

Water Testing Information- Missouri Produce Growers

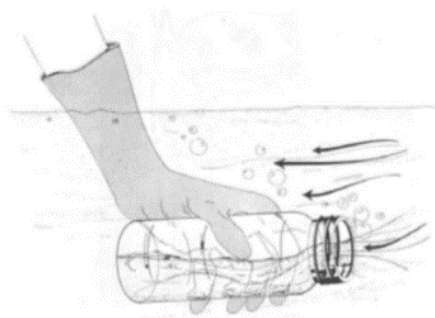
University of Missouri (MU) Extension is offering free water testing to produce (fruit, vegetable and herb) growers in Missouri through a USDA National Institute of Food and Agriculture (NIFA) grant. Testing for Missouri producers will be conducted by the Missouri Department of Health and Senior Services (MDHSS) laboratory in Jefferson City, MO, using the IDEXX Colilert Test Kit Quanti-Tray 2000 for generic *Escherichia coli* quantification, which is one of the methods that is acceptable to FDA under the Food Safety Modernization Act (FSMA) Produce Safety Rule water testing requirements. These results will also be accepted by USDA Good Agricultural Practices (GAP) auditors and possibly other GAPs auditors. Note that this free testing program will last as long as funding continues.

Produce Growers must utilize water sample bottles provided by the local health department, the MDHSS laboratory, or the Missouri Department of Agriculture (MDA) or University of Missouri Extension produce safety teams and must follow the instructions below to collect water samples. Water sources can be surface water or ground (well) water.

Water Sampling Procedure

1. Complete the MDHSS lab Bacteriology Private Well Water Test Request form which is included in water sample kits available from local public health agencies or from: https://www.ksre.k-state.edu/foodsafety/produce/docs/MDHSS_water_test_form.pdf To participate in this free water testing program, please ensure that “other” is marked and that “MPN for produce” is written in the “Test Requested” section at the top of the form. Also mark “no charge routine well” in the “Test Requested” section. In the “No Charge Justification” section at the bottom of the form, ensure that “USDA/Non USDA inspected facility” is marked to ensure that you do not need to pay for the test. For surface water samples, in the “construction type” section of the form, mark “other” and list the type of surface water (e.g. “pond”).
2. Label collection bottle with your name, sample identity (i.e. west well, north pond, etc), and the date it was collected.
3. Wash hands thoroughly with soap and warm water. Gloves are not required but are a good practice.
4. If using water sampling stick for surface water (such as a pond), affix provided water sample bottle onto it.
5. Remove the lid from the container with care to not touch the inside of the container or lid. **Do not rinse the sample container.** There will be a white powder in each bottle which is needed for testing purposes.
6. For a surface water source, dip the sample bottle down to a depth of 6-12 inches. If water is static, create a current by moving the sample bottle horizontally away from your body under water as shown in the image below.
7. Move the top of the bottle slightly upward to allow air to exit.
8. For well water, run the pump for a few minutes to make sure the water in the well riser is not sampled. Make sure the sample represents the current well water.
9. Fill the water a little past the 100mL fill line on the bottle.
10. Cap the sample container, again with care to not touch the inside of the lid or container.
11. Ensure that the labeling remained on the bottle, as described above.
12. Place the sample bottle inside a sealable plastic bag and store in a cooler (<50F), but do NOT freeze the samples.

13. Transport the samples as described below so that they will arrive at your local public health department courier location within 24 hours of sampling.



Water sampling technique for still surface water.

Sample Transport Instructions:

Samples must be brought to a local courier pick-up location within at least 24 hours of collection. The MDHSS courier picks up at most local MO public health agency offices Monday-Thursday. For a listing of sample drop off locations including operating hours and courier times, please go to

<https://health.mo.gov/lab/courierservices.php> or call the MDHSS lab courier liaison at (573) 751-4830.

Samples should not be en route to the laboratory over a weekend or state holiday. If using a commercial carrier to ship samples to the MDHSS lab in Jefferson City, be sure to use next day delivery and ship the sample on ice.

Results:

You will receive the test results within approximately one week of the sample arriving at the laboratory and will include the level of generic *E.coli* and total coliforms. The sample analysis results will also be shared with MU Extension and MDA only for research and educational purposes, but will not be shared or used in other ways.

For more information on produce safety and water testing, please visit the Kansas State University/University of Missouri Extension Produce Safety website: www.ksre.k-state.edu/foodsafety/produce/

For produce safety information, please contact
Dr. Juan Cabrera-Garcia:
jcabrera-garcia@missouri.edu