

## **Nitrate Analysis at Central Colorado Water Conservancy District**

Connie Lance

**Connie Lance received a B. S. in Biology from Emporia State University in Emporia, Kansas. She earned a Master's degree in Horticultural Science from the University of Florida in Gainesville. For three years, she was a biological scientist at the Tropical Research and Education Center in Homestead, Florida. Since 1992 she has been Water Quality Program Manager at Central Colorado Water Conservancy District in Greeley, Colorado.**

The nitrate ion-selective electrode is used at Central Colorado Water Conservancy District (CCWCD) for nitrate analysis of water samples, because of its ease of use and relative low cost.

Other nitrate methods, especially colorimetric methods, were developed with the expectation that they would be used on waters with lower concentrations of interfering constituents, which affect the accuracy of nitrate analysis. Higher levels of interferences tend to be present in CCWCD waters when nitrate levels are high. In particular, water samples from CCWCD wells can be high in many of the constituents that can interfere in other nitrate methods. Chloride is the most likely interference to cause imprecise results, although sulfate may be a problem in some areas of the District. The Standard Method, using an Orion brand electrode, most effectively minimizes those interferences.

## **Abstract for Poster Presentation**

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Topic 2. Data collection methods and comparability