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The effect of buttermilk or buttermilk powder addition on functionality, textural, sensory and volatile characteristics of Cheddar- style cheese

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Abstract

The influence of buttermilk or buttermilk powder addition to cheese milk or cheese curds respectively on cheese functional properties, free fatty acid profiles and subsequent volatile and sensory characteristics was investigated. Buttermilk addition to cheese milk resulted in a softer cheese compared to other cheeses, with a significantly reduced flowability, while buttermilk powder addition had no influence on cheese firmness but cheese flowability was also reduced compared to the control cheese. Larger pools of free fat, higher levels of free fatty acids, volatile compounds and significant differences in sensory profiles associated with off-flavour were also observed with the addition of buttermilk to cheese milk. Application of light microscopy, using toluidine blue stain, facilitated the visualization of fat

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