

THE AVOCADO WAR, FROM "ALLIGATOR'S PEAR" TO "GREEN GOLD"

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Abstract:

This paper deals with the history of the global avocado market explosion, as well as the characteristics of the main producers, namely Mexico and Chile, and the repercussions that these producing countries face in trying to satisfy the global "hunger" of this product.

Key words: avocado production, water war, exports

JEL classification: M5

We live in a globalized society, where we can have access to avocados all year round. So people buy and eat these fruits, which they fell in love with. It is a food that contains fat and is easily tolerated by the body. Today, it is seen as a healthy food, a super food, which is eaten in any season, almost daily.

More than five billion tons of avocados are consumed worldwide each year. The avocado fruit has become a powerful financial engine, driving a successful Mexican industry worth over \$ 2.5 billion a year¹

If in the past a Mexican avocado producer sold a kilogram for 2.5 pesos, now he can sell it even for 80 pesos a kilogram.

But for growers, profit can be both a blessing and a curse. There are many stories of kidnappings to force homeowners to pay ransom fees. These crimes often have victims.

It's an industry to squeeze money out of Mexico's local avocado economy.

On the other hand, in Chile, another player on the global market, avocado production is growing, but drying up the country's already small water reserves. The avocado fruit is also called "Green Gold", which means that it is very precious.

The avocado production is so important to Chilean agriculture, that it has priority over the lives of many people in Chile, in some regions there is no more water in rivers or canals, everything has dried up.

It has been dry in central Chile for several years. The whole region is thirsty because of a worldwide craving for avocados.

How did it happen? How did the avocado become so sought after?

The story began in the world's fifth largest economy, California. Avocados are capricious fruits that like good weather. They like a temperature of 22 degrees, as well as

¹ <https://www.foodnavigator-usa.com/Article/2021/06/01/Avocado-consumption-climbs-with-plenty-of-headroom-for-growth-ahead-says-Rabobank>

a humid atmosphere. When temperatures drop below -1 degree, after four hours at such a temperature, the avocado spoils.

About 95% of the avocado fruit produced in America is grown in California, a state with suitable hills and areas with a perfect climate. Nearly two-thirds of California's avocado crops are concentrated in two lands.

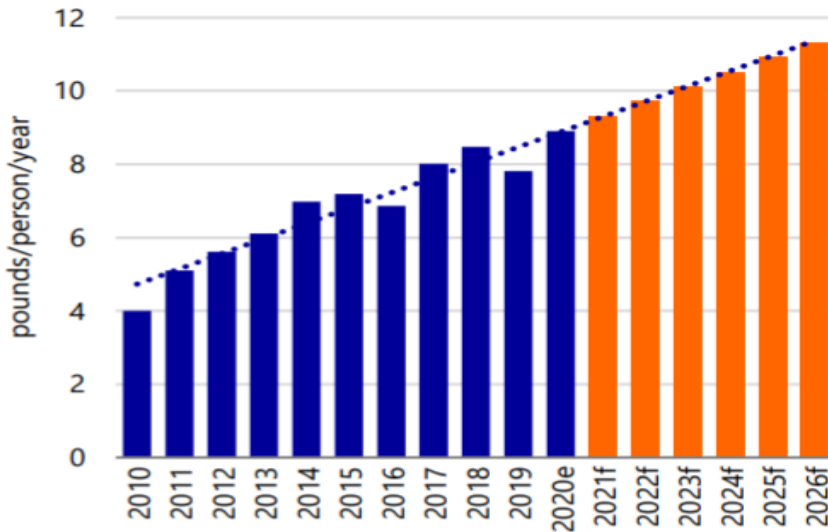


Figure 1: US avocado per capita consumption, 2010-2026f

Source: USDA/ERS, Rabobank estimates 2021

An exceptionally suitable area turned out to be San Diego County. Where conditions seem to be ideal for large-scale production of this fruit. A delicious species of avocado, called "Fuerte", has been grown in this area. If, at first, farmers hated this crop, the common nickname for avocado was "Alligator's Pear."

The production of "avocado" from "ahuacatl", the Aztec word for "testicle", grew slowly but surely in the twentieth century.

With the rise of national knowledge about healthy eating, the Fuerte avocado has been shown to be rich in nutrients and various ingredients recommended by doctors, such as potassium, fiber and monounsaturated fats.

In the 1970's, the avocado production began to grow in Southern California. It was a lucrative business. Many farmers have started planting whole hectares of avocados.

Farmers have promoted avocado as a luxury, an exotic ingredient on the West Coast for home cooks. And that worked.

The 70's also marked the moment when the Fuerte avocado species was definitively overtaken by a new variety, namely "Hass".

The Hass variety had emerged in the late 1920s as a new variety cultivated by a Californian postman named Rudolph Hass. This variety was creamier than the Fuerte variety and had thicker skin, transported better, and as the growing season was longer. It was smaller in size, so consumers finished it faster before it spoiled. It packs well and withstands transport.

It was a good fruit, with a decent aroma, with which consumers could enjoy. The production of this variety has boosted the avocado industry.

But just as avocados were beginning to make inroads into Americans' culinary preferences, an image problem arose. In the 1980's, more and more consumers became obsessed with burning fat and the avocado fruit was oily, creamy, and high in vegetable fat.

Fortunately, the industry had created the California Avocado Commission, which took a percentage of each farmer's income to defend the public image of the fruit.

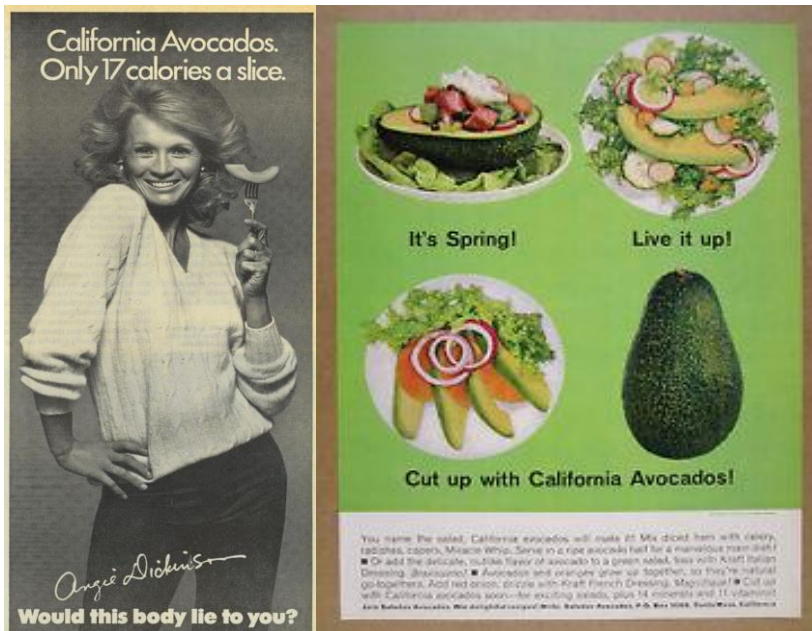


Figure 2: California Avocado Commission

Sursa: <https://www.google.com/search?q=vintage+avocado+advertising&tbm=isch&ved=2ahUKEwium5LB74D1AhUPNRQKHYPaDwYQ2>

The avocado industry has grown. Between 1970 and 1985, California's avocado farmland grew nearly fourfold. The value of the harvest in this state has exploded, from 25 million dollars to 162 million.

This extraordinary growth had taken place under the protection of the US government, which had protected California from its fiercest competitor: the avocado produced in Mexico.

Mexico is the home of the avocado. The growing conditions are perfect, and the Mexican crop had the power to undermine the entire US avocado industry.

For decades, the United States had kept its border closed on imports of avocados from Mexico.

But in 1993, the United States, Canada and Mexico signed the North Atlantic Free Trade Agreement (NAFTA), opening the borders of free trade.

"I welcome the representatives of Mexico and Canada and welcome them here. They are our partners in this future that we are building together." would declare Bill Clinton at the signing of NAFTA

When the NAFTA negotiations took place and it became clear that importing avocados from Mexico was becoming easier, most avocado growers vehemently opposed this.

The US market has gradually opened up for the Mexican avocado. In 2007, Mexican avocado exports reached the entire country. Unexpectedly, instead of drowning the American industry, the new Mexican wave lifted it.

Avocado was a seasonal fruit, because it doesn't grow all year round in California. The growing season does not last very long. Mexico came and made up for the shortage in the American market by selling a product available throughout the year. Shoppers were delighted to have avocados in the months when they were missing. Despite the growing demand, the huge supply kept prices low over time, thus benefiting consumers who were encouraged to keep buying.

In the United States alone, the avocado consumption has doubled in ten years. We now have a year-round market dominated by the Mexican production. By 2020, between 99,000,000 and 110,000,000 tons of avocados were consumed in the United States.²

California produces just over 150,000 tons.

US producers make up a tiny fraction of how much avocado is consumed in the United States.

When NAFTA was implemented, only one Mexican state was able to meet all US health requirements: Michoacan. Michoacan was the first Mexican state to be allowed to export avocados to the United States. That transformed this Mexican state.

One in five jobs here is related to the avocado business.

Michoacan produces almost a third of the total avocado consumed in the world, 1.6 million tons per year.

But Mexico, along with the wealth brought by NAFTA, also paid a bloody price. The avocado industry has proven so profitable, that it has become a magnet for violence that is intertwined with the corruption of organized crime in this part of the world.

Tancitaro is the heart of the Michoacan avocado industry. But it's also an armed camp. A city that works with avocado money and automatic weapons. In Tancitaro, the level of violence is low compared to the rest of the state. Crime is much lower than in the rest of the province. But there is also the fact that we are dealing with an unregulated armed group, which leads an important and rather large state in Mexico.

NAFTA opened the door of the Mexican avocado in a unique moment of Mexican crime. The old criminal cartels, developed on the basis of drugs, were breaking down. As they continued to fracture, avocados would play an increasingly important role in their sources of income.

In the 90's, one of the strongest cartels in Michoacan was the Gulf Cartel, earning mostly from drug trafficking, protecting its business by paying law enforcement and Mexican government employees³.

In Michoacan, agriculture and drug trafficking flourished together. There was a kind of mutual understanding between drug traffickers and the civilian population, because at that time, civilians were left alone.

This has largely changed with the emergence of the Zetas group and their organizational culture.

² <https://www.fruitrop.com/en/Contenus-des-newsletters/Avocado-consumption-growth-unstoppable-in-the-USA!>

³ Saviano, Roberto. (2014). *Zero Zero Zero*. Editura Univers. București

They began to take direct advantage of the civilian population.

But Los Zetas did not start as a criminal organization. These were commando troops, elite troops, many trained by foreign consultants: French, Israeli and American. Until the leaders of the drug cartels came up with the idea of hiring them.

The Gulf cartel pioneered the recruitment of elite soldiers, given that working conditions in the military have always been poor, as has pay. The risks were great.

It was an effective scheme until the 1990s, when the Zetas decided to form their own cartel. They started trying other ways to make money, such as blackmail and kidnapping.

Part of the mutation in organized crime in Mexico has been that organizations not only produce and export drugs, but also squeeze as much money as possible out of available local resources and local businesses.

In Michoacan's case, they obviously took advantage of the avocado industry.

Exports to the United States changed the scale of business, and suddenly a group of agricultural producers with annual sales of hundreds of millions of dollars emerged.

In Michoacan, the possibility of new and illegal sources of income has arisen, and criminal groups have taken advantage of this. Mexican agricultural officials bribed, to find out the names and addresses of the largest avocado growers, who were later abducted by family members, forcing them to pay taxes to recover the abductees.

In 2006, President Felipe Calderon decided to overthrow the cartels. He practically orchestrated a domestic invasion of Michoacan, his home state.

The heart of the avocado land was occupied by 20,000 soldiers who arrested or killed the cartel leaders.

It didn't work. The cartels did not die. They broke into smaller criminal gangs. And with no drug earnings, groups like Los Zetas have resorted to blackmail for higher incomes.

They started cheating on their local partners, they started killing them, and the local partners revolted and created their own organization, "The Michoacán Family."

The Michoacán family was born out of a revolt against Los Zetas. A nationalist uprising.

They said they were real Mexicans, and the Zetas were just criminals. When the family ousted Los Zetas, it was seen as a release in many areas of Michoacán.

But that soon turned into another ploy to squeeze everything out of the local population.

The constant promotion in the US has positioned "guacamole" as a must-have snack at Superbowl events. Up to 6% of Mexico's annual avocado exports to the United States are now consumed in chips on that single weekend.

The Mexican government estimates that by 2009, the gangs made up to \$ 150 million a year from the avocado business⁴.

A Kidnapping and Blackmail Office has been opened in the Michoacán State. Although it was not certain, the export of avocados did not stop, but for every kilogram of avocados exported, a percentage had to be paid for organized crime.

In 2010, La Familia Michoacán fragmented again. The newly formed group called itself the Knights Templar, one of their most important sources of income, their money was the blackmail money of the avocado industry. They were no longer just

⁴ <https://eu.courier-journal.com/story/news/investigations/2021/08/18/mexican-drug-cartels-mexico-avocado-farmers-farming-industry/7878297002/>

blackmailing avocado growers. They were no longer content with a share, but wanted to control the market.

They started quoting farmers.

The Knights Templar ruled the Michoacán state. Due to the power gained by them, many abuses took place against the civilian population. Things were out of control. Until the civilian population was fed up and decided to take the bull by the horns, so Auto Defensas was formed, an organization for the protection of civilians.

The whole city participates in the Auto Defensas movement, they set up barricades on the roads at the entrance to the city. Each visitor was stopped and questioned. The movement began to grow rapidly. They began to "liberate" cities from the control of the Templars.

Now Tancitaro seems calm. In fact, it looks like a typical city, in which one works hard for a successful industry. But it's not like that. Tancitaro is a fortress where the profit from avocados keeps the external dangers at bay.

Tancitaro works with avocado money. They now dominate the political and socio-economic life. Auto Defensas have good political connections with the federal government, thanks to the power of the avocado industry.

The real power is not in the hands of the authorities. Breeders who say they are just an agricultural organization are, in fact, the shadow power, with their own defense force. Now they represent the police. Basically, they control the local government.

Auto Defensas have been officially integrated into the State Police. They were given patrol cars, which bears the insignia of state power. They were also given official weapons and uniforms, to emphasize the idea that the state leads, but if you look beyond the surface, the power is autonomous, in private hands.

The Michoacán region remains so violent, so that it remains on the lists of the US Department of Defense with regions that are not visited by American tourists who cross the threshold of Mexico.

From a technical point of view, the ripening of avocado trees can take between five and 13 years, requiring at least 68 liters of water to produce a single avocado. That's why water, becomes the next front in the Avocado Wars.

The province of Petorca is the area with the highest production of avocados in Chile, but suffers acutely from lack of water.

Access to water in Chile works differently than in the rest of the world. That's why the avocado production takes precedence, and some people don't.

Historically, in the 1970s, a group of Chilean economists studied at the University of Chicago under the tutelage of free market guru, Milton Friedman. These economists came home with the ideas and started translating them into law.

At the time, Augusto Pinochet was leading Chile. No one objected once he gave his blessing.

And in 1981, water was privatized in Chile.

That economic model has implemented the privatization of many of our natural resources. The aim was to make them more efficient, but without having sufficient regulatory and supervisory mechanisms from the state.

Theoretically, anyone, citizen or corporation, could actually ask for access to water, but rich speculators came into possession of good sources of water.

Avocado is not a fruit native to Chile, but the country's geographical isolation has kept Chilean fruit production healthy.

That is why the United States allowed a limited number of avocado imports from Chile, ten years before NAFTA opened its doors to Mexico.

In the 90's, Chile has begun to grow the avocado production and exports to North America, especially the United States.

This is clear from the huge increase in the right to use the water required and granted in La Liga and Petorca, areas where we have the largest avocado production in the country.

In the 1990's, a small, but important, group of politicians and businessmen bought a lot of land on the hills and set up avocado orchards. An investigation by the Chilean government revealed, after a few years, dozens of secret channels that illegally directed water from rivers to large avocado plantations. That water, as well as early access to the US market, helped the Chilean avocado production explode from 50,000 tons to 250,000 tons in just ten years.

The province of Petorca had only two rivers: the Petorca River and the Ligua River. The Petorca River was restricted and dried up in 1997, and the Ligua River was restricted and dried up in 2004.

The agribusiness model has plundered the land and restricted the access of the poor to an essential element: water.

After Peru, Chile is the largest exporter of avocados to Europe.

And China, where the middle class has a taste for avocados, is mainly imported from Chile.

In the last seven years, Chinese imports have increased a thousandfold. It's the kind of market growth that manufacturers are dreaming of.

The fight for water is not limited to Chile.

Farmers in California, where the avocado fashion was launched in the 1970s, fear that they will not have enough water to keep their place in the avocado business.

California farmers will have to give up more and more of their market share to producers in Mexico and Chile.

There are no simple answers to avocado problems.

Tancitaro Mexico has restored order to the chaos of recent days.

The California avocado is not under the influence of cartels, but it destroys already dwindling water resources. And in Chile, water is controlled by the nation's elites.

It is unethical for Americans and the European Economic Community to keep buying avocados from those who violate the fundamental right to water.

If we stopped eating avocados, the industry would be hit hard,

but those at work below would be affected. So that's not a solution either.

Many believe that the answer could be a certification system such as coffee. This, however, will take time and dedication.

It would be great to be able to eat avocados without conflict, but for that, we need to establish a certification system.

We are still a long way from that, but I believe that the power of consumers, especially in this case, can go a long way in making a difference.

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