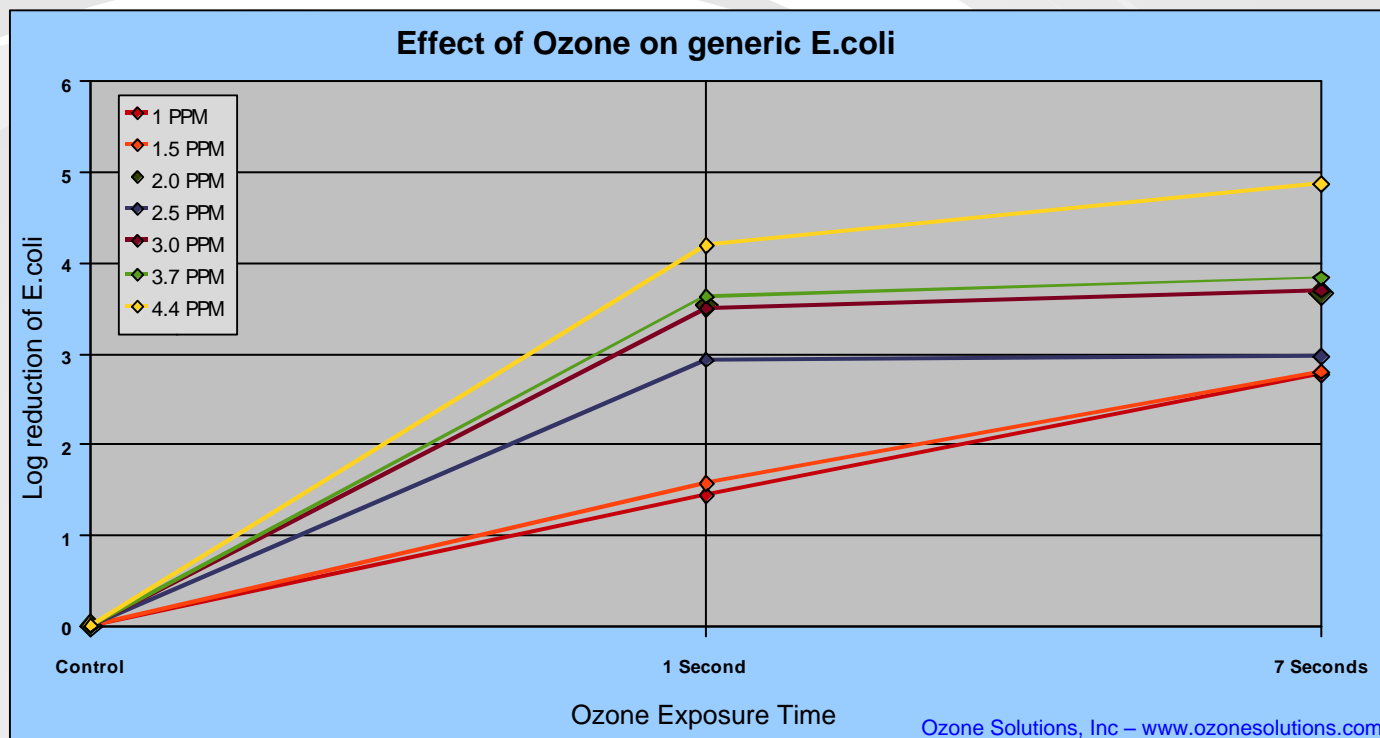


# Effect of Ozone on Generic E.coli

Lab tests were performed to evaluate the concentration and exposure time of ozone necessary to kill generic E.coli bacteria



The chart above shows the effect of ozone concentrations on E.coli at 1 and 7 second intervals. This chart shows 2.0 PPM ozone is very effective on E.coli with only 1 second of contact time.

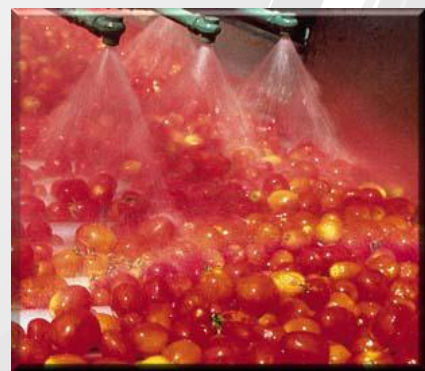
**Ozone can be used on almost any fruits or vegetables to extent their shelf life significantly!**



Waterzone Ozone Injection System



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# Antimicrobial Effects of Ozonated Water Against Generic *E.coli* on Swine Intestines Varying Ozone Concentrations and Exposure Times

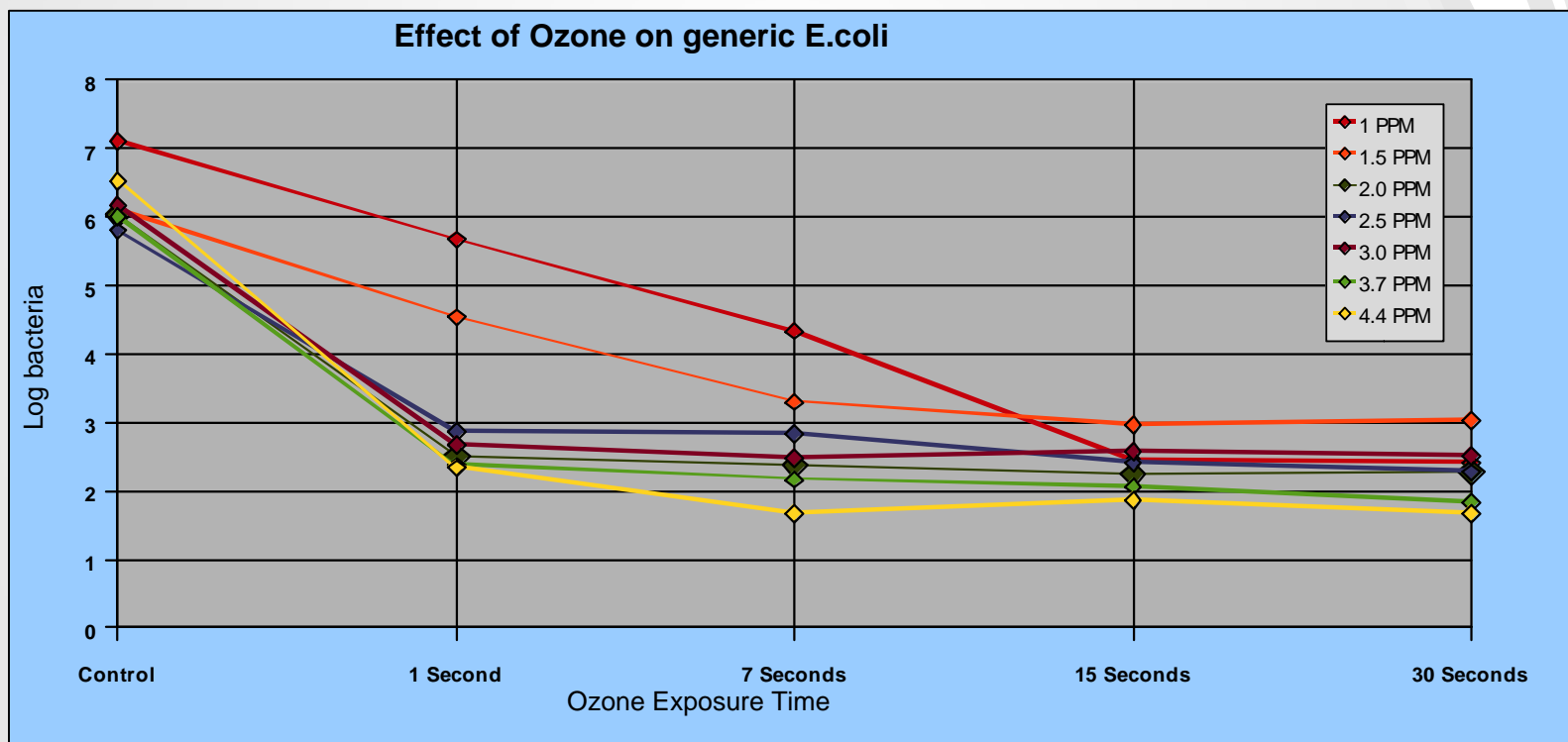
SIG International Iowa Food Laboratory in conjunction with Ozone Solutions

**Abstract:** Swine intestines harvested then turned inside-out and washed with cold water to remove all visible contaminants were tested to have a generic *E.coli* load of 6 to 7.5 logs per gram of tissue. Samples of these tissues were treated with ozonated water at various concentrations for various lengths of time up to a total of 30 seconds. It was determined that concentrations below 1 ppm had no significant anti-*E.coli* effects at any of the exposure times tested. At 1 ppm and above significant kills were achieved with a 1 second exposure time. At 1 ppm and up to 2.5 ppm a 15 second exposure time was needed to achieve the greatest *E.coli* kill, and at 3 ppm and above a 1 second exposure time was all that was needed to achieve the greatest *E.coli* kill.

To read entire paper please visit our website at [www.ozonesolutions.com/Ozone\\_Food\\_Processing.html](http://www.ozonesolutions.com/Ozone_Food_Processing.html)

**This data shows that ozone would be very effective in a streamlined conveyer application with spray bars. Provided the surface of the product to be disinfected is contacted with water on all sides 3 log reduction of *E.coli* can be assumed**

Graph shows the reduction of *E.coli* using varying ozone concentrations and exposure times



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**This graph illustrates that 30 seconds of exposure time shows only slightly better *E.coli* reduction than 1 second of exposure when ozone concentrations are 2.0 PPM or higher**



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