

Sampling for Bacteria in Wells

Water samples for bacteria tests must always be collected in a sterile container. The procedure for collecting a water sample is as follows:

1. Obtain a sterile container from a Health Department Laboratory or contact your local Extension Service office.
2. Select the cold water faucet at which you will collect the sample. This faucet should have the aerator removed. Do not collect a sample from: a hot water faucet; a hot and cold water mixing faucet; a leaky faucet; any faucet that delivers softened, filtered or otherwise treated water; or from a hose attached to a faucet.
3. Sterilize the inside surface of the faucet by flaming with a propane torch (a disposable butane lighter is fine) or a homemade torch can be made by dipping a cotton ball in rubbing alcohol and holding the cotton ball with a long pliers, light the cotton ball. Do not wipe the end of the faucet after flaming with the torch.
4. Wash hands thoroughly before collecting the sample.
5. Run the water at full flow for five minutes to clear the water lines and bring in fresh water.
6. Reduce the flow to a pencil stream to prepare for sampling.
7. Carefully open the sterile bottle. Hold the cap in one hand and the bottle in the other (do not set the cap down or touch the inside of the bottle or cap). Fill the bottle to the top without overflowing. Also, remember to not let the water flow over your hand as the water enters the bottle.
8. Close the bottle immediately after collecting water sample.

Refrigerate the sample and transport it to the laboratory (in an ice chest) as soon after collection as possible (six hours is best, but up to 30 hours). Many labs will not accept bacteria samples on Friday so check the lab's schedule. Mailing bacteria samples is not recommended because laboratory analysis results are not as reliable. The laboratory analysis generally has a fee of \$8 to \$25.

Iron bacteria is another contaminant which forms a very obvious slime on the inside of pipes and fixtures. A water test is not needed for identification. Check for a reddish-brown slime inside a toilet tank or where water stands for several days.

*compiled by Bruce J. Lesikar, Extension Agricultural Engineer, 9/92

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