

Thesis Title

A STUDY ON THE DECREASING OF COLIFORM BACTERIA IN
DRINKING WATER BEING KEPT IN EARTHEN JARS

Name

Suwannee Juthamaneepong

Degree

Master of Science (Environmental Health)

Thesis Supervisory Committee

1. Assoc. Prof. Dr. Komol Sivaborvorn
2. Assoc. Prof. Udom Kompayax
3. Assistant Prof. Rawinwan Rojanavipart

Date of Graduation

June 20, 1988

ABSTRACT

A study on the decreasing of coliform bacteria in drinking water being kept in earthen jars was the comparative study of water retention under 4 different conditions as followed: those were located outdoor/uncovered, outdoor/covered, indoor/uncovered and indoor/covered. Drinking waters which were used in this study were shallow well water and rainwater. Multiple Tube Fermentation Technique and Membrane Filter Technique were employed to determine the amount of coliform bacteria. The results were revealed that the amount of coliform bacteria was reverse related to the retention time of water in the jars, and it was the linear relation.

Regarding to the shallow well water, trend of coliform bacteria decreasing until meet the standards of drinking water was not different among the jars under those 4 different conditions. Where as the rainwater, the coliform bacteria decreasing of water in the jars located outdoor (both uncovered and covered) was faster than those located indoor (both uncovered and covered).

It was found that the coliform bacteria decreasing in shallow well water under those 4 different conditions with the retention time of 3-6 days had no significant difference. Rainwater with the retention time of 3 days, was revealed that the coliform bacteria decreasing of water in the jars located outdoor (both uncovered and covered) was faster than those located indoor (both uncovered and covered). It was also found that the water in uncovered jars had more chances to be contaminated than those in the covered jars.