

CHEMICAL CHARACTERISTICS OF YARD TRASH AND DITCH CLEANING IN FLORIDA

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9/2008 - 8/2009

ABSTRACT

This research addresses two important solid waste issues in Florida, i.e. #10 ditch cleanings and #11 yard trash in the RFP from the Center. Proper management of these two residues has been an issue recently in Florida. The common practices to handle these two wastes are landfilling, land application or stockpiling for future use or disposal. Given the limited capacity of landfills in Florida, substantial amounts of soils in ditch cleaning, and substantial amounts of organic matter in yard trash, it is more cost-effective to reuse them. However, there are some concerns in potential transfer of contaminants such as heavy metals from these two wastes into water body and/or food chain. Built upon the research by Townsend et al. (2002), we propose to collect representative ditch cleanings and yard trash samples throughout Florida, characterize them chemically and physically, and provide proper recommendation regarding their disposal and reuse options based on our results. Our research should greatly benefit FDEP, the public, various industries and the environment.

OBJECTIVES

The overall objective of this study is to determine the characteristics of ditch cleanings and yard trash and recommend proper management practices to handles these wastes based on our results. The objective will be accomplished in two years, with the first year focusing on ditch cleanings and second year on yard trash.

The specific objectives of this project are:

1. Collect representative and typical ditch cleaning and yard trash samples;
2. Characterize the wastes chemically and physically including the contents of 503 metals and selected organic contaminants;
3. Evaluate the potential adverse impacts on water quality and most cost-effective ways of managing these wastes.