A Treatise

ON THE

PAWPAW

J. J. M. A. LITTLE

Casterbury, Indiana

Price as will
Yours truly

James A. Little
THE

PAWPAW

(ASIMINA TRIFOBA)

A Native Fruit of Great Excellence

A Great Attraction at the Louisiana Purchase Exhibition

Some Reasons why it has not been Cultivated
Directions how to Propagate it
Where found Growing
Adaptation of Soil

A GRAND FUTURE FOR THE PAWPAW AS A
CULTIVATED FRUIT

A short History of the Pawpaw in Pioneer Days
REMINISCENCES

BY

JAMES A. LITTLE,
Pawpaw and Persimmon Culturist
Carterburg, Indiana

—AUTHOR OF—

"WHAT I SAW ON THE OLD SANTA FE TRAIL" Price 50 Cents

1905
Entered according to Act of Congress in the year of our Lord 1905,
By James A. Little.
In the Office of the Librarian of Congress, at Washington.
Dedicated

to the

Indiana Horticultural Society
PREFACE

In issuing this book I have no fear of being accused of plagiarism for I never saw an article written on the subject of the pawpaw, but the critics are not all dead. So, having had a little experience I will say, if you should ever contemplate writing a book (no matter about the quality of the book) you may expect criticism, especially by your dear friends and relatives. There are four classes you will come in contact with. Of course there are a few who will sympathize with you and try to give you encouragement by wishing you success. But you will find a second class who will try to make you feel small by saying, "It's all right but don't amount to much." And still there will be a large majority of your professed friends who will treat the matter with silent contempt. They have not even learned that you have published a book, and if their attention is called to it they will not humiliate themselves so much as to look at it, as they have no time to read the "stuff"; and then if you are at all gifted you can read the inward narrowness of their poor dwarfed souls. But do not be discouraged, there is still a fourth class, but greatly in minority, that you had better fear. They are those who are informed on the subject treated. Men who are competent to judge of the merit or demerit of your production. If they endorse your book, by speaking in commendation of it; all else counts but rubbish. If others enjoy talking and writing on subjects that most interest them, you
should be allowed the same pleasure of communicating your thoughts to others. One man has the same right to write a book that any other man has.

J. A. L.
A TRIBUTE TO THE PAWPAW

Large Pawpaws on bushes grow
    Boys and 'Possums like them so
But swine, they have no appetite
    They never eat them when they're ripe.

Pawpaws grow in Indiana
    Sometimes called the Hoosier Banana
Better fruit I never saw
    Than Custard Apple or Pawpaw.

There is no fruit of such great excellence that has been so long neglected as the pawpaw. It was stated at the last meeting of the Indiana Horticultural Society that the pawpaw attracted more attention at the Louisiana Purchase Exhibition than any other fruit on exhibition. It seemed to be but little known to most people who visited that most wonderful horticultural display. So many people wanted to taste the pawpaw that the limited number of specimens on the table had to be carefully guarded. Prof. Troop of Purdue University stated that there was such a desire to sample it that a wagon load could have been disposed of easily. If its appearance and rare novelty attracted so much attention what would have been the conclusion if visitors had been allowed to satisfy their sense of taste? It is peculiarly strange that a fruit of so great excellence as
the pawpaw should be so little known or receive so little attention. Many who are acquainted with it claim that it is far superior to the renowned banana. Many people could be referred to who would say that it is the most delicious fruit known to man. To us of central Indiana it is as familiar as the apple.

The pawpaw is indigenous to central Indiana but is found growing in its natural state over a large area of country extending to the Gulf on the south and as far west as eastern Kansas. It is found along most of the rivers and small streams. It delights in rich alluvial river bottom soil. It is well adapted to black ground and sugar tree land but is also found growing on heavy clay land. In fact any place where the soil is not too wet. The trees or bushes as they are generally called grow to the height of from twenty to twenty-five feet and commence bearing from four to six years after planting the seed. They bear when from four to six feet high. The pawpaw is remarkably hardy never having been known to be affected by cold weather. There are a great many varieties. The large specimens generally grow singly or in pairs; the smaller ones set in clusters of six or eight. The fruit is generally oblong but sometimes roundish in shape. Every variety of the pawpaw has its characteristic flavor, but all pawpaws are good if eaten when in a proper degree of ripeness. There is a general opinion that white fleshed pawpaws are not fit to eat but that is a mistaken idea. They are the late ones that extend the season to early winter. They are not edible until they turn a blackish color
and the skin toughens somewhat. They are frequently found hanging on the trees as late as Christmas when their pulp is of the most delicious quality and as fine as Jersey butter. In central Indiana, the pawpaw commences to ripen about the first of September and the bulk of the crop is ripe by the last of September or first of October and lasts until early winter. Before maturity the pawpaw is green but changes to a yellow as it ripens and later turns to a dark brown. When fully matured the flesh of most pawpaws is yellow and has something of the appearance of custard; but occasionally white meated varieties are found. The pawpaw contains from five to eight seeds which are rather conical in form, flatish, about one inch in length, with a smooth surface and of a brown or chestnut color. Most people have an idea that it requires frost to ripen the pawpaw but it is a mistake. Frequently the greater part of the pawpaws is gone before there is any frost. They ripen the same as peaches. A common sized pawpaw weighs about a half pound but occasionally some will weigh three-fourths and sometimes a pound which is the largest size. Pawpaws that grow in clusters are generally smaller in size.

The reason that the pawpaw is not generally found in the market is on account of its perishable nature. The fruit does not bear handling like the banana. They may be kept sometimes if picked a little firm but are better in quality if allowed to hang on the tree until they drop to the ground. One of the characteristics of the pawpaw is that it always bears, yet there is an
occasional season when there is only a light crop on account of late frosts, but it generally bears some, as it is a late bloomer. One redeeming feature of the pawpaw is that it has no insect or fungus enemies; consequently there is no need of spraying. Stock do not browse the bush in the pasture, not even sheep have any relish for it. So we have one fruit that is immune from the ravages of blight, insect, and fungus troubles and that means a great deal to the fruit grower. Pawpaw bushes are generally found in a state of nature growing in clumps. The trees throw up suckers so that a clump of bushes is formed with the parent tree in the center of the group. The pawpaw is by nature an undergrowth. It seems to thrive best when found growing in woods that have been thinned out. Its natural situation is in virgin soil where the surface of the ground is covered with humus and dead leaves. Unlike any other fruit tree the papaw is not retarded in growth or bearing on account of close planting. The largest and most luscious fruit is found in clumps of bushes that stand so close that a cow would be hidden among them. If you enter these clumps of trees in autumn you will find the ground strewn with the finest fruit and the limbs laden to the ground. Shade is no hinderance to the quantity or quality of the fruit.

One of the strangest things is that while the pawpaw is one of the richest of fruits in saccharine matter, hogs will not eat it. There are a few persons who do not relish the pawpaw and they give as a reason that they do not eat things a hog won’t eat. They consider
that a stunner. Then I tell them that I don't eat everything that a hog eats. Chickens from some cause never touch them. Pawpaws may lie in piles on the ground and not be touched by a chicken. In fact, I do not remember of seeing any kind of a fowl eating the fruit, but opossums, coons, skunks, and squirrels eat it with great relish. I am glad that hogs do not eat the papaw. I attribute it to a wise provision of Providence that they do not eat it. Often have I gone to the woods where great herds of swine were hunting in the woods for nuts and wagon loads of the most delicious pawpaws were lying thick under the bushes. Whereas if the hogs had relished them I should have returned home with a sad heart and an empty stomach. If there is anything that ever grew below ground or above ground that is better than the pawpaw it is the custard apple which is only the Yankee name for the pawpaw. It is sometimes called the Indiana banana.

It is easy to understand why the pawpaw has not been cultivated. It is because it has always grown so plentiful in a state of nature that anyone could go out to the woods pastures and get all they could carry home, so there was no need of cultivating the trees. Farmers formerly raised no objections to pawpaw hunters trespassing, but as the timber disappears and land is put under cultivation, papaws are becoming scarce and land owners are complaining because there is a demand for the fruit and they say people had as well pilfer their apple orchards. The farmers object especially to hucksters gathering the fruit and taking it to
market. Hence it is very evident that the pawpaw will receive attention and be brought under cultivation for home and market purposes. One reason why attempts have not been made to plant the trees is that there is a prevailing opinion that pawpaw trees can not be successfully transplanted. That impression has been formed by an effort to grow trees from suckers taken from the woods. It is a demonstrated fact that suckers are hard to make live from some unexplained reason, but if shaded the first season some will grow. Trees may be grown from seed and will transplant while small but even then they start slowly. I have had perhaps more experience in attempting to cultivate the pawpaw than any one else. I have made many failures, but I feel that I have at least succeeded in learning the art which was one of the hidden mysteries of nature. The pawpaw tree is by nature an undergrowth and necessarily must be shaded when it first comes up. My plan which has been entirely successful is to make a hill like a watermelon hill and plant about five seeds two or three inches deep in the fall. In part for protection but mainly for shading the plants when they come up I place a barrel with both heads out over the hill and let it remain for a year or two. After that the barrel may be removed and then the plants will bear the sun. It must not be expected that the plants will come up until harvest or later. The plants will not get more than two or three inches high the first year, but the root will be proportionately much larger than the top. The second year the plants will grow six or eight
inches high and after that they will greatly increase in growth from year to year. It will take them about six or eight years to come into bearing.

I have been successful in grafting the pawpaw but find budding a failure. Like the persimmon the pawpaw can not be successfully budded. Trees will have to attain to some size before they are grafted. I do not think that the small seedling can be indoor budded like the apple or pear. I believe there is a grand future for the pawpaw and the persimmon. The apple, the pear, and the peach were none of them scarcely edible in a state of nature. It has taken centuries to attain the degree of excellence that they now have. But the pawpaw and the persimmon are found in a state of nature about equal to most of our cultivated fruits and far superior to many of them. I believe it is just as possible to make the same advancement with the pawpaw that has been made with any of our cultivated fruits. And just think of the wonderful results if that proves to be possible. One of the arguments is that in planting and raising seedlings, there is a great tendency to sport. Not two seedlings will bear fruit alike. Some poorer and some better than the original type. Nature is generous in giving us hints but we are slow to comprehend. By selecting trees that show improvement and then plant the seed from them, and if we can succeed in getting them out of their old habit and break up their wild nature, progression will be much faster. If a tree will simply reproduce itself from seed there is but slight hope of ever improving it.
I have experimented a great deal to find the best fertilizer for the pawpaw. It will adapt itself to the very worst treatment without complaint but no tree will respond more readily to good treatment. I find stall manure or any decayed vegetable matter is acceptable, but potash (wood ashes) I find is one of the best fertilizers that can be applied. It not only stimulates wood growth but the fruit is greatly improved in quality. I find that potash greatly improves all kinds of fruit. I have sweetened sour grapes to such an extent that in comparison with the same variety, which had not been treated with an application of potash, it was claimed to be a different variety. I by accident discovered that plaster from an old building is by far the greatest fertilizer that I have tried for the pawpaw. I told Prof. Rayland T. Brown, of my discovery and he said he had discovered the same thing. All who remember him know what an enthusiast he was on the pawpaw. He said he liked all kinds of fruit from a sour Morillo cherry up to a pawpaw. He had the trees growing in his door-yard. He said that in China old plaster was considered so valuable as a fertilizer that they could afford to remove it and replace it. I will allow others to give the philosophy of the problem. All I know is that I got the old plaster from an old church at Cartersburg when they were remodeling it and was first class.

The plan to adopt in the cultivation of the pawpaw would be the planting of seed from the best varieties that are found. Trees will be grown from seed
of the best and there will be a gradual improvement in quality of fruit. I have made it a point to look out for the best varieties in the country, and collected seed and planted some every year with the result that I have a number of trees that bear fruit that are hard to excel. I have produced one that I consider superior to any other I have ever seen. I have named it THE UNCLE TOM. It is the first pawpaw I know of that has been named. It is quite as large as any I have ever seen and one of the most delicious in flavor. It ripens the middle of September and lasts fully a month. I have kept them until cold weather. It is a splendid bearer I have to prop the limbs. In fact, the limbs have broken with the load of fruit. The fruit sets singly and in pairs. The tree is nine years old and fifteen feet in height. I am planting seed from it with a hope of producing a variety that may prove superior to it. I feel confident that no fruit is more susceptible of improvement than the pawpaw. I intend to devote a portion of my time to developing it and then someone else will continue its cultivation. My dooryard consists of an acre of ground. I have eight bearing pawpaw trees growing in it besides a clump of about fifteen or twenty small trees that are all doing well. I intend to allow them to come into bearing and then top work those that are not of the best quality. In addition I have an orchard of them that occupies about four rods of ground. The trees are about twenty years old and stand very close together. I have just been out and counted them. I find there are just about one-hundred trees. They are
all suckers that come from a parent tree that occupies the center. The trees are as nature arranged them and allowed to take care of themselves but every year I count on a number of bushels of nice pawpaws.

I have the distinction of planting the only regularly laid out pawpaw orchard of which we have any knowledge. I planted it for Judge Hadley of Danville, Indiana. The Judge is a great lover of the fruit. He had an old garden which was very rich that he wanted to appropriate to growing a pawpaw orchard, but he had been told repeatedly that it was an impossibility to make the trees grow. When I told him that I could grow pawpaw trees, he at once contracted with me to plant him an orchard. I planted the seed ten years ago last Fall, October, 1895. The trees have been in bearing four or five years. It was a great success. I visited it while the fruit was ripe last Fall. I think there must have been near fifty bushels of pawpaws on the trees and on the ground. The limbs were loaded and bending to the ground with fruit. I laid off the ground and made the hills similar to watermelon hills, and planted five or six seeds in each hill. I then placed old barrels with both heads out over each hill, in part for protection but mainly to shade the plants. I allowed the barrels to remain the second year for, as before stated, the pawpaw plants cannot survive even one day's hot sun. The trees are now quite large. They would average fifteen feet in height and branched from the ground up. The residence and orchard now belong to Jasper W. Thompson, a jeweler
of Danville, Indiana. He places an estimate of five hundred dollars on his pawpaw orchard. I planted selected seed and the fruit is of the best quality. Part of the pawpaws at the Louisiana Purchase Exposition were furnished by Mr. Thompson, and they attracted a great deal of attention.

The principal use of the pawpaw is to eat from the hand but there are other uses that it can be put to. It makes splendid custard pie. There is no finer dessert than pawpaw eaten with cream and sugar. It is used to make beer the same as the persimmon by putting the fruit in a jar, mashing it, and putting water on and letting it stand until fermented. It also answers to make pudding just the same as persimmon pudding is made. It is also said that brandy equal to peach brandy is made of pawpaws. Marmalade which is equal to that made of pears or peaches may be made of pawpaws. The custard may be spread on a board and dried like pumpkin leather. Pawpaws may be kept in their natural state till midwinter or longer by laying them down in oats. At this present date, January 27, Mr. Thompson has them down in oats that are just as good as when taken from the tree.

If the pawpaw tree bore no fruit, as an ornamental tree it would attract considerable attention. Its upright head with its broad magnolia like foliage would furnish a striking contrast if interspersed with other trees and shrubs. If small sized trees were required it would supply the demand. Besides it blooms. It has a purple blossom similar to a miniature holly-hock
bloom. The fruit does not detract any from its appearance but is rather a horticultural novelty, especially to those who are not accustomed to seeing it. All things considered, I know of no fruit tree that will add more pleasure and profit than the pawpaw. In the first place it is one of our most exellent fruits, perfectly adapted to any situation; has no insect enemies; always bears; more trees may be planted to the acre without crowding than any other fruit tree; fruit sells higher in the market than bananas; comparatively very few people have ever tasted or even seen the fruit; consequently there will be a great range for marketing the fruit. Five or six hundred trees may be planted on an acre of ground without over crowding. After an orchard has been established, there will never be any transplanting to do in a hundred years. So I will conclude by saying, plant the trees and nature guided by a kind Providence will do the rest.
History of the Pawpaw in Pioneer Days

As an article of food I can think of no fruit that is more nourishing than the pawpaw. During the season of ripening I always eat heartily of this fruit and never experienced any inconvenience from so doing. In fact it satisfies hunger when one is in need of food. In the year 1860, I was living in Southern Kansas where I assisted in laying out the town of Neosho Falls. We were confronted by the worst drought that was ever known in Kansas. It continued about eighteen months. The Neosho River dried up and ran no water for quite a while. No farm products had been raised in the country. Settlers were in a starving condition. A good many people left the country. Providentially there was one of the greatest pawpaw and nut crops ever known in the Neosho bottoms. In the Fall when pawpaws were ripe a great many of the settlers partly subsisted on pecan nuts and pawpaws, of which there was a great abundance. Some of us spent a good deal of our time out in the woods with our hammers cracking nuts and eating pawpaws. Many of the settlers were from the northern and eastern states and had never seen or even heard of the pawpaw. Col. Goss who laid out the town of Neosho Falls was first
to introduce the pawpaw as dessert to be eaten with cream and sugar. Indians were frequently in camp on the river and they were great lovers of the pawpaw. Nature seems to have been generous in providing the Indians with one of the most delicious fruits which has not required so many years of patience and toil to improve as it did with the apple, pear, and peach. A similar condition as above stated existed in Indiana during the Pioneer days. We can never realize what a great blessing the pawpaw was to the first settlers while they were clearing the great natural forest and preparing to build cabins. Planting fruit trees was rather an experiment for a number of years. The pawpaw and a few other wild fruits of less value, were all their dependence so far as fruit is concerned. Well do I remember sixty or more years ago my father would take his gun and basket and go to the woods and return in the evening loaded with pawpaws, young squirrels, and sometimes mushrooms of which he was very fond. But there will never be a recurrence of those days which were the happiest of my life.
REMINISCENCES

Fruits of all kinds that succeed in this latitude have been under discussion before the Indiana Horticultural Society since its organization in 1860. I became a member in 1863. The pawpaw has received, perhaps, less attention than any other fruit. During the forty-one years I have been in attendance, I can not call to mind but two members who have championed the cause of the pawpaw in their public utterances, and now at this late date when it seems to be coming to the front as one of our most worthy domesticated fruits, I feel that they should receive special attention. The members I refer to were Prof. Rayland T Brown of Indianapolis, and W. H. Ragan. All the old members remember Dr. Brown. He was one of the most familiar characters that attended the Society. He was a leading educator of his day. And like the Society's first president, 'Uncle' Reuben Ragan, he was a born naturalist. He was at one time State Geologist. He scarcely ever attended a horticultural meeting without praising the good qualities of the pawpaw. It was one of his leading hobbies. The other member above referred to was Prof. W. H. Ragan who is now in the
employ of the Government as an expert in Horticultural Nomenclature. Mr. Ragan has always been interested in the pawpaw. He embraced every opportunity to express his regret that so promising a native fruit should be so long neglected and no attempt made to improve it. I will mention others who are making a study of the pawpaw. Benj. Buckman of Farmingdale, Ill. is propagating and experimenting with the pawpaw. Geo. Remsbury of Oak Mills Kan. is writing a paper on the pawpaw. Also Prof. M. A. Barber of Kansas State University, is making a study of the pawpaw.