Effect of UV-C on Inoculated Packaging Material & Food Contact Surfaces

Trial Conducted by The Institute of Food & Health and Centre for Food Safety, University College Dublin.

Trial Funded by the European Commission

Trial conducted using UV Technology Ltd equipment

Notes

C. Jejuni - Reduction (log10 cfu/cm2) of C. Jejuni inoculated onto packaging & surface materials. UV-C exposure for 8 - 16 seconds @ 6.5 cm from the light source. - Average starting population = 3.5 log10 cfu/cm2

E. Coli - Reduction (log10 cfu/cm2) of E.Coli inoculated onto packaging & surface materials. UV-C exposure for 8 - 16 seconds @ 6.5 cm from the light source. - Average starting population = 4.5 log10 cfu/cm2

S. Enteritidis - Reduction (log10 cfu/cm2) of S. Enteritidis inoculated onto packaging & surface materials. UV-C exposure for 8 - 16 seconds @ 6.5 cm from the light source. - Average starting population = 4 log10 cfu/cm2

Log reduction cfu/cm2

Packaging Medium	Bacterium	8s Exposure	16s Exposure
Black Polypropolene	C. Jejuni	3.16	3.16
	E. Coli	3.75	3.75
	S. Enteritidis	3.93	3.93
Blue Polypropolene	C. Jejuni	3.44	3.44
	E. Coli	2.21	2.36
	S. Enteritidis	2.26	2.68
Aluminium	C. Jejuni	3.40	3.40
	E. Coli	4.12	4.12
	S. Enteritidis	4.18	4.18
Polyolefin	C. Jejuni	3.78	3.78
	E. Coli	4.28	4.28
	S. Enteritidis	4.07	4.07
Polyvinyl Chloride	C. Jejuni	3.77	3.77
	E. Coli	4.50	4.50
	S. Enteritidis	4.16	4.16
White Polypropolene	C. Jejuni	3.97	3.97
	E. Coli	3.94	3.94
	S. Enteritidis	3.69	3.69
Polyethylene - Polyropelene	C. Jejuni	3.92	3.92
	E. Coli	2.58	2.65
	S. Enteritidis	3.08	3.35
Stainless Steel	C. Jejuni	2.92	2.92
	E. Coli	3.98	3.98
	S. Enteritidis	4.20	4.20
Polyethylene Cutting Board	C. Jejuni	3.36	3.36
	E. Coli	3.39	3.39
	S. Enteritidis	3.55	3.55

If you would like to receive a full copy of this trial report please contact UV Technology on 0161 408 0060