SENSORY CHARACTERISTICS OF REGGIANITO CHEESE AS AFFECTED BY ELEVATED INITIAL RIPENING TEMPERATURE

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Reggianito is the most important hard cheese variety produced in Argentina, widely consumed locally and exported to several countries. Manufactured with pasteurised cow milk and natural whey starter, generally it is ripened at 11-13 °C for 6 months. Increasing storage temperature for short time at the beginning of ripening is a very simple and effective method to accelerate cheese ripening, with the additional benefit of lower refrigeration costs. Our objective was to evaluate the effects of different storage temperature-time combinations on the sensory characteristics of Reggianito cheese. Six cheeses stored for 6 months at 12 °C (C), and 12 cheeses initially stored at 20 °C for 2 weeks (E1) and 4 weeks (E2) and then at 12 °C up to 6 months, were analysed at 61, 124, and 180 days of ripening. Quantitative descriptive analysis of cheese samples to evaluate 10 sensory attributes (aroma, colour, visual texture, granular cut, fracturability, oral texture, genuine flavour, residual flavour, salty and bitter) was carried out by a trained sensory panel. Analysis of variance showed some differences in the parameters analysed, but resulting in usual scores of the attributes in all the cases studied. According to principal component analysis, samples corresponding to cheeses E1 and E2 at 61 or 124 days of ripening had similar sensory characteristics than those corresponding to cheeses C at 180 days of ripening, representing an important reduction of the storage time to obtain the desired product. These results will allow establishing optimum ripening conditions when elevated temperature is used.