

Lyocarni WBX-87 and VDM-107

Natural Protection, Proven Safety: Controlling *Listeria monocytogenes*

Controlled Fermentation & Protective effect for raw-cured meats and salami

EU legislation controlling the presence of *Listeria monocytogenes* in ready-to-eat foods are tightening, with 2026 updates emphasizing full shelf life compliance and continuous safety control—making proactive solutions more critical than ever. RTE foods, such as whole-muscle cured meats and salami, face **one of the most demanding food safety challenges: controlling *Listeria monocytogenes*.**

Listeriosis remains the most severe food-borne disease in Europe, with high hospitalisation and fatality rates(1). Since these products are consumed without further cooking, preventive strategies are crucial.

Selected natural cultures with protective effects provide a targeted, natural approach to **enhance safety**, helping to **control *Listeria*** throughout fermentation, ripening and shelf life while respecting product identity.

Lyocarni WBX-87 is a selected starter culture that **controls ripening** while providing a natural protective effect for whole-muscle cured meats, helping ensure safety, uniformity and stability. It promotes typical flavour development, colour stability, and faster drying, contributing to consistent product quality. The culture includes bacteriocin-producing *Carnobacterium*, specifically effective at low temperatures, naturally inhibiting *L. monocytogenes*.

Lyocarni VDM-107 is a starter culture designed for very fast fermentation, promoting the development of aroma and colour in salami while also providing a protective effect.

The selected combination of bacteria supports fermentative balance and product stability, helping to limit the growth of *L. monocytogenes* while preserving its typical sensory characteristics.

Key Features



**Controlled fermentation with
optimised colour and flavour
development**



**Perfect integration into the
process while preserving
product identity**

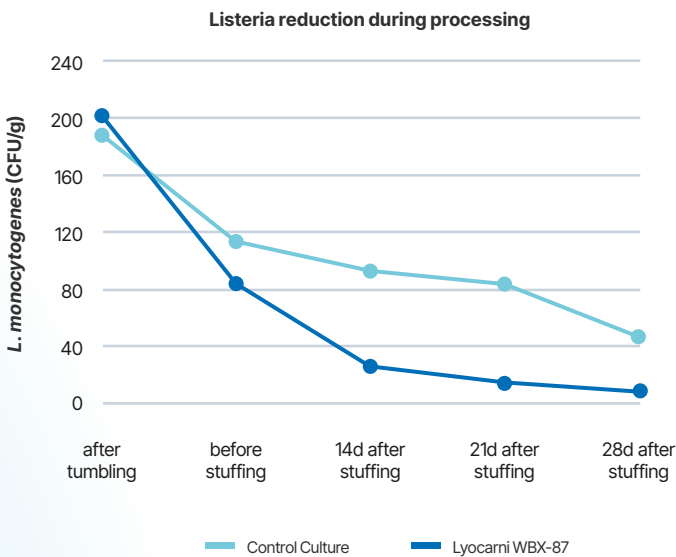


**Targeted control of
Listeria with a
clean-label solution**

Protecting Raw-Cured Loin: Effective Listeria Control from Processing to Shelf Life

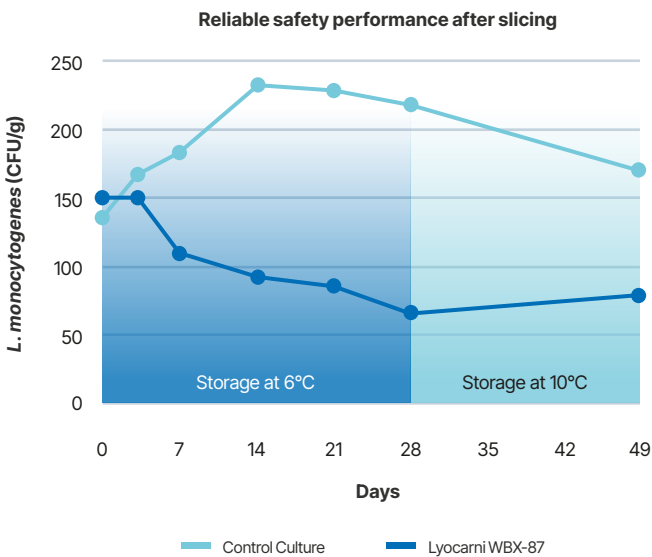
Primary contamination – processing phase.

During the processing of raw-cured loin, control and Lyocarni WBX-87 cultures contributed to a reduction of *L. monocytogenes*. However, WBX-87 showed an additional inhibitory effect, resulting in a greater decrease of the pathogen compared to the control culture.



Secondary contamination – sliced product during shelf life.

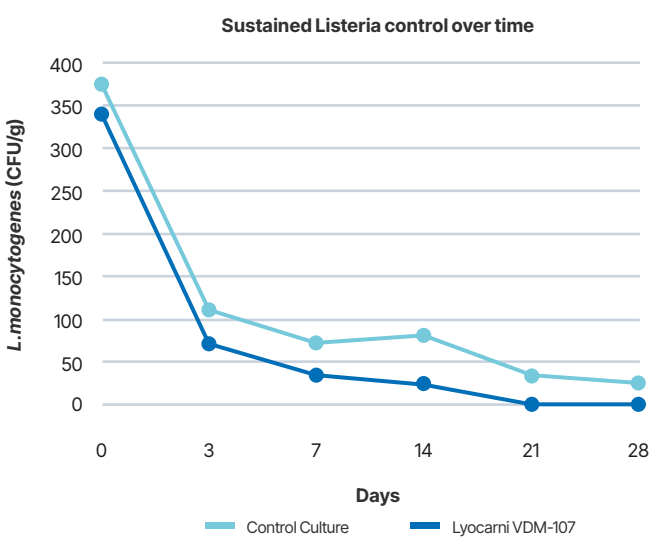
Following slicing and packaging, different behaviours were observed during shelf life. While the control culture allowed *Listeria* to persist, Lyocarni WBX-87 led to a progressive reduction well below detection limit of *L. monocytogenes* throughout storage.



Protecting Salami: Enhanced Listeria Control from Fermentation to Ripening

During **the first days** of fermentation, Lyocarni VDM 107 provided a faster reduction of *L. monocytogenes* compared to the control culture, **establishing an early safety advantage**.

By day 21 of ripening, Lyocarni VDM 107 achieved a reduction greater than 99.7%, and at the **end of ripening** (day 28), salami produced with Lyocarni VDM 107 showed effective and sustained control of *Listeria*, with all samples being *Listeria* free, providing an additional safety margin in a product that already does not support *Listeria* growth.



Challenge studies were performed in accordance with accredited methods and internationally recognized guidelines for *Listeria monocytogenes*, ISO 11290-1 and ISO 11290-2, guaranteeing robust and comparable results across ready-to-eat food applications.

(1) EFSA Journal. 2025;23:e9759.

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