

Pemanfaatan Media Kulit Ari Kedelai Terhadap Pertumbuhan *Candida albicans* dan *Aspergillus* sp

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ABSTRAK

Kulit ari kedelai merupakan limbah kedelai yang mengandung karbohidrat yang dapat dimanfaatkan sebagai media pertumbuhan jamur *Candida albicans* dan *Aspergillus* sp. Tujuan penelitian ini untuk mengetahui perbedaan variasi konsentrasi kulit ari kedelai sebagai media alternatif pertumbuhan jamur *Candida albicans* dan *Aspergillus* sp. Metode eksperimen menggunakan *Posstest-only Control Design* koloni jamur dibuat suspensi sesuai standar McFarland 0,5 dengan pengenceran 10^{-6} CFU/ml, kemudian ditanam di media kulit ari kedelai konsentrasi 5% ^{b/v}, 10% ^{b/v} dan 15% ^{b/v} serta SDA sebagai kontrol. Teknik isolasi *Speard plate/TPC* untuk *Candida albicans* dan *single dot* untuk *Aspergillus* sp. Hasil rata-rata jumlah koloni *Candida albicans* pada kelompok perlakuan media kulit ari kedelai berturut-turut $1,75 \times 10^6$ CFU/ml, $2,5 \times 10^6$ CFU/ml dan $2,5 \times 10^6$ CFU/ml, pada kelompok SDA sebanyak 2×10^6 CFU/ml, konsentrasi media kulit ari kedelai yang mendekati nilai kontrol yaitu 5% dan diameter *Aspergillus* sp pada kelompok perlakuan media kulit ari kedelai konsentrasi 5% ^{b/v}, 10% ^{b/v} dan 15% ^{b/v} berturut-turut 21 mm, 23 mm, 25 mm, pada kelompok kontrol menggunakan SDA sebesar 57 mm, konsentrasi yang mendekati nilai kontrol yaitu 15%. Hasil statistik tidak ada perbedaan bermakna variasi konsentrasi kulit ari kedelai terhadap jumlah koloni *Candida albicans* dan Hasil statistik ada perbedaan bermakna variasi konsentrasi kulit ari kedelai terhadap diameter koloni *Aspergillus* sp.

Kata Kunci: *Aspergillus* sp, *Candida albicans*, Kulit ari kedelai

**Utilization Epidermis Of Soybeans Media To Growth
Candida albicans and *Aspergillus* sp**

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ABSTRACT

Epidermis of Soybean is a Soybean waste containing carbohydrates which can be used as a medium for the growth of fungi *Candida albicans* and *Aspergillus* sp. The purpose of this study was to determine differences in variations in soybean husk concentration as an alternative medium for the growth of *Candida albicans* and *Aspergillus* sp. Experimental method using Posstest-only Control The desiccation of fungal colonies was made according to the standard McFarland 0.5 suspension with a dilution of 10^{-6} CFU / ml, then planted in the medium of soybean husk with a concentration of 5% b / v, 10% b / v and 15% b / v and SDA as a control. Speard plate / TPC isolation technique for *Candida albicans* and single dot for *Aspergillus* sp. The average number of *Candida albicans* colonies in the treatment group of soybean epidermis media were 1.75×10^6 CFU / ml, 2.5×10^6 CFU / ml and 2.5×10^6 CFU / ml, respectively, in the SDA group 2×10^6 CFU / ml, the concentration of soybean husk media which approached the control value of 5% and diameter of *Aspergillus* sp. in the treatment group of soybean epidermis concentration 5% b / v, 10% b / v and 15% b / v respectively 21 mm, 23 mm, 25 mm, in the control group using SDA of 57 mm, the concentration approaching the control value was 15%. The statistical results showed no significant differences in the variation of the epidermis of soybean to the number of *Candida albicans* colonies and statistical results there were significant differences in the variation of the epidermis concentration of soybean to the diameter of the colony of *Aspergillus* sp.

Keywords: *Aspergillus* sp, *Candida albicans*, Epidermis of soybeans