

Seminario internazionale di chiusura del progetto FertiLIFE

“Dai rifiuti nuove opportunità per una moderna agricoltura”

“Fertilizzazione sostenibile di un'area orticola intensiva mediante l'utilizzo di biomasse di scarto”

22 novembre 2005

Comunicazione Università di Innsbruck. Prof. Heribert Insam (ore 10,40 – 11,10):

Importance of compost to combat desertification

Desertification is mainly related to agriculture: overgrazing removes the vegetation cover that protects it from erosion, over-cultivation exhausts the soil, deforestation destroys the trees that protect the soil. The intensification of human activities lowers soil organic matter status which increases the greenhouse effect. Drylands are especially vulnerable to rises of temperature. Due to vegetation loss, desertification makes areas more flood-prone. Desertification has huge economic consequences – the World Bank estimates that at the global level, the annual income lost in the areas affected by desertification amounts to US\$ 42 billion each year, while the annual cost of fighting land degradation would only be US\$ 2.4 billion.

The use of compost in agriculture is one way of maintaining or restoring the quality of soils because of the unique properties of the humified organic matter contained in the compost itself. It has a special relevance in certain southern regions of Europe, where it is a valuable method of tackling organic matter depletion, desertification and soil erosion, as well as in areas continuously used for agricultural production where organic matter levels are decreasing. At the same time the use of compost in horticulture and in home gardening is a valid substitute for peat, thus reducing the exploitation of wetlands. In the future, however, a combination of anaerobic and aerobic processes might be preferable.

Anaerobic digestion is a means of producing 'green energy', with the possibility of obtaining a residue that, after an appropriate aerobic phase, can be used as a soil improver. For those biodegradable wastes that are suitable for anaerobic digestion, this biological treatment combines the advantages of composting with the production of energy. It serves two purposes: increasing the soil organic C status, and contribution to a decrease in greenhouse gas emissions.