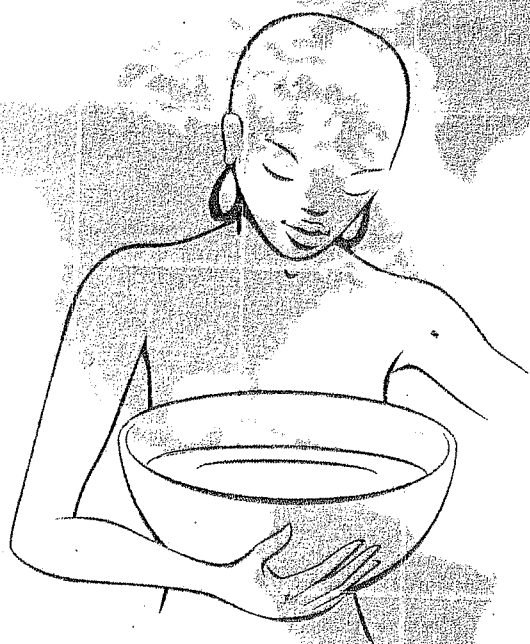


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# Actes / Proceedings

1<sup>ÈRES</sup> RENCONTRES INTERNATIONALES SUR  
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## **P42. Activation of wooden vats with selected lactic acid bacteria for the year-round production of traditional Vastedda-like cheese**

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Vastedda is a pasta filata cheese made from raw ewes' milk without the addition of starter cultures. Cheese production is carried out in wooden vats characterized by microbial biofilms hosting lactic acid bacteria (LAB) responsible for the acidification of the curds. Vastedda cheese was traditionally produced during the summer season, but it is currently produced throughout the year. In order to minimize production variability, several LAB were isolated from Vastedda PDO cheeses, characterized for their technological potential (Gaglio et al., 2014a) and selected to obtain the best strain combination for the production (Gaglio et al., 2014b). In this study, the multiple strain culture composed of *Lactococcus lactis* subsp. *cremoris* PON36, PON153 and PON203 was applied during production carried out at large scale level in a dairy factory with bulk milk from different farms using new chestnut wooden vats [commercial production (CMP)]. The same trials were also carried out in controlled conditions at an experimental dairy factory using milk from only one farm [controlled production (CNP)]. In both CMP and CNP productions were used two new vats, one activated with a whey containing the lactococci selected and one traditionally activated with the whey. In the experimental trials, conducted in the vats activated with the lactococci, the same lactococci were also used as starter culture, while the control productions were performed without the addition of starter. Productions were performed every day for the first 5 d and at 5 d intervals for a month. Microbiological counts and strain recognition performed by randomly amplified polymorphic DNA (RAPD)-PCR demonstrated the ability of the triple *Lactococcus* combination to form a stable biofilm in the active vats. Cheeses analysed at T<sub>0</sub> (soon after production) and after 15 days of refrigerated storage showed the persistence and dominance of the inoculated LAB.

Gaglio et al. (2014a). *Dairy Science and Technology*, 94, 157-180.

Gaglio et al. (2014b). *International Journal of Food Microbiology*, 177, 37-48.