

The improbable rise of the banana, America's most popular fruit

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(Shutterstock.com)

Walk into almost any grocery store in the continental United States, and you'll be able to buy bananas for **79 cents a pound or less**.

To most of us, this seems utterly normal. The banana is so cheap and widely available that, decades ago, it surpassed the apple to become the **most widely consumed fruit** in the country.

But the fact that bananas have become so commonplace is fairly astounding when you think about it. The banana is a delicate tropical fruit: It must be picked and packed by hand, then shipped and refrigerated for thousands of miles before reaching your door. Until the early 20th century, the banana was an exotic, expensive delicacy, unknown to most Americans. Nowadays, **there's growing concern** that Panama disease, a parasitic fungus, could wipe out the most popular banana variety altogether.

And yet, says Dan Koeppel, the author of *Banana: The Fruit That Changed the World*, "bananas remain incredibly cheap. When you adjust for inflation, they're nearly as cheap and in some cases even cheaper than they were decades ago, when we first started importing them widely."

How is this possible? Part of the answer is a fascinating biological trait unique to the banana plant — and part simply has to do with how we mass-produce commodities in today's globalized food system.

How bananas went from exotic delicacy to America's favorite fruit



Bananas for sale on a street cart, circa 1902, when the fruit was still a curiosity in the US. (Library of Congress)

Virtually all of the cheap foods we find in the supermarket today — think potatoes, eggs, or ground beef — are the products of finely tuned, highly industrialized agricultural systems geared toward mass production. And, as Koepfel details in his excellent book, bananas were among the first foods to be turned into a commodity.

In the 1880s and '90s, American businessmen Andrew Preston and Minor Cooper Keith began importing Gros Michel bananas (a different variety from the Cavendish bananas widely eaten today) under the auspices of the Boston Fruit Company, which would eventually become the United Fruit Company and then Chiquita. Betting that American consumers could be taught to develop a taste for the exotic fruit, they cleared tracts of land in Jamaica for plantations and began running their own steamships to bring the bananas to US markets along the East coast.

"No one had ever shipped fruits over the ocean before," Koepfel says. "It was unheard of." To get them to port without rotting, the company built a network of ice-cooled warehouses, boxcars, and ships, vertically integrating the whole operation in a way that paralleled the oil and steel monopolies developing during the same era.



Bananas are boxed in a United Fruit Company warehouse in 1948. (Library of Congress/United Fruit Company)

Preston had predicted that bananas could become "more popular than apples" — and he was right. Decades of aggressive ad campaigns — including tactics such as **distributing manuals to schoolchildren** that extolled the nutritional benefits of bananas — gradually enshrined the fruit as a wholesome, fundamental part of the American diet.

As demand in the US grew, banana executives colluded with authoritarian regimes in the so-called "banana republics" of Costa Rica, Honduras, and Guatemala in order to expand production. The companies would offer concessions — or in some cases, bribes — in **exchange for cheap or free land** and other favorable policies that would enable them to grow more bananas at low cost.

"They were able to say, 'We'll build you a railroad in return for land and some tax breaks,'" says **John Soluri**, a Carnegie Mellon historian and banana expert. "They also got the

controversial right to import labor: black workers from the West Indies." These workers were severely underpaid, a huge factor in driving down the cost of the product, given that banana harvesting is a labor-intensive process.

Today's banana laborers are somewhat less heavily exploited, but the cost of labor in the developing world is still low. That, along with the still intact political influence of the banana multinationals and the infrastructure networks they began building a century ago, are all core reasons why bananas are so inexpensive compared with homegrown crops.

Another big reason bananas are so cheap: We've totally standardized them



Every banana is an exact clone. (d.j.a.)

Around the world, there are **hundreds of banana varieties** grown by small-scale farmers. But in the United States, you're only likely to find one type for sale — the yellow Cavendish banana. That's by design. It's also a big reason why bananas remain so cheap.

"When the **Gros Michel variety was wiped out** [by the Panama disease fungus] in the 1950s and '60s, the banana companies were looking for another variety that was easy to handle, pack, and ship," says **Rony Swennen**, a Belgian biologist who studies the diversity of banana varieties.

Enter the Cavendish. "The Cavendish has bunches that grow three meters above the soil, with a shape that makes them easy to pack, and a beautiful color to boot," he says. The fact that it's significantly less flavorful than other varieties wasn't considered a major problem.

All those Cavendish bananas also look and taste identical. And that's largely due to the fact that banana plants **reproduce asexually**.

When a farmer wants a new banana plant, he or she removes a part of an existing plant (either a side shoot, called a "sucker," or an underground root-like structure called a "corm") and puts it in the ground. In time, it will develop into its own genetically identical plant. Without sexual reproduction — a grain of pollen fertilizing an egg, as occurs with most other fruit species — there's no random variation among plants that growers need to worry about. Every banana you've ever eaten is a clone.

This is how virtually all commercially grown bananas are produced worldwide, and it means that every banana plant behaves in the same perfectly predictable manner. Their fruits grow at the same rate, in the same abundance, and ripen at precisely the same time.



(Getty Images/Paul J. Richards)

The standardization of the Cavendish has allowed agribusinesses to grow bananas for low cost and for shoppers to become accustomed to cheap bananas. We even expect it. If prices ever do go up, retailers just take the hit and keep selling them for 79 cents a pound. "Supermarkets view bananas as a loss leader. They use their price to get you in the store," says Soluri.

But there are downsides to our current system of cheap bananas, too. "These companies can keep bananas so cheap only because they don't count the cost to the environment," says Swennen. This, he notes, includes the damage caused by excess fertilizer dumped on banana plantations that **seeps into surrounding groundwater**, and the fossil fuel emissions produced to **carry the fruit thousands of miles** from plantations to our houses.

The cheap price of bananas also doesn't take into account how current growing techniques have allowed for the spread of a new form of Panama disease (known as Tropical Race 4), which could wipe out the Cavendish in coming years — just as a previous strain of the pathogen eradicated the Gros Michel back in the 1950s.

When growers replaced the Gros Michel with the Cavendish, they believed the latter was impervious to Panama disease. But because all their bananas are clones, they're easy targets for a slightly altered version of the disease that has since evolved and can exploit just one vulnerability to attack every single banana. Meanwhile, today's densely cultivated plantations and interconnected shipping networks, it's believed, have allowed the fungus to spread more efficiently. Since 1990, Tropical Race 4 has jumped from Malaysia to Pakistan to Africa, and many fear it could hit Latin America at any time.

All this has led some observers to claim that the Cavendish is **on the verge of going extinct** — which isn't exactly true. Tropical Race 4 is very unlikely to wipe out the Cavendish entirely. However, it — along with other threats such as the fungal disease **black sigatoka** — could certainly devastate banana crops and drive up retail prices of the fruit in coming years. The era of the cheap banana, more than a century long, might not last forever.