

Ability of Gastric Enzyme Extract of Adult Camel to Clot Bovine Milk

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Abstract : Algeria is experiencing significant development of the dairy sector, where consumption of milk and milk products increased by 2.7 million tons in 2008 to 4,400,000 tons in 2013, and cheese production has reached 1640 tons in the year 2014 with average consumption of 0.7 kg/person/year. Although rennet is still the most used coagulating enzyme in cheese, its production has been growing worldwide shortage. This shortage is primarily due to a growing increase in the production and consumption of cheese, and the inability to increase in parallel the production of rennet. This shortage has caused very large fluctuations in its price). To overcome these obstacles, much research has been undertaken to find effective and competitive substitutes used industrially. For this, the selection of a local production of rennet substitute is desirable. It would allow a permanent supply with limited dependence on imports and price fluctuations. Investigations conducted by our research team showed that extracts coagulants from the stomachs of older camels are characterized by a coagulating power than those from younger camels. The objective of this work is to study the possibility of substituting commercial rennet coagulant by gastric enzymes from adult camels for coagulation bovine milk. Excerpts from the raw camel coagulants obtained are characterized through their teneures proteins and clotting and proteolytic activities. Milk clotting conditions by the action of these extracts were optimized. Milk clotting time all treated with enzyme preparations and under different conditions was calculated. Bovine rennet has been used for comparison. The results show that crude extracts from gastric adult camel can be good substituting bovine rennet.

Keywords : Algeria, camel, cheese, coagulation, gastric extracts, milk

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