



Scan for more tours & photos (login not required) →

## *Plumeria Seedlings – What You Need to Know*

Take a look around – you'll find very long bean-shaped seed pods around the grove. This walking tour explores seedlings, how new varieties are introduced and what you need to consider when growing a plumeria tree from a seed.

### **First, a few facts about plumeria**

- Plumeria have more chromosomes (54) than we do (23)! Each of the 20-40 seeds in each pod will produce an entirely new variety, sometimes very different than the parent.
- This genetic diversity creates many fascinating new flowers. Growing seeds is fun, and it's very exciting to see what the bloom will become.
- Not all the new flowers are worthwhile, however, since seedlings often revert to small white flowers with a yellow center. We use such seedlings for grafting rootstock.
- Seed pods take 9-10 months to mature, and should be left on the tree until they start to split. Add a bit of tape or a bag to keep the seeds from being lost when it pops open.
- Seedlings can take 3-8 years to bloom, and a total of 3 complete bloom cycles to see the final color, size and shape. Its color, shape and size changes with each cycle.
- Commercial growers plant 1000s of seedlings. With each bloom cycle, every seedling is evaluated for vigor, growth habit, flower quality, and blooming capacity. Only one seedling out of a thousand is unique enough to be introduced to the market.
- If you decide to name a new seedling, it should be given a new name, not the same name as the pod parent since it is genetically different from the parent.

### **How are plumeria pollinated?**

Pick a bloom off the ground, and then split it open to see the flower's throat. The pollen is all the way at the base. Due to this long, very narrow throat, bees can't reach the pollen. So how do we get seed pods? Three ways: mimicry, self-pollination or very careful hand pollination.

Because plumeria flowers mimic other nectar-producing flowers, various insects, such as hawk or sphinx moths, are lured by the fragrance, thinking that there's tasty nectar to feed on. But since plumeria don't produce nectar, insects that visit the blooms don't return – but it happens often enough to pollinate the blooms.

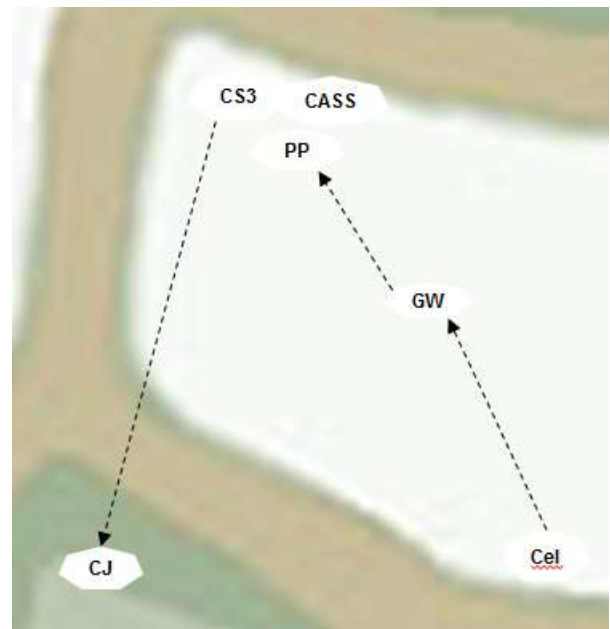
Since insect pollination is not likely, we believe that most seedpods are the result of self-pollination by the flower's own pollen.

In spite of the narrow throat and tiny reproductive organs, some patient growers very carefully hand pollinate the flowers, producing seed pods with a known pollen parent and known pod parent. The Moragne cultivars, bred in the 1950s, are a good example.

If you decide to grow your own seedlings, select the best possible pod parent, and you'll be rewarded with your own, unique hybrid that you can name and possibly register with the Plumeria Society of America.

Let's take a look at some trees and their genetic backgrounds.

- **Celadine:** Many of her seedlings bloom very similar to the parent, and there are over a dozen slightly different hybrids called 'Celadine'.
- **Gee Whiz:** this tree produces many seed pods. Since white plumeria tend to produce more white flowered seedlings, her seedlings are often used as grafting stock.
- **Penang Peach:** this Malaysian variety, with her vibrant, yellow orange flowers, produces very interesting, excellent seedlings. However, she doesn't produce seed pods very often. Look for a hook at the end of each leaf – all her seedlings tend to have this characteristic.
- **California Sunset:** she's a seedling of Penang Peach! Over 800 seedlings of Penang Peach were grown before one plant was selected for commercial production. Note that the large, peach-scented blooms are identical to her pod parent, but the improved tree produces many more blooms over a longer season, and is more compact in growth.
- **CS3:** she's a seedling of California Sunset! One seedling was selected out of 1000 for its very compact growth habit and unique flowers. Sporting similar colors to her pod parent, she has a different flower shape and excellent veins throughout the petal.
- **Caribbean Jasmin:** this No ID produces small yellow, non-fragrant flowers on a poorly blooming, lanky tree. Poor quality trees like this are typically used for rootstock, such as was done in the Grafting Demonstration area.



**Please don't break off branches!** Some plumeria are difficult to grow, and damaged trees die when uncaring visitors snap pieces off. An abused tree is sad sight, especially when plumeria are readily available in stores or from friends.

Take your time and stroll through the rest of our grove, and enjoy the many blooms. As more trees are planted, mature and bloom, this walking tour and other, more in-depth tours will be expanded. Enjoy!