

Isolasi dan identifikasi Aspergilli pada Tembakau dan kemampuannya dalam menghasilkan Aflatoksin B1

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Abstrak

Aspergilli moulds were isolated from 27 Indonesian tobacco samples, which were collected from different areas in Indonesia. Isolation of moulds was carried out by direct plating in Tauge Extract Agar (TEA) medium and representative colonies were isolated. Identification was carried out in Czapek . Dox Agar (CDA) and Malt Extract Agar (MEA) media based on macroscopic and microscopic observation of colony morphology. Total aspergilli moulds identified were 44 isolates, which consisted of 11 species. *Asp. awamori* (14 isolates) was the dominant species followed by *Asp. flavus* (13 isolates).

.....The capability of 13 isolates of *Asp. flavus* to produce aflatoxin B1 was investigated. The isolates were cultivated in a semisynthetic liquid medium for aflatoxin B1 production, followed by extraction with organic solvents and quantification by High Performance Liquid Chromatography (HPLC). The results showed that only 12 isolates were able to produce aflatoxin al and the average concentration ranged from 3.28 to 351.26 ppb.