

335c Production of Yogurt from Goat Milk in Agitated Conditions

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Yogurt is traditionally produced in non-agitation conditions, mainly to allow a proper gel formation. The classic process involves milk fermentation by lactic acid bacteria in the vessels where the product will be finally sold. The use of non-agitated small vessels is also possible. For liquid formulations, or mixed with fruit formulations, mixing is applied after fermentation. Nowadays, most of the yogurt produced is consumed in a liquid form. For this product presentation, gel formation is not a critical characteristic. In this communication, we report a process for fermentation of goat milk to produce yogurt in agitated conditions in a 5 L stirred tank bioreactor. *Lactobacillus lactis* and *Streptococcus thermophilus* were used as fermenting bacteria. Two different temperature and agitation levels in the laminar regime are tested. Curves of pH, viscosity, and lactic-acid bacteria population are presented for each one of the four process conditions tested. Results are compared versus those observed for non-agitated conditions. Mixing reduces considerably processing time, without apparent sacrifice of organoleptic properties.