



FOR THE LOVE OF PAWPAWS

A Look Inside of the Wonderful World of PawPaws - From Seed to Table

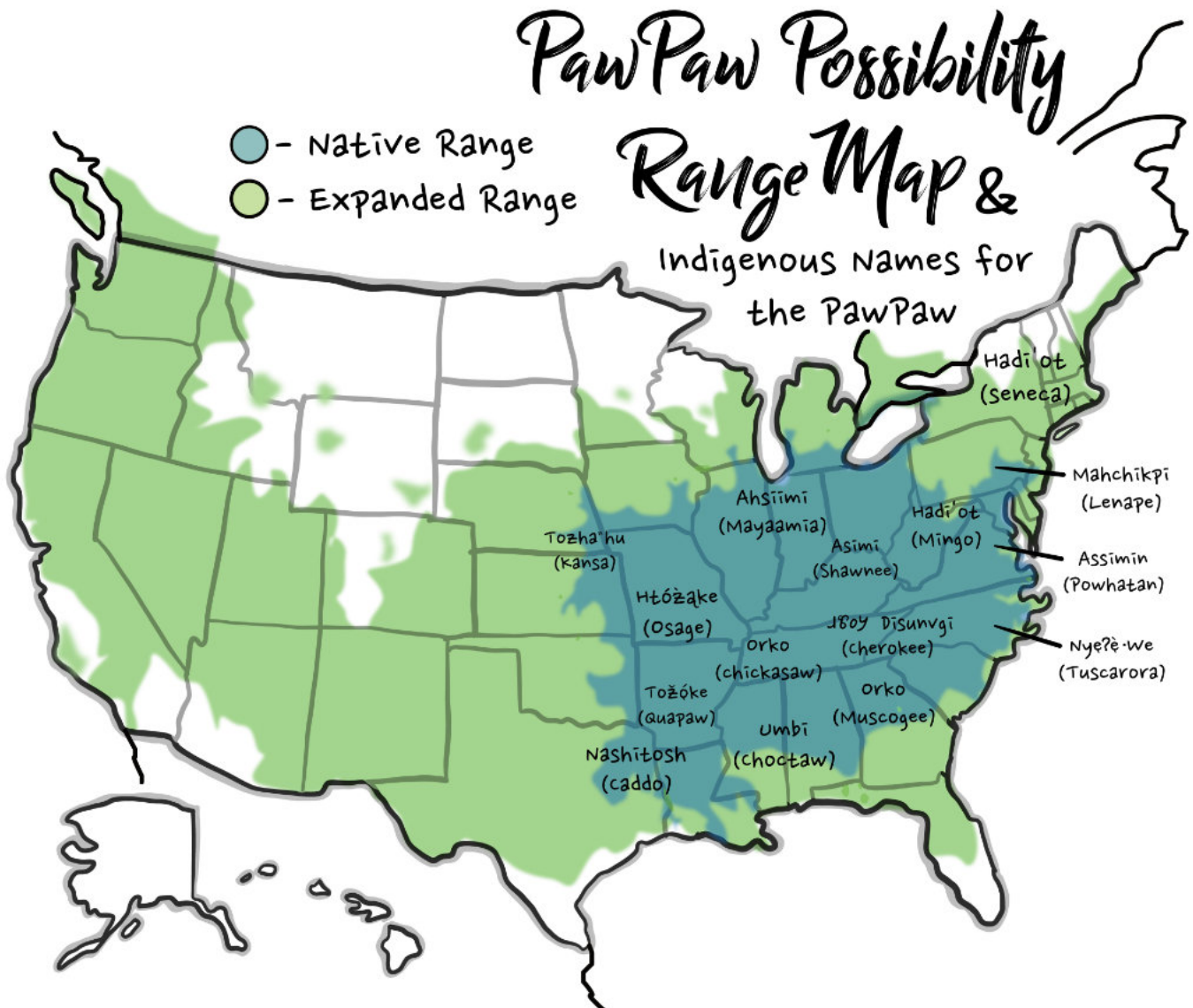


MICHAEL JUDD

A GIFT TO YOU!

WHERE O WHERE CAN THE PAWPAW GROW?

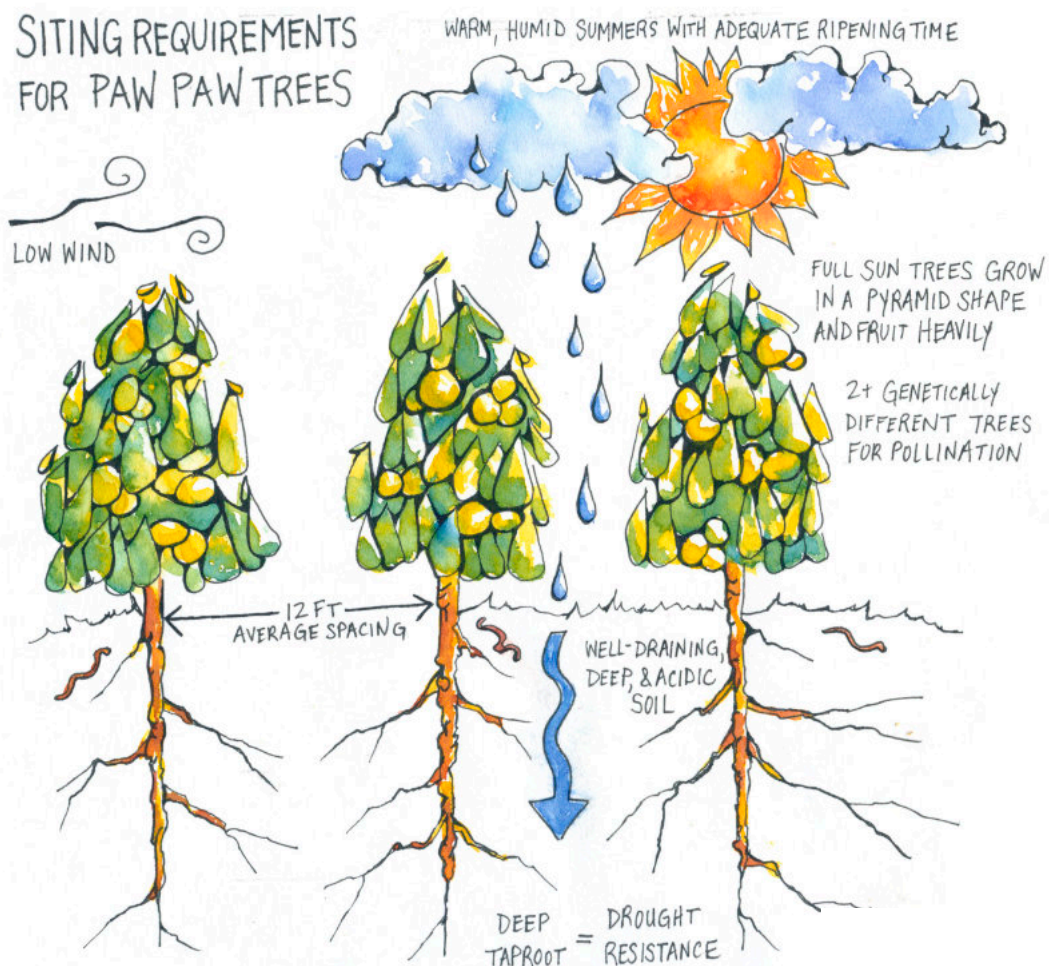
The growing range of pawpaws is expanding every year as this versatile species takes root around the globe, from southern Louisiana to Europe to South Korea and Japan.



In the United States, the pawpaw has naturalized over millennia to a broad range that encompasses 26 states from Maryland in the east to Nebraska in the west, Michigan in the north down to Mississippi in the south. The boundaries of the pawpaw's range are being quickly expanded by intrepid growers into the Pacific Northwest regions of Northern California, Oregon, and Washington, and also the New England region, including Massachusetts and Vermont. Southeastern Canadian growers are also working with pawpaw varieties to fit their short summer season.

The pawpaw tree is an amazingly adaptive species that can push new limits. The fact that the pawpaw has traveled from the subtropics into freezing temperate zones shows how ready it is for exploring new terrain. However, despite its ancient tropical ancestry, it is thoroughly a temperate zone tree. It can-not be grown in the tropics or subtropics; cultivators have attempted to grow the tree, but have been unsuccessful.

When basic needs are met, pawpaw trees are one of the easiest and carefree fruit trees you can grow.



THE CULTIVATED PAWPAW

THE 1916 PAWPAW CONTEST

In 1916, the American Genetics Association sponsored a contest seeking both the biggest pawpaw tree and the best pawpaw fruit. Fifty bucks to the winner of each category. In today's dollars, that's the equivalent to \$1,000 each. Criteria were focused on flavor, seed number and size, and how well it held up during shipment. The fruits and photos poured in, over 450 pawpaws, from a wide range of states.

The winner of best fruit came from Mrs. Frank Ketter of southeastern Ohio. The Association deemed Mrs. Ketter's pawpaw fruit a fine specimen with mild, yet rich, flavor, a good amount and quality of flesh, and of good shipping quality.

Alas, not much came from the competition to further the breeding and selecting of quality fruit; however, the genetics of the prize-winning Ketter pawpaw was taken up by famed horticulturist David Fairchild, who planted the seeds at his home in Chevy Chase, Maryland. From the seedlings, he chose the best specimens, which he then named "Fairchild"—after himself! Touché!!



TODAYS CULTIVARS

The genetics of different cultivars offer a wide range of variation, especially when it comes to fruit maturation and harvest.

Some cultivars will ripen all their fruit at once within a few days, while others will spread out ripening fruit over a month's time. Some pawpaw cultivars will soften quickly once harvested, while others will hold their firmness longer.

There are cultivars that ripen earlier than others, which is an important trait for the pawpaw's cooler regions. Some cultivars have extra thin skin that bruises easily, while others tend toward splitting with heavy rains around harvest time.

There are some cultivars that bear too much fruit, which affects long-term tree health. Luckily for you I have compiled a short list of favorites based on varying conditions and interests!

THE BOTTOM LINE

There are a variety of cultivars available to the grower, depending on the type of fruit you desire.

Milder flavors:

- Shenandoah
- Mango
- Sue
- Overleese
- KSU-Atwood

For a challenging growing site:

- Sunflower
- Mango
- PA Golden
- KSU-Atwood

Richer, full flavor notes:

- Susquehanna
- PA Golden
- KSU-Chappell

Northern-reaching climates and cool summer areas:

- PA Golden
- Summer's Delight
- KSU-Benson
- Ford Amend

Extra ornamental benefits, plus fabulous fruits:

- NC-1
- Davis
- Rappahannock
- KSU-Atwood
- KSU-Chappell
- Susquehanna

For the biggest fruits:

- Potomac
- Lehman's Delight

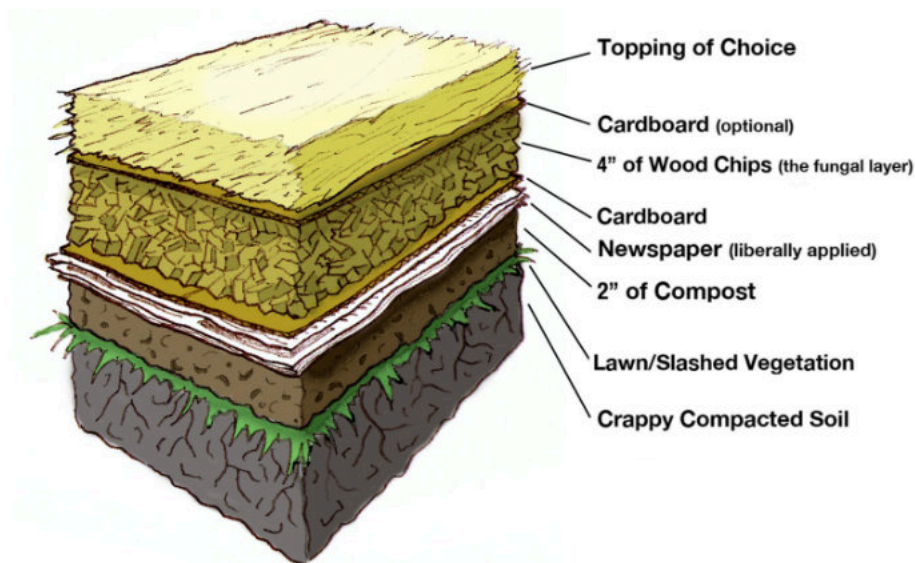
If in doubt, stick with the long-proven cultivars of Overleese, Sunflower, PA Golden, and NC-1.

READY TO PLANT?!

Planning, planning, planning can make all the difference – and save you some extra work.

Enter...

MIKES DELUXE SHEET MULCH



If time and resources allow, creating a “sheet mulch” gives the planting site a great head start. Sheet mulch is permaculture term and is similar to “lasagna gardening,” where multiple layers are placed directly on the ground in order to smother the sod, add fertility and the ability to hold moisture.

This illustration from my book, [Edible Landscaping with a Permaculture Twist](#), shows a layered approach that starts with compost and/or manure, followed by newspaper, woodchips, cardboard, and straw.

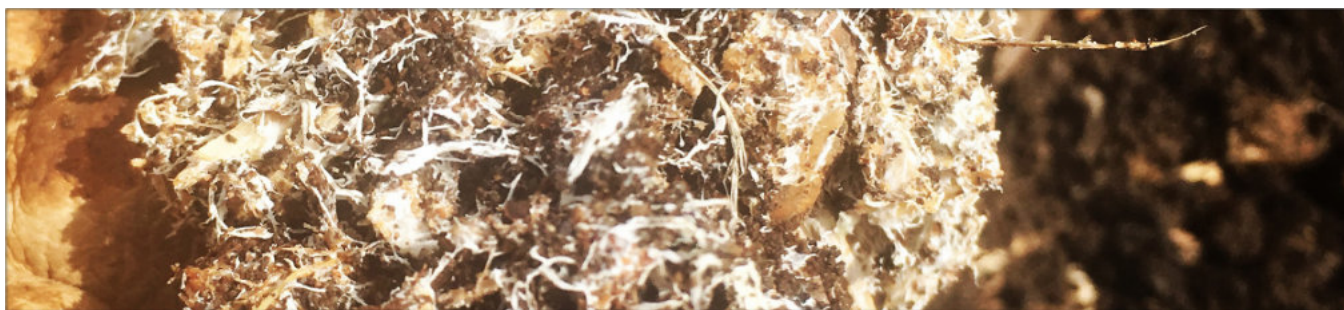
This approach jump-starts years of soil-building in one go: the compost layer provides instant food for soil life to start munching, the newspaper helps kill off the sod while attracting worms, the wood chips draw in fungi, the cardboard traps moisture for the chips to attract fungi, and the straw caps it all off for optimal moisture protection.

REMEMBER IT'S ALL ABOUT FUNGI

Creating a fungal-rich environment for your pawpaw trees above and below ground will help them thrive. Most of our fruit trees evolved in woodland settings rich in organic matter and fungi. Fungi break down organic matter into bioavailable nutrients for plants. This can be achieved by simply adding deep layers of organic material (woodchips, straw, mulch) in a 5- to 10-foot diameter around each tree. The fungal-rich environment that is created by deeply layering organic matter supports the soil food web, while helping maintain the high moisture levels where pawpaw trees thrive.

Plus, this environment also cushions the falling fruit. Be generous with your mulching, as it will quickly break down. Try to consistently maintain four or more inches of mulch, as this will dramatically reduce your long-term inputs and maximize tree health and productivity. Adding a mycorrhizal inoculant to the root zone also assures strong fungal networks that boost tree health and resilience.

Important note: Adding woodchips or other organic mulches to the surface around plantings does not lock up nutrients to the root zone; rather, this happens when undigested organic matter is mixed in with soil. Tests have shown that black walnut and cedar wood chips will not adversely affect trees when used as a mulch. So . . . mulch away!



Fungi-rich mix after a few seasons of sheet mulching

ECO-LOGICAL TREE CARE!

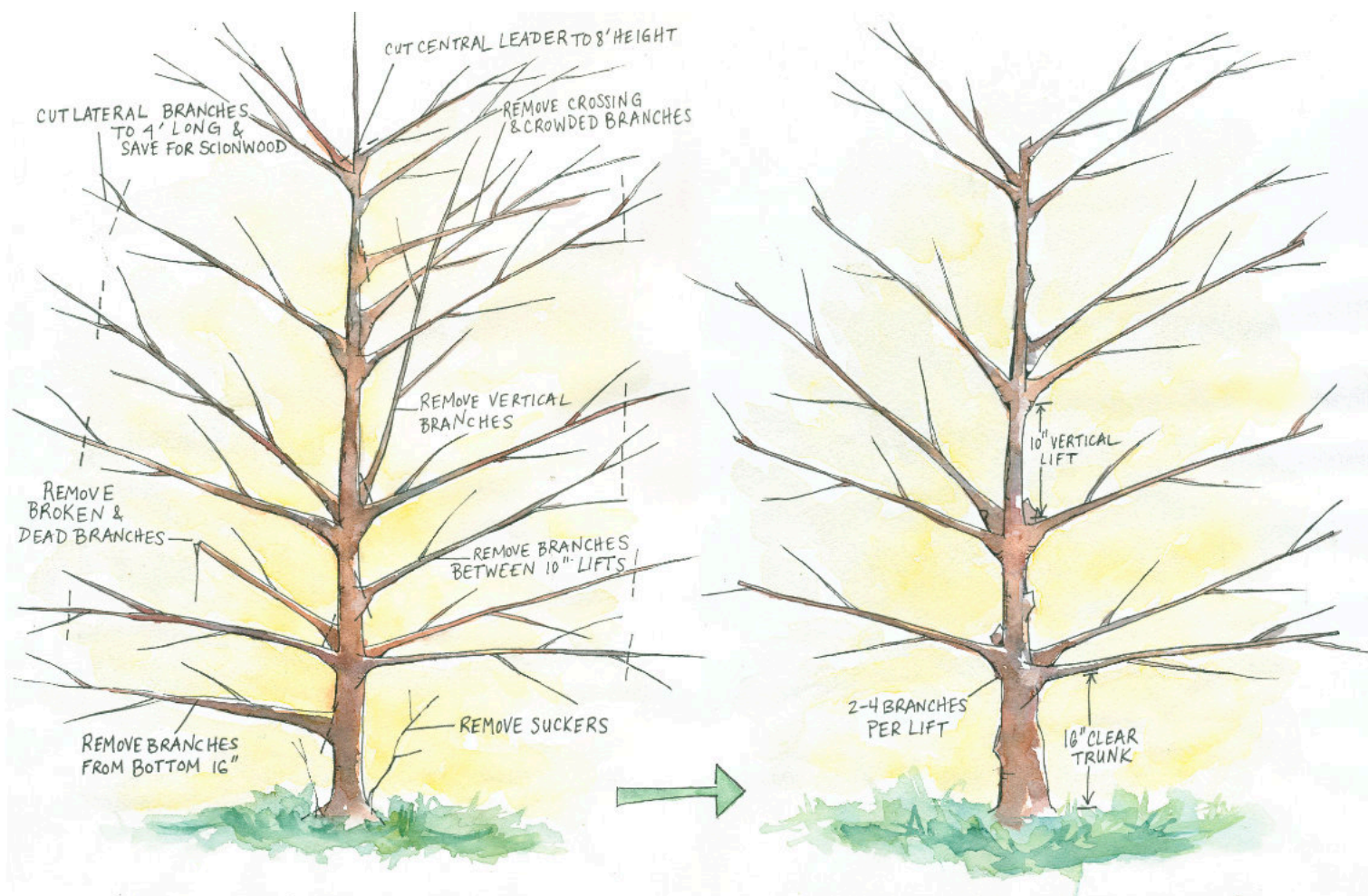
The value of early shaping cannot be overemphasized. It makes a huge difference in managing the tree for the duration of its life, balancing the tree's leaf ratio with a full, yet uncrowded, canopy.

PRUNING AND SHAPING

You do not need to prune pawpaw trees if you are okay with a full-sized tree and fluctuating harvests, and can accept dangling fruit that hang just outside your reach. We have a pair of beautiful, fully shaped 20-foot-tall pawpaw trees at our homestead that have never been pruned and, for most years, they have born much fruit. But half of that fruit is out of reach, and when it does come down, it's a smushy affair. I used to climb these trees for the tempting high-hanging fruit until one day I found myself dangling by one arm after the brittle branch I was perched on snapped! Stretching off a 10-foot step ladder can be equally dodgy. So, now I prune my pawpaw trees to around eight-feet high, where fruit can be easily picked with both my feet firmly on the ground! The moral of this little story is to keep your loved ones and yourself from undue stress by keeping your feet on the ground and the pawpaw fruit within reach!



SHAPING YOUNG PAWPAW TREES



THE BENEFITS OF PRUNING

- Improves fruit quality
- Height reduction
- Disease reduction
- Ease of harvest
- Allow close spacing
- Select strong branches
- Avoid limb and fruit rubbing

PAWPAW PICKING SEASON

Generally speaking, pawpaws have a harvest time spread out over a two- to four-week period, ranging from late summer through the first frost in autumn.

Climate, weather, location, and genetics each play a role in pawpaw harvest time, which varies from region to region. In North America, this can range from July in the warmest reaches of the Deep South to October in the coolest reaches near the Great Lakes, with September generally being the prime harvest time in central pawpaw country.

Warmth and moisture are the two biggest climatic factors affecting pawpaw fruit harvest; in any given region, the harvest dates will fluctuate year to year. For example, at our homestead in central Maryland (prime pawpaw country), we generally have long, warm, and humid summers with approximately 200 frost-free days. A typical year brings our harvest time mainly in the month of September, with the second and third week being peak; we do keep in mind that this can shift a week or two in either direction, depending on seasonal weather.

If you're not eating your freshly harvested pawpaw fruit right away, be sure to handle it carefully, as any impact will bruise the flesh. For prime grade fruit, do not pile pawpaws on top of each other; rather, place them in a single layer in your harvest bin or box, as even their own weight will cause damage—that is how easily a ripe pawpaw can bruise!



RECIPES!

Eating a pawpaw is a gustatory delight akin to taking a tropical vacation. While pawpaws are best enjoyed fresh, the rich and custardy texture, sweetness, and complex flavors make it hard to eat more than one at a time.

Before we jump into the many delightful ways to prepare the pawpaw, let's explore the flavor and nutritional nuances of this bountiful fruit..

PAWPAWS: THE ORIGINAL NUTRIENT-RICH SUPER FRUIT

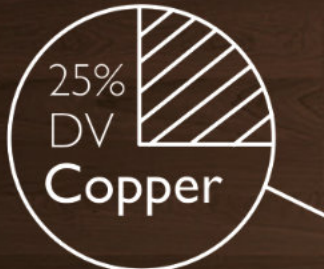
Nutritionally speaking, paw- paws are vitamin-packed antioxidant powerhouses — the original super fruit!

Let's take a quick look at how generous, gratifying, and guilt-less this super fruit is:

- Pawpaw protein contains all essential amino acids in contents higher than that of apples, bananas, or oranges.
- Full of vital vitamins and minerals, exceeding peaches, grapes and apples. It is exceptionally high in potassium, calcium, vitamin C, niacin, phosphorus, iron, zinc, copper, and magnesium.
- High in antioxidants and unsaturated fatty acids.

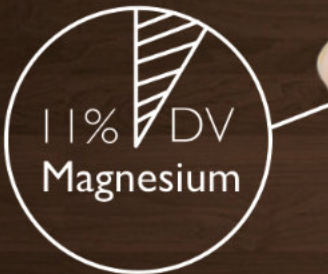


PawPaws Are Good For You!



100 Gram Serving
Or 3.5 oz

18.8g of Carbohydrates
= 80 Calories
1.2g of Protein & Fat



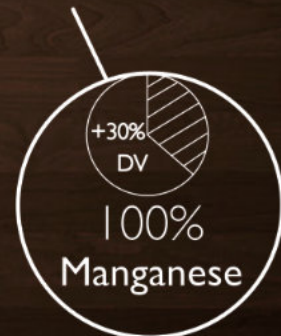
Pawpaws contain all of
the essential amino acids



3x more
potassium than an apple



10x more calcium
than a banana or apple



5-20x as much zinc as a banana, apple, or orange

PAWPAWS RECIPES GUIDELINES

Some general guidelines and ideas for working with pawpaws in recipes follow.

- Add lemon juice or ascorbic acid to the purée to keep the pulp from browning. Seal pulp well and use within 24 hours or freeze.
- Pawpaw purée can be substituted for mashed banana in any recipe, and may still taste like banana.
- Blend complimentary flavors (vanilla, cinnamon, coconut, lemon) sparingly, careful not to mask the pawpaw flavor.
- Custard and pawpaw make tasty partners. The tropical notes of the pawpaw blend well with the egg, vanilla, and sugariness of custard.
- Many recipes suggest mixing pawpaw with flour; doing so will mellow the rich paw-paw flavor.
- The quality of the fruit you start with will affect flavor, from sweet and light to musky and bitter, each which can be used as an advantage.*
- Use low heat. Do not boil or dry as a fruit leather since this distorts the flavor and can lead to tummy ache.
- For first timers trying pawpaws, eat small amounts. Like many foods, some folks are intolerant.
- Tartness can add a balance to pawpaw's sweetness.
- Mix freely with bourbon.



*One of the best pawpaw dishes I have had was a Pawpaw Tart made at star Chef Spike Gjerde's Woodbury Kitchen in Baltimore. I could tell they had used wild pawpaws because of the tannic, bitter notes that were able to survive the baking. It worked beautifully!

PAWPAW & PERMACULTURE

WHAT IS PERMACULTURE?

Permaculture is an approach to designing our landscapes based on the successful relationships we see in healthy ecosystems. First, we observe how natural patterns are working together to make a whole system thrive. We then take the outline of these patterns and apply them to our landscapes and lives to create largely self-functioning and productive systems (plantings)! That's permaculture in a nutshell.

FOOD FOREST MODEL

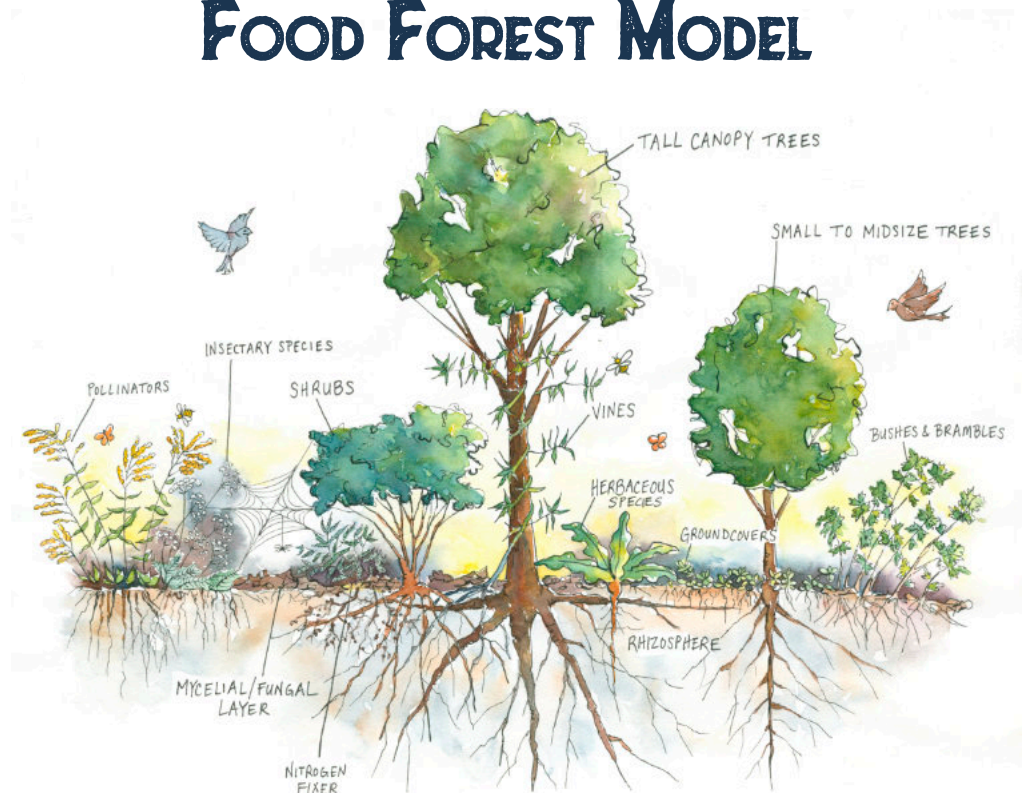
Food forests are not about growing food in the forest, but, rather, like the forest. When we look at healthy forests, we see a lot going on—overstory trees, midstory trees, understory trees, shrubs, ground covers, vines—all working as a powerful and productive collective.

If we take the observations of these successful symbiotic patterns and transfer them to our landscape planning, we are starting with nature's most dynamic design: wisdom.

So, instead of just sticking your fruit tree in a sea of grass with a dinky mulch ring, you design a mini ecosystem for your pawpaw tree planting.

You design a "guild" of companions to support its needs and set the stage for successful growth and production that is not reliant on our constant inputs.

FOOD FOREST MODEL



THANK YOU!

We hope you've enjoyed this short intro to the fantastic and amazing pawpaw.

It gets much more delicious the more you explore..

Check out the new For the Love of PawPaws Online Course



For more resources, videos, books, and courses on easy to grow fruits, mushrooms, food forests, and much much more visit:

www.Michael-judd.com

Stayed tuned to for new guides, videos and courses that will help make your life more fruitfull!

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Blessings, Michael & Ashley Judd



BECOME A PAW PAW AMBASSADOR!



WHO IS MICHAEL JUDD?

Michael Judd has worked with agro-ecological and whole-system designs throughout the Americas for over two decades, focusing on applying permaculture and ecological design. His projects increase local food security and community health in both tropical and temperate growing regions. He is the founder of [Ecologia Edible & Ecological Landscape Design](#), [Project Bona Fide](#), an international nonprofit supporting agro-ecology research, and co-founder of [SilvoCulture](#), a Maryland based nonprofit which is helping plant 1 million nut trees in the Mid-Atlantic region. He is also the author of *For the Love of Paw Paws* – book and online course.

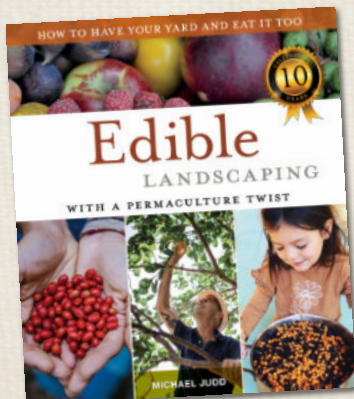
Michael lives with his family on a permaculture haven nestled along the foothills of the Blue Ridge Mountains near Frederick, Maryland. The Judds' homestead consists of 25 acres of mixed woodlands, food forests, gardens, and a nursery designed for experimentation and education.



Above: Michael Judd in a PawPaw Patch

Below: The Judd Homestead during PawPaw Fest

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