**Phenolic extract obtained with natural deep eutectic solvents (NADES)**

CSIC and the University of Seville have developed a procedure for obtaining an extract rich in phenolic compounds from fresh olive pomace (alpeorujo), using natural eutectic solvents (NADES) with an acidic base. The alpeorujo thus extracted is subsequently subjected to vermicomposting in order to achieve zero waste residue in the production of virgin olive oil.

We are looking for companies in the nutraceutical and food sector, or in the phytosanitary sector, interested in the exploitation of this technology through a patent license agreement.

### An offer for Patent Licensing

#### Zero waste in the recovery of the alpeorujo

This technology offers extracts of phenolic compounds from natural origin through the use of NADES, which provide non-toxic extracts in vitro, easily usable in the agri-food industry and in the nutraceutical sector. These phenolic extracts obtained with NADES have been shown in cell culture essays to have anti-inflammatory activity.

The NADES used in this technology are solvents with high extractive capacity, low toxicity and biodegradable, made up of mixtures of natural substances present in living organisms. These NADES could be an effective, safer and environmentally friendly alternative to conventional organic solvents commonly used.

Once the phenolic extract is obtained, a new residue called extracted alpeorujo remains which, after pretreatment, is transformed by vermicomposting into a new product suitable to be incorporated into the soil in the form of organic amendment or fertilizer, thus achieving a close process to zero waste.

### Main innovations and advantages

- Obtaining phenolic extracts using natural solvents (NADES) with beneficial properties for health, usable as nutraceuticals, food additives or as phytosanitary products.
- Use of low-cost, non-toxic and biodegradable solvents (NADES)
- Use of NADES as an alternative to organic solvents.
- Use of simple and economical procedures.
- Valorization of the alpeorujo.

### Patent Status

Priority patent application filed suitable for international extension.

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