"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: <u>www.wastereuse.eu</u> 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**

Technical University of Crete (TUC), School of Mineral Resources Engineering, Greece <u>www.mred.tuc.gr</u> Project coordinator: Prof Konstantinos Komnitsas e-mail: <u>komni@mred.tuc.gr</u>

# **Associated Beneficiaries**

Centro de Edafología y Biología Aplicada del Segura, Consejo Superior de Investigaciones Científicas (CEBAS-CSIC), Spain <u>www.cebas.csic.es</u> Contact person: Dr Maria-Teresa Hernández e-mail: <u>mthernan@cebas.csic.es</u>

Center for Agricultural Experimentation and Assistance (CERSAA), Italy <u>www.cersaa.it</u> Contact person: Dr Federico Tinivella e-mail: <u>federico.tinivella@alice.it</u>

Chemical Laboratory of the Chamber of Commerce of Savona (Laboratorio Chimico CCIAA), Italy Contact person: Dr Luca Medini e-mail: <u>luca.medini@labsvcamcom.it</u>

Signosis Sprl., Belgium <u>www.signosis.eu</u> Contact person: Mr Dimitris Micharikopoulos e-mail: <u>dimitris@signosis.eu</u>

# Activities so far

 Actions 3 and 4 regarding the development of alternative agricultural practices in Spain and Italy, respectively, have been completed by March 2013. Implemented tasks include collection and characterization of soils as well as treated and untreated AW, assessment of the suitability of AW for crop production and potential effects on soil properties and development of new cultivation methods.



Pot experiments in CERSAA premises

- Demonstration Actions have been initiated on April 2013, in Spain and Italy. In CEBAS-CSIC premises organic waste addition on soil has been completed and treated soil has been characterized. In CERSAA premises cultivation of lettuce, rocket and lamb's lettuce which are the main salad species consumed in Italy, is carried out in greenhouse.
- Collection and evaluation of data regarding Life Cycle Analysis (LCA) and Risk Analysis to be carried out for all agricultural processes considered in Italy and Spain, is continuous. GaBi 6 software is also used by TUC.
- A network including agricultural organizations, European Ministries of Agriculture, SMEs involved in waste management as well as other interested stakeholders mainly from Greece, Italy and Spain, has been prepared by Signosis Sprl for the dissemination of project activities and achievements. So far 563 organizations from 30 countries have been identified.
- One scientific paper entitled "Factors affecting quality of compost produced from agricultural waste: Assessment of risk", authored by K. Komnitsas, D. Zaharaki and D. Vamvuka, was presented by the project coordinator at Istanbul International Solid Waste, Water and Wastewater Congress (<u>http://istanbul3wcongress.org/</u>), which was held between 22 and 24 May, 2013 in Istanbul, Turkey.

 Dr J.L. Moreno Ortego (CEBAS-CSIC) gave a presentation in the line of WasteReuse, regarding soil degradation and composting as environment friendly remediation process in "CEIP Francisco Martínez Bernal" Primary School at Molina de Segura, Murcia, Spain; around 100 students of 8-10 years old participated.



Presentation at "CEIP Francisco Martínez Bernal" Primary School

- So far project leaflets have been distributed by beneficiaries in various events including conferences, workshops and exhibitions.
- A booklet introducing WasteReuse project has been prepared by SIGNOSIS, in cooperation with all partners.

### **Future activities**

- In demonstration Actions in Spain and Italy, the agricultural practices developed in experimental Actions 3 and 4, will be implemented for commonly cultivated crops in each country.
- 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.

For more information, please visit our website or contact us This newsletter was prepared by TUC

