

## October Ask the Experts: Overwintering Your Dahlias – Dig, Divide, Dry, Store



Jerry Landerholm and Steve Meggos review the final table at judging time. Photo credit: Vida Wu

The September show season has come and gone and despite some stress, struggle, and sleeplessness, hopefully it has also brought joy, delight and perhaps a few well-earned accolades. This year was the second CSDS show in which I participated and the first time I witnessed with anticipation the show's winners being brought up to the honor table. Throughout the weekend I overheard attendees marveling at the spectacle of color and beauty before their eyes and astonishment at the variety of sizes and forms all under the umbrella of "dahlia". When time came to finally close the 91st show, I loved feeling the palpable excitement of the public, all ready to take some dahlia loveliness home with them - myself included!

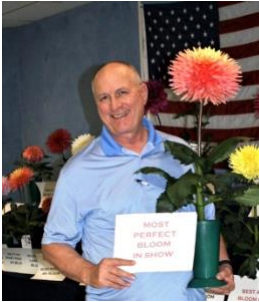
Now October is upon us, and I am happy to still be enjoying the dahlia blooms in a little more of a relaxed growing atmosphere, but as all dahlia growers know, just around the corner lurks the monumental task of cutting, digging, dividing, drying, and storing - a process collectively known as "overwintering". Explaining this

task to friends often causes their eyes to glaze over and I have come to realize not everyone is up to this process. But I can't possibly be referring to you, right? If you have been faithfully following this column and absorbing the valuable tips from our experienced growers, you are ready to dive into this month's (or next two months') tasks with eager anticipation. I might be overdoing the pep talk or perhaps I'm just trying to rev myself up but let's check in with our experts!



The novice table looking stunning! Photo credit: Vida Wu

This month's background question is "How many dahlias will you be storing this year?"



**Jim Kassner:** With almost 600 plants in my gardens this year, I estimate some 2000 wrapped tubers and 50 pot tubers.



**Rusty Richie:** This is a funny question because I have no idea how many I planted. I think about 700. As Anita and I get fresh labels on the plants, we have been removing the plants that were disappointing and diseased. She's making a map, so then we will know how many we have, but I suspect 600. Many were from cuttings, and they usually don't make huge clumps. As I age, I appreciate the little clumps.



**David Sales:** About 50 to 60.



Elkhart President Rusty Ritchie arrives at the show with his beautiful blooms. Photo credit: Vida Wu



Steve Meggos with one of his creations - "Vassio Meggos". Photo credit: Vida Wu

### When do you cut back your dahlias and how soon do you lift them after cutting back?



Dahlias getting a crewcut at Jim Kassner's garden. Photo credit: Jim Kassner

**David Sales:** I used to wait until the first frost turned the plants black, but now that there is global warming and the frosts are later, I take up the tubers in late October (unless there is an earlier frost). After cutting down the plants and leaving a clearly labeled 6" stump, I'll cover the stump with foil to keep water from entering and rotting the tuber. Then, I will dig up the tuber about a week later. If there is a threat of a deep frost, I will dig up the tuber sooner. One year, there was an early deep frost and some of my tubers froze in the ground. It is conventional wisdom that it takes 12 weeks for tubers to form, so there should be no problem digging up plants in late October.

**Rusty Richie:** I usually won't cut back my dahlias until the day that I dig them, and that is usually in November. Once cut back, the stalk has a big hole that can collect moisture and promote rot. Some people will cap the stalk with foil. The dahlias I have in the front yard will get cut down shortly after a hard frost, because people that drive by daily don't need to see my plants turn instantly ugly and dead. In the backyard where the main garden

is, I'm the only one that has to look at it. I believe that the ground is the best place to store your tubers, at least until the ground freezes. Sometimes it takes until January for the ground to freeze. If you only have about 50 to dig, and you don't mind the cold, you have weeks after the killing frost to harvest your tubers. Before any of this happens, though, we go through the garden plant by plant to be sure a name tag is there and that it is accurate. We also yank out any plants that appear sick - that is our focus, once the shows are done. We won't save any tubers or clumps that we wouldn't grow ourselves. Some years a hard killing frost doesn't come until nearly November. A good frost will tell a plant to go dormant, but tubers that have been in the ground for five months ought to be ready for harvest, with or without a freeze or a frost.

**Jim Kassner:** Many growers think you need 120 days of growing to form tubers. I pre-start every plant so many of mine have been in pots growing since March - which will make it about 240 days total if I start cutting down at the end of October. It takes me four to five days to cut and bag the plants. I have never paid any attention to how long I leave the clumps in the ground before digging - I do everything in complete phases, confirm and tag all varieties, cut and bag the entire garden and then I start digging the tubers. I do pay attention to the weather, frost, rain and yes - snow forecasts. I have lifted as late as Thanksgiving but not anymore. I always leave about 6" of stalk attached to the clump that acts as a handle and also as a holder of the name tag. Some have used PVC tape to label their clumps. I also have "history name tags" (a tag that has additional info on the plant such as ADS#, if it is a cutting or tuber, when it was potted up and the source) that I rubber band to each clump. No system is perfect, some clumps always seem to be mismarked.

For pot tubers, I snip the stalk, pop the pot out of the ground, allow it to dry and pack it away as-is in an area that will not freeze. (A pot tuber is a tuber or cutting grown in a small 4" pot. It is planted in the ground with its pot intact. It is not topped, disbudded, disbranched or even staked sometimes. It can be a compact way to increase stock.)

## Do you wash your tubers or dip them in any solution?



Clumps are washed then dried in bread trays. Photo credit: Jim Kassner

**Jim Kassner:** I set up a wash station away from my dahlia gardens with several inverted bread trays to wash the soil off. I want the loosened soil falling off the clumps nowhere near the vicinity of my dahlia gardens in case there is an infected clump with gall. I use a stream of water strong enough to loosen soil but not strong enough to damage the "skin" of the tubers. Normally the clay does not fall right off so I spray the clumps down, go dig more and come back for a final rinse. Depending on temperatures and how sunny it is I may allow the clumps to dry a bit on a sunny day for about 30 minutes before moving them to the garage in bread trays. I don't pile clumps on top of each other - I want the drying process to continue. Bread trays allow 360 degree air circulation. I will repeat this process until I have about 30 clumps in the garage. Once in

the garage I remove all hair roots and skinny tubers. Please practice good hygiene by using a 1:10 ratio water/bleach solution and several drops of Dawn dish soap per container in two different



containers. Soak your cutting instruments for a few minutes in the bleach and then dip in the Dawn solution. I rotate cutting tools. After this phase I will let the tubers continue to dry with a fan on low while I go out and pop out the next day's dig. I found that if I pop the clumps out a bit the night before, the soil around them will dry, loosen and start to fall off. If there is a threat of rain or frost I will cover the area with tarps for the next several days, sometimes covering up to 100 clumps at a time. I can't afford the luxury of waiting out rainstorms. I have never used a solution to soak or rinse my tubers.

**Rusty Ritchie:** I hose down the clumps gently as I dig them up. I might dig up 30-50 clumps in a day. I let them sit in the garden to dry for an hour or two. I like to divide them that day and pack them in vermiculite.

**David Sales:** After washing the tubers in a stream of water, I dip them in a 10% bleach solution and let them air dry.

### **Do you divide in the fall or in the spring? Are there any advantages or disadvantages to doing it at one time or the other?**

**Rusty Ritchie:** I have encouraged busy people to grow their dahlias in the black, one gallon nursery pots. At harvest time, the pots lift from the ground easily without damaging the necks of the tubers, and you can leave them in the pot until you are ready to divide. The downside to waiting until spring to divide, is the old material in the pot will rot away, and sometimes spread into the new tubers. I always store potted tubers on their sides, so excess moisture can leak out. Tubers stored in pots usually don't get washed, because the dirt has dried and falls away as you remove them at dividing time. Another downside is that your garden loses more soil, so be sure to rebuild your garden's soil content regularly. If you want to know what you have for the next season, you will divide earlier than later.



**Tubers wrapped in plastic wrap and labeled with painter's tape. Photo credit: Jim Kassner**

**David Sales:** I divide in the fall. It's too busy in the spring to divide the tubers.

**Jim Kassner:** I divide in the fall when the clumps are softer, they will harden over the winter and become more difficult to cut. When you store in clumps you have to be concerned about rot. The stalk that all the tubers are attached to does rot and will ruin the entire clump. Every effort must be made to remove the stalk prior to storage, leaving only the area where tuber is attached to the stalk. Dividing into tubers before storage saves a lot of room but often the "eyes" have not developed yet. The advantage to dividing in the fall is that it saves room, prevents rot from starting and spreading and there's no need to check for rot because tubers that do rot will only affect itself and not ruin the whole clump. Only negative is the lack of eyes showing when dividing.

## What is the preferred temperature and preferred storage conditions for a tuber?

**David Sales:** The preferred temperature is a constant 40°F. I store most of my tubers in vermiculite in my garage that is heated to about 38°F in the winter. I keep them in a styrofoam box next to an interior wall. Some of my tubers are wrapped in Saran wrap instead of the vermiculite - I haven't noticed a difference in survival. They are stored in the same containers.

**Rusty Ritchie:** I like to divide my clumps on the same day that I dig and pack them in vermiculite. The vermiculite will help them finish drying. Some varieties will be showing eyes on the tubers when you dig, which makes deciding which tubers to save easy. If there are no eyes, I will sometimes cut the clump into quarters, or smaller sections. When I divide, I have used dusting sulphur, horse-grooming powder, baby powder, and nothing, and I've even seen people use cinnamon (you should buy a fresh container every year for cooking anyway, so use the old box to dip dahlias). Most of my tubers get stored in gallon size freezer bags. The bags are left open. Since my storage area (my crawl space) is not climate controlled, I have never worried about the perfect conditions. The year my pipes froze, we had some squishy tubers, but usually the area is in the 50's°F, and the tubers that have hardened nicely will stay that way until I bring them out. I keep a fan blowing all the time, and I feel that keeps mold from collecting. This last year we had more humidity in the crawl space, and I feel fewer tubers dried out.

**Jim Kassner:** A constant temperature is preferred, mid 40°F would be ideal as in a walk-in cooler. My tubers have never frozen in my attached garage, it's only been too warm. Warmth causes the tubers to shrivel, bringing your tubers indoors during a cold snap can be disastrous.



Jim uses a special industrial strength Sharpie marker. Photo credit: Jim Kassner

After the tuber is dry enough (usually overnight after cutting), I mark the name on every tuber first thing in the morning. If I cannot write on the skin of the tuber and the skin tears, I will allow more drying time. I have now converted from using wood chips to the Saran wrap method. I use about a 20" length of plastic wrap and wrap each tuber individually in a continuous turn until all tubers from the entire clump are encapsulated and then fold the ends over and tape with painter's tape. On the painter's tape I mark the variety and how many tubers are in the package for accounting purposes. I have a dispenser for the tape and I use a razor to cut the plastic wrap. The goal, without fail, is to have tubers wrapped within 24 hours of digging. I will place the wrapped packages in a portable cooler with ice packs until I can get them to a walk-in cooler. All in all, my wife and I will probably spend 20 days in this process - about 250 hours total. Last year we wrapped 1400 tubers and lost only about 10 percent. I am sold on the plastic wrap method. This year, I anticipate with almost 600 plants in my gardens, some 2000 wrapped tubers. It's a labor of love.

## How often do you check on your tubers?

**Jim Kassner:** Never, once they're packed individually, the rotting tuber should only affect itself, which unlike storing clumps can become an issue.

**David Sales:** Never. I keep a wireless thermometer in one of the containers to monitor temp and humidity.

**Rusty Ritchie:** I leave my gallon plastic storage bags open in my crawl space, and I check on them regularly.

## How would you troubleshoot a rotting tuber or a tuber that appears to be desiccating?

**Rusty Ritchie:** If I find a tuber getting soft or rotting, it usually goes in the trash. I have cut the rot away and managed to get growth from the crown, but usually it is not worth the effort. Shriveled clumps or tubers can sometimes be resurrected, if you soak them for an hour in a mild solution of a foliar fertilizer, and plant them in a pot and ignore them for a few weeks (no watering). Either it will grow and get your attention, or it will finish shriveling up. Once again, it's often not worth the effort.

**Jim Kassner:** Desiccation or the drying out of a tuber would be found by me in early spring when I start unpacking. I would just pot it up in damp soil and check it for progress. However, rot when found should be removed from the tuber completely by cutting away all the darkness of the rot until nothing but the solid, healthy part of the tuber is remaining. Allow to dry or brush with a bit of sulphur - some use cinnamon in this case.

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Hopefully these tips get you off to a good start! Growers typically have done some experimentation in the past to evaluate what methods work for their particular conditions. As a newer grower I personally have tried wood shavings (pet bedding), vermiculite, peat moss, plastic wrap and even an open bag without storage media and for the most part I find they all can work, so it's nice to have options. I personally prefer the plastic wrap method as I find it the least messy and pretty economical. Jumbo rolls of wrap are easily found at Costco. I have also left my container-grown dahlias in their pots and brought them into our attached but unheated garage. I might throw a little water on the pots if I remember once or twice over the winter months, but it seems that whatever moisture is left in the soil seems to be enough. Housing the full pots takes a bit of room however and is not practical for all my pots - which seem to be increasing each year - but it's an option if you have the space. If I'm particularly concerned about losing a valued cultivar, I might store some in one media and some in another media hoping that at least one works out!

For further reading on the topic check out the American Dahlia Society article, ["Digging, Dividing and Storing Tubers."](#) Also check out a helpful video by dahlia breeder Kristine Albrecht on ["Washing and Dividing Dahlia Tubers."](#)

As a final note, this will be our last experts' column for the season! I want to give huge thanks to **Jim Kassner, Rosemarie Magura, Steve Meggos, Rusty Ritchie, and David Sales** for sharing their years of experience with us. It has been a pleasure working with each one of them for this series! Happy overwintering everyone!

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*Column edited by Vida Wu.*

**News-Line Editor's Note:** Many thanks as well to Vida who has shepherded this column over the past nine months asking great questions and then bringing together informative content from our experts coupled with interesting visuals and helpful links to additional resources delivered in a professional and engaging format. Well done!