



LIFE16-CCA IT 000011

Commercial plan Spain: Jara (*Cistus ladanifer*)

Appendix to the Action C7-3



DESERT ADAPT, LIFE16-CCA IT 000011

2022



LIFE Project Number: LIFE16-CCA IT 000011

LIFE Project name: DESERT ADAPT

Data Project

Project location:	Italy, Portugal and Spain
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(%) of eligible costs:	60%

Data Beneficiary

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Report information

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

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

2 Type of product or service

Jara, or laudanum/rock rose (*Cistus ladanifer*) is a typical shrub growing in abundance in Southern Europe and is often seen as a weed.. This dominant plant of the Mediterranean area is highly resistant to seasonal dryness and conditions of high solar exposition, and it is well adapted to poor and degraded soils. Moreover, it is considered a pyrophytic species and it colonises large areas as pure dense stands due to its ability to inhibit the growth of other plants by releasing allelochemicals compounds. This shrub secretes through the young leaves and stems a particular exudate, called labdanum, widely used by the perfume industry as a natural fixative. In fact, Spain is the main labdanum gum-producing country, which it is obtained from harvesting wild *C. ladanifer* plants. In addition to the labdanum gum, other odoriferous products also appreciated by the perfume and cosmetic industry can be obtained from this plant, such as EO and hydrolate (by-product).

Traditionally there are many purposes.

- You can ground the leaves into a powder and use it with cereal flours in making cakes and breads.
- Stems can be eaten raw or used as a commercial food flavouring in baked goods, ice cream, chewing gum etc.
- Labdanum gum and its derivatives (labdanum oil, resinoid, concrete and absolute). This resin is rich in valuable compounds, and has been traditionally extracted in countries such as France, Spain and Portugal, to be used mainly in the perfume industry due to its excellent aromatic and fixative properties. In addition, some labdanum compounds constitute an important alternative to ambergris, which is a rather rare and highly valued product in perfumery obtained from a protected animal source (sperm whale). These *C. ladanifer* products have potential uses as antimicrobials, antioxidants, antitumorals, analgesics and neuroprotectants.
- The essential oil is obtained mainly by hydrodistillation or steam distillation of the young aerial parts (leaves and stems). Currently, the essential oil is mainly used by the perfume and cosmetic industry, but it could also be used to produce fungicides, bactericides or herbicides in biological control.
- Hydrolates are a by-product of the oil distillation process and corresponds to the aqueous fraction obtained after the separation of essential oil during the process. Hydrolates usually contain less than 1 g L⁻¹ of water soluble aromatic compounds from essential oil. The hydrolates can provide advantages over Essential oils, such as higher production, lower cost and better applicability through spraying or irrigation methods to control pathogens or weeds in organic farming.
- Rockroses are producers of high quality monofloral bee pollen. Bee pollen is an important natural source of proteins, carbohydrates, vitamins and minerals, and therefore considered an excellent dietary supplement with biostimulant action.
- The specie is also connected to various mushrooms that will grow in combinations with Jara.
- In the past liquor was distilled from the specie as well.
- Tea can be made from the herbs/ leaves or simply sold as herbs.



3 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
Essential oil	<p>Essential oil for a wide variety of purposes and very valuable.</p> <p>Steam distillation of the young twigs produces the traditional quality essential oil of Spanish cistus. The distillation yield is very low, only around 0,1% of the fresh plant. There can be around 40 m3 of cistus per ha, or maybe 13 ton wet, or 2t dry/ha useable. 13 000 kg wet * 0,1% dry material is thus 13 litre/ha. For the moment we assume that around 5000 kg/ha wet can be harvested in the wild. We do not aim for a plantation. That is thus 5 000 kg = 5 liter/ha. UNEX/ADPM information: 3.793 EUR/litre consumer price. Producer price (40% of consumer price, standard factor). Producer prices of 600 €/Litre in 2021 and 800 €/Litre in 2022 are mentioned in the market (data provided by Biolandes and Jarpil).</p> <p>Between 1-10 t of essential jara oil are produced worldwide.</p>

Jara herbs.	Dried leaves as herbs, or for tea. Jara certified organic herbs 1Kg a 57 Euro/kg consumers price. Maybe 23 Euro/kg producer price (40% of consumer price, standard factor).
Labdanum gum.	Industrially and traditionally, this resin is usually extracted from young plant material (leaves and stems) with alkaline water followed by acid neutralization. In turn, the Labdanum oil is obtained by distillation of the gum and the resinoid by alcoholic extraction. The yield of ladano gum is about 13% of the total dry weight of the plant (average resin extraction of 370 Kg/Ha) and the annual production of this product is estimated between 200 and 600 t/year (Biolandes). 360-450 €/Kg of gum consumer price (Magic herbs).

Local, national or regional market

Type of use	Explain what it means
Bee pollen	Bee pollen as a commercial product employed in food (for direct consumption with juices, milk or yogurts), cosmetics and therapeutics (apitherapy). For their harvesting, the so-called pollen traps are used, which are placed at the entrance of the beehive. The pollen is removed from the beehives daily and dehydrated by drying afterwards. Rockrose pollen is collected in Extremadura during a period of 15-20 days in spring and an average production of 4-5 kg of pollen per beehive and year can be obtained. Such products are about 20 Euro/Kg. Maybe 8 Euro/Kg producer price (40% of consumer price, standard factor).
Mushrooms	Mushrooms for consumption. Mushrooms in KG. 11 Euro/kg. 10 kg/ha 110 Euro/ha. Harvest in year 9. Mushrooms have a low prices and with extensive farming production is low.
Hydrolates	Hydrolats can be used in the food industry for flavoring, aromatherapy and cosmetics, as well as in organic agriculture. Hydrolates are a by-product of the oil distillation process and corresponds to the aqueous fraction obtained after the separation of essential oil during the process. Such products are about 36 Euro/litres. Maybe 14,4 Euro/litre producer price (40% of consumer price, standard factor).

Used literature:

- [Life Desert-Adapt species database.](#)
- [Estimation of above-ground biomass in shrubland ecosystems of southern Spain \(Jara biomass/ha\)](#)
- [Nabia Cistus Ladanifer](#) (one of the biggest producers of Cistus products).
- [ResearchGate, about Cistus management and mushrooms.](#)
- [Aromaweb](#) (with info about 130 essential oils).
- [Pfaf database of species.](#)

4 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?
Essential oil	Production companies that use Jara essential oils for medicinally, soaps, perfumery or fumigation purpose. Consumers, & retailers, through online sales platforms, ready made products.	International (because there are not many of these companies).	Not many. The use of Jara for this purpose is just starting. Hardly any real plantations in place.
Jara herbs.	Consumers, & retailers, through online sales platforms.	International (because product is not yet well known best to aim a bit bigger).	Small companies from Southern EU are stepping in this market right now.

Local, national or regional 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?
Bee pollen	Consumers, & retailers, direct sales in stores or through online platforms.	National The product is not yet well known abroad, but it is highly appreciated in Spain.	A significant number of small/medium-sized companies located mainly in western and southern Spain.

Mushrooms	Consumers, & retailers, direct sales mainly to restaurants.	Regional o local Short-lived product with relatively low prices	Not many and quite localized in specific areas.
Hydrolate	Large companies that use rockrose hydrolate to develop high value-added products such as medicines, soaps, perfumes, bioherbicides or biofungicides. Consumers and retailers, direct sales in stores or through online platforms of ready-made products.	National By-product with low price and need of large volumes (therefore high export costs).	A few producers located in southern Spain.

Used literature:

- [Experience Essential Oils \(about various oils available\)](#)
- [Pharmaplant. Retailer](#) & producer.
- [El Jarpil \(Various Cistus products\).](#)
- [Biolandes \(various Cistus products\)](#)
- [Marketnews USDA \(mushrooms\)](#)
- [Nursery Viveros Fuenteamarga](#) (partner in Life Desert-Adapt project).

5 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? Provide numbers on current sales prices (for landowners in the chain).
Essential oil	This is a currently small, but steady growing emerging market. Trade figures are not available. There are maybe up to 20 small/medium companies offering Cistus products.	We expect a continue growing market for the years to come. 2 reasons: 1) landowners in Southern Europe will push because they have so many, not used, Cistus. 2) And because customers start to realize this product can be used for many purposes.	Current prices are high, and will remain high. There is not that many production and it remains a lot of work to produce 1 litre of oil. Maybe in the future, after potential mechanisation and investment the price can be lower (5-10 years from now).
Jara herbs.	This is a currently small, but slowly growing emerging market. Trade figures are not available. There are maybe up to 20 small/medium companies offering Cistus products.	The demand will not grow much. There are many herbs on the market thus clear competition.	Prices will remain the same as they will be compared with other herbs. 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

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? Provide numbers on current sales prices (for landowners in the chain).
Bee pollen	This is currently a medium-sized and well-established market, but has seen a 50% drop in production in recent years	We expect demand to increase, there is a growing interest in the consumption of sustainable natural	Current prices are low, but we expect them to grow as demand increases.

	due to changing climatic conditions. In Spain, the total annual pollen production is approximately 1,117 tons. Furthermore, Extremadura is the region with the highest production of pollen in the world (about 400 Kg), mainly concentrated in Las Hurdes (North of Caceres).	products such as pollen.	
Mushrooms	This is a currently small, but slowly growing emerging market. Trade figures are not available because collection and sale is not professionalized.	Current demand is low and will likely remain low.	Mushrooms have a low prices and with extensive farming production is low.
Hydrolate	This is a currently small, but steady growing emerging market. Trade figures are not available. There are maybe up to 20 small/medium companies offering Cistus products.	We expect strong market development in the next few years due to their condition of an underutilized by-product which can be used for many novel purposes.	Current prices are low compared to essential oil, but are expected to rise considerably as demand for the product increases.

Used literature:

Essential oil in the market:

<https://www.aromaweb.com/essential-oils/cistus-oil.asp>
<https://uk.puressentiel.com/blogs/herbarium/cistus-ladaniferous>
<https://www.edenbotanicals.com/cistus-traditional.html>
<https://cistus-ladanifer.com/cistus-oil/>
<https://www.planttherapy.com/cistus-essential-oil>
https://www.youngliving.com/en_EU/products/cistus
<https://www.decleor.co.uk/blog-articles/cistus-essential-oil/cistus.html>
<https://oshadhi.co.uk/cistus-rock-rose-essential-oil/>
[Farmaline Bio Cistus.](#)

Cistus (or Rockrose) Herbs in the market.

[Amazon, collection of Cistus products](#) incl tea and herbs!
<https://cistus-ladanifer.com/info/cistus-herbs/>
https://www.etsy.com/be/market/cistus_tea
<https://tofillo.com/herbs/cistus-tea-benefits/>

6 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?
Essential oil	Good prices and emerging market. Good time to enter it.	Direct linking to producers of medicinally, soaps, perfumery or fumigation purpose. Directly to consumers or retailers throughout online sales platforms.	Mechanisation. 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.
Jara herbs.	Nice herb of which there is unlimited and cheap growing stock! Because it is still seen as a weed. Still somewhat unknown , thus this is the time to enter.	Directly to consumers or retailers throughout online sales platforms. No need to sell to intermediate chain segments.	Direct competition with other herbs. 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

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?
Bee pollen	Natural product of high quality (Rich in proteins, carbohydrates, vitamins and minerals) and relatively low cost.	Directly to consumers or retailers throughout online sales platforms o	Agricultural intensification and climate change.

		direct sales in stores.	
Mushrooms	Natural resource with a relatively low cost.	Directly to consumers or retailers throughout online sales platforms. No need to sell to intermediate chain segments.	Seasonal and highly variable market, there are wide variations in supply each year. The market needs regulation, overexploitation of the resource can cause extinction of the resource.
Hydrolate	Large volumes, low cost and easy applicability. In addition, emerging market as an alternative to the use of synthetic chemicals.	Directly to producers of medicines, soaps, perfumes, bioherbicides or biofungicides. Directly to consumers or retailers throughout online sales platforms.	Mechanisation. 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.

Used literature:

[Amazon, collection of Cistus products](#) incl tea and herbs!

7 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?
Essential oils (either to producers, or online sales platforms directly, see also below with herbs)			
a)	Decléor	https://www.decleor.co.uk	Perfumery
b)	Farmaline	https://www.farmaline.be	Medical use
c)	Puressentiel	https://uk.puressentiel.com	Company in line with 'Nature' values and a good story.
d)	Eden botanicals	https://www.edenbotanicals.com	Serious trader with much experience.
e)	Osmanthos	https://osmanthos.com/perfume-ingredients	Buys ingredients for making your own perfume.
Jara herbs. (assuming direct sales platforms, search on the product and check yourself)			
a)	Amazon	https://www.amazon.com	Online sales platform
b)	Etsy	https://www.etsy.com	Online sales platform
c)	Tofillo	https://tofilllo.com/herbs/cistus-tea-benefits/	Herbs and tea trader.
d)	Ebay	https://www.ebay.com	Search the specie and see what is online now.
e)	Eko Plaza (in Dutch)	https://www.ekoplaza.nl/	Specially for bio and similar products, direct selling.

Local, national or regional market

Customers			
Name of solution, product or service	Name and location	website	Why?
Bee pollen:			
a)	Naturitas	https://www.naturitas.es/	Online sales platform with large supply of natural products.
b)	Etsy	https://www.etsy.com	Online sales platform
c)	Tienda Extremadura	https://tiendaextremadura.es/	Online sales platform specialized in the trade of products from Extremadura.
d)	Ventademiel	https://ventademiel.es/	Online sales platform specialized in bee products trading
e)	Amazon	https://www.amazon.com	Online sales platform
Mushrooms :			
a)	Sabor a Extremadura	https://www.saboraextremadura.es/tienda/	Online sales platform specialized in the

			trade of products from Extremadura.
b)	Laumont	https://www.laumont.es/	wholesale market with much experience.
c)	La casa de las setas	https://lacasadelasetas.com/es/	Online sales platform specialized in the trade of mushrooms.
d)	Antonio de Miguel	https://www.antoniodemiguel.es/	wholesale market with much experience and located in the north of Extremadura.
e)	Local restaurants in Extremadura	For example https://versatilrural.com/	Direct sales to restaurants which include mushrooms in their menus.
Hydrolate:			
a)	Amazon	https://www.amazon.com	Online sales platform
b)	Bela Vizago	https://www.bidah-chaumel.com/es/	Wholesaler of Oils, Extracts and Natural Essences for the Cosmetic and Food Industry.
c)	Tu taller natural	https://www.tutallernatural.com/	Online sales platform specialized in cosmetic and aromatherapy.
d)	Jabonarium	https://www.jabonariumshop.com/	Online sales platform specialized in cosmetic products.
e)	Maese Pau	https://maesepau.es/	Online sales platform