



## **Importance of the method design in tropical soils to assess actual fungicide temporal distribution through a soil profile**

Carmen Mosquera-Vivas (1), Maria Jose Martinez (1), Glenda Garcia-Santos (2), and Jairo Guerrero (1)

(1) Chemistry Department, Universidad Nacional de Colombia, Bogotá D.C. 11001, Colombia, (2) Alpen-Adria-University Klagenfurt, Klagenfurt, Austria (glenda.garciasantos@aau.at)

The current study highlights the importance of the method design in tropical soils to assess actual fungicide temporal distribution through a soil profile. Since we observed evidences of groundwater contamination we used one lysimeter of 100 cm in the study field to assess adsorption and desorption parameters, and degradation rates of two commonly used fungicides in cut rose production. However, no significant concentrations were detected at the different depths (every 20 cm). Interesting, studied fungicides were found in the soil using soil columns of 20 cm during a time lag of 90 days. These experiments were carried out in the laboratory under control conditions. The failure of the lysimeter was explained due to the faster degradation and of the fungicides and organic matter content in tropical soils than in temperate soils in the first soil layer. Thus, the 20 cm column was advised for the studied fungicides and tropical soils.