Irrigation Efficiency and Nitrogen Loading to the Ground Water

Interpretation of Results

The graphs from the spread sheet show the change in the nitrogen loading and irrigation efficiency with depth.

The deeper soil samples represent going back in time. Visualize the soil water moving as a large piston, each irrigation moves the nitrogen and chloride farther down the piston. Large jumps in nitrogen loading calculations represent an irrigation where a large excess amount of nitrogen was applied. Low irrigation efficiencies represent an irrigation that had excess water applied that moved the piston farther down in the soil. Changes in irrigation efficiency or nitrogen loading may represent a change in crop. The above graphs represent cotton. The change at 70 inches in irrigation efficiency may represent an irrigation applied to the previous crop or an irrigation applied to the cotton crop that had a high irrigation efficiency. The 70 inch depth represent the oldest irrigation application.