

August 2021 Nuts Edition
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Antonio Berni



ALMONDS: CALIFORNIA, USA & AUSTRALIA

Although almonds are not native to California, a hot, dry Mediterranean climate and developed water infrastructure create ideal conditions for commercial cultivation of the crop.

The state produces 80% of the world's almonds and 100% of the United States' commercial supply.

Almonds are California's most valuable export crop. Farmers exported \$4.9 billion worth to foreign countries in 2019, about 23% of the state's total agricultural exports. The majority of these exports went to the European Union, China and India.

While the EU is the largest consumer, the latter two countries are expanding markets where the state's Almond Board has actively marketed the nuts as a healthy snack.

Almond production has increased significantly in recent years; by weight, production more than tripled from 703 million pounds in 2000 to 3.0 billion pounds in 2020.



HAZELNUTS: AZERBAIJAN

Due to its favorable climate conditions suitable for hazelnut growing, Azerbaijan is one of the largest hazelnuts producing countries in the world.

There are several types of hazelnuts, like Atababa (unique taste with 68.22% oil content), Ashrafli, Ghalib, Ganja, Khachmaz (large kernel size with 50% oil content), Sachagly, Topgara and Yagly, which are cultivated in Azerbaijan. Atababa national variety is widely grown in Azerbaijan, its share in the country's total harvest is around 75%. Due to its high resistant nature to pests, and rich flavor and light color characteristics, Atababa is often preferred by the buyers.

Hazelnuts are especially grown in the northwestern regions of Azerbaijan — Balakan, Zagatala (offers around 70-75% of the total production), Gakh, Gabala, Oghuz and Shaki, and in north regions, such as Khachmaz, and Shabran. Hazelnuts produced in Khachmaz region are mainly exported to Russia, and those produced in Gabala, Oghuz, Gakh, Zagatala and Balakan regions are supplied to many countries in the world.

In 2019, Azerbaijan exported shelled hazelnuts to 18 countries, whereas Top 10 export destinations of shelled hazelnut were Russia, Italy, Germany, Georgia, Poland, Lithuania, Belarus, France, Ukraine and Switzerland. In the same year, Azerbaijan exported 22 thousand tons of shelled hazelnuts worth USD 124 million. Russia, Italy and Germany were Top 3 hazelnut export partners of Azerbaijan; together their share was 90% of the total hazelnut exports.



PEANUTS: ARGENTINA, BRAZIL, UZBEKISTAN, TURKEY, INDIA, SUDAN

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CASHEWS: INDIA, VIETNAM, TANZANIA, BRAZIL

The cashew tree grows in tropical areas with an annual rainfall ranging from 400 to 4,000 mm, and it grows from sea level to an altitude of 1,000 m. The Cashew is cultivate primarily in India, Vietnam, Côte d'Ivoire, Guinea-Bissau, Tanzania, Benin, Brazil and other countries in East and West Central Africa and South East Asia. Plantings have also been established in South Africa and Australia.

Cashew trees are evergreen and can grow rapidly up to 20 m, but usually reach 8-12 m height.

World production of cashews currently ranges between 720,000 and 790,000 metric tons (kernel basis) per year (seasons 2015/16-2019/20). India, with 170,000-195,000 MT of annual production, ranks first, followed by Côte d'Ivoire, Vietnam and Tanzania averaging 149,000; 82,000 and 53,000 MT, respectively.

Flowering takes place from December to April in the Northern hemisphere, and from June to December in the Southern hemisphere, with a higher concentration from September to November. The cashew has crossed fertilization.

Overall harvesting seasons are similar in the producing countries, depending on the location relative to the equator. Countries north of the equator, including India, Vietnam, and West Africa, start harvesting early in the calendar year until approximately mid-year.

Countries south of the equator, including Brazil and East Africa, harvest from September or October to early in the following calendar year.



PISTACHIOS: IRAN, USA, TURKEY

The pistachio, a member of the cashew family, is a small tree originating from Central Asia and the Middle East. The tree produces seeds that are widely consumed as food.

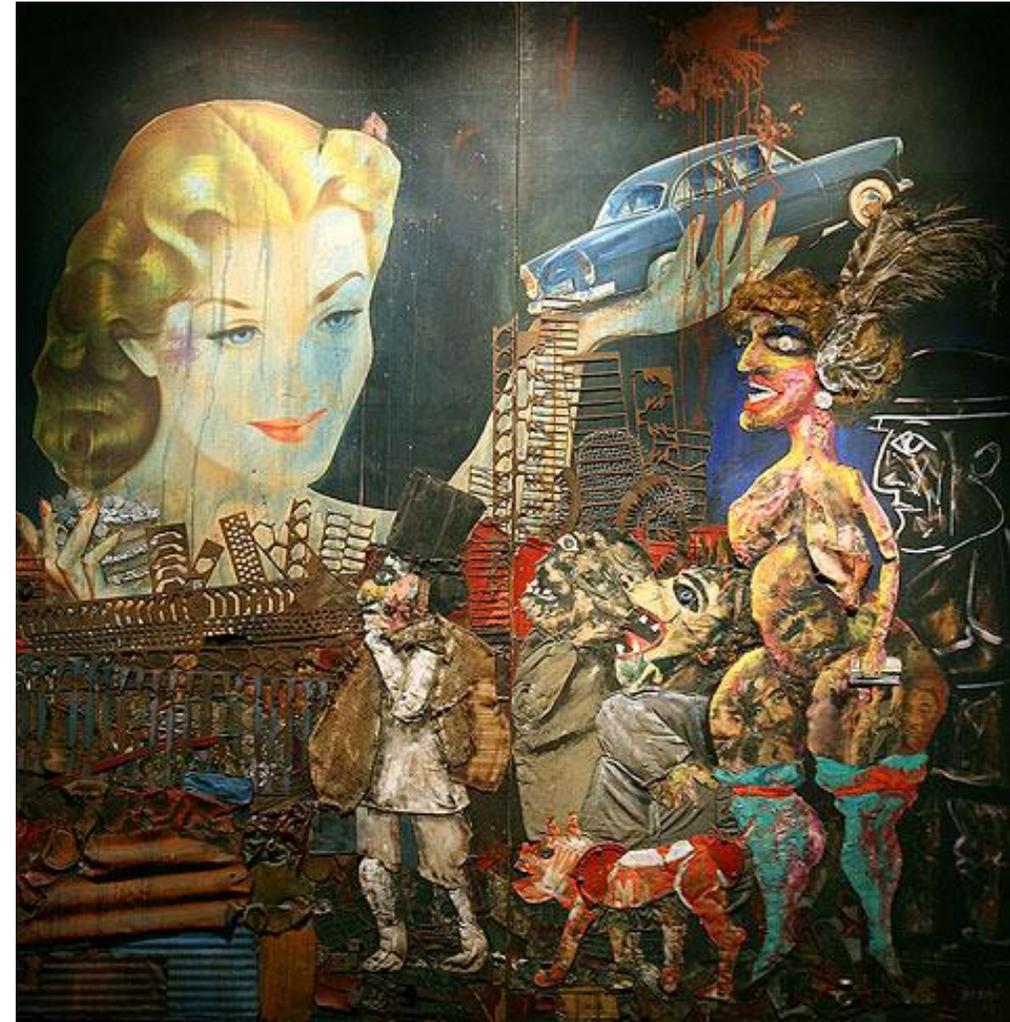
In 2019, Iran and the United States combined produced 74% of the world's pistachios.

The pistachio tree is long-lived, possibly up to 300 years. The trees are planted in orchards, and take approximately seven to ten years to reach significant production. Production is alternate-bearing or biennial-bearing, meaning the harvest is heavier in alternate years. Peak production is reached around 20 years.

In 2019, global production of pistachios was about 0.9M MT, with Iran and the United States as leading producers, together accounting for 74% of the total. Secondary producers were China, Turkey, and Syria.

A 2020 report indicated that nearly half of the global production of pistachios in 2019 came from the United States, with production in Iran falling to as low as 7% due to US trade sanctions against Iran, climate change, and weak economic and water management in Iran. Efforts to grow pistachios for international markets were made during 2019 in Georgia and Azerbaijan.

The kernels are often eaten whole, either fresh or roasted and salted, and are also used in pistachio ice cream, kulfi, spumoni, pistachio butter, pistachio paste and confections such as baklava, pistachio chocolate, pistachio halva, pistachio lokum or biscotti and cold cuts such as mortadella. Americans make pistachio salad, which includes fresh pistachios or pistachio pudding, whipped cream, and canned fruit.



WALNUTS: UKRAINE, ARGENTINA, CHILE, USA

Walnuts are rounded, single-seeded stone fruits of the walnut tree commonly used for the meat after fully ripening. Following full ripening, the removal of the husk reveals the wrinkly walnut shell, which is usually commercially found in two segments (three or four-segment shells can also form).

During the ripening process, the husk will become brittle and the shell hard. The shell encloses the kernel or meat, which is usually made up of two halves separated by a partition. The seed kernels — commonly available as shelled walnuts — are enclosed in a brown seed coat which contains antioxidants. The antioxidants protect the oil-rich seed from atmospheric oxygen, thereby preventing rancidity.

During the Byzantine era, the walnut was also known by the name "royal nut".

The two most common major species of walnuts are grown for their seeds — the Persian or English walnut and the black walnut. The English walnut (*J. regia*) originated in Iran, and the black walnut (*J. nigra*) is native to eastern North America. The black walnut is of high flavor, but due to its hard shell and poor hulling characteristics it is not grown commercially for nut production.

In 2019, world production of walnuts (in shell) was 4.5M MT, with China contributing 56% of the total. Other major producers (in the order of decreasing harvest) were the United States, Iran, Turkey, Ukraine, Argentina, Chile and others.



SESAME: SUDAN, INDIA, NIGERIA, UZBEKISTAN

Sesam is a flowering plant in the genus *Sesamum*, also called **benne**. Numerous wild relatives occur in Africa and a smaller number in India. It is widely naturalized in tropical regions around the world and is cultivated for its edible seeds, which grow in pods. World production in 2018 was 6.0M MT, with Sudan, Myanmar, and India as the largest producers.

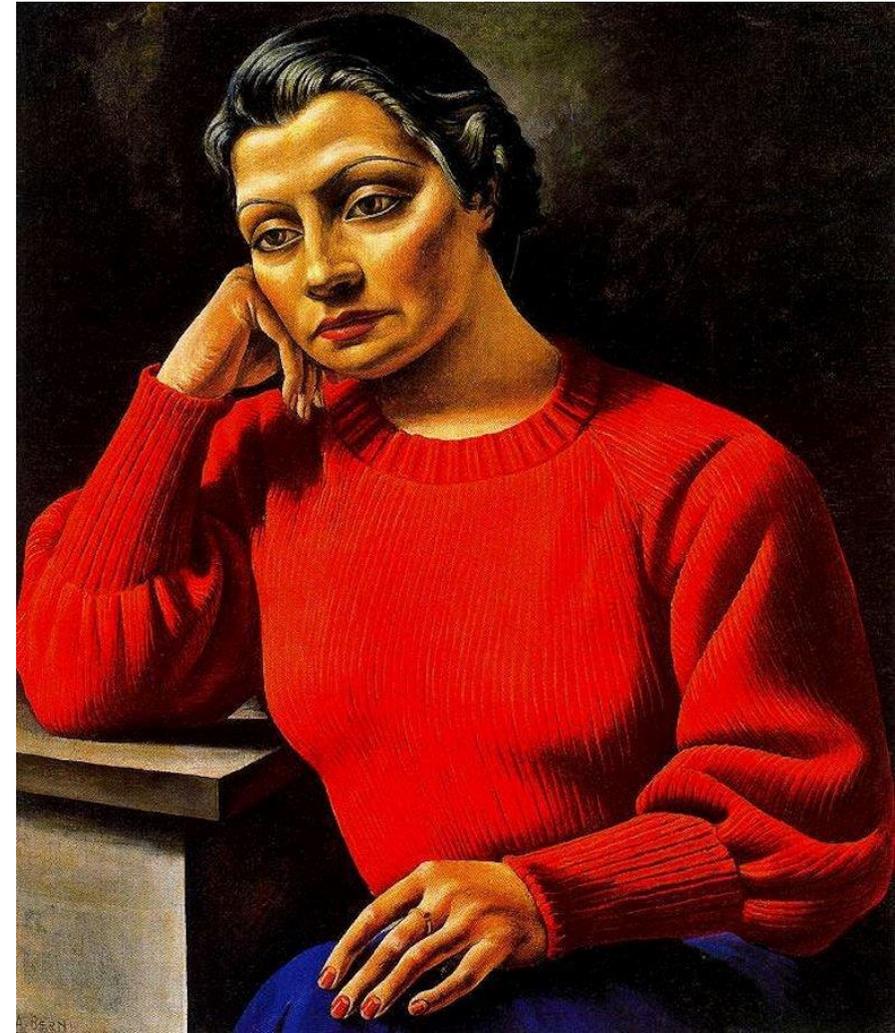
Sesame seed is one of the oldest oilseed crops known, domesticated well over 3000 years ago. *Sesamum* has many other species, most being wild and native to sub-Saharan Africa. *S. indicum*, the cultivated type, originated in India and is tolerant to drought-like conditions, growing where other crops fail. Sesame has one of the highest oil contents of any seed. With a rich, nutty flavor, it is a common ingredient in cuisines across the world.

Sesame is an annual plant growing 50 to 100 cm (1.6 to 3.3 ft) tall, with opposite leaves 4 to 14 cm (1.6 to 5.5 in) long with an entire margin; they are broad lanceolate, to 5 cm (2 in) broad, at the base of the plant, narrowing to just 1 cm (0.4 in) broad on the flowering stem. The flowers are tubular, 3 to 5 cm (1.2 to 2.0 in) long, with a four-lobed mouth. The flowers may vary in color, with some being white, blue, or purple. Sesame seeds occur in many colors depending on the cultivar. The most traded variety of sesame is off-white colored. Other common colors are buff, tan, gold, brown, reddish, gray, and black. The color is the same for the hull and the fruit.

Sesame seeds are small. Their sizes vary with the thousands of varieties known. Typically, the seeds are about 3 to 4 mm long by 2 mm wide and 1 mm thick. The seeds are ovate, slightly flattened, and somewhat thinner at the eye of the seed (hilum) than at the opposite end. The mass of 100 seeds is 0.203 g.

The white and other lighter-colored sesame seeds are common in Europe, the Americas, West Asia, and the Indian subcontinent. The black and darker-colored sesame seeds are mostly produced in China and Southeast Asia.

Japan is the world's largest sesame importer. Sesame oil, particularly from roasted seed, is an important component of Japanese cooking and traditionally the principal use of the seed. China is the second-largest importer of sesame, mostly oil-grade. China exports lower-priced food-grade sesame seeds, particularly to Southeast Asia. Other major importers are the United States, Canada, the Netherlands, Turkey, and France.





Delesio Antonio Berni (14 May 1905 - 13 October 1981) was an Argentine figurative artist. He is associated with the movement known as **Nuevo Realismo** ("New Realism"), a Latin American extension of social realism.

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