

## **Ingenious Eco-Technology for Transforming Food and Tanneries Waste into a Soil Bio-Conditioner and Fertilizer Product Used for Recovery and Enhancement of the Productive Capacity of the Soil**

**Authors :** Petre Voicu, Mircea Oaida, Radu Vasiu, Catalin Gheorghiu, Aurel Dumitru

**Abstract :** The present work deals with the way in which food and tobacco waste can be used in agriculture. As a result of the lack of efficient technologies for their recycling, we are currently faced with the appearance of appreciable quantities of residual organic residues that find their use only very rarely and only after long storage in landfills. The main disadvantages of long storage of organic waste are the unpleasant smell, the high content of pathogenic agents, and the high content in the water. The release of these enormous amounts imperatively demands the finding of solutions to ensure the avoidance of environmental pollution. The measure practiced by us consists of the processing of this waste in special installations, testing in pilot experimental perimeters, and later administration on agricultural lands without harming the quality of the soil, agricultural crops, and the environment. The current crisis of raw materials and energy also raises special problems in the field of organic waste valorization, an activity that takes place with low energy consumption. At the same time, their composition recommends them as useful secondary sources in agriculture. The transformation of food scraps and other residues concentrated organics thus acquires a new orientation, in which these materials are seen as important secondary resources. The utilization of food and tobacco waste in agriculture is also stimulated by the increasing lack of chemical fertilizers and the continuous increase in their price, under the conditions that the soil requires increased amounts of fertilizers in order to obtain high, stable, and profitable production. The need to maintain and increase the humus content of the soil is also taken into account, as an essential factor of its fertility, as a source and reserve of nutrients and microelements, as an important factor in increasing the buffering capacity of the soil, and the more reserved use of chemical fertilizers, improving the structure and permeability for water with positive effects on the quality of agricultural works and preventing the excess and/or deficit of moisture in the soil.

**Keywords :** ecology, soil, organic waste, fertility

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