

**PENGARUH LEVEL INOKULUM *Trichoderma viride* TERHADAP
KUALITAS KIMIA FERMENTASI KULIT KACANG
TANAH (*Arachis hypogaea L.*)**

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INTISARI *)

Tujuan penelitian ini untuk mengetahui pengaruh berbagai level inokulum *Trichoderma viride* pada fermentasi kulit kacang tanah (*Arachis hypogaea L.*) terhadap kualitas kimia kulit kacang tanah. Penelitian ini dilaksanakan pada tanggal 3 Desember 2017 sampai 3 Januari 2018 di Laboratorium Mikrobiologi dan Laboratorium Nutrisi Universitas Mercu Buana Yogyakarta. Materi yang digunakan limbah kulit kacang tanah (*Arachis hypogaea L.*), inokulum *Trichoderma viride* dan bahan tambahan sebagai nutrisi. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan 4 kali ulangan. Perlakuan yang digunakan yaitu P0 sebagai kontrol (tanpa *Trichoderma viride*), P1 penambahan 0,5% *Trichoderma viride* dari bobot sampel, P2 dengan 1% *Trichoderma viride* dari bobot sampel, P3 penambahan 1,5% *Trichoderma viride* dari bobot sampel, P4 penambahan 2% *Trichoderma viride* dari bobot sampel). Variabel yang diamati adalah kadar air, abu, protein kasar, lemak kasar, serat kasar dan BETN. Data yang diperoleh di analisis ANOVA, bila beda nyata dilanjutkan dengan uji DMRT. Hasil penelitian menunjukkan kadar air P1;11.32% P2; 10.63%, P3;9,08%, P4;8.74%, P5;8.33%. Kadar abu P1; 6.2% P2;6.36%, P3; 6.47%, P4; 6.49%, P5; 6.69%, protein kasar P1; 10.59% P2; 10.92%, P3; 11.42%, P4; 11.59%, P5; 12.06%. Lemak kasar P1; 2.84% P2; 2.88%, P3; 2.89%, P4; 2.88%, P5; 2.43%, serat kasar P1; 62.31% P2; 60.83%, P3;60.19%, P4;58.96%, P5;57.75% dan BETN : P1;18.04% P2;18,99%, P3; 19.03%, P4; 20.06%, P5; 21.06%. Hasil analisis menunjukkan terjadi perubahan kadar air dan serat kasar yang mengalami penurunan signifikan ($P<0,05$). Protein dan BETN mengalami peningkatan ($P<0,05$) serta abu dan lemak kasar tidak terjadi perubahan yang nyata ($P>0,05$). Kesimpulan penelitian ini menunjukkan bahwa pemberian *Trichoderma viride* pada kacang tanah dengan level terbaik adalah 2% yang dapat meningkatkan kualitas kimiawi kulit kacang tanah.

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

*) Intisari Skripsi Sarjana Peternakan, Program Studi Peternakan, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta 2016.

***Trichoderma viride* LEVEL EFFECT ON CHEMICAL OF PEANUTT-SHELL (*Arachis hypogaea L.*) FERMENTATION**

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***Abstract**

The purpose of this study was investigate the effect levels of *Trichoderma viride* on peanut shell fermentation (*Arachis hypogaea L.*) on peanut shell chemistry quality. This research was conducted on December 3, 2017 to January 3, 2018 at the Laboratory of Microbiology and Nutrition Laboratory of Mercu Buana University Yogyakarta. Materials used peanut shell (*Arachis hypogaea L.*), *Trichoderma viride* as an inoculum. The study used Completely Randomized Design (RAL) with 5 treatments and 4 replications. The treatment used P0 as control (without *Trichoderma viride*), P1 (addition of 0.5% *Trichoderma viride*), P2 (addition 1% *Trichoderma viride*), P3 (addition of 1.5% *Trichoderma viride*), P4 (addition 2 % *Trichoderma viride* of sample weights). The variables observed were moisture content, ash, crude protein, crude fat, crude fiber and nitrogen free extract (NFE). Data analyzed by ANOVA, if there are different difference continued by DMRT test. The mean of the research showed that water content in P1;11.32% P2; 10.63%, P3;9,08%, P4;8.74%, P5;8.33%. Ash content is P1; 6.2% P2;6.36%, P3; 6.47%, P4; 6.49%, P5; 6.69%, crude protein is P1; 10.59% P2; 10.92%, P3; 11.42%, P4; 11.59%, P5; 12.06%. Fat crude is P1; 2.84% P2; 2.88%, P3; 2.89%, P4; 2.88%, P5; 2.43%, crude fiber is P1; 62.31% P2; 60.83%, P3;60.19%, P4;58.96%, P5;57.75% and NFE is: P1;18.04% P2;18,99%, P3; 19.03%, P4; 20.06%, P5; 21.06%. The result of analysis showed that there was a change of water content and crude fiber which decreased significantly ($P < 0,05$). Protein and BETN increased ($P < 0.05$) and ash and gross fat did not change significantly ($P > 0.05$). The conclusions of this study indicate that giving *Trichoderma viride* on peanuts with the best level is 2% that can improve the quality of peanut shell peel.

Key words :Peanutt peel (*Arachis hypogaea L.*), *Trichoderma viride*, fermentation, Chemiccil analyze

* Digest Essay Bachelor of Animal Husbandry, Department of Animal Husbandry, Faculty of Agroindustry, University of Mercu Buana Yogyakarta, 2018.