Geophysical Research Abstracts
Vol. 14, EGU2012-6410, 2012
EGU General Assembly 2012

The use of soil organic amendments: an old practice in a changing world

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The annual production of organic wastes in the so called “developed countries” reaches many decades of tons per year. These wastes are of agro-industrial and municipal origin, mainly in solid or semi-solid form and are rich in organic carbon, macro (i.e. nitrogen, phosphorous, potassium) and micronutrients.
On the other hand, soils, especially in the Mediterranean area, are often subjected to severe degradation processes accompanied by a decline of soil organic matter content which adversely affects soil fertility. The use of organic amendments allows restoring soil organic matter content and its physical, chemical and biological functions.
Therefore the agricultural use of organic wastes, especially if properly processed such as after composting processes, could be an interesting way to convert a waste into a resource by supplying organic matter and nutrients to cultivated and degraded soils according to an ecological approach.
However, organic wastes may contain contaminants, such as heavy metals, patogens and organic pollutants, so they must be processed in order to obtain chemical stabilization and biological maturation of the organic matter.
The aim of this work was to look into the list of organic amendments the opportunity of agronomical reuse together with to discuss the possible presence of contaminants that should be regulated in the EU fertiliser legislation. At the same time to identify the contaminants that need to be controlled in fertilisers to ensure a sufficient level of protection of human health and the environment without entailing disproportionate compliance costs for the society.