

### **Abstract**

Nitrate leaching and the potential risk to groundwater quality are major concerns in lettuce production areas. Lettuce has a shallow tap root system and absorbs 70-80% of its nitrogen (N) in the three to four weeks preceding harvest. This will increase the likelihood that nitrate will leach below the rootzone.

Soil and tissue sampling were carried out during the Fall of 2001 and 2002 to monitor nitrate in plots receiving 40 to 180 lb/N ac as either ammonium nitrate (AN-20) or calcium ammonium nitrate (CAN-17) in split sidedress applications. Nitrogen fertilizer rate and source did not significantly ( $p \leq 0.05$ ) affect lettuce yields in 2001, or in 2002. Post-harvest soil nitrate levels were higher than pre-sidedress levels in most plots. Tissue nitrate levels were at, or below, desired levels at thinning; but they were well above desired levels at harvest, indicating that all plots had received excess applied N.