

**Title** *Listeria innocua* growth in fresh cut mixed leafy salads packaged in modified atmosphere  
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#### **Abstract**

To investigate *Listeria innocua* fate in fresh cut mixed leafy salads, packaged both in ordinary (OA) and modified atmosphere (MA), the type strain DSM 20649 was inoculated and its behaviour was monitored by conventional and molecular approaches, during storage at 4 °C.

Results indicated that: fresh cut salads packaged under MA (at initial conditions of 6% CO<sub>2</sub> and 3% O<sub>2</sub>) supported the growth of *Listeria* spp.; conventional plating technique could not detect *L. innocua* even into inoculated samples, whereas; PCR–DGGE analysis showed that the *L. innocua* became one of the dominant species in samples packaged in MA, starting from the 3rd day of storage.

The study confirms that modified atmosphere has to be applied together with other preservative techniques in order to assure the inhibition of pathogenic micro-organisms in fresh cut vegetables.