



Investigation of Pasteurization Conditions of Bottled Beer in Tunnel Pasteurizer

Nushe Lajçi^{1,*}, Xhemë Lajçi², Blerim Baruti¹

¹*Faculty of Mining and Metallurgy, University of Prishtina, Republic of Kosova;* ²*Beer Factory "Birra PEJA", Republic of Kosova*

Received May 14, 2012; Accepted July 02, 2012

Abstract: Pasteurization is the commonly method of food thermal treatment used in order to destroy the pathogenic agents. The main goals of pasteurization are to make the product safe for human consumption and to promote biological stability of the food and thereby improve its shelf life without affecting the taste of the product. One of means how to achieve pasteurization of the product is tunnel pasteurizer. The filled and closed packages of beer are conveyed through different sections of a tunnel pasteurizer. Every package must be sprayed with water for the necessary time and of the correct temperatures to receive the total pasteurization heat units required. Too little may result in poor flavor stability of the beer because of the remaining live microorganisms. Too much may have a cooking effect, causing accelerated staling of the beer. The balanced, tightly controlled and gentle treatment results normal pasteurization condition and fresh tasting beer. The goal of this paper was to determine the normal pasteurization condition during the pasteurization of bottled beer in tunnel pasteurizer. The quadratic regression equation was used for determination the normal pasteurization condition during heating up, holding time at desired temperature and cooling down.

Key words: *beer, temperature treatment, pasteurization, Pasteurization Units (PUs), microorganisms.*

* Corresponding: E-Mail: nushelajqi@hotmail.com; Tel: +37744221107