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Glycoalkaloids and phenolic compounds in three commercial potato cultivars grown in Hebei, China

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Abstract

In order to investigate the food nutrition and safety of potato, the objective of the present study is to quantify glycoalkaloids (α-chaconine and α-solanine) and phenolic compounds in three potato cultivars, namely, Russet Burbank, Atlantic, and Shepody, grown in Hebei, China, and these two classes of biologically active compounds in commercial dehydrated potato flakes were also investigated. The total glycoalkaloid levels in whole potatoes ranged from 4.72 mg/kg for Shepody potatoes to 34.45 mg/kg for Russet Burbank potatoes. The ratio of α-chaconine to α-solanine in whole potatoes ranged from 0.41 for Russet Burbank potatoes to 3.61 for Atlantic potatoes. The removal rate of total

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