

Application open for Industrial Trial with the new technology of Pulse Electric Fields (PEF) for healthier olive oil extraction in a Portuguese Oil Mill

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Within the EIT FOOD project - PHENOILS (New technologies implementation in RIS regions' olive oil mills for healthier olive oil extraction), the partner of the EPS consortium (EnergyPulse Systems) launches this request in search of a Portuguese collaborative mill for a small-scale industrial test on the new technology developed by them based on Pulse Electric Fields for the improvement of the extraction and quality of virgin olive oils for the production of an Extra Virgin Olive Oil of superior quality.

The industrial test, which will be entirely free, should be carried out by December 31, 2020, during the development of the new oil campaign 2020-2021 and will count at all times by the technical support of the heads of the company EPS (EnergyPulse Systems), a company responsible for the development of technology.

The company EPS would be responsible for the completion of all tests during the entire time of the same, which is estimated to be 2 days, with the sampling of the AOVs and production control of both processes. On the part of the industrial mill, only the arrangement of the installations and the olive to be processed will be required, being the EPS company the responsible for the installation and uninstallation of the Pulse Electric fields equipment to be tested.

With respect to the chemical characterization, small quantities of the produced virgin olive oil obtained with the different trials should be provided to EPS to make all the quality analyses. Yield extraction (%), if possible, should be analyze in the Oil Mill.

At the launch of this call, we look for a plant that is interested and open for the realization of a comparative test between the traditional system (kneading, malaxation and centrifugation) and the new EPS system (kneading, electromagnetic pulses, beating and centrifugation), with the aim of analyzing the improvement of production and quality in the EVOOs produced by both methods. As it is pilot tests

with industrial capacity of 4.000 kg/hour, the oil mill would have to have a kneading line not exceeding 100 tn/day.

If the mill were interested, it could then continue to participate in larger-scale testing with the technical assistance of the EPS team during the 2021-2022 campaign.

Requirement: Portuguese Oil Mill

Capacity of the industrial line: up to 4 ton/h

Number of trials: 2 trials

Variety: arbequina

For more information on the Phenoils project, in which 3 new extraction techniques are being studied for improving the natural antioxidant content of extra virgin olive oils, you can consult the website <https://www.eitfood.eu/entrepreneurship/projects/PHENOILS/>.

For the accession of your mill to the realization of this industrial test, we appreciate you contacting the project consortium through one of these people:

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