

Title Effect of acidified sodium chlorite treatment on chicken carcasses processed in South Australia
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Abstract

A trial on the effectiveness of acidified sodium chlorite (ASC) on *Salmonella* and *Campylobacter* was undertaken on chicken carcasses after they exited the screw chiller of a commercial premises in Adelaide, Australia. On untreated carcasses mean \log_{10} total viable count (25 °C) was 2.78/cm² compared with 1.23/cm² on treated carcasses. Prevalence of *E. coli*, *Salmonella* and *Campylobacter* was 100%, 90% and 100% respectively, on untreated carcasses and 13%, 10% and 23% respectively, on treated carcasses. The distributions of *E. coli*, *Salmonella* and *Campylobacter* (mean \log_{10} of positive samples) from untreated carcasses were 1.55, -1.80 and 1.59/cm² respectively, and -0.64, -1.85 and -2.21/cm² respectively, on treated carcasses. On untreated carcasses *S. Sofia* and *S. Infantis* were isolated from 73% and 37% of carcasses, respectively; only *S. Sofia* was isolated from treated carcasses. The significant reductions in both prevalence and concentration demonstrated in the present trial indicate that ASC is a risk management option immediately available to the poultry industry.