



ENVIRONMENTAL EDUCATION SERIES

TIMELY INFORMATION

Agriculture & Natural Resources

EXTENSION ENVIRONMENTAL EDUCATION, AUBURN UNIVERSITY, AL 36849-5647

HOW TO DEAL WITH BACTERIAL CONTAMINATION OF WELL WATER

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Water Contaminants and Bacteria

It has been taught that little or no water found in nature is pure and totally without any contamination. While some contaminants found in water are harmless at low concentrations, such as some minerals, certain bacteria in drinking water can be hazardous to your health. Just as there are many different minerals that can be found in water, there are also many different bacteria. Some bacteria are harmless to humans upon consumption, but some can cause sickness, such as Cholera, Typhoid Fever, and Dysentery.

Testing Drinking Water for Bacterial Contamination

Well water used for drinking water should be tested for bacterial contamination to determine if it is safe to drink. However, no government agency monitors the quality of private water supplies. All people who use private well water for drinking or other purposes are responsible for having their water tested. The Alabama Department of Public Health will provide a proper container and specific instructions on how to take a sample to be laboratory tested for the presence of Coliform Bacteria. These Coliform Bacteria live in the gut and fecal matter of warm-blooded animals. The presence of Coliform Bacteria in a water sample would indicate that animal waste has contaminated the water supply. The animal waste could come from people, livestock, or any other warm-blooded animals. While Coliform Bacteria are not pathogenic (disease causing) to humans, the presence of these bacterial organisms does indicate contamination by animal fecal matter, which often carries other bacteria that can make us sick.

Incidence of Bacterial Contamination in Water Samples in Alabama

The Alabama Department of Public Health has reported that some counties and regions of Alabama have as much as 50%

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incidence of Coliform bacterial contamination in water samples submitted for analysis. The reason for this high occurrence of animal waste contamination is:

1. High livestock populations with poor or non-existent waste handling facilities.
2. High human population densities with failing or non-existent septic systems.

What to Do if Your Drinking Water has been found to have Coliform Bacterial Contamination

You should first notify your household inhabitants not to drink the tap water. You must obtain bottled water for consumption, boil your water prior to consumption, or use bromine or chlorine to kill harmful bacteria that might be present. All of these solutions are however, short term. For a long term solution, you must locate the source of contamination and correct it. Look for septic tank field lines that could be the source, or animal waste from feed lots, lagoons, or poultry houses. The only way to provide a permanent solution is to find the source of contamination and correct it. If you cannot locate the source, or if you cannot correct the problem, you will need to re-locate your well or hook up to a community water system.

Refer to ACRE Fact Sheet Number 20, "Protecting Rural Wells From Contamination," available at your County Agent's office, for further information. This fact sheet explains a procedure to check well construction for problems that can enhance contamination.