

Can your water make you sick?

We often hear “it hasn’t made us sick yet” from people with water sample results that contain total coliform or *E.coli* bacteria. Fortunately, most bacteria in the total coliform group are harmless and commonly found in the environment. However, they can be found in the intestines of mammals, including humans. *Escherichia coli* (*E. coli*), a member of the total coliform group, is used in water tests to identify if there is fecal (e.g. sewer or manure) contamination. The presence of *E.coli* in water indicates that the water source has been polluted with feces, and therefore may carry disease-causing bacteria, viruses and parasites.

Total coliforms and *E.coli* are used to test the degree of contamination in water. Tests for all known pathogens would be difficult and expensive. The Canadian drinking water quality guideline for both total coliform and *E. coli* is none detectable per 100 mL. The main sources of contamination are:

- improperly treated septic or sewage release
- animal manure
- storm water runoff
- domestic animals or wildlife

Runoff during precipitation, which may contain pathogens, goes into rivers, lakes, or ground water. Dug wells and poorly maintained drilled wells are also at risk of contamination during these events. It is important to properly cap wells and protect them from sources of contamination (e.g. livestock).

If your water does not meet the Canadian drinking water quality guidelines for bacteria, it is not safe to drink. Drink boiled (boil for one minute) or bottled water and have your well water re-tested to confirm results. Well water can be disinfected with chlorine (<http://www.gov.ns.ca/nse/water/docs/DisinfectWaterWell.pdf>) or a water treatment system (<http://www.gov.ns.ca/nse/water/uvdisinfect.asp>) can be installed on the water line. Contact an experienced water treatment system dealer to ensure that water quality is compatible with the treatment system prior to installation. After installation of the water treatment system, water quality should be re-tested. It is important to continue to test water quality at least once a year to ensure guidelines are met. Ensuring a quality water supply could save you some aches and pains; always remember that “prevention is the best medicine”.

If you have questions relating to water quality (i.e. interpreting water results or preventing water contamination on-farm) please contact your EFP coordinator or Lynda at 896-2420. This article is the first of three articles on the subject of water quality that will be posted on our website this month.