

International Meeting on

# VETERINARY AND ANIMAL SCIENCE

August 06 - 07, 2018 | Dubai, UAE

## Potency of selected herbs on inhibition of ammonia producing bacteria

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In effort to combat environmental pollution, improve animal production and avoid drug residue, producers have resorted to the use of phytobiotics to inhibit ammonia producing microbes in the gut. Freshly harvested *Eucalyptus camaldulensis*, *Mangifera indica*, *Saccharum officinarum*, *Chromolaena odorata*, *Azadirachta indica* and *Carica papaya* leaves were air dried, blended and extracted using five concentrations of solvent (100% water, 70% water + 30% methanol, 50% water + 50% methanol, 30% water + 70% methanol and 100% methanol). The antibacterial activities of the extracts and antibiotics (streptomycin and doxycycline) as control, were tested according to standard procedures against both gram positive (*Bacillus subtilis*, *Staphylococcus aureus*) and gram negative (*Escherichia coli*, *Vibrio cholerae*) ammonia producing bacteria. The inhibitory effect of 100% water, 70% water + 30% methanol

and 30% water + 70% methanol extracts of *Eucalyptus camaldulensis* and *Mangifera indica* was not significantly different from that of streptomycin on all bacteria tested while doxycycline showed the lowest inhibitory activity. *Saccharum officinarum* extract from 30% water + 70% methanol and 100% methanol had significantly better inhibitory effect on *Escherichia coli* than the antibiotic drugs. Also, extract of *Chromolaena odorata*, *Carica papaya* and *Azadirachta indica* at 100% methanol had no significant difference from the inhibitory effect of antibiotics on *Staphylococcus aureus*, *Vibrio cholera* and *Escherichia coli* respectively. It can be concluded, therefore, that 100% methanol extraction of the herbs can be an effective alternative to synthetic antibiotics in reducing ammonia producing bacteria in animal production.

### Biography

BRO Omidwura, a nutritional Biochemist and Phytochemist, has completed his PhD at the age of 35 years from University of Ibadan, Nigeria. He holds administrative positions in the University. He has published more than 20 papers in reputed journals and has been serving as Deputy editor in chief of Tropical Animal Production Investigations. He works with seasoned scientists; Dr Adebisi F. Agboola, an Animal Nutritionist and Feed Biotechnologist, Dr A. O. Adekambi, an Environmental Microbiologist and many others.

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