

## March 2024 Growing Advice: Waking Up Tubers and Taking Cuttings

Danny Helgerson provides a detailed look at how he wakes up tubers and takes cuttings. If you would like to see the full-sized photos as well as some additional photos that didn't make it into the article, go to this [Google Photos album](#). Click on a photo to see a full-screen image.

### Waking Up Tubers

I get tubers from my garden, exchange with others, online vendors, and society sales.

In fall, each variety is processed and stacked in 6-quart clear shoebox storage containers. I periodically inspect for rot, shrivel, and whether an eye is starting a sprout. When the eye starts to go beyond a pimple on the crown indicating an emerging eye, to an eye a few days later with a point on it (also known as the meristem stage), I move the tubers to 1-quart Ziplock clear plastic bags filled with potting mix to develop roots and shoots for a couple of weeks in the dark.

I use the current Classification and Handbook of Dahlias (CHD) to lookup the variety to confirm the spelling and the ADS number of each variety. Another cardinal rule is to always keep the correct variety name and ADS number with the physical tuber through to every cutting. That info is written on the tuber with a sharpie, each plastic plant label, the stake that it is planted with, the variety listing and the show tag. When it blooms in the fall, the variety is confirmed with the current CHD.

I use the Julian calendar with all my dahlia processing which means 365 for nonleap years and 366 for 2024 and other leap years. I used to go by the month and week of the year, but it's more accurate and easier to go just by the day of the year. The Julian day is indicated at the top the plant label when it goes into the pot.



**1: Tubers stored in basement. Danny shreds paper and thin cardboard like cereal boxes and uses for bedding. He also uses saran wrap method, potting mixtures, vermiculite or combinations.**

**2: Tubers brought out of storage. On the tag in this example, Danny includes the date in Julian form J 114 (explained below) which was April 24 in 2023, the variety name Lakeview Tony, and the ADS classification number 1206.**

**3: Tubers in potting mix in quart bags ready for pre-sprouting. Danny cuts the zipper part off the bags to ensure they stay open to eliminate any excess moisture that could rot the tuber. His label includes the variety name, the ADS classification number, and the vendor number in case there are any issues.**



1 and 2: Examples of tubers showing strong eye and ready to go into quart bags.  
 3: Container of tubers in quart bags placed inside paper bag to ensure darkness.



	JAN	FEB	MAR	APR	MAY	JUN
1/1	11	2/1	3/1	4/1	5/1	6/1
1/2	11	2/1	3/1	4/1	5/1	6/1
1/3	11	2/1	3/1	4/1	5/1	6/1
1/4	11	2/1	3/1	4/1	5/1	6/1
1/5	11	2/1	3/1	4/1	5/1	6/1
1/6	11	2/1	3/1	4/1	5/1	6/1
1/7	11	2/1	3/1	4/1	5/1	6/1
1/8	11	2/1	3/1	4/1	5/1	6/1
1/9	11	2/1	3/1	4/1	5/1	6/1
1/10	11	2/1	3/1	4/1	5/1	6/1
1/11	11	2/1	3/1	4/1	5/1	6/1
1/12	11	2/1	3/1	4/1	5/1	6/1
1/13	11	2/1	3/1	4/1	5/1	6/1
1/14	11	2/1	3/1	4/1	5/1	6/1
1/15	11	2/1	3/1	4/1	5/1	6/1
1/16	11	2/1	3/1	4/1	5/1	6/1
1/17	11	2/1	3/1	4/1	5/1	6/1
1/18	11	2/1	3/1	4/1	5/1	6/1
1/19	11	2/1	3/1	4/1	5/1	6/1
1/20	11	2/1	3/1	4/1	5/1	6/1
1/21	11	2/1	3/1	4/1	5/1	6/1
1/22	11	2/1	3/1	4/1	5/1	6/1
1/23	11	2/1	3/1	4/1	5/1	6/1
1/24	11	2/1	3/1	4/1	5/1	6/1
1/25	11	2/1	3/1	4/1	5/1	6/1
1/26	11	2/1	3/1	4/1	5/1	6/1
1/27	11	2/1	3/1	4/1	5/1	6/1
1/28	11	2/1	3/1	4/1	5/1	6/1
1/29	11	2/1	3/1	4/1	5/1	6/1
1/30	11	2/1	3/1	4/1	5/1	6/1
1/31	11	2/1	3/1	4/1	5/1	6/1

1: Using the Classification and Handbook of Dahlias to find the ADS classification number  
 2: Danny's spreadsheet converting calendar dates to Julian days.

## Potting Up

I experiment each year with different combinations of potting mixtures. The base is the potting mixture closest to the original Fafard #3 which consisted of peat moss, vermiculite, and perlite years ago. When it was discontinued, I asked Carlins to give me the closest equivalent. That used to be Sungrow #3 and then Carlins changed again to Jolly Gardener C-25. I don't use commercial potting mixtures with the moisture controls or with fertilizer added to the mixtures.

Last year, I mixed 3 parts Fafard equivalent with 2 parts vermiculite and 1 part perlite. I use the same mix for both the quart bags and pots. I change up mixtures each year after reviewing how things turned out the previous year.

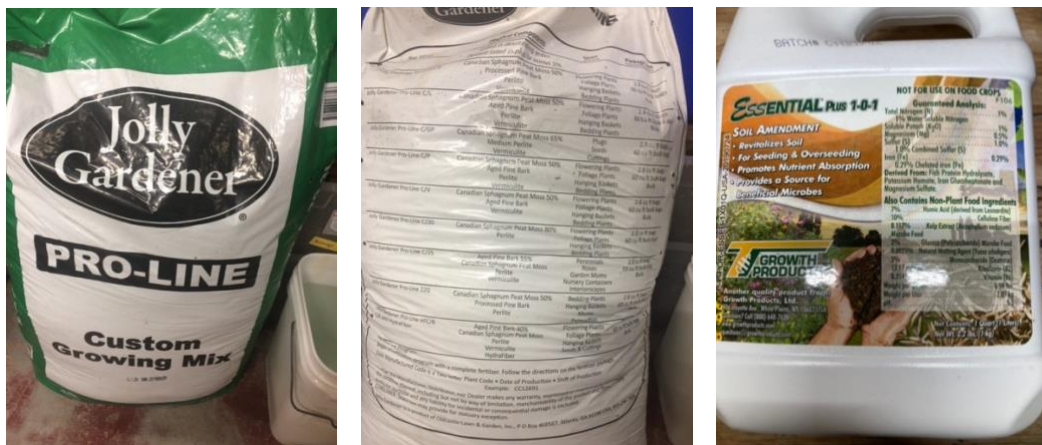
To a 20-gallon tub of my potting mix, I add a ½ gallon solution of 1/2 tsp Essential 1-0-1 per gallon of water. I purchase Essential from Carlins Horticultural Supplies. It is a gentle, low NPK but think of it as a booster with micronutrients for cuttings. I wear a Covid dust mask and use a sprayer of water to knock down the dust when mixing the dry components.

I use a variety of pots depending on the size of the tuber and depending on the size of the cutting that I'm potting up. I usually have blueberries on my cereal each morning and for short cuttings those containers with the top cut off are ideal.

When I can see through the clear plastic bag that roots have started to develop on the tubers, I pot them up and put them under lights. I am very careful to not disturb the fragile roots; they break off so easily. If a tuber has a shoot but no roots, I will wait another week to observe it. I've gone from fluorescent lights to LED lights for the most part in the past couple of years.

I use a ceramic oscillating heater with fan to increase and maintain the basement temperature for sprouting tubers and for growing cuttings. I have a cold basement, so I jump the temperature as best as I can trying to get to 80 degrees with 72 being on the low end of temperature for successful cuttings.

I also use a moisture meter to monitor the cuttings in their pots to determine when to bottom feed with a weak fertilizer solution. I use the moisture monitor as well to maintain the bagged or potted tubers at a minimum moisture.



1 and 2: Front and back of bag used as the base for potting mix.  
3: Essential potting amendment.



1: Mixing together his custom potting mix  
2: Containers with tubers eyeing up, ready to be potted up

## Making Cuttings

Each tuber can yield several cuttings.

When the sprout from the tuber is one or two sets of leaves beyond the 'baby set' of leaves, I cut it off with a wallpaper knife just above the tuber by about 1/16 to 1/8 of an inch.

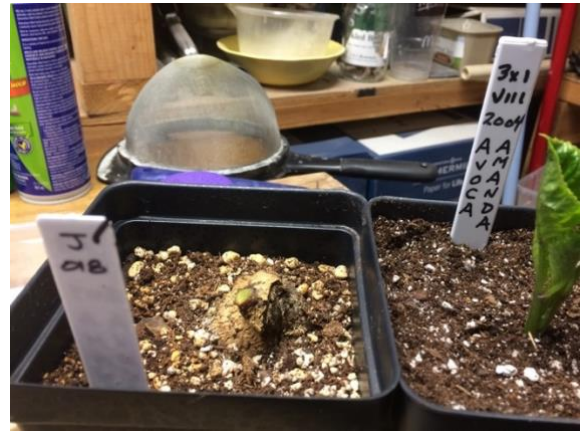
I dip the cut sprout into a pill bottle filled with Essentials and shortly after cutting more sprouts from the tuber, I cover the cut end with rooting hormone powder, knock off the excess, and plant it into a pot that has been saturated and drained with an Essentials solution.

Cardinal Rule for all operations on dahlias from dividing to taking cuttings to pruning to topping to disbranching to disbudding to cutting a bouquet: Sterilize all cutting instruments to avoid spreading virus. I use straight bleach and stainless-steel instruments. (*Editor's note: A dilution of at least 1 part bleach to 10 parts water is recommended if you don't want to use full-strength bleach*)

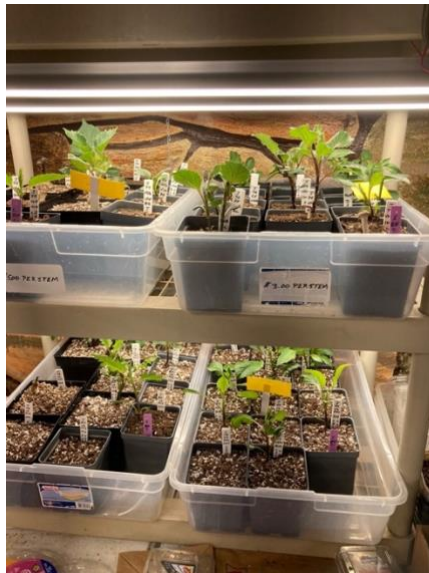
I don't use a humidity dome because there is no room on my shelves with the lights 2 to 4 inches above the cuttings. I've found a fine mist spray a couple of times per day with a hand pump sprayer keeps my cuttings hydrated while they are growing roots. I bottom feed with an Essential fertilizing solution for the first 2 to 3 weeks for cuttings, and later with a weak solution of Miracle Grow or Schultz fertilizer.



- 1: Supplies for taking cuttings include tools, bleach, rooting hormone
- 2: Close-up of where to cut
- 3: Cutting dipped into Essential solution



- 1: Cuttings after being dipped in Essential solution; notice plant tag with all the details.
- 2: Cutting dipped in rooting hormone and using a Sharpie to open up planting hole.
- 3: Left pot showing tuber after a cutting is made and right pot with cutting planted.



- 1: Tubers ready to have cuttings taken
- 2: Grow light set-up with trays of tubers eyeing up, tubers potted up and cuttings

## Final Thoughts

I encourage everyone to experiment with all phases of dahlia culture and cultivation. Learn from both mistakes and successes. Don't be discouraged when you get a partial or even total crop failure. Pass on the knowledge, and let others improve on it. For instance, I'll keep searching for the best potting mix for pot roots this year by adding bark fines so more drainage will prevent more tubers from rotting outside from extended rains. Also, I'll stay away from Hydrfiber and prefer Peat Moss because I had an infestation of fungus gnat's eggs in the tree fiber portion last year.

Thank you so much to Danny Helgerson for sharing his knowledge and detailed photos.

*Column edited by Sonia Harmon. Photos by Danny Helgerson.*