



## FAQs

Customers will always have questions. Here are answers to many of the most common ones.

- Should I apply mulch? How deep? When?

Bulbs don't require mulch, but it can help to keep the soil moist while maintaining a cool, stable soil temperature. Three inches is plenty (8 cm). Apply when the ground is cool and just before it freezes. If you mulch when the ground is still warm, field mice and other critters might make themselves a warm, winter home and help themselves to some tasty bulb treats.

- Should I fertilize bulbs?

Bulbs contain the nutrients they need to bloom their first year, but a fertilizing program will keep plants healthy and ward off diseases and pests. Compost and manure are two good organic fertilizers that improve the soil and ensure a good soil structure for bulbs. Use organic supplements to add nutritional balance. Compound mineral fertilizers can also be applied, but check the label to see if fertilizing is appropriate for your bulbs and the best time of year to do so.

- Is it true that bone meal is the best bulb food?

Decades ago, it was. But modern processing has literally boiled out the essential nutrients. A healthy bulb actually needs no fertilizer to bloom its first season because the nutrients are naturally within the bulb. For bulbs that will be left in the ground to naturalize, apply well-rotted cow manure or special bulb fertilizer when shoots first appear in spring and again in autumn and you'll be good to grow.

- Are there bulbs that scare off mice?

Don't we wish! While no bulb will ward off mice, voles, moles and other underground pests, there are some easy precautions that can protect your bulbs. One is to plant bulbs deeply enough then cover them properly with soil to deter mice. A second is to create a barrier: simply lay finely meshed netting or chicken wire around the border of the planting then tuck the edges slightly into the soil. See the "Squirrels, Deer and Pests" section for more information.

- I have seen the same variety of bulb priced very differently, some very cheap and others quite expensive. What's the difference?

In a word: size. Bulbs from Holland are gauged by "caliber" which is the circumference of the bulb. Since larger bulbs yield larger flowers, they typically cost more. Smaller caliber bulbs are younger and often cost less. For plantings in a front bed or other highly-visible garden setting, it's worth the higher price for the grander display. If you have a larger area or a portion of yard that's less visible, smaller caliber bulbs can add color and enliven the scene at lower cost. Left in the ground, these bulbs will naturalize and eventually become bigger bulbs. By the way: the Dutch will not export bulbs below certain established calibers. Tulips, for instance, must be 4 inches (10 cm) or larger without exception. Only naturally sized species tulips fall outside this guideline, but no other tulip bulb smaller than 4 inches (10 cm) will be exported from Holland.

- How soon should I plant my bulbs after I buy them?

Typically, it's best to get them in the ground as soon as possible after bringing them home. If you must wait, store bulbs in a cool, dry place away from direct sunlight. You don't want to wait too long since bulbs need ample time in autumn to develop roots. So dig and drop six weeks or so prior to hard ground frosts and you'll be done in plenty of time for spring blooms. Bulbs have one mission in life and that's to grow, so even if you dig and drop when the ground is already hard and chilled, be sure to water (though not when it will freeze) and bulbs will begin their root growth cycle. They aim to please!

- Can I store bulbs in the refrigerator?

Often times, people seeking the best selection will buy bulbs before they're ready to plant them. If you must wait, you can keep bulbs in the crisper drawer so long as you avoid storing them with ripening fruit. They should be fine for several weeks or even months if properly handled.

- How many bulbs are planted at Keukenhof?

Keukenhof is to bulb lovers what Cooperstown is to baseball fanatics. 7.5 million bulbs bloom across 70 acres during the six weeks that this amazing show garden is open. There are more than 1.7 million tulips alone! This dazzling display attracts tourists from around the world and is a sensational backdrop for countless weddings.

- Why are tulips grown in Holland of all places?

Three reasons: the climate, the coast and Carolus Clusius, who introduced tulips to Holland in the 16th century. At the time, the Netherlands was a leading center of trade. As tulip fascination caught on, the Dutch began cultivating them more professionally. Add to this a marine climate (mild winters, cool summers) and a particularly well-suited strip of land just inside the Dutch dunes (proper soil with good drainage, consistent water levels) and the global bulb trade was born. Today, expanses of land in the northern regions of the Netherlands are where the action happens and where the millions of the bulbs we know and love today have their ancestral home.

- How do I keep squirrels and deer from digging up my bulbs and destroying my garden?

These furry foragers aren't so cute after nibbling their way through a bulb garden, are they? Unfortunately, there's no easy answer to these relentless and challenging pests. While daffodils and other narcissi bulbs taste awful to them, their champagne tastes can wreak havoc on plantings of tulips and crocus. Using pest-resistant plant material in exposed beds and planting vulnerable tulips and crocuses in protected areas (near the front door, for instance) can be effective. Commercial repellents are often sticky and unpleasant to deal with or wash away in the rain. A favorite Dutch remedy is to interplant *Fritillaria imperialis*, a tall, dramatic plant that squirrels (and reportedly deer) think smells like skunky gym socks. One sure-fire line of defense is to lay wire mesh such as chicken wire on top of the bed. Squirrels can't dig through it and the flowers will find their way through the holes.

A starving deer will eat just about anything, and the loosened soil after planting in autumn makes bulbs particularly vulnerable to industrious squirrels. So don't advertise your plantings by leaving debris like papery bulb tunics or scented bits from the bulb bags at the site. Garden writer Judy Glattstein suggests laying old window screens in frames on top of the newly-worked up soil after planting. The screen foils the squirrel but allows air and rainfall to get through. Once the ground has settled, remove the screens. Home remedies bulb gardeners don't quite agree on include sowing cayenne pepper into the soil or on the bulbs before planting and scattering moth ball flakes on the ground. Last, try providing a delicacy without the digging. Gardeners at The White House reduced damage to bulb beds by 95% by erecting six peanut-filled feeding boxes for them to feast on instead.

- Can I plant flower bulbs amongst trees and shrubs?

Trees, shrubs and bulbs are all competing for nutrients in the soil, so flower bulbs planted in these locations need to be able to hold their own. It can be a good idea to choose early-flowering bulbs for

these sites since they'll stand out among the still bare woody plants. A mixture of at least six varieties of naturalizing bulbs that flower at successive times is perfect here. Plant them in variously sized clusters in the lightest spots in a wooded area, or along the edge of a wood. You'll enjoy years of flowering that becomes increasingly profuse year after year.

- Should tulips be deadheaded once the flowers start to fade?

"Deadheading," a term for breaking off flowers from their stem, has many positive benefits for tulips planted for multiple-year flowering. Deadheading once flowers start to fade prevents the development of seedpods, a process that diverts energy from producing new bulbs to producing seeds. It also prevents petals from falling into the leaf axils and allowing certain fungal diseases (Botrytis) to develop.

- Last year, I planted crocuses and daffodils in the lawn. When's the best time to mow the lawn?

Wait six to eight weeks after flowering before mowing grass strips containing flower bulbs. You need to wait until all the aerial parts of the bulbs have withered back, since some bulbs such as Glory-of-the-snow, Squill and Winter aconite propagate by seed and their seeds need a chance to mature.

- Are there really so many crop protection agents used in the bulb-growing sector?

Each year, bulb cultivation depends less and less on crop protection agents and their use has dropped dramatically over the last ten years thanks to better research and better commercial practices. Today, many bulb-growing companies are using organic means to prevent diseases and pests. We also know that techniques such as preventive spraying for such problems as fungi should be applied as necessary, not as normal. This has helped lower growers' costs and benefitted the environment. Working this way to apply a perfect balance of fertilizers allows the bulbs to receive sufficient nutrients while discharging much smaller quantities of hazardous substances into surface waters.

- What should I do after tulips fade in spring? What about daffodils?

You can leave daffodils (narcissi) as they are, but tulips should be dead-headed after flowers have faded. Simply clip off the faded bloom so they won't go to seed. Resist the temptation to bunch, tie, braid or cut the leaves as the plant dies back. Photosynthesis is turning the sun's energy into food and "recharging" the bulb for next spring. You can remove them once the leaves turn brown or six weeks after flowering. In the meantime, you can camouflage fading foliage by interplanting annuals or perennials. Leave room in the bed for these by planting bulbs in large clumps rather than full beds.

- Do you recommend lifting tulips after bloom & replanting in fall to improve 2nd year blooming?

The mediocre results of this method are generally not worth the bother. Instead, select tulips that are considered good at coming back the next season. Botanical or species varieties and their hybridized strains generally do well. Consider hybrids such as the red 'Charles,' the pink-red 'Christmas Marvel' and the red 'Couleur Cardinal'; triumph tulips such as the pink 'Don Quichotte', and lily-flowered 'Aladdin' and 'Ballade'; and tall Darwin hybrids such as yellow 'Golden Parade', red 'Oxford' and orange-red 'Hollands Glorie'. Naturalizing tulips should be planted 8 inches (20 cm) deep in well-drained soil.

- Is it better to plant bulbs earlier or later in the fall?

The earlier you can plant bulbs in fall, the better. Planting times vary, of course, depending on your hardiness zone. Bulbs need time to establish strong root systems before the winter frosts set in. Don't forget to water newly planted bulbs — it helps get the roots going! Once the cold arrives, bulbs enter a new cycle to prepare for spring blooming.

- I've been told that the bigger the tulip bulb, the better the flower. Is this true?

Bigger doesn't necessarily mean better. Bigger bulbs do yield bigger flowers, but tulipa tarda — among

the most delicate and lovely bulb flowers you can grow — is a tiny bulb (and quite hardy) compared to a large Darwin hybrid bulb such as 'Apeldoorn.'

- Do tulips prefer a sunny or a shady spot in the yard?

Tulips love both sun and shade. Remember, though, that tulips bloom in spring when there's a lot of sun because all the deciduous, non-evergreen trees in your yard have yet to leaf out.

- The *Fritillaria imperialis* bulbs I bought have a really bad smell. Is there something wrong with them?

Ah, the fragrant "stink lily" (at least, that's what the Dutch have nicknamed the Crown Imperial). Its skunky, old gym sock smell is a natural characteristic of the bulb and its flowers. Moles can't stand the smell of them either, which makes them the perfect deterrent for these destructive nuisances.

- Can you plant bulbs in any kind of garden and in every type of soil?

So long as the soil drains well, bulbs will thrive. Which means you should avoid planting them in hollows or low spots or under drain spouts, where water collects or puddles. In soggy soil, most bulbs will rot. Exceptions include echequered fritillary (*Fritillaria meleagris*), camassia and leucojum.

- Why are my daffodils blooming so much later this year than they did the first?

Naturalized bulbs tend to bloom about two weeks later in subsequent years than they did their first year. So keep that in mind when choosing bulbs for "color combos." If you want to coordinate spring blooms or add new bulbs to an existing planting, don't forget to factor in the later bloom time.

- What's naturalizing about?

For bulbs indicated as naturalizing bulbs, it simply means that they're most likely to come up and flower again in future years. Successful naturalizing depends on soil composition, pH levels and drainage. And, of course, the bulb's specific growing needs. Keep in mind that after bulbs bloom in spring, wait a month or two to allow them to die back completely. This gives the plant the energy it needs to recharge for next year's bloom.

- Why don't spring flowering bulbs in the ground freeze in the winter?

Mother Nature works in marvelous ways and designed spring-flowering bulbs to withstand winter's cold. While the soil itself may freeze beyond the planting depth of the bulb, soil temperatures rarely fall below 29° F/-2°C or 30°/-1°C F. While these temperatures might freeze the water in the bulbs, it doesn't harm the actual cells in the bulb. In fact, the cells undergo a biochemical process that insulates the bulb to keep it safe and snug. Also, in the same way humans can stay warm in a "snow cave," the snow cover, along with a nice layer of mulch over the bulb bed, helps insulate the soil.

- What if it's already early winter and I still haven't planted my bulbs?

Plant them as soon as you can. Digging may be a little harder, but bulbs can't survive if left unplanted. They may come up shorter than usual if they get less than 10 - 14 weeks of sustained cold temperatures, but they'll recover in future years if they are types and varieties that perennialize or naturalize (be sure to let the foliage die back after bloom in the spring). Also, if you suspect you won't be able to plant until very late, small tarps or leaf piles over your planting area will keep the soil warm and workable until you are ready to dig. As a last ditch effort, you can pot unplanted bulbs for indoor forcing or as container plants. Containers allow you to control the initial soil temperature (use a light potting soil mix). Move them into an unheated garage or other cool, protected place. In spring, bring them indoors or use them as accent plants.

- How deep do I plant flower bulbs?

In general, plant 3x as deep as the bulb is long (measured from the base of the bulb). Typically 8 inches

(20 cm) for big bulbs such as daffodils, tulips and hyacinths and 5 inches (13 cm) for small bulbs like grape hyacinths and crocus. Plant in well-drained soil, cover up, water well and wait for spring. It's as simple as dig, drop, done! For specific directions on individual varieties, check out the [Bulb-Pedia](#).

- If bulbs sprout early during a mid-winter thaw, do I need to protect them? Will the next freeze kill the flowers?

Probably not. Although a hard frost may blight the buds or burn the tips of the leaves, they should still flower. Healthy spring-flowering bulbs know what they can be in for, and a return of extreme cold or even snow doesn't keep them from doing what's in their nature.

- How long is "winter" to a bulb (when forcing)?

Maintain potted bulbs at temperatures of 38°F (3°C) to 48°F (9°C) for 12 to 16 weeks. For comparison, the recommended temperature for a refrigerator is between 34°F (1°C) and 40°F (5°C). Bringing them into the warmth will activate the blooming process, which takes a few more weeks on average.

- Can I plant summer bulbs in containers?

Absolutely! Containers and summer bulbs go perfectly together. Simply dig, drop and be done with planting, then move the pots into prime viewing spots for bloom. To plant, fill the pot 1/4 to 1/3 deep with soil, arrange the bulbs at the proper depth, cover with soil up to 1 inch (2.5 cm) below the top of the pot (to allow room for mulch and watering). Be sure your container has drainage holes in the bottom; bulbs don't survive in waterlogged soil.

- Are summer-flowering bulbs winter hardy?

Most summer-flowering bulbs originate from sub-tropical regions of southern Africa and Asia or South America. They usually aren't winter hardy and prefer warm temperatures and humid conditions. Check the recommended climate zone for each bulb type to see if it's winter hardy in your area.

- Is it possible to store summer-flowering bulbs over the winter?

It helps to know the temperature and moisture conditions for each bulb species, since they can vary. If your climate is tender enough for your particular bulbs then, yes, they can be stored over the winter in the garden. Be sure to cover them well before winter starts. In many cases, the plant will bloom better the next year (Agapanthus, amaryllis belladonna, crinum, canna and lily). For bulbs grown in containers, it's usually best to keep the bulbs in the pot and place it under proper growing/storage conditions in the home or in storage.

- When is it time to plant summer-flowering bulbs outdoors?

Plant summer-flowering bulbs once the soil has warmed to 60° F (15.5° C) or about the time you plant your tomatoes. Tender bulbs love warm weather, and include such beauties as dahlias, begonias, cannas, gloriosa lilies, caladium, elephant ears and others. Tender bulbs can languish or die where cold air and cold soil inhibit growth, so wait until the nippy nights and frosty morns have passed.

- Can summer-flowering bulbs be forced or fooled into blooming "out of season" like tulips?

Not really. Summer-flowering bulbs don't undergo the same internal chemical process that spring-flowering bulbs do whereby they develop leaves and flowers after a cold (winter) period. So artificially shifting the seasons on summer-flowering bulbs won't trick them into flowering. In addition, the flowering of these bulbs depends on many other factors such as local temperature, daylight hours, soil condition and soil temperature.

- Why can't I plant tulips in the Spring?

Tulips, daffodils and other spring-flowering bulbs require a long period of cool temperatures to

undergo the biochemical process that allows them to flower. So, in the fall get them in the ground ideally six weeks before hard freezes to give them the time they need to develop strong roots.