RESEARCH SUMMARIES

EFFECTIVENESS OF CHLORINE AGAINST TULANE VIRUS, A HUMAN NOROVIRUS SURROGATE, AND ESCHERICHIA COLI IN PREHARVEST AGRICULTURAL WATER

Microbial Inactivation in Control Groups
(Phosphate Buffer Dilution Water)

A E. coli

B Tulane virus

In control groups, a 5-min treatment with 9 ppm free chlorine inactivated Tulane virus and *E. coli* to nondetectable levels, corresponding to concentrations of less than 0.347 log₁₀ PFU/ml and 1.0 log₁₀ CFU/ml, respectively.

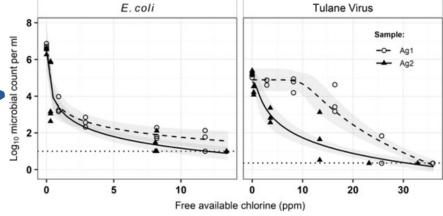


Free available chlorine (ppm)

Inactivation of $E.\ coli$ and Tulane Virus in Agricultural Water Samples Following a 5-min Treatment with Calcium Hypochlorite

The chlorine demand for agricultural water samples was higher than that of controls.

Achieving a 3-log₁₀ reduction in Tulane virus with high chlorine concentrations required between 9.6-23 ppm and may not be practical.





Ashlyn Lake Research Assistant University of Florida ashlynlake@ufl.edu



Naim Montazeri
Assistant Professor of Food and
Environmental Virology
University of Florida
nmontazeri@ufl.edu



Lake, A., Yusuf, N., Maybank, M., Johnson, S., Mutch, C.K., Mueck, A.P., Riley, S.S., Havelaar, A.H., Montazeri, N., 2025. Effectiveness of Chlorine Against Tulane Virus, A Human Norovirus Surrogate, and Escherichia coli

