Alternative method for whey utilization as fermented product

Tankó György, Vatai Gyula, Koris András

Szent Istvan University, Faculty of Food Science, Department of Food Engineering, H-1118 Budapest, Menesi út 44

Abstract

The main by-product of the dairy industry is whey, it's clean disposal or utilization is not always a given option for the dairy plants. Besides there is a growing trend on the beer market regarding special beer consumption. Our goal was to produce a type of beer with added whey, as an alternative utilization method. The whey was skimmed, half of it was then boiled at 98°C for 20 minutes and the precipitated proteins removed. The whey was treated enzymatically at 37°C for 4 hours with lactase enzyme to breakdown the lactose into glucose and galactose. Whey was added to the wort before fermentation, resulting in 2 batches of beer with 40% treated whey (both heat treated and non-heat treated), 2 batches with 20% treated whey (both heat treated and non-heat treated), a batch of 100% wort was used as control. After processing the results it was determined that heat and enzyme treated whey can be considered as a largely available and mostly inexpensive additive in the brewing industry.