

# SOME NUTRITIONAL QUALITY AND SENSORY ATTRIBUTES OF WHEAT FLOURS FORTIFIED WITH IRON AND ZINC

A.H. KHOSHGOFTARMANESH<sup>1,3</sup>, N. ROOHANI<sup>2</sup>, A. DARA<sup>1</sup>,  
M. KADIVAR<sup>1</sup> and R. SCHULIN<sup>2</sup>

<sup>1</sup>*College of Agriculture  
Isfahan University of Technology  
84154 Isfahan, Iran*

<sup>2</sup>*Institutes of Terrestrial Ecology  
ETH Zuerich, Universitaetstr  
16, CH-8092 Zuerich, Switzerland*

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## ABSTRACT

*The effects of fortification of two different flours with 60 ppm Fe, 60 ppm Fe plus 2 ppm folic acid, 60 ppm Fe plus 30 ppm Zn and 30 ppm Zn were investigated. Iron and Zn were applied from the source of ferrous sulfate and zinc sulfate, respectively. Fortification treatments had significant effects on Zn and Fe concentrations in the flour, dough and bread. Addition of Zn to the flour significantly ( $P < 0.05$ ) decreased the molar ratio of phytic acid to Zn in bread. Fortification of flour with ferrous sulfate impaired the color, taste and overall acceptability of Khabbazi bread. Double fortification of flours with Fe and Zn is useful to enhance nutritional quality of food, but addition of Fe may adversely change the color, taste and overall acceptability of bread.*

## PRACTICAL APPLICATIONS

Regarding low Fe and Zn concentrations and consequently poor nutritional quality of wheat flours distributed across the country, co-fortification of flours seems necessary. The result of this study showed that double fortification of flours with Fe and Zn is useful to enhance nutritional quality of bread. This would improve Fe and Zn status of people. Sensory attributes are important parameters to be considered in order to success flour fortification program in the case of iron. Iron addition significantly affects sensory characteristics

<sup>3</sup> Corresponding author. TEL: (+98)311-391-3474; FAX: (+98)311-391-3471; EMAIL: amirkhosh@cc.iut.ac.ir