



## Fabulous Figs Featured in California Collection

**R**emember the first time you tasted a fig? Maybe you plucked one from a sturdy old tree in your backyard. Or perhaps a friend shared a soft, chewy cookie filled with the sweet fruit.

The kinds of figs you've enjoyed are among those growing today at a special orchard in northern California. It is a fig genebank, a living collection of more than 100 figs from around the world. Most are specialty varieties of edible *Ficus carica* figs. The genebank ensures that the genes of these figs and their wild relatives don't get lost as new varieties replace older, heirloom ones.

Part of what's formally known as the ARS National Clonal Germplasm Repository for Fruit and Nut Crops, the fig collection has been dubbed "a Noah's Ark of figs." It includes familiar and unusual varieties that thrive in warm, dry climates like California's. Figs share space in the orchard with a host of other crops—among them almonds, walnuts, olives, peaches, nectarines, and persimmons. All are under the care of curator Charles J. Simon, an ARS horticulturist.

Established in 1981, the genebank is headquartered at Davis, California, just outside the capital city of Sacramento. The orchard itself is in Winters, a short commute from Simon's office, laboratory, and greenhouses.

The collection is made up of commercially grown varieties like Calimyrna, Adriatic, Mission, and Kadota, and of unnamed stock, known only by numbers. It ranks as one of the world's largest living assortments of edible figs.

A sister collection of inedible figs from wet, humid, subtropical regions is kept at an ARS genebank in Miami, Florida. Both stations are part of a nationwide network of plant genebanks where seeds, whole plants, and other specimens of familiar crop plants and their exotic, rare, and oddball botanic cousins are safeguarded for our future. Called accessions, the plants are tended, catalogued, studied, and shared with others.

### Unique Specimens From America and Abroad

The fig collection includes more than 300 trees, ranging from 1 to 20 years old and 2 to 20 feet tall. "These are very handsome trees," Simon comments. "The bark on most of them is smooth and silvery gray. The limbs twist around quite a bit, giving the trees a somewhat sculptured look. The leaves are usually large, maybe as much as a foot in diameter. On most varieties, the leaves are attractively lobed."

This orchard extravaganza of figs constitutes the entire collection, with only one exception—*Ficus pumila*. "This relatively small, viney fig is growing up a trellis outside one of our greenhouses," Simon points out. "It was futile to grow it in the orchard with the big trees because it acts like a vine, not a tree. Without the support of a trellis, it would pretty much lie on the ground. Also, it isn't quite cold-hardy enough for our area. By putting it next to a greenhouse, it gets enough heat."

Figs were cultivated as early as 5000 B.C. in what is today the Middle East. But one of the most recent—and most important—donations to the collection came from Turkmenistan, a former Soviet republic that's just north of Afghanistan. A financially strapped research station there sent cuttings of its prized figs to Simon to ensure that they would survive—even if that station didn't.

Simon notes, "This collection of 14 figs is especially important because it comes from a region where figs are thought to originate. This group is therefore likely to harbor greater natural genetic diversity than commercial figs that, over the centuries, have had many of their traits bred out."

Other exotic figs have been donated to the genebank by members of California Rare Fruit Growers, Inc., one of the country's most active groups of professional and hobbyist growers of unusual, hard-to-find fruits and nuts.

DAVID KARP (K9934-6)



**Panachée, an unusual yellow-and-green-striped fig at the ARS National Clonal Germplasm Repository.**

Who uses the collection? “Mainly fig breeders, researchers, and nursery managers interested in finding figs suitable for their climates and customers,” Simon remarks. “We send out hundreds of cuttings every year. Most requests come from within the United States. But we’ve also sent shipments to Belgium, Belize, China, India, Israel, and Singapore, among other places.”

### **Striped Fig—Spectacular!**

“The figs most people know best are the commercial varieties that have dark flesh or pulp and are typically very sweet,” explains Simon. “But figs come

in many colors, and not all figs are sweet. Some are nearly sour.”

Their names are as varied as the fruits themselves—Brunswick, Pied de Boeuf, Pastiliere, Monstrueuse, Nazarti, Rattlesnake Island, Genoa, and California Brown Turkey, for instance.

Among the most distinctive figs in the collection, Simon notes, are Violette de Bordeaux and Panachée. “Violette de Bordeaux,” he says, “has purple skin and brilliant red flesh. It tastes like the best raspberry jam you’ve ever eaten, and is loaded with aroma, too.”

“Panachée is a robust, highly fruitful tree. But what really sets it apart from other figs is its beautiful, bright-yellow skin. Each Panachée has green stripes, called ribs, that run from the stem down to the bottom of the fruit, like the longitudinal lines on a globe. Inside, it’s fire-engine red, with a delicate, strawberry-like flavor.”

These two superb figs and all the other accessions are listed in the genebank’s online catalog, available at <http://www.ars-grin.gov/dav/ficus.html>.

Most figs grown commercially in the United States are sold for making into a sweet, rich paste for fig bars or other

baked goodies. Others are sold dried, alongside dates or other dried fruits. Still others are sold canned. And even though figs are highly perishable, some are sold for fresh-market. They can be added to a compote or used to make a warm sauce for vanilla ice cream, for example. They’re also ideal for gourmet dishes such as lemon-fig chicken, fig-walnut loaf bread, or a pizza topped with figs, olives, ricotta cheese, caramelized onions, and pancetta ham or bacon.

Turkey leads the world in fig production. The California crop—83 million pounds in 2001—is second. Figs are high in fiber and are a good source of several essential minerals, including magnesium, calcium, and potassium.—By **Marcia Wood, ARS.**

*This research is part of Plant, Microbial, and Insect Genetic Resources, Genomics, and Genetic Improvement, an ARS National Program (#301) described on the World Wide Web at <http://www.nps.ars.usda.gov>.*

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**Preserved at the National Clonal Germplasm Repository, Violette de Bordeaux figs taste and smell to some like raspberry jam.**