

SPECTROPHOTOMETRIC ANALYSIS OF SAPSTAIN CAUSED BY *BOTRYODIPLODIA THEOBROMAE*, *AUREOBASIDIUM PULLULANS* AND *ASPERGILLUS NIGER* ON THREE RUBBERWOOD CLONES

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ASHARI, A. J., WONG, A. H. H. & PALFREYMAN, J. W. 2000. Spectrophotometric analysis of sapstain caused by *Botryodiplodia theobromae*, *Aureobasidium pullulans* and *Aspergillus niger* on three rubberwood clones. Rubberwood blocks from three clones (GT1, PB217 and RRIM600) were inoculated with the test fungi and incubated for four weeks, after which they were air dried and sanded (about 0.5 mm), and then quantitatively assessed for sapstain by spectrophotometry. Blue stain from *B. theobromae* was still present and pronounced after sanding, and was darker (absorbance: 56.5%) compared with wood infected by *A. niger* (38.2%) or *A. pullulans* (35.9%). Clone RRIM600 had higher darkness (41.9%) compared with clone PB217 (38.5%). The mean per cent darkness of clone GT1 (39.7%) was not different from clones RRIM600 and PB217. Single or mixed inocula of *A. pullulans* and *A. niger* effectively controlled *B. theobromae* infection in wood of clones RRIM600 and PB217, thus suggesting a potential for biocontrol of sapstain in rubberwood.

Key words: Rubberwood – *Hevea brasiliensis* – clone – sapstain – quantitative assessment – visual rating – spectrophotometry

ASHARI, A. J., WONG, A. H. H. & PALFREYMAN, J. W. 2000. Analisis spektrofotometri ke atas cacat warna gubal disebabkan oleh kulat *Botryodiplodia theobromae*, *Aureobasidium pullulans* dan *Aspergillus niger* pada tiga klon kayu getah. Sampel ujian ketiga-tiga klon kayu getah (GT1, PB217 dan RRIM600) diinokulat dengan kulat ujian. Selepas empat minggu, sampel-sampel tersebut dikeringkan dalam udara dan dihaluskan (anggaran 0.5 mm). Cacat warna gubal di permukaan sampel ditentukan secara kuantitatif menggunakan spektrofotometri. Cacat warna biru disebabkan *B. theobromae* masih lagi ketara walaupun permukaan kayu telah dihaluskan. Kayu yang dijangkiti *B. theobromae* adalah lebih gelap (serapan: 56.5%) berbanding dengan kayu yang dijangkiti *A. niger* (38.2%) atau *A. pullulans* (35.9%). Klon RRIM600 (41.9%)