INFLUENCE OF THE GLUCOSE SYRUP COMPOSITION ON THE QUALITY OF HIGH BOILED SYRUPS

VIONELA MIRONESCU¹, ADRIAN TRIFAN

Faculty of Agricultural Sciences, Food Industry and Environmental Protection, University "Lucian Blaga" of Sibiu, Romania

Abstract: The presence of fructose in high boiled syrups can determine unwanted phenomenon such as hygroscopicity and the modification of structure by crystallisation. The study of the factors influencing hydrolysis of saccharose in boiled syrups is important in assuring the quality of candies. In this study we present the influence exerted by protein hydrolysed and salt on the hydrolysis of saccharose in the high boiled syrups obtained with demineralised glucose syrups. The action of these compounds is obvious but not big enough to determine a meaningful modification of the syrups quality. As a result of the NaCl action, the concentration of fructose in the high boiled syrup increases four times. A consequence of the protein hydrolysate adding, the fructose content increases two times. The quantity of fructose remains at very low values (below 1%), in this concentration having not influence on the quality of high boiled syrups.

Keywords: high boiled syrup, demineralised glucose syrup, hydrolysis, saccharose, fructose.

39

¹ Corresponding author: Vionela Mironescu, University "Lucian Blaga" of Sibiu, Faculty of Agricultural Sciences, Food Industry and Environmental Protection (S.A.I.A.P.M.), Str. I. Raţiu 7-9, 550012 Sibiu, Romania, e-mail: <u>vionela.mironescu@ulbsibiu.ro</u>

Acta Universitatis Cibiniensis Series E: FOOD TECHNOLOGY Vol. XI (2007), no.1, p. 39-45