PEMANFAATAN AMPAS IKAN GABUS SEBAGAI SUMBER PEPTON MEDIA PRODUKSI *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13

INTISARI

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Ampas ikan gabus merupakan limbah ikan gabus (*Channa striata*) yang telah diambil kandungan albuminnya. Ampas ikan gabus memiliki potensi untuk menjadi sumber pepton media pertumbuhan *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13 karena masih mengandung protein tersisa yang cukup tinggi. Tujuan dari penelitian ini adalah untuk mengetahui manfaat ampas ikan gabus sebagai sumber pepton media pertumbuhan *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13. Ampas ikan gabus dihidrolisis menggunakan enzim bromelin kasar untuk mendapatkan ekstrak ampas ikan gabus. Pada penelitian ini kultur ditumbuhkan dalam media dengan sumber pepton ampas ikan gabus pada suhu 30°C selama 24 jam dan pertumbuhan sel diukur sebagai CFU/mL. Penelitian dilanjutkan dengan dilakukan produksi sel bubuk untuk mengetahui viabilitas sel selama proses produksi bubuk sel. Berdasarkan hasil penelitian, didapatkan kesimpulan bahwa hidrolisat ampas ikan gabus dapat dimanfaatkan sebagai sumber pepton media pertumbuhan *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13 dengan kenaikan jumlah sel sebesar 2,43 siklus log serta menghasilkan sel dengan viabilitas yang baik saat proses produksi bubuk sel.

Kata kunci: bakteri asam laktat, *Lactiplantibacillus plantarum* subsp. *plan*tarum Dad-13, media pertumbuhan, ampas ikan gabus, pepton

UTILIZATION OF SNAKEHEAD FISH WASTE AS A PEPTONE SOURCE OF PRODUCTION MEDIUM FOR *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13

ABSTRACT

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Snakehead fish waste is a waste of snakehead fish (*Channa striata*) whose albumin content has been extracted. Snakehead fish waste has the potential to be a peptone source of growth medium for *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13 because it still contains quite a high residual protein. The purpose of this study was to determine the benefits of snakehead fish waste as a peptone source of growth medium for *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13. The snakehead fish waste was hydrolyzed using the crude bromelain enzyme to obtain the snakehead fish waste extract. In this study, the cultures were grown in growth medium with snackhead fish waste as peptone source at 30 °C for 24 hours and cell growth was measured as CFU/mL. Thereafter, cells powder production was carried out to determine cell viability during the cells powder production process. The results show that hydrolyzate of snakehead fish waste could be used as a peptone source of growth medium for *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13 with an increase in cell number of 2.43 log cycles and produced cells with good viability during the cells powder production process.

Keywords: lactic acid bacteria, *Lactiplantibacillus plantarum* subsp. *plantarum* Dad-13, growth medisum, snakehead fish waste, peptone