

What is a Pecan?

An easy, simple question,

an Uriel Castaneda joint,

Humans and the Environment of the U.S.-Mexico Borderlands

Professor: Lgia A. Arguilez, PhD

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It's likely that any reader of this paper is familiar with pecans. And, while standard convention assumes ignorance on a topic, I'd rather not get into the whole "What is a Pecan?" spiel. Such a question is answerable with a quick search, and is much too simple to be a suitable topic of academic inquiry. Instead, I've elected to ask "What is a Pecan?" in a cool, hip, and much less falsifiable fashion¹. Rest assured, there will be a conclusive answer.

With such a bold & incorrect conjuncture made, let's start talking pecans.

What is a Pecan?

The Pecan tree, whose legal name is the *Carya illinoensis*², is a member of the hickory family of trees³. It's native North America in the second-truist sense of the word. Speciating at some point within the *Eocene* epoch⁴, it's main development was the switch from wind dispersion to animal dispersion⁵. While in retrospect this shift would come to define the history of the Pecan with humanity, we weren't even in this story yet⁶. Instead, this relationship would be built with squirrels, crows, and any other animal smart enough to crack open the hard-shelled fruit of the Pecan.⁷ With this new adaptation, it proceeded to be out competed by its sister species, the Bitter Pecan (*Carya Aquatica*)⁸. While other members in its Genus had reliable ways

¹ I'm joking, for further reading on the concept of humor, I'd suggest *Boyd, Brian. "Laughter and Literature: A Play Theory of Humor." Philosophy and Literature, vol. 28*

² Which, isn't particularly fitting, so feel free to leave a negative review on Karl Koch's *Dendrologie 1: 593 (1869)*

³ This isn't true. Hickory is the common name for the *Genus* of *Carya*. The Pecan is actually in the *Juglandaceae* family.

⁴ Which, while not my favorite (*Merioneth is so much cooler*), it's still better than any Devonian period.

⁵ *Manos, Paul S. & Donald E. Stone. "Evolution, Phylogeny, and Systematics of the Juglandaceae." Annals of the Missouri Botanical Garden 88, no. 2 (2001)*, which while a bit overly technical, had a helpful abstract.

⁶ Discounting time travelers of course.

⁷ A bit of a double whammy here, first my source on the pecan carriers is *McWilliams, James. The Pecan: A History of America's Native Nut. University of Texas Press, (2013)*. Secondly is a note on the word "Nut", which is one of those words that makes more sense the less you think about it. So I'll be using Fruit pretty often to refer to the Pecan.

⁸ Ok, so, not really. While the bitter pecan was much more abundant before humans arrived on the continent, the species only co-habituated a few areas. Source: Comparing the Maps from a UDSA and *Hall, Grant D. "Pecan Food Potential in Prehistoric North America." Economic Botany 54, no. 1 (2000)*,

of spreading (*Such as the Aquatica's water based spreading or the Cordiformis spouting*), the Pecan's specialty lay with animal vectors.⁹ This had the inefficiency of having a portion of its fruit consumed before it could grow, as the pecan¹⁰ is actually a whole seed in and of itself, so none of that useful Endozoochory here¹¹. This, along with its pickiness for soil¹² would end up with the Pecan's home being limited to Mississippi.¹³

And then, humans showed up.

Of course, this idea of confinement is both far too personified & only exists in hindsight. Really, *Carya Illinoensis* simply had a habitat, a home. It also didn't want to spread, as it's a tree¹⁴, and can not want anything. Despite that, the Pecan did want to spread, simply as a consequence of the multitude of biological, ecological, and later economic factors that define its nature. Luckily, the peoples that arrived in North America ended up being nomadic¹⁵, and the Pecan's adaptations for animal-propagation suddenly enamored humans to the Pecan to spread across the continent. The fruit of the pecan tree is essentially a bundle of fat with a pinch of sugar¹⁶, and can last for months if kept out of the sun.¹⁷ They also taste pretty good¹⁸, and don't require any sort of prep work to be edible¹⁹. These traits aren't a coincidence. They were

⁹ "vectors" is an epidemiological term, not a botanical one. However, it sounds cool.

¹⁰ Lowercase, as I'm talking about the nut.

¹¹ 1. John A. Lipe et al., "HOME FRUIT PRODUCTION – PECANS," *Home fruit production - pecans, 2010*, <https://aggie-bort.tamu.edu/extension/homefruit/pecan/pecan.html>, which frankly, has too many authors.

¹² Also not true, the pecan is quite capable in most soils, it just has a need for specific nutrients, like Zinc, which is much less common outside of Alluvial (AKA. Mostly river deposited) soils. Further reading (and rabbit holes) can be found within: John A. Lipe et al., "HOME FRUIT PRODUCTION – PECANS," *Home fruit production - pecans, 2010*, <https://aggie-bort.tamu.edu/extension/homefruit/pecan/pecan.html>.

¹³ Home here is a stand in for Endemic Range, more info is at Manos, Paul S., and Donald E. Stone. "Evolution, Phylogeny, and Systematics of the Juglandaceae." (2001)

¹⁴ I'm not going to try and define "tree", I'm not that reckless.

¹⁵ . But not really. Aside from being a generalization of a couple thousand years of history and hundreds of societies, it's also important to remember that "Nomadic" is more of a category of human communities rather than a description. Still, we're talking about pecans here, so let's not get stuck in the weeds.

¹⁶ "FoodData Central." FoodData Central, USDA, 1 Apr. 2019,

¹⁷ Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

¹⁸ Well, they at least don't taste bad. Considering how many people are comfortable with eating them in their raw state.

¹⁹ Aside from removing the shells, which can actually be done by hand pretty easily. A quick how-to guide can be found at

selected by the squirrels and the crows of North America²⁰ All humans did was spread the seeds. Still, Humans ended up spreading the Pecan pretty far.

Humans had the habit of trading between themselves, and the Pecan's fruit was conveniently trade shaped.²¹

The combination of long trade routes and semi-nomadism would push the Pecan tree farther than any crow could fly or squirrel could scurry²². There's evidence of native pecans being dispersed far from its endemic range, as far away as modern day Oaxaca²³. Still, the Pecan wouldn't change much. A millennium or two of rapid dispersal is a rather small blip in the Pecan's millions of years, it was just a couple new homes²⁴.

The World Anew

After a few millennia, some differently dressed humans would arrive on the continent and start trading Pecans.. Of course, they did a few other things aside from that, but that's not particularly relevant to this history. The new arrivals would bring along their own animals, fruits, trees, and techniques of killing other humans²⁵, and this cross hemispheric exchange would lead to many newly dubbed "native" crops crossing across the Atlantic ocean to further expand their domain. Yet, despite the fervor of the newly created trade routes for these "discovered" crops, the Pecan wasn't part of the this Colombian Switcheroo²⁶. Instead of Humans expanding its reach, the Pecan was suddenly limited in its growth. As ancient trade routes burned and starved, the new colonizers had taken it upon themselves to cut down the forests, and replace them.²⁷

²⁰ And of course, other species of birds and mammals also had a say in it. But, they aren't quite as poetic, nobody ever wrote "Quoth the Chickadee"

²¹ Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12. & *McWilliams, James. The Pecan: A History of America's Native Nut. University of Texas Press, (2013)*

²² A much less impressive feat than flight, but I'd rather sort them alphabetically rather than dramatically.

²³ A state in Mexico, there's a bit more to it than that, but all your further readings can be found at Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

²⁴ If you have complaints over the millennium & million suffix issue, I can only offer a shoulder to cry on.

²⁵ And a couple of new languages as well.

²⁶ *McWilliams, James. The Pecan: A History of America's Native Nut. University of Texas Press, (2013)*

²⁷ Thompson, Jonathan R., et al. "Four Centuries of Change in Northeastern United States Forests." (2013)

In only the next few centuries, the Ecology of North America would shift. New species from across the globe would start competing with the Pecan. The rules of the game had changed, with humans moving from an incidental role, to radically altering each biome they colonized.²⁸ Yet, the Pecan was oddly resistant to these shifts. Human – Pecan relations remained in an odd balance, while plenty of Pecan trees were razed for their soil, it was fairly common to leave the trees along the river bed.²⁹ It wasn't farming, as Pecans remained undomesticated, more of a gentle nudge. It was³⁰ fairly common for people to snack on pecans, from Senora to Illinois, to leave the trees growing at the edge of plantations and farms. So while the Pecan would survive, the world it once lived in had not.

From Groves,

Despite the massive upheavals occurring in other's histories. The Pecan remained rather unchanged on a biological level³¹. Having not been domesticated by native peoples, and lacking any sort of demand from the colonist³², people really paid no mind to the tree. For the new humans, they remained an obscure faux-walnut.³³ This comparison to Walnuts is a fair one. The Walnut is a distant clansmen of the Pecan³⁴, and the two were often confused.³⁵ However, unlike the Walnut, the Pecan is a much less submissive crop. The Pecan employs a strategy known as alternate bearing, which means that it produces a varying amount of fruit

²⁸ Further reading can be found at <https://doi.org/10.1080/14614103.2017.1370857>

²⁹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

³⁰ And is

³¹ Manos, Paul S., and Donald E. Stone. "Evolution, Phylogeny, and Systematics of the Juglandaceae." (2001)

³² Well, not quite true. In fact the Pecan was still traded between many settlers. However, there was no pecan market, and nobody was buying them until much later. McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

³³ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

³⁴ Clansmen here being an allusion to that they belong in the same taxonomic tribe, which goes (*Family > Subfamily > Tribe > Subtribe Genus > Section > Species*). Pecans and Walnuts are in the same Tribe, but different subtribes. If you have complaints, go consult your local taxonomist.

³⁵ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)., the journals within the chapter CIT; and don't worry, this did make my research very confusing.

each season³⁶, the Pecan's wood is difficult to work with³⁷, and while calorically dense, the nuts themselves aren't a balanced meal.³⁸ Most vexingly of all, the Pecan retained its wild nature, having a strong enough genetic diversity that the standard mono-culture practices³⁹ were neither profitable nor effective at taming this shrew tree. Really, the other native plants of the Americas are better suited for human economic and culinary tastes.⁴⁰

Despite that, the Pecan still held a certain appeal to the colonizing humans. And as the colonists transitioned into citizens of a newly styled nation state, their tastes would shift with their politics. A notable individual with this outlook would end up being the 3rd Elected executive in 1801 C.E.⁴¹ It's quoted as saying *"I wish I was a despot that I might save the noble, beautiful [Pecan] trees that are daily falling sacrifice to the cupidity of their owners, or the necessity of the poor. ... The unnecessary felling of a tree, perhaps the growth of centuries, seems to me a crime little short of murder."*⁴² This adoration wouldn't amount to much though, aside from a couple orchards. Still, the Pecan would be passively cultivated⁴³, simply clearing some space around the trees to let them grow.⁴⁴ The Pecan would live in small orchards, providing the occasional treat. It settled in fairly comfortably.

- To Orchards

Then, in 1846, that all changed. An enslaved man named Antoine in Louisiana had managed to graft a small Pecan orchard.⁴⁵ This accomplishment would be the most important event in the Pecans evolutionary

³⁶ Wood (1993:543), along with Lipe, John, et al. "HOME FRUIT PRODUCTION - PECANS." (2010)

³⁷ McWilliams, James. The Pecan. 1st ed. University of Texas Press, (2013).

³⁸ "FoodData Central." FoodData Central, USDA, 1 Apr. 2019,

³⁹ Which mostly refer to practices such as budding, grafting, and cloning. Further reading CROP DIVERSITY

⁴⁰ So, while not a very falsifiable claim to make, I would easily argue the Tomato outclasses the pecan in those categories.

⁴¹ Presumably named Andrew Jackson, President of the United states.

⁴² Meacham, Jon "Thomas Jefferson: The Art of Power". (2013)

⁴³ In the Southern, more temperate areas of the United States. Almost returning to their endemic range.

⁴⁴ McWilliams, James. The Pecan. 1st ed. University of Texas Press, (2013).,

⁴⁵ Wells, Lenny. "Antoine." Plant Breeding Reviews, Wiley, (2020)

history since it speciated⁴⁶. The Pecan's domestication could actually begin. See, the main problem with Pecan farming was that each seed you grew would be an individual⁴⁷, as the genetic diversity of the Pecan would allow for multiple traits to be expressed even within the same family⁴⁸. They also don't like being cloned, as while a Pecan could fertilize itself, they have several genetic resistances to pollen that's too similar.⁴⁹ That makes it hard for humans to select traits with the usual processes of selective breeding. However, grafting gets around all of that. By taking cuttings⁵⁰ and attaching them to host trees, they cutting will eventually take over the tree, and begin producing as if it was a genetic clone of whatever tree you took the cutting from. Over the following centuries⁵¹ hundreds and hundreds of Cultivars would be produced. A cultivar can be thought of as a breed of Pecans, much like dogs have breeds which differ in both function and region. Yet, covering all 695 recognized⁵² is a bit outside of the scope of this paper. So let's take a moment to think about how pecans are grown⁵³.

Interlude One, an accurate, yet fictional, account of the life of a pecan tree.

It's early September, and the seed of a wild pecan has just sprouted. Yet, it's not in the wild, instead it's neatly planted in a row with a few hundred other pecans. As a gift for sprouting first, it's one of the dozens that aren't thinned out.⁵⁴ After a year or so⁵⁵ the small sapling will have everything about the root torn to shreds, and a hardier or tastier species grafted on to it.⁵⁶ This new pecan tree will then be sold out of the

⁴⁶ Not actually much of a hyperbole, as the genetics of nearly all pecans would be changed by this.

⁴⁷ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)..

⁴⁸ "Family" here being quite literal, like trees that were directly related.

⁴⁹ Manos, Paul S., and Donald E. Stone. "Evolution, Phylogeny, and Systematics of the Juglandaceae." (2001)

⁵⁰ A term which makes me grammatically anxious. It just means live branches from a tree.

⁵¹ Which may sound like a lot to a human, but it's not that many pecan generations. (*which are hard to classify for reasons we'll discuss soon*)

⁵² UGA's "Alphabetical Cultivar List"(2024), but also I'd estimate that there's been at least a couple hundred more, as not every cultivar is a success.

⁵³ Yes, that's happening FIVE pages in. Honestly, it's pretty late in the historical record.

⁵⁴ Santerre, Charles. "Pecan Technology." (1994)

⁵⁵ Although this is more dependent on individual nurseries.

⁵⁶ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).., Santerre, Charles. "Pecan Technology." (1994)

nursery, and planted at any regional pecan farm.⁵⁷ After only a couple of years, the grafted variety will start producing nuts, as the cultivar has been bred to do so quickly. Some instead might focus on fertilizing the trees around them, and are usually a tougher variety to try and curb disease and pests, or at least slow them down.⁵⁸ The cycle repeating again and again for decades, as the trees once wild roots are trained to keep them within their plot, and their alternate bearing index kept below 0.53⁵⁹

The end of History

As the millennium passed, Pecans cultivation had become systematized⁶⁰. You can prove it by going out and picking up a pound of nearly homogeneous nuts in a bag. It's unlikely that the Pecan will change much in the following years, at least naturally. As the number of cultivars are slowly whittled down, the Pecan will join the long list of plants who rely on humans to exist. Much like the Banana, the Almond, and the Walnut, the Pecan is heading into the home of humans across the globe.

But, like, what actually is a Pecan?

The Pecan⁶¹ is a surprisingly niche nut. Native to the Americas, the nut never really had its moment within the Columbian Exchange, instead it stuck around within the southern parts of North America⁶². Still, it's been a regional & iconic foodstuff since time immemorial. From the raw shelled nut, to the clarified oil, it even ended up going into all sorts of confectionery hits like pecan pie and butter pecan ice cream. But how

⁵⁷ Or Orchard, if you want to be pedantic. (*which I do*)

⁵⁸ PECAN INFO MEXICO BASED

⁵⁹ Mostly, further reading on Pecan bearing can be found at "Alternate Bearing Information - Cultivars | Pecan Breeding." UGA

⁶⁰ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

⁶¹ Which is how I'll be referring to the nut.

⁶² "Southern" here is a bit unclear, I really mean southern U.S. and northern Mexico.

did the Pecan go from being confused for a Walnut by early explorers, to being grown in Texas, California, Alabama, Arkansas, Louisiana, Chihuahua, and Senora?

A Native American Nut

The Pecan is the nut⁶³ of the *Carya illinoensis*, a tree within the Hickory family. And it's been eaten for nearly as long as people have been within the Mississippi area.⁶⁴ The Pecan is naturally abundant when in season,⁶⁵ as it relies on animal dispersal for its seeds.⁶⁶ Of course, you need to get there before those animals do, which meant that many semi-nomadic Tribes⁶⁷ would take a trip down to the alluvial soils that the trees grew in. Pecans also served as a valuable trade good when encountering other nations, since they last long and are dense enough to be worth lugging about.⁶⁸ You can even process it into a neutral oil⁶⁹, or a ferment drink called "powchicora", both of which increase its already long shelf life and make it a more flexible ingredient.⁷⁰ Pecans would be pretty popular among Native Americans, and I mean that very broadly. Trade routes⁷¹ would span the continent, reaching out farther than the already massive Mississippi regions all the way west to the Colorado river, South to Oaxaca,⁷¹ and even a couple handfuls North past the great lakes.⁷² Although, Pecans weren't a true "staple" food, instead it was the Beans, Squash, Corn, and game that made

⁶³ And fruit, and seed, botany is weird.

⁶⁴ "Area" is also a bit misleading, the river's many, many, many tributaries and systems make more sense as the Mississippi Areas. Also the claim of when people started eating it is around 6750 B.C, from Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12. .

⁶⁵ Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

⁶⁶ Manos, Paul S., and Donald E. Stone. "Evolution, Phylogeny, and Systematics of the Juglandaceae." (2001)

⁶⁷ The word "Tribes" here is being used to refer to many Native American tribes of the area rather than Native Nations.

⁶⁸ Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

⁶⁹ So, I can't really find a reputable source on the oil's neutrality, other than personal experience. So I guess you'll have to have some faith in a random sleep deprived student.

⁷⁰ While I am providing a citation, I highly encourage you to go ahead and get some first hand experience at making these, it seems fun. McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)..

⁷¹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)., & Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

⁷² Honestly, this is a bit of conjecture, as while there are sightings of wild pecans around Ottawa, I can't really find when they arrived there. Seemingly nobody minds this tree mystery.

up the daily calories.⁷³ Since no matter how dense or delicious Pecans are, they aren't reliable. From pickiness in soil, to their coin flip bearing cycles, and the competition from smaller animals, the Pecans ended up being an occasional treat.

A Weird Looking Walnut.

The Pecan is often overlooked. It's easy to tell from its name, originating from the Proto-Algonquin language root word of "Pakan"⁷⁴, which just means nut. The languages descended from Proto-Algonquin⁷⁵ use it to refer to regional nuts in the area, with the Fox⁷⁶ & Shawnee languages⁷⁷ using it for the Pecans that this paper's about. So when the Spanish & French came up the Continent in their ages of exploration⁷⁸, we see the latinized "pacane" & "pekan" show up in diaries and logs from the explorers of the age.⁷⁹ At least, when they recognized it as a new species. Pecans were often confused with Walnuts. It's a rather unfair comparison, while they are within the same taxonomic family, and they're both trees with hard-shelled nuts, they don't actually look much alike, and taste different. Still, members of Cabeza de Vaca's expedition mentioned how they encountered walnuts "Much smaller than those [walnuts] of Spain"⁸⁰, with Hernando de Soto recalling how the "much oil of walnuts, which was clear and good taste" was traded to him, despite there being no walnuts on the continent.⁸¹ While these misnomer would clear up over time, that's only true in

⁷³ Park, Sunmin, et al. "Native American Foods" (2016)

⁷⁴ Hewson, John, et al. "Proto-Algonquian Online Dictionary", it's also spelled better spelled phonetically as "pɪ'kæn" (*at least to my ear*)

⁷⁵ Note, the Algonquin in Proto-Algonquin refers to the whole language family, not just the Algonquin nation's language. Feel free to leave complaints with any and all linguists

⁷⁶ Who is actually a variation in "Pakáni" because of differing Animate/Inanimate gender grammar. Further reading at Anderson, Gregory D. S. "On 'Animacy Maximization' in Fox" (1997)

⁷⁷ Cardozo, Yvette. "Shawnee Words Are SO Familiar." (2014) Also, this is a neat little video, worth watching

⁷⁸ Exact dates for this rather nebulous concept aren't possible, the general vibe in the books I've read (AUSTIN mainly) place this period of Pecan obscurity from the 1500's through the 1700's.

⁷⁹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

⁸⁰ While found in his diaries, I am very much taking that translation from McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

⁸¹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

English, which ended up co-opting the French co-option into “pecan”⁸². Español on the other hand, just uses *nuez*⁸³, or “nut”. Despite having the term *Nuez Pecana*, people just don’t really use it⁸⁴; in my personal experience, when discussing this paper with friends and family alike, I had to have a little clarifying preamble to be understandable in Spanish.⁸⁵ Still, the notion of Pecans would enter the American consciousness, eventually.

A southern nut

Pecans have a strong southern connotations in the U.S. Which is a bit odd, as out of the top five pecan producing states in the U.S⁸⁶, only Texas actually has Native Pecans.⁸⁷ So this regionality⁸⁸ of its cultivation had a rather involved history. It’s 1846 Louisiana, at the Oak Alley Plantation⁸⁹, and it farmed sugarcane with slave labor. While most enslaved people on the plantation toiled on the production of sugarcane, Antoine was a gardener for the estate. He would graft sixteen trees with a scion from a rather fruitful tree found on another plantation, and come harvest, the grafted trees would flower. From this, the entirety of a Pecan Industry would bloom from a chess’ side⁹⁰ of trees.⁹¹

But, why were there sixteen pecan trees growing on the Oak Alley Plantation? While growing food for slaves on site was common practice, pecans were rather uncommon⁹² and rather less efficient than just

⁸² “Pecan Definition & Meaning - Merriam-Webster.”

⁸³ Which is just nuts. Hernández-Rodríguez, Ofelia Adriana. “Evolution of Pecan Production Systems in Mexico .” (2020)

⁸⁴ As I’ve seen when looking through Spanish sources. For clarity, they have a little “ñ” in the bibliography

⁸⁵ And no, I’m not annoyed by it at all. Further reading at the Lying Wikipedia page.

⁸⁶ From most to least is Georgia, New Mexico, Arizona, Texas, and Oklahoma for the Top 5.

⁸⁷ Hall, Grant D. “Pecan Food Potential in Prehistoric North America.” *Economic Botany* 54, no. 1 (2000): 103–12.

⁸⁸ Which is best exemplified in the Pecan South magazine, and the lack of any northern counterpart. (*But actually*, McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).)

⁸⁹ Probably, it could also have been 1847, as it was recorded as the season, Wells, Lenny. “Antoine.” *Plant Breeding Reviews*, Wiley, (2020)

⁹⁰ A pompous way of saying 16, for the 16 pieces for each player in chess.

⁹¹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)., also a triple baker’s dozen is actually

⁹² Covey, Herbert C., and Dwight Eisnach. *What the Slaves Ate*. Bloomsbury Publishing USA, 2009.

growing corn or raising hogs⁹³. However, a small grove of pecan trees doesn't really require any effort beyond harvesting the trees, and the occasional weed pulling.⁹⁴ This Passive Cultivation is how the Pecan would manage to stay wild well into the 1900's. It seems that keeping the couple pecan trees on your newly acquired piece of Louis-land⁹⁵ around was pretty common advice. With papers like the Arkansas Daily Gazette saying how "*The pecan tree is indigenous to our climate and soil*" and how it could "*be made a source of much gain to our people as it is already to those of Texas.*"⁹⁶. Although, Arkansawyers⁹⁷ wouldn't heed that advice. While the Pecan was native to most of the Mississippi, only in Louisiana and Texas did the Pecan stand its ground against the approach of Cotton.⁹⁸ While the reasons for Pecans remaining in those states⁹⁹ are at once numerous and inconclusive, they would remain rather isolated until Antoine succeeded at grafting his small grove.

The Southern Nut¹⁰⁰

Taking a gander at where the U.S.'s pecan growers associations and clubs are¹⁰¹, you'll notice that it doesn't make any sense. Rather than stretching vertically up & down the Mississippi river systems, where growing pecans is so easy you can do it passively, it the line of growers stretch across the Mason-Dixon¹⁰².

With the largest concentrations on North America being in Chihuahua, Texas, New Mexico, and Georgia¹⁰³,

⁹³ ^ *Herbert* again, for the idea that owners wanted easy sources of nutrition. | Lipe, John, et al. "HOME FRUIT PRODUCTION - PECANS. (2010) for the space needed

⁹⁴ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)..

⁹⁵ Louisiana, and also a bit reductive, really any new large land past the 13 colonies.

⁹⁶ Shamelessly paraphrased from McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)..

⁹⁷ So, uh, this is a whole thing. In brief, the name Arkansas comes from an Algonquin language (unsure which one) "kansa" which when added with the suffix "a-" for a group of people resulted in the Frenchified Arkansas book. Although, that's still debated, so further reading can be found at Bright, William. "Native American Placenames of the United States". 2004

⁹⁸ Well, not really. The pecan tree doesn't actually want anything, and doesn't really act. It was the people and their systems that kept Pecans in some areas instead of others.

⁹⁹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013). for further reading. H

¹⁰⁰ And also *The Northern Nut*, from Mexico's perspective.

¹⁰¹ "How We Do It- Comalpecanfarm."

¹⁰² Which doesn't provide nearly as much Zinc.

¹⁰³ Takata Vidal, Virginia, Varela García Pintos, Victoria. "Caracterización de la nuez Pecan "*Carya illinoensis*" y sus perspectivas de comercialización en el Uruguay. " (2013)

with only Texas and Chihuahua having any type of Native Pecan tree.¹⁰⁴ That's why Antoine's accomplishment would change the Pecans so drastically, as you no longer needed to breed a super-cultivar that could survive so far outside its range, instead you just needed one to grow, and one to harvest.

While Pecans had remained in the market almost as long as we've had the idea of trade, it was never a particularly central pillar of any society¹⁰⁵. Yet, it would soon become more and more integrated in the Southern Agricultural system. Plantation self-sufficiency was the ideal of how an owner should run their land & slaves. To help with that, people would published material on effective management of plantations¹⁰⁶, which included advice like the best oils to make soap from. If you checked the previous source, you'll also see that there's actually quite a few similar species of nuts used alongside the Pecan, from pig-nut to hickory nuts¹⁰⁷. However, unlike those more common varieties, pecans don't taste awful.¹⁰⁸ So as the Pecans became easier to grow and hardier varieties sprang up, they subsumed these roles on plantations, and eventually, on farms.¹⁰⁹

Interlude II, ¿No que se trataba de la frontera?

Ah, right, well... Let's rewind a little to understand where Pecans were at. So, as Mexico was being colonized, the Spanish created the Encomienda, where select Spaniards were gifted Haciendas and whoever happened

¹⁰⁴ Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12.

¹⁰⁵ For trade, from Hall, Grant D. "Pecan Food Potential in Prehistoric North America." *Economic Botany* 54, no. 1 (2000): 103–12. , as for the Pillar thing, that's actually a claim from me. As far as I've read, Pecans were never really a life or death thing for groups of people. (*Excluding the Occasional famines & starvation. Pecans have been Life or Death since longer than we've traded them*)

¹⁰⁶ Covey, Herbert C., and Dwight Eisnach. *What the Slaves Ate*. Bloomsbury Publishing USA, 2009.

¹⁰⁷ *Carya cordiformis* (bitternut hickory) and *Carya glabra* (pignut hickory)

¹⁰⁸ They're actually both edible, just extremely bitter, sour, and smell bad.

¹⁰⁹ By which I mean to say, they stuck around as industrialization began and past the end of the civil war.

to live on them as their own little thieftom to rule¹¹⁰. Now, for most of Mexico, Pecans are a bit too regional.¹¹¹ This style of massive private, religious, and governmental landholders would focus on profit generation and efficiency.¹¹² And an undomesticated, hard to grow, and unpredictable nut lost out to reliable staples¹¹³ like Corn & Beans. Independence didn't really shift things around in favor of Pecans, and as the previous blocks' owners were replaced with corporate ownership throughout the first half of the 19th century, they would resolidify long before Pecan grafting was popular. Instead, the nut, and you as well dear reader, will have to wait until after the Mexican Revolution¹¹⁴ for more pecan updates.¹¹⁵

An American Nut

Still, the Pecan was a regional food. It's something you picked from nearby farms, or bought wholesale at a farmer's market. Even as Pecan grafting became a widely known technique, it wasn't a widely practiced¹¹⁶, and there were certainly no national cultivars, instead just each individual grower's variety would be all you could find for miles. In steps the USDA, which in 1887 would receive funding to make agricultural experiment stations across the U.S under the Hatch Act.¹¹⁷ This new era of horticultural progress would come for Pecans as well. With the notable example 1902, where two papers would make waves within the Pecan seas. First was the Louisiana State University Extension Service, which was part of this USDA & LSU farming outreach program, in which they stated using seeded trees¹¹⁸ is unreliable and inadvisable. Followed

¹¹⁰ This is more of a reminder for anyone not familiar with Mexican history, which some readers of mine.

¹¹¹ Especially as most people conflate la nuez pecana (pecans) y la nuez nogal (walnuts), with people just saying la nuez for both of them

¹¹² Haber, Stephen H. "Assessing the Obstacles to Industrialisation: The Mexican Economy, 1830-1940."

¹¹³ Like a staple crop, but for everyone.

¹¹⁴ And by that, I actually meant the Green Revolution. Which will make sense for reasons that you'll see in the next segment.

¹¹⁵ Or, I guess just skip ahead. If you really want to

¹¹⁶ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

¹¹⁷ Danbom, David B. "The Agricultural Experiment Station and Professionalization:?" (1986)

¹¹⁸ Which is what it sounds like, planting trees normally.

by a USDA direct article title “Why the Pecan Should Be Budded”. They were both followed with testimonials and experiences of successful farms who managed to clone popular varieties.¹¹⁹ This was rather convincing, and by 1925, there was a 1,300 percent increase in pecan production.¹²⁰

And then in 1938, the U.S government started buying pecans. Under the Agricultural Adjustment Act of 1938, the U.S would buy surplus pecans in order to try and increase exports.¹²¹ Then, world war two happened. During which, while most foodstuffs were rationed and expensive, pecans were plentiful and filling. The war period also saw the explosion of the corn-syrup based Pecan pie, along with several other candied versions. This would actually cement the Pecan within the American pallet, with nearly every popular example listed out in McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)..¹²². This is also when Mexico steps into the picture. As the revolution settled into the having ejidos¹²³, a nascent Pecan industry had already started before in Nuevo Leon in 1904, but by the 1940’s Chihuahua had become the Main grower & exporter of Pecans.¹²⁴ Selling to the growing market in the U.S, most of the Pecans grown in Mexico would get sold up north, as new industrial markets wanted Pecans¹²⁵.

Then, came the Green Revolution. Which would ramp up Mexico’s production from 1940-1980¹²⁶, and putting it at about 60-70% of the U.S’ production of Pecans.¹²⁷ Throughout the new millennium, pecans have slowly, but diligently begun to spread out across the world. With China briefly becoming a new market

¹¹⁹ McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013)., liberally paraphrased again.

¹²⁰ When compared to 1900, McWilliams, James. *The Pecan*. 1st ed. University of Texas Press, (2013).

¹²¹ Sonnenfeld, David A. “Mexico’s ‘Green Revolution,’ 1940-1980: Towards an Environmental History.” *Environmental History Review* 16, no. 4 (1992). And also, it encouraged farmers to diversify their crop, so that helped pecans as well.

¹²² Yeah, I know, it’s just a really good source. And I really can’t start buying mountains of newspaper subscriptions.

¹²³ Mostly, kinda, it got complicated. Importantly for this paper, agriculture in Mexico became more flexible and industrial, which allowed for smaller crops, like pecans, to take root. Further reading in Dana Markiewicz - *The Mexican Revolution and the Limits of Agrarian Reform, 1915-1946* (2023, Lynne Rienner Publishers)

¹²⁴ Doreste, Patricia. “FICHA TECNICA FRUTAS SECAS: NUEZ PECAN,” 2011.

¹²⁵ Markets like Pecan pies, pecan ice cream, pecan oil, etc.

¹²⁶ Sonnenfeld, David A. “Mexico’s ‘Green Revolution,’ 1940-1980: Towards an Environmental History.” *Environmental History Review* 16, no. 4 (1992)

¹²⁷ At least, as far as I can tell when cross-referencing Takata Vidal. "Caracterización de la nuez Pecan "Carya illinoensis" ((2013)) and *Pecan Production*, USDA, 2024. However, several news and industry sources say that the U.S produces significantly more pecans (*80% of the world's supply*), however these are usually trying to sell shares in pecans, so I've decided to doubt their veracity.

for Pecans, but due to the recent trade war, Pecans have a pretty high tariff on them at the moment.¹²⁸ Several other countries, most notably Argentina and Brazil, are also holding trials to try and jump start their own pecan industries. It's likely that the near future will see the Pecan become a nut of the Americas.

Interlude III, Buying some pecans at Costco.¹²⁹

Costco buys their pecans in Mexico, at least it says so on their website.¹³⁰ As I write this, I'm living in El Paso, Texas, where there are several pecan growers within the city limits. However, I don't visit them, and they don't return my emails. So, instead I pick up the nuts on my normal grocery run. Mi Abuelito, once told me a story about pecans, I don't remember anything except the punchline of him yelling "*Nuez no-buenas*" as someone was selling them under "*Nuez Nogales*"¹³¹. He also taught me how to crack them with one hand and two hard shells, using them as a lever to crack the hard, but brittle shell. He would buy a bag of Pecans from a guy who used to bike around their neighborhood selling red mesh bags of the stuff. I don't remember that at all, by the time my memories lose their childhood glaze, we would drop off a 2lb bag every once in a while.

Pecans aren't native to this area, at all. In order to grow them here, they require a small mountain of alluvial soil transplant. A story I kept hearing when prodding around people about pecans, was about some New Mexican farmer who failed to grow pecans and went notably bankrupt, with several different reasons given. Such as planting only female trees, planting them in the sand, not enough water, or simply that they ran out of money. Most people place this at sometime within the 80s, and it's likely that there are several stories being conflated here. Still, despite the love for the Pecan, there is an almost instinctual understanding

¹²⁸ Lasseter, Evan. "After Challenging Stretch, Georgia Pecan Industry Shows Resilience."
, yeah it didn't go well.

¹²⁹ Which I pronounce, /kosko/.

¹³⁰ Guerrero, Christina. "Costco, A Family of Nuts." COSTCO, 2022,

¹³¹ Those nuts aren't good // Walnuts!,,, Yeah, people get them confused a lot.

that they aren't natural in this area. Acres of green surrounded by desert on all sides, often the tallest vegetation for miles. I selected this topic trying to follow that lead.

I buy the bag, which was once shipped across the border, and drop it off at my Grandma's house.

What are pecans?

In 1942, the U.S started the Bracero Program. It officially ended in 1964. Yet, despite that, el Centro De Los Trabajadores Agrícolas Fronterizos still sits on the U.S side of the border. It's not an old building, being finished in the 90's, and serves as a homeless and relief shelter primarily for agriculture workers. It's there for the many agriculture workers who end up trapped in the legal limbo of expired visas and long term employment "contracts". Every morning, at around ~1am, dozens of people walk down the street to the transfer center. Then, around 4pm or so, they walk back from the transfer center and sleep on the floor. Sending money back twice a month¹³²

I've asked some workers at the center if they've heard where they work. They kindly informed me that they would never ask, nor give, that information. I laughed a little, nervously, he said it rather strongly. Although, on the day I was there, there were three people with a red mesh bag, filled with personal belongings. It was a little too familiar, and I suspect it was made to hold pecans. Although it likely was never used for that purpose.

Pecans are a job, a product that sells for a profit. A product that I buy, and enjoy, and love. I've spent more time eating pecan pies than I ever had thinking about this. I have several memories of sitting around on a hot day with my grandparents, snacking from that red mesh bag.

¹³²

Civil Rights in Black and Brown. "Interview with Carlos Marentes ." Civil Rights in Black and Brown, July 15, 2015.

The Organization behind the center assumes they serve about 5,000 to 12,000 people a month. Although it's hard to know, and varies with the seasons.¹³³ Thanks to pecans, they are paid, and also homeless. A portion of the money I've spent on a \$6 slice of pecan pie in the cafe¹³⁴ two blocks away went towards someone's bus fare. A quick, back of the napkin estimate, is that about 5 cents of that pie went to pay labor costs. So generously, I paid 0.05 cents of that \$1 bus pass¹³⁵.

Of that bag I bought at Costco, they saw none of it. Yet, learning about this whole thing, I don't want to buy from the farms here. I've spent just under an hour at the center, and I can't get the feeling of the concrete walls off of my hand. I'm not sure if I should.

Conclusion

Pecans are complicated. They, like most things, aren't really definable. Pecans are part of El Paso, despite them being alien and predatory. Pecans are fine tasting nuts, they are fruits of *Carya illinoensis*. They're a misnomer, and often overlooked. They're American, and foreign to most of it.

And they taste very different when you think about it.

¹³³ ^ Also the same interview.

¹³⁴ Aaron and George's Film Cafe! It's really good, and I wrote a lot of this there. Sorry for killing the tone.

¹³⁵ Assuming there's 100 workers, which sounds about right.

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