

Massachusetts Water Quality Standards and Microbial Testing Frequently Asked Questions

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1. Can water carry pathogens?

Yes.

2. Which pathogens associated with agricultural water are of public health concern?

Pathogens transmitted by water include

Bacteria

E. coli O157:H7
Salmonella spp.
Vibrio cholerae
Shigella spp.

Parasites

Cryptosporidium parvum
Giardia lamblia
Cyclospora cayetanensis
Toxoplasma gondii

Viruses

Norwalk virus
Hepatitis A virus

3. How often should I test agricultural water?

Source of water

Schedule for testing

1) Municipal water

Acquire test results from local water authority annually

2) Well water

Twice a year (beginning of season and at peak use)

3) Surface water

Three times a year (beginning of season, peak use and near harvest)

4. Which water sources must be tested?

Irrigation, spray and wash water

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5. What should water tests include?

All tests must include fecal coliform and should be tested for generic *E. coli* with a count of the number of *E. coli* and fecal coliform units not just a presence or absence. Corrective procedures to be employed when required should be noted in the Grower Food Safety Manual (See *Water source testing log*). The report from the testing laboratory is sufficient for documentation. Note spray water must be from a good water source that does not contain pathogens above an acceptable level.

6. What are the acceptable water standards for (fecal coliform and *E. coli* levels) for irrigation?

Test	Recommended levels*
Fecal coliform	200 CFU/100 ml
<i>E. coli</i>	Geometric mean of 5 samples - <126 CFU/100 ml with no sample over 235 CFU/100ml Non foliar contact - <576 CFU/100 ml

* It should be noted that the water meeting these standards may still be contaminated with protozoa and viruses.

7. Are there any instances when I do not need to test water?

Yes.

If municipal water is used, you would need to obtain an annual report from the locality that identifies the presence and levels of organisms.

8. Why is surface water not acceptable in the packing shed?

Surface water is more likely to be contaminated with high levels of pathogens than well water and pathogen levels vary with environmental conditions.

9. Where can I have my farm water tested?

For the Online Searchable Laboratory Listing, go to the Massachusetts Department of Environmental Protection:

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

To confirm a laboratory's certification status in MA, call (978) 682-5237 or e-mail

Labcert@state.ma.us

10. Who should I contact with questions regarding water safety?

Consult state or local Departments of Environmental Protection or Public Health or extension educators. You may also contact the MA Department of Agricultural Resources.

11. What do Inland Water Classes (Classes A, B, and C) stand for?

Class A (CMR 4:05,3,a))

Potable water; not to exceed 0 *E-coli* organisms/100ml

Class B (CMR 4:05,3,b))

Suitable for irrigation; not to exceed 126 *E-coli* colonies/100ml

Class C (CMR 4:05,3,c) Standard)

Suitable for irrigation of crops used for consumption after cooking, not to exceed 630 *E-coli* colonies/100ml

For more information about Water Classes A, B, and C, see enclosed "314 CMR4.00: DIVISION OF WATER POLLUTION CONTROL."

12. Is there a specific way to take a water sample?

Sampling and testing methodologies can differ between different laboratories. Check with your lab to find out how you should obtain the sample.