

**EVALUASI KOMPOSISI KIMIA, KECERNAAN PROTEIN *IN VITRO*,
PROTEIN TERLARUT, DAN KOMPOSISI ASAM AMINO
TEPUNG IRAN LOKAL**

WIWIK KRXSDXYANA
97/115798/PT/03559

INTISARI

Penelitian ini bertujuan untuk mengevaluasi nilai nutritif tepung ikan lokal meliputi komposisi kimia (protein kasar, lemak kasar, kalsium, dan fosfor), pencernaan protein *in vitro*, protein terlarut, dan komposisi asam amino. Tepung ikan yang digunakan dalam penelitian ini berasal dari ikan Pethek (*Leiognathus equulus*), sisa proses pengambilan daging ikan Merahan (*Lutjanus malabaricus*), dan ikan Kuniran (*Upeneus tragula*). Analisis protein kasar dan lemak kasar mempunyai 3 replikasi, sedangkan untuk analisis kalsium, fosfor, pencernaan protein *in vitro*, dan protein terlarut mempunyai 2 replikasi. Rancangan percobaan dalam penelitian ini menggunakan *Completely Randomized Design* (CRD) pola searah dan hasil yang berbeda selanjutnya diuji dengan *Duncan's New Multiple Range Test* (DMRT). Dari hasil penelitian diperoleh rerata kadar protein kasar dari ikan Pethek, sisa proses pengambilan daging ikan Merahan, dan Kuniran berturut-turut adalah 67,00, 68,74, dan 57,21%, sedangkan rerata kadar lemak kasar berturut-turut adalah 5,07, 5,97, dan 5,33%. Rerata kadar kalsium berturut-turut adalah 5,72, 6,78, dan 5,87%, sedangkan rerata kadar fosfor berturut-turut adalah 1,47, 1,39, dan 1,61%. Rerata kadar protein terlarut berturut-turut adalah 6,57, 8,31, dan 7,44 mg/ml, sedangkan pencernaan protein *in vitro* berturut-turut adalah 57,47, 58,78, dan 64,53%. Kadar asam amino lisin berturut-turut adalah 6,25, 6,18, dan 6,46%, sedangkan kadar asam amino metionin berturut-turut adalah 1,92, 1,88, dan 2,21%. Hasil analisis variansi menunjukkan bahwa ketiga tepung ikan yang digunakan dalam penelitian ini tidak berbeda nyata. Hal ini dapat disimpulkan bahwa ketiga tepung ikan yang digunakan mempunyai nilai nutritif yang cukup tinggi dan hampir sama.

(Kata kunci: Tepung ikan, Nilai nutritif, Pencernaan protein *in vitro*, Protein terlarut, Asam amino)

**EVALUATION OF CHEMICAL COMPOSITION, *IN VITRO* PROTEIN
DIGESTIBILITY, SOLUBLE PROTEIN, AND AMINO ACIDS
COMPOSITION OF LOCAL FISH MEAL**

**WIWIK KRXSDXYANA
97/115798/PT/035S9**

ABSTRACT

This research was designed to evaluate nutritive value of local fish meal contains chemical composition (crude protein, ether extract, calcium, and phosphor), *in vitro* protein digestibility, soluble protein, and composition of amino acid. *Pethek* (*Leiognathus equulus*), filleting by product of *Merahan* (*Lutjanus malabaricus*) and *Kuniran* (*Upuneus tragula*) were used in this research. Crude protein and ether extract analyses has 3 replications, although for calcium, phosphor, *in vitro* protein digestibility and soluble protein has 2 replications. The research were arranged by one way Completely Randomized Design (CRD) and continued with Duncan's New Multiple Range Test (DMRT). Data of the research was obtained the average of crude protein from *Pethek*, filleting by product of *Merahan* and *Kuniran* were 67.00, 68.74, and 57.21% respectively, although content of ether extract were 5.07, 5.97, and 5.33%. The average of calcium were 5.72, 6.78, and 5.87% respectively, although content of phosphor were 1.47, 1.39, and 1.61%. The average of soluble protein were 6.57, 8.31, and 7.44 mg/ml respectively, although content of *in vitro* protein digestibility were 57.47, 58.78, and 64.53%. Amino acid of lisin were 6.25, 6.18, and 6.46%, although amino acid of metionin were 1.92, 1.88, and 2.21%. The results of variance analyses showed that all data were obtained from the research were not significantly different. There were showed that fish meal were used in this research similar in nutritive value.

(Key words: Fish meal, Nutritive value, *In vitro* protein digestibility, soluble protein, Amino acid)