

**PEMBUATAN ASAP CAIR KULIT DURIAN DAN UJI
EFEKTIVITASNYA SEBAGAI TERMITISIDA NABATI TERHADAP
RAYAP TANAH (*Coptotermes curvignathus* Holmgren)**

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ABSTRAK

Penelitian ini bertujuan untuk melihat pengaruh asap cair kulit durian terhadap mortalitas rayap tanah (*Coptotermes curvignathus* H.). Penelitian ini dilaksanakan di dua tempat yang berbeda, yakni untuk pembuatan asap cair dilaksanakan di Laboratorium proteksi fakultas Pertanian Universitas Siliwangi dan pengaplikasian di kampus Mugarsari Universitas Siliwangi. Asap cair kulit durian diujikan pada 16 ekor kasta pekerja dan 4 ekor kasta prajurit di dalam toples dan dianalisis menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 6 perlakuan dan diulang sebanyak 4 kali, dengan konsentrasi 3,5%, 5%, 10%, 12%, 15%, dan kontrol. Pembuatan asap cair dari limbah kulit durian sebanyak 500 gram dihasilkan asap cair kasar (101ml), ter (26ml), dan arang (200g). Kemudian setelah asap cair dilakukan redistilasi dihasilkan asap cair (98ml), pH 3, warna kuning jernih kecoklatan, dan aroma yang menyengat. Pengujian asap cair kulit durian dilakukan dengan menyemprotkan asap cair ke kertas saring sebagai umpan uji dalam toples, yang kemudian diamati setiap 6 jam selama 36 jam. Hasil penelitian menunjukkan bahwa pemberian asap cair kulit durian berpengaruh terhadap mortalitas rayap tanah, dengan mortalitas tertinggi terjadi pada konsentrasi asap cair kulit durian 15% dengan mortalitas total 66,25%

Kata Kunci : Asap cair, mortalitas, kulit durian, *Coptotermes curvignathus* H.

**DURIAN SHELL LIQUID SMOKE PRODUCTION AND
EFFECTIVENESS AS A BOTANICAL TERMITICIDE ON
SUBTERRANEAN TERMITES (*Coptotermes curvignathus* Holmgren)**

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ABSTRACT

This study aims to determine the effect of durian shell liquid smoke on subterranean termite mortality (*Coptotermes curvignathus* H.). This research was carried out in two different places, namely for the manufacture of liquid smoke it was carried out in the Laboratory of Protection of the Faculty of Agriculture, Siliwangi University and the application at Mugarsari campus of Siliwangi University. 500g Durian shell-waste liquid smoke were produce wood vinegar (101 mL), tar (26 mL), and char (200 g). An after redistillation process were produce (98 mL), pH 3, a clear brownish yellow colour, and a pungent aroma. Was tested on 16 worker castes and 4 soldier castes in a jar and analyzed using a completely randomized design consisting of 6 treatments and repeated 4 times, with a concentration of 3,5%; 5%; 10%; 12%; 15%, and control. Durian shell liquid smoke testing was carried out by spraying liquid smoke onto filter paper as test feed in a jar, which was then observed every 6 hours for 36 hours. The results showed that the administration of durian shell liquid smoke had an effect on the mortality of subterranean termites, with the highest mortality occurring at the concentration of liquid smoke from 15% durian shell with total mortality of 66,25%.

Key words : Liquid smoke, mortality, durian shell, *Coptotermes curvignathus* H.