The common persimmon (*Diospyros virginiana* L.): The history of an underutilized fruit tree (16th–19th centuries)

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Abstract

The fruit, bark and wood of the common persimmon (Diospyros virginiana L.) has a long history of use in the New World. The first written description of the persimmon was by the "Gentleman of Elvas" in his account of the de Soto expedition (1539-1543). Early reports by the Spanish, French and English described the persimmon as a type of plum or medlar. Persimmons were employed by Native Americans, early European colonists and later Americans for both food and medicine. Persimmons were consumed fresh, dried like prunes, made into "bread," and used to make pudding and pies. Unripe persimmons are very astringent and were avoided. Persimmons were also used to make alcoholic beverages such as beer and brandy. During the American Civil War, members of the Confederacy found many additional uses for the persimmon. The seeds were made into buttons and also roasted and ground to produce a coffee substitute. Syrup was made from the ripe fruit, and green fruit was used to make ink. Persimmons have been used medicinally as an astringent and antiseptic and for the treatment of uterine hemorrhage, diarrhea and dysentery, diphtheria, dropsy, fevers, gonorrhea, hemorrhoids, syphilis, and thrush. Persimmon wood is hard and heavy and has been used to produce gunstocks, shoe lasts, planes, chisel handles, screws, mallets, wedges for splitting tree trunks, the shafts of carriages, the heads of golf clubs, engravings, cogs for saw mills and shuttle blocks for cotton looms. Dye could be made using the bark. Common persimmons never caught on as a horticultural crop and were eclipsed at the end of the 19th century by the recently introduced larger fruited Japanese persimmon or kaki (Diospyros kaki L.).

Introduction

To counteract the baleful effects of this opiate of our nature, wit and humor were created in order that man might sometimes bask in the sunshine of happiness, and shake off the lassitude caused by his having sucked green persimmons in the early days of life—Anonymous (1864a).

When European explorers and settlers came to the New World, they encountered a flora that was a mixture of both the familiar and the alien. A fruit tree that was new to them was the common persimmon (Diospyros virginiana L., family Ebenaceae; Fig. 1). This species ranges from southern Connecticut and Long Island in the north, south to the tip of Florida, and west to eastern Kansas, Oklahoma and Texas (Fig. 2). It is a medium sized tree (Fig. 3) generally 9-18 meters in height, but under optimum conditions may grow to 21-24 meters. The tallest persimmons listed in the National Register of Big Trees are in Missouri and South Carolina and are both 40.2 meters in height. The common persimmon is dioecious. with the fruit formed on female trees. Flowers are small and bell shaped, ranging in length from 10 millimeters (male) to 15 millimeters (female), with the petals fused for most of their length. The fruit is a berry, with enlarged persistent sepals, ranging in size from 1.9 to 5.1 centimeters in diameter, containing one to eight seeds. The leaves are simple, glossy and arranged alternately along the twigs (Little 1980; Brown and Brown 1984; Halls 1990).

Early reports (16th-18th centuries) of persimmons by both the English and French often described them as a type of medlar or as being similar to a medlar (Harriot 1588; Lescarbot 1609; Hamor 1615; Parkinson

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1629; Lawson 1709; Joutel 1714; Brickell 1737¹; Castiglioni 1790; de Laudonnière 1869; Chauchetière 1900; Gravier 1900; Marest 1900; Strachey 1953). The medlar (Mespilus germanicus, family Rosaceae) is a small deciduous tree native to Europe and Asia Minor. The earliest description of the persimmon was by an anonymous author known as the "Gentleman of Elvas" in his 1557 narrative of Hernando de Soto's (ca.1500-1542) expedition through what is now the southeastern United States (1539-1543).² The Portuguese text was first translated into English by Richard Hakluyt (1552-1616) in 1609 as Virginia Richly Valued by the Description of the Mainland of Florida (Hakluyt 1846). Persimmons are mentioned numerous times. In Hakluyt's translation they are referred to as "plummes," while a later translation by Buckingham Smith (Bourne 1904) keeps the original Portuguese "ameixas:"

Fig. 1. *Left*, colored engraving of *Diospyros virginiana* showing a leafy branch plus a single fruit and seed from Michaux (1817).

Fig. 2. *Below,* [the] northern limit of *Diospyros,* New Haven, Connecticut (Photographer, George E. Nichols, 1882–1939, lantern slide undated; American Environmental Photographs Collection, [AEP-CTS50], Department of Special Collections, University of Chicago Library).



The *ameixas* are of two sorts, vermillion and gray, of the form and size of walnuts, having three or four stones in them. They are better than any plums that are raised in Spain, and make much better prunes.

The vermillion ameixas are persimmons, while the gray ameixas are most likely papaws (*Asimina triloba*). Persimmons appeared to be an integral part of the diet of the Indians of the southeastern United States at the time of European contact, along with maize, beans, pumpkins, and walnuts (Bourne 1904).

The earliest written description of the persimmon in English was by Thomas Harriot (Hariot, 1560–1621) in *A Brief and True Report of the New Found Land of Virginia* published in 1588:

Medlars a kind of verie good fruit, so called by us chieflie for these respectes: first in that they are not good untill they be rotten: then in that they open at the head as our medlars, and are about the same bignesse: otherwise in taste and colour they are farre different: for they are as



Fig. 3. *Diospyros virginiana*, Lima Lake, Illinois (Photographer, William J. Cribbs, lantern slide undated; American Environmental Photographs Collection, [AEP-ILS283], Department of Special Collections, University of Chicago Library.).

red as cheries and very sweet: but whereas the cherie is sharpe sweet, they are lushious sweet.

Thomas Harriot was a member of the Roanoke colony in Virginia (1585/86) and along with John White surveyed the area from the outer banks of North Carolina to the mouth of the Chesapeake Bay. Harriot's book is the earliest English publication on the New World (Quinn 1974).

The first use of the word persimmon was in 1612 by William Strachey (1572?–1621) in *Historie of Travell into Virginia Britannia*. Other common names included putchamins (Smith 1612, 1624), pissmienplums (Hamor 1615), pishamin and Virginia plumme (Parkinson 1629), and persimenas (Plantagenet 1838). W. R. Gerard (1896) listed other spellings including pushemin, pichamin, pessemin, puchamine, parsemena, pissmien, putchimon, pitchumon, phishimon, possimon, and parsimmon. Gerard suggested that the prefix was from the Algonquin pos, meaning to choke, while the suffix was from *men*, meaning fruit, thus a "choke-fruit," referring to the astringent nature of the unripe fruit. The French in Louisiana and Illinois referred to the persimmon as a piaguimina (Joutel 1714), piakimine (Binneteau 1900) or piakimina (Gravier 1900; Marest 1900). These were the Native American words for the persimmon in this region. Constantine Samuel Rafinesque (1783–1840) (1841) listed a number of common or "vulgar" names including seeded plums, winter plums, yellow plums, guaiacan, and pishmin. Henri Louis Duhamel du Monceau (1700-1782) in his Traité des arbres et arbustes (1755) stated that the French called this tree the plaqueminier or piaqueminier. In the "Traité de la formation de la langue" (Hatzfeld et al. 1890), plaqueminier is listed as a Créole word. Thus, plaqueminier/piaqueminier is probably derived from piaguimina/piakimine/ piakimina.

Carolus Linnaeus (1707–1778) gave us the modern scientific name for the common persimmon in his Species Plantarum (1753), Diospyros virginiana. The scientific name in the Linnaean sense was, however, Diospyros foliorum paginis concoloribus, with Disopyros being the generic name and foliorum paginis concoloribus being the specific name (nomen specificum legitimum). Linnaeus described virginiana as the trivial name (nomen triviale), our modern specific epithet. In Species Plantarum, Linnaeus also included the many different scientific names by which the common persimmon was previously known, and where they had been published (Fig. 4).

Food

In 1909, Henry John Elwes (1846–1922) and Augustine Henry (1857–1930) stated that the fruit of the persimmon "... is little valued

: CTP-DIOSPYROS. 1. DIOSPYROS foliorum paginis discoloribus. Lotus, TETA Diospyros foliis utrinque bicoloribus. Roy. lugdb. 441. Diospyros foliis utrinque diverse coloratis. Hort. cliff. 149. Lotus africana latifolia. Bauh. pin. 447. Pseudo-Lotus. Cam. epit. 156. B. Lotus africana angustifolia f. femina. Baub. pin. 447. Lotus africana altera. Cam. epit. 157. bon. Habitat in G. Narbonenfi, Italia, Mauritania. 5 Confr. Si f. Kaki. Kampf. aman. 85. t. 86. 2. DIOSPYROS foliorum paginis concoloribus. virginiana, Diospyros foliis utrinque concoloribus. Hort. cliff. 149. Roy. Ingdb. 441. Diofpyros floribus dioicis. Gron. virg. 156. Gua-XXX Guajacana loto arbori affinis virginiana Pishamia dicta. Pluk. alm. 180. t. 244. f. 5. Raj. hift. 1918. Guajacana. Catesb. car. 2. p. 76. t. 76. Loti africanæ fimilis indica. Baub. pin. 448. Habitat in America Septentrionali. 5

Fig. 4. Pages 1057-1058 from Carolus Linnaeus' Species Plantarum, vol. 2 (1753).

as human food, though eaten by animals." This was not always the case, as both the Native Americans, early European colonists, and later Americans frequently consumed the persimmon. John Smith (1580–1631), in *A Map of Virginia* (1612), reported: "The fruit like meddlers they [the Powhatan] call *Putchamins*, they cast upon hurdles on a mat and preserve them as Pruines." The Powhatan were part of the Algonquin linguistic group.

Persimmon loaves (or bread), a foodstuff of the Native Americans, were described in both the Narratives of the Career of Hernando de Soto (Bourne 1904) and the "Cañete fragment" (Lyon 1993), part of a larger lost narrative describing de Soto's expedition (written by Fray [Father] Sebastian de Cañete sometime in the early 16th century):

... and loaves like bricks, made of the pulp of *ameixas*, which Soto receiving, gave him thanks and again entreated him to land (Bourne 1904).

... plums, very good, and from them they make loaves like quince-sweet... (Lyon 1993).

In a 7 August 1694 letter from Father Claude Chauchetière (Society of Jesus, Villemarie [Montréal]) to his brother Father P. Jean Chauchetière (Society of Jesus, Limoges, France), he mentioned persimmon bread:

I send you a piece of bread which has come from a place 500 leagues from here. It comes from the ilinois country; it is made from medlars or services, and has a very good taste (Chauchetière 1900).

In 1701, Jacques Gravier (a Jesuit missionary) reported receiving persimmon bread from a Quapaw chief: "He made me a present of 2 loaves of piakimina, which I distributed among the [F]rench." Gravier reported that persimmons were also eaten fresh and that it was "... the most delicious fruit that the savages³ have from the Ilinois to the sea..." (Gravier 1900). Whole families would go into the forest to collect persimmons. Duhamel du Monceau (1755) described the making of persimmon "galettes" or bread:

... one mashes the fruit through a strong sieve which separates the flesh from the skin and seeds: the flesh being reduced by boiling to a thick paste and then makes long bread loaves of a foot and half in length, a foot wide and as thick as a finger. Then the bread is left out in the sun to dry or it can be cooked on a grill over a fire. These galettes have the best taste when left out in the sun to dry.⁴

John Bradbury (b. 1768) reported in *Travels in the Interior of America, in the Years 1809, 1810, and 1811* (1819), that he was given persimmon bread or "cake" made from persimmon pulp and corn while visiting an Osage chief in present-day Missouri. The Osage called this "staninca." Both the Osage and Quapaw are in the Dhegiha Siouan linguistic group.

Mark Catesby (1683–1749) in *The Natural History of Carolina, Florida and the Bahama Islands* (1754) described the taste of persimmons that had been allowed to dry on the tree limbs: "...the Fruit having then lost much of its watery Parts, is shriveled, candied, and very luscious, resembling in Taste and Consistence Raisins of the Sun."

Although ripe persimmons are excellent fruit, unripe persimmons provide an altogether different experience. John Smith (1612) wrote: "... if it be not ripe it will drawe a mans mouth awrie, with much torment, but when it is ripe, it is as delicious as an Apricock." Also in 1612 William Strachev in Historie of Travell into Virginia Britania wrote: "... when they are not fully ripe, they are harsh and choakie, and furre a man's mouth like allam ..." (1953). The astringent nature of unripe persimmons has been reported by many other authors (Parkinson 1629; Beverly 1705; Lawson 1709; Brickell 1737; Miller 1754; Kalm 1773; Castiglioni 1790; Pursh 1814; Michaux 1817; Barton 1818; Rafinesque 1841; Trux 1855; Bryant 1871; Spelman 1872; Anonymous

1895; Treat 1897). It was long believed that persimmons were only edible after they had experienced a frost (Kalm 1773; Castiglioni 1790; Pursh 1814; Michaux 1817; Barton 1818; Bishop 1878; Treat 1897), but this is not, however, the case as there is considerable variation in ripening time amongst different trees (Catesby 1754; Bryant 1871; Anonymous 1895; Troop 1895). J. Troop stated: "Our best persimmons ripen without frost, contrary to the general opinion that no persimmon is fit to eat until it has been well frozen."

In 1612 Strachey reported that he had seen the colonists in Virginia "... put them [persimmons] into their backed an sodden puddings..." (1953). John Smith reported feasting on persimmons among other foods in his Generall Historie of Virginia, New-England and the Summer Isles published in 1624. Pehr Kalm (1716–1779) mentioned that persimmons were generally eaten raw (1773). Francis Peyre Porcher (1825–1895) reported the persimmon fruit "... when mashed and strained through a coarse wire sieve, makes delightful bread, pies, and pudding" (1863). Troop (1895) stated that persimmons were "... good when eaten from the hand; better with cream and sugar, and they are best of all when made into a pudding, as is done in North Carolina."

Millie Evans, a former slave born circa 1849 and living in Arkansas when she was interviewed in 1936 for the Federal Writer's Project, gave a recipe for persimmon cornbread:

Sift meal and add your ingredients then your persimmons that have been washed and the seeds taken out and mash them and put in and stir well together. Grease pan well and pour in and bake. Eat with fresh meat (Evans 1936).

She also gave a recipe for persimmon pie:

Make a crust like you would any other pie crust and take your persimmons and wash them. Let them be good and ripe. Get the seed out of them. Don't cook them. Mash them and put cinnamon and spice in and butter. Sugar to taste. Then roll your dough and put in custard pan, and then add the filling, then put a top crust on it, sprinkle a little sugar on top and bake.

Animal food

Persimmon fruits provided food for wild animals such as opossums, raccoons, bears and squirrels (Fig. 5), and various birds; also domesticated animals such as cows, dogs, hogs, sheep, chickens, ducks, geese and turkeys (Dumont de Montigny and Le Mascrier 1753; Catesby 1754; Michaux 1817; Porcher 1863; Bishop 1878; Anonymous 1896; Worth 1975). The love of persimmons by black bears (Ursus americanus) was described in Mémoires historiques sur la Louisianel by an anonymous author based



Fig. 5. Colored engraving of *Diospyros virginiana* (*Guajacana*) showing a leafy branch with flowers and fruit plus *Glaucomys volans* (southern flying squirrel) from Catesby (1754).

on the notes of M. Dumont (Dumont de Montigny and Le Mascrier 1753):

They [black bears] are very fond of the persimmon fruit; they have no difficulty whatsoever climbing up these trees. When they climb up, they straddle one of the branches and hold it between their paws. They then grab other branches and pull off the persimmons.

Because of the fondness of opossums (*Didelphis virginiana*) for persimmons, this tree is sometimes called possum wood. An old folk song (origin unknown) called "Cotton Field Song" (Lomax and Lomax 1934) illustrated the love of both opossums and raccoons for persimmons:

Possum in a 'simmon tree, Raccoon on de groun', Raccoon ask de possum To shake dem 'simmons down.

Another song called "Old Bob Ridley" by W. Loftin Hargrave (1853) also mentions the relationship between opossums and persimmons:

A possum sot [sat] in a 'simmon tree, A look in cunnin down at me; I took a rock, all on the sly, And I hit him zip right in the eye!

In Fisher's River (North Carolina) Scenes and Characters, by Hardin E. Taliaferro (1811– 1875), a woman describes herself as "... happy as a 'possum up a 'simmon-tree ..." (1859).

Alcoholic beverages

Went out & got my Chrisday dinner. Also got some cakes & persimmon beer—Robert T. Douglass (1863).

A plantation song (origin unknown) also described drinking persimmon beer in the South at Christmas (Hunter 1894):

Apple cider, 'simmon beer, Christmas comes but once a year.

One of the most common uses of the persimmon was in the brewing of persimmon beer. Robert Beverly (ca.1673–1722) in *The History and* *Present State of Virginia* published what appears to be the earliest description of persimmon beer: "The poorer sort brew their Beer with [...] Persimmons dried in Cakes, and baked..." (1705). Thus typically persimmon beer was made with persimmon bread. Pehr Kalm in his *Travels into North America* (1773) noted that both the English and Swedish colonists brewed persimmon beer. Kalm also provided the first detailed description of the brewing process:

... persimon apples are put into a dough of wheat or other flour, formed into cakes, and put into an oven, in which they continue till they are quite baked, and sufficiently dry, when they are taken out again: then, in order to brew the liquor, a pot full of water is put on the fire, and some of the cakes are put in: these become soft by degrees as the water grows warm, and crumble in pieces at last; the pot is then taken from the fire, and the water in it well stirred about, that the cakes may mix with it: this is then poured into another vessel, and they continue to steep and break as many cakes as are necessary for a brewing: the malt is then infused, and they proceed as usual with the brewing. Beer thus prepared is reckoned much preferable to other beer.

The loaves were typically made with wheat (Charleston [South Carolina] Mercury 1861; Porcher 1863; Felter and Lloyd 1898), but sometimes corn (Edgeworth 1860). Isaac Bartram (1725-1801) also mentioned that persimmon beer was made in the southern states (1771). Detailed recipes for persimmon beer appeared in Luigi Castiglioni's Viaggio negli Stati Uniti (1790), François André Michaux's The North American Sylva, Vol. 2 (1817), Mary L. Edgeworth' s The Southern Gardener and Receipt Book (1860), the Charleston (South Carolina) Mercury (1861), and Francis Peyre Porcher's Resources of the Southern Fields and Forests (1863). Castiglioni wrote that persimmon beer had a "... sweet and heady flavor and keeps on improving in quality even after a long time" (1790). Porcher (1863) reported that "... persimmon beer manufactured in Orangeburg district, S. C., by the Hon. J. M. Felder, equalled the best sparkling 'Jersey Champagne.'" Locusts, sweet potatoes as well as apple peelings were sometimes added to improve the flavor (Kalm 1773; Edgeworth 1860; Porcher 1863). In a narrative about his life for the Federal Writer's Project, Nick Waller, an "old" African-American, described the making of persimmon beer by his mother:

That old persimmon beer was half of our living. Us chillun would gather persimmons by the bucketfulls. Mother would cook 'em with wheat bran and make it out into the big pones that she used to make the beer mash and she put lots of locusts in it. That beer was really good and so refreshin' after a hard day's work (McCune 1939).

The locusts mentioned are probably the fruit of the honey locust (Gleditsia triacanthos) as both Michaux (1817) and Porcher (1863) reported that beer was made with the fruit of this tree. Persimmons were also sometimes added to corn beer (Edgeworth 1860). Although in most cases persimmon beer was made using persimmon bread, it could also be made using fresh persimmons (Porcher 1863; Evans 1936). The alcohol content of persimmon beer is difficult to ascertain. Porcher (1863) reported that persimmon beer made with persimmon bread "... makes a very strong beer," while the beer brewed from fresh ripe persimmons contained no alcohol. In some parts of the Confederacy, persimmon beer was known as "possum toddy" (see Animal food) (Gordon 1888).

Wine was also made from persimmons (Kalm 1773; Rafinesque 1841). Rafinesque recommended removing the skin before making wine from persimmons "... as it contains too much astringency." Duhamel du Monceau (1755) reported that a Norman immigrant in Louisiana made a good cider from persimmons. Persimmons have been used to make brandy. Brandy is produced by either the distillation of wine (from grapes) or the liquid produced by the fermentation of other fruits (Schery 1972). Pehr Kalm (1773) was the first to describe the making of persimmon brandy:

... having collected a sufficient quantity of persimons in autumn, they are all together put into a vessel, where they lie for a week till they are quite soft: then they pour water on them, and in that state they are left to ferment of themselves, without promoting the fermentation by any addition. The brandy is then made in the common way, and is said to be very good, especially if grapes (in particular of the sweet sort) which are wild in the woods, be mixed with the persimon fruit.

Isaac Bartram was enlisted by the Philosophical Society of Philadelphia to undertake experiments on the production of brandy from persimmons in an effort to lessen their dependence on West Indian rum. Bartram (1771) gave detailed instructions on the production of persimmon brandy. He suggested that farmers each set aside 50 acres of land for the planting of 300 persimmon trees, whose production of brandy could net the farmer a profit of thirty pounds per year if sold for two shillings per gallon. Bartram wrote:

Were we to extend this calculation to what every fifty acres of cultivated land in this province *only* would produce, we should find that we might soon become independent of the West-Indies, for the expensive article of rum, and thereby yearly save many Thousand Pounds to this colony.

George Mason (1725–1792) known as the "Father of the Bill of Rights" in America had persimmon brandy distilled on his Virginia plantation (John Mason ca.1830s). A few years later, however, François André Michaux (1770–1855) wrote:

... it will be impossible to derive profit from the Persimon in these modes [for distilling brandy etc.], and in the country where it is most abundant a few farmers only employ its fruit occasionally for their households. The Apple Tree and the Peach Tree are far more advantageous, as their growth is more rapid and their produce more considerable (1817).

Interest in producing brandy from persimmons was reignited during the American Civil War. The *Columbus (Ga.) Enquirel* (1862) suggested that an "agreeable" brandy could be produced from persimmons, while the *Southern Banner* (Athens, Ga.) (1863) published a recipe for persimmon brandy, stating that a half-gallon of brandy could be made from a bushel of persimmons, and that "... distillation is the same as for other brandies or whiskey." Francis Peyre Porcher (1863) stated: "I am informed by a friend that the persimmon makes a particularly fine brandy."

Vinegar

Porcher (1863) reported that a "... beautiful white wine vinegar..." could be made from persimmons using "... three bushels ripe persimmons, three gallons of whiskey, twentyseven gallons of water."

Coffee

During the American Civil War, both civilians and soldiers of the Confederate States fell on hard times due to a blockade of southern ports by the north and the disruption of agriculture and commerce. Particularly hard felt was the lack of coffee. By 1864, the Mobile (Ala.) Register and Advertiser (1864) reported that coffee was selling for 10 to 15 dollars per pound. In his "Domestic economy of the Confederacy," D. Dodge, writing after the war, stated that: "... no privation caused more actual discomfort among the people at large than the want of it [coffee] ..." (1886). Among a great variety of materials including chicory root, corn, cottonseed, dandelion seed, melon seed, okra seed, peanuts, rice, rye, sugar cane seed, sweet potatoes, toasted hard tack, and wheat, persimmon seeds were also used as a

coffee substitute (Porcher 1863; Charleston [S.C.] Mercury 1864; Dodge 1886). One of the strangest coffee substitutes was reported in the Mobile (Ala.) Register (1864), which suggested that a substitute for coffee could be made with "... parched ground peas, and now and then a cockroach thrown in." Many newspapers claimed that persimmon coffee was as good as real coffee: the Southern Banner (Athens, Ga.) (1863), the Daily Intelligencer (Atlanta, Ga.) (1863), the Montgomery (Ala.) Weekly Advertiser, (1863; 1864), the Charleston Mercury (1864), and the Mobile (Ala.) Register and Advertiser (1864). A column in the Montgomery (Ala.) Weekly Advertiser (1863) stated that "... the seeds of the persimmon when roasted and ground produces a beverage, which cannot, even by old and experienced coffee drinkers, be distinguished from genuine coffee." A recipe for preparing persimmon seeds appeared in both the Southern Banner (Athens, Ga.) (1863), and the Daily Intelligencer (Atlanta, Ga.) (1863). The seeds were boiled to remove any mucilaginous materials and then roasted. In order to produce a smoother tasting beverage, it was suggested that two parts dried sweet potato be added to one part persimmon seed.

Syrup

The following was reprinted from the December 1863 *Wilmington Journal* in *Scientific American* under the heading "Southern News:" "We transfer a valuable receipt to our columns, hoping that our enterprise will be appreciated by our readers. Every one can now indulge in 'persimmon sirup,' if they can only procure the p'simmons …" (Anonymous 1864b). The recipe was as follows: "Put the persimmons in a vessel and boil until the saccharine material is fully dissolved, which can be told by the coagulation of the fruit; then strain, and boil the liquid to any desired consistency." This syrup was claimed to be better than that produced from sorghum.

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Ink

Persimmons were used to make indelible ink. The *Bellville (Tex.) Countryman* (1863) printed instructions on how to make ink from persimmons:

Green persimmons, say twelve of them, mash them, pour on water enough to cover them. Boil over slow fire and not boil them too much, add in a small piece of copperas. This ink will not change color and cannot be washed or rubbed out.

Copperas is the protosulphate of iron or ferrous sulphate and was commonly used in making ink. It was also called green vitriol (OED Online 2003). A very similar procedure was published in Mary Ann Bryan Mason's *The Young Housewife's Counsellor and Friend: Containing Directions in Every Department of Housekeeping, Including the Duties of Wife and Mother*I (1875). She called it Gordon's indelible ink.

Buttons

Persimmon seeds were also used to make buttons during the American Civil War. The *Southern Banner* (Athens, Ga.) (1863) and the *Daily Intelligencer* (Atlanta, Ga.) (1863) suggested that persimmon buttons were very strong: "If you use them for buttons, the washer woman will hardly break them with her battling stick."

Medicine

The persimmon has been widely used as a medicinal plant throughout its range since at least the 18th century. During the American Civil War, the Medical Purveyor's Department, Little Rock, Arkansas, was paying 20 cents per pound for persimmon bark taken from roots (Weekly Arkansas Gazette [Little Rock] 1862; Arkansas True Democrat [Little Rock] 1862a), while the Medical Purveyor's Office of the Confederate States of America was paying 25 cents per pound for the inner bark of the trunk, branches and roots (Savannah [Ga.] Republican 1862; Charleston [S.C.] Mercury 1862; Southern Watchman [Athens, Ga.] 1862). The Confederate States of America, Surgeon-General's Office (1862) said that root bark was preferable to that from young twigs. Because of the difficulty in obtaining drugs, the Confederacy looked to indigenous plants as a source of medicine (Hasegawa 2000).

John Lawson (1674–1711) wrote: "The Fruit, if ripe, will presently cleanse a foul Wound, but causes Pain." (1709). Rafinesque (1841) also reported that persimmon fruits were antiseptic and equivalent in its effect to Jesuit's bark (*Cinchona*). Both Rafinesque (1841) and Cook (1869) suggested that persimmon could also be used for the treatment of external ulcers. Persimmon (both fruit and bark) was generally recommended as an astringent (Porcher 1863; Welch 1883; Felter and Lloyd 1898).

Rafinesque (1841) and Mahoney (1849) reported that the inner bark was used as a general styptic. The common persimmon was also useful in treating uterine hemorrhage (Gronovius 1739–1743; Porcher 1863; Felter and Lloyd 1898). Other illnesses treated with persimmon included diarrhea and dysentery, diphtheria, dropsy, fevers, gonorrhea, hemorrhoids, syphilis, and thrush.

Diarrhea and dysentery

Persimmon was recommended for the treatment of both diarrhea and dysentery. Both fruits (usually unripe) and bark were recommended (Castiglioni 1790; Rafinesque 1841; Porcher 1863; Mason 1875). Dumont de Montigny and Le Mascrier (1753) and Duhamel du Monceau (1755) reported that persimmon galettes were an effective treatment for diarrhea (see *Food*). Rafinesque advocated using a tonic made from the inner bark of persimmon with the addition of

rhubarb (*Rheum* spp.), while the *Mobile (Ala.) Register and Advertiser* (1862), *Arkansas True Democrat* (Little Rock) (1862b) and Porcher (1863) recommended persimmon syrup made from the juice of unripe persimmons with the addition of sugar. The *Mobile (Ala.) Register and Advertiser* (1862) wrote: "If our soldiers in camp would adopt this remedy many long cases of chronic dysentery might be prevented." Mason (1875) suggested lozenges made from green persimmons, red oak bark, blackberry preserve syrup, gum arabic and sugar; "Let the patient eat three or four each day."

Diphtheria

Rafinesque (1841) suggested that a tonic made from the inner bark of persimmon was useful in "... ulcerous sorethroat [diphtheria]." Diphtheria is caused by the bacterium *Corynebacterium diphtheriae*. The *Montgomery (Ala.) Weekly Advertiser* (1862), the *Southern Bannerl* (Athens, Ga.) (1862) and the *Southern Confederacy* (Atlanta, Ga.) (1862) suggested the following treatment for diphtheria:

Take a handful of alder root, the same quantity of dogwood root, and the same quantity of the bark of persimmon root. Boil them with a pint of vinegar down to a half pint, then add a very little water, a small lump of alum and a little honey, use as a gargle.

Porcher (1863) reported: "The inner bark is used [...] with alum as a gargle in ulcerated sore throat." Alum is another astringent used medicinally. William H. Cook (1832–1899) in *The Physio-Medical Dispensatory* (1869) and Harvey W. Felter (1865–1927) and John U. Lloyd (1849–1936) in *King's American Dispensatory* (1898) also recommended that a persimmon "wash" or "gargle" was useful in treating diphtheria.

Dropsy

Rafinesque reportedly stated that "... an infusion of the seeds is good in dropsy" (Cook

1869). Dropsy is an old name for congestive heart disease. The most common treatment for dropsy was the leaves of the purple foxglove (*Digitalis purpurea*). William Withering (1741–1799) wrote about his experiments using floxgloves (an old folk remedy) in *An Account of the Foxglove and Some of Its Medical* Uses: With Practical Remarks on Dropsy and Other Diseases (1785).

Fever

John Lindley (1799–1865) in *An Introduction* to the Natural System of Botany (1830) stated that persimmon bark acted as a "febrifuge," which is "... a medicine adapted to drive away or to reduce fever; hence, a cooling drink" (OED Online 2003). Rafinesque (1841) reported that the inner bark was "... much used in Carolina and Tennessee for intermittent fevers [malaria]." Porcher (1863) and Cook (1869) also recommended persimmon for these fevers. William Cook (1869) stated that it was more effective in this regard than *Cornus florida* (flowering dogwood).

Hemorrhoids

James W. Mahoney (1849) reported that a decoction made with persimmon was "... an excellent remedy in cases of piles ..." (see *Sexually transmitted diseases* for decoction).

Sexually transmitted diseases

Persimmon along with a number of other plants was used to treat sexually transmitted diseases (Mahoney 1849). The "clap" or gonorrhea is a sexually transmitted disease caused by the bacterium *Neisseria gonorrhoeae*. After cleansing the bowels, Mahoney recommended a decoction made from five pounds of sumac (*Rhus* spp.) root, two pounds of red root (?), a double handful of blackberry (*Rubus* spp.) or dewberry (*Rubus flagellaris*) root plus a double handful of persimmon bark, preferably from the root. This was to be boiled in 12 gallons of water and reduced to a half gallon. This decoction along with one made from sarsaparilla (Aralia nudicaulis) was to be drunk until all signs of discharge ceased. A treatment for "venereal disease" or syphilis (caused by the bacterium Treponema pallidum) was a decoction made from two pounds white sumac (Rhus glabra), one pound may apple root (Podophyllum peltatum), a half pound of devil's shoe string (Tephrosia virginiana) and a quarter pound of persimmon root bark. This was then boiled in four gallons of water, strained and then administered in a half-gill (one eighth of a pint) dose, thrice daily.

Thrush

Thrush is a fungal infection caused by *Candida albicans*. Mahoney (1849) in *The Cherokee Physician, or Indian Guide to Health* believed that thrush was "... caused by a foul stomach and bowels." In Cherokee, thrush was known as "Oo-hah-lah-go-huh-skee." A mouth rinse made from the inner bark of the persimmon plus ashes from a chimney was recommended as part of the treatment. This mixture was boiled and then sweetened with honey, and it could be improved with the addition of borax (Na₂B₄O₇). Cook (1869) also recommended a persimmon "wash" for thrush.

Wood and bark

The wood of the persimmon is very hard and heavy, with yellowish white to green sapwood and brown to black heartwood (Parkinson 1629; Michaux 1817; Rafinesque 1841; Bartlett 1848; Porcher 1863; Bryant 1871; Elwes and Henry 1909). Parkinson (1629) stated that the wood was brittle, while Michaux (1817) was told that the wood "... is liable to split."

Persimmon wood has been used to make planes, chisel handles (Kalm 1773), screws, mallets, shoe lasts, wedges for splitting tree trunks, and the shafts of carriages (Michaux 1817). In fact, Michaux stated that persimmon wood was "... preferable to the Ash and to every other species of wood except the Lance Wood [Duguetia spp.] of the West Indies, and that the difficulty of procuring stocks of the proper size alone prevented it being more frequently applied to this use ..." (1817). The problem was not a lack of trees, but of a lack of large trees for this purpose. An article in Scientific American (Anonymous 1860) titled "The 'last' manufactury at Richmond" described the making of shoe lasts from persimmon wood. Persimmon logs were obtained by Wortham and Company of Richmond, Virginia, from the Chickahominy Swamp, and as many as 500 lasts could be manufactured from a single log.

Persimmon wood was excellent for making gunstocks, only surpassed by walnut and maple (Porcher 1863). Porcher also stated that the wood was used for manufacturing engravings. Cogs used in the "Clipper Mill," a type of sawmill, were also made of persimmon wood (Liddell Company 1890). Barnes (1898) said that persimmon wood was used to make the heads of golf clubs, but along with dogwood was inferior to beech. In 1901 the *Daily Review* (Decatur, Ill.) reported that persimmon shuttle blocks, for cotton looms, manufactured in Chattanooga, Tennessee, were exported to England.

A number of other writers (Bartlett 1848; Bryant 1871; Anonymous 1879) also reported the uses of persimmon wood, but their work appears to have been taken from Michaux (1817). Luigi Castiglioni (1790) wrote that persimmon was also good for fire wood and that its ashes were rich in alkali. Alkali was important for the making of soap.



Fig. 6. Diospyros virginiana, Lima Lake, Illinois, showing close up of trunk (Photographer, William J. Cribbs, lantern slide undated; American Environmental Photographs Collection, [AEP-ILS282], Department of Special Collections, University of Chicago Library.).

The bark of the persimmon is dark and deeply furrowed or fissured (Fig. 6) (Michaux 1817; Nicholson 1888). Along with its medicinal uses (see *Medicine*), persimmon bark was used to make a dye, "... the color depending on the mordant used" (Porcher 1863).

Games

Lawson (1709) described a game he called Indian dice, which was played with persimmon seeds in North Carolina:

They have several other Plays and Games; as, with the Kernels or Stones of Persimmons, which are in effect the same as our Dice, because Winning or Losing depend on which side appear uppermost, and how they happen to fall together.

Andrew M. Davis (1833–1920) in his book Indian Games (1886) stated that this was a version of Hubbub that was earlier reported by Ogilby in 1670 (probably 1671):

Hubbub is five small Bones in a small Tray; the Bones be like Die, but somewhat flatter, black on the one side and white on the other, which they place on the Ground, against which violently thumping the Platter, the Bones mount, changing Colour with the windy whisking of their Hands to and fro; which action in that sport they much use, smiting themselves on the Breasts and Thighs, crying out Hub Hub Hub ... (Davis 1886).

The name Hubbub was given to this game by the early colonists (OED Online 2003).

Cultivation

The common persimmon was introduced into England prior to 1629, as trees growing there were described by John Parkinson (1567–1650) in *Paradisi in Sole Paradisus Terrestris* (Fig. 7): "The Virginia Plumme [...] hath growne with us of the kernels that were sent out of Virginia, into great trees ..." (1629). Duhamel du Monceau (1755) also reported that persimmons were grown in France and that the roots of young plants were mulched in the autumn as a precaution against freezing.



Fig. 7. Portion of a woodcut showing a leafy branch of *Diospyros virginiana* (the Virginia plumme) with both flowers and fruit from Parkinson (1629).

Luigi Castiglioni (1757-1832) stated that persimmons were readily propagated from seed and numerous trees were grown by him in Lombardy (a region in northern Italy) (1790). In 1888, George Nicholson (1847-1908), writing in the Gardeners' Chronicle, reported that a large persimmon was growing in Kew Gardens, England. This tree was believed to have been presented to King George III (r. 1760–1820) by the Duke of Argyle. Archibald, the Duke of Argyle, was known as "the treemonger" (Anonymous 1888). This tree was 60 feet (18.3 m) tall, with a crown spread of 38 feet (11.5 m) and a trunk 5 feet 2 inches (1.6 m) in girth. Sadly, this tree is no longer found at Kew (Kevin Frediani, Windsor Great Park, pers. comm.).

Bartram (1771) suggested "... that the cultivation of the *Persimon Tree* is an object worthy of the attention of our farmers, as it promises great profit to themselves, and a still greater advantage to the community in general." Castiglioni (1790) was probably the first to suggest that the taste and size of the fruit could be improved under cultivation:

I hope that by planting the seed and cultivating this tree in rich and fertile soil, by espaliering it like the other fruit trees, and perhaps grafting it repeatedly upon itself, its fruit will abandon its disgusting bitterness and become larger and more tasty.

Rafinesque wrote: "... the Persimmon has not yet been cultivated, although no fruit deserves it better: it promises to improve in flavor and size under the care of the gardener..." (Rafinesque 1841). A number of other 19th-century authors also suggested that the persimmon could be improved by selection and cultivation (Elliott 1824; Bartlett 1848; Bryant 1871; Anonymous 1895; Troop 1895; Treat 1897). In *Garden and Forest* (1895), an anonymous author wrote that a number of varieties of persimmons were available, and that the persimmon "... seems destined to become a genuine addition to our orchard fruits." Some varieties ripen as early as August and as late as October or November, with others reaching maximum flavor in midwinter (Fig. 8). Two of the best early ripening varieties were Golden Gem and Early Golden. Early ripening varieties sold for as much as six to eight dollars a bushel (Troop 1895). Troop also reported that experiments were underway in both Indiana and Illinois to improve the persimmon by "... increasing the size and reducing the number of seeds and improving its flavor." Both Anonymous (1895) and Troop (1895) stated that persimmons were resistant to both insects and fungi. Why then was the persimmon so neglected? In "The raspberry"

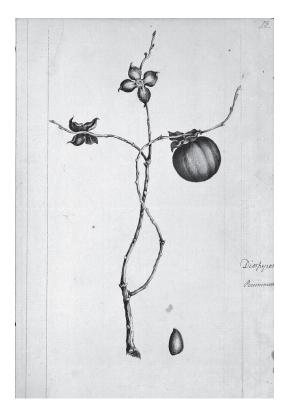


Fig. 8. Colored drawing showing a leafless branch with fruit and a single seed; by William Bartram (1739–1823), undated. From the Benjamin Smith Barton Papers 1789–1815, American Philosophical Society, Philadelphia, PA.

published in 1848 in *Scientific American*, an anonymous author wrote:

Although there are several American varieties [raspberries], they are as much inferior to the new improved European sorts as a persimmon is to the most delicious peach.

Is it that persimmons fell out of favor with the American consumer when access to other more desirable fruits became readily available?

Troop (1895) reported that because sucker sprouts and seedlings were traditionally propagated, there was considerable variation in survivorship, fruit quality or even ability to produce fruit. Also, "... it requires a long time for the trees to come into bearing." Finally, several authors (Bryant 1871, Anonymous 1895; Treat 1897) suggested that the common persimmon would make an attractive ornamental.

During the later part of the 19th century, there was considerable interest in the Japanese persimmon (Diospyros kaki), which had been recently introduced from Japan. Neck reported that common persimmons "... grafted or budded with any of the Japan varieties succeeds well..." (1888). Garden and Forest (Anonymous 1889) reported that the Japanese persimmon "... is raised in Florida and Georgia, where the Kaki has been planted in large quantities." In fact in Helen Harcourt's Florida Fruits and How to Raise Them (1886), she listed 12 varieties of Japanese persimmon available in Florida. It was also suggested that hybridization of the common persimmon with the Japanese persimmon might improve fruit size, color and flavor (Anonymous 1889, 1895).

By the turn of the 20th century, persimmons were even thought of as a nuisance by some: "The growth of persimmon trees in old fields in the [S]outh has been looked upon as a curse. The persimmon trees will spring up almost like corn. It takes a lot of digging and grubbing to keep them down" (Daily Review [Decatur, Ill.] 1901). Jumping ahead in time approximately one century, we find that the common persimmon "... has never advanced beyond the status of a minor fruit ..." (Morton 1987). Morton states, however, that in the eastern United States common persimmons are used as rootstocks to impart cold resistance. In summary the common persimmon has been eclipsed by the Japanese persimmon as a horticultural crop in the United States. China is the leading producer of Japanese persimmons (567, 750 metric tons in 1988), while the United States is only a minor persimmon producer (4,000 metric tons in 1988), with growing limited mainly to California (Collins et al. 1993).

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Notes

- It must be noted here that John Brickell's (1710?– 1745) book the Natural History of North Carolina (1737) was largely plagiarized from John Lawson's (1709) A New Voyage to Carolina (Gilmore 2002).
- 2. See Bourne (1904) for a detailed discussion of the history of this narrative.
- 3. The French generally referred to Native Americans as "les sauvages."
- 4. Dumont de Montigny and Le Mascrier (1753) wrote that the smoked bread "...is capable of disgusting those persons who have a delicate nature."

Literature cited

Anonymous. 1848. The raspberry. Sci. Amer. 4(13): 99.

- Anonymous. 1860. The "last" manufactury at Richmond. Sci. Amer., n.s. 3(11): 166.
- Anonymous. 1864a. The camp jester. Augusta, Ga.: Blackmar & Brother.
- Anonymous. 1864b. Southern news. Sci. Amer., n.s. 10(6): 82.
- Anonymous. 1879. Special uses for different peculiar kinds of woods. The Manufacturer and Builder 11(5): 101.
- Anonymous. 1888. Recent plant portraits. Gard. & Forest 1(41): 491.
- Anonymous. 1889. Notes. Gard. & Forest 2(95): 612.
- Anonymous. 1895. The persimmon. Gard. & Forest 8(384): 262.
- Anonymous. 1896. Dainties of animal diet (from the Spectator). Littell's Living Age 11(2723): 698–701.
- Arkansas True Democrat (Little Rock). 1862a. 29 Oct., p.1, col. 4.
- Arkansas True Democrat (Little Rock). 1862b. 26 Nov., p. 2, col. 3.
- Barnes, C. W. 1898. One of nature's golf links. Outing 32: 621–624.
- Bartlett, J. R. 1848. Dictionary of Americanisms, ed. 1. New York: Bartlett and Welford.
- Barton, B. S. 1793. Botanical description of the *Podophyllum diphyllum* of Linnaeus, in a letter to Charles Peter Thunberg, M.D. Knight of the Order of Wasa, Professor of Medicine and Botany in the University of Upsal, &c. &c. Trans. Amer. Philos. Soc. 3: 334–348.
- Barton, W. P. C. 1818. Compendium Florae Philadelphicae. 2 vols. Philadelphia, Pa.: M. Carey & Son.
- Bartram, I. 1771. A memoir on the distillation of persimmons. Trans. Amer. Philos. Soc. 1: 231–234.
 Bellville (Tex.) Countryman. 1863. 14 Nov., p. 1, col. 4.

Beverly, R. 1705. The History and Present State of Virginia. London: Printed for R. Parker. (Reprint 1947, L. B. Wright, ed., Chapel Hill, N.C., University of North Carolina Press.)

Binneteau, J. 1900. Letter of Father Julien Binneteau, of the Society of Jesus, to a father of the same society [1699]. In: R. G. Thwaites, ed. 1896–1901. The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791. 73 vols. Cleveland, Ohio: The Burrows Brothers Co. Vol. 65, Lower Canada, Mississippi Valley, 1696–1702.

Bishop, N. 1878. Voyage of the Paper Canoe: A Geographical Journey of 2500 miles, from Quebec to the Gulf of Mexico, during the Years 1874–5. Boston, Mass.: Lee and Shepard Publishers; New York: Charles Dillingham.

Bourne, E. G., ed. 1904. Narratives of the Career of Hernando de Soto in the Conquest of Florida, transl. B. Smith. 2 vols. New York: A. S. Barnes. (Orig. ed. 1557, Evora.)

Bradbury, J. 1819. Travels in the Interior of America, in the Years 1809,1810, and 1811, ed. 2. London: Sherwood, Neely, and Jones.

Brickell, J. 1737. Natural History of North Carolina. Dublin: Printed by J. Carson for the author. (Reprint 1969, Murfreesboro, N.C., Johnson Reprint Corp.)

Brown, M. L. and R. G. Brown. 1984. Woody Plants of Maryland. Baltimore, Md.: Port City Press.

Bryant, A. 1871. Forest Trees for Shelter, Ornament and Profit. New York: Henry T. Williams.

Castiglioni, L. 1790. Viaggio negli Stati Uniti. 2 vols. Milan: Giuseppe Marelli. (Translation 1983, A. Pace, transl. ed., Luigi Castiglioni's Viaggio: Travels in the United States of America, 1785– 1787, Syracuse, N.Y., Syracuse University Press.)

Catesby, M. 1754. The Natural History of Carolina, Florida and the Bahama Islands, ed. 2. 2 vols. London: C. Marsh and T. Wilcox.

Charleston (S.C.) Mercury. 1861. 16 Aug., p. 1, col. 6.

Charleston (S.C.) Mercury. 1862. 6 Aug., p. 2, col. 3.

Charleston (S.C.) Mercury. 1864. 9 Jan., p. 1, col. 3.

Chauchetière, C. 1900. Letter by Father Chauchetière to his brother [1694]. In: R. G. Thwaites, ed. 1896–1901. The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791. 73 vols. Cleveland, Ohio: The Burrows Brothers Co. Vol. 64, Ottawas, Lower Canada, Iroquois, Illinois, 1689–1695.

Collins, R. J., A. P. George and A. D. Mowat. 1993. The world trade in persimmons. Chron. Hort. 33(2): 5–7.

Columbus (Ga.) Enquirer. 1862. 2 Dec., p. 2, col. 7.

Confederate States of America, Surgeon-General's Office. 1862. General directions for collecting and drying medicinal substances of the vegetable kingdom. Richmond, Va.: Surgeon General's Office.

Cook, W. H. 1869. The Physio-Medical Dispensatory. Cincinnati, Ohio: Wm. H. Cook.

The Daily Intelligencer (Atlanta, Ga.). 1863. 8 Nov., p. 4, col. 2.

The Daily Review (Decatur, Ill.). 1901. 4 Nov., p. 2, col. 4.

Davis, A. M. 1886. Indian Games. Salem, Mass.: Salem Press.

Dodge, D. 1886. Domestic economy in the Confederacy. The Atlantic Monthly 68(347): 229–242.

Douglass, R. T. 1863. Civil War Diary of Robert T. Douglass, Co. F, 47th Va. Regt. Unpublished transcript, unabridged version, transcribed by Lee McKewen from a manuscript owned by Dan and Betty Higgins. Depository: Morrisville State College Library, State University of New York, Morrisville, N.Y.

Duhamel du Monceau, H. L. 1755. Traité des arbres et arbustes. 2 vols. Paris: H. L. Guerin & L. F. Delatour.

Dumont de Montigny and J. B. Le Mascrier (M. L. L. M.). 1753. Mémoires historiques sur la Louisiane. Composed from the memoirs of M. Dumont by M. L. L. M. Paris: Cl. J. G. Bauche.

Edgeworth, M. L. 1860. The Southern Gardener and Receipt Book, ed. 3, rev. and corr. Philadelphia, Pa: J. B. Lippincott & Co.

Elliott, S. 1824. A Sketch of the Botany of South-Carolina and Georgia. 2 vols. 1816–1824.
Charleston, S.C.: J. R. Schenck. Vol. 2. (Facsim. ed. 1971, New York, Hafner Publishing Co., 2 vols.)

Elwes, H. J. and A. Henry. 1909. The Trees of Great Britain and Ireland. 7 vols. 1906–1913. Edinburgh: Privately printed. Vol. 4.

Evans, M. 1936. Food—particular foods typical and characteristic of certain localities and certain people (Negroes). Interviewer: P. Anderson.
Depository: Born in Slavery: Slave Narratives from the Federal Writers' Project, 1936–1938 (American Memory), Arkansas Narratives, vol. 2, pt. 2., Manuscript Division, Library of Congress, Washington, D.C.

Felter, H. W. and J. U. Lloyd, eds. 1898. King's American Dispensatory, ed. 18, rev. 3. 2 vols. Cincinnati, Ohio: Ohio Valley Co.

Gerard, W. R. 1896. Plant names of Indian origin.-III. Gard. & Forest 9(438): 282–283.

Gilmore, R. W. 2002. Foundations of Southeastern Botany: An Annotated Bibliography of Southeastern American Botanical Explorers Prior to 1824. Knoxville, Tenn.: Southern Appalachian Botanical Society. [Occas. Pap. E. Bot. 1.]

- Gordon, A. C. 1888. Hard times in the confederacy. The Century Magazine 36(5): 761–777.
- Gravier, J. 1900. Relation or journal of the voyage of Father Gravier, of the Society of Jesus, in 1700, from the country of the Illinois to the mouth of the Mississipi [sic] River [1701]. In: R. G. Thwaites, ed. 1896–1901. The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791. 73 vols. Cleveland, Ohio: The Burrows Brothers Co. Vol. 65, Lower Canada, Mississippi Valley, 1696–1702.
- Gronovius, J. F. 1739–1743. Flora Virginica. 2 vols. Leiden: Cornelius Haak. (Facsim. ed. 1946, Cambridge, Mass., Arnold Arboretum, 2 vols. in 1.)
- Hakluyt, R., transl. 1846. Virginia Richly Valued [1609]. In: P. Force. 1836–1846. Tracts and Other Papers, Relating Principally to the Origin, Settlement, and Progress of the Colonies in North America, from the Discovery of the Country to the Year 1776. 4 vols. Washington: Printed by Wm. Q. Force. Vol. 4. (Reprint 1947, New York, P. Smith.)
- Halls, L. K. 1990. The Persimmon. In: R. M. Burns and B. H. Honkala. 1990. Silvics of North America. 2 vols. Washington, D.C.: U.S. Department of Agriculture, Forest Service. Vol. 2, Hardwoods. [Agric. Handb. 654.]
- Hamor, R. 1615. A True Discourse on the Present Estate of Virginia. London: Printed by John Beale for William Welby.
- Harcourt, H. 1886. Florida Fruits and How to Raise Them. Louisville, Ky.: John P. Morton and Co.
- Hargrave, W. L. 1853. Old Bob Ridley. Baltimore, Md.: J. E. Boswell. Depository: African-American Sheet Music, 1850–1920 (American Memory), Library of Congress, Washington, D.C., and John Hay Library, Brown University, Providence, R.I.
- Harriot, T. 1588. A Brief and True Report of the New Found Land of Virginia. London: [n.p.].
- Hasegawa, G. R. 2000. Pharmacy in the American Civil War. American Journal of Health-System Pharmacy 57: 475–489.
- Hatzfeld, A., A. Darmesteter, A. Thomas, O. Gréard,
 L. Baudrillart, C. Marguerin, F. Godefroy,
 M. Schöne, A. Delboulle, P.-A. Pelissier, and
 J. Bardoux. 1890. Traité de la formation de la langue. In: A. Hatzfeld, A. Darmesteter and
 A. Thomas. 1890–1893. Dictionnaire Général de la Langue Française. 2 vols. Paris: Delagrave.
- Hunter, A. 1894. A Christmas fox-hunt in old Virginia. Outing 24: 274–283.

- Joutel, H. 1714. A Journal of the Last Voyage Perform'd by Monsr. de la Sale, to the Gulph of Mexico. London: Printed for A. Bell, B. Lintott, and F. Baker.
- Kalm, P. 1773. Travels into North America, ed. 2, transl. J. R. Forster. 2 vols. London: Printed for T. Lowndes. Vol. 1. (Orig. ed. 1753–1761, 3 vols., Stockholm.)
- de Laudonnière, R. G. 1869. History of the first attempt of the French (the Huguenots) to colonize the newly discovered country of Florida, transl.
 R. Hakluyt. In: B. F. French, ed. 1869. Historical Collections of Louisiana and Florida, Including Translations of Original Manuscripts Relating to Their Discovery and Settlement, with Numerous Historical and Biographical Notes. New York: J. Sabin & Sons.
- Lawson, J. 1709. A New Voyage to Carolina. London: [n.p.].
- Lescarbot, M. 1609. Nova Francia, transl. P. Erondelle. London: Printed by George Bishop.
- Liddell Company. 1890. Liddell Company, Manufacturers of Engines, Boilers, Saw Mills, Cotton and Yarn Presses. Charlotte, N.C.: Hirst Printing Co.
- Lindley, J. 1830. An Introduction to the Natural System of Botany. London: Longman, Rees, Orme, Brown, and Green.
- Linnaeus, C. 1753. Species Plantarum. 2 vols. Stockholm: Impensis Laurentii Salvii. (Facsim. ed. 1957–1959, London, printed for the Ray Society, London, 2 vols.)
- Little, E. L. 1980. The Audubon Society Field Guide to North American Trees. 2 vols. New York: Alfred A. Knopf. Vol. 1, Eastern Region.
- Lomax, M. and A. Lomax. 1934. American Ballads and Folk Songs. New York: The Macmillan Co.
- Lyon, E. 1993. The Cañete fragment. In: L. A. Clayton, V. J. Knight, Jr. and E. C. Moore, eds. 1993. The de Soto Chronicles: The Expedition of Hernando de Soto to North America in 1539– 1543. 2 vols. Tuscaloosa, Ala.: The University of Alabama Press. Vol. 1.
- Mahoney, J.W. 1849. The Cherokee Physician, or Indian Guide to Health. Asheville, N.C.: Edney & Dedman.
- Marest, G. 1900. Letter from Father Gabriel Marest, missionary of the Society of Jesus, to Father de Lamberville of the same society [1712]. In: R. G. Thwaites, ed. 1896–1901. The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791. 73 vols. Cleveland, Ohio: The Burrows Brothers Co. Vol. 66, Illinois, Louisiana, Iroquois, Lower Canada, 1702–1712.

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- Mason, J. ca.1830s. John Mason's Recollections.
 Unpublished transcript, unabridged version, transcribed by Terry Dunn and Estella Bryans-Munson, Gunston Hall Plantation Library and Archives, 1989; revised, 1999. Depository: John Mason Papers (Beebe Collection), Gunston Hall Plantation Library and Archives, Mason Neck, Va.
- Mason, M. A. B. 1875. The Young Housewife's Counsellor and Friend: Containing Directions in Every Department of Housekeeping, Including the Duties of Wife and Mother. New York: E. J. Hale & Son.
- McCune. G. 1939. A farming preacher-prophet (Nick Waller). Recorded 6–7 March 1939, Athens, Ga. Depository: American Life Histories: Manuscripts from the Federal Writers' Project, 1936–1940 (American Memory), Manuscript Division, Library of Congress, Washington, D.C.
- Michaux, F. A. 1817. North American Sylva, transl.
 A. L. Hillhouse. 3 vols. 1817–1819. Philadelphia,
 Pa.: Sold by Thomas Dobson; Paris: Printed by
 C. d'Hautel. Vol. 2.
- Miller, P. 1754. The Gardeners Dictionary, abr. ed. 4. London: Printed for the author and sold by J. and J. Rivington. (Facsim. ed. 1969, Lehre, J. Cramer.)
- Mobile (Ala.) Register And Advertiser. 1862. 23 Oct., p. 1, col. 7.
- Mobile (Ala.) Register And Advertiser. 1864. 26 Jan., p. 1, col. 7.
- Montgomery (Ala.) Weekly Advertiser. 1862. 8 Oct., p. 1, col. 2.
- Montgomery (Ala.) Weekly Advertiser. 1863. 18 Nov., p. 3, col. 1.
- Montgomery (Ala.) Weekly Advertiser. 1864. 27 Jan., p. 3, col. 3.
- Morton. J. F. 1987. Fruits of Warm Climates. Miami, Fla.: Published by J. F. Morton.
- Neck, S. S. 1888. The Present and Future Productions of Florida. Ocala, Fla.: Banner Steam Printing House.
- Nicholson, G. 1888. Specimen trees in Kew Gardens: The persimmon. Gard. Chron., ser. 3. November 3: 504.
- Oxford University Press. 2003. OED Online. http:// www.oed.com.
- Parkinson, J. 1629. Paradisi in Sole Paradisus Terrestris. London: Printed by H. Lownes and R. Young. (Reprint 1976, A Garden of Pleasant Flowers, New York, Dover Publications Inc.)
- Plantagenet, B. 1838. A description of the province of New Albion [1648]. In: P. Force. 1836–1846. Tracts and Other Papers, Relating Principally to the Origin, Settlement, and Progress of the Colonies in North America, from the Discovery of

the Country to the Year 1776. 4 vols. Washington: Printed by P. Force. Vol. 2. (Reprint 1947, New York, P. Smith.)

- Plukenet, L. 1696. Almagestum Botanicum. London: By the author.
- Porcher, F. P. 1863. Resources of the Southern Fields and Forests. Charleston: Steam-Power Press of Evans & Cogswell.
- Pursh, F. 1814. Flora Americae Septentrionalis. 2 vols. London: Printed for White, Cochrane, and Co. (Facsim. ed. 1979, J. Ewan ed., Braunschweig, Germany, J. Cramer.)
- Quinn, D. B. 1974. Thomas Harriot and the New World. In: J. W. Shirley, ed. 1974. Thomas Harriot. Oxford: Clarendon Press.
- Rafinesque, C. S. 1841. Manual of the Medical Botany of the United States. Philadelphia. (Reissue vol. 1, orig. ed. 1828–1830, Medical Flora, Philadelphia, Atkinson & Alexander, 2 vols.)
- Savannah (Ga.) Republican. 1862. 1 Aug., p. 2, col. 6.
- Schery, R. W. 1972. Plants for Man, ed. 2. Englewood Cliffs, N.J.: Prentice-Hall, Inc.
- Smith, J. 1612. A Map of Virginia. Oxford: Printed by Joseph Barnes. (Reprint 1986, P. L. Barbour, ed., The Complete Works of Captain John Smith (1580–1631), Chapel Hill, N.C., University of North Carolina Press, vol. 1.)
- Smith, J. 1624. The Generall Historie of Virginia, New-England, and the Summer Isles. London: Printed by I. D. and I. H. for Michael Sparkes. (Reprint 1986, P. L. Barbour, ed., The Complete Works of Captain John Smith (1580–1631), Chapel Hill, N.C., University of North Carolina Press, vol. 2.)
- The Southern Banner (Athens, Ga.). 1862. 14 Oct., p. 2, col. 6.
- The Southern Banner (Athens, Ga.). 1863. 28 Oct., p. 2, col. 5.
- Southern Confederacy (Atlanta, Ga.). 1862. 7 Nov., p. 2, col. 1.
- Southern Watchman (Athens, Ga.). 1862. 10 Sept., p. 1, col. 6.
- Spelman, H. 1872. Relation of Virginia [ca.1613]. London: Printed for J. F. Hunnewell at the Chiswick Press.
- Strachey, W. 1953. Historie of Travell into Virginia Britania [1612]. L. B. Wright and V. Freund, eds. London: Printed for the Hakluyt Society.
- Taliaferro, H. E. 1859. Fisher's River (North Carolina) Scenes and Characters. New York: Harper & Brothers, Publishers.
- Treat, M. 1897. Autumn fruits in the pines. Gard. & Forest 10(510): 471–472.
- Troop, J. 1895. Cultivating the persimmon. Gard. & Forest 8(365): 75–76.

Trux, J. J. 1855. Negro Minstrelsy—Ancient and Modern. Putnam's Monthly 5: 72–79.

- Weekly Arkansas Gazette (Little Rock). 1862. 25 Oct., p. 2, col. 6
- Welch, J. M. 1883. The medical flora of Kansas, or the medicinal plants indigenous in that state. Trans. Natl. Ecl. Med. Assoc. 10.
- Withering, W. 1785. An Account of the Foxglove and Some of Its Medical Uses: With Practical Remarks

on Dropsy and Other Diseases. Birmingham, England: Printed by M. Swinney; London: Printed for C. G. J. and J. Robinson. (Reprint 1979, Birmingham, Ala., Classics of Medicine Library, pp. 184, 186.)

Worth, C. B. 1975. Virginia opossums (*Didelphis virginiana*) as disseminators of the common persimmon (*Diospyros virginiana*). Journal of Mammalogy 56: 517.