



## Reasons for Water Testing

Water analysis indicates:

- suitability of water for use in irrigation systems;
- suitability of water for livestock, poultry, fish, aquatic plants and other aquatic organisms;
- suitability of water for pond fertilization or treatment with alum;
- suitability of media for container-grown plants through pour-thru leachate

## Types of Water Tests

Ward Lab in Kearny, NE analyzes water samples for mineral content. It also tests for specific chemical properties that indicate general water quality and have an impact on agricultural production.

Recommendations provided in the water analysis report indicate whether a water supply needs to be modified to serve its intended purpose – livestock, poultry or fish production; irrigation; aquaculture; attracting waterfowl; and source water for hydroponics.

Although a mineral analysis indicates trends in water quality, its purpose is **not** to evaluate safety **for human consumption**. It does not detect the presence of organic pesticides or living organisms, such as coliform bacteria. For information on testing water for human consumption in Oklahoma contact the **Oklahoma Department of Environmental Quality at 1-405-702-1027 or if you live in Texas contact the Texas Commission of Environmental Quality at 1-800-447-2827.**

## Taking a representative sample

Take samples of water to be used for agricultural purposes under the conditions in which the water will be used. You may want to take samples at several processing stages or time periods.

Sample containers should be clean and made of plastic. For complete analysis, a minimum of one-half pint (8 ounces) of solution is required. Before filling the container, rinse it thoroughly with the solution being collected. Fill the container completely and screw the cap on tightly. Label the container with your name and the sample identifier.

- **Wells.** Before sampling water from new wells or from wells recently treated with chemicals, run water for one to two hours. Running the water five to ten minutes before sampling is usually sufficient for established wells. Longer times may be necessary if wells have not been used recently.
- **Rivers or streams.** Sample from the middle of the stream at mid-depth. Avoid collecting surface or bottom residues.
- **Lakes or ponds.** Take a sample where the water is at least 3 feet deep. Use a boat, tube, life vest, dock or a stick to collect the sample. Avoid stirring up the silt. After rinsing with pond or lake water, turn the container upside down and go down approximately 1 foot (up to your elbow) and then turn it over underwater to fill it. Bring the container up to the surface and cap it tightly with a plastic lid.
- **Hydroponic systems.** Flush lines sufficiently to ensure that the sample is representative of a thoroughly mixed supply solution.
- **Nutrient solutions.** Sample after diluting the nutrient concentrate for application and making any other necessary adjustments. The sample should have the same concentration as the solution being fed to the plants.

### Return to:

The Noble Foundation  
Attn: Agricultural Testing Services  
2510 Sam Noble Parkway  
Ardmore, Okla. 73401  
580.224.6480  
[www.noble.org/Ag/TestingServices](http://www.noble.org/Ag/TestingServices)