



LIFE VALPORC

Valorization of pig carcasses through their transformation into biofuels and organic fertilizers (LIFE13 ENV/ES/001115)





Name of the Deliverable: Informe de los resultados de los análisis físico-químicos de los sustratos considerados, incluyendo el potencial de biometanización, y de los digestatos.

Number and name of the associated action: Action A2. Caracterización de materias primas del proceso de biodigestión y producción de biodiésel

Submission date: 30/04/2015

Partner responsible for this deliverable: Fundación CARTIF

	LIFE + VALPORC LIFE 13ENV/ES/001115 VALORIZACIÓN DE CADÁVERES DE PORCINO MEDIANTE SU TRANSFORMACIÓN EN BIOCOMBUSTIBLES Y FERTILIZANTES ORGÁNICOS	
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A. Executive summary

A.1 Objectives:



The objective of this deliverable is focused on:

- Physicochemical characterization of pig manure, meat meal, fat, process waste water and glycerin.
- Biochemical methane potential determination of substrates.
- Characterization of digestate.

Since the waste used are highly variable in composition and volume of generation , to save the great difficulty in obtaining extrapolated data from the characterization, it has been followed a specific protocol of sampling and transport of the sample, depending on the nature of each residues .

Analyses have been made are:

- To characterize fat raw material:
 - o Acid number.
 - o Water content.
 - o Fatty acid composition.
- To characterize pig manure, meat meal, process waste water and glycerin raw materials.
 - o Total and volatile solids
 - o pH
 - o Total phosphorus
 - o Total Kjeldahl Nitrogen
 - o Chemical oxygen demand
 - o Elemental analysis (C, H, N)
- To determine biomethanisation potential of the substrates.
- To characterize the digestates.
 - o Electric conductivity
 - o pH
 - o Organic matter content
 - o Total Organic Carbon and Hydro-soluble Carbon
 - o Total and Hydro-soluble Nitrogen and so as ammonium and nitric nitrogen

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- C/N Ratio
- Macro and micronutrients
- Heavy metals (Ni, Cr , Cd y Pb)
- Phytotoxicity index
- Pathogenic micro-organisms (Salmonella y Escherichia coli)