

Abstract

This bachelor's thesis provides a comprehensive study in the field of bio-waste management, focusing on the processes used in this field, including the micro-organisms involved, such as lactic acid bacteria. This thesis focuses mainly on the description of various methods and technologies that enable efficient and sustainable processing of bio-waste and its transformation into value-added products. It also points to the use of microorganisms in the fermentation and decomposition of organic materials in order to minimize waste and obtain valuable by-products such as organic fertilizers or biogas. In addition, the possibilities of using these products in various sectors, such as agriculture and industry, oriented towards their economic and ecological sustainability, are presented. This work also explores the possibilities and efforts to incorporate or replace these innovative methods in practice and suggests new ideas for future research and development in the area of using value-added products obtained from sustainable bio-waste processing.

Key words: lactic acid bacteria, biowaste, sanitation