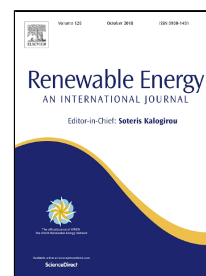


# Accepted Manuscript

Complete characterization of pruning waste from the lechero tree (*Euphorbia laurifolia* L.) as raw material for biofuel

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1        **COMPLETE CHARACTERIZATION OF PRUNING WASTE FROM THE**  
2        **LECHERO TREE (*Euphorbia laurifolia* L.) AS RAW MATERIAL FOR**  
3        **BIOFUEL**

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14        **Abstract**

16        The aim of this study is to conduct a complete characterization of the pruning waste  
17        from the lechero tree. This tree species is of particular relevance in Ecuador for its use  
18        as biomass since it yields large amounts of pruning waste, it has a high propagation  
19        capacity and very fast growth, for both the trunk and branches. The pruning waste  
20        consists of a mixture of wood and leaves, which are subjected to caloric analysis,  
21        elemental analysis, proximate analysis, thermogravimetric analysis and fermentability.  
22        The average dry pruned biomass obtained per tree is 9.95 kg, with a 1.49 kg standard  
23        deviation. The average ratio of leaves in pruned biomass is the 40%. Regression model  
24        to determine pruning waste biomass from plant measurements was obtained with 0.7 of  
25         $r^2$ . The calorific value of these residues is 19 MJ/kg average. N and ash content is

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