



Estimation of potassium bromate and oxalate in bread

Neha Bharti • Snehi Gazal • Swati

Received : November 2011

Accepted : March 2012

Corresponding Author : Swati

Abstract : *The use of potassium bromate results in a pleasing quality product that is popular with the consumer, however, it has a high potential toxicity. The aim of the study was to determine the amount of potassium bromate and oxalate in bread. Nine samples viz., SA, SB, SC, SD, SE, SF, SG, SH and SI from different brands of bread were analyzed. The results of the analysis show that the concentration of potassium bromate was high in all the bread samples, ranging from 0.0028 mg/g to 0.0076 mg/g, exceeding the safe limits as specified by the US Food and Drug Administration. In addition, all the sampled breads contained varying amount of oxalate, an anti-nutritional*

factor, but the concentration did not exceed lethal dose of 100mg/g. On the basis of study, bread brands sampled were considered quite unsafe for human consumption and there should be proper guidelines related to the baking industry for the safe use of potassium bromate.

Key words: *Bread, potassium bromate, anti-nutritional factor, oxalate.*

Neha Bharti

B.Sc. III year, Botany (Hons.), Session: 2009-2012,
Patna Women's College, Patna University, Patna, Bihar,
India

Snehi Gazal

B.Sc. III year, Botany (Hons.), Session: 2009-2012,
Patna Women's College, Patna University, Patna, Bihar,
India

Swati

Assistant Professor, Dept. of Botany,
Patna Women's College,
Bailey Road, Patna-800 001, Bihar, India
E-mail : swati_swarnima@yahoo.co.in