

# Investigation on the Pattern of Intestinal Parasites Present in Refuse Dumps and Abattoir Wastes in Ile-Ife, Nigeria

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## INTRODUCTION

Waste, soil, animal waste and sewage sludge are common sources of manure used to fertilize agricultural fields. The use of community waste, human excrement and effluents from slaughterhouses to fertilize agricultural fields is gaining importance. This practice is especially true in developing countries due to the rising costs of chemical fertilizers which have become unaffordable for many farmers and also due to the increasing demand for basic foodstuffs, some villagers are also used to using pond or stream water for which effluents have been discharged to wet the floor of their hut. Recycling wastewater for agricultural irrigation can give a strong economic boost as it helps conserve resources and protect the environment by preventing pollution of rivers, protecting water quality and preventing intrusion seawater in coastal areas. The presence, prevalence and distribution of intestinal parasites in waste, human and animal waste have been reasonably reported in different parts of the world. The most important of these parasites are *Entamoeba Histolytica*, *Ascaris lumbricoides*, Hookworm, *Balantidium coli*, *Trichomonas hominis*, *Taenia saginata*. Recent epidemiological studies have indicated that in regions of the world where helminthic diseases are endemic in the population and where raw untreated wastewater is used to irrigate vegetables and other salads generally consumed uncooked, the consumption of this vegetable wastewater irrigated can lead to infection parasites. These studies have also indicated that, regardless of the level of municipal sanitary and personal hygiene, the irrigation of vegetables and salad crops with raw sewage can serve as the main route for lasting exposure to helminthic infections.

A number of intestinal parasites which are life threatening in many communities and are of major international health concern which are also capable of being transmitted through abattoir waste and refuse dumps have been reported. It has been shown that refuse dumps are significant source of transmission for intestinal parasitic infection in Kampala, Uganda and Jos, Nigeria. Gastro intestinal nematode eggs have also been regularly demonstrated in dung heaps on farms in some other places, but there is a dearth of information on the status of refuse dumps and abattoir wastes in south western Nigeria especially in Ile-Ife, Osun State. The main objective of this study is to examine refuse dumps and abattoir waste and determine pattern of parasites associated which may be transmitted to man.

## MATERIALS AND METHODS

Study area The study was conducted in 10 selected places in Ile-Ife being an ancient city has experienced an influx of people in

recent times for reasons ranging from the economy to the social and also due to the recent development in the city as the Obafemi Awolowo University pre-diploma school. These developments have caused an increase in the number of slaughterhouses operating in the city and, consequently, an increase in the number of sight dumps in public places.

Sample selection

5 abattoirs were selected for the collection of samples likewise 5 refuse dump sites.

Abattoirs sites: (a) Orisunmibare slaughter slab, (b) Oluorogbo abattoir, (c) Maribatise abattoir, (d) Omi okun slaughter slab, (e) Ilode slaughter slab.

Refuse dump sites: (a) Moremi line 1, (b) Oranfe street, (c) Iloro area, (d) Iyekere (Beside Ife Anglican Grammar School Arubidi Ile-Ife), (e) Okesoda Street. The refuse locations are selected on the basis of their high load of wastes.

Sample collection About 200 g of refuse sample was collected from each of the various selected sites into clean screw capped plastic containers likewise from the abattoirs. These samples were taken at different points of reach refuse sites and abattoir wastes in order to ensure adequate coverage and equal representation.