



“Gh. Asachi” Technical University of Iasi, Romania

REDUCING THE ENVIRONMENTAL POLLUTION BY WASTE COMPOSTING

Lucia Dumitrescu^{*}, Ileana Manciualea, Luminita Isac, Rodica Tica

*“Transilvania” University of Brasov, Chemistry Department, 29 Eroilor St., 2200 Brasov,
Romania*

Abstract

The need for processing solid urban and agro-industrial wastes is in agreement with the demands of the society sustainable development. The paper presents aspects regarding some of the chemical and physical aspects of the composting process. Effective utilization of waste materials biodegraded by composting assumes added significance. The optimum composting conditions, for a mixture based on wood residues and domestic waste are: 40 °C starting temperature, for a C/N ratio of 30 and a humidity value of 60%. Nutrient supplements with carbon, nitrogen and phosphorus sources by mixing two or more feedstock (starch, soybean, rice, urea etc.) made in order to establish a desired ratio of carbon to nitrogen, and perhaps carbon to phosphorus, to control odor generation, and to achieve market requirements for product stability could be also take into consideration.

Keywords: aerobic composting, domestic wastes, process control

^{*} Author to whom all correspondence should be addressed: e-mail: lucia.d@unitbv.ro