



In-House Windrow Composting and Its Effects on Foodborne Pathogens

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Control of foodborne pathogens at the farm is a growing concern that is being addressed in the industry. Several methods have shown varying effectiveness in reducing pathogens on the farm, one of which is in-house windrow composting. In this experiment, used litter was obtained and samples were taken to determine the baseline levels of *Campylobacter*, *Clostridium perfringens*, and *Salmonella*. From these samples, no *Salmonella* or *Campylobacter* was detected and baseline counts for *C. perfringens* were determined. This litter was then formed into 3 windrow compost piles.

Temperature probes were placed so as to measure the internal and external temperatures, with the data being recorded hourly. From each compost pile, 3 samples were removed and inoculated with *Campylobacter*, *C. perfringens*, and *Salmonella*. These 9 inoculated samples were then wrapped in cheesecloth, and 2 were placed in the interior, and the other 1 was placed in the exterior of each compost pile. After 7 d, the inoculated samples were collected and tested to determine the number of inoculated bacteria that had survived.

In all the samples (composted and uncomposted), there was a significant reduction in all of the bacteria measured. *Salmonella* was completely eliminated from the samples that were composted, whereas it was still recoverable from the uncomposted samples. The results show that in-house composting of litter is an effective way of reducing, and in some cases eliminating, foodborne pathogens in a poultry house.

Read more on Science Direct:

<https://www.sciencedirect.com/science/article/pii/S1056617119310980>

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