



## INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

# Management of the Use of Vegetable Oils in Order to Restaurant Cleaner Production

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### Abstract

The process of frying is an operation that provides characteristics of scent, flavor, color and texture to food. The oil can become an ingredient capable of introducing chemical changes provoked by a lingering warming. This work has the objective to develop strategies of management of the use of vegetable oils in restaurants through opportunities of PML, viewing the minimization of consumption of energy and raw materials, and the reuse of waste for the production of biofuels. In this work, it was studied the soybean oil used in frying of immersion in two restaurants, viewing to evaluate in what conditions the oil used for frying is discarded and relating these conditions with its use as raw material for the production of biodiesel. As a result, materials with different degrees of oxidation and contaminant material were obtained, and it was identified that the oil that was discarded after being used for too long can be inadequate for feeding animals, and for this reason they are collected in restaurants of the region, and they demand more care for the production of biodiesel. From the monitoring of production activities of the restaurants, stages in the preparation of food with higher consumption of raw materials and generation of waste were identified, and based on approaches of a cleaner Production it was developed a prognosis to minimize environmental impacts.

*Keywords: Biodiesel; Frying oil; PML, cleaner production.*

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