



## PRODUCTION OF JATROPHA CURCAS L. (TUBA-TUBA) AS A TOPICAL GEL FOR TREATING BURNS

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### ABSTRACT

Jatropha curcas L., also known as Tuba-tuba, has long been used for its properties in countries thanks to its array of health benefits. Its antibacterial, anti-inflammatory, and anti-cancer qualities make it a promising treatment for ailments. As such, the researchers examined how different extraction methods affected the efficacy of Jatropha curcas L. (Tuba-tuba) as a gel for treatment. The leaves of Jatropha curcas L. (Tuba-tuba) were gathered, washed, dried, and extracted using an improvised process, referencing methods like decoction and clarification in order to get the plant extract. The extract was then separated into three sections based on its volume. To determine whether there would be differences in the effectiveness, gels containing 10mL, 20mL, and 30mL of extract were created and tested on white mice. The research showed that the effects of the gel derived from Jatropha curcas L. (Tuba-tuba) varied depending on the concentration used, indicating a difference in its ability to heal burns. The highest concentration,

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30 mL being the most potent. Consequently, the research disproved the null hypothesis. Following their investigation, the researchers determined that the primary components of *Jatropha curcas* L. (Tuba-tuba) include petroleum jelly, oil, and leaf extract. It was found that the gel that incorporated *Jatropha curcas* L. leaf sap extract can alleviate inflammation and discomfort during burn recovery, promoting wound healing at a concentration of 30mL. Additionally, they observed enhanced wound healing and reduced skin redness in mice treated with a gel derived from *Jatropha curcas* L. leaves. Although the plant had reportedly negative impacts due to its chemical composition, the gel displayed encouraging outcomes in hastening the healing process. Additionally, the researchers recommend delving into the subject for dependable results.

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