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ACCEPTED ABSTRACTS

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Evaluation of inhibitory activities of two medicinal plant extracts against spoilage microorganisms isolated from mulberry fruit

Richard Ansah Herman

Jiangsu University of Science and Technology, China

Advance in the bacterial control using a natural control like medicinal plants against plant infections were investigated. Two medicinal plants African Locust Bean (*Parkia biglobosa*) and *Lonicera japonica*, which are traditionally used in West Africa and China for the treatment of wide range

of diseases were investigated on their antibacterial activity using aqueous and ethanol extracts against four spoilage microorganisms isolated from mulberry fruit. The isolated microorganisms were identified as *Bacillus subtilis*, *Cronobacter dublinensis*, *Pantoea agglomerans*, and *Bacillus* spp. The disc diffusion method was employed for the antibacterial activity of the plant extracts. The results showed that the aqueous extract of the *P. biglobosa* was potent against the microbial isolates with average inhibitory zones against *B. subtilis*, *P. agglomerans*, *C. dublinensis* and *Bacillus* spp. recorded as (Means±SD) of 19.5±3.54mm,

16.5±0.71mm, 16.5±0.71mm, and 15.0±1.41mm respectively. As well as 15.5±2.83mm, 15.0±0.71mm, 12.5±0.71mm, and 6.5±2.12mm for *B. subtilis*, *Bacillus* spp., *P. agglomerans* and *C. dublinensis* for *L. japonica* at concentrations of 400mg/mL. The ethanol extracts displayed no inhibitory effects. The presence of the secondary metabolites in these two plants might be responsible for their antibacterial properties. The results and findings obtained in the present study support the potential application of these two plants in mulberry fruits preservation as well as in traditional therapeutics.

hermanansah44@yahoo.com