# Farm Fresh Eggs...A Backyard Bacterial Source?

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In this study, 12 different groups of farm eggs were collected and cultured for bacteria in four different methods. Four eggs were collected from each farm as well as three different types of store bought eggs to be used as controls. The eggs were cultured for Salmonella, E-Coli, and other gram-negatives. I hypothesized that the farm eggs would grow many gram-negative bacteriums. Method #1 was using autoclaved skim milk and sterile gauze to recover the bacteria, the gauze was then placed into a sterile bag. Method #2 was using a swiffer duster to wipe the outside shell of the eggs, the swiffer duster was then placed into a sterile bag. Method #3 was using a swiffer duster to wipe the egg, then the swiffer duster was placed in a tetrathionate broth. Method #4 was placing the egg in a tetrathionate broth. Of the 60 eggs collected (including controls) six came up with gram-negative bacteria that was then identified. As well as three samples with growth of E-Coli. All other eggs had gram-positive growth (mostly environmental bacteriums) on blood agar plates. The hypothesis was partially supported.

**Awards Won:**