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# Life Olea Regenera

Recovery of bio-waste from the olive oil extraction process.

## More information:

Web page:  
[lifeoleraregenera.com](http://lifeoleraregenera.com)

Newsletter subscription:  
[lifeoleareganera.com/nwesletter/](http://lifeoleareganera.com/nwesletter/)



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Life Olea Regenera

The LIFE OLEA REGENA project is focused on the introduction of the olive-oil industry in the circular economy by means of the revaluation of the alperujo. Through a zero-residue physical and mechanical process, two high-quality by-products have been obtained, which are intended to be the basis for the formulation of new products for the agricultural and livestock industry. In this way, it has been possible to eliminate the contamination derived from the current processing and treatment of the alperujo.

Project number:  
LIFE17 ENV/ES/000189

Duration:  
Start date: September 2018  
Ending date: December 2022

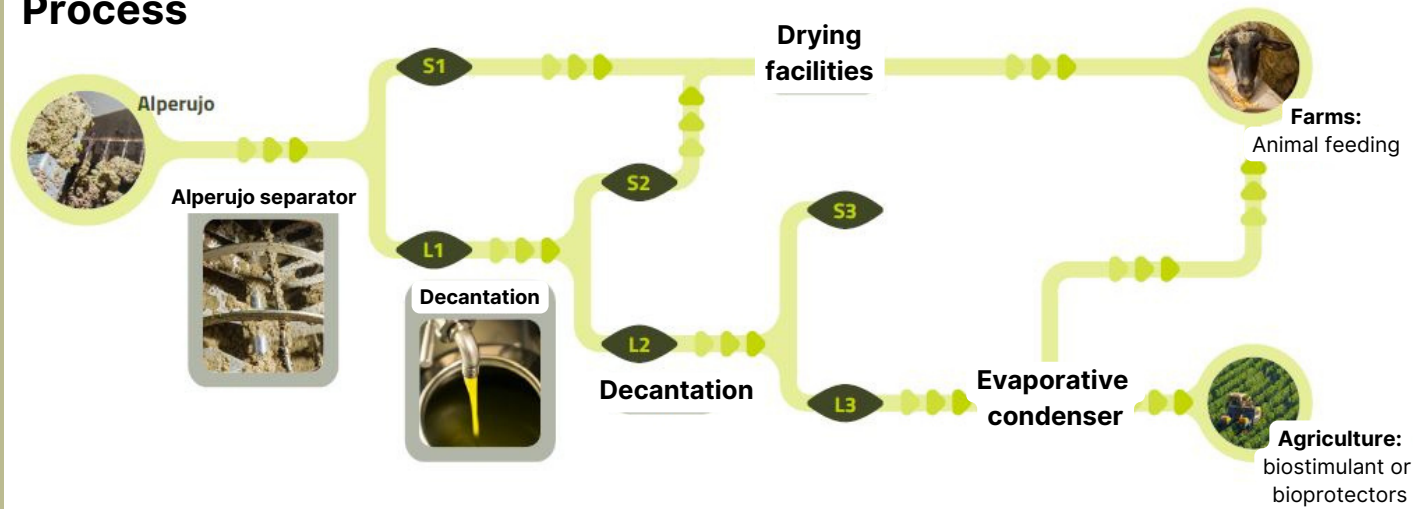
Budget:  
Total: 1.824.730 €.  
Contribution of EU: 995.395 €

Partners:  
Fertilizantes y Nutrientes Ecológicos, S.L.  
(coordinating company)  
Olivaís Do Sul, S.A.  
Orujo Frío, S.L.  
CEBAS-CSIC  
SOLEX IBÉRICA DE SECADOS  
GRANULARES, S.L





## Process



The prototype for the processing of alperujo, designed by the companies Orujo Frio and Solex, allowed processing about 12,500 tons of waste. Completely eliminating the alperujo produced during the campaigns of the **Life Olea Regenera project**, through its transformation into **high-value by-products**.

### Subproducts:

**L3 or liquid phase**, which is obtained from the physical treatment of alperujo, is a stable extract, with high biological value. Since it is rich in **hydroxytyrosol** and its derivatives, phenols with **high antioxidant power**.



**S1 or solid extract** is rich in fiber, fat and protein.

### Two new product lines:

Six products for the agricultural industry were designed from L3.



All formulations showed promising results. Formulations 1, 2, 3 and 4, mainly, showed an improvement in the development and quality of the fruits, for the different crops studied.

In **Grape, Olive and their oil**, an increase in their **polyphenol content** with these formulations was observed, giving them **added value** and increasing their **postharvest life**.

In the animal feed sector, the solid fraction is being marketed for Iberian pig feed formulations.

### Why Iberian pig?

- These animals have a greater consumption capacity
- The price of feed is higher
- It is an easy product to store in animal farms

**Feeds enriched with the solid fraction** showed an improvement in **growth and in the fatty acid profile** in backfat, producing an increase in **oleic acid** and a decrease in **fatty acid saturation**.



**El aceite de Casa Grande, S.L.** has been registered as a **supplier of raw materials** of vegetable origin for animal feed "Feed of defatted olives".

**El aceite de Casa Grande, S.L.** intends to install a **concentrative evaporator in 2023**, in order to optimize the process of obtaining the **liquid by-product (L3)**.

The liquid fraction is in the registration process to be used as a substitute for **vitamin E**.