



Cheese ART₂₀₀₄

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CHARACTERIZATION AND USE OF NATURAL LACTIC BACTERIA IN THE PRODUCTION OF TOMA PIEMONTESE CHEESE, A TRADITIONAL CHEESE

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In recent years several studies have been carried out to isolate and identify autochthonous lactic bacteria from both raw milk and artisanal cheese, in order to select new strains to be used as autochthonous starter cultures. The objective of this work was to study the natural bacterial population of a traditional cheese from Piedmont (Northwest Italy) and to select strains to be used as starters in large-scale production. Isolates collected from curd and ripened artisanal cheeses were identified by genetic methods.

Acidification and proteolytic activity and aroma production by SPME-GC-MS technique were also determined for each isolate. On the basis of obtained results five strains were selected and combined in five starters used by some dairy farms in Piedmont, in Toma piemontese cheese-making trials with both raw and pasteurised milk. Good results have been obtained by using in particular starters 3 and 5; the performance of these strains suggest the possibility to standardize and improve the production with raw milk. We obtained products characterized by very good chemical-physical composition and very interesting sensory features concerning typical taste and aroma. The results suggest the possibility to use these new starters as efficient alternative to commercial starters.