

“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 €

**5th Newsletter
July 2014**



WASTEREUSE main objectives are:

- **to evaluate innovative and traditional technologies for agricultural waste (AW) treatment regarding their suitability for crop cultivation**
- **to develop alternative cultivation practices for the most widely cultivated crops in the Mediterranean region**
- **to protect soil quality from the disposal of AW, reduce carbon footprint and increase competitiveness of Mediterranean agricultural products**

Coordinating Beneficiary

Technical University of Crete (TUC), School of Mineral Resources Engineering, Chania, Crete, Greece

www.mred.tuc.gr

Project coordinator:

Prof Konstantinos Komnitsas

e-mail: komni@mred.tuc.gr

Associated Beneficiaries

Centro de Edafología y Biología Aplicada del Segura, Consejo Superior de Investigaciones Científicas (CEBAS-CSIC), Murcia, Spain

www.cebas.csic.es

Contact person:

Dr Maria-Teresa Hernández

e-mail: mthernan@cebas.csic.es

Center for Agricultural Experimentation and Assistance (CERSAA), Albenga, Savona, Italy

www.cersaa.it

Contact person:

Dr Federico Tinivella

e-mail: federico.tinivella@alice.it

Chemical Laboratory of the Chamber of Commerce of Savona (Laboratorio Chimico CCIAA), Albenga, Savona, Italy

Contact person:

Dr Luca Medini

e-mail: luca.medini@labsvcam.com.it

Signosis Sprl., Brussels, Belgium

www.signosis.eu

Contact person:

Mr Dimitris Micharikopoulos

e-mail: dimitris@signosis.eu

Activities so far

Actions 3 and 4 regarding the development of alternative agricultural practices in Spain and Italy, respectively, have been implemented between October 2011 and March 2013. Untreated and treated wastes have been evaluated; their suitability for crop production and quality improvement and their potential effect on soil properties was also assessed.



Experimental field "Tres caminos" in Santomera (Murcia) - greenhouse cultivation



Rosemary cultivation tests in the field at CERSAA's premises



Lettuce cultivation tests in the field at CERSAA's premises

Demonstration actions (5 and 6) have been initiated on April 2013 in Spain and Italy, after the completion of Actions 3 and 4, respectively. Their objective is to demonstrate the feasibility of the application of treated wastes in open field and greenhouse cultivations.

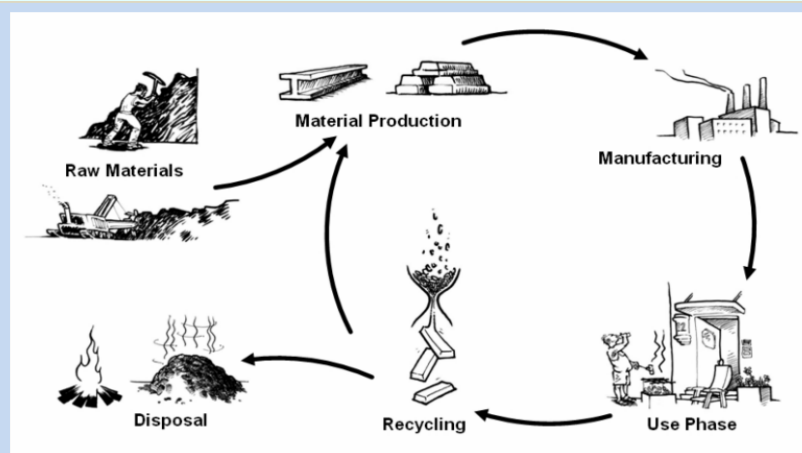
In the line of Action 5, the effect of the application of three different liquid wastes (urban sewage sludge, pig slurry and depurated wastewater) on two different soils, on ryegrass and barley growth have been assessed. Cereal cultivation (barley and sweet wheat) in open field is in progress and harvesting will take place by the end of July 2014. The second tomato crop cultivation in greenhouse is also in progress.

In Action 6, pot experiments have been carried out in order to assess the effect of various parameters (compost application rate, addition of zeolite, addition of fertilizer) on biomass production of cress and lettuce (indicator species). Such experiments have provided data in order to finalize the set-up of the field tests foreseen for the coming season. Field trials on rosemary (pots) and lettuce (greenhouse, plain soil) have been initiated by May 2014.

A complete Life Cycle Analysis 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 of the options considered in Actions 3-6, is carried out by TUC.

LCA study for all processes considered in Italy and Spain is in progress by collecting data regarding Spanish and Italian study areas from partners as well as through detailed literature survey. The structure of the LCA framework includes all life cycle stages and integrates typical inputs and outputs, using GaBi 6 software.

A risk analysis (mapping and modelling) regarding potential soil and water impacts is also carried out (parameters such as geology, permeability, land use, precipitation-evaporation, depth of water table and potential pollutants in the studied areas, are taken into consideration).



Life cycle representation of a material production (<http://www.gabi-software.com>)

The project website www.wastereuse.eu (photo library, results etc.) in 5 languages (English, Greek, Spanish, Italian and French) as well as the Facebook (https://www.facebook.com/WasteReuse_Project?fref=ts) and Twitter (@WasteReuse) fan pages are continuously updated.

The project publishes newsletters with the most important news and results, on a six-month basis.

Other dissemination activities include presentation of the project in workshops/seminars and distribution of leaflets, such as the Green Week exhibition (Brussels, June 3-5 2014), the "Land as a resource" conference (Brussels, June 19 2014) and the "World Environment Day" (Chania, Crete, June 4 2014).

In the line of Action 9, visits of farmers and stakeholders at demonstration areas in Spain and Italy (project deliverables), are organized. At least 2 visits for each country per year or a total of 8 visits will take place in order to disseminate the results of the project.

On May 2014, members of the Young farmers Association visited the experimental site in La Matanza "Tres Caminos", Santomera, Murcia. On June 18, 2014, personnel of the Agricultural Training School of Albacete visited the experimental field in Barrax, Abacete (Finca Las Tiesas).

The names of the people that have visited CERSAA premises since the initiation of the field trials in 2012 until June 2014, have been recorded in a list which will be updated with the names of new visitors within the next months.

For more information, please visit our website (www.wastereuse.eu) or contact us
This newsletter was prepared by TUC

