

# **High Crop Production and Low Water Quality Degradation are Frequently Compatible Goals. (S06-letey120804-Oral)**

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## **Abstract:**

Pesticides and nitrates have been detected at elevated concentrations in many groundwaters. Agrichemicals are transported to aquifers by water that percolates below the crop root zone when water application exceeds evapotranspiration(ET). The amount of deep percolation, as well as the amount of applied chemical, determines the amount of chemical that reaches groundwater. ET is a function of plant growth as well as climatic conditions. Therefore, agricultural practices that affect plant growth-such as fertilizers, pest control, water salinity-also affect ET and, consequently, affect deep percolation for a given amount of applied water. A policy to protect groundwater quality by regulating the application of agrichemicals may have limited benefit and may be counter productive if plant growth is reduced causing increased deep percolation.

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## **Presentation Information:**

Presentation Date: Tuesday, November 12, 2002  
Presentation Time: 1:40 pm

## **Keywords:**

groundwater, agrichemicals, water quality, crop yield