

# GROWING PAINS



## Newsletter for the MiraCosta Horticulture Club of Oceanside

April 2019

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### Announcements

**Meeting** on Saturday, April 6th, 2019  
Meeting starts at 12:30 p.m., and will be held at  
MiraCosta College, 1 Barnard Dr., Oceanside, CA  
92056

**Workshop:** Member Sue Getyina will show us how  
to create mini greenhouses out of egg cartons.  
Bring an egg carton. Everything else will be  
supplied by the club.

**Program: "Beneficial Insects for the Home  
Gardener"** Jim Davis is an entomologist and the  
owner of American Insectaries. He will provide an  
overview and identification of insects and discuss  
beneficial insects that eliminate those pests without  
using pesticides.

### President's Message for April 2019

By Tandy Pfof

#### **Slate of Candidates**

##### **President – Ed Lopez**

Ed and Susan both have been exuberant garden  
travelers for 20 years, traveling worldwide for  
seminars and to visit gardens. Ed has been in  
California for 50 years and has spent a career in  
quality control. He worked on a space shuttle and  
at General Dynamics among other things.

##### **Secretary – Susan Duey**

Susan is the leader in these worldwide garden  
travels. I am sure they will have many interesting  
things to share. Who knew! She has had a previous  
career in real estate as an agent and escrow  
manager. Currently, she is in the medical field.

##### **Treasurer – Cindi Tosczak**

Cindi has been a corporate treasurer with 25 years  
of experience. How fortunate can we be to have her  
volunteer with such a background! She is new to  
the club and gardening.

##### **Programs Chair – Ed Fitzgerald**

Ed has fortunately volunteered to continue on in  
this current position of putting together wonderful  
programs for the club.

##### **Publications Chair - Carol Fehner**

The club is fortunate that Carol has volunteered to  
continue in this position as well as running our  
great plant sales.

##### **Membership Chair – Connie Kemp**

Connie currently holds this position.

#### **Announcements**

- There will be no May meeting.
- The June meeting will be held on the 8<sup>th</sup> and  
NOT on the 1<sup>st</sup>. This is our season end pot  
luck event and planning time for next  
season.

## **Thrillers, Fillers, and Spillers**

by Steve Silk

There's no mystery in making a beautiful container planting as long as you follow a simple three-ingredient recipe. First and foremost is what I call a "thriller," a centerpiece plant with star quality, something big, bold, and beautiful. Then I add a few spicy "fillers," foliage or flowering plants that will complement but not overwhelm the main player. Finally, I add a savory splash of mischief, a "spiller" that just tumbles out of the pot. As long as I use each of those kinds of plants—in various proportions—and take care to balance colors and textures, I can create a pot with pizzazz.

### **Thrillers are the star**

As the name implies, thrillers are the big, attention-getting star players. They are usually tall, upright plants, with outstanding qualities—such as colorful foliage, intriguing shape, or dramatic flowers—that last all season long. Many thrillers are architectural: plants with structural, eye-catching form that can serve as a sturdy backbone or rugged framework for a scrim of less substantial plants. Think of the boldly colorful, paddlelike leaves of *Canna* 'Pretoria' or the bright spikes of *Yucca filamentosa* 'Gold Edge'.

Thrillers work best in compositions where they are the tallest plant. For me, they are also the starting point in a container design. I select my thriller, then build around it. At planting time, the thriller goes in the center of a pot that will be viewed from all sides or at the back of a pot that will be displayed in a corner or against a wall.

### **Fillers add mass**

Next, I add the fillers—billowy, more finely textured plants that surround and weave through the thriller. Fillers add mass to the overall composition and, more important, establish a dialogue with the thriller. Fillers add a textural contrast or colorful counterpoint. In a monochromatic composition, they may simply echo the thriller, though with less saturated color or at a reduced scale. Texturally, I might use a round-leaved filler with a spiky thriller. Since fillers are usually plants with a mounded silhouette, they also do just what the name implies: They fill up the pot while embracing the thriller. Often, they help by hiding the bare knees—the less interesting stems or stalks—of their larger neighbor.

When planting a pot, I position my fillers around the thriller. I often use a mix of plants for this job: some with foliar interest, others with flowers. For flowery

fillers, I avoid perennial varieties in favor of uncommon, striking annuals or tender perennials for their much longer flowering season. Since the goal of container plants is to attract the eye, these plants add an alluring unusual flavor. I like bountiful-looking containers, so I cram in as many fillers as I can.

### **Spillers anchor the pot**

I often have just enough room left to shoehorn in a few spillers toward the edge of the pot. Sometimes it's fun to unify a composition by training a few tendrils of a spiller to climb into and through both the filler and thriller. The main role of a spiller, however, is to sprawl over the side of the container, softening its edges and tumbling toward the ground. When parts of a container planting touch the earth, the pot looks rooted to its place.

But spillers should do more than soften a pot and link it to its place. Well-chosen spillers continue the dialogue begun by the thriller and filler. To deepen that conversation, I look for spillers that echo or contrast with the pot's other plants by virtue of shape, color, or texture.

### **Keep scale in mind**

Planting the right combination of thrillers, fillers, and spillers creates a lush, intriguing composition rich in color, texture, and form. It fills out a pot by exploiting space in every available direction—up, down, and sideways. When selecting plants, I also consider the element of scale. Though I often aim for extreme contrasts in terms of color combination, texture, and shape, I like to use plants more closely related in size. I usually try to group plants using fillers that are roughly between one-third and two-thirds the size of the thriller.

I also bear in mind that the boundaries between my three basic plant types aren't fixed. Depending on the arrangement and scale of a planting, some fillers might get promoted to thriller, some fillers—many kinds of verbena, for example—might spill a little, and some thrillers might serve as fillers when paired with something larger and even more exotic. But it's not necessary to overthink the process. No matter what the specific plant, using a thriller, a filler, and a spiller is a sure recipe for success.

**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 Garden Ecosystem** theconversation.com

Whether you live in an urban apartment or a rural homestead, your outdoor area is more than just a private space. Ecologically, a garden is another jigsaw piece in the landscape.

Whatever their size, gardens can contribute to natural functions and processes in the local area, such as regulating water drainage, buffering the damaging effects of strong winds, or providing food and shelter for native wildlife.

Many wildlife species survive in urban areas, but their presence and persistence depend on how specific their food and shelter needs are, how they respond to disturbances, and the quality and quantity of other green spaces in the landscape.

For larger animals, such as birds and mammals, a home garden could become a stepping stone across an otherwise hostile urban landscape. For smaller animals, such as insects, it could be the centre of their home range.

In urban areas, where space is often limited, gardening with pollinators in mind is a simple way to encourage biodiversity in the backyard. And, depending on the surrounding landscape, habitat for pollinators will also be habitat for other animals.

### ***Flowers are just the first step***

Flowers produce sugar (nectar) and protein (pollen), the main diet for many adult insects and birds. Unlike other insect groups, native bee larvae develop almost exclusively on pollen collected by their parents, so flowers are essential to grow native bee populations.

Native plants are an ideal option for attracting native pollinator insects and birds, but many garden exotics, especially herbs, fruit and vegetable plants, are just as popular. Modern hybrid varieties should be chosen carefully, as some are bred for commercial fruit or flower traits (like size or colour), but the flowers lack the nectar or scent cues that attract pollinators looking for food.

### ***Build it and they will come***

The structure and design of a garden can determine what wildlife species will visit or make a home. Vertical structure, built from multiple layers of different plant heights, provides more spaces for wildlife to co-exist. Small plants and shrubs provide good shelter for insects and very small birds, while larger trees will attract visits from more mobile birds and mammals.

Large trees with rough or shedding bark that creates lots of cracks and crevices are excellent shelter for insects and small lizards. Trees that produce resins and sap flows, such as conifers, acacias and eucalypts, are also useful for some

native bee and wasp species that use resin to seal their nest cells.

About 75% of bee species dig their nests into the ground, usually in sandy, uncompacted soil, preferably on a slope that won't get waterlogged.

It can be difficult to build all of this into small gardens, but many pollinator insects will have home ranges of a few hundred metres, while birds and mammals can travel much further. So landscape composition can also influence the wildlife potential of an individual garden.

### ***Disrupting the food chain***

Like any ecosystem, gardens involve an intricate web of life, from the soil microbes underground to the birds in the trees. It's easy to grab the spray bottle to kill off the dandelions and blow down the flies, but what are the knock-on effects?

Many of the animals and plants we think of as a backyard nuisance often provide services we don't see. For example, many native wasp and fly species (even blowflies!) are pollinators as adults. And as larvae, they control many of the insect pests we see on our plants, or decompose organic wastes. Small reptiles, like geckoes and skinks, mostly feed on small insects that annoy us, like mosquitoes and midges.

Plants we think of as lawn weeds, particularly dandelions and clover, are a favourite food source for native bees and hoverflies. Aphids and scale insects also produce a sugary substance called honeydew as they suck on plants, which is an important sugar source for some beneficial insects like wasps, bees, ants and hoverflies.

Limiting synthetic chemical use is one of the easiest and cheapest ways to enhance wildlife in gardens. Insecticides can kill beneficial insects, or affect them indirectly by disrupting their metabolism or reproductive cycles. Overuse of herbicides removes important food resources, like dandelions, that pollinators rely on if other flowers are scarce.

### ***Managing gardens as ecosystems***

Many wildlife don't like regular disturbances, which is why urban areas can be intimidating environments for animals. It can be hard to balance human needs with the habitat needs of wildlife.

Many actions that minimize risks for humans can have the opposite effect for wildlife.

For example, pollinators generally prefer open grassy areas to dark forested areas. In urban environments, grassed areas are often mown regularly for human recreational and safety needs. This affects the availability of flowers for pollinators and also affects the persistence of these plant species. Mowing less often and outside peak flowering times can make a big difference for plants and pollinators.

Similarly, large old trees are homes to myriad animals. Unless they pose a very real risk of danger to human lives, pruning overhanging branches can be better for the local ecosystem than removing the whole tree.

Wildlife are rarely deterred by fences, so it is likely that most of the animals you see in your yard are also using your neighbours' yards. Managing gardens as a collective landscape, rather than individual gardens, can keep wildlife happy while also enhancing neighbourhood communication.

## **CELEBRATING EARTH DAY**

Lisa Halvorsen

In April we celebrate the earth, not just by getting back into the garden, but by observing a very important day--Earth Day.

Well, Earth Day has been around for more than 30 years. It was started by Gaylord Nelson, a 53-year-old Wisconsin senator, as a way of bringing attention to how people's actions were endangering the planet.

Nearly 20 million Americans participated in the first Earth Day on April 22, 1970 by picking up litter, collecting recyclables, and holding "teach-ins" to talk about the environment. This widespread concern by citizens about what was happening to the earth inspired the U.S. Congress to pass the Clean Air Act in the early 1970s.

Although you may not celebrate Earth Day, per se, if you are a gardener, every day is Earth Day. To protect the soil you minimize your use of chemical fertilizers and pesticides. You use natural mulches like straw and hay instead of black plastic. You water with a drip irrigation system rather than an overhead sprinkler to conserve water. All these things make you a good steward of the land.