Campylobacter contamination and the relative risk of illness from organic broiler meat in comparison with conventional broiler meat

Danish organic broiler meat, represented by carcasses sampled at the end of processing after chilling, was more frequently contaminated with thermotolerant Campylobacter spp. than conventional broiler carcasses; the yearly mean prevalence being 54.2% (CI: 40.9-67.5) for organic and 19.7% (CI: 14.8-24.7) for conventional carcasses. Campylobacter jejuni was the most frequently isolated species. The difference in prevalence was obvious in all quarters of the year. Contamination of organic and conventional broiler carcasses was more likely to occur in the warmer summer months, in this case in the third quarter, as also documented for conventional broiler flocks. When contaminated, the mean concentration of Campylobacter on neck skin samples of organic and conventional carcasses was not significantly different (P=0.428): 2.0±0.65log10cfu/g and 2.1±0.93log10cfu/g, respectively. Assessing the relative risk of becoming ill following exposure to Campylobacter on conventional or organic broiler meat indicated that the risk per serving from organic carcasses was 1.7 times higher than that of conventional carcasses. The higher risk of illness from organic broiler carcasses compared with conventional broiler carcasses emphasizes the importance of implementing control measures in organic broiler production.

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