Almond Report: Spain 2023
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Spanish Almond Market Overview

The Spanish Almond Industry

Almond cultivation has been a longstanding tradition in Spain, deeply embedded in its cuisine for thousands of years. Recently, the industry has been transitioning from traditional, extensive farming to a more modern, intensive approach. This modernization of orchard management is leading to significant increases in production.

Due to the long history of almond cultivation, many different varieties are still in production, many of them with their own unique flavors. The taste difference among varieties also led to a preference for specific varieties in specific markets. Most varieties have a hard shell, which provides some protection from pests and diseases in cases of extensive production. Some older varieties are being phased out, as they do not perform as well as modern varieties.

The role of organically grown almonds is also substantial in Spain's almond industry. Precision techniques for organic farming are being implemented to maximize yield from the orchards.

Spain holds the position of the world's second-largest almond producer, despite contributing only 8% to the global supply (the United States leads, providing around 75%).

In addition to being a prominent producer, Spain also plays a significant role as a major importer and a center for processing and distributing almonds across Europe. In 2022, Spain was the world's second-largest almond importer, given the subpar year for domestic production. Spain consistently ranks among the top five global importers of almonds.
Almond production in Spain is widespread, but most of it occurs in the western and southern regions. Andalusia, the largest producer, accounts for about 27% of Spain's almond output. Following Andalusia, Aragon produces approximately 19%, Castile-La Mancha about 16%, while Catalonia and Valencia each produce around 10%. Because most production areas are rainfed, the production proportion can significantly vary from season to season due to changes in weather conditions.

Figure 1: Spanish Almond Areas

Source: Spanish Almond Board (Almendrave)
According to data from Spain’s Ministry of Agriculture, Fisheries, and Food (MAFF), the total area under almonds in 2022 stood at 761,662 hectares (ha). Of this, 634,294 ha were in production.

When considering the productive areas, the total area increased by 26% over the last decade. Only 16% of almond areas were irrigated as of 2022, comparatively smaller than other major producers. However, the area under irrigation increased by 161% over the last decade, whereas the dryland area increased by 15% over the same period.

Despite the small area under irrigation, it contributed 46% of total domestic almond production in 2022 on an in-shell basis. Irrigated almonds contributed an even larger percentage on a kernel basis, as it has a higher shell-out rate than dryland almonds.
The majority of the remaining 127,368 ha are areas that have been planted within the last five years. Most of these areas, consisting of both dryland and irrigated areas, will gradually come into production over the next years. However, most significantly, an additional 43,000 ha under irrigation could come into production in the short term, which could bring the total area under irrigation to more than 140,000 ha.

**Figure 3: Spanish Almond Areas Not Productive**

Source: MAFF
Spanish almond production in the 2023/24 season is estimated at 128,419 mt (on a kernel basis) by Almendrave. This is a significant rebound from the 61,684 mt produced in 2022/23, as the country went through one of the worst droughts in a century. Due to the low production in 2022, trees were able to rest, resulting in increased production in 2023. However, scorching conditions continued in the first half of 2023, with an especially warm summer. This does not bode well for production in 2024, but much will depend on climatic conditions going forward.

**Figure 4: Spanish Almond Production**

![Spanish Almond Production](source: Almendrave)

**Future Production Projections**
Production is estimated to reach as much as 200,000 mt by 2030 as the industry modernizes and new areas come into production.

According to the latest estimates by Almendrave, in 2023, 17% of almond areas are irrigated, and these irrigated orchards make up 57% of production.
In tandem with the rapid increase in irrigation, higher-yielding modern varieties are also being planted, and the industry is adopting advanced production techniques.

**Threats from Climate Change**
Spain experienced the hottest spring and some of the highest temperatures on record during the summer of 2023. This is on the back of 2022, which was the hottest year in Spain on record. The average temperature between March and June was 14.2°C, 1.8°C higher than average. It was also the second driest spring on record. With more than 80% of Spanish almonds being grown under dryland conditions, drought and high temperatures remain as major threats. As a result of higher temperatures during spring, almonds also bloom earlier. When temperatures drop, it kills the flowers, resulting in ruined crops. Earlier bloom also puts almonds out of sync with pollinators, decreasing yields. While modern production techniques, orchard management, and irrigation make production more climate resilient, climate change remains a significant threat as some aspects thereof cannot be easily managed.

**Organic Production**
Spain is the world's largest producer of organic almonds. According to estimates by Almendrave, of the total 128,419 mt that will be produced in 2023, an estimated 19,986 mt will be organic. Modern farming methods, integrated pest management, and organic fertilization have resulted in higher yields from organic farming. However, most organic farming is dependent on rainfall for irrigation.
Consequently, these orchards are more vulnerable to the impacts of climate change, despite the application of modern water management techniques.

Almendrave, in collaboration with Portugal's National Competence Center for Dried Fruits (CNCFS), has initiated a campaign named “Almendra Europea.” The aim is to boost organic almond production in the Iberian Peninsula and target markets in Spain, Portugal, France, and Germany. Almendrave also supports this endeavor by advocating for organic production. The marketing strategy for these almonds emphasizes their unique qualities, sustainable production, and Iberian origin. Furthermore, a unique label has been developed to identify the campaign across all media platforms and countries.

**Figure 5: Almendra Europea Label**

Source: Almendra Europea
Spanish Almond Production

The demand for organically produced almonds is increasing as end consumers focus on a healthy diet and choose products perceived as more environmentally sustainable. Consumers are willing to pay a premium for these almonds. Midway through 2023, organic almonds retailed for around EUR 7.30/kilogram (kg) in major wholesale markets in Spain, compared to EUR 3.35/kg for conventional almonds.

Spanish Almond Varieties

Spain cultivates numerous varieties of almonds, but the commercially produced varieties are broadly classified into five types, with fourteen individual varieties promoted by Almendrave. These almonds are widely acclaimed for their distinct flavors, mostly as a result of the region where they are produced. The pastry and confectionery sectors consider the Marcona variety a highly prized ingredient, thanks to its exceptional flavor. However, it is also more expensive compared to other almond varieties.
### Table 1: Spanish Almond Varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>Characteristics</th>
<th>Price (June 2023)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARCONA</td>
<td>Round shape, soft texture, sweet taste</td>
<td>EUR 6.95/kg</td>
</tr>
<tr>
<td>VALENCIAS</td>
<td>Good quality, and value, mostly grown in irrigated areas. Also called “comunas” or common almonds</td>
<td>EUR 3.35/kg</td>
</tr>
<tr>
<td>LAURANNE</td>
<td>Delicate flavor, and crunchy texture</td>
<td>EUR 3.35/kg</td>
</tr>
<tr>
<td>GUARA</td>
<td>Moderate oil content, favored for confectionary</td>
<td>EUR 3.45/kg</td>
</tr>
<tr>
<td>LARGUETA</td>
<td>Long and slender, mildly sweet flavor</td>
<td>EUR 5.00/kg</td>
</tr>
</tbody>
</table>

Source: Almendrave, MAFF
Spain is one of the world’s top almond consumers on a per capita basis consuming more than 2kg of almonds per person annually, more than 10 times the global average. The longstanding history of almonds in Spain makes it a popular snack and ingredient in Spanish cuisine. Almonds are typically eaten as a snack, especially as an appetizer. It is an in-demand ingredient in the confectionery and pastry industry, where almonds are used to make nougat and marzipan, among others.

Almond consumption has increased over the long term as more and more consumers focus on healthy eating, with almonds gaining popularity as a snack. The trend is expected to continue over the long term as healthy eating gains more importance. However, domestic consumption slowed in 2021 and 2022 as higher living costs forced households to consider cheaper alternatives in the snacking industry at the expense of nuts. Poor domestic production in 2022 led to even lower domestic consumption. This is expected to be only temporary, with almond consumption projected to increase over the long term.
Spanish Almond Consumption

Figure 6: Spanish Almond Consumption

Source: INC, Tridge
Spanish Almond Trade

Imports

Spain is not only a leading global producer of almonds but also a significant importer and distributor for the European market. On average, over 90% of Spain's almond imports come from the US. Australia is a small but growing supplier, with a 5% market share in Spain's almond imports in 2022. Almonds grown in Portugal are often processed in Spain and are typically imported in-shell.

Over the last five years, almond imports averaged 114,316 mt (on a kernel basis), with most of the almonds imported on a kernel basis.

Imports in 2022 reached 128,406 mt, an increase due to poor domestic production. In the first half of 2023, imports reached an estimated 57,000 mt (on a kernel basis). This is up 16% YoY; however, with the larger domestic crop to be harvested starting August, imports are expected to decrease over the short to medium term.

Since the majority of Spain's almond imports are sourced from the US, these almonds are predominantly imported as kernels. The US's almond shelling industry is highly advanced, and while Spain's shelling industry is also well-developed, it falls short compared to the US. In 2022, due to weak domestic production, Spain's shelling facilities operated under their usual capacity. Spain imported a marginally higher quantity of in-shell almonds that year, providing some support to the shelling industry.

Almonds kernels are imported in bulk and processed further for distribution to Europe and other destinations. So while the shelling aspect of the processing industry experienced a decline, other processing activities in Spain continued.
Spain is a major processor and distribution center for almonds. Over the last five years, Spain exported an average of 103,624 mt of almonds (on a kernel basis). Almonds that enter Spain in bulk are often processed further, repackaged, and distributed throughout Europe. Around 90% of Spanish almond exports are destined for other European countries. Most of these almonds are reprocessed almonds from the US. However, due to the unique characteristics of Spanish almond varieties, there are also niche markets for them. For this reason, Spain also exports almonds to the US, although at low volumes. Spain also exports small quantities to Asia, mostly Türkiye, and to countries in Northern Africa.

Shelled almond exports in the first half of 2023 were around 45,000 mt, a decrease of 9% YoY. The decrease is due to lower domestic production in 2022 and many of Spain’s traditional export destinations buying directly from the US.
As domestic production is expected to expand rapidly over the next decade, exports are predicted to increase in correlation. The European market will remain the largest destination. However, Spain is already planning on expanding into new markets. One example is a recent agreement signed between Spain and China. After negotiations began in 2016 to define the phytosanitary protocols for almond exports to China, an agreement was finally reached in Mar-23. The Spanish Ministry of Agriculture, Fisheries and Food estimates almond exports to China can already reach as much as 50,000 mt by 2025 and increase to 90,000 mt by 2032.

While not prominently mentioned in the official communication from MAFF, volumes are likely based on an in-shell basis. China imposes a 24% import tariff on in-shell almonds and a 10% tariff on shelled almonds. Despite the higher tariffs, in-shell almonds remain the most commonly imported form. This is largely due to China’s own nut processing facilities and lower labor costs, which make importing in-shell almonds more economically attractive.
In 2022, China imported 80,000 mt of in-shell almonds and 41,023 mt of shelled almonds, all originating from the US and Australia. Australian almonds are exempt from import tariffs under the China-Australia Free Trade Agreement. For Spain to successfully penetrate the Chinese market, it should focus on their almonds' distinct flavors and characteristics.

**Table 2: China’s Almond Imports**

<table>
<thead>
<tr>
<th></th>
<th>Import Volume (mt)</th>
<th>Imports Value (USD ’000)</th>
<th>Import Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shelled Almonds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>17,572</td>
<td>81,634</td>
<td>24%</td>
</tr>
<tr>
<td>Australia</td>
<td>23,450</td>
<td>135,875</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>24%*</td>
</tr>
<tr>
<td><strong>In-shell Almonds</strong></td>
<td>79,258</td>
<td>278,867</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>41,764</td>
<td>137,444</td>
<td>10%</td>
</tr>
<tr>
<td>Australia</td>
<td>37,495</td>
<td>141,423</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
<td>10%*</td>
</tr>
</tbody>
</table>

*China imposes a 24% import tariff on in-shell almonds and a 10% tariff on shelled almonds in the case where there is no trade agreement with the origin country

Source: China Customs
1. Spain's almond industry is undergoing modernization, adopting advanced production techniques, high-yield varieties, and sophisticated water management practices. Consequently, by 2032, almond production is projected to exceed 200,000 mt, marking a significant rise from the 128,419 mt anticipated for 2023.

2. The Spanish almond industry is highly susceptible to the effects of climate change. Warmer winters lead to earlier flowering of almond trees, rendering them more vulnerable to frost damage. Over 80% of almond production areas in Spain rely on dryland farming, making them particularly susceptible to water shortages and extreme temperatures.

3. Spain is the world leader in organic almond production, with organic production expected to reach 19,982 mt in 2023, 16% of total production. Almendrave and Portugal's CNCFS aims to promote and expand organic production. The demand for organically produced almonds is expected to increase, despite prices being nearly double that of conventional almonds.

4. Spain is a leading consumer of almonds, with an intake surpassing 2kg per person annually. However, economic factors and poor production temporarily reduced domestic consumption in 2022. Despite these short-term setbacks, the long-term outlook for almond consumption in Spain remains positive.

5. Spain exports over 100,000 mt of almonds each year, with more than 90% going to European countries. Given the anticipated growth in production, Spain is seeking to diversify its export destinations. A unique selling point of Spanish almonds will be their unique flavors and attributes. A newly inked agreement with China paves the way for expanding almond exports to the Chinese market.
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