

Location effects on the aromatic composition of monovarietal cv. Carignan wines

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The aromatic profile of monovarietal Carignan wine has been characterized, and the influence of the geographic origin of the wine on the volatile composition wines from six different zones of Chile and from two different seasons has been studied. The solid-phase microextraction conditions employed were previously studied. An extraction temperature of 45°C, 40 min of incubation, 1.5 g of salt, and 180 sec of fiber desorption were employed for the analysis of the 28 wine samples studied.

Sixty-three volatile compounds were determined in cv. Carignan wines, and they were characterized as substantial amounts of ethyl esters and small amounts of volatile acid compounds, among others.

Analysis of variance showed significant effects on the 'location' factor ($p < 0.05$), which was corroborated by principal component analysis and linear discriminant analysis, where clear groups were observed regarding wine production area. The geographical origin of the wine affected the volatile composition of the wines studied, and production areas that were closer to the Andes Mountains showed lower concentrations of esters and acids than those wines produced in regions that were closer to the ocean. © 2017 by the American Society for Enology and Viticulture. All rights reserved.

Aroma

Carignan

Characterization

Chromatography

Extraction

Location