

# TRENDING HOUSEPLANT PROPAGATION TECHNIQUES

with Lindsay Sisti, @alltheplantbabies

## ZZ PLANT LEAF PROPAGATION



### ZZ PLANT ANATOMY

- ZZ plant leaves are called **leaflets**.
- They grow directly out of a round tuberous **rhizome** under the soil.
- The main stalk is called a **petiole** below where the leaves grow, and is referred to as a **rachis** (RA-kis) along where the leaflets grow.
- The itty bitty stalks attaching the leaflets to the rachis are called the **petiolules** (PET-ee-ole-lules).

### ZZ PLANT LEAF PROPAGATION

Ideal for all varieties and cultivars of *Zamioculcas zamiifolia*

#### Timeline:

2-3 months for initial tuber and root development

7-9 months for leaflets/rhizomes to be ready for transplanting

#### Supplies Needed:

Sterilized cutting instrument

Rooting hormone powder

The patience of a saint

New pots for the babies

Water Propagation Supplies*	Soil Propagation Supplies
Glass vessels for water propagation Fresh succulent potting soil will be needed in 7-9 months	Succulent potting soil A container or pot for the soil

\*You can propagate the leaves in a variety of substrates but in this workshop, we will review water and soil



#### Instructions:

1. Remove the leaflets that you would like to use by cutting them at the base of their petiolule
2. Dip the petiolule into rooting hormone gel or powder. (This step is optional)
3. Place the leaflets in the moistened potting medium of choice. Water is the safe choice, but straight-to-soil in a humidity enclosure such as a sealed zip lock bag or in a prop box will often (but not always) produce more robust results, faster.
4. Wait 50 years for new plants to grow (kidding). If growing in water, change the water at least every few weeks and wash your glasses out to clean out any algae. After about three months you can expect to see small rhizomes and little roots sticking out of the leaflets
5. Once the roots are at least 1.5-2 inches long and the shoots have begun to develop, pot your rhizomes up in a well draining potting soil. A succulent mix straight out of the bag should work well with about 20% extra perlite added in for more drainage.

#### Aftercare

Begin to water as you would a ZZ plant; allowing the soil to dry out between watering. Give lots of bright indirect light.

# STRING OF HEARTS PROPAGATION “BUTTERFLYING METHOD”

## STRING OF HEARTS ANATOMY- THE TUBER

A tuber is a modified stem that stores energy for a plant (think, potato). Roots and shoots grow from buds throughout a tuber's surface. Not only does a string of hearts grow from tubers under the soil, but the plant forms round “aerial tubers” sporadically along more mature vines.



## “BUTTERFLYING METHOD”

Ideal for all string of hearts cultivars

### Supplies Needed:

- Sterilized cutting tool
- Rooting hormone gel or powder (optional)
- Well-draining succulent and cacti potting mix
- 2-4” Pot
- Zip-lock bag

### Timeline:

- 1.5-2 months to start of new growth
- 3-4 months for established new plant

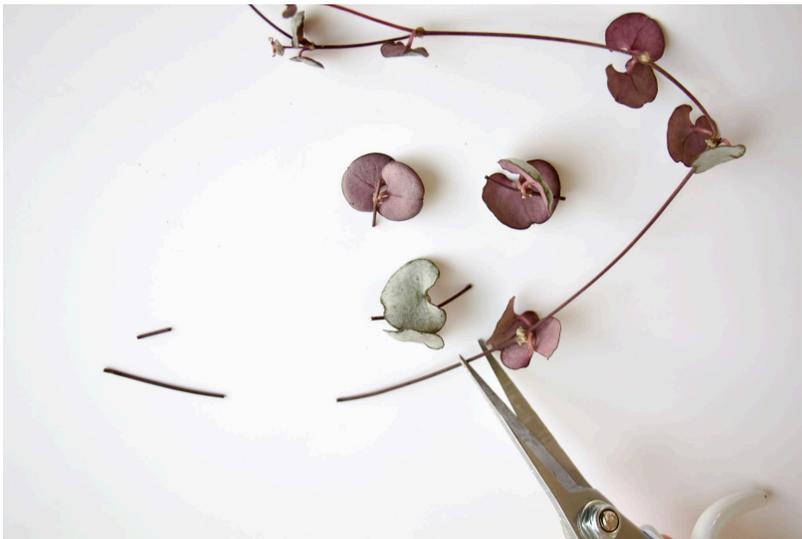
### Preparation:

Begin propagation within a week of the last watering to ensure that your plant is fully hydrated

## INSTRUCTIONS

1. Select healthy vine(s) with leaves that feel firm and healthy; not flimsy and under-watered, or mushy and rotting.

2. With clean, sterilized cutting shears, cut along the vine directly before and after the node. You don't need any of the vine for the propagation to be successful, only the leaves and the point at which they meet: the node. It's ok if a tiny bit of stem remains, it will often melt away during propagation. You may notice that some nodes already have an aerial tuber attached. That is great. Nodes with aerial tubers will typically grow roots and shoots faster than their bare-naked node counterparts.



3. Some people like to propagate String of Heart nodes in moist sphagnum moss in a plastic takeout container with a lid and then transfer the rooted vines to a pot with succulent mix after they've rooted. Using sphagnum moss will minimize the chance of rot if your environmental conditions aren't just right. However, I have found great success propagating them directly in a moist, well aerated potting mix. When propagated this way, you won't have to transfer them and stress them out after and deal with picking moss off of tiny delicate roots.

Often I will use a clear plastic cup that I poke a hole in the bottom of for drainage. The clear cup will enable me to watch the

roots grow. If using a pot to propagate in, I recommend starting with a 3-4 inch pot.

4. Water so that the top third of the mix is saturated. I find it best not to soak the potting mix all of the way through as these are succulents without roots and remember - you want to "tease" them and make them work for their water. No need to saturate them. Send the message to your succulents: grow roots to get that bit of water that's available, or you won't survive. Tough love, baby!

5. It's optional to first dip each node into rooting hormone gel or powder. Then, gently press each node down onto your substrate, with the top of the hearts facing up, purple sides down. This is where the "butterfly" comes in: each will resemble a butterflyed chicken breast. Each node should be pressed into the potting mix or at the very least grazing it.

6. Cover your container to lock in as much humidity as possible. You can use any type of humidity chamber such as a propagator, a homemade propagation box, or a simple sealed zip lock bag. Feel free to open your humidity chamber to let air in every once in a while, but don't forget to close it back up soon after! If you do notice the soil begins to dry out at any point in time, remoisten it. After 1.5- 2 months, you will see roots and new baby leaves begin to form.

7. After 3-4 months you can remove the plant from its enclosure. Ideally, all of the hearts are firm and the nodes have white roots growing into the substrate.



#### **Aftercare**

Place your String of Hearts in a sunny window. It can tolerate a few hours of direct sunlight per day. Allow the substrate to dry out 100% before watering or the hearts will rot. When you water, do so very thoroughly. Fertilize at least through Spring and Summer, but I fertilize mine year-round because I am an overachieving heart grower.

# ALOCASIA CORM PROPAGATION

## WHAT IS A CORM?

- A corm is an underground modified stem that stores food for certain plants such as *Oxalis triangularis*.
- Unlike bulbs, when you cut a corm in half you won't see rings, like you would on a bulb
- Roots grow from the base of the corm, and shoots will grow from the top, so it's important to place them right-side-up when planting them.

## DO ALOCASIAS HAVE CORMS?

Alocasias produce corm-like storage structures that protrude from underground stems, most commonly referred to as "corms" in the US and "bulbs" outside of the US. Some botanists and horticulturalists describe them as bulbils and others as tubercules or cormels. However, for the sake of this workshop we will continue to call them corms!

## ALOCASIA CORM PROPAGATION



### Timeline:

- 6-9 weeks for the first leaf to begin to sprout;
- Roughly 8-12 weeks until the first leaf unfurls
- Timing depends on corm vigor, species, and environmental conditions.

### Supplies Needed:

Clear container with a lid (i.e. takeout container, seedling tray)  
Substrate: sphagnum moss or Fluval Stratum

### Instructions:

1. Corm treasure hunt! The best way to find corms is to first gently remove your plant from its pot.

Remove some of the potting media with your fingers so that you can get a better view of the roots and potential corms. Feel and look around the upper third of the root mass for small round corms (that's where the majority will be hiding). Use your finger tips to search both the outer edge of the root ball and inside the middle of the root mass. If something jumps out and bites your finger: RUN!

Kidding.

2. When you find a corm, simply snap or twist it off its stolon with your fingers. It does not matter whether or not you keep the brown stolon attached to the corm or not. I typically break it off.

*Tip: While most corms are brown and round with a pointed tip like a tear drop, the exact size, shape and color of the corm will depend on the species. For instance, the corms of Alocasia 'Cuprea' are pink inside. Also, some species of Alocasias grow corms directly off of the main rhizome/ underground stem without a stolon, as is the case with Alocasia 'Kapit.'*

3. Remove the brown outer scales that the roots have to poke through in order to grow. You can use your fingernail, but it's even easier to use the edge of something thin and plastic like a credit card or garden tag. Take care not to damage the corm's inside tissue. What will be left is the tissue that surrounds the apical bud. On the corm, the apical bud is the pointy tip from where the shoot will grow. New roots will form towards the top of the corm on this tissue in a ring around the apical bud. Strange, I know. I bet you expected roots to grow out of the bottom of the corm!
4. Prepare to plant the corm in the medium of your choice in an upcycled take-out container, seedling tray, or even Zip-lock bag. My personal preference is to use chopped up sphagnum moss mixed 50/50 with perlite or Fluval Stratum mixed 50/50 with perlite. In both cases the substrate must remain moist throughout the entire propagation period. How moist? It

should be as moist as a gently wrung out sponge. If you see it start to dry out, re-moisten it! I bet that was way too much use of the word moist for your liking.

5. Plant your little nuggets, **leaving only the very tip of the corm exposed.**
6. Seal the top of the container to maximize humidity and put the corm(s) in a window with mostly bright indirect light or under a grow light. I'm placing mine on a shelf, one foot under two 3-foot long T5 LED grow lights.
7. If you have a healthy, peeled corm that receives the proper warmth, light, humidity and moisture, in 2-4 weeks your corm may have little white roots poking out of it. In 6-9 weeks leaves will begin to sprout.
8. **After the first leaf has fully unfurled, and the roots are at least an inch and a half long,** your corm is ready to be transferred to a potting mix or growing medium of your choice. In my personal growing experience, Alocasias do well in an aroid mix in a traditional pot, and even better in pon in a self-watering pot.
9. If transferring to a different substrate than the one you propagated in, tease away the propagation substrate from the roots and pot up in the new media. Like any delicate plant going through a substrate transition period, after potting up your new Alocasias (especially if working with a sensitive jewel Alocasia species), it's a good idea to keep them in at around 70-80% humidity for a couple weeks while they adjust to their new medium before placing them where you intend on growing them. Or, just keep them in 70-80% humidity for life and your Alocasia will love you forever.



#### **Aftercare**

Give plenty of bright indirect light. If they are stretching towards the light that means they're not getting enough! Humidity above 40% is ideal, but hardier species can tolerate lower humidity. When you water, water thoroughly and remember that Alocasias don't enjoy drying out completely between watering. They are heavy feeders and if actively growing, fertilize year-round.