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CHANGE OF PHYSICAL AND CHEMICAL PROPERTIES OF PEAT AFTER FIRE IN DRAINED TROPICAL PEAT SWAMP FOREST

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A study on the change of physical and chemical properties of peat after fire in tropical peat swamp forest in the University of Palangka Raya area of Central Kalimantan, Indonesia was carried out on two plots from October to December 2014. One plot was examined two weeks after it was burned while the other plot was not burned. In each plot, replicate samples were taken from different peat depths (0-10, 10-20, 20-30, 30-40, and 40-50 cm)at three locations for analysis of physical and chemical properties. Physical analysis of peat bulk density (BD) and water content were determined for each depth. Chemical analyses of pH, K, Ca, and Mg were also carried out on each sample. Results show that water content in the non-burned area is higher than in the burned area, while bulk density in the burned area is higher than in the non-burned area. In general, pH, K, Ca and Mg in the burned area are higher than in the non-burned area.

Keywords*: bulk density, drained tropical peat swamp forest, fire, physical properties, chemical properties*