

RINGKASAN

KHUMAIDA PRIHUTAMI. Penelitian bertujuan untuk mengkaji pengaruh *Trichoderma viridae* dan *Saccharomyces cerevisiae* dalam fermentasi kulit kacang tanah secara bertingkat terhadap kadar serat kasar dan protein kasar. Materi yang digunakan dalam penelitian meliputi kulit kacang tanah, inokulum *Trichoderma viridae* dan *Saccharomyces cerevisiae*. Metode penelitian yang digunakan yaitu metode eksperimen dengan menggunakan Rancangan Acak Lengkap (RAL). Terdapat 4 perlakuan dengan 5 kali ulangan. Perlakuan yang diberikan yaitu R₀ = Kulit kacang tanah tanpa fermentasi, R₁ = Kulit kacang tanah yang difermentasi dengan inokulum *Trichoderma viridae* 4% (tahap I) dan *Saccharomyces cerevisiae* 4% (tahap II). R₂ = Kulit kacang tanah yang difermentasi dengan inokulum *Trichoderma viridae* 8% (tahap I) dan *Saccharomyces cerevisiae* 8% (tahap II). R₃ = Kulit kacang tanah yang difermentasi dengan inokulum *Trichoderma viridae* 12% (tahap I) dan *Saccharomyces cerevisiae* 12% (tahap II). Variabel yang diukur dalam penelitian ini adalah kadar serat kasar dan protein kasar. Data yang diperoleh dianalisis menggunakan analisis variansi dan dilanjutkan dengan uji lanjut *orthogonal polynomial*. Hasil Penelitian menunjukkan bahwa penambahan inokulum *Trichoderma viridae* dan *Saccharomyces cerevisiae* berpengaruh sangat nyata ($P < 0,01$) terhadap penurunan kadar serat kasar dan berpengaruh sangat nyata ($P < 0,01$) terhadap penurunan kadar protein kasar. Penambahan inokulum *Trichoderma viridae* dan *Saccharomyces cerevisiae* yang paling optimal untuk menurunkan serat kasar yaitu sebanyak 10,69%, sehingga dapat disimpulkan bahwa inokulum *Trichoderma viridae* dan *Saccharomyces cerevisiae* dapat digunakan untuk fermentasi kulit kacang tanah.

Kata kunci : Kulit kacang, *Trichoderma viridae*, *Saccharomyces cerevisiae*, serat kasar, protein kasar

SUMMARY

KHUMAIDA PRIHUTAMI. The research aimed to review the effect of *Trichoderma Viridae* and *Saccharomyces cerevisiae* in multilevels fermentation of peanut shell on crude fiber and crude protein contents. The materials used in this research were peanut shell, inoculum of *Trichoderma viridae* and *Saccharomyces cerevisiae*. This research used an experimental method by using Completely Randomized Design (CRD) with 4 treatments and 5 replications. The treatments given were R₀= peanut shell without fermentation, R₁= peanut shell fermented with 4% of *Trichoderma viridae* inoculum (stage I) and 4% of *Saccharomyces cerevisiae* inoculum (stage II). R₂= peanut shell fermented with 8% of *Trichoderma viridae* inoculum (stage I) and 8% of *Saccharomyces cerevisiae* inoculum (stage II). R₃= peanut shell fermented with 12% of *Trichoderma viridae* inoculum (stage I) and 12% of *Saccharomyces cerevisiae* inoculum (stage II). The variables measured were crude fiber and crude protein contents. The data were analyzed by analysis of variance and continued by orthogonal polynomial. The result of this research showed that the addition of *Trichoderma viridae* and *Saccharomyces cerevisiae* inoculum highly significantly affected ($P < 0.01$) the decrease of crude fiber content and highly significantly affected ($P < 0,01$) the decrease of crude protein content. The addition of *Trichoderma viridae* inoculum and *Saccharomyces cerevisiae* inoculum was the most optimal to decrease crude fiber content as much as 10.69%, therefore it can be concluded that *Trichoderma Viridae* inoculum and *Saccharomyces cerevisiae* inoculum can be used for peanut shell fermentation.

Keywords : Peanut shell, *Trichoderma viridae*, *Saccharomyces cerevisiae*, crude fiber, crude protein.