

Water Testing for Growers: Guidelines on Which Test to Request

Three different water tests are available at most labs:

- Total coliform
- Fecal coliform
- The recommended generic *E. coli* test.*

*It is important to understand the difference and to request the generic *E. coli* test that is quantitative.

Total coliform bacteria are microbes found in the digestive systems of warm-blooded animals, in soil, on plants and in surface water. **Fecal coliform** bacteria are a kind of total coliform. The feces (or stool) and digestive systems of humans and warm-blooded animals contain millions of fecal coliforms. *E. coli* is part of the fecal coliform group and may be tested for by itself, such as with the recommended generic *E. coli* test.

Tests can indicate either a minimal reading of presence and/or absence or can quantify the amount of the pathogen's presence. These quantitative tests are what you should be looking for with results measured in MPN (most probable number) or CFU (colony forming units). Additional information that might be helpful to know from the lab is: water collection protocol, test results turnaround time and delivery of test results.

Growers are encouraged to find local laboratories that can run the generic *E. coli* tests. Using the local phone book, look under "Water Testing."

The following links provide additional information on commercial laboratories in North Carolina that test for a wide range of water quality parameters:

- [N.C. and S.C. Commercial Labs Testing for Generic *E. coli*](#)
List of laboratories and prices for water testing for generic *E. coli* and fecal coliform.
- [EPA Certified Drinking Water Labs](#)
Search for a Drinking Water Certified lab to test for select contaminants. Maintained by the N.C. Department of Health and Human Services, Division of Public Health.
- [N.C. Wastewater/Groundwater Certification Labs](#)
Search for a Wastewater/Groundwater Certified lab to test for environmental contaminants. Maintained by the N.C. Department of Environment and Natural Resources, Division of Water Quality.
- [N.C. Water Analysis Cost Share Program](#)
The N.C. Department of Agriculture & Consumer Services administers the Water Analysis Cost Share Program which will reimburse growers up to \$200 for certified laboratory analysis of irrigation and packing house wash water for the presence of generic *E. coli* bacteria.