

**PENGARUH LAMA FERMENTASI DENGAN *Trichoderma viride*
TERHADAP NILAI FRAKSI SERAT KULIT KACANG
TANAH (*Arachis hypogaea* L.)**

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INTISARI*)

Penelitian ini bertujuan untuk mengetahui pengaruh lama fermentasi dengan *Trichoderma viride* terhadap fraksi serat kulit kacang tanah (*Arachis hypogaea* L.). Penelitian dilaksanakan pada tanggal 18 April 2016 sampai 6 Mei 2016 di Laboratorium Mikrobiologi dan Laboratorium Kimia, Universitas Mercu Buana Yogyakarta. Materi yang digunakan adalah kulit kacang tanah (*Arachis hypogaea* L.), *Trichoderma viride*. Penelitian menggunakan Rancangan Acak Lengkap (RAL) pola searah dengan 5 perlakuan dan 4 ulangan. Perlakuan yang digunakan yaitu P0 (tanpa fermentasi), P1 (fermentasi 3 hari), P2 (fermentasi 6 hari), P3 (fermentasi 9 hari), dan P4 (fermentasi 12 hari). Variabel yang diamati adalah kadar hemiselulosa, kadar selulosa, dan kadar lignin. Data yang diperoleh di analisis dengan analisis variansi, bila beda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Kadar hemiselulosa, kadar selulosa dan kadar lignin dari P0 hingga P4 adalah sebagai berikut Kadar hemiselulosa P0:14,9950% P1: 14,9125%, P2: 15,3750%, P3: 16,8425%, dan P4: 16,4100%. Kadar selulosa P0: 7,405%, P1: 7,315%, P2: 5,758%, P3: 8,830%, dan P4: 8,478%. Kadar lignin P0: 60,1500%, P1: 61,3175%, P2: 62,0575% P3: 48,4875% dan P4: 50,4750%. Dari hasil penelitian disimpulkan bahwa lama fermentasi kulit kacang tanah (*Arachis hypogaea* L.) menggunakan inokulum *Trichoderma viride* yang terbaik adalah 9 hari.

Kata kunci : Kulit kacang tanah (*Arachis hypogaea* L), fermentasi, *Trichoderma viride*, fraksi serat.

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THE EFFECT OF FERMENTATION TIME BY *Trichoderma viride* ON
PEANUT (*Arachis hypogaea* L.) SHELL FIBER FRACTION VALUE

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ABSTRACT)*

This research aims to know the effect of fermentation time by *Trichoderma viride* on peanut (*Arachis hypogaea* L.) shell fiber fraction value. The research was conducted on April 18th, 2016 until May 6th, 2016 at the laboratory of Microbiology and Chemical laboratory, University of Mercu Buana Yogyakarta. The material used was the shell of the peanut (*Arachis hypogaea* L.), and *Trichoderma viride*. Research used Completely Randomized Design (CRD) pattern with 5 treatments and four replications. The treatments were. P0 (without fermentation), P1 (3 days fermentation time), P2 (6 days fermentation time), P3 (9 days fermentation time) and P4 (12 days fermentation time). The observed variable was the rate of hemicellulose, cellulose, and lignin. Data obtained analyzed by analysis of variance, if there were significant difference continued by Duncan's Multiple Range Test (DMRT). Rate of hemicellulose, rate cellulose and rate lignin from P0 to P4. Rate of hemicellulose P0: 14,9950%, P1: 14.9125%, : P2: 15.3750%, P3: 16.8425% and P4: 16.4100%. Rate of cellulose P0: 7,405%, P1: 7,315%, P2: 5,758%, P3: 8,830%, and P4: 8,478%. Rate of lignin P0: 60.1500%, P1: 61.3175%, P2: 62.0575%, P3: 48,4875% and P4: 50,4750%. From the result can be concluded that the best result was 9 days fermentation.

Keywords: Peanut (*Arachis hypogaea* L) shell, *Trichoderma viride*, fermentation, fiber fraction.

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