ACADEMIC INN INTERNATIONAL

ISSN: 2663-9513 (Online) ISSN: 2663-9505 (Print)

South Asian Journal of BIOLOGICAL RESEARCH

open access

ISOLATION AND CHARACTERIZATION OF MICROBES FROM EGG SHELLS AND POULTRY DUNGS SAMPLED FROM SELECTED POULTRY FARMS IN LAGOS, SOUTH WEST, NIGERIA

Ebenezer Oluwasanmi Abeleje, Ajayi A.O, Emmanuel Olumuyiwa Onifade, Oleni, Temilade Taiwo, Stephen Olaide Aremu, Oluwole Opeyemi Owoyemi1, Tosin Adebola Ode, and Babatunde Fatoke

To cite the article: Ebenezer Oluwasanmi Abeleje, Ajayi A.O, Emmanuel Olumuyiwa Onifade, Oleni, Temilade Taiwo, Stephen Olaide Aremu, Oluwole Opeyemi Owoyemi1, Tosin Adebola Ode, and Babatunde Fatoke (2020) Isolation and characterization of microbes from egg shells and poultry dungs sampled from selected poultry farms in lagos, south west, Nigeria, *South Asian Journal of Biological Research*, 3 (1): 28-44.

Link to this article: http://aiipub.com/journals/sajbr-191226-031143/

Article QR **Journal QR**

ISOLATION AND CHARACTERIZATION OF MICROBES FROM EGG SHELLS AND POULTRY DUNGS SAMPLED FROM SELECTED POULTRY FARMS IN LAGOS, SOUTH WEST, NIGERIA

Ebenezer Oluwasanmi Abeleje[1], Ajayi A.O.[1], Emmanuel Olumuyiwa Onifade[1,2], Oleni, Temilade Taiwo[1,3], Stephen Olaide Aremu[2,4], Oluwole Opeyemi Owoyemi[1,5,7], Tosin Adebola Ode[6], Babatunde Fatoke[4]

1. Department of Microbiology, Faculty of Science, Adekunle Ajasin University, P.M.B 001, Akungba-Akoko, Ondo State, Nigeria

2. University of Agriculture, Department of Microbiology, P.M.B. 2373, Makurdi, Benue State, Nigeria.

3. Ekiti State University, P. M. B. 5363 Ado Ekiti, Ekiti State.

4. Faculty of General Medicine, Siberian State Medical University, Tomsk Region, Russian Federation.

5. Department of Biological Sciences, Achievers University, P.M.B. 001, Owo, Ondo State, Nigeria.

6. Department of Microbiology, Salem University, P.M.B 1060, Ajaokuta Road, Lokoja kogi State.

7. Department of Microbiology, Federal University of Technology, P.M.B. 704, Akure, Nigeria.

Corresponding Email: olumuyiwa.onifade@yahoo.com

ARTICLE INFO

Article Type: Research
Received: 26, Dec. 2019.
Accepted: 04, May. 2020.
Published: 05, May. 2020.

Keywords:
Bacteria, Fungi, Egg, Lysozyme, Pathogens, Contamination, Poultry Dungs

ABSTRACT

Microorganisms associated with egg shellsand poultry dung sampledfrom selected poultry farms were studied. A total of thirty-four (34) isolates were obtained from both samples using standard microbiological methods. This consist twenty-five (25) bacteria and nine (9) fungi. The percentage occurrence of bacteria isolated from the samples indicates 64% of Gram-negative rods and 24% of Gram-positive cocci. Findings from the study revealed that these organisms were mostly of human and terrestrial origin which implies that eggs were exposed to contaminants from a wide variety of sources, the primary being faeces, manure and soil. Moreover, it was observed that enteric bacteria such as Enterobacterspp. and coliforms were more prevalent in the samples investigated. Some pathogenic bacteria that posediseases in humans and poultry such as Clostridium and Staphylococcispecies were also isolated from the samples. It is imperative to have greatunderstanding of themicrobial community of poultryproduct (egg shell) and waste(poultry dung)which is contingent to the control of animal disease that occurs as a result of contaminationof poultry product and the management of the adverse effect thatpoultry waste poses on the environment, human and animal health. Hence, the need for this research to create awareness and proffer suitable measures in the control of animal diseases that occurs as a result of contamination of its products and management of animal wastes.