

ANTIMICROBIAL ACTIVITY OF PLANT J LEAF AND BARK EXTRACTS AGAINST STANDARD LABORATORY TEST MICROORGANISMS

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ABSTRACT

Plant extracts with medicinal value have been used to treat many diseases that can either be bacterial, fungal or parasitic among many others. The aim of the study was to evaluate the antimicrobial activity of plant J extract extracted from plant J collected in Mbeere, Embu County against *Bacillus cereus*, *Candida albicans*, *Escherichia coli* and *Staphylococcus aureus* isolates. Serial dilution was carried out to obtain different concentrations of the plant extract, for standardization of the isolates McFarland procedure was carried out within a range of 0.5-4 and used as a reference to regulate the turbidity of bacteria suspensions. The plant extract was extracted using water as the solvent and allowing it to boil for 5-10 minutes then filtered using a filter paper. After incubation of the preferred plant extract concentration with bacteria isolates, zones of inhibition that had formed around the bacteria growth were measured and recorded. The results showed that plant J extract had antimicrobial activity on all the bacteria isolates. The study identified microbial activities of plant J as useful and can be used as a medicinal plant.

Key words: phytochemicals, antimicrobial, herbal medicine