**A lift for cake quality with milk proteins  
Partial egg replacement in cake recipes is more than a matter of cost**

Egg is a natural, functional ingredient that most bakers want to keep in their recipes. Often it is fluctuating egg prices that drive them to seek a partial alternative. But there are other reasons why replacing some of the egg in cake can be a good decision for the bakery brand.

Inge Lise Povlsen, category & application manager at Arla Foods Ingredients, points out the similarities between egg proteins and functional milk proteins derived from whey – and the extra benefits that functional milk proteins (FMP) can provide.

“Egg proteins and FMP both add strength, volume, elasticity and texture to cake recipes ranging from sponge and pound cakes to muffins. Using FMP, it is also possible to improve the moistness and freshness perception, giving consumers an improved sensory experience overall.”

Unlike egg, FMP is free of seasonal variations, contributing to the consistent quality of bakery products.

**80 building blocks**Protein technology has given Arla Foods Ingredients around 80 building blocks to work with when developing the optimum FMP combination for a specific bakery formulation. Using rheology and texture analysis, the bakery specialists investigate how milk protein interacts with flour and other ingredients, influencing cake texture and resilience.

“Although our proteins deliver a lot of functionality to cakes, we are not yet able to obtain the same whipping properties as egg white in recipes where fat is also present. With time, we expect to achieve that,” Povlsen explains.

**A natural ingredient**Her vision is that bakers will eventually perceive FMP as a natural ingredient that is just as desirable as egg in cake recipes.

Inge Lise Povlsen will be among the speakers at CAKE TEC 2014 on 11-12 November at ZDS College, Solingen, Germany.

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