

P015 Greek Feta-type Cheese Production Using Freeze-Dried Kefir as Starter Culture

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Initially, freeze-dried *kefir* co-culture production using whey as raw material was investigated and 16 cryoprotecting agents were tested. Subsequently, freeze-dried *kefir* co-culture was used as starter in Greek Feta-type cheese production. The effect of kefir concentration was studied and physicochemical parameters were monitored during ripening at 4-6°C for up to 70 days. The optimum initial freeze-dried *kefir* concentration tested was 0.5-1.0g/L milk used. A significant drop in pH and significant rise in lactic acid concentration were observed in cheese samples containing freeze-dried *kefir* after 1 day of maturation, while the corresponding pH and lactic acid changes were minor in cheese samples without freeze-dried *kefir*. As a consequence, ≈40% increase of preservation time was observed in cheese produced using freeze-dried *kefir*. Preliminary sensory evaluation ascertained the overall improved quality of cheese with freeze-dried *kefir*.

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