

## Logging Residues as a Source of Bioenergy Feedstock

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**Abstract:** High oil prices and energy security resulted in increased interest in renewable sources of energy such as biomass. A recent goal of replacing 30% of current US petroleum consumption with biomass-derived fuels, set by a joint committee of US Department of Energy and Department of Agriculture, will require annually 1.5 billion tons of biomass originating mostly from agricultural and forest sectors. Mississippi forest sector can contribute significantly to the achievement of this goal. Currently, majority of forest-based biomass feedstock is derived from mill residues, pulping liquors and fuelwood. However, utilization rate of processing residues is relatively high leaving little room for further improvements. Harvesting operations generate significant amount of logging residues that are usually left unused in the forest. Utilization of this biomass source has been limited, primarily due to prohibitive harvesting and transportation costs. However, more efficient harvesting and transportations systems, and improved logistics might enable more effective utilization of these resources. This research project examines feasibility of increasing quantity of woody feedstock through improved recovery of logging residues. Distribution and accessibility of logging residues in Mississippi is evaluated. Maximum hauling distances to processing facilities are established and quantities of residues that can be recovered cost effectively are determined.

**Keywords:** Bioenergy, harvesting, logging residues, transportation, woody biomass.

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