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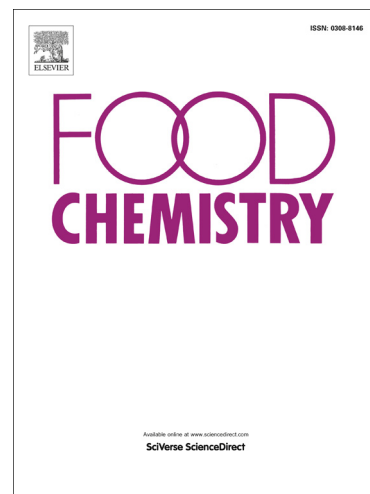
Organically vs conventionally grown winter wheat: effects on grain yield, technological quality, and on phenolic composition and antioxidant properties of bran and refined flour

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**Organically vs conventionally grown winter wheat: effects on grain yield, technological quality, and on phenolic composition and antioxidant properties of bran and refined flour.**

Running title: Health benefits of milling products from organically cultivated wheat

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ABSTRACT

Since organic food is widely assumed to have a better nutritional quality than conventional food, our aim was to study the effects of organic vs conventional cropping systems on yield and the phenolic composition of winter wheat cv. ‘Bologna’. Although organic wheat yielded less than conventional wheat, mainly due to the nitrogen shortage, and its bread-making quality was lower, the cultivation system did not affect the total amounts of phenolics and phenolic acids. Of the eight phenolic acids identified, only ferulic acid was influenced by the cultivation system. Phenolic composition and quantity were significantly affected by the milling fraction (bran or white flour): phenolics were more concentrated in the bran, which showed the highest antioxidant power. Under the conditions adopted in

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