



Hunger in the Heart of Empire: Pellagra in the United States

By Sarah Taber



"We are still surprised by the prevalence of . . . food shortages . . . 3,500 years after the Pharaohs worked out how to store grain." The Dictator's Handbook

The United States might be the last place you'd expect to hear about malnutrition that killed hundreds of thousands of people in the last century. Most Americans have already forgotten it, but a disease called pellagra—a niacin deficiency that causes dementia, diarrhea, and victims' skin to roughen, crack, and eventually peel off—ran rampant in the United States for forty years.

Like most hunger, America's pellagra nightmare didn't just happen. It was allowed to fester for four decades because hunger suited the men in power. It disappeared once mass hunger became an inconvenience for America's elite: when the US needed millions of soldiers in top physical shape for World War II. The United States' long experiment with pellagra holds lessons for how its own internal hunger politics still work today; how it extends those hunger politics outward into "famine relief" efforts; and how food reform efforts in today's America are still trapped in politics of denial about our own past.

America's pellagra outbreak was a departure from earlier ones in Spain and Italy. In Europe, pellagra came from peasants trying to use the newly introduced crop of maize the same way they

used wheat: by grinding dry grain into flour and using it to make breads and porridges. By contrast, European newcomers in what became the United States learned how to process maize from indigenous communities like the Chickahominy because for the first decades they were economically dependent on these communities. They ground it wet after a long soak in water and hardwood ashes. This process is today called nixtamalization, from the Aztec language (Nahuatl) *nixtamalli* for “ash dough”. It makes the kernels swell, shed their tough coats, and become soft and easy to grind into a dough by hand. The process also renders the niacin in maize digestible for the human body. Wherever maize becomes a staple crop, without the soaking process, pellagra often follows.

That is why America’s pellagra outbreak was unusual. Americans knew what nixtamalization was. Even today, traditional American dishes like hominy and succotash are often made with nixtamalized corn.

So how did America’s pellagra outbreak happen?

The easy answer is technology. In 1901, a device called Beall’s corn degerminator was invented. The “germ” is the tiny plant embryo inside the seed. It contains most of the seed’s perishable oils. With the “germ” removed, grain can be pre-ground in large central facilities, shipped long distances and stored for long periods without going rancid. Unfortunately, the germ is also where most of the niacin in maize is found. Even if nixtamalized, this degerminated and pre-ground grain would still provide very little niacin to the diet.

So that’s the easy version of America’s pellagra story. Industrial technology and railroads created the long-distance trade of pre-prepared foods. While convenient, these foods were not nutritious. Even though Americans have mostly forgotten the pellagra outbreak, the “technology” interpretation of its cause still survives in America’s food reform movements today: Pre-prepared foods cause disease. The cure is to eat fresh foods made from scratch. Using pre-made and “convenience” foods is still seen in the US as a sign of poverty, laziness, and indifference: inviting sickness through your own lack of diligence.

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But that is not the whole story. Niacin is not found in corn only. It comes from poultry, fish, beef, beans, and nuts. The problem wasn’t that people were eating pre-ground corn. It was that they *weren’t eating much else*. Poor people’s diet in 19th and early 20th century America was almost exclusively pre-ground corn, salt pork, and molasses: three things that are *all* low in niacin. The problem wasn’t pre-ground corn; it was poverty. And not even just poverty but a specific type of institutionalized poverty where wealthier Americans bought the food of the poor for them, and spent the least money possible on rations.

Pellagra was most widespread in the southeastern US. Even after the abolition of slavery, this part of the country specialized in farming cotton, not food. Cotton was grown in a sharecropping regime where farmworkers lived on the estate, and paid the owner for housing, tools, seed, and even food. They had to take out “loans” and pay them back at cotton harvest. The many sharecroppers who were Black were targeted for even worse. Estate owners used their wealth to build a system Americans called Jim Crow: no schools that would teach the children of poor black families’ to read and write. They went on frequent “night riding” campaigns, shooting up black homes and setting them on fire simply to terrorize them. Jim Crow laws kept Blacks from voting to stop these raids. Thus while America was “promoting freedom” abroad, it was itself torn by ethnic persecution and a

labour system often indistinguishable from slavery.

Jim Crow also explains one of the most bizarre moments in US history: why American estate owners kept growing more and more cotton even as its global prices plummeted. It didn't matter if estates lost money selling cotton. They made it up by loan-sharking their workers—using the loan system to soak up every additional penny workers made doing odd jobs like tinkering, domestic work, and making clothes. Their estates were less a cotton production system and more a system for mining the other inhabitants of their region for everything they were worth. What mattered was filling up the land with cotton. That way, there was simply nowhere for anyone to grow food. In this economically stunted region with few stores, poor people *had* to go through estate owners to buy food. And once they did, they were trapped in debt.

Cotton wasn't about selling an agricultural commodity. It was about keeping whole regions poor and under the personal control of local landlords. Given how often they conducted raids and lynchings, one could even call America's cotton estate men warlords.

But even that isn't the whole story. Where did the corn come from?

It came from further north in the United States: a broad, fertile zone between the Ohio River and the 100th parallel. This region is known variously as the Midwest, the Corn Belt, and America's breadbasket. The Midwest got started early as an export centre, sending corn and salt pork down the Mississippi to feed the enslaved. Their captors bought rations mostly as a supplement to the food grown on estates to minimize operating costs. But after the end of slavery, these estates switched to the Jim Crow model: excluding food crops from the region. Without the formal tools of slavery, the wealthy white landed elite found the next best way to control people was hunger.

This is how "US agribusiness" got started. It wasn't because of mechanization after World War II. It was long before that, with mass exports to supply America's own slave regime. A long-distance food trade already existed. That is why the Beall's corn degerminator was invented in the first place. This isn't an instance of technology popping out of nowhere to ruin lives. It was created to help along an extractive regime that was *already happening*. As long as we're busy bickering over whether technology is good or bad, we're not focused on *who* is using it and *what goals* of theirs it promotes. And if I had to guess, that's exactly how powerful people like it. They like when we think the problem is machines existing, rather than the people putting them to work.

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This longstanding trade wasn't just good for the southern aristocracy. Midwestern landowners got fabulously wealthy because their fellow Americans struggled with forced scarcity. Just one state, South Carolina, imported US\$70-100 million worth of food per year at the peak of this period in 1917—the equivalent of US\$1.4-2 billion today. 1900 to 1920 became known as the "Golden Age of Midwestern Agriculture". These two decades made a huge impression on American pop culture. When Americans today say "farming used to be profitable," they're referring to this specific period. Farming was famously precarious both before and after this time. Midwestern grain farmers have spent the last century chasing this high. And on some level, they know exactly how it happened: a war-torn Europe and a South plunged into artificial scarcity. Both unable to feed themselves and forced to either shell out their scarce cash or starve.

America might have forgotten the specifics of what happened. Pellagra is embarrassing, and World War I is a calamity few wish to remember. But if you look at US foreign policy, it's clear that its

grain farmers still remember enough. They know hunger is good business.

Thanks to the failings of basic democratic institutions in the US, Midwestern grain estates have incredibly disproportionate influence in US politics. This has consequences for our foreign policy that can be seen in “food aid” programmes that mostly serve as crop dumping that serves three purposes. It alleviates food gluts at home, propping up crop prices in the United States. Crop dumping also undercuts farmers elsewhere in the world. This can start a vicious cycle of dependency on imports: the American grain farmer’s ultimate gold mine. And finally, it makes America’s farmers look important. It makes their wealth and political prestige look like it is earned through the hard work of farming, instead of what it is: thieved away from other farmers all around the world through back-room geopolitical dealings.

Cash crops and technology aren’t bad in and of themselves. In democratic environments, they can build wealth and well-being in farming areas. But in economies dominated by warlords and other malignant hustlers, *everything* is turned to the detriment of ordinary people. Cash crops, technology, even access to food and water become struggles used to keep people bound to power players. The United States is no exception. Our history of mass hunger at home, forgotten though it may be, is witness to that.

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