



LIFE16-CCA IT 000011

# Commercial plan Spain & Italy: Pistachio (*Pistacia vera*)

Appendix to the Action C7-3



DESERT ADAPT, LIFE16-CCA IT 000011

2022



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#### Data Beneficiary

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*This commercial plan is one in a range of similar documents. List of commercial plans available:*

Spain	Italy	Portugal
<p>L5/L6*: <b>Aromatics, Jara</b> (all uses, including oil), <b>Honey</b>.</p> <p>L7: Nuts (<b>Pistachio</b>), <b>Turism</b> (Bulls &amp; cows)</p>	<p>L1: <b>Aromatics</b></p> <p>L2/11: <b>Honey + beekeeping</b> in general (selling/buying bee colonies &amp; queens), <b>Wild asperges, Pistachio</b></p> <p>L4: <b>Sumac</b> (<i>Rhus Coriaria</i>), <b>Prickly pear</b> (all products like Fibre, (frozen) juice, fruits etc).</p>	<p>L8: <b>Tourism</b>.</p> <p>L9: <b>Carob tree</b>. (maybe <b>Organic sheep meat</b>, first check on general market outlook before full study).</p> <p>L10: <b>Strawberry tree. Hunting</b> (link with national hunting orgs, photo hunting options).</p>

\* L numbers are the landowners in Life Desert-Adapt project that sell these products.



## 1 Type of product or service

Pistachio (*Pistacia lentiscus/vera/ terebinthus and other spp*) are common species in Southern Europe. *Lentiscus* is mostly used for its aromatic resin while *terebinthus* is used as turpentine.

*Vera* (and its' varieties) is the specie for the famous pistachio nuts and the subject of this document. The tree is very resistant and easy to grow. It is hard to propagate (in the wild it goes through birds that eat the seeds). Thus the tree is also good for birds and biodiversity promotion. It grows on almost all soils but cannot grow in the shade. It prefers dry or moist circumstances but can tolerate drought.

### Traditionally there are the following main uses.

- **Nuts.** Dried for consumption. Pistachio nuts consist of a hull and shell that enclose a seed (kernel). When ripe pistachios discard their hulls its shell splits, partially revealing the kernel inside. Split in-shell pistachios are the most commonly consumed type of pistachios and are mostly produced as a salted, roasted nut. Consumers fully split shells when eating pistachios. Pistachios can be also completely shelled and sold as just kernels. Naturally open in-shell pistachios are the main export product, and they are mostly exported as raw, dried product. After import, open in-shell pistachios are usually processed by roasting. Some of the pistachios will not split their shells after harvesting, and are mechanically shelled. After the shelling, the pistachio kernels are also exported. Kernels are commonly used as an ingredient in the confectionery and bakery industries and in home cooking. Kernels can also be produced before full ripening. Those green kernels are used as a more luxury product, for example as a topping on ice creams and as an ingredient in the confectionery industry.
- **Oil for health care.** *Pistacia vera* seed oil is extracted from the nuts. It is used for its antioxidant and anti-inflammatory properties in cosmetic products. It cares for the skin and makes it look healthier and younger. It is used in formulations of bath products, lip balms, creams, lotions, massage blends, massage oils, sunscreen and other skin and hair care products. In regards to antioxidant capacity, pistachio *vera* was first ranked among nut oils, followed by hazelnut, walnut, almond and peanuts.
- **Oil for consumption.** Compared to other nut oils, pistachio oil has a particularly strong flavour. Like other nut oils, it tastes similar to the nut from which it is extracted. Pistachio oil is high in Vitamin E, containing 19mg/100g. Pistachio oil is used as a table oil to add flavour to foods such as steamed vegetables.

## 2 Potential uses of the product or service, and prices.

The following are the most interesting uses of this specie.

### International market

Type of use	Explain what it means
<b>Oil</b>	<p><b>Oil for a wide variety of purposes.</b></p> <p>Extracted pistachio oil constitutes 50%–62% of its weight (of dried nuts without shells). Some other sources say 45-60. We take 50% on average. Production can be 1.000 kg/ha in year 8, irrigated. Non irrigated (or at least not full-time year-round) about 850 KG. This means about 425 litre of oil per hectare. Consumer price (in bulk) stands at €17 EUR/litre. Maybe €7 Euro/litre producer price (40% of consumer price, standard factor). This means €2.975/ha.</p>
<b>Nuts</b>	<p><b>Dry and shelled nuts.</b></p> <p>Production can be 1.000 kg/ha in year 8, irrigated. Non irrigated (or at least not full-time year-round) about 850. In Spain, producer prices rise year by year, consolidating between €4,5 and 8,8/kg, one of the most profitable in the fruit and vegetable market. We assume €6/KG as an average price because quality is maybe smaller (because we assume there is no full-time irrigation). This means €5.100/ha.</p>

### Local, national or regional market SPAIN

Type of use	Explain what it means
<b>Pistachios</b>	<p>Most farmers sell their produce without peeling or drying to companies dedicated to pistachio processing. Once they have been processed, they are sold through different channels, depending on whether they are pistachios with shells or grains. The production of pistachios in Spain has been increasing in recent years, with productions of approximately 17,000 tons in the years 2021/22, increasing its production by 17%.</p>

### Local, national or regional market ITALY

Type of use	Explain what it means
<b>Nuts</b>	<b>Dry and shelled nuts.</b>

### Used literature:

- [Life Desert-Adapt species database.](#)
- [Science Direct](#); Oil quality of pistachios (Pistacia vera L.)
- [Pita](#); yield of 1 KG nut to oils for many different species.
- [Fresh Plaza](#): "Pistachio cultivation in Spain has become a business for investment funds"
- [APPISTACO](#), Asociación de Productores de Pistacho y Comercializadores.
- [Centro Nacional de Competências dos Frutos Secos \(CNCFS\)](#)(Portugal)
- [Pfaf database of species.](#)
- [CBI, The European market potential for pistachios](#) 2020 (valuable study).

### 3 Target customers, markets and competitors

#### International market

Market types			
Name of solution, product or service	Best target customers for each product: Explain your preferred target groups; consumers, retailers (shops), distributors, other landowners, wholesales, catering industry	Best target market for each product: Local, regional, national, international	Include basic information about the competitors. How big are they? Where are they located?
Oil	<b>Production companies</b> that use this oil for soaps etc (as mentioned in chapter 1). <b>Consumers, &amp; retailers</b> , through online sales platforms, ready-made products.	<b>International</b> Because the market in not big enough in each country.	<b>Reasonable number of competitors.</b> The use of oils for this purpose is well established. It depends on the species where the competition is coming from. Most of nuts from these oils are produced in Iran and the US.
Nuts	<b>Consumers, &amp; retailers</b> , through online sales platforms. You should not wish compete with large production countries.	<b>International</b> for products with a good story (bio etc etc). Just in bulk is best sold <u>locally</u> .	<b>Many companies from Southern EU</b> are already established from small ones to larger ones. Largest producers are in Iran and US.

#### Local, national or regional market SPAIN

Market types			
Name of solution, product or service	Best target customers for each product: Explain your preferred target groups; consumers, retailers (shops), distributors, other landowners, wholesales, catering industry	Best target market for each product: Local, regional, national, international	Include basic information about the competitors. How big are they? Where are they located?



<b>Pistachios</b>	<p><b>Companies dedicated to pistachio parocesoado.</b></p> <p><b>- Pistachio with peel.</b> It is sold to roasters in Spain or European distributors.</p> <p><b>-Pistachio grain.</b> It is sold to companies in the processing industry, dedicated to making sweets or other types of food, as well as oils and cosmetics.</p> <p><b>Consumers, &amp; retailers,</b> through online sales platforms</p>	<p><b>International</b></p> <p>Although the bulk pistachio market is better locally.</p>	<p><b>Large number of competitors.</b></p> <p>The largest competitor in pistachio production and sales is the US, followed by Iran, and within the EU, Germany and Belgium. In Spain, the pistachio-producing Autonomous Communities are Castilla la Mancha (Ciudad Real, Toledo and Albacete), Andalusia and Extremadura.</p>
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### Local, national or regional market ITALY

Market types			
Name of solution, product or service	Best target customers for each product:	Best target market for each product:	Include basic information about the competitors.
	<p>Explain your preferred target groups; consumers, retailers (shops), distributors, other landowners, wholesales, catering industry</p>	<p>Local, regional, national, international</p>	<p>How big are they? Where are they located?</p>
<b>Nuts</b>	<p><b>Consumers, &amp; retailers,</b> through direct selling</p>	<p>Local and regional market</p>	<p>There are competitors but local production/planted areas are not abundant.</p>

### Used literature:

- [Experience Essential Oils \(about various oils available\)](#)
- [Market news USDA](#)
- [Aromaweb](#) (with info about 130 essential oils).
- [Nature in a Bottle.](#)
- [Migino](#) (small importer in Belgium).



## 4 Market forecast

### International market

Market forecast			
Name of solution, product or service	Describe the current market conditions. For example the forecasted growth or for example a regulation with direct influence on the market. Small/medium/big markets.	Demand. What do you expect? What information is it based on?	Price development. What do you expect? What information is it based on?
Oil	<b>This is a medium size and slowly growing market.</b> There are maybe up to 10 small/medium companies offering such oils in each EU country.	<b>We expect a slow growing market for the years to come.</b> These products are linked to economic growth and consumer spending levels.	<b>Current prices are reasonable (not great), and will remain so.</b> For some products this is caused by cheap exporting countries like Iran.
Nuts	<b>This is a large size and growing market.</b> Trade figures can be found in <a href="#">Appendix 1 below</a> . More nuts are consumed every year in general.  <i>For Spain:</i> According to the latest data for the 2021/22 season the Spanish production stood at 16.725 tons. This is 17% more than in the previous season, and 71% above the average of the last 5 seasons.  <u>Europe</u> is the second-largest market for pistachios (after the United States), but the largest importing region in the world, accounting for around one-third of the total world trade. European imports of pistachios have increased by an average 3.8% in volume in the period	<b>We expect a growing market for the years to come.</b> These products are linked to a growing population but also a trend where people convert from other types of food to more nuts. This is in line with the general trend towards more natural (and healthier?) and locally produced ingredients.	<b>Current prices are good, and will remain so.</b> This is an increasing market. Larger demand means steady and better prices.



	<p>2014-2018. 28% of all imports from outside Europe come from developing countries. In the next five years, the European market for pistachios is likely to increase with an annual growth rate of 4-6%. Regular fluctuations in imports will continue to be influenced by harvested crop volumes and price fluctuations rather than changes in demand. <a href="#">Read more here.</a></p>		
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### Local, national or regional market SPAIN

Market forecast			
Name of solution, product or service	Describe the current market conditions. For example the forecasted growth or for example a regulation with direct influence on the market. Small/medium/big markets.	Demand. What do you expect? What information is it based on?	Price development. What do you expect? What information is it based on?
Pistachios	<p><b>This is a large size and growing market.</b> Every year more pistachio is consumed overall for the health benefits. In Spain in 2021/22, around 8000 t were consumed in households, down 8% compared to the average consumption in recent years. In Spain, pistachio production in the 2021/22 season was 16,725 t, this is 71% of the average compared to recent years. Imports into Spain in 2021/22 are 11,163 t increasing by 8% compared to previous years. Exports for the 2021/22 season are 1,345 t, increasing by 16% compared to previous</p>	<p><b>We expect a growing market for the years to come.</b> A greater growth of the consumption of this nut is expected, due to the great benefits it has for health, and since the population prefers to consume natural products. For the 2022/23 season, no major changes are expected in the evolution of pistachio production and trade.</p>	<p><b>Current prices are good, and will remain so.</b> In the 2021/22 season, pistachio prices vary according to the variety. -Lonja de Reus Kerman. 3,57 €/kg with respect to the average 3,77 €/kg. -Lonja de Albacete Kerman grain. 10,60 €/kg. -Lonja de Albacete Larnaka. 14,17 €/kg. -Lonja de Albacete Ecológico Kerman. 9 €/kg.</p>



	years. Shipments to European Union countries have increased by 5%.		
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### Local, national or regional market ITALY

Market forecast			
Name of solution, product or service	Describe the current market conditions. For example the forecasted growth or for example a regulation with direct influence on the market. Small/medium/big markets.	Demand. What do you expect? What information is it based on?	Price development. What do you expect? What information is it based on?
Nuts	Same growing trend as international market. Increase in local nuts (made in sicily)	High demand both for direct consumption of nuts but also for transformation and pastry.	Same trend as international level above

### Used literature:

Essential oil in the market:

[Amazon](#) (search per specie)

<https://www.etsy.com> (search per specie)

## 5 Your opportunities & threats, and how to sell it.

### International market

Your potential advantages and threats by selling this			
Name of solution, product or service	Explain opportunities by targeting this product or service.	Advise what the best ways are to sell this product or service (the marketing mix). Think about added-values, packaging, web-shops or not etc	What are the current threats to the market?
Oil	<b>Good prices and emerging market.</b> Good time to enter it.	<b>Direct linking to producers</b> of medicinally, soaps, perfumery or fumigation purpose.  <b>Directly to consumers or retailers</b> throughout online sales platforms.	<b>Mechanisation.</b> Production is still expensive. When market grows some people will invest in machinery to harvest in a more efficient way. This will lower production costs and create tough competition.
Nuts	Nice herb of which there is <b>unlimited and cheap growing stock!</b> Because it is still seen as a weed. Still <b>somewhat unknown</b> , thus this is the time to enter.	<b>Directly to consumers or retailers</b> throughout online sales platforms. No need to sell to intermediate chain segments.	<b>Direct competition with other herbs.</b> This is a niche market and have to be sold like this (unique product with a good story). In this the story is more important as the product.

### Local, national or regional market SPAIN

Your potential advantages and threats by selling this			
Name of solution, product or service	Explain opportunities by targeting this product or service.	Advise what the best ways are to sell this product or service (the marketing mix). Think about added-values, packaging, web-shops or not etc	What are the current threats to the market?
<b>pistachios</b>	<b>Good market and price growth.</b> Good time to enter the pistachio market in Spain since more	<b>Direct sales</b> to consumers or retailers.	<b>Competition with other nuts.</b> To mark the differences, you have to obtain a unique product that

	production of this nut is needed to obtain greater returns.	<b>Sale to consumers or retailers</b> through an online platform.	differentiates them from others, with a good seal that facilitates your market.
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### Local, national or regional market ITALY

Your potential advantages and threats by selling this			
Name of solution, product or service	Explain opportunities by targeting this product or service.	Advise what the best ways are to sell this product or service (the marketing mix). Think about added-values, packaging, web-shops or not etc	What are the current threats to the market?
Nuts	Increasing demand for pistachios made in Sicily	Direct selling and local shops	Slow but increase in areas planted with pistachios. Competition with international and lower price producers.

### Used literature:

<https://www.aromaweb.com/essential-oils/>



## 6 Potential customers.

List the potential customers for each products. List at least 5 potential customers for each product or service.

### International market

Customers			
Name of solution, product or service	Name and location	website	Why?
<p><b>Oil (either to producers, or online sales platforms directly, see also below with herbs)</b>            If you like to sell your nuts to oil producers then look for the major players: Desert Whale Jojoba (Vantage Specialty Chemicals), OQEMA, Gustav Heess, Custom Ingredients, BioOrganic Concepts, Naturochim, Hallstar, BIONAP (Bioactive Natural Products), ICSC International Cosmetic Science Centre.</p> <p>Smaller importers and traders are the following:</p>			
a)	Decléor	<a href="https://www.decleor.co.uk">https://www.decleor.co.uk</a>	Perfumery
b)	Migino	<a href="https://migino.be/assor/">https://migino.be/assor/</a>	Small importer
c)	Puressentiel	<a href="https://uk.puressentiel.com">https://uk.puressentiel.com</a>	Company in line with 'Nature' values and a good story.
d)	Nature in a Bottle.	<a href="https://www.natureinbottle.com">https://www.natureinbottle.com</a>	Trader.
e)	Ninth avenue	<a href="https://ninthavenue.be/">https://ninthavenue.be/</a>	Also oil <b>in bulk</b> .
<p><b>Nuts. (assuming direct sales platforms, search on the product and check yourself).</b>            If you want to sell your nuts in Bulk then look for Borges, Frit Ravich, Wonderful (the USA brand), Campomar (organic) and Eagle. There are also a couple of brands of locally produced pistachios in Spain such as Nazaries or Maña (organic pistachios), Menguy's and Juste Bio (organic).</p> <p>Below shows you direct sales platform to sell your own product with a good story.</p>			
a)	Amazon	<a href="https://www.amazon.com">https://www.amazon.com</a>	Online sales platform, search for the specie.
b)	Etsy	<a href="https://www.etsy.com">https://www.etsy.com</a>	Online sales platform, search for the specie.
c)	Eko Plaza (in Dutch)	<a href="https://www.ekoplaza.nl/">https://www.ekoplaza.nl/</a>	Specially for bio and similar products, direct selling, search for the specie.
d)	Ebay	<a href="https://www.ebay.com">https://www.ebay.com</a>	Search the specie and see what is online now.
e)	Lazada	<a href="https://www.lazada.com.ph">https://www.lazada.com.ph</a>	Search the specie and see what is online now.

### Local, national or regional market SPAIN

Customers			
Name of solution, product or service	Name and location	website	Why?
<b>Pistacho. (assuming direct sales platforms, search on the product and check yourself).</b> Below shows you direct sales platform to sell your own product with a good story			
a)	Mavis Gourmet	<a href="https://mavisgourmet.com">https://mavisgourmet.com</a>	Online sales platform.
b)	Pistakkis	<a href="https://www.pistakiss.com">https://www.pistakiss.com</a>	Online sales platform y venta en tienda en Losar de la Vera.
c)	Decascara	<a href="https://www.decascara.com">https://www.decascara.com</a>	Online sales platform.
d)	Pistaxo	<a href="https://comprarpistachos.es">https://comprarpistachos.es</a>	Online sales platform.
e)	Green Pistachio	<a href="https://greenpistachio.es">https://greenpistachio.es</a>	Online sales platform. Planta procesadora en Toledo

### Local, national or regional market ITALY

Customers			
Name of solution, product or service	Name and location	website	Why?
Product 1:			
Nuts	Direct selling and local shops	Website of the farm	To try to get higher prices



## Appendix 1: Pistachio in Spain

Source: [Freshplaza 2022](#).

"Pistachio cultivation in Spain has become a business for investment funds"

Pistachio production has recorded a huge boom in Spain in recent years, with the area exceeding 60,000 hectares after a 14-fold growth in the last decade alone. "However, the production has not yet reached its full potential. The fact that the plantations are young means that in the coming years, the harvest volume will increase very quickly as the plantations become fully productive," said José Luis del Roj, of the Association of Pistachio Producers and Marketers, APPISTACO.

According to the latest data for the 2021/22 season, recently published by the Ministry of Agriculture, Fisheries and Food, in the latest season the Spanish production stood at 16,725 tons. This is 17% more than in the previous season, and 71% above the average of the last 5 seasons.



"There has been exponential growth in recent years, but we have also noticed that pistachio cultivation in Spain has gone from being an activity carried out by agricultural producers to being a business for investment funds, which are setting up large plantations in wastelands. We are talking about farms that can reach between 600 and 700 hectares. We don't know if the end goal of these funds is to produce or if their activity will have a more speculative purpose, given the economic situation of recent years, in which interest rates have been very low; a move intended to provide equity value to assets that didn't have it, with a crop that, for now, ensures a good profitability," said José Luis.

In fact, profitability is one of the main reasons for the crop's boom. "In the first commercial operations of this new season, the price of the conventional production, far from dropping, has actually increased due to certain international factors. Iran, the world's second largest pistachio producer, has had problems and the harvest has dropped considerably and they are not having the same export capacity as other years; therefore, the price has become more expensive. The United States has also had a lower production, so this season's price in Spain is on the rise, following international market trends."



"However, despite the lower supply in the international market, there appears to be a downward trend in the purchases carried out by processing companies," said José Luis. Certainly, consumption data has generated a lot of uncertainty this season, as the MAPA reports significant drops for products such as fruits and vegetables. However, a positive fact is that, in the previous campaign, the consumption of nuts -and very specifically that of pistachios- has stood above pre-pandemic figures.



"Nobody knows yet how pistachio consumption will evolve, but it should be taken into account that Spain expects a very considerable reduction in the production of other nuts, such as almonds," said José Luis del Roj (in the photo). Prospects from the Ministry itself point to a reduction of more than 40%.

**"The most widely planted variety in Spain is still the Kerman"**

The goal of the Association of Pistachio Producers and Marketers is to oversee both the marketing and the transformation processes of the product in order to add value to the final product. "This way, the producers associated under APPISTACO can obtain a higher profitability for their crops," said José Luis. One of the factors linked to profitability can be varietal differentiation. In Spain, the most widely planted variety is still the Kerman, but according to José Luis, more and more producers are opting to diversify their production, since, besides snacking, other purposes in the food industry also need to be covered.



"It should be taken into account that each variety is suited for different climatic conditions. The Kerman is the variety that needs the most hours of cold, about 1,000-1,100 hours below 7 °C. In areas that are suitable to grow the Kerman, some growers have been planting other varieties, such as the Sirora or Larnaka, in order to diversify. These are earlier varieties planted in colder areas, so there is a chance the move could be detrimental to them, but nobody knows for sure. In the coming years, we will see whether these varieties are more productive in those areas than in others with more suitable climatic conditions."

"Pistachio snacking buyers are looking for fruits with certain characteristics in terms of size, flavor and shape, such as those of the Kerman variety. The Sirora, for example, is different, so we don't know if, whenever the supply of this variety increases, we will start to see unexpected price differences between varieties. The pistachio industry is still very young, and although every experiment being carried out seeks to improve the profitability, everything will still depend on how the market accepts them," said José Luis.



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