

## **Puralga: animal waste turned into biodiesel with the help of microalgae**

**LOCATION:**La Mojonera (Almería)

**DURATION:** 1'24"

**SUMMARY:** A group of researchers from the Cajamar Foundation and the University of Almería are studying how to refine pig waste –the liquid part- using microalgae and transform it into biodiesel, biogas or animal feed. This process eliminates substances which can be very harmful for the environment due to their high levels of nitrogen and phosphorus. Andalusia is one of the regions in Spain with the highest number of pig farms.

### **VTR:**

Using microalgae to refine the liquid waste generated by pig farms. That's the goal of the PURALGA Project, developed by the University of Almería and the Cajamar Foundation. This waste is considered to be a threat to the environment, due to the high levels of nitrogen and phosphorus it contains.

**JOSÉ MARÍA FERNÁNDEZ**  
Professor at the UAL

*Microalgae are microorganisms that, just like plants, capture nitrogen, which is one of the main substances found in pig waste and can be used to synthesize biomass and proteins."*

And a problem becomes a solution, because these microalgae are able to generate...

**ALICIA GONZÁLEZ**  
Cajamar Foundation

*"Biofertilizers, we can also obtain animal feed. Through a process, we can even obtain biogas or biodiesel."*

Making its refinement cheaper thanks to these products. Liquid pig waste is highly polluting.

**JOSÉ MARÍA FERNÁNDEZ**  
Professor at the UAL

*"They produce ammonia vapors that literally destroy the surrounding areas, which are very harmful for the soil and can not be eliminated with conventional purifiers."*

But using microalgae...

**ALICIA GONZÁLEZ**  
Cajamar Foundation

*"There's a high reduction of the pollution generated by pig waste, so we can use them in farming later."*

There are approximately 25 million pigs in Spain, which are concentrated in very small areas that use ineffective waste treatment and removal systems. Andalusia is one of the regions with the highest number of pig farms.