



ABSTRACT

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**ANALYSIS NUTRITIONAL VALUE AND ACCEPTANCE CAPABILITY
OF JELLY DRINK MEXICAN SUNFLOWER (*Tithonia diversifolia*)
LEAVES WITH SOURSOP AND STRAWBERRY FLAVOR AS AN ANTI-
HYPERGLYCEMIC FUNCTIONAL DRINK**

xviii, VI Chapters, 141 Pages, 23 Table, 17 Pictures

Background: The Mexican sunflower plant (*Tithonia diversifolia*) is one plant that can be used as an alternative to diabetes treatment and has not been widely utilized. The leaves of Mexican sunflower in this study were made into Jelly form with the addition of juice and processed into jelly drink products.

Objective: To find out the nutritional value and acceptance of jelly drink Mexican sunflower leaf (*Tithonia diversifolia*) as an anti-hyperglycemic functional drink.

Research Method: This research is experimental with two stages of research is to determine the addition of Mexican sunflower leaf extract on jelly and the selection of jelly drink variation most preferred by untrained panelists as much as 35 people through by organoleptic test using VAS (Visual Analog Scale). Data analysis using One Way Anova. The chemical analysis included proximate, crude fiber content, TPC, and alpha glucosidase enzyme inhibition test.

Result: T1A treatment, namely jelly drink addition of 3g leaf extract with strawberry variant is the most favored treatment of panelists. In addition to the texture and aroma parameters, the addition of Mexican sunflower leaf extract gave a significant effect ($p \leq 0.05$). The result of chemical analysis value of T1A product is protein: 0.08%, fat: 0%, carbohydrate: 3.78%, crude fiber: 2.89%, moisture content: 95.9%, ash content: 0.24% TPC: 5.0×10^1 colony / g. In the enzyme inhibition test, glucobay inhibited 98.02%, 0.83% water extract, 0.39% jelly drink product, and inhibition power of jelly could not be determined.

Conclusions: The antihyperglycemic claims cannot be met because of the low inhibitory power of the alpha glucosidase enzyme, although high fiber-containing products can help control blood sugar levels.

Keywords: Mexican sunflower leaves, Jelly drink, proximate, TPC, Alpha Glucosidase Enzyme inhibition.