

## Abstract

**Background:** Mwingi Sub-County in Kitui County has long practiced the use of herbs. Today's world still faces difficulties with traditional medicine, which heavily relies on plants, because there are inadequate mechanisms for validation and documentation. Plants are generally known to contain mixtures of phytochemicals and tributary metabolites that can improve people's health either separately, in combination, or both. However, adequate validation and documentation mechanisms are lacking. Traditional healers in Mwingi Sub-County, have been using various parts of the *Jatropha curcas* plant, including the plant's ability to treat bacterial infections, for many years. The plant *Jatropha curcas* has many natural yields. **Methods:** In today's world, traditional medicine, which heavily relies on plants remains challenging. In this study, which used an experimental and cross-sectional methodology, Mwingi Sub-County in Kitui County provided a sufficient supply of recently matured crude *Jatropha curcas* leaves and stem bark. After being firmly pressed to level and dry, they were affixed to herbarium sheets and branded. The voucher specimen's morphological characteristics were analyzed and compared to those of other specimens recorded in the East African Herbarium at the National Museums of Kenya. The National Museums of Kenya's East African Herbarium conducted a Phytochemistry analysis using ethyl acetate, acetone, aqueous, and methanol solutions. **Conclusion:** Different extracting solvents have a significant impact on the phytochemical composition of *Jatropha curcas* leaves and stem bark in Mwingi Sub-County in Kitui County, Kenya, according to phytochemical analysis.