

KUANTITAS CAIRAN GUTASI DAN TRANSPIRASI BAKAU BERDASARKAN PERBEDAAN CEKAMAN AIR

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12/331917/SV/00633

INTISARI

Rhizophora mucronata adalah salah satu jenis bakau yang sering dijumpai di hutan bakau. Dalam proses fisiologisnya bakau melakukan transpirasi dan gutasi yang mengeluarkan air dari sisi daun atau tepi daun dan dinding sel. Tujuan penelitian mengetahui volume gutasi dan transpirasi dan pengaruh pertumbuhan *Rhizophora mucronata*.

Penelitian ini dilakukan di hutan bakau pantai Logending Kabupaten Kebumen Jawa Tengah. Analisis data dilakukan di Fakultas Pertanian, dan Fakultas Kehutanan Universitas Gadjah Mada. Penelitian dilakukan pada bulan Februari 2015. Sampel yang digunakan adalah tanaman bakau berumur 3 tahun. Percobaan dilakukan dengan rancangan faktorial, terdapat 2 faktor perlakuan yaitu 2 lokasi tempat tumbuh Tergenang dan Kering, 2 arah tajuk yaitu Barat dan Timur dengan ulangan sebanyak 4 kali.

Volume cairan gutasi dan transpirasi pada lokasi tempat tumbuh dan arah tajuk yang berbeda menunjukkan nilai bervariasi. Volume cairan pada lokasi kering lebih tinggi dibanding lokasi tergenang. Volume cairan pada lokasi kering dengan rerata 27,99 ml pada arah tajuk timur, sedangkan pada lokasi tergenang rerata volume cairan 20,78 ml dengan arah tajuk ke barat. pH cairan gutasi dan transpirasi pada lokasi kering dan lokasi tergenang nilainya relatif sama dengan nilai rerata 6,5 – 7,12 pada lokasi kering dan 6,5 – 7,23 pada lokasi tergenang

Kata kunci : *Rhizophora*, Gutasi, Transpirasi, pH

QUANTITY OF WATER GUTTATION AND TRANSPORTATION OF MANGROVE BASED ON THE DIFFERENCES OF WATER STRESS

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ABSTRACT

Rhizophora mucronata is one species are often found in mangrove forests. In the process physiology, transpiration and guttation do mangroves that dispense water from the sides or edges of leaves and leaf cell wall. The purpose of this research is to know the volume of guttation and transpiration and influence the growth of *Rhizophora*.

This research was conducted in the mangrove forests in Logending beach, Kebumen, Central Java, on February 2015. Analysis of data was conducted at the Faculty of Agriculture and Faculty of Forestry, Gadjah Mada University. The sample used is a 3-year-old mangrove plants. Experiments conducted by factorial design. The first factor was site (inundate and dry) while the second was the way of canopy (west and east) with 4 repetitions.

The volume of the liquid guttation and transpiration of all treatment was varies. The volume of fluid in a dry location is higher than the location was inundated. The volume of fluid in a dry location was 27.99 ml on the direction of the heading East while on a site inundated was 20.78 ml on the direction of the heading to the West. The pH of the liquid guttation and transpiration in arid locations and locations inundated its value relatively equal to the value of the average 6,5-7, 12 on the site of a dry and 6.5-7.3 on a site inundated

Key words : *Rhizophora*, Guttation, Transpiration, pH