"Best practices for Agricultural Wastes (AW) treatment and reuse in the Mediterranean countries"



LIFE10 ENV/GR/594

Project co-funded by EC LIFE+ Environment Policy & Governance



Project duration: 01/09/2011-31/08/2015

Website: www.wastereuse.eu

Total budget: 1,384,799 €

EC funding: 679,399 €

Beneficiaries contribution: 705,400 €



WASTEREUSE main objectives

- Evaluation of technologies for AW treatment regarding their suitability for crop cultivation
- Development of Alternative Cultivation Practices for the most widely cultivated crops in Mediterranean
- Identification and development of Best Management Practices for waste application to main market crops
- Protection of soil quality from the disposal of treated and untreated AW
- Reduction of carbon footprint; prevention of excessive use of natural resources; increase of the competitiveness of Mediterranean agricultural products



Coordinating Beneficiary

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Activities so far

• All available technologies for AW treatment have been included in a comprehensive inventory (grouped by type of waste, level of development and origin country of the coordinating beneficiary) which has been also uploaded on the web-site of the project. The technologies have been quantitatively evaluated based on technical, environmental, economic and socio-cultural indicators.

 Various soils from Spain, Italy and Greece, as well as treated and untreated AW, have been collected and characterized to assess their suitability for crop production.

Phytotoxicity tests have been carried out to assess the effects of AW on soils; pot and petri dishes experiments are in progress.

 A database including agricultural organizations, European Ministries of Agriculture, SMEs involved in waste management as well as other interested stakeholders mainly from Greece, Italy and Spain to disseminate project outcomes, has been prepared.



 WasteReuse was presented by the project coordinator in a seminar at Istanbul Medeniyet University on 16/5/2012 in Istanbul, Turkey.

An article presenting WasteReuse and progress was published on 14/4/2012 (Easter Saturday) in the local newspaper "Chaniotika Nea" of Chania, Crete, Greece. The daily circulation of the paper is around 10,000 copies.



One scientific paper entitled "Best practices for Agricultural Wastes (AW) treatment and reuse in the Mediterranean countries (WasteReuse)", authored by K. Komnitsas, D. Zaharaki, M.T. Hernández, J.L. Moreno Ortego, C.G. Izquierdo, F. Tinivella, G. Minuto, L. Medini, D. Micharikopoulos and E. Tavlaki, was presented in the International Conference on Sustainable Solid Waste Management ATHENS 2012, http://uest.ntua.gr/athens2012/, which was held between 28-29/6/2012 in Athens, Greece.



Future activities

- The investigation of alternative cultivation practices in laboratory scale will be completed by March 2013. Thereafter, best practices will be implemented at open field and greenhouse for commonly cultivated crops in Spain and Italy.
- An LCA study in terms of raw materials consumption, energy use and emissions as well as a risk analysis regarding phytotoxicity and potential quantified soil and water impacts due to the cultivation practices considered will be carried out.
- Two more papers will be presented at International Conferences:

Komnitsas K. and D. Zaharaki, Establishment of weighted indicators for the evaluation of agricultural waste treatment technologies, 4th International Conference HSWMA (Hellenic Solid Waste Management Association) on Solid Waste Management in Crisis: New Challenges and Perspectives, Athens, Greece, 30 November - 1 December 2012.

Komnitsas K., D. Zaharaki and D. Vamvuka, Factors affecting quality of compost produced from agricultural waste: assessment of risk, Istanbul International Solid Waste, Water and Wastewater Congress 2013 Istanbul, Turkey, 22-24 May 2013.

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