are indistinguishable. Lillies (*Lilium* spp.), tulips (*Tulipa* spp.), and crocuses (*Crocus* spp.) all bear flowers with tepals rather than distinct sepals and petals.

TRUE BULB. *See* Bulb.

TUBER. A modified underground stem that is fleshy and swollen, stores food for the plant, and is also a reproductive organ. (Potatoes are the best-known example, but *Caladium* species also grow from tubers.) Tubers are true stems and have all the parts of a typical stem, including buds (called eyes) marking the nodes. They form at the tips of underground stolons or rhizomes.

TUBEROUS ROOTS. Like other bulbous structures, tuberous roots are overwintering and food-storage adaptations. In this case, they are fleshy, swollen sections of roots that have the internal and external structure of a root. They lack nodes and internodes and have buds only on the end near the crown or stem of the plant. Dahlias (*Dahlia* spp.) grow from tuberous roots. That's why it is important to include part of the main stem or crown of the plant when dividing or propagating dahlias: the individual fleshy roots do not have buds and cannot sprout. Tuberous roots usually are biennial—they form and overwinter the first year, sprout the following spring, and then shrivel and are replaced the second year.

TUNICATE BULB. *See* Bulb.

UMBEL. An inflorescence (flower cluster) in which all the individual flowers are borne on stalks that arise from the same point at the tip of the main stem. Umbels are flat or rounded on top. Ornamental onions (*Allium* spp.) bear their flowers in umbels.



DECIDING WHAT TO GROW

Perhaps the best guideline to follow when deciding which bulbs to grow is “the more the better.” After all, it’s hard to have too many snowdrops or daffodils in spring. And did you ever hear anyone complain about too many lilies in summer or autumn crocuses in fall? The wider the variety of species and cultivars you grow, the longer the bloom season you’ll enjoy. Especially large genera—*Allium* (ornamental onions), *Lilium* (lilies), *Narcissus* (daffodils), and *Tulipa* (tulips)—offer a wide range of species and cultivars you can use to plan weeks (and sometimes months) of color in the garden. See the individual entries for suggestions on selecting plants that will lengthen the bloom season.

Another guideline to keep in mind when planting bulbs is the tried-and-true rule “match the plant to the site.” In other words, when selecting plants to grow, use your garden’s sun, soil, and weather conditions to guide your choices. (With bulbs that are overwintered indoors—either dry or in containers—available space in winter may play a deciding role in what you grow!) Bulbs selected because they thrive in the conditions available in your yard inevitably perform better than ones that have to struggle to survive.

If you are not already familiar with the conditions your garden has to offer, take time to study the sun and shade patterns in your yard on a typical day. Bulbs that require full sun need a site that offers at least 8 hours of direct sun per day. Ones that require light or partial shade need either good light all day or full sun for part of the day and shade for the rest of the day. Sites that receive direct sun for a few hours in the morning or afternoon and dappled shade the rest of the day will keep many species happy. Dappled shade cast by deciduous trees is fine for many spring-blooming bulbs, which thrive in the full sun available before the trees leaf out. Most are dormant by the time these sites are fully shaded in early summer. Deep-rooted species such as oaks are best for underplanting with bulbs: few plants can compete with the dense mat of roots produced by maples and other shallow-rooted trees. A site with deep, all-day shade, such as one shaded by evergreens, isn’t suitable, and even shade-loving bulbs won’t succeed there.

When evaluating sites, also dig a few test holes to find out about the soil. Most bulbs prefer well-drained soil and rot in a spot with damp, heavy clay or one that remains constantly wet. You can improve the drainage of any soil by double digging and adding organic matter such as compost. For sites with very poor soil or chronic drainage problems,

Allium unifolium, which blooms from late spring to early summer, is just one of the many ornamental onions in the genus *Allium*. With a little planning, it's possible to fill the garden with species and cultivars of *Allium* that bloom from spring right into fall.

raised beds may be the answer. Many bulbs also thrive in the perfectly drained conditions of a rock garden.

If you are planning to grow some of your bulbs as annuals, keep in mind that you may need to provide ideal conditions for only part of the year. A spot that is hot and dry during summer dormancy is ideal when growing tulips as perennials, but if you are planning to enjoy them for a single season and then replace them, all you need to worry about is keeping them happy from winter through the following spring. In this case, they won't do well in a bed that is wet all winter, but one that is kept moist all summer is fine because the tulips are going to be replaced anyway.

Bulbs for Season-long Bloom

While nearly everyone is familiar with hardy spring bulbs such as daffodils and tulips, there are also many other spring bulbs to choose from, along with a wide array of summer- and fall-blooming species invaluable for adding extra pizzazz to the garden. With a little planning, it's possible to have bulbs in bloom from late winter right through fall. Use the following three groups to help guide your choices:

SPRING BULBS. It's hard to imagine a spring garden without the bright colors of spring bulbs. Of these, the best known are hardy species such as daffodils (*Narcissus* spp.), tulips (*Tulipa* spp.), crocuses (*Crocus*

(text continues on page 10)



SCHEDULING SPRING BULBS

The list below divides some of the most common species of spring-blooming bulbs by bloom season. Use it to select a wide range of bulbs—both different species and various cultivars within a particular genus to extend the spring blooming season from late winter right into summer. Bear in mind it's hard to generalize about bloom seasons, especially for spring-blooming bulbs. Not only does the exact time of bloom vary depending on where you live, but planting location also affects bloom time. In general, bulbs planted in a south-facing site next to a wall or fence (look for the sites where snow melts first) will bloom first. The same species, planted in a protected, north-facing site may be delayed by several weeks. There is lots of overlap among the various cultivars within the highly hybridized genera—most notably *Narcissus* (daffodils) and *Tulipa* (tulips). The list below includes specific types of daffodils and tulips, but also look for specific cultivars in bulb catalogs and displays that are rated “early,” “midseason,” and “late,” then plant some of each.

LATE WINTER TO VERY EARLY SPRING

Chionodoxa. Glory-of-the-snow.

Crocus. *C. chrysanthus* (snow crocus), *C. angustifolius* (cloth-of-gold crocus) and *C. tommasinianus*, followed by *C. biflorus* (Scotch crocus) and *C. vernus* (Dutch crocuses).

Cyclamen coum. Hardy cyclamen.

Eranthis. Winter aconite.

Galanthus. Snowdrops.

Iris reticulata. Reticulated iris.

EARLY SPRING

Anemone. *A. blanda* (Grecian windflower).

Puschkinia scilloides. Striped squill.

Narcissus. Cyclamineus, Triandrus, and Trumpet daffodils.

Scilla. Squill.

Tulipa. *T. kaufmanniana*, *T. fosteriana*, *T. greigii*, and their cultivars.

EARLY TO MIDSRING

Hyacinthus. Hyacinth.

Muscari. Grape hyacinths.

Narcissus. Small- and Large-cupped daffodils, Tazetta daffodils.

Tulipa. Single Early, Triumph, Darwin Hybrid, and Double Early tulips. Also *T. clusiana*, *T. humilis*, *T. tarda*, and *T. turkestanica*.

MIDSRING

Anemone. *A. nemorosa* (wood anemone) and *A. sylvestris* (snow-drop anemone).

Fritillaria. Fritillary.

Hyacinthoides. Bluebell.

Narcissus. Double, Poeticus, and Jonquilla daffodils.

Tulipa. Lily-flowering tulips. Also *T. bakeri*, *T. batalinii*, *T. saxatilis*.

LATE SPRING TO EARLY SUMMER

Allium. Ornamental onions, *A. aflatumense* (Persian onion), *A. caeruleum* (blue globe onion), *A. christophii* (star of Persia), *A. giganteum* (giant onion), *A. moly* (lily leek), and *A. schoenoprasum* (chives).

Anemone canadensis. Meadow anemone.

Camassia. Camassia.

Erythronium. Dogtooth violet.

Leucojum. Snowflake.

Lilium candidum. Madonna lily.

Ornithogalum. Star-of-Bethlehem.

Tulipa. Darwin, Fringed, Bouquet or Multiflowering, Parrot, and Peony tulips.

spp.), and hyacinths (*Hyacinthus* spp.), but there are many more. See “Scheduling Spring Bulbs” on pages 8–9 for a list of many spring-blooming species and when they bloom. There are also tender bulbs that bloom in spring where they are hardy and can be grown outdoors year-round — *Babiana* spp., *Chasmanthe* spp., and *Ixia* spp. are examples. When grown in areas where they are not hardy, these usually fall into the category of summer bulbs because they are planted outdoors after the last spring frost and generally bloom in early to midsummer.

The so-called little bulbs are a subset of hardy spring bulbs. This term refers to a range of small species including snowdrops (*Galanthus* spp.), winter aconites (*Eranthis* spp.), squills (both *Scilla* spp. and *Puschkinia* spp.), grape hyacinths (*Muscari* spp.), glory-of-the-snow (*Chionodoxa* spp.), and snowflakes (*Leucojum* spp.). Dwarf and species forms of daffodils (*Narcissus* spp.), tulips (*Tulipa* spp.), and crocuses also are sometimes included in discussions of “little bulbs.”

In general, hardy spring bulbs require similar conditions to grow well and are carefree plants well worth the little bit of effort it takes to plant them. See “Growing Bulbs” on page 16 for general culture and refer to the individual entries for specific requirements.

SUMMER BULBS. This group includes many hardy species as well as a wide range of tender ones. Hardy summer-blooming bulbs include many ornamental onions (*Allium* spp.), lilies (*Lilium* spp.), crocosmias (*Crocasmia* spp.), summer hyacinths (*Galtonia* spp.), gayfeathers (*Liatris*



Despite the common name summer snowflake, *Leucojum aestivum* bears its dainty clusters of bell-shaped flowers in spring. Closely related *L. autumnale* flowers from late summer into fall.