



**NEEM (AZADIRACHTA INDICA) LEAVES AS AN ANTIBACTERIAL
FOOT BATH POWDER FOR MANAGING FOOT ODOR**

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ABSTRACT

Foot odor is a common condition that arises from the growth of bacteria, possibly causing discomfort and even infections. The study investigating Neem (*Azadirachta indica*) Leaves as an Antibacterial Foot Bath Powder for Managing Foot Odor is aimed at investigating antibacterial activities in neem leaves for another effective formulation of foot-bath purposes. The True Experimental Design is used in the study to compare formulated foot bath powder's effects on bacterial growth using Zone of Inhibition tests. The research was conducted in Balayan, Batangas, and the other materials used were neem leaves from Barangay Caloocan. The formulation of the neem foot bath powder included the drying of neem leaves, pulverization, and mixing with Epsom salt, and baking soda. Bacterial inhibition was assessed by measuring antibacterial efficacy through the estimation of inhibition zones using petri dishes inoculated with foot bacteria. The neem foot bath solutions at 100, 50, and 20 percent concentrations were tested for their antibacterial activity against the bacteria. The results indicated good inhibition of bacteria with larger inhibition zones at higher concentrations, confirming that the neem is a natural antibacterial agent. It is therefore concluded that neem-

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based foot bath powder would help decrease foot odor and inhibit bacterial growth in vitro.

Considering the merit of evidence suggested from the findings, neem could be a low-priced and natural alternative for foot hygiene products. Subsequent investigations on the long-term effects and formulation modifications for commercial use are, however, advised.



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