

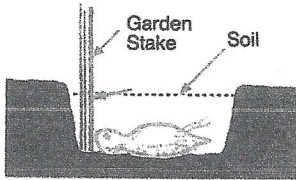
How to Grow Dahlias

When & Where To Plant

For best results, dahlias should be planted from mid April through May for most areas. Ground temperature approx. 60 degrees (exceptions will be hot climates). In general about the same time you would plant your vegetable garden. Dahlias need a sunny location to thrive. An area that receives at least 8 hours of direct sunlight is best. Exception for hot climates, they will need morning sunlight, afternoon shade. Less sun equals taller plants and less blooms.

Soil Preparation & Planting

Ground should be warm, well drained at planting, and in an open sunny location. If you have a heavier soil, add in sand, peat moss or bagged steer manure to lighten and loosen the soil texture for better drainage. Bone meal is ideal at planting time, put a small handful in the hole and work in well before planting tuber. PH level of your soil should be 6.5-7.0, slightly acidic. Do not amend dahlia beds with purchased top soils unless you are sure that it has not been treated in any way for



weeds. Lay the tuber horizontally 4-6" deep, about 18" to 24" apart, and then cover with soil. **DO NOT WATER TUBERS AFTER PLANTING!!** Please wait to water until after the sprouts have appeared above the ground. The exception will be in hot climates, where they should be watered very lightly. Do not use bark dust or mulch to cover dahlias, as it does not allow the soil to warm up or tubers to sprout properly. This is a good time to apply snail and slug bait to protect the new sprouts.

Container Growing

Low growing or dwarf dahlias work best in containers. Container size should be no smaller than 12" x 12" per tuber. Use 2 parts garden soil, 1 part potting soil that has not been treated in any way. Water sparingly until the sprouts have emerged through the soil. Then water them frequently similar to other container plants keeping them moist but not soggy. When growing in containers you will need to fertilize more often than if they were being grown in the ground. Be sure to follow the directions on the label of the fertilizer you are using.

Staking

We recommend staking any dahlias that will reach 3 feet or taller. Any staking product will work, please check your local garden center (i.e.: tomato cages, metal rods, or bamboo stakes).

Watering

Most areas have enough rain to fill dahlia water needs until the sprouts appear above the ground. After dahlias are established, a deep watering 2-3 times a week for at least 30 minutes with a sprinkler, more required during warmer dryer weather. Hotter climates will need to water more often as conditions require. Proper watering promotes proper blooming.

Hand watering is not enough.

Fertilizer

Dahlias require a low nitrogen fertilizer, such as used for vegetables. **We recommend high percentage potassium and phosphorus fertilizers such as a 5-10-10, 10-20-20, or 0-20-20.** First applications should be within 30 days of planting and repeated again approx. 3-4 weeks later. One of the biggest mistakes made with dahlias is over feeding them. **Avoid high nitrogen compost (i.e. grass clippings)** as they promote weak stems, small blooms, or no blooms, and tubers that rot or shrivel in storage.

Weed Control

Hand weeding is the only type of weed control you should ever use, there are no exceptions. Do not use any type of Herbicides, your dahlias will not survive.

Pests & Problems

SNAILS & SLUGS – They will begin eating your dahlias before they even show through the ground. Slugs and snails will eat the new sprouts, holes in the leaves, and they will even eat the stalk. We recommend slug and snail baiting 2 weeks after planting and continue to bait throughout the season.

SPIDER MITES – The most common predator to dahlias. Typically looks like your plant needs more water. Most plant will begin with yellow spots on the leaves and then the leaves will begin browning completely, working its way up the entire plant. Spider mites thrive in hot weather and can attack certain varieties, while not bothering others. We recommend preventatively spraying beginning in late July and continue to spray through September. Recommended sprays: Malathion (good for prevention, but does not work as well on infested plants), Bon-Neem, or any other Miticide or spray listing spider mites.



EARWIGS & CUCUMBER BEETLE (similar to a lady bug, but green instead of red) – They are mainly a nuisance, while eating many petals of the blooms, they are really not hurting the dahlia plant itself. They fly or crawl in daily and are very hard to control. Recommended sprays: Sevin Dust or Concentrate, Go West Meal, or any other chemical listed in helping with these insects.



GENERAL INSECTS – Recommended sprays: Bayer 3 in 1, Orthene, Malathion, or Bon-Neem.

MILDEW – Most commonly shows up in the fall. The leaves will begin to get a white powdery mildew or spots on the leaves. We do not believe that this is caused from over head watering, but rather weather temperatures and humidity. We recommend preventatively spraying before this issue arises, begin spraying in late July and continue through the fall. Recommended sprays: Daconil, Funginex, or Fung-onil.

Topping or Pinching

To promote shorter, bushier plants with better stems for cutting, pinch or cut the center shoot just above the third set of leaves, or plant height of about 18-20" tall.



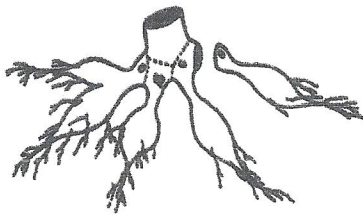
Cut Flowers

Best time to cut your flowers is in the cool mornings. Place the cut stems in 2-3" of VERY HOT WATER (approx. 160-180 degrees) and allow to cool at least one hour. We recommend that you use a plastic or metal container for best results. Please be sure that your blooms clear the top of the container as the steam can burn them. This will set your blooms and make your flowers last for 4-6 days. Removing old blooms will keep your plants strong and blooming late into the season. The more you cut, the more they bloom!

Leaving Dahlias in the Ground Over the Winter

Dahlias may be left in over the winter, however dahlias are susceptible to rot and/or freeze. Dahlias are not hardy, since they are a tuber (thin skinned) and not a bulb. If you are in an area where the freeze reaches a depth of 6" or more, than leaving your dahlias in the ground is NOT an option. In many climates they must be dug and stored (see digging and winter storage information). In warmer/mild states including the Pacific Northwest, you may try leaving the dahlias in the ground over the winter. It is never a guarantee, but many customers find that this is a more successful route, compared to digging and storing. Since dahlias can rot or freeze, you must protect them. First, we recommend after killing frost or mid November that you cut the stalks down to below ground level. Next, cover the dahlia area with plastic to keep the winter rains off the dahlias. Finally, it is a good idea to add a few inches of mulch, leaves, soil, or straw on top of the plastic to give them a few extra inches of warm protection from the cold. In March you would remove the extra layers of protection from your dahlia beds.

If you leave your dahlias in the ground and would like to divide them, you would dig them up in the spring when you see sprouts coming through the ground. Once you have divided them, let the cuts seal/heal overnight and then you can replant the next day. Do not let your dahlias sit out for multiple days, as they will begin to dehydrate.



Digging

Digging should be done about 2 weeks after a killing frost, the plants will turn brown if frosted hard enough. Tubers dug too early are still "green" and will not store. It is safe to dig by Mid November without a frost. Cut the stalk off to about 6", gently lift tubers with a spade or pitchfork carefully so as not to break the necks. Wash dirt from the roots and allow to air dry, protected from the elements for about 24 hours.

Dividing

Can be done in the fall, or in the spring. If eyes are difficult to see, we suggest diving the clump into halves or quarters. Use a hawk bill shoe knife (available pg. 62 of our catalog) or sharp knife to cut through the tubers. The eyes will be located on the center stalk and each root must have an eye in order to grow. Not all tubers will have an eye. Cut surfaces should be allowed to dry overnight before storing, or planting. Different varieties will produce different sizes and shape tubers.

Winter Storage

Use a storage medium such as slightly dampened Peat Moss, Sand, or Pet bedding material (sawdust/shavings). Tubers should be stored in crates or cardboard boxes. We recommend lining the containers with 10-12 sheets of newspaper. Start with your packing medium in the bottom and layer tubers and medium until the container is full. Never store in sealed plastic bags or plastic containers. Store in a cool, dry area (temp. of 40-50 degrees). Too warm they will wrinkle/shrivel and too cold they will freeze/rot. Please check your tubers once a month throughout the winter months.