

# Sample SOP: Agricultural Water for Production Testing

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## 1—Purpose

Describes how to sample surface water for generic *E. coli* analysis. It can also be used when sampling well or municipal water.

## 2—Scope

Applies to any farm personnel responsible for sampling water and submitting it to a laboratory for analysis.

## 3—Responsibility

Anyone responsible for sampling water or submitting the samples to a laboratory should understand this SOP. Anyone responsible for keeping records of water tests results should also be familiar with the SOP in case there are unusual test results so they might be able to identify a problem with the sampling, shipping, or analysis.

## 4—Materials

- Marker for labeling sampling container
- Water sampling stick (not required but helpful for sampling surface water)
- Disposable gloves
- Sealed, sterile sampling container (1 Liter bottle or lab provided container)
- Cooler
- Ice packs
- Tape
- Zipper-seal bags
- Garbage/disposal bag for waste
- Shipping labels (if mailing to lab)

## 5—Procedure

*\*Always follow instructions provided by selected lab regarding container and sampling protocol.*

### **Water Sampling Protocol for Surface Water**

1. Label container with sampler name, water source, date, and time of collection.
2. Identify good sampling area, sampling as close to water use point as possible.
3. If using a sampling stick, assemble bottle on sampling stick.
4. Put on gloves.

5. Open collection container as close to sampling area as possible. Do not place fingers on the container lip or inside the container.
6. Dip container into source and collect water. If sampling from irrigation equipment, it may be necessary to let the water run for a while to ensure you are getting water that has not been sitting in the pipes. Do not let container lip contact irrigation equipment. Collect at least 100 mls of water from each location. Sample the water after it flows through the irrigation filter (if applicable).
7. When the container is full, seal the container. Do not touch the inside or lip of the container.
8. Double check container label to be sure it is correct.
9. Place the sample in a 1 gallon zipper-seal bag and seal (only critical if shipping samples).
10. Place in cooler with ice packs.
11. If shipping, label cooler and seal.
12. Deliver to selected lab or drop off at shipping company for shipment. Be sure delivery meets the hold-time requirement set by the laboratory; otherwise, test results may not be accepted by the buyer, auditor, or regulatory agency.

### ***Water Sampling Protocol for Well Water***

1. Label sampling container with sampler name, water source, date, and time of collection.
2. Sample nearest point of use as possible.
3. Turn faucet on. Let the water run long enough so that you are testing water from the well and not just the water that has been sitting in the pipes or hose. Depending on your water system, this could be as long as 10 minutes or as short as 1 minute. If you know the volume of your system and flow rate, allow 2-3 times the volume of the system to evacuate prior to sampling.
4. Put on gloves.
5. Open sampling container as close to point of use as possible. Do not place fingers on the container lip or inside of the container.
6. Place sampling container into running water and collect at least 100 mls of water.
7. When the container is full to shoulder or fill line\*, seal container. Do not touch the lip or inside of the container. \*Leaving a little head space makes it easier for the laboratory to pour the sample once it arrives.
8. Double check container labeling to be sure it is correct.
9. Place the sample in a 1 gallon zipper-seal bag and seal (only critical if shipping samples).
10. Place in cooler with ice packs.
11. If shipping, label cooler and seal.
12. Deliver to selected lab or drop off at shipping company for shipment. Be sure delivery meets the hold-time requirement set by the laboratory; otherwise, test results may not be accepted by the buyer, auditor, or regulatory agency.