

C2062....CLEARWATER, FLORIDA'S GOLDEN HARVEST



SQUEEZED OUT

Florida's storied citrus industry has shrunk as a result of disease and development.

BY CRAIG PITTMAN

NOT LONG AFTER OUR FIRST CHILD WAS born, I drove to a nursery to buy a tree. My dad had planted a tree when I was born, so I was determined to do the same. He went with persimmon, but I picked one that seemed more fitting for a Florida family: a citrus tree.

What could be more Florida than that? Oranges adorn most Florida license plates. Orange blossoms are the official state flower. Orange juice is the official state beverage. There's even a county named "Orange" and another named "Citrus."

I brought home the spindly tree, dug a hole in the backyard, and set the root ball in it. The tree grew well. By the time our second child came along, it had begun producing fruit—juicy little tangerines with a sweet, sharp twang.

From time to time, I'd herd our two toddlers into the backyard to help me pick the little flavor grenades. They liked helping with the retrieval, but only my wife and I ever ate the tangerines. Our kids never enjoyed the tart taste the way we adults did.

As the boys grew older and busier with schoolwork, sports, and other activities, our trips to the backyard to gather fruit dropped to near zero. I'd still pick a batch during the growing season—

September to April, with the peak around the end of October. My wife and I would eat some, but we'd give the rest away.

Then, sometime after 2016, the tree changed. It didn't produce as much fruit, and what it did put out didn't taste very good. Soon it stopped producing anything and eventually toppled over, dead.

It had fallen prey to a bacterial disease called "greening" that began ravaging the Florida citrus industry in earnest in 2005. It was spread by a bug no bigger than a piece of orzo, and since its arrival in Florida it has laid waste to thousands of acres of groves.

By 2023, it had infected more than 1 million trees, driving many longtime growers out of business. It is the most serious of several diseases that can infect a citrus tree. That means not just backyard hobby trees like mine are at risk; the entire Florida citrus industry is in peril. As the groves disappear, so does a major totem that's long been a part of the state's image.

During the glory years of the citrus industry—the 1990s—growers harvested 240 million boxes of fruit a year. Last year's harvest, 41 million boxes, was the lowest since World War II. The most recent crop forecast predicts this year will

bring in a mere 16 million boxes.

Some growers talk confidently of overcoming the greening challenge the way they've overcome others over the years: the hurricanes that have knocked over thousands of trees, the freezes that killed crops planted too far north, the other diseases such as canker that wiped out harvests.

They're also battling an even more insidious foe: Changing American tastes. Younger consumers have stopped drinking orange juice at breakfast—or even eating a traditional breakfast in the morning. The disappearance of demand may be what ultimately thwarts any revival of the industry.

“What could possibly bring it back?” asked Florida historian Gary Mormino, who is skeptical about talk of a comeback. “Will people suddenly start to like orange juice again?”

ABOUT A TWENTY-MINUTE drive from my house, on the other side of the soaring Sunshine Skyway Bridge over Tampa Bay, there's an exit for US 19 that rolls into a stretch of rural Manatee County. On one side of the road is Rosie's Produce Market, with small signs staked out by the road advertising honey, fresh blueberries, and other delights. On the other side is a building that looks like it was zapped via a time machine from an earlier century. Out front, tacked to a power pole, is a big orange disc with a face painted on it. Out back is a grove of gnarled trees.

The Citrus Place is a family-run fruit stand in Terra Ceia, open since 1972. Its founders, Ben and Vera Tillett, had been high school teachers. They set up shop originally as a U-pick grapefruit grove. Eventually, they expanded into retail, selling a wide variety of citrus along with souvenirs, sandwiches, and fresh-squeezed juice.

The Tilletts would unlock their front door on the last Monday in October and close down the last weekend in May. Plenty of tourists always stop by, but most of their business comes from locals who crave their farm-fresh, unpasteurized orange juice.

When the couple first opened The Citrus Place, it was just one of half a dozen similar businesses in Manatee County. Now it's on the verge of becoming the last of its kind, not just in Manatee County but in nearby Sarasota County as well. Their last rival, Mixon Farms, recently announced that it is closing after eighty-five years in business

and selling the property.

“The citrus industry is in a lot of turmoil now,” said Sid Tillett, sixty-five, who started working at his parents' establishment when he was fourteen. He took charge when his father died four years ago at age eighty-seven. Greening has taken a toll on his production, too, and not just with the trees it killed.

“Even the trees that are still alive are not producing the quality or quantity of fruit that they did twenty years ago,” he said. “The virus has weakened the tree. They're not putting out as much fruit, and the fruit is not as good.”

That's the greening at work, sucking out what makes citrus so pleasant to eat. Blame that little bug that's done such a thorough job of spreading the disease.

The *Diaphorina citri*, or citrus psyllid, looks kind of like a cross between a moth and a termite. It feeds on stems and leaves of citrus trees, meanwhile passing on *Huanglongbing*, the bacteria that causes citrus greening. By attacking the tree's vascular system, the disease clogs the flow of sap and drastically reduces the transport of water and nutrients to the fruit, which turn out small and sour.

First identified in China in 1919, greening spread to Africa, Asia, and South America before reaching Florida. According to the USDA, the psyllid first turned up in South Florida in 1998, and the disease it carries was first detected in a pair of homeowners' trees in Miami in 2005. By 2014,

By 2014, citrus greening had spread to every Florida county with a citrus grove.

greening had spread to every Florida county with a citrus grove, as well as to groves in Louisiana, Georgia, South Carolina, Texas, and California.

“This disease effectively reduces the quantity and quality of citrus fruits, eventually rendering infected trees useless,” the USDA reported in 2006.

There is no cure for greening, but scientists have been experimenting with greening-resistant trees, as well as with putting bags or screens over the young trees to keep the bug out. Tillett has heard that some growers are building netted enclosures around their trees to protect them from

810 ORANGES AND ORANGE BLOSSOMS, FLORIDA



the psyllid. The cost: \$40,000 an acre. With six acres to cover, he's not sure he can handle such an expensive solution.

Does that mean the end is nigh? Tillett wouldn't speculate. But he did make one observation focused on his customers' changing tastes.

"When we first opened, the only thing we sold was grapefruit," he said. "Then our juices became the top seller. You know what's our top seller now? Our major seller is ice cream."

DESPITE ITS PERVASIVE presence among the state's symbols, the orange is not a native of Florida. Like two-thirds of the state's residents, oranges came from someplace else—specifically, Spain.

Spanish explorers carried the fruit aboard their ships because their crews could eat them to ward off scurvy. They would plant the seeds in pots on the ship and transplant the saplings wherever they landed, according to Erin Thursby, author of *Florida Oranges: A Colorful History*.

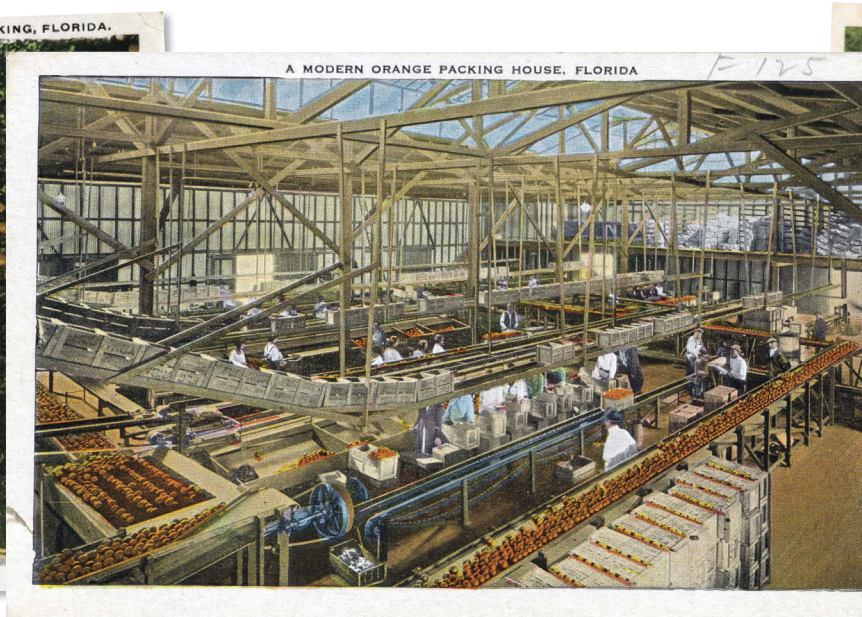
Florida's earliest groves date to 1565, when Spanish explorer Pedro Menéndez de Avilés founded St. Augustine. The groves the Spanish planted around that region were intended strictly for local consumption.

But by the late 1700s, a slippery St. Augustine businessman named Jesse Fish—described by one historian as a "land dealer, slaver, smuggler, usurer, and cunning crook"—had found a way

to send Florida oranges elsewhere. He became the first to export oranges out of state, shipping them to the Carolinas.

After the Civil War, the writer who helped start it, Harriet Beecher Stowe of *Uncle Tom's Cabin* fame, bought a house and grove near Jacksonville, in a town called Mandarin, overlooking the St. Johns River. She wrote numerous dispatches to Northern newspapers extolling the balmy breezes and lovely vegetation, calling Florida "The Mediterranean of the South." Stowe, the most popular writer in the nation at the time, urged her readers to visit her new home state to aid its recovery from the economic disaster of the Civil War. She virtually invented Florida's tourism industry—and touted its citrus, too. Local boat captains sold tickets to ride the river past her house in hopes of spotting the famous author. The visitors sometimes invaded her grove and walked off with any fruit they found.

She wasn't the only author to tout Florida citrus. In 1928, Marjorie Kinnan Rawlings, who won a Pulitzer for *The Yearling*, bought a seventy-two-acre grove near Cross Creek. In her book about her home, she talked of stepping from the impersonal highway to enter into the grove and feeling "out of one world and inside the mysterious heart of another." Present-day visitors to her home, now part of Florida's state park system, are encouraged to pluck oranges from her trees, but I have tried them, and they don't taste very good.



Every time a freeze, storm, or disease knocks out a grove, developers are waiting to make a lucrative offer to the weary grower.

WORLD WAR II changed everything, both for Florida and for citrus.

Before the war, California led Florida in orange production, but few people drank orange juice as part of their breakfast routine. Once again, though, the fruit's vitamin C content became important to fighting scurvy.

"Part of the war effort was finding ways to ship oranges to the troops overseas," said Mormino, author of *Land of Sunshine, State of Dreams: A Social History of Modern Florida*. "Before the war, they had canned orange juice but nobody liked it. Florida became the location of a Sunshine State version of the Manhattan Project."

The result of that concentrated science project: frozen concentrated orange juice, which became a hit with families thanks, in part, to the newfangled freezers sold as part of kitchen refrigerators. In postwar America, no one had time to squeeze enough oranges to make juice for their family. Now, thanks to concentrate, they didn't have to.

"The most functional sentence in the English language is: Mix with three cans of water and stir," Mormino said.

How popular was the new product? "Citrus

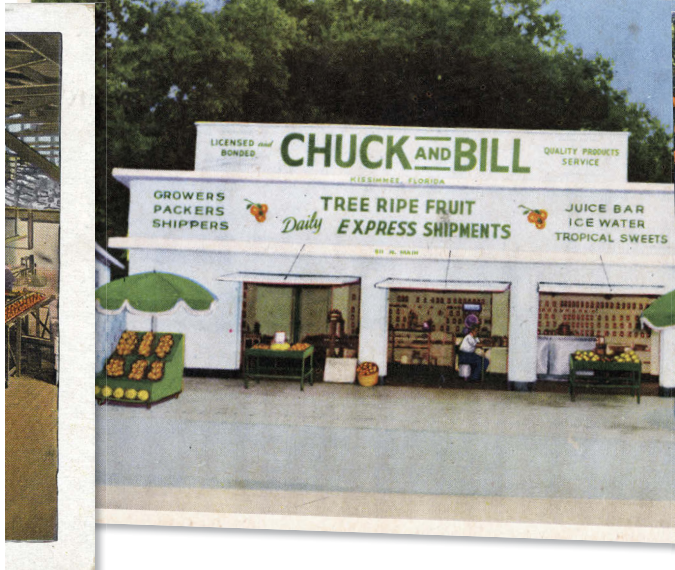
production in Florida increased from 43 million boxes in 1945 to 72 million in 1952," the Florida State Archives noted. "About half of all fruit became [frozen concentrate] in the 1950s."

Florida's citrus growers bought national ads pushing the idea of orange juice as the perfect breakfast drink, both tasty and full of health benefits. They hired celebrities such as Bing Crosby, whose endorsement boosted sales for Minute Maid for thirty years. Growers planted groves galore. About thirty minutes from Orlando, in the town of Clermont, a couple of tourism promoters built a 226-foot spire known as the Citrus Tower. When it opened in 1956, the view it offered of the orange-filled countryside was breathtaking.

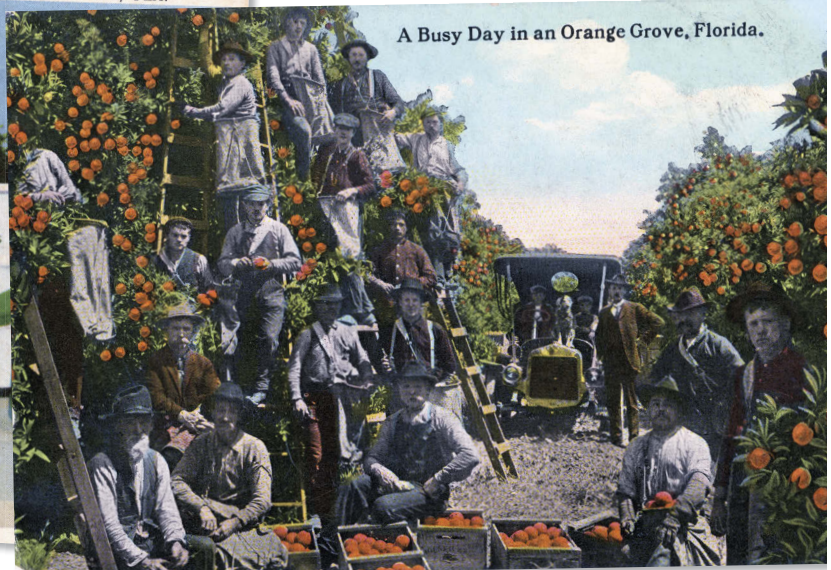
"From the top of that tower you could once see 12 to 16 billion citrus trees," said Mormino. "Today it's all gone, unless you spot one growing in someone's backyard."

THE INDUSTRY'S SHRINKAGE has been dramatic. As of 2000, Florida groves occupied 832,250 acres, according to the USDA. Twenty years later, that number has dropped by roughly

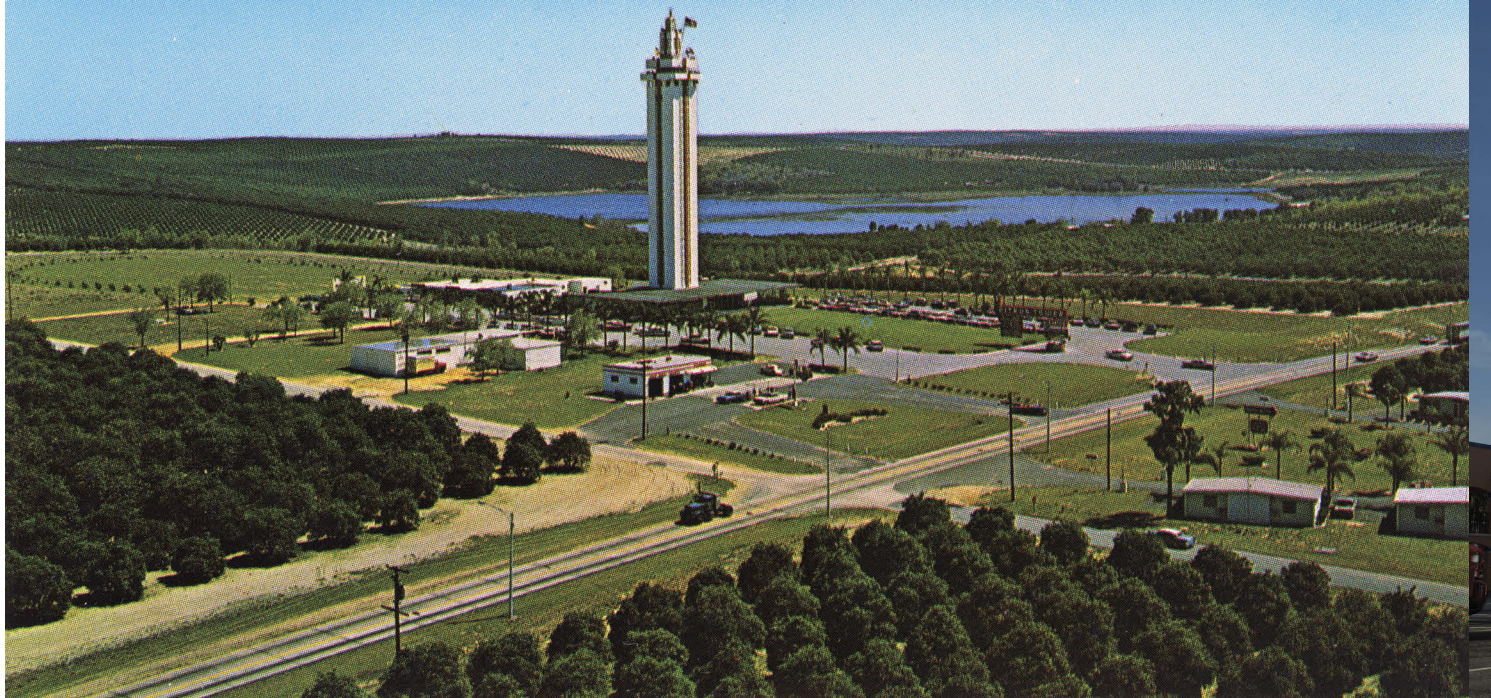
MODERN CITRUS FRUIT DISPLAY ON HIGHWAY U. S. 17, AT U. S. 192, KISSIMMEE, FLA.



A Busy Day in an Orange Grove, Florida.



Greetings from **CITRUS TOWER**



half to just 419,542 acres. Some growers, out of desperation, are trying other crops, such as olives, pomegranates, peaches, avocados, or even hops. Others are just giving up.

Freezes have knocked out some of the groves over the Florida citrus industry's lifetime. For instance, the "Great Freeze" in 1894 destroyed most of the crop. Drought and hurricanes have dealt hard blows too, particularly in recent years. Hurricane Ian's path in 2022 touched roughly 375,000 acres of citrus groves across the state, inflicting an estimated \$675 million in damages.

"Mother Nature's been pretty hard on us the last year or so," said Matt Joyner, executive director of Florida Citrus Mutual, the state's largest association of citrus growers.

Joyner, a seventh-generation Floridian, grew up working in a family-owned grove. He has watched the rise of greening and the decline in groves and production. A decade ago, Florida Citrus Mutual had 8,000 members. Now it's down to 2,000. As the oranges disappeared, a new Florida crop took their place.

"There are a lot of places that historically were nothing but citrus groves, and now you see a lot of rooftops," Joyner said. "The days of raising a family on just 200 acres of citrus are gone."

Oranges like sandy soil, and the trees sprout best in elevated spots atop ancient sand dunes in the state's central and southern peninsula. Those areas are also an ideal place to build subdivisions, shopping centers, office parks, self-storage warehouses, and apartment complexes. Every time a freeze, storm, or disease knocks out a grove, developers are waiting to make a lucrative offer to the weary grower.

When the developers take over, they tend to make a wholesale change to the character of these rural areas. For instance, in a sparsely settled spot near Fort Myers, the 4,000-acre Old Corkscrew Plantation grove used to produce one of out of every 100 oranges grown in Florida. But it went bankrupt, and a Canadian bank foreclosed on the property.

In 2016, a Texas agribusiness giant called King Ranch bought the grove for \$29.5 million and within two years was working with a developer to create a new town there called "Kingston." The plan calls for 10,000 dwelling units, 240 hotel units, and 700,000 square feet of commercial space. That's a big change for a quiet, rural area that was supposed to be kept at a low density because of its value in recharging the region's groundwater supply. Neighbors who treasure



their peace and quiet have done their best to fight the plan, calling it “nuts,” but so far the pro-development forces have won every round.

What remains of Florida’s citrus industry these days tends to fall into one of two categories, according to Joyner. It’s either part of a multinational conglomerate or a multigenerational, family-run farm of 800 to 1,000 acres that may also be involved in cattle ranching or growing other crops to make ends meet. Nevertheless, Joyner said he’s optimistic that this dwindling pack of growers will somehow find a way to bounce back from the current crisis. He’s far from alone in making that prediction.

“Our citrus industry is one of the most resilient agricultural commodities in the world,” insisted former Florida Agriculture Commissioner Nikki Fried, who served from 2018 to 2022.

But as someone who’s been drinking orange juice with his breakfast for five decades, it’s hard for me to shake the sense that this is whistling past the graveyard. Instead, it feels like, after 500 years, we’re witnessing the slow-motion demise

of Florida citrus. A lot of people now skip breakfast, according to The Food Institute, or they grab something on the go, preferring coffee to orange juice. The supposed health benefits are now regarded as mere marketing hype, with The Food Institute pointing out, “A single 12-ounce glass of O.J. contains an incredible 9 teaspoons of sugar, about the same as a 12-oz. can of Coke.”

Recently the kid whose birth prompted me to plant that long-gone tangerine tree graduated from the University of Florida law school, so my family drove up to Gainesville to cheer him on. As we zoomed along Interstate 75, we passed the usual billboards advertising roadside attractions—strip joints, fireworks stands, and so forth.

There was one in Ocala featuring citrus. I’ve been driving past it for years. Oranges used to be the centerpiece of the billboard’s design, but not anymore. Now, I noticed in passing, the big centerpiece was its live baby gators. The citrus had been shoved to the side—almost like an afterthought. The oranges cling to the edge of the sign, barely hanging on. 🍊

Florida native Craig Pittman is a former environmental reporter for the Tampa Bay Times and the author of six books on Florida topics ranging from orchids to panthers. He writes a weekly column on environmental issues for the Florida Phoenix and cohosts the podcast Welcome to Florida.