1st INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION
IV SEMANA PAULISTA DE P+L
CONFERÊNCIA PAULISTA DE P+L

The Influence of Human Labor on the Environmental Sustainability of the Commercial Cultivation of Bamboo

R. L. Guarnetti, S. H. Bonilla, C. M. V. B. Almeida, B. F. Giannetti*

LaFTA, Laboratório de Físico-Química Teórica e Aplicada
Programa de Pós-Graduação em Engenharia de Produção, Universidade Paulista.
R. Dr. Bacelar, 1212, Cep 04026-002, São Paulo, Brasil.
**Contato: biafgian@unip.br*

Abstract

By performing emergy environmental accounting for a cultivation of bamboo with culms* production management, the resources which involve the highest emergy flows were identified. The most significant resource is the labor input, representing about 35% of all emergy value. By using the ternary diagram, it was possible to identify significant differences in the environment sustainability value when the cultivation site is changed. This variation is associated with the differences on the transformity values of labor among the countries.

*Culms: bamboo stalks that grow up horizontally only, and keep the same diameter throughout its life.

Keywords: *bamboo; ternary diagram; emergy; sustainability*