

عنوان مقاله:

The Nitrate Content of Commonly Consumed Cereals in Iran

محل انتشار:

چهارمین کنگره بین المللی علوم و صنایع غذایی، کشاورزی و امنیت غذایی (سال: 1400)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

The excessive presence of nitrate in foodstuff can be potentially toxic and carcinogenic to humans. This is because about ۸۰% of the nitrate that enters the human body comes from vegetables. Therefore, the present study determined the nitrate content in commonly consumed cereals (rice and wheat) by Iranians. A total of ۴۲ samples of cereals were randomly collected from major grocery stores in different cities in Iran between September ۲۲ and December ۱۵, ۲۰۲۰. The methods of HPLC-UV were used to evaluate the nitrate content. The detection limit (L.O.D.) and limit of quantification (L.O.Q.) were ۰.۰۷۱ and ۰.۲۲ mg kg^{-۱}, respectively. As a result, the mean nitrate level in rice samples was ۵۰.۹۰ mg kg^{-۱} and in wheat was ۴۹.۹۰ mg kg^{-۱}. Despite the high average levels, they were not significantly different with their standard levels. Taken together, this information could allow the establishment of a database for the .quantification of nitrate exposure and its risk-benefit determination in the Iranian population

کلمات کلیدی:

Nitrate; Cereals; Rice; Wheat

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<https://civilica.com/doc/1437938>

