

Bio-Processing of Household Waste and the Production of Healthy Products

Mahdi Zarabi^{1*}, Zahra Khamseh², Bahareh Karimi Douna¹,

Seyed Ahmad Firoozabadi²

Today, the accumulation and disposal of household waste in urban and rural areas of the country is a major contributing factor to pollution of water, soil and air, and the food chain, as well as the occurrence of various diseases. However, using bio-processing methods, it can be converted into valuable biomaterials that, while protecting environmental resources, generate revenue. The present paper addresses various aspects of contamination caused by the accumulation and unprocessed disposal of urban and rural waste in Iran, and attempt to demonstrate the feasibility of converting household waste to bio organic fertilizers by these methods. The basis is the rural women's education in vermiculture. This affordable and very low-cost way of eliminating, reduce the crisis in rural areas. In fact, this process is use of the amazing features of earthworms and coexistence microbes, which along that, degradable waste decomposes and forms a variety of the best bioorganic fertilizers. The use of these fertilizers, in addition to solving problems such as the poor organic matter of soil and pollution of soil and water resources to the remains of the chemical fertilizers, increases the efficiency of irrigation, and also because of their replacement with chemical fertilizers, has increased the capacity to produce organic and healthy products, which will increase farmers' incomes and reduce the cost of disease in the country.

Keywords: Household Waste, Environmental Pollution, Food Chain Pollution, Bio Organic Fertilizers, Organic Crops.

*Author for correspondence, Assistant Professor, Tel: 86093042, Fax: 88497324, E-mail: mzarabi@ut.ac.ir

¹ Department of Life Science Engineering, Faculty of New Sciences and Technologies, University of Tehran, Tehran, Iran

² Department of Development Studies, Faculty of Social Sciences, University of Tehran, Tehran, Iran