

**MUTAGENIC EFFECT OF AQUEOUS LEAF EXTRACT  
OF *MORINDA LUCIDA* (BENTH) ON *ALLIUM CEPA* (L)  
CHROMOSOMES**

**A. E. ADEGBITE, M. S. AYODELE AND O. F. OGUNGBE**

---

Department of Biological Sciences, University of Agriculture  
P.M.B.2240, Abeokuta, Nigeria.  
E-mail: gokeadegbite@yahoo.co.uk

---

**ABSTRACT**

Mitotic studies were carried out on onion roots treated with different concentrations of raw leaf extract of *Morinda lucida*, onion roots initiated on water served as control. Chromosome aberrations such as polyploidization, chromosome breakage, laggards and non-congression of chromosomes at telophase were observed in the dividing cells of onion roots treated with 0.5kg/L concentration of the leaf extract. There was no chromosome aberration observed in the roots treated with 0.1kg/L, 0.2kg/L and 0.4kg/L concentrations of the leaf extract and the control. Results obtained imply that high concentration of the leaf extract of *M. lucida* is capable of inducing chromosomal aberrations in *Allium cepa*. Low concentrations (≤ 0.2kg/L) of the leaf extract are therefore suggested for treatment of ailments in traditional medicare.

**Keywords:** Chromosomes, Aberration, traditional medicine, *Morinda lucida*, *Allium cepa* and Leaf extract.