



## Redwood Barn Nursery

1607 Fifth Street Davis, California

### Flowers that snap and make faces

I sometimes get fed up with the fondness of flower breeders for dwarfier, more compact plants. It's been a long trend in the bedding plant industry, the growers who produce flower seedlings to sell in six-packs and four-inch pots. They want plants with short stature, lots of branching, and early bloom to entice you to buy them.

Some growers even use plant growth regulators (PGR's) to increase the compactness of plants. There are several PGR's on the market that shorten the stems or increase branching to make lower, bushier plants. But mostly it's just conventional breeding that gives us these smaller plants.

Stock (*Matthiola incana*), a flowering winter annual with great scent, is a classic example. The modern strains for your garden grow about a foot tall. They're usually flowering when you buy them. That's not what I want. I want stock that grows to two feet and makes long stems of fragrant flowers. Even better, I want the stock that stretches out and puts out smaller flowers that are so fragrant in the evening that it makes your eyes water. That's the night-scented stock, *Matthiola longipetala*. But if I want either of those, I have to grow them from seed in the fall.

But for some of our winter annual flowers, breeding for shorter plants has definite advantages. Notably with snapdragons and pansies. Shorter snaps don't need to be staked, and compact pansies don't fall into the mud. Both are planted now.

#### Flowers that snap

As garden flowers, snapdragons have come a long way. The genus *Antirrhinum* has been studied by botanists and evolutionary biologists since the days of Mendel and Darwin. The snapdragons we grow are *A. majus*, which comes to us from the Mediterranean region, but there are similar species native to North America. Calscape.org<sup>1</sup>, the incredibly useful website of the California Native Plant Society, tells us that 17 species are native in various parts of California, so if you're out hiking in the Coast range or Sierra foothills and see a flower that looks like a small snapdragon, there's a pretty good chance it is one of the native species.

Snapdragon varieties usually initiate flowers faster under long days. Growers who start them in summer for fall planting, or extend the daylength with supplemental lighting, can produce bedding plants that are already beginning to bloom. Here, we would plant them in fall, get some flowers right away, and then wait until spring for the next, showier round of blooms before hot weather.

A number of years ago, day-neutral varieties were introduced, as well as shorter types. I think these are actually the best garden plants among the many snapdragon varieties. If you want

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<sup>1</sup> [https://calscape.org/loc-california/Antirrhinum\(all\)](https://calscape.org/loc-california/Antirrhinum(all))



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long-stem cut flowers of snaps, go ahead and grow the older types, but they'll bloom later and need staking. Or you can just do what I did one year and plant them among your sweet peas (also planted now for spring bloom), and let them support each other. That makes a spectacular spring display, though a bit overgrown by season's end.

But the newer, shorter, more consistently blooming types can just be planted in garden beds or large planters without any fuss. They branch enough and bloom low enough to make great displays of bloom in a range of warmer colors: yellow, pink, red, and white. Snapdragons are also among the more heat-tolerant winter annuals. Some cute ones only get about a foot tall and wide with blooms over the entire plant.

### Why are snapdragon flowers shaped that way?

The structure of the flower, with the big "lip" that makes the lower part of the bloom, blocks unwanted pollinators and conserves the nectar, which is back in the throat of the flower, for the long-tongued bees and bumblebees that are the plant's primary pollinators. Just as you can make it snap open, a bumblebee has the strength to force open the flower and push its tongue in for the nectar, getting covered with pollen as a side effect. The flower is a very specialized adaptation to a particular type of pollinator.

In both the native range of snapdragons, and where we grow them as garden flowers, they're likeliest to be visited by the largest bees. In our area, that's often the Valley carpenter bee and perhaps the native Yellow-faced bumble bee. The flowers are also visited by butterflies and hummingbirds.

Snapdragons go especially well with pansies and violas.

### Flowers with faces

The pansy was created in England in the early 1800's by crossing several species of violas. One parent, *Viola tricolor* (Johnny Jump-up or wild pansy), is a rangy plant with flowers over a long season that are characteristically two tone yellow with purple.

Pansies, and then violas, were developed in the early 1800's and became wildly popular in Europe and the U.S. through the 19<sup>th</sup> century. Good reason: they're very easy to grow.

First, pansies with lines on the petals were introduced in 1812. Then the first large-flowered viola hybrid with a 'face' appeared among seedlings in the 1830's, introduced in 1839. What we now call the pansy (from French *pensée*, meaning thinking or remembrance) got officially named *Viola x wittrockiana*. The x tells you it's a hybrid. Wittrock is in honor of a Swedish botanist named Veit Brecher-Wittrock who worked with violas.

Breeders, mostly in England and Scotland and Switzerland, kept selecting seedlings for bigger flowers, and more vigor and bloom. A few years later, seedlings were found that had neither faces nor lines, just clear colors.

Old-fashioned pansies from the 19<sup>th</sup> century had huge flowers as big as your palm. Vivid colors, long stems, and extra-heavy petal texture made them suitable for bouquets.

It also made them fall face-down, flat into the mud, at the slightest bit of rainfall. Those thick petals get botrytis mold when it rains. I remember these varieties, such as the Roggli Swiss Giant pansies, were still widely sold into the 1980's, but most growers and gardeners nowadays prefer newer hybrids with moderate-size flowers that take the weather better.



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The smaller-flowered ones that we call “violets” were created by crossing pansies back with *Viola cornuta* and other dwarf species. They hold up better in winter weather than the bigger ones.

We still grow *Viola tricolor*, mostly the improved types such as King Henry. These are great garden plants that bloom prolifically, with small flowers and short stems on tough, compact plants. They may reseed in shady gardens.

### Violets

Violets (*Viola* species) grow all over the world, usually in woodland areas of light shade and plenty of moisture. Some other species of *Viola* that are grown, intentionally or not, include:

*Viola odorata* is sweet violet, the fragrant purple (or pink, or white) flower that blooms in lawns in early spring. It is impossible to get rid of because of its odd habit, after that lovely spring bloom, of putting out flowers that push directly into the ground and set seed. See [cleistogamy](#)<sup>2</sup> for more information.

If you pull up the parent plant, a whole carpet of seedlings comes up. Pretty soon they’re all over your shady areas, and happily growing in your lawn even in full sun. This would be less annoying if it weren’t for the Violet gall midge, a tiny insect which disfigures the leaves through the growing season. Per the UC IPM site,<sup>3</sup> it’s basically not easily controlled. “For flowers in planting beds, clip off galls and distorted plant parts as soon as you see them and remove them from the garden. If you have an intolerable infestation, you may want to remove susceptible plants.” Good luck with that.

*Viola banksii*, commonly called Australian violet and usually sold labeled *Viola hederacea*, also spreads all over the shady parts of your yard, but people actually plant it intentionally for that purpose. It isn’t fragrant but makes up for it by blooming pretty much all season long.

*Viola labradorica* is a similar species with purple-tinted foliage that spreads all over if it can. It mostly blooms in May. Neither species gets the gall midge.

### Annuals or perennials?

This group of plants really stretches our definitions of the basic gardening terms of annual and perennial.

An annual plant grows, blooms, and dies within a single growing season. In our area that may be the cool season (winter annuals) or the warm season (summer annuals).

A perennial plant blooms year after year, but doesn’t grow as a shrub.

In areas with mild temperatures year-around, pansies and violas can be perennial, blooming for several years.

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<sup>2</sup> <https://en.wikipedia.org/wiki/Cleistogamy>

<sup>3</sup> <http://ipm.ucanr.edu/PMG/GARDEN/FLOWERS/INVERT/gallmidge.html>



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In cold places such as the Midwest, pansies and violas don't survive winter, so they're grown as summer annuals.

Here in the hotter parts of California, as well as in southern states, they don't survive summer, so we grow them as winter annuals. Frost doesn't hurt them. They bloom through winter and spring until we get to around ninety degrees. Plant from October through about February, and they bloom from the time you plant them until April or May.

### **Where to grow them?**

Pansies and violas are good in flower borders, but are also great in containers and are good winter flowers for beginning gardeners and kids. Pots of winter annuals are much easier to grow here than summer annuals. Just use a rich potting soil, set them out where they'll get rained on, and remember to water occasionally if we have a long spell without rainfall. Plan to replace them in late April with summer flowers.

### **Edible flowers?**

Many references tell you that violas and pansies are edible. That is true. I have eaten them. They taste pretty much like flower petals, which isn't as exciting as it sounds, but they are strangely festive in salads. I once found a recipe for candying *Viola odorata* flowers and tried it. It was possibly the messiest kitchen project I've ever done, to little reward. To save you the trouble: you end up with largely misshapen, small purple flowers coated with sugar crystals. These have, honestly, very few uses. I suggest just enjoying pansies and violas in the garden.



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[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/pansy%20blue%20classi%20markings.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/pansy%20blue%20classi%20markings.jpg)

Classic markings of a pansy: the blotches replaced the narrower petal lines of older species, making the familiar “face” of the pansy. This occurred in seedlings in the early 1800’s. Pansies became very popular in the 19<sup>th</sup> century because they bloom in cool weather and are very easy to grow.



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[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/snapdragons%20semi-dwarf%20yellow.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/snapdragons%20semi-dwarf%20yellow.jpg)

Older varieties of snapdragons grew to 3 feet or more tall in bloom, requiring staking. Newer semi-dwarf types such as this yellow in the Sonnet series grow to about 16 inches tall, with



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spikes of blooms long enough for bouquets but on plants that don't sprawl. They're better for small gardens and busy gardeners.



[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/Snapdragon%20Tahiti%20hot%20pink.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/Snapdragon%20Tahiti%20hot%20pink.jpg)



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Newer dwarf varieties of snapdragons, such as this hot pink one in the Tahiti series, have tightly-packed flower stalks on short plants that bloom all winter and spring. They're easier to manage than the older, taller varieties.



[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/viola%20tiger%20eye.jp](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/viola%20tiger%20eye.jpg)

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A particularly striking viola with bicolor veination. This one is called Tiger Eye. The plant has short stems and holds the flowers up well in rainy weather.



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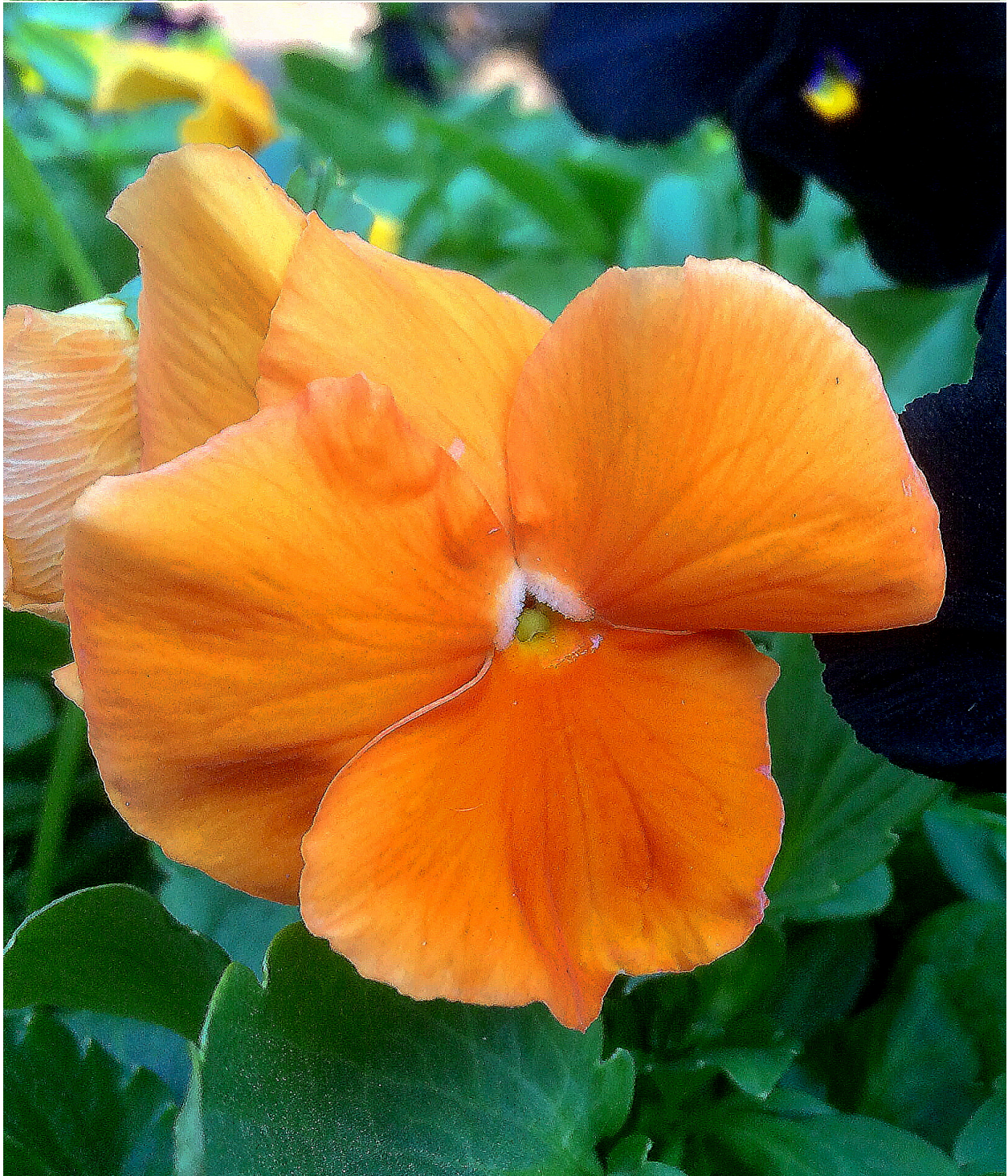
[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/Viola%20Sorbet%20Blackberry%20Cream.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/Viola%20Sorbet%20Blackberry%20Cream.jpg)

Reminiscent of the wild pansy that was a parent of modern pansies, these hybrid violas feature smaller flowers in great abundance on compact plants. They're the toughest garden plants of the whole group, tolerating more heat than others and often reseeding to come back year after year.



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[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/pansy%20orange%20crown%20closeup.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/pansy%20orange%20crown%20closeup.jpg)

Some pansies don't have faces, a development that occurred a couple of decades after the first pansies were introduced in the early 19<sup>th</sup> century. This modern hybrid is Orange Crown, a strain of smaller-flowered pansies that takes weather well.



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[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/pansy%20black%20closeup.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/pansy%20black%20closeup.jpg)

Ready for Hallowe'en? "Black" pansies are actually dark, dark, dark purple.



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[http://redwoodbarn.com/images/DE\\_pansies%20and%20snapdragons/pansy%20black%20and%20crown%20orange.jpg](http://redwoodbarn.com/images/DE_pansies%20and%20snapdragons/pansy%20black%20and%20crown%20orange.jpg)

Some pansies don't have faces, a development that occurred a couple of decades after the first pansies were introduced in the early 19<sup>th</sup> century. The modern hybrid on the left is Orange Crown, a strain of smaller-flowered pansies that takes weather well. The 'black' pansy on the right is actually very dark purple.