

São Paulo - Brazil - May - 24th to 26th - 2017



10th INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

Sensibility Analysis of Biodiesel use in a Commercial Bamboo Plantation in Alternative to Diesel Oil

GHELMANDI NETTO, L.

*Graduation Program on Production Engineering, Paulista University (UNIP), São Paulo, Brazil, Rua Dr.
Bacelar 1212 CEP 04026-002 - luiznetto@unip.br*

Abstract

In Ghelmandi Netto 2009 and Ghelmandi Netto, et. al., 2012, a Multicriteria Evaluation (MCE) was applied in a northeastern commercial bamboo plantation - located in Maranhão state - focused on paper production. The MCE has shown that the diesel oil is one of the inputs more required during the whole plantation lifespan - 25 years. This work proposes a sensibility analysis, replacing the diesel oil used in the bamboo plantation for biodiesel, considered a 'cleaner' input. This sensibility analysis aims to analyze the effects and impacts of this replacement. Nowadays the mandatory determination of Brazilian government is that the diesel oil sold must have 8% of biodiesel (B8 mixture). The other scenarios, that compound the sensibility analysis in addition of B8 mixture, are B25, B75 and B100 mixtures.

Keywords: *Sensibility analysis, bamboo plantation, multicriteria evaluation, biodiesel, diesel oil*

“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

São Paulo – Brazil – May 24th to 26th - 2017