
**ABSTRACT:**
The combined effect of nisin and moderate heat to increase the killing of *Listeria monocytogenes* in cans of "cold-pack" lobster was investigated. Adding nisin at a level of 25 mg/kg of can contents to the brine surrounding the lobster, in combination with a heat process giving internal can temperatures of 60°C for 5 min and 65°C for 2 min, resulted in decimal reductions of inoculated *L. monocytogenes* of 3 to 5 logs, whereas heat or nisin alone resulted in decimal reductions of 1 to 3 logs. Such a reduced heat process to that currently commercially used (65.5°C for 13 to 18 min, depending on the can size) results in significant reduction in drained weight loss, thus allowing considerable cost savings to the lobster-processing industry.