



LIFE + Environment Policy and Governance

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Project: Best practices for agricultural wastes (AW) treatment and reuse in the Mediterranean countries

www.wastereuse.eu

Action 6 - Development of alternative agricultural practices. Demonstration in greenhouse and field experiments (Italy)

Deliverable "Soil quality protection by the sustainable use of treated AW in crops cultivation"

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1. Executive summary

Based on the outcomes obtained in Action 6 (*Development of alternative agricultural practices- Demonstration, Italy*) that aimed to demonstrate the potential agronomic value of different treated and untreated organic wastes, the present deliverable targets specific issues related to crop production and soil quality. Use of selected agricultural wastes - specifically compost - can represent a valuable alternative to soil fertilization after proper evaluation of their characteristics and the absence of phytotoxic effect. Moreover compost can increase the content of organic matter in the soil leading to increased yields and be exploited for its suppressiveness against soilborne pathogens. Such aspects may have a positive impact in terms of reduction of the use of external inputs in agriculture (chemical fertilizers and pesticides normally adopted for soil disinfestation). Finally the addition of zeolite, a common mineral already known for many agricultural applications, can play a major role in reducing the contamination of soil and water bodies from nitrate contamination.

The measures above mentioned are hereby discussed on the basis of the trials carried out at the Center for Agricultural Experimentation and Assistance (CeRSAA) of Albenga and their role in the conservation of the main properties of soil and in the protection of its quality and basic function in agricultural production are considered.