

**A STUDY ON ANTIBACTERIAL ACTIVITY AND  
PRELIMINARY PHYTOCHEMISTRY OF THE SEEDS OF  
*CUCUMIS METULIFERUS* NAUD, (AFRICAN HORNED  
CUCUMBER) CUCURBITACEAE.**

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## Abstract

Recently the quest for the use of plant materials for medicaments against the use of orthodox medicine has gained interest in the field of science. The usefulness of plant materials in the treatment of diseases has been demonstrated to be as a result of the presence of certain chemical compounds in plants, which include flavonoids, alkaloids, tannins, saponins, glycosides, steroids among others (Trease *et al.*, 1989). Phytochemical compounds are non-specific in their action and can exhibit several functions viz antibacterial, antifungal, antiviral, antispasmodic, antihyperglycaemic, spermatogenic activities among others. African horned cucumber has been claimed to be useful in treatment of various ailments, but most of these claims have not been scientifically validated. In this study, antibacterial activity and phytochemical analysis of *Cucumis metuliferus*, Naud was investigated. The study design was qualitative, deductive and experimental done by extraction, bacterial susceptibility testing and phytochemical screening on the seeds of the plant fruits. Extraction was done at The Mount Kenya University Pharmacognosy Laboratory followed by bacterial sensitivity testing by agar diffusion method at Thika Level 5 Hospital laboratory between March 2013 and July 2013. The investigations revealed that some of the extracts caused inhibition of growth of *Escherichia coli* and *Staphylococcus epidermidis* and also contain substantial amounts of the components tested for and may provide a proof of the usefulness and utilization of *Cucumis metuliferus*, Naud in medicine. Purification of the extract would yield better concentrations and better zones of inhibition against the organisms under test. Further research needs to be done to establish the actual active molecules in the extracts and synthesis of this in the Laboratory. Antibiotic drugs of natural origin developed from this plant may go a long way in preventing establishment of infections caused by *Staphylococcus epidermidis* and *Escherichia coli* species and other pathogens that are now developing resistance to existing antibiotics.