

Sterilization of wheel of catering car using strongly acidic electrolyzed water

Comparison of strongly acidic electrolyzed water and sodium hypochlorite solution

Food Science and Human Nutrition

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Research topics

Purpose

- Most food poisoning in Japan is caused by microorganisms.
- One of the causes for the entry of microorganisms into the cooking room is when people or objects are brought in.
- Studies on the sterilization about the wheels of a catering car are related to improving hygiene management of food service facilities and preventing food poisoning closely.

Topics

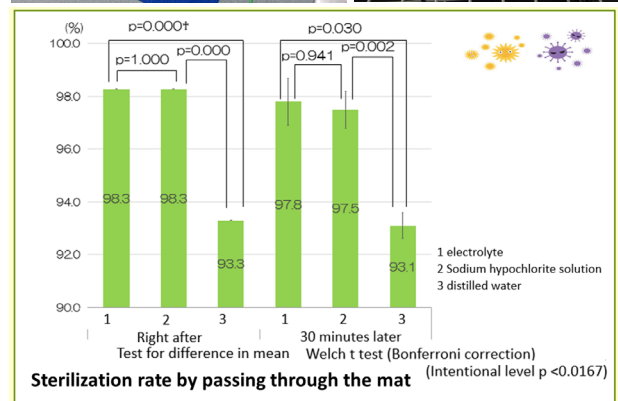
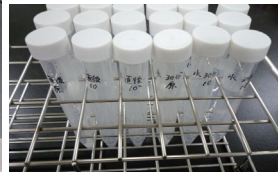
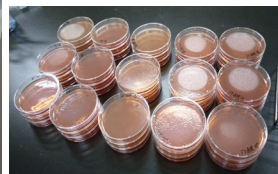
Recently, strongly acidic electrolyzed water is often used to antisepticise. In this study, we explored the practical utility of strongly acidic electrolyzed water to compare the bacteria-killing activity using strongly acidic electrolyzed water and sodium hypochlorite solution to the wheels when the catering car was returned.

Main achievements

- It was confirmed both of them are effective. Because, after 30 minutes from spraying to use strongly acidic electrolyzed water and sodium hypochlorite solution, both of sterilization rates were more than 97%. It is significantly higher than the control water.
- Since no significant difference was observed between the strongly acidic electrolyzed water and the sodium hypochlorite solution, it is highly safe for the human body and the use of strongly acidic electrolyzed water designated as a food additive will increase in the future. It is expected to continue.
- The sterilization rate was about 93% only by just spraying water, but in the case, it may remain as viable bacteria on the mat and there is a risk of recontamination, so it should be avoided.



↑Collecting bacteria on wheels



Research features



I will carry out research from a new perspective on hygiene management of food service facilities, and utilize that knowledge to develop practical measures against food poisoning.