

WE-71**POLLUTION OF WATER IN THE BOTAFOGO AND IPOJUCA RIVERS BY PESTICIDES USED ON SUGARCANE PLANTATIONS IN THE STATE OF PERNAMBUCO, BRAZIL**

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The hydrographic basins of the Botafogo and Ipojuca Rivers, which are respectively located in the northern and southern portions of the state of Pernambuco, Brazil, are flanked by large sugarcane plantations. Considering the indiscriminant use of pesticides on this crop, the aim of the present study was to investigate the occurrence of pesticides in the water of the Botafogo and Ipojuca Rivers, which are important sources of water for human consumption in the metropolitan region of the state capital Recife. A total of 238 pesticides were investigated, including carbamates, pyrethroids, insecticides and herbicides, using C18 extraction and subsequent analysis by liquid chromatography coupled to mass spectrometry (LC-MS/MS). The study was conducted in 2010, 2011 and 2012. The herbicides Ametryn and Diuron were found in the Botafogo and Ipojuca Rivers at concentrations ranging from 0.02 to 0.07 $\mu\text{g L}^{-1}$ and 0.02 to 1.40 $\mu\text{g L}^{-1}$, respectively. The levels of herbicides detected in both rivers are in compliance with limits permitted by Brazilian legislation. Nonetheless, the findings underscore the need for evaluations of the fauna and flora in the two hydrographic basins to enable an assessment of the actual stage of impact of sugarcane operations in these regions.

References:

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