



Lyocarni is a range of starter and protective cultures “**Made in Italy**” for meat processing.

They ensure the safety and sensory quality of meat products.

Best and safe processed meat products for the happiness of the customers.

Sacco is a flexible company with close attention to our customers’ requests and requirements; the technologists are able to troubleshoot and help client to generate personalised solutions for new product development.

LYOCARNI MEAT CULTURES

Our starter cultures are contributing to the safety and the specific sensory quality of your products while keeping your own production process. Starter cultures are beneficial bacteria and part of the hurdle technology that is an important tool to produce safe, uniform and shelf-life stable fermented and/or cured meat products.

TYPE OF PRODUCTS	CHARACTERISTICS OF CULTURES	ADDED VALUE
Traditional fermented sausages	Slow fermentation for more pronounced flavour formation and development of stable red colour.	All in one solution: <ul style="list-style-type: none"> - Enhanced product safety by using bacteriocin producing strains acting against <i>Listeria monocytogenes</i>. - Enhanced sensory quality by using additional staphylococci to improve colour and flavour formation.
Fast fermented sausages	Fast fermentation for short processing time but sufficient flavour and colour formation.	
Whole cured muscles	Support to control the contaminating microbiota and to develop the colour.	
Raw cured ham		
Cooked ham Emulsified sausages Raw minced sausages	Inhibition of the pathogen <i>Listeria monocytogenes</i> by bacteriocin production. Suppressing the indigenous microbiota by competitive exclusion.	

SURFACE TREATMENT

Moulds spontaneously appear on surface of non-smoked fermented sausages, which are originating from the house flora. The contaminating moulds are often coloured, e.g. yellow, green or black, and thus do not provide the desired whitish to cream coloured uniform appearance. Furthermore these moulds may affect negatively the flavour of the product. Thus, mould cultures are recommended to be applied to control the surface appearance and favour development of mould-ripened meat product and to avoid the risk of growing of toxinogenic contaminating mould strains.

PROTECTIVE CULTURES

A less utilized application area is the use of lactic acid bacteria (LAB) as protective cultures to enhance safety and quality of raw processed meat products such as raw sausages (e.g. fresh chorizo, longaniza, fresh bratwurst, spreadable German sausage) and processed minced meat products (e.g. hamburgers). Spraying the culture onto the surface of cooked meat products to prevent secondary contamination during further handling is another application. By competitive exclusion the protective culture suppresses the development of spoilage bacteria as for example indigenous LAB producing acetic acid or gas and *Leuconostoc ssp.*, often resulting in off-flavour. Additionally, *Listeria monocytogenes* is inhibited by bacteriocins which the protective culture produces.

ABOUT SACCO

Sacco is a company of the network Sacco System, the convergence of international biotech excellence applied to the food, nutraceutical and pharmaceutical industry.



Family Company:
people and human
relationship in the core
of its business



Flexibility and customization:
more than 12.000
different products
sold in 2017



Research and innovation:
70 people work in laboratories,
7% of the turnover
invested in R&D



**Tradition and
expertise**
5th generation,
310 employees

Sacco distributes its products in all key markets (110+ countries), and has ISO 22000 and FSSC 22000 accreditation.

Sacco System: international group, family spirit.

