

# GROWING PAINS



## Newsletter for the MiraCosta Horticulture Club of Oceanside

March 2019

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### Announcements

**Meeting** on Saturday, March 2, 2019  
Meeting starts at 12:30 p.m., and will be held at  
MiraCosta College, 1 Barnard Dr., Oceanside, CA  
92056

#### **Workshop: March workshop**

Members Cher Whelan and Vidya Siri will hold a hands-on and demonstration workshop on repotting Phalaenopsis orchids. Bring your own orchid and a pot that is one inch larger than the one it is in along with shears and clippers. If you bring an outer ceramic pot, it will help stabilize the plant on the way home. Planting medium will be provided by the club. We will need to start promptly at 12:30 in order to have enough time.

**Program:** Robert Gore and Phil Vergara, owner and manager of HomeGrown Garden Supply in San Marcos will discuss compost tea, beneficial bacteria and fungus.

March meeting is Pie Day. Please bring a pie, either sweet or savory, to share.

Board elections will be held at the April meeting when the nominating committee will present nominees for President, VP Membership, Secretary, Treasurer. Carol Fehner VP Publications and Ed Fitzgerald VP Programs have volunteered to remain. Here is your opportunity to run things.



### President's Message for March 2019

By Tandy Pfof

#### **California Spring Trials**

This is an annual, weeklong event held at various locations throughout the state and is exclusively for industry professionals. It is not open to the public. The event is a launching ground for some of the newest plant varieties for 2020, signage and packaging products, and merchandising programs and concepts.

This year it is held from March 23 to March 27. The locations this year are in Northern and Central California. Suncrest Nurseries, a leading grower of quality plants, is sponsoring several locations. Proven Winners is another participant. There will be a total of 18 stops and over 50 exhibitors.

I found some sneak peaks for the west coast. One is Penstemon 'Pentastic Blush, a white flower in the Pentastic series which includes red, pink and rose. The blurb says "It has a natural tendency towards branching, boasts large outward-facing flowers densely packed around the stem, ensuring a striking prolonged display of color. Flowering time is May to September and is hardy, reliable, a disease-resistant perennial."

Here is a novelty, Petunia 'Dark Saturn', which is in the Headliner Series that includes the purple and white speckled 'Night Sky'. It features a dark, velvety center with creamy edge. One more, Tagetes filifolia "Dropshot". This is an edible and ornamental herb in the marigold family. The blurb says "It has finely divided foliage that tastes like sweet anise. It is great for salads and can be used like tarragon for soups and seafood.

One of the features from the 2018 Trials that did already appear for sale last year was the Vinca Tatto Series. There are four colors with dark centers – Black Cherry, Papaya, Raspberry and Tangerine. Ok, one more. This was also a 2018 introduction from Plug Connection that also hit retail last fall. We sold a lot where I work. It is the Hamelia 'Lime Sizzler. It is a tough Texas Flame flower that loves heat. Plug Connection is located in Vista and Bonsall and has been supplying the best quality young plants in the West Coast since 1987. Today they are one of the largest plug, liner and grafted transplant producers in the country.

### **What Is Fasciation**

Jackie Carroll

If you've ever found a flower stem that looks wide and flattened, splayed or fused, you've probably discovered an odd disorder called fasciation. Some fasciation in plants result in huge, grotesque stems and flowers, while others are quite subtle. Discovering fasciations in your garden or in the wild is intriguing, and one of the fascinations of observing nature. Let's find out more about the fasciation deformation of flowers.

**What is Fasciation?** So exactly what is fasciation in flowers anyway? Fasciation literally means banded or bundled. Scientists aren't sure what causes the deformity, but they believe it is probably caused by a hormonal imbalance. This imbalance may be the result of a random mutation, or it can be caused by insects, diseases or physical injury to the plant. Think of it as a random occurrence. It doesn't spread to other plants or other parts of the same plant. The result of fasciation is thick, often flattened, stems and large flowers or flower heads with far more than the usual number of flowers. The extent of fasciation deformation of flowers depends on where the damage occurs. Fasciations close to the ground affect a larger portion of the plant.

**Can Fasciation Be Treated?** Can fasciation be treated once you spot it? In short, no. Once the damage is done, you can't correct fasciation on that

particular stem. In some cases, you may be able to prune out the affected stems without damaging the plant. The good news is that perennials that exhibit fasciation may be perfectly normal next year, so there is no need to destroy the plant. Not all fasciation in plants makes them undesirable. The fasciation of a fan-tailed willow makes it a highly desirable landscape shrub. Fasciation deformation of flowers such as the cauliflower-like heads of a celosia is part of the charm of the plant. Crested saguaro cactus, fasciated Japanese cedar, beefsteak tomatoes and broccoli are all examples of desirable fasciations. While fasciation in flowers is usually a one-time occurrence, sometimes the fasciation is carried in the plant's genetic material so that it reoccurs from generation to generation. More often, fasciated plants have to be propagated vegetatively to carry on the unusual characteristics. A fasciated plant can be a monstrosity or an interesting variation, and the difference is often in the eye of the beholder. Some gardeners will want to immediately replace the plant with one that looks more like its neighbors, while others will want to keep it as a curiosity.

### **How Plants Survive the Cold (Or Not)**

plantguy January 7, 2010

Imagine for a moment that you had to stand outside your house or apartment, without moving, all winter long...and that you were naked.

How long do you think you could last? Not long, especially if the temperature went below freezing. And certainly not if the temperature went below 0° F (-18° C).

In temperate zones on Earth that's what perennial plants must be able to do to survive. And even annual plants may have to withstand an early or late frost in order to complete their life cycles.

What happens if water freezes inside at plant? The first, and likely lethal for the plant, is ice crystal formation inside cells.

If, however, the water freezes outside the cells, in the intercellular spaces, this may lead to the extreme desiccation of the plant. That is, it's sort of the same as if the plant was drying out.

Other cold-temperature effects on plants include (1) decrease in enzyme activity and (2) changes in the fluidity of cellular membranes, both of which could severely harm plant cells, and, thus, the plant as a whole.

How do the cells of cold-tolerant plants survive sub-freezing temperatures?

1. Accumulation of solutes (sucrose, mainly, but also other organic compounds such as proline) by the cells to depress the freezing point of water (think salting ice on the sidewalk) and to stabilize membranes. (But this can only be effective at temperatures from 32° F to 20° F.)
2. So-called “antifreeze” proteins help prevent ice crystals from forming in the extracellular spaces (outside cell); plant cells that make these proteins typically secrete them into cell wall region (intercellular spaces).
3. The plant cells may synthesize proteins called “dehydrins”, which are inside the cell (cytoplasm), may bind water molecules and alter the collective structure of water in the cell to stabilize membranes.
4. Plant cells can alter lipid composition of cellular membranes in order to adjust the fluidity (functionality) to colder temperatures.

## **CARNIVOROUS PLANTS**

**factmonster.com**

Meat-eating, or carnivorous, plants can trap and digest insects and other small animals. They do this to obtain the vital nitrogen that they need to grow. Most plants absorb enough nitrogen from nitrates in the soil. Carnivorous plants live in bogs, where nitrates are in short supply, so they need to obtain their nitrogen by digesting prey instead. Carnivorous plants have developed unique ways to catch insects, such as fluid-filled pitchers and spring-loaded traps.

### ***SPRING-LOADED TRAP***

The Venus flytrap’s leaves are hinged so that they can snap shut. Sensitive trigger hairs detect any insect that lands on the surface of an open leaf. At the slightest movement, the two halves of the leaf spring shut. As the sides of the trap close around the victim, the plant releases digestive juices. These break down the soft parts of the insect.

### ***STICKY TRAP***

Sundews are small bog plants that have hair-covered leaves. They produce a droplet of sticky “dew” at the tip of each hair. Insects are attracted to

the fluid, but become stuck. Next, the hairs slowly bend inwards until the whole leaf has folded over the insect. Chemicals released from the hairs digest the insect’s body, and nutrients are taken into the plant.

### ***PITCHERS***

The pitcher plant is named for the jug-like traps that hang below its leaves or grow up from the ground. Each trap has its own lid to keep off the rain and contains special fluid at the bottom. Insects are attracted by the trap’s red markings and the sweet nectar produced around its rim. If the insect lands to drink the nectar, it slips and falls into the trap. It drowns in the fluid at the bottom and its nutrients are slowly absorbed by the plant.

### ***DIGESTIVE JUICES***

An insect body has to be broken down before its nutrients can be absorbed into the plant. Carnivorous plants such as pitchers use enzymes, similar to the ones that break down food in an animal’s gut. Acids help the enzymes to break down the body. A pitcher plant can digest a small insect within a few hours, but larger ones take days.

## **The Story Yet to Be Told**

Susie Hill

"Can't we pay someone to do this?" my husband asked. He was delivering his second wheelbarrow of mulch to my side and trying his hand at weeding for the first time in our nineteen-year history of home ownership. As one who comes from a family of gardeners and wildlife admirers, it is beyond my comprehension how Chris could perceive yard play as work. I think that the real issue is that he doesn't feel part of the story that is playing out in front of him; stories of relationships with friends and family. These are stories that don't have an ending, but they continue to unfold.

While one can garden alone, there is generally a history of community and friendship involved. For me, digging in the soil generates memories of friendships that have come about by sharing plants.

There are plants in my yard that reflect my family history too, gifts from members of my family and plants that have been passed down from relatives. Sometimes the stories of friends and family come together. There is a redbud

growing by the creek that was a gift from my sister, Annie. Ria taught me that the pea-like magenta flowers are edible and full of vitamin C. I have in turn taught many children to eat redbud flowers. If this story unfolds according to plan, my own children will pass this fact along to my grandchildren. Then they too will enjoy munching on the purple buds just for the novelty of it. I don't know exactly how this story ends, but I am going to enjoy being filthy dirty as I witness how it unfolds.

To answer Chris' original question, of course we could get help with the yard. We have done that in the past and I will get help if I feel that I really need it. But I want to manage the beds in my yard myself so I can keep a lookout for lupine babies that take me back to a time that I can remember fondly, but I can't relive. I want to mulch, water, and tend all these plants myself because I would like to have a hand in this story as it is written.

## YOUR ARE WHAT YOU EAT

Heather Hausenblas,

It's almost impossible not to notice the impact we have on our planet. And it isn't always positive: fossil fuel depletion, pollution, etc. It's sometimes overwhelming to think about the changes needed to fix everything. Until gas prices went through the roof, many of us didn't even think about fossil fuels. But then it became personal; it hit us in the proverbial "pocketbook". The changes that followed – hybrids, alternative fuel research and more – saved us money and the long-term impact on the environment was a positive one.

What about the food we eat? Have you ever wondered where your food comes from? For many, the answer is: It comes from the grocery store. But how does it get there? What happens to it on the way? And why think about it at all, especially when lettuce is on sale?

Grocery store produce typically comes from farther away than you'd think. Your grapes likely came from Chile, your apples from Washington, etc. They travelled in refrigerated trucks, sucking up fossil fuels. Those journeys weren't just a day or so, either; they sometimes took weeks. What happens to the produce during that time? It loses flavor, as well as nutritional value. That's where personal impact enters the picture. We moved to hybrid cars, why not homegrown food? Actually, it's not really that complicated; and, there are some great reasons why you should give it a try!

First, it's all about health. When you grow your own tomatoes, you *know* there are no chemicals used (assuming you go organic); but did you know that truly fresh produce has more vitamins? Studies indicate that we eat more fruits and veggies if they come from our own gardens and growing our own saves money, too. Seed packets cost a fraction of the amount of a few tomatoes at the store. And, growing your own food means it didn't travel farther to get to you than you did on your last vacation!

The taste of fresh produce is unlike anything you'll find in the store. Vitamins aren't the only thing homegrown has more of – once you've tasted a truly fresh-picked tomato, the ones at the store will taste like air. The better something tastes the more of it you'll want to eat. In the case of fresh fruits and vegetables, that's great.

You're also more likely to reduce waste when it's something you've put effort into – like that gorgeous head of lettuce – than you are when it's something you just tossed in a cart. It, it becomes a matter of pride: From a patch of dirt, to a lush garden! That sense of accomplishment is as good for us as the vitamins in those fresh peppers.

It's also time spent working outside, breathing fresh air and getting some exercise. It is time spent with loved ones, as they work alongside you. That's a win-win if ever there was one. You don't even have to give up your home in the city and become a farmer, either. Just a small patch of land (yours or a community garden), a container garden on your patio, or a window box on your balcony is all it takes to grow your own!

If growing your own fruits and veggies isn't an option right now, shop your local farmers' markets and fruit stands. This is the second-best way to support local agriculture and enjoy the freshest produce.

