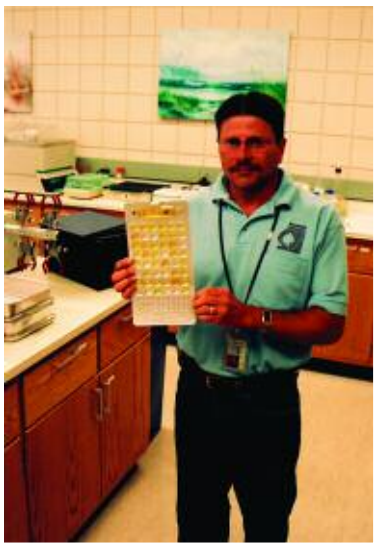
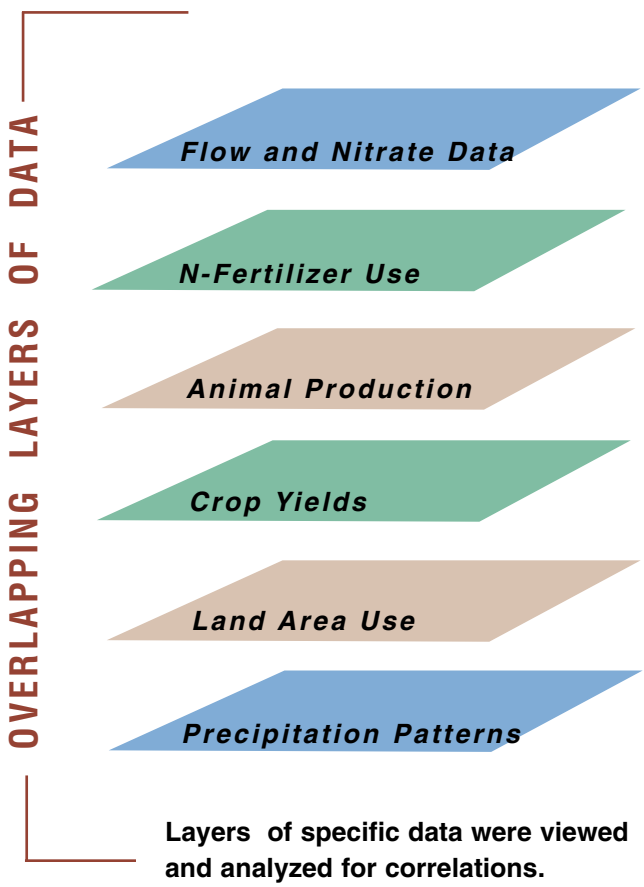
Toward that end, researchers at the Des Moines Water Works (DMWW) and the National Soil Tilth Laboratory (NSTL) studied historical and current NO3-N, flow and other data on the Raccoon River. Understanding the interactions between nitrogen in agricultural production systems and NO3-N levels in surface waters should provide insights into efforts to reduce N levels in drinking water.

DMWW staff extensively reviewed long-term flow and nitrate data for the Raccoon River, using the historical data base of NO3-N concentrations sampled at the DMWW facility and United States Geological Survey (USGS) flow data dating back to 1919. Then they overlapped that data with observations on N fertilizer use, animal production, crop yields, land use changes, and precipitation patterns (see Summary of Findings next page).





Layers of specific data were viewed and analyzed for correlations.