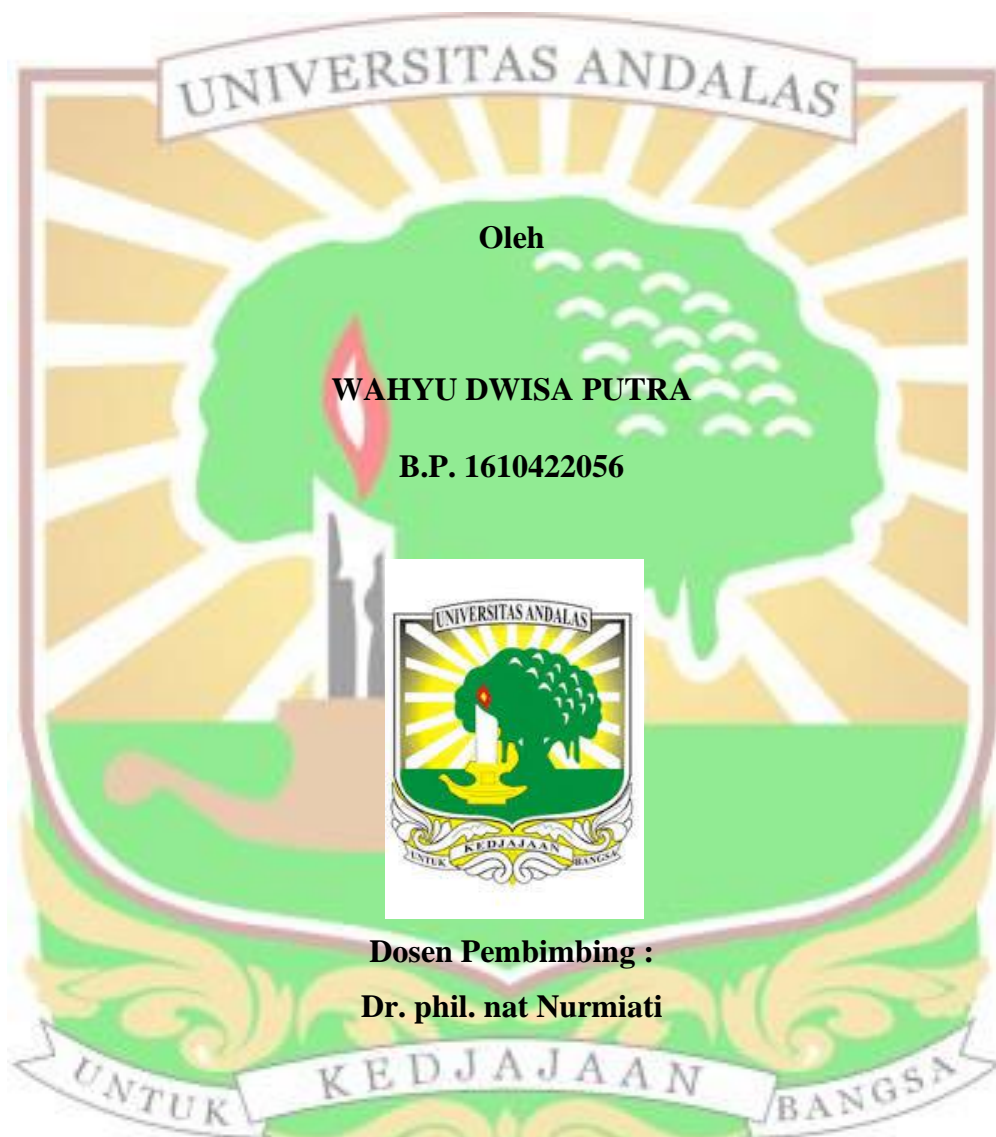


**KEBERADAAN DAN SKRINING MIKROFLORA INDIGENOUS
POTENSIAL PENGHASIL ALKOHOL DARI BUAH DURIAN LOKAL**

(Durio zibethinus Murr.)



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ABSTRAK

Penelitian mengenai keberadaan dan skrining mikroflora indigenous potensial penghasil alkohol dari buah durian lokal (*Durio zibethinus* Murr.) telah dilakukan pada bulan Februari sampai Oktober 2020 di Laboratorium Riset Mikrobiologi FMIPA Universitas Andalas, Padang. Penelitian menggunakan metode survey yang hasilnya disajikan secara deskriptif. Parameter yang diamati meliputi keberadaan mikroflora indigenous, uji potensi fermentasi, karakter morfologi isolat khamir dan bakteri potensial pemfermentasi secara *in vitro*, serta analisis biokimiawi buah durian. Hasil penelitian menunjukkan bahwa Total keberadaan mikroflora alami durian tertinggi (142×10^5 cfu/g), mikroflora pemfermentasi (84×10^5 cfu/g), mikroflora proteolitik (103×10^5 cfu/g), mikroflora lipolitik (47×10^5 cfu/g) dan mikroflora pemfermentasi asam asetat (85×10^5 cfu/g). Uji potensi isolat melalui uji fermentasi diperoleh 3 isolat yang terdiri dari 2 isolat khamir dan 1 isolat bakteri positif potensial memfermentasi alkohol. Adapun karakter morfologi isolat-isolat khamir potensial pemfermentasi durian antara lain bentuk koloni : *circular-irregular*, pinggiran koloni : *lobate*, permukaan koloni : *convex*, tipe reproduksi vegetatif : *multilateral budding* dan *clusters of cells*, tipe reproduksi generatif : *unconjugated asci with ascospores* dan *hat-shaped ascospores*. Karakter morfologi isolat-isolat bakteri potensial pemfermentasi durian antara lain bentuk koloni : *circular*, pinggiran koloni : *entire*, permukaan koloni : *Raised-flat*

Kata kunci: Alkohol, Buah Durian, *Durio zibethinus*, Mikroflora Indigenous



ABSTRACT

Research about “the presence and screening of potential indigenous microflora producing alcohol from local durian fruit (*Durio zibethinus* Murr.)” was carried out from February to October 2020 at the Microbiology Research Laboratory, Faculty of Mathematics and Natural Sciences, Andalas University, Padang. The study used a survey method whose results were presented descriptively. Parameters observed included the presence of indigenous microflora, fermentation potential test, morphological character of yeast isolates and potential fermenting bacteria in vitro, and biochemical analysis of durian fruit. The results showed that the highest total presence of natural durian microflora (142×10^5 cfu/g), fermenting microflora (84×10^5 cfu/g), proteolytic microflora (103×10^5 cfu/g), lipolytic microflora (47×10^5 cfu/g) and acetic acid fermenting microflora (85×10^5 cfu/g). The isolate potential test through the fermentation test obtained 3 isolates consisting of 2 yeast isolates and 1 positive bacterial isolate with the potential to ferment alcohol. The morphological characters of the yeast isolates with the potential for fermenting durian included colony shape: circular-irregular, periphery of the colony: lobate, colony surface: convex, vegetative reproduction type: multilateral budding and clusters of cells, generative reproductive type: unconjugated asci with ascospores and hat - shaped ascospores. The morphological characters of the isolates of potential durian fermenting bacteria included the shape of the colony: circular, the periphery of the colony: entire, the surface of the colony: Raised-flat

Keywords: Alcohol, Durian Fruit, *Durio zibethinus*, Indigenous Microflora

