

SHORT COMMUNICATION

## Fatty acid content profile and main constituents of *Corylus avellana* kernel in wild type and cultivars growing in Italy

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### ABSTRACT

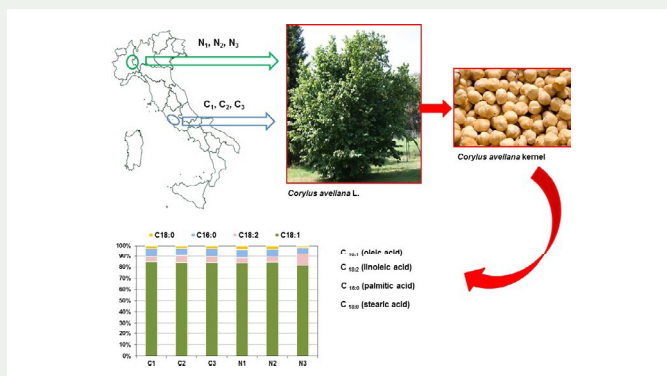
The kernel composition (moisture, ash, protein, carbohydrate, calories, fat, monounsaturated and polyunsaturated fatty acids) of two hazelnut (*Corylus avellana* L.) cultivars ('Tonda Gentile Trilobata' and 'Tonda Gentile Romana') and of two wild types growing in different climatic conditions (north-west and central Italy) was evaluated. The main kernel component was fatty acid ( $65.9 \pm 1.8\%$ , mean value), and the most abundant fatty acid in hazelnut was oleic acid (C<sub>18:1</sub>) ( $83.5 \pm 1.0\%$ , mean value). The saturated fatty acids are the minor compounds in kernel hazelnut, resulting in a unsaturated fatty acid to saturated (U/S) fatty acid ratio of  $9.0 \pm 1.6$ . Compared to other tree nuts and vegetable oils, hazelnut oil is among the ones with the highest contents of monounsaturated and the lowest content of saturated fatty acid. Thus, hazelnut may be beneficial for the human diet preventing cholesterol-based atherosclerosis and ischemic cardiovascular diseases.

### ARTICLE HISTORY

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### KEYWORDS


*Corylus avellana*; fatty acid; MUFAs; PUFAs



## 1. Introduction

*Corylus avellana* L. (hazelnut) is one of the most popular tree nuts worldwide and ranks second in tree nut production after almond (Shahidi et al. 2007). This species is selected for

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