



Bulbs for Beginners

Bulbs, Corms, Tubers, Roots

Bulbs are among the most versatile and rewarding of plants. Technically speaking, many popular "bulb" flowers are not produced from true bulbs at all. The definition of a bulb is any plant that stores its complete life cycle in an underground storage structure; however crocuses and gladioli, for example, are really corms, while such favourites as dahlias and begonias are really tubers.

The differences between bulbs and corms are slight, and indeed the two look very similar. The main distinguishing trait is the method of storing food. In corms, most of the food is stored in an enlarged basal plate rather than the meaty scales, which in corms are much smaller. Corms generally tend to be flatter in shape than round, true bulbs.

Tubers and roots are easily distinguished from bulbs and corms. They have no protective tunic and are really just enlarged stem tissue. They come in a variety of shapes, from cylindrical, to flat. The main thing about them all is that they contain everything needed to produce a wonderful display of colour.

Bulbs fall generally into two groups:

Spring-flowering (which are planted in the autumn) such as tulips, crocuses, hyacinths, daffodils, and irises. As a rule, spring-flowering bulbs are hardy bulbs. These bulbs are planted in the autumn, generally before the first frost, because they require a sustained "dormant" period of cold temperatures to stimulate root development. Many hardy bulbs, such as daffodils, flower perennially and can be left in the ground to flower year after year.

Summer-flowering (which are planted in the spring) such as dahlias, begonias and anemones. Most summer-flowering bulbs are tender bulbs. These bulbs cannot survive harsh winter conditions and must be planted in spring after the last frost of the season. To enjoy these bulbs year after year, they must be dug up in fall and stored indoors over the winter. A notable exception is the lily. Many summer-flowering lily varieties are quite hardy and can be planted in either autumn or spring.

Planting bulbs

Generally, the earliest flowers which open will be the Crocus and Snowdrops followed by Daffodils and Tulips. Before the spring bulb season is over, the Dutch Iris and Spanish Bluebells will start to flower. Within each of these groups, and all of the other spring bloomers, you will find a multitude of hybrids which bloom at different times (*i.e. early April, mid April, late April*). Use these hybrids to spread out the bloom time for each group, and you can enjoy each species for a much longer time.

While it's always best to plant your bulbs as soon after you receive them as possible, when you have to wait, be sure to store the bulbs in a cool, dry place away from direct sunlight. Some people keep their bulbs in the refrigerator drawer, taking care to avoid storing them with ripening fruit. They should be fine for several weeks' even months if properly handled. But don't wait too long. Ideally, you should plant six weeks or so prior to hard ground frosts in your area to allow ample time for autumn root development.

Choose an appropriate location, most flowering bulbs prefer full sun, but that can be almost anywhere in the spring, before the trees leaf out. So don't overlook a spot that seems perfect, just because it's a bit shady in the fall. Woodland bulbs (Anemone nemorosa (Woodland Anemone), Arisaema (Jack-in-the-Pulpit), Erythronium (Dog's Tooth Violets), Galanthus (Snowdrops) and Trillium) prefer a bit of cool shade. A well-drained soil will prevent the bulbs from rotting in cool weather.

Check the bulb package to determine the spacing and planting depth for your type of bulb. As a general rule of thumb, plant bulbs to a depth of about 3 times their diameter. For Daffodils, that's about 6 - 8 inches. Smaller bulbs can be planted to a depth of 3-4 inches and so on. The larger the bulbs are, the more space they will need between them.



Layering

If space is limited or in pots, bulbs may be planted in layers for a succession of colour, place layers of different bulbs that flower one after another into a single container, you will get a pot that continues to flower for almost two months. Dig a hole deep enough to accommodate the largest bulbs (daffodils and hyacinths). Cover them with soil enough to totally cover the first layer. and plant a layer of tulips, Cover the tulips and plant a layer crocus or other small bulbs on top. In choosing bulbs for layered pots you should be aware that bulbs which grow a lot of foliage, are less suitable as their companions might not get enough light. Tulips, daffodils and grape hyacinths work particularly well when combined with trailing ivy.

Start planning Daffodils

No sooner has summer bedding been stripped away and the site cleared that its time to plant spring flowering bulbs. It pays to plant daffodils as soon as possible as bulbs start rooting within days of being planted. Tulips on the other hand can be planted through October and even into November. For a bold display of daffodils plant in groups. Dig out an area 15-20cm (6-8in) and space the bulbs 10cm (4in) apart before covering with soil. It's worth labelling the area so that you don't dig then up again by mistake.

Daffodils do not require dead-heading, just leave as is. The main requirement for bulb flowers in the post-bloom period is to leave the leaves alone so the plant can put its energy into "recharging" its bulb for next spring's performance. This "energy charge" is gained through photosynthesis as the plant uses the sun's energy to turn basic elements such as oxygen, nitrogen, phosphorous and potassium into food. This food is stored in the bulb's "scales", the white fleshy part of the bulb, for use next spring.

When your bulbs have finished flowering, it is necessary to leave the green foliage exposed to the sun until it turns brown or six weeks have elapsed since blooming. Resist the temptation to trim back or constrain the leaves during their die-back phase after blooming. The bulb needs this time to photosynthesize and make food reserves to produce next year's flowers. Don't bunch, tie, braid or cut bulb plant leaves during this period. Dealing with the fading foliage is basically one of those things that lovers of spring bulbs must deal with. The only management tip is camouflage.

Should I fertilize bulbs?

Bulbs will supply all the energy they need to produce that gorgeous bloom during the first year. Almost everyone agrees that feeding spring flowering bulbs when they are first planted is a good way to start them off right. After that, agreement breaks down. Some experts recommend top dressing spring bulbs in the autumn, others say to feed first thing in the spring. Here's some help with when to feed your bulbs.

When you first plant spring blooming bulbs, the only thing they need to do that winter is send down some new roots. To help the bulbs do this, you can feed newly planted bulbs with a balanced fertilizer that has a good dose of phosphorous in it. That's what "Bulb Food" is and why bone meal or superphosphate is often recommended. Phosphorous isn't good at working its way down through layers of soil. To be effective, it needs to be added to the planting hole or worked into the surrounding soil, rather than just sprinkled on top.

As the bulbs grow in the spring, their storehouse of food and energy is all expended and the bulbs need to produce and store more. The most important thing you can do for your bulbs in the spring is to let the foliage grow as long as it can. This is how the bulbs feed themselves. Do not fertilize spring flowering bulbs after they have started flowering. This tends to encourage the development of bulb rot and sometimes shortens the life of the flowers. You can cut off the flower stalks, if you like. However if you planted bulbs that naturalize, it's best to leave them on and let them set seed.

After that, the experts tend to disagree. Some favour top dressing with fertilizer each autumn. Others recommend an early spring feeding and still others say not to do anything until the flowers have faded. Some spring feeding makes sense for flowering bulbs,



especially if you use a slow release fertilizer. Although the bulbs are using their own reserves for food, they are expending a lot of energy and will be pulling nutrients from the soil.

Digging and Storing Spring Bulbs

Once the foliage dies back or matures in the late spring or early summer, the bulb is dormant. As the foliage dies back, the roots that nourish the bulbs also die back. With autumn rains, the bulb comes out of summer dormancy and roots begin to grow again to provide the bulb nutrients and moisture.

Once the spring bulbs enter dormancy, the time is right to dig the bulbs if needed. Some bulbs benefit from digging to divide the bulbs and spread them out over the bed.

If the choice is to dig bulbs, they should be stored in a well ventilated place and replanted in the autumn. Every five years daffodils and crocus should be dug and replanted to prevent overcrowding. The first sign of overcrowding will be a decrease in the flower size, uneven bloom and uneven plant height. When this occurs, dig up, spread bulbs out and replant immediately.

Sequence of Flowering

Early Spring (weeks 1-4)

Snowdrop
Winter Aconite
Danford Iris (*Iris danfordiae*)
Crocus
Glory-of-the-Snow (*Chionodoxa luciliae*)
Common Grape Hyacinth (*Muscari botryoides*)
Early Daffodils (*Narcissus* spp.)
Netted Iris (*Iris reticulata*)

Midspring (weeks 4-8)

Checkered Lily (*Fritillaria meleagris*)
Species Tulips (*Tulipa* spp.)
Early Tulips (*Tulipa* spp.)
Early Alliums (*Allium* spp.)
Hyacinths (*Hyacinthus orientalis*)
Medium-Cupped Daffodils (*Narcissus* spp.)

Late Spring (weeks 8-12)

Dutch Hybrid Iris (*Iris* hybrids)
Midseason Tulips (*Tulipa* spp.)
Late Daffodils (*Narcissus* spp.)
Late Tulips (*Tulipa* spp.)
Alliums (*Allium* spp.)