

Stachowiak, B., Piotrowska-Cyplik, A., Dach, J. Assessing the Fungistatic Activity of a Compost Prepared from Plant Biomass with the Addition of Tobacco Waste. *Ochrona Srodowiska* 2008, Vol. 30, No. 3, pp. 27–29.

Abstract: Compost samples prepared from plant biomass (agro-food industry waste) with added tobacco waste were analyzed for biological activity, with emphasis placed on the fungistatic activity of the compost against ten fungal phytopathogens. The basic composition of the composting mixture (cereal straw, sewage sludge, tobacco briquettes) was enriched with corn straw (compost A) and wood shavings (compost B). While briquetting is a convenient method for storing the large quantities of the dust obtained at various stages of cigarette production, the disposal of this toxic waste material raises serious problems. One of the available methods includes biodegradation. The study has produced the following findings: (i) both the composts inhibited the growth of the indicator fungi after the thermophilic phase; (ii) compost B (the one enriched with wood shavings) showed a very strong fungistatic activity during the second mesophilic phase; (iii) the maturity value of compost B was high (C/N=16.3, determined by analysis of basic chemical composition).

Keywords: Compost, plant biomass, agro-food industry waste, tobacco waste, fungistatic activity, fungal phytopathogens.