

THE CONDENSE LIFE PROJECT

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EXECUTIVE SUMMARY

The CONDENSE project (LIFE10 ENV/GR/000596), initiated in September 2010, with the title “The CONDENSE Managing System: production of novel fertilizers from manure and olive mill wastewater. Originally in the project were involved the Development Company of Western Greece, the Technological Educational Institute of Crete, the Technological Educational Institute of Crete and the University of Leeds. Major restructure of local government system in Greece, during 2010, resulted in the need: a) to introduce in the consortium the Region of Western Greece, and b) alter the name and structure of the Development Company of Ilia, by merging the three different development companies of the Region of Western Greece into a single one, named Development Company of Region of Western Greece.

The CONDENSE process, the core behind the project, is a combination of two simple and low cost waste management technologies, that of Composting and Solar Drying. It also utilizes two very common, in the overall Mediterranean Regions agricultural and agro-industrial wastes that of manures and olive oil mills wastewater (OMW). The end result is an organic fertilizer with significantly increased concentrations of Potassium (primary), Nitrogen and Phosphorus, higher than ordinary organic fertilizers and almost similar to chemical fertilizers.

The reason for this increased concentration is the condensing process that is achieved through solar drying. OMW contain large amounts K (up to 5.5 kg / m³, with a mean value of 3.5 kg / m³), N (up to 2.5 kg / m³, with a mean value of 1.8 kg / m³), and P (up to 1.5 kg / m³, with a mean value of 0.8 kg / m³), which through evaporation achieved in solar drying units, is condensed in a substrate of dried fresh manure. Together with the nutrients however, a large amount of phenols is also condensed in the manure, making this mixture phytotoxic.

The aim of this paper is double, one regards the essence and the ability of the process and the end result and the second to present the problems and obstacles that the project team had to tackle during the past six years. During this period, there were two major amendments of the project, two extensions of the project period and one major internal change of the budget. Useful experience can be drawn for all existing and future Life projects.

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