DDT PERSISTENCE

IN

A TROPICAL CLIMATE

THIS THESIS HAS BEEN ACCEPTED FOR THE DEGREE OF. 1999.

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A thesis submitted in partial fulfilment for the degree of Master of Science of the University of Nairobi.

## DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

H.C.B. Natwaluma

CANDIDATE

This thesis has been submitted for examination with my approval as University Supervisor.

Prof. S.O. Wandiga

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SUPERVISOR

## (ii) SUMMARY

The persistence of DDT in a tropical climate was investigated chromatographically by following the concentration of DDT applied to soil and DDT solutions exposed to sunlight. The half-life values obtained were 117  $\frac{+}{-}$  10 days for surface-deposited and 118  $\frac{+}{-}$  23 days for soil-incorporated DDT; 92  $\frac{+}{-}$  12 days for a DDT solution sealed without deacrating 69  $\frac{+}{-}$  11 days for a deacrated solution of DDT.

Degradation products DDE and 4-PCB were identified in the soil experiments. Several other chromatographic peaks in both experiments were not identified.