

Quality Characteristics of Mozzarella Cheese and Gouda Cheese Made from Jersey Milk in Korea

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Introduction

Jersey breed has relatively smaller body than other breeds, so it requires less space and feed intake. Even so, the higher content of fat and protein in milk from Jersey is advantageous for making of dairy products. In this reason, Dairy farmers have interested in Jersey milk but there has been little study about that in Korea.

Aim

This study was carried out to examine quality characteristics of mozzarella cheese and gouda cheese from Jersey milk.

Methods

The mozzarella cheese and gouda cheese from Jersey milk was made by NIAS manufacturing method. The composition, proportion of fatty acid, texture, color and sensory preference was analyzed.

Results

In mozzarella cheese and gouda cheese made from Jersey milk, fat content was high compared to that of Holstein. The calcium and phosphorous had relatively higher in both cheeses from Jersey than those of Holstein. The cheese from Jersey milk has higher content of saturated fatty acids including palmitic and stearic acid, whereas those from Holstein milk has higher proportion of unsaturated fatty acids such as oleic and linoleic acid. In terms of texture and color, both cheeses from Jersey milk has relatively firmer texture and more yellow color. The sensory preference scores of mozzarella cheese from Jersey were lower in all criteria, but in gouda cheese, color and taste score were higher in Jersey after two months of ripening periods.

Conclusion

In terms of sensory preference, it is regarded that Jersey milk may be proper to ripened cheese rather than fresh cheese. Jersey milk is expected to diversify dairy products in Korean market.