



## Redwood Barn Nursery

1607 Fifth Street Davis, California

### Tomato time!

My, how the world of tomatoes has changed for home gardeners.

When I first worked in a nursery in the 1970s, I remember grumpy old guys who complained that they didn't want "those hybrids" because they couldn't save the seeds. "They make you buy new plants every year!"

Hybrid tomatoes by then had been with us for about a generation. A hybrid tomato is created by a seed company that maintains two parent lines that have been developed for certain characteristics. They hand-pollinate between the parent lines, and the seedling, an F1 hybrid, has consistent traits that gardeners can count on: vigor, disease resistance, early production, high yield, or extra-large fruit.

Those old guys were right. If you save the seed of an F1 hybrid, the seedlings aren't consistent. They're edible, possibly even good, but you won't be able to count on the things the parent plant was bred for.

Meanwhile, gardeners had been saving seeds of old varieties and handing them down for generations. They might be popular and productive in a particular region. Or have colorful fruit: yellow, orange, striped, even white tomatoes. Varieties used specially for sauce or for drying. Hybrid tomatoes had been around since the early 1900's, but hadn't been common in the home garden trade until the 1950's. These tomatoes that pre-date the hybrids came to be called heirlooms. You couldn't buy them in nurseries; all we had were those great new, productive, disease-resistant hybrids. You got heirloom tomatoes from that wise old tomato grower in the neighborhood.

Tomato seeds are easy to save. The flowers pollinate themselves. Male and female parts are close together in the blossom, and pollination occurs simply by vibration of the flower. So unless a bee happens to visit bearing pollen from another type of tomato, a non-hybrid variety will "come true" from seed. That is, the seedlings will usually have fruit just like the parent plant. If you want to save the seed of a non-hybrid tomato, you should protect the flower from bees to make sure that cross-pollination doesn't occur.

#### **Fast forward to the 1990's.**

Tomato shipping had become very high tech. Very colorful uniform fruit was available in markets, from varieties bred for color and ability to withstand shipping. Thicker skins, earlier ripening, and adaptability to mechanical harvesting were important breeding goals. What got lost in all that, it seems, was flavor.

Gardeners turned to the seed banks and seed-saver groups to find the old varieties their parents and grandparents had grown. Immigrants from Europe brought their ethnic and family favorites. The big wholesale nursery growers still grew mostly hybrids, but we had two small growers who specialized in the heirlooms as well as gourmet varieties they imported from Italy and France. Over the next couple of decades heirloom tomatoes became mainstream, and



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gardeners now have dozens of types of tomatoes to choose from at garden centers, and hundreds of types of seed available by mail order.

### **Which are better?**

The perception that hybrids lack flavor is somewhat misplaced. A hybrid tomato fully ripened on the vine in your back yard will be just as sweet and juicy as an heirloom type. It's the marketing of tomatoes that's the problem: the fragile fruit has to be picked under-ripe to get it to the store without bruising. Don't overlook hybrids as you choose plants for your garden. They still have that great vigor, disease resistance, and reliable production. And the heirloom types have unique color, often have special characteristics such as more density or more juice, and carry some interesting history as well.

Bottom line: when, how, and where the tomato ripens – in your garden, on the vine, on your counter, or in a warehouse gassed with ethylene – affects the flavor.

### **Valley heat?**

One downside of heirlooms for Sacramento Valley gardeners is that none of them originated here. The well-known heirlooms come from east of the 100<sup>th</sup> Meridian: Brandywine, Amish Paste, Nebraska Wedding, etc. What that means is that they are from wetter-summer, colder-winter climates, and not all of them do well here. A big factor for us is daytime temperatures. Tomatoes drop their flowers when it's very hot. For most types, that's about 90 degrees. For Brandywine and beefsteak, very popular eastern types, it's about 85 degrees.

### **Three modern developments: open-pollinated modern varieties, heirloom hybrids, and grafted tomatoes.**

Brad Gates is a tomato farmer who grows in Suisun and Napa. Brad has been growing heirloom types for gourmet restaurants for years because the chefs want the colorful fruit, the special flavor of locally-grown tomatoes, and the cachet of heirloom-ness. Brad wants varieties that produce lots of fruit in addition to the other features.

I mentioned that heirloom seed usually comes true. But within every few hundred seedlings, you may get one or two with fruit that differs enough to be unique and worth saving. Brad finds these plants, often with a different color fruit, or with interesting stripes or a different shape, or a more productive plant. He carefully saves the seed from these variants, grows it out for a few generations to make sure it's a consistent trait, and then names his newly-created open-pollinated variety.

Brad has done something remarkable: in effect, creating modern heirlooms (I know that's an oxymoron) suited to the western United States, and making them available to gardeners and nurseries. Pork Chop is a huge, true yellow fruit with very sweet flavor. The Furry Boar series (yellow, pink and red) are meaty and very productive. A very distinctive variety is named after author Michael Pollan. It's a highly productive, elongated small fruit with yellow and green mottling and a rich, sweet, tangy flavor. He's developing blue-hued tomatoes as well, popular for their anti-oxidant content.



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Brad's seeds are available online through his Wild Boar Farms company, and he sells some plants to local nurseries each spring. Those grumpy old guys I dealt with so many years ago would be happy -- you can save the seed of Brad's varieties!

### *Heirloom hybrids?*

Jumping on the heirloom bandwagon, but retaining the desirable traits of hybrids, several seed companies have done the obvious: cross-breed them. At this point marketers are referring to "heirloom flavor," which is literally meaningless, but some of these are proving to be great garden varieties. Brandy Boy is a very productive Burpee Seed Co. introduction with meaty fruit and pinkish-red flesh. Along with flavor and production, what you gain is bred-in resistance to soil diseases such as verticillium and fusarium wilts.

### *Grafted tomatoes.*

Want the great taste of heirlooms, but need more vigorous plants?

Honestly, we don't need more vigorous plants here. This is tomato country, and an average vine will grow to 8 feet tall or more. But there are regions where they have to plant very late in the season, or where it's continuously cool (think Seattle). Along came grafted tomatoes: popular heirloom varieties grafted onto disease-resistant, vigorous rootstocks. I see little reason to bother with grafting here, and the plants are much more expensive. Your friend who's gardening in Berkeley might find some benefit. Better, though, would be for her to look for a locally adapted variety such as San Francisco Fog.

### **Overwhelmed? Which to plant?**

I get a lot of new gardeners who just want to know "what are the best tomatoes to grow here?" My standard advice: diversify your portfolio.

- Grow a couple of hybrids for reliable yield and disease resistance. Early Girl, Better Boy, Champion, and Whopper are among many proven varieties for this area.
- Grow at least one small-fruited type such as Sun Gold, Sweet 100, or Juliet. Cherry tomatoes are foolproof and great for beginners. They produce hundreds of fruit under good conditions, and at least dozens even under marginal conditions.
- Plant a couple of good locally-tested heirlooms such as Mortgage Lifter or Pineapple. Stay away from Brandywines and beefsteaks, which don't yield well here.
- Try something new to your family: an heirloom Italian type such as Costoluto Genovese, or some of the Wild Boar Farms types, or something that grumpy old guy says is the "best tomato you'll ever eat." You may find new varieties to add to your must-grow list.

If you have to grow your tomato in a pot, get the largest container you can, put it where it'll be easy to water (you'll likely need to water daily by mid-summer). Look for a short-growing variety ('determinate' and 'dwarf indeterminate' are terms on the label). Examples include Ace, Early Girl Bush, Husky Red, Patio, Roma, and Tumbling Tom.



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The best time to plant is when the night temperatures are in the mid-50's consistently and the soil is warm: late April through May. Find a sunny location, add some starter fertilizer, stake or cage the vines to keep them off the ground, and water deeply and infrequently. Harvest begins in July and continues nearly to frost.



Cherry tomatoes are foolproof, great for beginners, and they come in a range of colors and sizes. Here's a sampling of small-fruit and heirloom tomatoes.

Clockwise from bottom left:

Principe Borghese

Candy Sweet Icicle

Michael Pollan

Black Sea Man

Amish Gold Slicer

Barry's Crazy Cherry

Black Cherry



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A new hybrid sauce tomato, Rugby yields well even in heat with fruit that is large for this category of tomato. Dense foliage protects the fruit from scorching summer temperatures. Good disease resistance and high in beta-carotene.



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Bodacious is a new hybrid tomato with firm, sliceable fruit. Very good yields, great flavor; this is the closest you'll get to a beefsteak tomato in our area.



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All of the Chef's Choice series of tomatoes (now available in 8 colors!) have proven great yielders for our area. Chef's Choice Orange, shown here, typically has fruit up to a pound with a firm texture that's ideal for sauce, salsa, and slicing.



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Pork Chop is an outstanding open-pollinated tomato from Brad Gates' Wild Boar Farms line. Sweet, juicy, and reliably productive.