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Screening The Antidiabetic Effectiveness of Three Indonesian Medicinal Plants Ethnopharmacologically

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ABSTRACT

Background: Diabetes mellitus is a progressive degenerative illness marked by hyperglycemia. Current therapies are still pricey and have negative side effects like renal and liver issues. Affordable alternative medicines that are safer are therefore required. Objective: This study aims to screen green tea leaves, tamarind leaves, and cherry leaves for potential hypoglycemic action. Method: This research is an *in vivo* experimental study by measuring blood glucose levels in male mice induced with alloxan. Results: According to the findings, green tea, tamarind, and cherry leaf extracts worked well as anti-diabetics in male mice with alloxan-induced diabetes. The potential to lower blood glucose levels by more than 50% was demonstrated by all groups of EDAJ, EEDK, and EEDK test extracts on all doses (100 mg/kgBW, 200 mg/kgBW, and 300 mg/kgBW). From day 8 to the end of the research, the EDAJ 100 mg/kg BW group had a significant reduction in blood glucose levels. It is hoped that the public will learn from these findings about the potential and dosage of using native Indonesian plants as anti-diabetics to improve the quality of life for diabetes patients, manage non-communicable diseases, and reduce the cost-effectiveness of treatment.

Keywords: Hypoglycemic, green tea, tamarind, cherry, *in vivo*