<u>The Aqueous Hydrolysis of Tribenuron Methyl:</u> <u>Implications for Fate in Soil.</u> D.R. WARE*, M.J. DUFFY,

D.L. SPARKS and T.H. CARSKI; Department of Plant and Soil Sciences, University of Delaware, Newark, DE 19717 and DuPont Agricultural Products, Stine-Haskell Research Center, Newark, DE 19714.

The chemical hydrolysis of tribenuron methyl was examined in sterile aqueous solution as a function of temperature and pH. Under conditions where the half-life was less than 2 days, hydrolysis of tribenuron methyl was followed by periodic injection of a solution contained in an HPLC vial maintained at the desired temperature in the sample compartment of the liquid chromatograph. Otherwise, a batch method was employed. Kinetic and thermodynamic properties were obtained. Results were consistent with previous work showing the chemical hydrolysis of sulfonylurea herbicides to be highly dependent on pH. At a constant temperature, the rate of hydrolysis of the neutral species was found to be much faster than that of the ionized species. Implications for the degradation of tribenuron methyl in soil will be discussed.

D.R. Ware, (302) 831-1595