

The flammability of shrubs and trees in an *Acacia mangium* plantation based on silica-free ash content

Bambang Hero Saharjo^{1,2} and Hiroyuki Watanabe¹

(1) Laboratory of Forest Protection, Division of Forest Management, Faculty of Forestry, Bogor Agricultural University, Indonesia

(2) Laboratory of Tropical Forest Resources and Environments, Division of Forest and Biomaterials Science, Graduate School of Agriculture, Kyoto University, 606-8502 Kyoto, Japan

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Abstract

Preliminary research to understand the flammability of 14 species of shrubs and 8 species of trees based on silica-free ash content was done in order to recognize which shrubs or trees are more flammable. The results show that the silica-free ash content of shrubs and trees leaves was greater than the stems ranging between 1.7% and 11.4% for leaf and 0.4% and 7.8% for the stems. The shrubs *Dicranopteris linearis*, *Imperata cylindrica*, *Eupatorium pubescens*, *Lantana camara*, *Eugenia* sp., *Cliforia laurifolia*, *Pterospermum* sp., *Hibiscus similis*, *Clidemia hirta* and *Trema orientalis* must be considered when fire invades the plantation as well as the tree *Paraserianthes falcataria*, *Eucalyptus urophylla*, *Calliandra calothyrsus*, and *Peronema canescens*.

Key words *Acacia mangium* - flammability - fuel chemical - inorganic compound - silica-free ash