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Spoilage potential of psychrotrophic bacteria isolated from raw milk and the thermo-stability of their enzymes

Key words: Spoilage enzyme, Psychrotrophic bacteria, Raw milk, Thermo-stability

Research Summary

The study mainly explored the **spoilage potential of a large number of psychrotrophic bacteria** and **the thermo-stabilities of enzymes** produced by them in the following perspectives:



• Screening the production of protease, lipase, β-galactosidase and phospholipase

•Quantitative assessment of total proteolytic and lipolytic activity

•Heat resistance of proteases and lipases

Conclusion

•A large number of psychrotrophic bacterial species can produce spoilage enzymes at low temperature.

•The production of enzymes is a temperature dependent process.

•Strains belonging to the same species sometimes showed markedly different phenotypic characteristics.

•Most enzymes are heat-resistant as they can survive after heat treatments applied in the manufacture of dairy products.