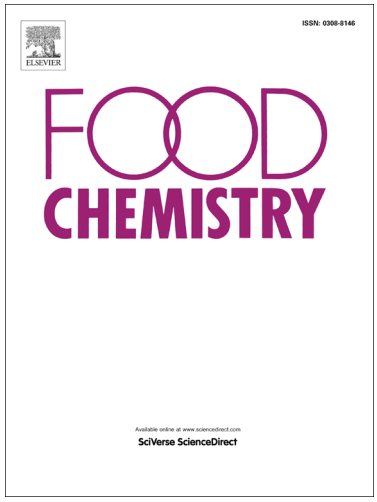

Short communication

Effects of a combination of elicitation and precursor feeding on grape amino acid composition through foliar applications to Garnacha vineyard

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Effects of a combination of elicitation and precursor feeding on grape amino acid composition through foliar applications to Garnacha vineyard

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Abstract

Vine foliar applications of phenylalanine (Phe) or methyl jasmonate (MeJ) could improve the synthesis of secondary metabolites. However, there are no reports focusing on the effects of elicitation supported by precursor feeding on must amino acid composition in grapevines. The aim of this research was to study the effect of the elicitation of methyl jasmonate (MeJ) supported by phenylalanine (Phe) as a precursor feeding (MeJ+Phe) and its application individually on must amino acid composition. Results showed that foliar Phe and MeJ treatments decreased the concentration of most of the studied amino acids with respect to the control ($p \leq 0.05$). MeJ+Phe treatment did not affect must nitrogen content. Musts obtained from MeJ+Phe showed higher concentration of several amino acids than samples from Phe and MeJ applications. Therefore, other sources of precursor feeding could support elicitation, to improve amino acid composition and be considered as a tool for viticulture.

Keywords: amino acid; combination; phenylalanine; methyl jasmonate; precursor feeding