

ABSTRAK

PENINGKATAN KUALITAS BUNGKIL INTI SAWIT SEBAGAI BAHAN BAKU PAKAN IKAN NILA BEST (*Oreochromis niloticus*) MELALUI PEMBERIAN EKSTRAK ENZIM MANANASE DAN FERMENTASI

Oleh

OKTA KATRINA BAKARA

Bungkil inti sawit merupakan hasil samping pengolahan inti sawit menjadi CPO (*Crude Palm Oil*) sangat berpotensi sebagai bahan baku alternatif pakan ikan. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian enzim mananase dan fermentasi kapang untuk meningkatkan kualitas bungkil inti sawit terhadap tingkat pencernaan ikan Nila BEST. Penelitian ini menggunakan metode percobaan Rancangan Acak Lengkap (RAL) dengan tujuh perlakuan dan masing-masing tiga ulangan. Ikan nila BEST dengan bobot $25 \pm 1,57$ gram dimasukkan ke dalam 21 akuarium berukuran $60 \times 40 \times 40 \text{ cm}^3$. Pakan uji diberikan selama 15 hari secara *adlibitum* dengan frekuensi tiga kali sehari. Hasil penelitian menunjukkan bahwa pencernaan total (56,74%) dan pencernaan protein (82,38%) terbaik dihasilkan dari perlakuan bungkil inti sawit dengan penambahan enzim mananase dan fermentasi kapang *Rhizopus oligosporus* dan untuk pencernaan karbohidrat (60,72%) serta pencernaan energi (71,82%) diperoleh hasil terbaik dari perlakuan bungkil inti sawit dengan penambahan enzim mananase dan fermentasi kapang *Trichoderma reesei*.

Kata kunci: bungkil inti sawit, enzim mananase, fermentasi, ikan nila BEST, pencernaan

ABSTRACT

IMPROVED QUALITY OF PALM KERNEL MEAL FEED AS RAW BEST TILAPIA (*Oreochromis niloticus*) THROUGH GRANTING OF MANNANASE ENZYME AND FERMENTATION

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OKTA KATRINA BAKARA

Palm kernel meal is a by product palm kernel processing into CPO (Crude Palm Oil) are potentially as an alternative raw material fish feed. This research aims to know the influence of the enzyme mananase and mold fermentation to improve the quality of palm kernel over the extent of the digestibility of oreochromis BEST. This study used a Randomized Complete design of experiment method (RAL) with seven treatments and three replicates each. BEST Tilapia with weights 25 ± 1.57 gram put in 21 60x40x40cm³-sized aquarium. Test feed was given for 15 days as a mortgage with a frequency three times a day. The results showed that the total digestibility (56.74%) and protein digestibility (82.38%) resulting from the best treatment of palm kernel with the addition of mananase enzyme and fermentation of the mold *Rhizopus oligosporus* and for carbohydrate digestibility (60.72%) and energy digestibility (71.82%) obtained the best result from the treatment of palm kernel with the addition of mananase enzyme and fermentation of *Trichoderma reesei* mould.

Keywords: *palm kernel meal, mannanase enzyme, fermentation, BEST tilapia, digestibility*