Technology

COMMERCIALISATION OFFER

Detection of Microbe Responsible for Pink Discolouration Defect in Cheese

Teagasc, through researchers at the Teagasc Food Research Centre, Moorepark, has developed a novel diagnostic method or identifying the microbial cause of pink discolouration defect in cheese and for testing cheese manufacturing and processing plants to identify the source of contamination. Teagasc is seeking partners within the cheese, dairy and diagnostics industry to further develop and commercialise this patented technology.

Problem Addressed

Pink discoloration defect in cheese and dairy products is a global problem for dairy producers, leading to significant financial losses for dairy and cheese industry due to downgrading and rejection of cheese. Despite decades of research, the cause of this phenomenon was unknown. This defect impacts a range of ripened cheeses, including Swiss, Cheddar, and Italian-type cheeses, resulting in the downgrading or rejection of cheese and significant economic loss. It can manifest in a number of ways, depending on the cheese type: at the surface of the cheese block, as a uniform pink border below the surface of the cheese block, or distributed sporadically within the cheese block.

Solution

Despite extensive research, the cause of the pink discoloration defect remained unknown until research by Teagasc identified the microbial cause and developed a method for detecting it. Through accurate detection and quantification, it will be possible to identify sources of the microbe and better control and eliminate it.

Competitive Advantage of Technology

Through use of this qPCR diagnostic method for identifying the microbial cause of pink discoloration defect in cheese and testing cheese plants to identify the source of contamination, development of strategies to control the presence of the causative organism through careful monitoring of cheese ingredients is enabled. This will lead to increased quality and production efficiencies and profit potential for the cheese industry

Opportunity

This would be attractive to the dairy and cheese industry, to eliminate losses caused by pink discoloration defect and to laboratories providing diagnostic solutions to industries.

Intellectual Property Status

EU, NZ and US Patent applications, ‘Detection of a source of pink discoloration defect in a sample’ (EP15736414.2 and US 15/319, 422).

Funding

Internal Teagasc funding.

How to Proceed:

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