

Assessment of selected herbicides and chelating agents in water using gas chromatography-electron capture detector (GC-ECD)

ABSTRACT

Water contamination by herbicides and chelating agents is increasing mainly due to the increasing agricultural activities. Water contamination by these compounds has become a concern due to their adverse effects to the environment and humans. Seven sampling sites of water sources in Selangor and Johor were chosen for the study. Contamination level of Mecoprop (MCCP), Nitrilotriacetic acid (NTA) and Ethylenediaminetetraacetic acid (EDTA) in these water body areas was determined by using Gas Chromatography-Electron Capture Detector (GC-ECD). Our results indicated that water samples of Sungai Melot in Selangor showed the highest presence of EDTA. MCCP was detected at a high level at Sungai Sarang Buaya, Johor while NTA showed similar level of concentration at three different sites, Ladang 10, Ladang Sayur and Mardi, Selangor.

Keyword: Herbicides; Chelating agents; Gas chromatography