

How to Test for *Salmonella* Enteritidis (SE) in Your Backyard Coop: Drag-swab Procedure

Background: *Salmonella* is type of bacteria commonly found in poultry. However, *Salmonella* Enteritidis (SE) is a specific type of *Salmonella* that can cause foodborne illness in humans while showing no signs of disease in poultry. Therefore, commercial poultry farms in the U.S. above 3,000 laying hens are required by law to test the environment that their birds are raised in for the presence of SE. The following is a procedure on how to test for SE in your backyard flock. Testing one-two times a year will give you some indication of any risk associated with SE in your laying hens.

Materials Needed: Note: You can find many of these supplies at your local pharmacy or via amazon.

- Whirl Pak© bags (sterile bag)
- Pre-sterilized 4x4 gauze pads (swabs)
- Canned evaporated milk (regular, skim or low-fat)
- Sterile gloves
- Disinfecting wipes with 70% ethanol
- Drag-swab pole assembly (see photo):
 - ~ 4ft metal dowel (metal is easy to disinfect)
 - Hose clamp
 - Alligator clip
 - Position alligator clip at one end of the dowel and use the hose clamp to keep the clip in place on the dowel



Preparing the Drag-swabs for Testing:

It is recommended by the FDA to wear sterile gloves when handling and moistening the swabs. Always handle drag swabs at edges.

1. Disinfect the top of the can of evaporated milk, can opener, and swab poles with disinfecting wipes.
 - a. You may place a sterile swab over the opened can to prevent flies from contaminating the milk.
2. Place clean swabs into individual sterile bags and label them appropriately. The number of samples varies depending on the size of your poultry house (see section below for details).
3. Pour approximately 15ml of evaporated milk into each bag to moisten the swab, and squeeze out any excess liquid.

Testing your backyard flock:

1. Take one swab and place on the alligator clip and “zig zag” around your coop preferably where there are feces.
2. Put the swab in a sterile bag and store at 4°C (refrigerator temperature).
3. Submit the sample to your local California Animal Health and Food Safety Lab (CAHFS). There is one at the UC Davis vet school.