



RESEARCH PAPER

Antibacterial and antifungal activity of seed extracts of *Ceiba pentandra* (L.) Gaertn. extracted by traditional and modern extraction methods

Savan Donga* and Janaki Movalia¹

Department of Botany, Mehsana Urban Institute of Sciences (MUIS), Ganpat University,
Mehsana (Gujarat) India (Email: savandonga.1@gmail.com)

Abstract : The medicinal plants have been one of the major sources of medicines since the beginning of civilization. Herbal medicines are becoming more and more popular in recent years with their over increasing acceptability in both developing and developed countries. The development of new antimicrobial agents against resistant pathogens is increasing interest. In the present investigation, *Ceiba pentandra* (L.) Gaertn. seeds were extracted by Traditional and Modern extraction methods and evaluated their antibacterial and antifungal potential against some pathogenic microorganisms. The antibacterial and antifungal tests were performed using Agar well diffusion method against 4 Gram positive, 4 Gram negative, 3 fungi and 3 clinical isolates. Antibacterial activity was more than antifungal activity. SA and EC were the most susceptible Gram positive and Gram negative bacteria while CR, CG and CN were the most resistant bacterial and fungal strains. The seed extracts may be a promising source of antimicrobics to treat microorganisms causing infectious diseases. They can be used as innovative antimicrobial agents that are important in medicine and microbial control.

Key Words : *Ceiba pentandra*, Seed, Extraction methods, Antibacterial, Antifungal, Agar well diffusion

View Point Article : Donga, Savan and Movalia, Janaki (2023). Antibacterial and antifungal activity of seed extracts of *Ceiba pentandra* (L.) Gaertn. extracted by traditional and modern extraction methods. *Internat. J. agric. Sci.*, **19** (RAAAHSTSE) : 102-109, DOI:10.15740/HAS/IJAS/19, RAAAHSTSE-2023/102-109. Copyright@2023: Hind Agri-Horticultural Society.

Article History : Received : 13.03.2023; Accepted : 20.03.2023

*Author for correspondence :

¹K. K. Institute of Agricultural Sciences and Research (KKIASR), Ganpat University, Mehsana (Gujarat) India