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**TITLE: STUDY OF TOXIC EFFECTS OF
EUPHORBIA COTINIFOLIA IN
LABORATORY ANIMALS**

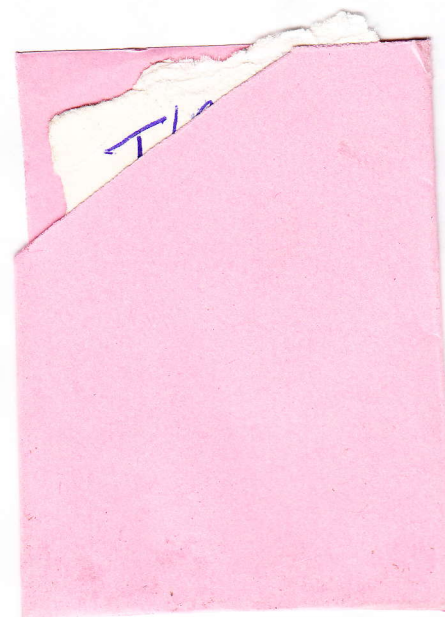
NAME: MUTHONI PETER NYOIKE

COLLEGE NO: 106P07928

**A RESEARCH PROJECT REPORT SUBMITTED
TO THE KENYA POLYTECHNIC UNIVERSITY
COLLEGE IN PARTIAL FULFILLMENT FOR
THE AWARD OF A HIGHER DIPLOMA IN
BIOTECHNOLOGY**

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ABSTRACT

. A study of toxic effects of *Euphorbia cotinifolia* in laboratory animals
Euphorbia cotinifolia originated from Mexico, southern America and West Indies
.the plant has spread and has been subsequently naturalized in many parts of the
world including Kenya.

Unlike other *Euphorbia* exotic or indigenous, this plant has enjoyed a quiet and
harmless environment in Kenya and this has made it bloom rapidly especially
within the city of Nairobi where its planted in parts, schools, homes and road
sides as an ornamental

In 1983, Imbamba and Dossaji reported that the plant contained white latex
whose constituent were linked to cancer. The report followed a skin reaction
experiment on the rabbit ear which produced some mild growth. He reported that
this plant contained polyfunctional irritant diterpenes. The city hall was advised
to uproot all the tree stumps within the city. Although a good deal of work was
done, many trees remained in isolated places and these have shown tremendous
comeback in recent years

The purpose of the work was to observe and record clinical and pathological
changes in rats fed ration containing stems and leaves of *E. cotinifolia* for 90 days.
Determine the intraperitoneal 24 hours LD 50 of lyophilized extracts from leaves
and stem of *E. cotinifolia* in mice and to test effects of fresh latex and aqueous
extract of *E. cotinifolia* on skin and mucous membranes in the rabbits.

One hundred and ten Sprague Dawley rats were acquired from international
laboratory for research in animal diseases (ILRAD). They were divided into
groups of ten rats each left to acclimatize for 7 days before they will be subjected
to 90 days feeding trials

Symptoms will be observed and recorded.

Median lethal dose (LD₅₀) was determined for stems and leaves using 52 mice. 4
of them being control 6 dosage levels was used for the leaves and 6 for the stems.