



## **Preliminary studies of the seed of *Aleurites moluccana* to findout the cytotoxic compounds and the preparation of biodiesel.**

Vajira P.Bulugahapitiya\*, W.M.C.S.Wijesinghe

Department of Chemistrty, Faculty of Science, University of Ruhuna, Matara

**Abstract.** The constituents in the seed oil of *Aleurites moluccana* (Tel-kekuna) were investigated for finding out the cytotoxic compounds and the preparation of biodiesel. It was found that the oil of the seeds contain four main compounds and some minor compounds. Those were identified as triterpenoids and tryglycerids of fatty acids and triterpenoids. The mixture of seed oil test for cytotoxic effect. The cytotoxicity was investigated using mosquito larval assay and the seed oil showed significant cytotoxic activity toward mosquito larvae. The seed oil was tested for the finding possibility of using as an illuminating agent for domestic use. It was noticed that seed oil having good illuminating power. According that, the experiment was further extended to find the possibility of making biodiesel from the seed oil. For that, the triglycerides in the oil were converted into biodiesel via saphonification followed by esterification with methanol. It was satisfactory and the formed biodiesel was analyzed using TLC method and Infra red spectroscopy.

**Keywords:** Key words: *A. moluccana*, cytotoxicity, illuminating activity, biodiesel.