Journal of Environmental Hydrology

ISSN 1058-3912

Electronic journal of the International Association for Environmental Hydrology

On the World Wide Web at http://www.hydroweb.com

JEH Volume 6 (1998), Paper 1, March 1998 March 17, 1998 Posted

EVALUATION OF AN ENZYME LINKED IMMUNOASSAY TECHNIQUE FOR THE ANALYSIS OF ATRAZINE AND DEETHYLATRAZINE (DEA) IN WATER WITH APPLICATION TO UNSATURATED ZONE MONITORING AT L'EMPORDA, SPAIN

L. Candela, J. Caballero and T. Melo Geotechnical Engineering Department. Technical University of Catalonia-UPC. Barcelona, Spain

E. Torres

Servei de Proteció dels Vegetals. Generalitat de Catalunya. Barcelona, Spain

ABSTRACT

A sensitive Enzyme Linked ImmunoSorbent Assay (ELISA) based on polyclonal antibodies was tested in a water sampling exercise at field scale. In the absence of deethylatrazine (DEA), results indicate that the method is useful for the determination of atrazine concentrations between 0.1 and 10 micrograms/liter. When compared with gas chromatographic analysis, ELISA overestimates atrazine concentration. If these tests are used as a semiquantitative screening tool, this tendency for overprediction does not diminish the test! usefulness. The test appears to be a valuable method for monitoring triazine herbicides in water samples from wells and soil water suction cups.

Reference: Candela L., J. Caballero, T. Melo and E. Torres; Evaluation of an Enzyme Linked Immunoassay Technique for the Analysis of Atrazine and Deethylatrazine (DEA) in Water with Application to Unsaturated Zone Monitoring at L'Emporda, Spain, Journal of Environmental Hydrology, Vol. 6, Paper 1, March 1998.

HOME