

March Ask the Experts: Taking & Caring for Cuttings

Last month our experts shared their top tips for waking tubers from storage and preparing to take cuttings. This month's column focuses on when to take cuttings and how to care for them until outside temperatures are warm enough to plant.

If you're new to dahlias, you might wonder why some growers propagate tubers in the first place. Taking cuttings is a great way to quickly increase quantities of a particular tuber you like or want to share with others. Cuttings will produce a clone of the mother tuber and will often produce blooms weeks earlier than the tubers themselves. Taking cuttings also adds a little insurance in case an original tuber rots or doesn't grow well. Some members also take cuttings to donate for CSDS's Dahlia Sale in May.



Steve's trays of tubers awaiting sprouting.

While saving dahlia seed is possible, seeds will not reproduce an identical bloom. The seedling will create an entirely new dahlia which will likely be quite different from the original since dahlias are octoploids - meaning they have eight sets of chromosomes - four sets from each parent. With a myriad of possible combinations, the form, size, and color of the resulting bloom can be quite varied. With a cutting, however, at the end of the growing season it will have ideally formed a tuber or perhaps even a clump of tubers which you can overwinter for next year, and those tubers will create flowers identical to the original tuber.

A great way to learn the process of taking cuttings is by volunteering for CSDS's propagation program which has just begun at Friendship Park Conservatory. Members can learn the process firsthand with an experienced mentor and help prepare dahlia plants for our annual sale which takes place in May at the Chicago Botanic Garden.

If you can't make it to Friendship Park, no worries - we're bringing the experts to you! **David Sales**, **Steve Meggos**, and **Rusty Ritchie** are our featured experts for this month's "Ask the Experts."



David Sales: I have been growing dahlias for about 25 years and have been propagating for 15 years. I have a small garden: 30 to 50 hills. I anticipate taking 300 cuttings this year, as well as captaining the Monday propagation group at Friendship Park.



Steve Meggos: I have been growing dahlias since 1982 and breeding since 1994. Currently I have 19 dahlias on the market. I have fun taking cuttings - it is the most enjoyable part of growing dahlias. I plan on taking 1000 to 1200 cuttings this year.



Rusty Ritchie: I'm a second-generation dahlia grower/exhibitor. My father exhibited at CSDS and SDC shows during the 60's and early 70's. This year I have about 300 tubers sprouting already, so there is easily the potential for over 1000 cuttings. I just don't have the space or need for that many due to a nice tuber harvest. I have been concentrating efforts to prepare tubers for sales May 6, 13, and 20 supporting the Elkhart Dahlia Society.

Our experts generally start waking their tubers in February for cuttings. For a refresher on the waking process, check out [last month's column](#). Now that our tubers are arising from their winter slumber let's hear what to do next!

What is your process for taking cuttings?

Rusty Ritchie: Middle of February is a great time to begin waking up your dormant tubers IF you have an area where you can control conditions. I took 20 cuttings on December 26th, and I doubt that 10 of them will survive. Not enough light or warmth. The cuttings I took around February 10th look much happier....at least they haven't died yet. When I have used my basement for cuttings, a thermostat and timer for the lights brought about a higher degree of success. I have been trying to avoid going to the basement on a daily basis as my age and winter weather combine to make the trek to my Michigan basement hazardous.

Since many of my sprouts are from very skinny tubers, I will wait for several sets of leaves to develop before I take a cutting from the top. I always try to take cuttings just below a leaf node. I will use a razor blade and cut at a slight angle, and then dip into a rooting hormone (Hormodin 1) - also at an angle so we don't clog veins. A wise dahlia friend pointed out that cut flowers do better when cut early or late in the day. Cuttings appreciate the same consideration. I will also cut the leaves of my cutting to about half the size, so it won't flop, and it sends the message to the plant to start growing side shoots or roots.



Rusty's tray of cuttings in Oasis strips.

As the side-shoots develop, I will always try to leave a healthy shoot on the plant so I will still have the original to

put in the garden if I need it. Sometimes the cuttings will grow with such vitality, you won't mind disposing of the original.

I enjoy using the Oasis strips that CSDS promotes. I prepare the strips with a half-gallon of water with half strength fertilizer, and I poke a pencil where the Oasis is pre-scored to help the tender cuttings get deeper into the Oasis. Six strips fit into a domed, watertight tray, so up to 60 cuttings will fit, and it takes up the space of one flat of annuals. Another option for growing cuttings (pictured at right) shows a small scale and affordable way to rationalize your daily addiction to iced mocha coffee. With this mini terrarium you don't need to do anything except take the lid off when it starts to grow too tall.



Rusty's creative way to recycle fast food drink cups!

David Sales: Once a tuber has eyed up, I place it under LED shop lights. When a sprout is three to four inches long, with three pairs of leaves, I will take a sharp, sterilized (dipped in 10% bleach) scalpel or Exacto knife and make a cut at the level of a leaf node. I will then remove all but the last two leaf pairs, dip the tip of the cutting in rooting hormone powder and place it in an Oasis wedge.

Steve Meggos: To take a cutting you must have trays to plant the tubers, trays to plant the cuttings, potting mix for both trays and at least five sharp knives. Also I use at least 90% rubbing alcohol to sanitize knives between cuttings as well as Wilt Stop. I use soil for perennial plants because it is coarse and drains faster. It does contain some fertilizer but I also add 10-10-10 fertilizer per pound per two cubic foot bag.



Four weeks after waking, Steve's tubers are ready for cuttings to be taken.

The cuttings are ready to take when they are at least two inches tall and have two sets of leaves. The cuttings should be taken where the white lines are above the tuber leaving the thickness of a penny (about 1/16") on the tuber. That way, the tuber will resprout easier and faster. Be sure to clean your knife with rubbing alcohol between tubers to prevent spread of disease. As soon as I take the cutting, I mist it with Wilt Stop to reduce moisture loss when plants are under stress. I do not use rooting hormones. After the tray is full, I cover it with a tall dome and make sure the potting mix is moist, not wet. If the potting mix is wet, the cuttings will rot.

Once you take the cuttings, how do you care for them?

Rusty Ritchie: I mist the cuttings daily, with a weak solution of fertilizer. I like Jack's Professional Water Soluble Fertilizer that has many trace elements listed. I also re-use the Oasis strip casing with potting soil with very good results. I've been told that vermiculite works, too. In optimum conditions, they will need to be potted individually within 10-14 days. All of a sudden, they might need the space of 3 flats. Plan ahead.

Since a cutting has no tuber, the roots can handle more water. At the end of the season, you might have tubers, or a bulbous pot-root, but you won't have a parent tuber that is often the source of rot during storage. Pot roots are generally much smaller than the normal clump we harvest from planted tubers. There is a lot to be said for cuttings and pot roots. Easier harvest, less storage area, vigorous growth, and less rot to name a few.

David Sales: I keep the Oasis wedge strips in a tray of water with a plastic dome on top. I will lower the LED shop lights to the top of the dome.

I do my propagating in my basement furnace room, which tends to be warm and dry, so I use a room humidifier to raise the humidity. I also spray the cuttings daily with a fine mist of water with a tiny pinch of fertilizer added. In 10-14 days, I will see roots coming out of the sides of the Oasis wedge and will plant the wedge in a 4-inch pot of potting mix. I use Pesche's potting mix which does not contain fertilizer, but I very lightly feed the potted cuttings as they grow. Then in April, I put the potted plants outside in a heated temporary greenhouse.

Once the first cutting is taken from a tuber, it will usually produce four new sprouts from the cutting site. I will keep taking cuttings until the sprouts become thin and stringy.

Steve Meggos: To take care of the cuttings I mist them three to four times per day with a weak solution of water and 20-20-20 fertilizer. Once a week, I use a stronger solution. I keep the heat under the trays at 76 degrees. I do not use any special lighting in the greenhouse, but for people who take cuttings at home, they should use lights to keep the cuttings alive and help them grow roots. I pot the cuttings four to five weeks from when I take them so they have a good, firm root system.

For small tubers, do not take more than five cuttings and for large tubers - eight to ten can be taken. This will maintain the quality of the plants. If you do not plan to take cuttings, you can wake up the tubers at least four to five weeks later.



Steve putting the cuttings into individual cells filled with potting soil.



Steve's tray is covered to keep moisture in.



Two weeks after Steve took these cuttings.



Six weeks later, Steve's cuttings are ready to be planted in the garden!



Rusty's cuttings potted up and growing in his hoop house.

Thank you to David, Rusty, and Steve for sharing their tips! Be sure to also check out the CSDS website under [Educational Resources](#). We have two helpful videos on propagation - one contributed by Jim Kassner and another featuring Frank Campise and Dan Kaplan. Happy propagating!

Column edited by Vida Wu. Photos provided by Steve Meggos, Rusty Ritchie, and David Sales.