

The influence of quinoa flour addition on the physicochemical, antioxidant activity, textural, and sensory characteristics of UF-soft cheese during refrigerated storage

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مكان النشر

Abstract:

The aim of this study was to evaluate the effects of quinoa flour (QF) addition at different levels (0%, 1.0%, 2.0%, and 3.0%) on the physicochemical, syneresis, antioxidant activity, textural and sensorial characteristics of UF-soft cheeses during refrigerated storage for 30 days. QF-added samples exhibited significantly ($p \leq .001$) higher level of protein, fat, ash, dietary fiber, total phenolic, and antioxidant activity with lower syneresis than the control cheese. Magnesium, phosphorus, iron, and zinc were higher in the QF-added samples than in control. The syneresis was significantly lower ($p \leq .001$) in QF-added samples than in control. The texture profile analysis showed that QF-added samples were less soft, more gummy, chewy, and springy than control cheese. Sensory evaluation of cheeses supplemented with 1% or 2% QF had the highest score of overall acceptability since the addition of 3%QF had undesirable effects on consumer acceptability.

Key Words: Quinoa flour, antioxidant activity, texture, UF-soft cheese.

