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Zone 4

FOR ALL
Rocky Mountain
GARDENERS

GARDENS • LANDSCAPES • LOCAL FOODS • OUTDOOR LIVING

HIGH ON A HILL

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DIGGING DAHLIAS

dahl-i-a-phil-i-a—n. addiction to growing dahlias,
despite having to dig them up each fall

Helen Allen | Text · Peter and Helen Allen | Photographs

Growing dahlias in zone 4 has its challenges, but the rewards are worth the effort. In warmer climes, dahlias are perennials but the tubers cannot freeze, so in zone 4 digging is a must! Many gardeners are turned off by this and find the idea of digging and dividing daunting. My suggestion is to start small with just a few plants so it doesn't become overwhelming. The other alternative is to treat them as annuals and replace them each season. You would easily pay as much for other annual flowers.

I fell in love with dahlias as a teenager when I saw them at the Fresno County Fair in California. But I didn't grow them until years later. When my husband and I had a bed and breakfast on Orcas Island in the Pacific Northwest, a friend gave me some tubers. I didn't know how they should be planted so I just stuck them in the ground in my vegetable garden. Well, I was hooked and I have been growing them ever since. I should warn you that growing dahlias can be addicting! I'm up to about 800 plants at this point. My husband has named this disease "dahliaphilia." He has determined it is progressive and incurable, unless we move to Antarctica. Now that I have warned you, read on at your own risk.



Above—'Sean C', nice collarette form with inner circle of contrasting petaloids.



Clockwise from top left—Before planting in the spring, we add a small amount of bone meal, Osmocote, and micorrhizae to each hole.

A dahlia tuber with nice sprout. We use recycled baling twine to make a straight row and T-tape for drip irrigation.

Mulching the tubers with dry maple leaves. Johnny jump-ups (Viola sp.) and other early-season flowers have already bloomed.

The staking and support (recycled baling twine) system for plants in rows.

To protect from early frosts, we cover each tuber with a pot, weighted by a rock, so high winds won't blow the pot off the plant. When temperatures warm, we remove the pots from the plants during the day.



BUYING TUBERS

Buying locally isn't just for food. Purchasing tubers from growers in your region is sound advice since soil types and climatic conditions are more likely to be similar. A local grower raises varieties that have the best chance of blooming before the first frost in your area. Garden tours can be another way to find locally grown tubers, giving you an opportunity to see which flowers strike your fancy, since dahlias come in so many forms and colors.

If you decide to try growing dahlias in your area, you might choose varieties with smaller blossoms that flower sooner, instead of the giant "dinner plates" which need more time to bloom. Tubers should be planted in mid-May, around Mother's Day. Many growers in short-season areas like ours try to "push the envelope" by planting earlier. Either way, you must be prepared to protect any plants that are above ground when frost is predicted.

GROWING DAHLIAS

Dahlias grow best in well-drained soil and need at least 6 hours of sunlight to thrive. Plant the tubers horizontally with the sprout or eye pointing up at a depth of about 4 inches and generally with about 18 inches between plants. At time of planting, I scratch ½ teaspoon of Osmocote or other time-release fertilizer, a teaspoon of bonemeal, and a good pinch of mycorrhizae into each hole. The plants take about three to four weeks to emerge. I do not water them until they are above

ground. The tuber already contains everything the plant needs until it emerges and excess water can lead to rot.

It is best to place a support stake for your dahlias at the time of planting, when you know exactly where the tuber is. You risk accidentally damaging the tuber if you insert the stake later. Smaller plants may not need support at all, but any plants that will grow more than 3 feet tall are likely to need staking. Dahlias can be planted as individual specimens, in groups, in rows or in pots. Because I grow so many, my dahlias are in rows. We have developed a system, using rebar and recycled baling twine, where we string the twine along both sides of the rows and crisscross the twine between the rows for support. This allows the plants to grow up through the twine.

FROST PROTECTION

In the last three years in the Bitterroot Valley, we have had frosts in June when many dahlias were above the soil surface. We have used plastic nursery pots to cover the dahlias, and placed a rock on each pot to hold it firmly in place in the event of high winds. These pots need to be removed when temperatures go above freezing during the day so the plants won't cook. This method is tedious, but protects the tender sprouts. I have been caught by unexpected frosts and plants have sustained damage. Most plants can recover from such damage but it will definitely set them back several weeks.

Grasshoppers can be plucked off the dahlia blooms by hand early in the morning when they are sluggish.

PESTS AND DISEASES

Anyone growing dahlias in the Rocky Mountain region needs to be aware that deer love to eat them. Our street is called “Deer Haven Drive” with good reason. Our 6-foot fence protects the dahlias from marauding White Tails. The area where we grow our dahlias had a lot of quackgrass prior to turning it into a garden and I have had problems with cutworms beheading young plants, to much dismay. An organic product with spinosad (SluggoPlus) can be lightly scattered around newly emerging plants and takes care of the cutworms, as well as slugs, which are a problem in some areas. Earwigs can also do damage when they get in the blooms and SluggoPlus also helps deter these pests.

Some years grasshoppers are found in numbers of biblical proportions. They will munch holes in the petals. We combat grasshoppers directly, picking them off the blooms in the cooler times of the day when the grasshoppers are sluggish. We give them to our greedy chickens and the added protein makes the egg yolks vibrant orange.

I have encountered several diseases over the years that have affected individual plants. **Crown gall**, which looks like a brain has formed in the soil, rather than normal tubers, is caused by the bacterium *Agrobacterium tumefaciens*. This disease can be discovered when the clump of tubers is dug in the fall. The entire plant and all tubers should be destroyed so as not to spread the disease. I have also had ***Fusarium wilt*** attack a few plants. This fungus (*Fusarium oxysporum*) causes yellowing and wilting of leaves and dark streaks in the stem. Again, the plant and tubers should be destroyed. Some gardeners experience mildew on their dahlias, even in our dry climate. This usually occurs when the dahlias are planted too close together to allow good air circulation, or by too much overhead watering. Mildew is an environmental disease and is not passed on in the tubers.



WATERING

Dahlias thrive with deep watering two to three times per week during the growing season. We irrigate with a drip line of T-tape down each row. We also have several sprinklers set up on posts for overhead watering during periods of extreme heat or if temperatures are predicted to be close to freezing. We mulch with compost and dry leaves around the base of each plant to help keep the tubers cool and discourage weeds.

BLOOM-TIME

Dahlias come into their glory in late summer and early fall. Some varieties with smaller flowers may bloom in July. Deadheading spent flowers helps keep the spectacular blooms coming. If any additional fertilizer is added during the growing season, it should be low in nitrogen or you will get lush leaf growth, with few blooms. A good time to flag your individual plants with the variety name, bloom color, and plant height is when your dahlias are flowering. I use flagging tape from the hardware store and a Sharpie permanent marker. Labeling your plants will come in handy when you dig your tubers for next year's planting and will help you provide accurate plant names for friends with whom you might share tubers.

Bouquets of dahlias are lovely alone or mixed with other flowers from your garden. If you like to have cut flowers in your home or to give to friends, dahlias are best cut early in the day while temperatures are cool. Stems should be cut at an angle and immediately placed in warm water. Bouquets will last longer if kept out of direct sunlight and the water is changed regularly.

KILLING FROST

Now for the sad part—the first frost. It always seems to come when the flowers are in all their glory, and then they go from gorgeous to yuck! The plants turn almost black within hours of being hit by frost. It is best to leave the tubers in the ground for another two weeks to harden off and to “push” the eyes to make dividing easier. For many years, I cut the plants off at about 6 inches right after the frost. But dahlias have hollow stems and rainwater can fill the stems and cause rot in the tubers below ground. I now leave the entire plant until just before digging. After the first frost is a good time to move the nametag to the bottom of the plant. If you are going to leave the tubers in the ground even longer or temperatures are expected to be below freezing for an extended time, with the possibility of the ground freezing,

mulch the plants heavily with compost and dry leaves.

DIGGING AND DIVIDING

When it is time to dig, I cut each plant off at about 6 inches so the stem acts as a “handle” connected to the clump of tubers. Using a spading fork, I start digging gently around the plant. There will now be a clump of tubers where I planted each single tuber in the spring. I gently lift the clump out of the ground, trying not to break the necks of the individual tubers (a broken neck means that particular tuber will not grow again, but some breakage is inevitable). We set up a washing station nearby and put the clump on a framed screen. Using a garden hose with a spray nozzle, we wash the soil off each clump. If the tubers were hardened off, their skins can handle a pretty strong stream of water. We then move the washed clumps to the garage to dry before dividing and bagging. We make sure that the plant’s nametag remains with each clump.

Now it is time to “divide and conquer” the clump, also known as “multiplication by division.” This is the step that gives gardeners the most trepidation. Everyone loses some of their tubers. Remember that this process gets easier with practice. Clumps are easiest to divide in the fall before the stems harden in storage. Eyes can be hard to recognize and each tuber or clump of tubers must have an eye to grow. Eyes are located at the stem end of the clump, not all over the tuber, like potatoes. Usually the “mother tuber” is discarded since it has been spent during the growing season. I don’t obsess trying to divide my clumps into single tubers; small clumps of three or four are fine. (You can divide clumps further when planting if you identify additional eyes at that point.)

I set up a dividing area with an old cutting board, tools for cutting including pointed clippers, pruners, an old cleaver, and even a pipe cutter. Good lighting is important. I set up a 5-gallon bucket with a mild bleach solution (1 tablespoon bleach per gallon of water) to rinse tubers before bagging. Divide the clump and drop them in the bleach solution for a few minutes. Remove the tuber from the bucket with something like a slotted spoon, and lay them in a plant tray, with the nametag, to air dry.

STORAGE

Desiccation of tubers during storage is the biggest problem in our climate. I use plastic zipper bags in which I punch



Top—Visitors walking between the rows of tall dahlias in the author’s garden are treated to more than 800 dazzling dahlias. Above—Pink and white dahlia.

holes with an ice pick to allow any excess moisture to escape. I place the identifying flags in the bags with the dry tubers and surround them with coarse vermiculite or wood shavings, such as pet bedding. I then place the bagged tubers in apple boxes and store them in our garage for the winter. The storage location must remain above freezing

throughout the period and could be a frost-free location under your house, in a root cellar, or a cool room in the home. The storage space should remain around 40-50°. High humidity would be an asset, but is hard to come by in this region. The tubers need to be checked periodically during storage for rot and mold. Most rot occurs during the first



1.



2.



3.



4.

1. The dahlia variety name is written on the flagging and then moved to the base of each plant when they are cut to 6 inches, after frost, and prior to digging. 2. Washing newly dug clumps of tubers prior to dividing. Note flagging is still attached to each clump. 3. Bags of dahlia tubers are ready to be moved to a cool place for the winter. 4. Dahlia tubers are ready for storage in a plastic zipper bag, with holes punched into the bag, and shredded cedar. The flags that are placed in the bags have the variety name, color, and bloom form written on them.

month or so and affected tubers should be removed to prevent spreading to other tubers. I have often found mold growing on cut surfaces and a spray with kitchen Lysol seems to save the day. Sometimes I find tubers sprouting in the storage bags in the spring—at least I know they are viable. If the sprout breaks off, the tuber will push out another in its place. When planting time arrives, I can share the wealth or increase my garden.

SOURCES FOR DAHLIAS

There are many good sources of dahlia information on the Internet. The American Dahlia Society has its own site at www.dahlia.org. The Colorado Dahlia Society is a great source of information for all aspects of growing dahlias and has a list of growers selling particular varieties you might be looking for (www.dahlias.net). The best book that I've found about growing dahlias was written by a friend and hybridizer from Kalispell, Montana, Bill McClaren. He has introduced more than 150 new dahlias to our region and wrote the *Encyclopedia of Dahlias*.

My hope is that you now feel prepared to take on growing dahlias in the Rocky Mountain region, and find the result worth the extra effort it takes. 🍷

'Bonadventure,' bronze blooms over 10 inches across.

