

## ABSTRACT

### SURVIVAL OF *ESCHERICHIA COLI* (ATCC 25922) AND NATURAL MICROFLORA POPULATIONS ON AVOCADO AFTER EXPOSURE TO HIGH CONCENTRATIONS OF GASEOUS OZONE

Ozone gas was applied to whole fresh avocados in a closed chamber. *Escherichia coli* (ATCC 25922) was cultured on nutrient agar and applied to the surface of each avocado. After ozone treatment and shaking, the solution was plated and incubated for different periods to detect and quantify *E. coli*, natural populations of aerobic mesophilic bacteria, and natural yeast and mold populations. Ozone reduced *E. coli* populations to the minimum detection limit. Natural microbe populations were low and more resistant to ozone treatment. Reduction in these populations by ozone was one log or less. *E. coli* populations applied to the surface of the fruit were eliminated by ozone at relatively low doses, while natural microbe populations, particularly fungi, were much more resistant.

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