

Eco-Talk for Nov. 20, 2006  
Title: Testing Your Well Water  
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Over 1 million New York State residents rely on a groundwater supply for their drinking water. Unfortunately, well water can become contaminated with bacteria like coliform or chemicals like nitrates which can be harmful to your health. If you are one of the 1 million New York State residents that rely on well water then you are responsible for the testing and monitoring of your water, and if necessary, its treatment.

At minimum well water should be tested once a year for coliform bacteria and nitrate to monitor for any changes to your well water. Coliform bacteria are microbes found in the digestive systems of warm-blooded animals, in soil, on plants, and in surface water. If total coliform is present in well water, then it is very possible that harmful germs like viruses, bacteria, and parasites might also be found in the water. Nitrates in your well can come from animal waste, private septic systems, , polluted storm water runoff, fertilizers, agricultural runoff, and decaying plants. Infants are particularly sensitive to nitrates. High levels of nitrate in drinking water have caused serious illness and sometimes death in infants under 6 months of age. When infants, under 6 months of age, ingest nitrate, bacteria from their digestive tract can convert nitrate to nitrite, which enters the blood stream and reacts with the hemoglobin. This prevents oxygen from being carried, causing infants to have blue baby syndrome (bluish tint to the skin due to a lack of oxygen). Pregnant women may also be more sensitive to nitrates.

In addition to annually sampling of your well, you should also test your well if any of the following changes/events occur : change in the taste, color or odor of your water, after any flooding in or near the well, someone in the household is pregnant or nursing; there are unexplained illnesses in the family; your neighbors find a dangerous contaminant in their water; or there is a spill of chemicals or fuels into or near your well. Below are a few tips that will ensure your water sample is taken correctly:

#### **Proper Well Sampling:**

1. Supplies: sample bottle from a certified NYS laboratory, a small cooler with ice in it, latex gloves and chlorine bleach.
2. Remove aerator from sampling point faucet (usually kitchen sink).
3. Clean the faucet, the threads and as far internally as possible with the bleach. Let stand for 4-5 minutes.
4. Run water slowly for 4-5 minutes. Water must be free of sediment, color and chlorine prior to sampling.
5. While water is running, label the sample bottle properly.
6. After running the water for the required 4-5 minutes, open the top of the sample bottle without touching the inside or top. (Use thumb to pop off the top.)
7. Place the bottle under the slow stream of water until it reaches the fill line. DO NOT overfill it and dump some out. Immediately close the top and seal. Place on ice, keep out of sun and deliver directly to an approved lab or drop off location.

Water samples should only be analyzed at a certified NYS laboratory. For more information on testing well water, to obtain a list of certified laboratories, or to discuss sample results, please contact Cornell Cooperative Extension of Cayuga County at 255-1183 or the Cayuga County Department of Health at 253-1405.