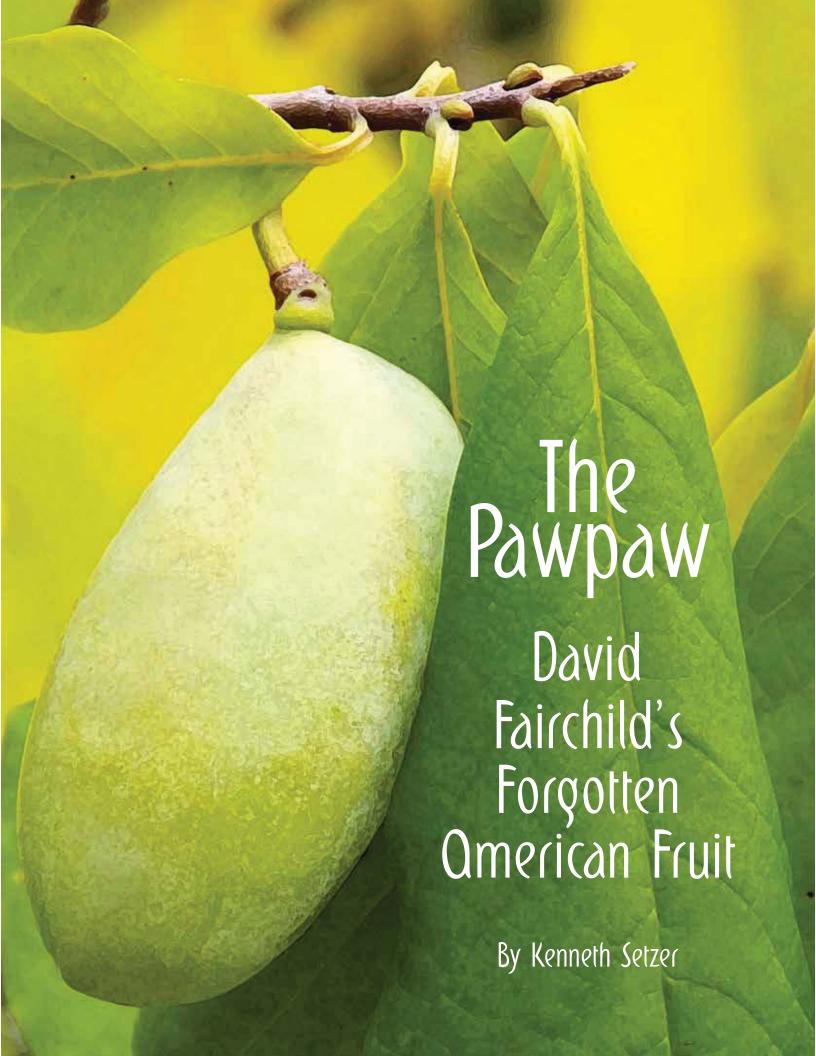
# TROPICAL GARDEN SPRING 2015

Bursts of Springtime Blossoms at Fairchild



PUBLISHED BY FAIRCHILD TROPICAL BOTANIC GARDEN





Our largest native edible tree fruit is tantalizingly out of reach, known mostly to a small coterie of rare fruit enthusiasts. In our search for bigger, better and varied fruit, why isn't pawpaw on the table?

ABOVE: Audubon's yellow-billed cuckoos along with pawpaw and zebra swallowtail butterfly. here are hundreds of edible fruits and vegetables that never reach our markets. Some are from far-flung places and not easy to transport to consumers. Some are a bit off-putting in appearance, texture or taste, and not easy to introduce to a fresh palate—they are an acquired taste. Dr. David Fairchild himself often lamented American resistance to unfamiliar foods. But the pawpaw is historically as American as apple pie (though apples aren't native to America), yet few people today have even heard of it.

The pawpaw is botanically interesting. A North American native, the common pawpaw (Asimina triloba) is in the mainly subtropical and tropical Annonaceae family, right along with pond apple (Annona glabra), soursop (Annona muricata), custard apple (Annona reticulata) and even the intensely scented ylang ylang (Cananga odorata). But the genus Asimina is the only family member to have penetrated into temperate areas, even as far north as Ontario, Canada. Asimina contains eight species and one hybrid. Though

primarily understory shrubs, common pawpaws can grow into small trees—up to about 25 feet tall. Their drooping, alternating leaves give them an out-of-place tropical look and turn golden in fall. They are the only host food source for the zebra swallowtail butterfly (*Protographium marcellus*). Pawpaw trees send up suckers, forming a small colony—a pawpaw patch. If grown solitarily in a landscape, the trees take on a pyramidal shape.

The fruit resembles papaya in shape, maturing from green to yellow-brown in early fall. The flesh is described as custard-like, the color of mango flesh, and containing several large seeds. The taste, which I unfortunately can't personally describe, is noted as a combination of mango, pineapple and banana! Others claim it's fairly bland. The crinkly, dark maroon flowers are fetid, apparently to attract their beetle and fly pollinators.

The pawpaw has intrigued and nourished quite a few people, beginning with Native Americans.

# Currently recognized pawpaw species

# Asimina triloba

Common pawpaw, the most widespread of the species, can grow throughout much of the Eastern U.S. into Canada, but is found only sporadically in the Florida Panhandle.

**A. incana (W. Bartram)**Woolly pawpaw, can be found in Central to North Florida

**A.** angustifolia (Syn. A. longifolia) Slimleaf pawpaw, found in Central to Northern Florida

### A. obovata

Bigflower pawpaw, grows in much of Central Florida, north of Glades County; a Florida endemic

### A. tetramera

Fourpetal pawpaw, natural range includes Florida's Palm Beach and Martin counties; listed as endangered by the State of Florida and Federal government

A. pygmaea (W. Bartram)

Dwarf pawpaw, found in much of

Central Florida north of Manatee County,
and two counties of Southeast Georgia

# A. reticulata

Netted pawpaw, grows in most of peninsular Florida, including Miami-Dade County

### A. parviflora

Smallflower pawpaw, found throughout the Southeast, west to Texas, and in Florida excluding southernmost peninsula

Asimina × nashii Kral [angustifolia × incana] Nash's Pawpaw, a hybrid found scattered throughout North Florida

Colonial plant explorer extraordinaire John Bartram introduced it to British horticulture in 1763. His son William describes the pawpaw in his 1791 book "Travels," writing about encountering multiple Asimina species throughout the southeast, in particular a dwarf and "very curious species." He described pawpaw fruit as containing a "yellow pulp of the consistence (sic) of a hard custard, and very delicious, wholsome (sic) food." George Washington agreed, and was fond of chilled pawpaw for dessert. Pawpaw is even credited with helping save lives on the Lewis and Clark expedition:

"... our party entirely out of provisions... perfectly contented and tell us they can live very well on the pappaws..."

William Clark, Lewis and Clark expedition—September 18, 1806

Yet, nearly a century later, Dr. Fairchild called pawpaw "the most neglected native fruit tree in America." What happened? Well, pawpaw fruit best ripens on the tree, perishes soon thereafter and is difficult to ship fresh, making commercialization unlikely. It also has a deep taproot, making transplants difficult. It is selfincompatible, and therefore needs to be hand- or open-pollinated (by animals, wind or other natural mechanisms). Plus, early European settlers brought with them fruits already cultivated over centuries for superior attributes; why invest in pawpaw?

Nevertheless, in 1916 the American Genetic Association announced in its *Journal of Heredity* a contest for best and largest pawpaw, with the hope that entries from around the country would reveal varieties, both wild and cultivated, with superior attributes. Fairchild experimented with growing seedlings from the winner—a pawpaw submitted by a Mrs. Ketter—at his "In the Woods" home in Maryland. The offspring of 'Ketter' that he found superior he named 'Fairchild.' With Fairchild's encouragement, pawpaw enthusiast Dr. G. A. Zimmerman

developed over 60 varieties beginning in the 1920s. After Zimmerman's untimely death in 1941, a small selection of his collection was donated to the Blandy Experimental Farm, but most of Zimmerman's varieties and their associated data are now lost.

Enthusiasm remains, however, as evidenced by the pawpaw research program at Kentucky State University, the Ohio Pawpaw Festival and Neal Peterson of Neal Peterson Pawpaws. Peterson has over 40 years' experience with the fruit. His search for Zimmerman's and other varieties reads like a decades-long mystery. He described to me exploring for the fruit trees: "After not finding too much of interest, I searched a 40-acre area; there I found immature pawpaws that had grown from suckers. These led to a line of adult trees—the original Zimmerman trees." Those from Blandy have served him most in developing superior fruit; for example, wild pawpaw fruit can contain up to 25% seeds, whereas Peterson's varieties, with Native American names like 'Susquehanna,' and 'Shenandoah,' contain only 4% to 8%.

With a range from Canada to Florida, west to Kansas, there's a lot of regional diversity within the common pawpaw. The other species aren't usually noted as providing palatable fruit, but they may provide rootstock or desirable qualities that could be incorporated into the common pawpaw. Tropical pomology expert William Whitman, writing "The Challenge of Pawpaws in the Subtropics" (Tropical Fruit News, February 1994), succinctly noted: "From my experience it does appear the pawpaw is not suited to South Florida culture." He suggested searching for a suitable rootstock. In "Uncommon Fruits," Lee Reich suggests "Some of the pawpaw's deficiencies could be overcome by hybridization with other members of the genus Asimina, to wit some of the Southern species."

We might just see pawpaw orchards yet.